EXHIBIT 69 PART 5

Next Steps

To	See
Create a chart	"Create a Chart from Worksheet Data," page 260
Chart regional sales on a map	"Display Data on a Map," page 287

Create a Sales Summary

Use PivotTables to Summarize Sales Data

Chances are, you have all the detailed data you need to make decisions, but it isn't always presented in a way that makes it easy to draw conclusions from it. For example, suppose what you want is the big picture: How is each product selling? Who is selling the most of each product?

From the same data, you can create several instant summaries, called *PivotTables*, to answer your questions. If you work with sales figures or other similar business data, Microsoft Excel can rapidly produce the summaries you want from the details you have.

Key Features

PivotTable Wizard

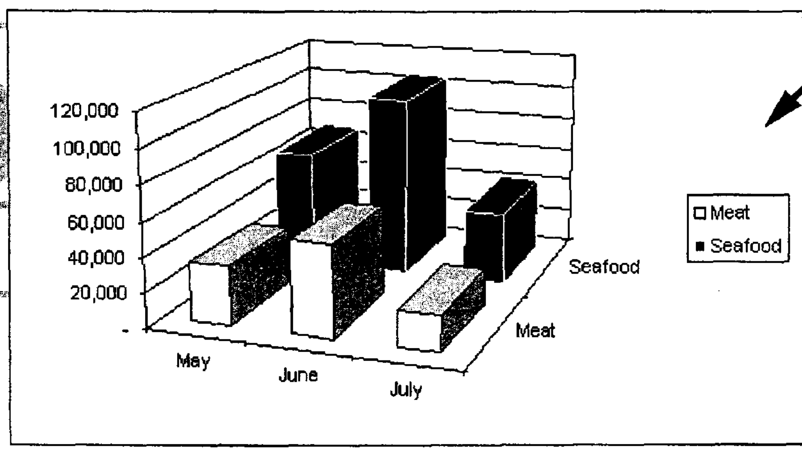
Chart Wizard

Given the date, amount, and product for each order ...

	A	B	C	D	E
1	**Name**	**Order Amount**	**Order Date**	**Product**	
2	Annabella Dodsworth	$ 135.00	12-May-97	Meat	
3	Michael Suyama	$ 1,316.95	15-May-97	Meat	
4	Andrew Fuller	$ 731.80	16-May-97	Seafood	
5	Michael Suyama	$ 498.18	17-May-97	Meat	
6	Andrew Fuller				
7	Linda Callahan				
8	Michael Suyama				

... summarize how each product is selling by creating a PivotTable — no formulas to enter.

	A	B	C	D	E
1	Sum of Order Amount	Order Date			
2	Product	May	Jun	Jul	Grand Total
3	Meat	33,905.34	52,824.09	21,246.03	**$107,975.46**
4	Seafood	67,810.68	105,648.18	42,492.06	**$215,950.92**
5	Grand Total	$101,716.02	$158,472.27	$63,738.09	**$323,926.38**



You can also compare the results visually, with a chart.

MS 114296

What Information Is Buried in Your Data?

Your company probably keeps a separate record describing each order processed. Scanning the list shows hundreds of orders just for the products you are responsible for tracking. You want a fast way to see how much each representative has sold of each product.

	A	B	C	D	E
1	**Name**	**Order Amount**	**Order Date**	**Product**	
2	Annabella Dodsworth	$ 135.00	12-May-97	Meat	
3	Michael Suyama	$ 1,316.95	15-May-97	Meat	
4	Andrew Fuller	$ 731.80	16-May-97	Seafood	
5	Michael Suyama	$ 498.18	17-May-97	Meat	
6	Andrew Fuller	$ 3,194.20	18-May-97	Seafood	
7	Linda Callahan	$ 173.40	22-May-97	Seafood	
8	Michael Suyama	$ 87.20	23-May-97	Seafood	
9	Janice Leverling	$ 1,405.00	24-May-97	Meat	
10	Andrew Fuller	$ 1,171.00	25-May-97	Meat	
11	Michael Suyama	$ 1,530.00	26-May-97	Seafood	
12	Michael Suyama	$ 470.00	30-May-97	Meat	

You have a row of facts for every order.

There's too much detail to see what's going on; you want total orders per sales rep, not a list of every order.

You're interested in monthly totals rather than day-by-day sales.

Guidelines: Setting Up Data for a PivotTable

Label your columns PivotTables use your column labels to cross-tabulate your data. For example, you can summarize orders by product or by sales representative.

Use one worksheet row for each record A PivotTable summarizes data stored in rows.

Make sure any dates are in date format Select any column with dates, and click **Cells** (**Format** menu). On the **Number** tab, click the **Date** category, and then select the date type you want.

If a column contains repeating information, spell each entry the same way each time Entries that are the same, such as entries for seafood or meat in a product column, can be grouped together automatically in the PivotTable.

Want to know more? Look up **Getting Results - Sales Summary** in Help.

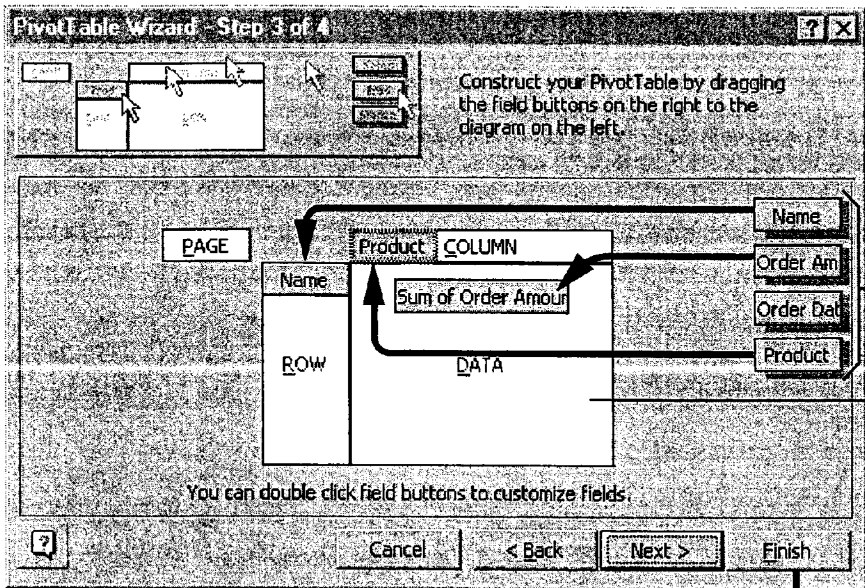
Office Assistant button

MS 114297

Who Is Selling the Most Product?

A PivotTable can answer this question in a flash. Select a cell in your source data. Click **PivotTable Report** (**Data** menu), and then follow the instructions in the wizard.

For Help on dialog box options, click this button and then click the option.



The wizard lists your column labels as *field buttons.*

To summarize the sales of each product by sales rep, drag the field buttons into position. Only fields containing numbers can be dragged to the DATA area.

	A	B	C	D	E
1	Sum of Order Amount	Product			
2	Name	Meat	Seafood	Grand Total	
3	Andrew Fuller	27,086.64	54,173.28	81,259.92	
4	Annabella Dodsworth	22,280.34	44,560.68	66,841.02	
5	Janice Leverling	20,932.35	41,864.70	62,797.05	
6	Linda Callahan	20,658.00	41,316.00	61,974.00	
7	Michael Suyama	17,018.13	34,036.26	51,054.39	
8	Grand Total	$107,975.46	$215,950.92	$323,926.38	

Sales Summary

The finished result cross-tabulates and totals the sales for you.

Add commas or currency signs, or adjust the decimal places Select a number in the DATA area of the PivotTable. On the **PivotTable** toolbar (which appears automatically when a PivotTable is active) click **Field**, and then click the **Number** button to apply number formatting.

PivotTable Field button

To pivot the table, just drag the gray field buttons You don't need to start the PivotTable Wizard again to change the layout of your summary. For example, you could switch the positions of the **Name** and **Product** buttons in the PivotTable to view the products in the rows and the sales representatives in the columns.

MS 114298

How Well Are Products Selling over Time?

To review product sales, use the PivotTable Wizard to create a PivotTable showing the sales performance of each product (ROW area) by order date (COLUMN area). If this view still has too much detail and too many columns to see at once, you'll want to see monthly totals instead of daily details. A PivotTable can quickly group the dates by month.

When you run the PivotTable Wizard to create a different summary, first select the **Another PivotTable** option in step 1. Then, select the **New worksheet** option in step 4. Because Microsoft Excel reuses the data from your first PivotTable, your workbook stays smaller and the changes you make to your source data are reflected faster in your PivotTables.

The **Group** command lets you group dates automatically by weeks, months, quarters, or years.

Sum of Order Amount	Order Date				
Product	12-May-97	15-May-97	16-May-97	17-May-97	18-May-97
Meat	405	3950.85	2195.4	1494.54	9582.6
Seafood	810	7901.7	4390.8	2989.08	19165.2
Grand Total	1215	11852.55	6586.2	4483.62	28747.8

Product Summary

Select this button, and then click **Group** (**Data** menu, **Group and Outline** submenu).

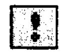
Dates are now grouped by months.

Sum of Order Amount	Order Date			
Product	May	Jun	Jul	Grand Total
Meat	33905.34	52824.09	21246.03	107975.46
Seafood	67810.68	105648.18	42492.06	215950.92
Grand Total	101716.02	158472.27	63738.09	323926.38

Product Summary

Select a field button when you click a field button, the entire field is selected automatically. To select the button without selecting the entire field, click again.

Update automatically When you make changes to the original data, your PivotTables can be updated automatically and can grow and expand. On the **PivotTable** toolbar, click **Options** (**PivotTable** menu), and then click **Refresh on open**. Or you can click the **Refresh Data** button on the **PivotTable** toolbar at any time.



Refresh Data button

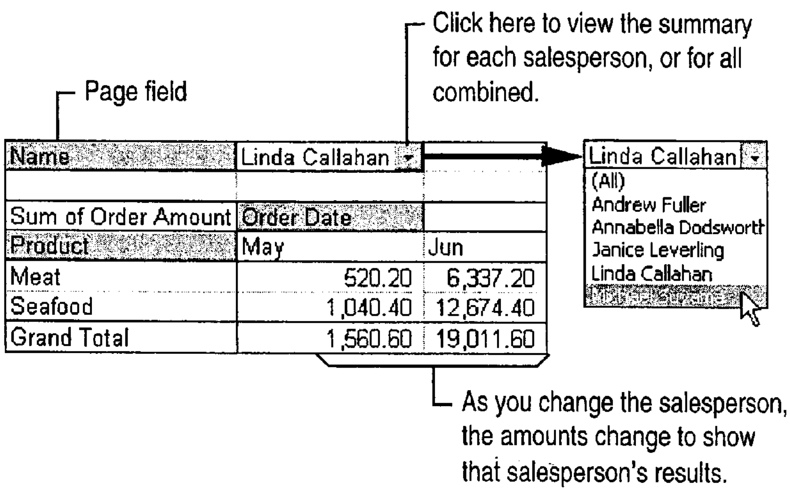
Make a PivotTable directly from external data When you use data outside your worksheet, your PivotTable can be updated automatically when the data changes. If you have Microsoft Query installed with the appropriate ODBC drivers to access external data sources, select the **External data source** option in step 1 of the wizard. For more information on installing Microsoft Query, see "Get Sales Information from a Database," page 548.

Add calculated fields and items You can add calculated fields and items to your PivotTables. Select a field or item in your PivotTable. On the **PivotTable** toolbar, click **Formulas** (**PivotTable** menu), and then click **Calculated Field** or **Calculated Item**.

Page Fields: Another Way to Group Information

A single PivotTable can generate several related reports by using *page fields*. A page field lets you display your data in three dimensions.

For example, you could edit the Sales by Product PivotTable to use the Name column as a page field. This field lets you view the sales by product for each sales representative, or for all representatives combined.



For PivotTables with many fields, page fields are a great way to keep your tables compact and readable.

Want to know more? Look up **Getting Results - Sales Summary** in Help.

Office Assistant button

MS 114301

ARENDI-DEFS00002011

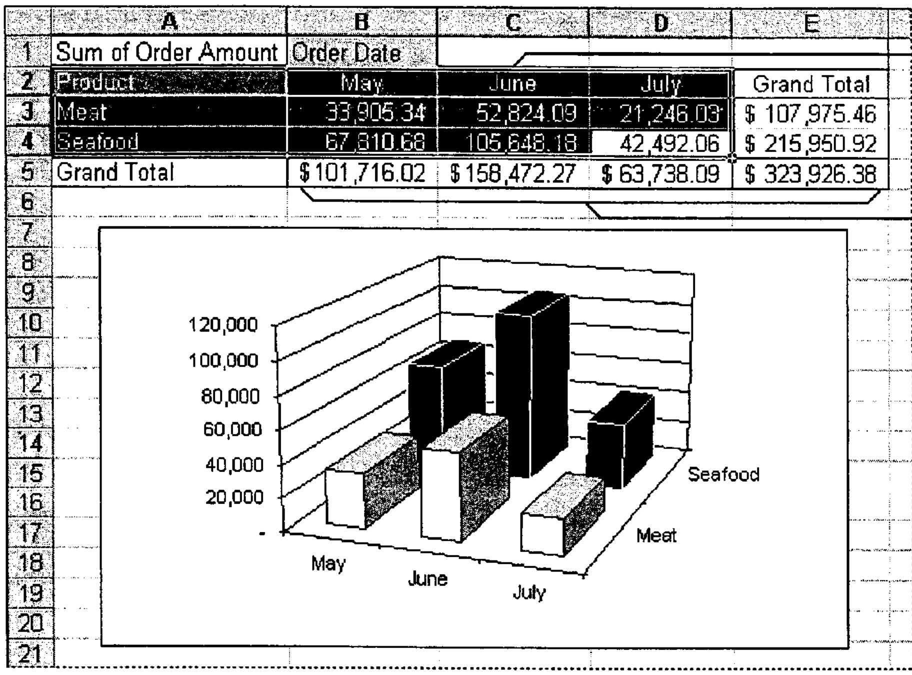
Compare Sales Results Graphically

Your product summary lets you consider the totals, but there's a better way to compare the two product lines. You can create a chart from a PivotTable as you would from any data. As you make changes to the PivotTable or refresh the underlying data, the chart is updated too.

To create a chart, first select the entire PivotTable, and then use the Chart Wizard to select the options you want. For more information, see "Create a Chart from Worksheet Data," page 260.

Chart Wizard button

A column chart compares data over time, showing variations.



Click anywhere in the PivotTable, and then run the Chart Wizard.

In step 2 of the Chart Wizard, select the data and labels, omitting the totals.

Select data that includes a field button You can select data such as cell A2 in the illustration above: On the **PivotTable** toolbar, click **Select** (**PivotTable** menu), and make sure the **Enable Selection** button is not pressed in. Then drag from the lower-right to the upper-left corner to select the data you want.

Is your sales data broken down geographically? You can view where your sales are concentrated on a map of your region or country. For more information, see "Display Data on a Map," page 287.

MS 114302

Next Steps

To	See
Forecast future sales based on your recent results	"Create a Sales Forecast," page 571

MS 114303

Create a Sales Forecast

You collect and analyze sales figures not just to see how you're doing, but in the hope of predicting future results. What are the trends in your recent sales, and how can you expect them to affect future sales?

With Microsoft Excel forecasting functions, you can apply sophisticated statistical analysis techniques to your data. And you don't have to be a statistician or study involved mathematics to create realistic sales projections. You can also use these techniques to project expenses, inventory requirements, stock prices, and other business trends.

Key Features

FORECAST Function

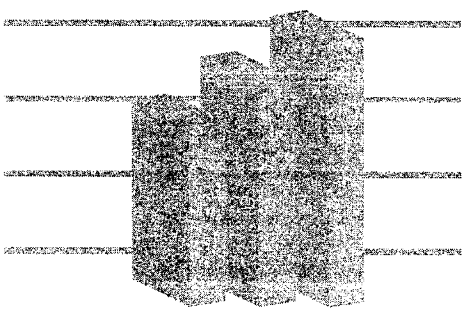
TREND Function

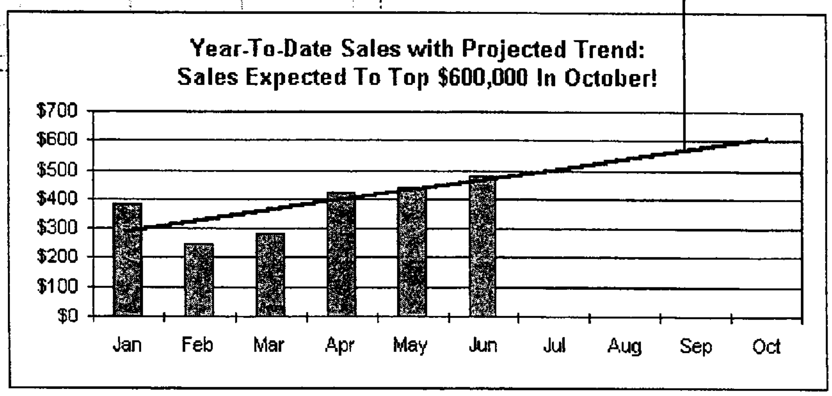
Trendlines in Charts

Forecast sales one month ahead, or several months.

	A	B	C	D	E	F	G
1	**Projected Sales, Second Half of 1997**					in thousands of dollars	
2							
3	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	
4	498.07	532.75	567.44	602.12	636.81	671.50	
5							
6							
7							

Figure the sales trend and show it graphically. See when you're likely to reach your goals.

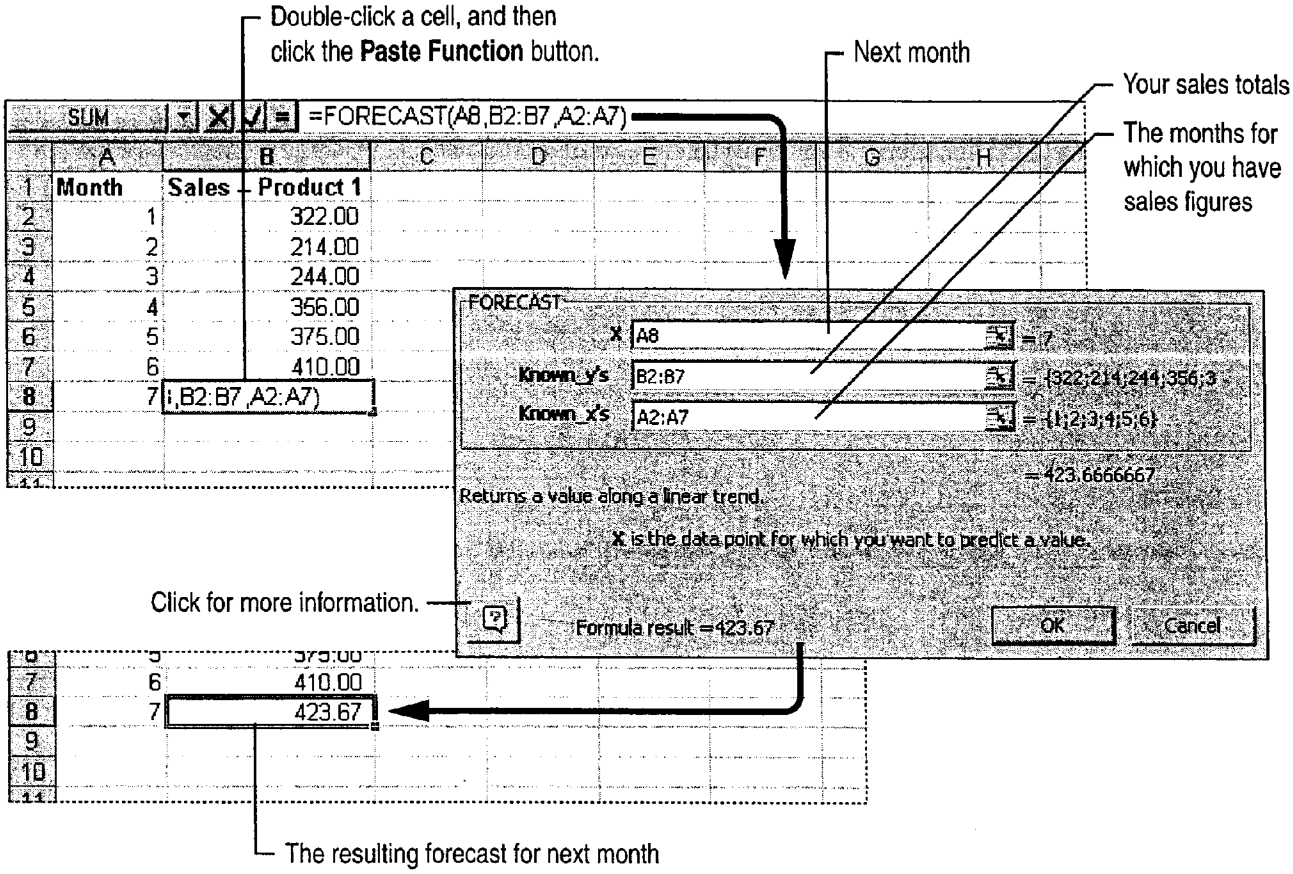




Forecast Next Month's Sales

To predict next month's sales based on the results in recent months, use the FORECAST function. The **Paste Function** button makes it easy to enter the formula.

Paste Function button



Learn more about functions If you want more detail than the **Paste Function** dialog box provides, click the question mark button in the lower-left corner for full reference information about the function.

Want to know more? Look up **Getting Results - Forecast** in Help.

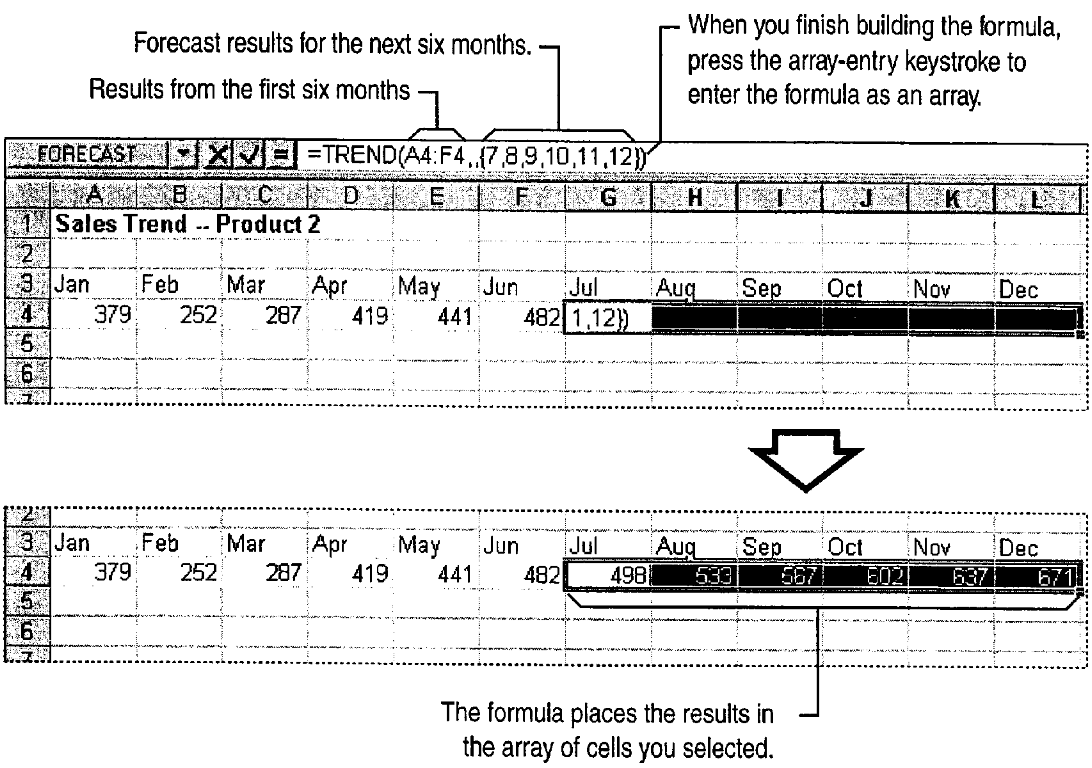
Office Assistant button

MS 114305

Determine Sales Trends

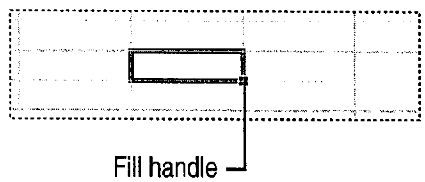
Will sales continue to go up or down, and how fast? You can calculate the likely direction using the TREND function.

You can use a TREND formula to predict the results for the next several months, even if you don't have actual results for recent months. A formula that calculates several values at once uses a range of cells, called an *array*, to display the set of results. Before entering the function, select enough cells for all of the results.



What is the array-entry keystroke? Press CONTROL+SHIFT+ENTER to enter an array formula.

Calculate a trend quickly using AutoFill Select your data for previous months, drag the *fill handle* with the right mouse button, and then click **Linear Trend** (to project growth along a straight line), or **Growth Trend** (to project growth along an exponential curve) from the shortcut menu.



Want to know more? Look up **Getting Results - Forecast** in Help.

Office Assistant button

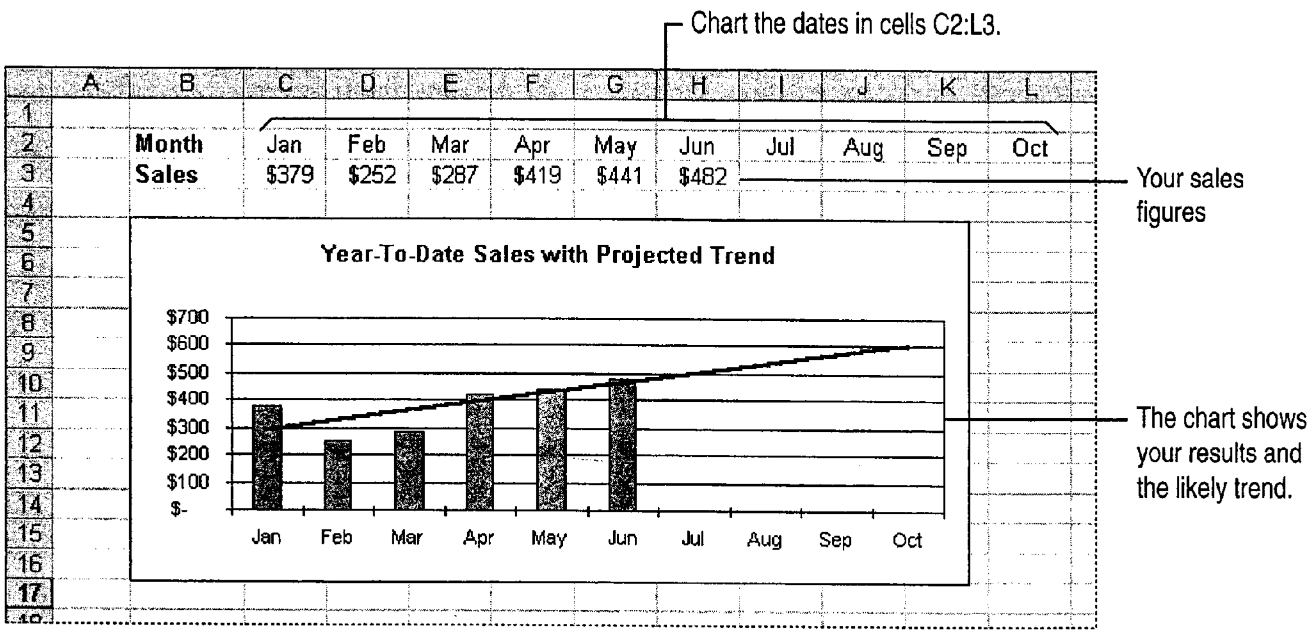
MS 114306

Chart a Trendline

Another way to project a trend is to chart a *trendline*. A trendline shows the direction of your sales visually.

First, use the Chart Wizard to create a column chart. Then, click the chart, and then click the first column. Click **Add Trendline** (**Chart** menu), and then select the type of trendline you want. For more information about creating charts, see "Create a Chart from Worksheet Data," page 260.

Chart Wizard button



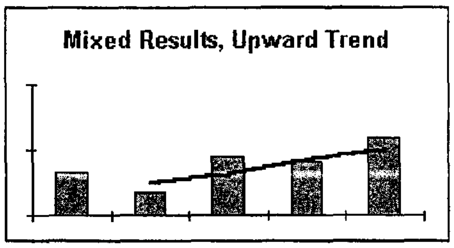
Change the look of your chart For more information, see "Customize the Look of a Chart," page 276.

What If Sales Don't Follow a Simple Trend?

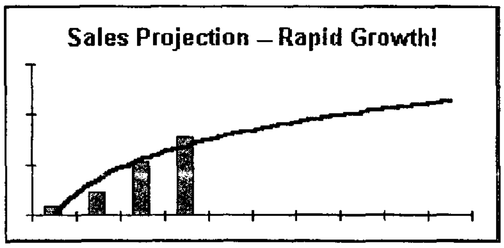
Trendlines describe future sales well when you have a simple, linear increase or decrease. If your data doesn't conform to this type of pattern, one of the following charting methods might work better.

First sales are up, then they're down To see the trend in all the spikes and dips, add a *moving average trendline* to your chart. This trendline smoothes out the fluctuations to show the overall growth pattern more clearly.

Sales are really taking off If your sales are doubling or tripling, you're seeing exponential growth. Use the GROWTH function instead of TREND to forecast this kind of expansion.



Moving average trendline



Logarithmic trendline

Next Steps

To	See
Include your forecasts in a report	"Create a Business Report," page 228
Perform a complete statistical analysis of your sales figures	The Analysis ToolPak add-in. Also, see "Analyze Data from an Experiment," page 592

MS 114308

Create a Sales Summary from a Microsoft Access Database

Use Microsoft Excel PivotTables to Summarize Microsoft Access Data

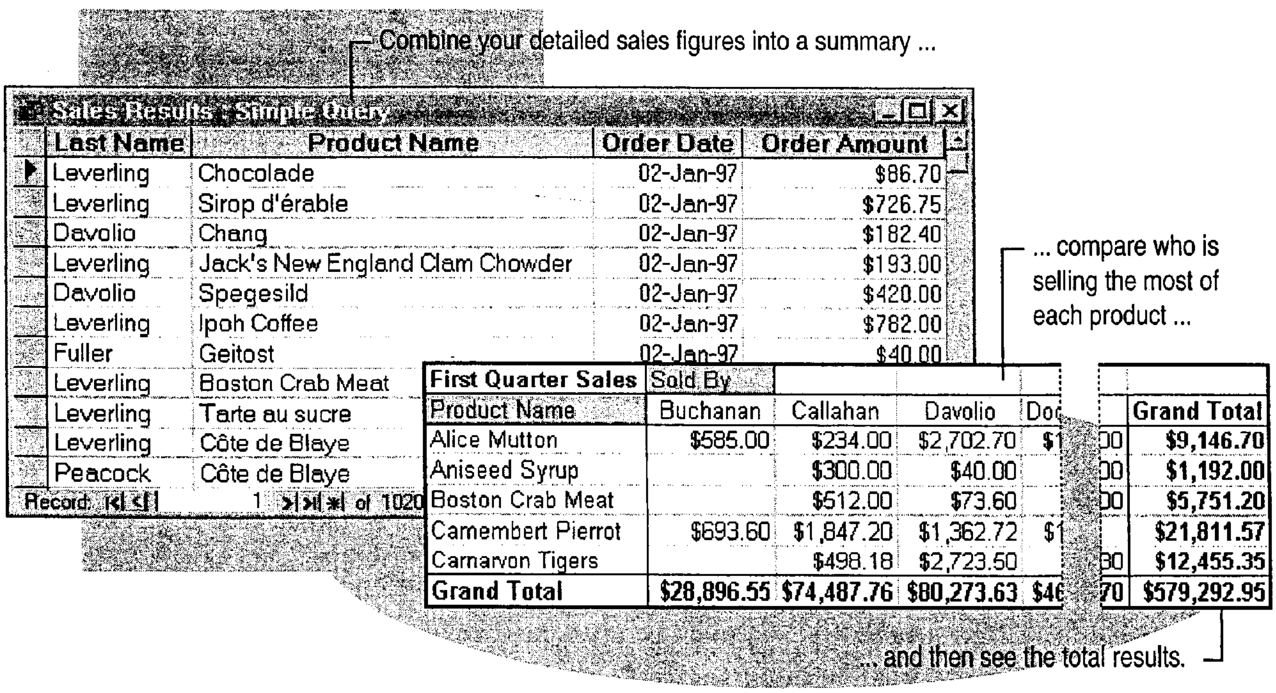
If you're working on a sales report, you can create an overview of sales results to see how well sales representatives are doing and which products are selling the most. To do so, store details about each order in a Microsoft Access sales database, and then switch to Microsoft Excel to summarize the data. Microsoft Excel can automatically create an interactive table, called a *PivotTable*, that summarizes large amounts of data. The PivotTable stays current because whenever you change information in the sales database, it's automatically updated in the PivotTable as well.

Key Features

Simple Query Wizard

PivotTable Wizard

PivotTables



To complete the steps in this topic you need to have Microsoft Office, Professional Edition or an individual copy of Microsoft Access installed. You also need to have sales data stored in a Microsoft Access database.

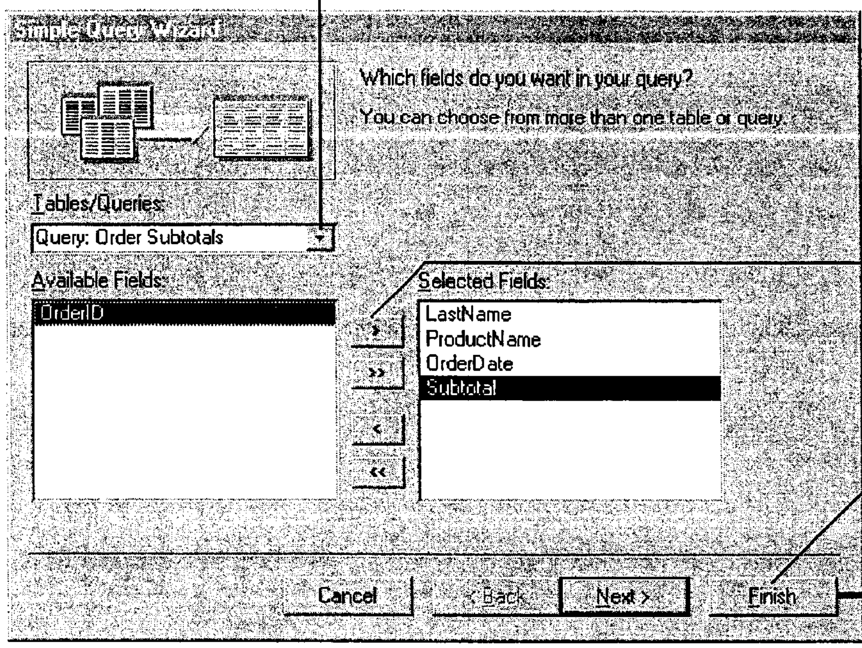
MS 114309

Choose the Data You Want to Analyze

Start by finding out how much each sales representative has sold. For each product, you need the name of the sales representative, the name of the product, the amount sold, and the dates of the orders. To retrieve this information from the database, create a query. In the database window, on the **Query** tab, click **New**, and then double-click **Simple Query Wizard**.

Select fields from the Employees, Products, and Orders tables, and the Order Subtotals query to create a new query.

Click the arrow, and then select a table or query.



Click a field on the left, and then click here to add the field to your query.

When you're finished, click here to complete the query and to view the results.

Last Name	Product Name	Order Date	Subtotal
Buchanan	Singaporean Hokkien Fried Mee	01-Jul-97	$440.00
Buchanan	Mozzarella di Giovanni	01-Jul-97	$440.00
Buchanan	Queso Cabrales	01-Jul-97	$440.00
Suyama	Tofu	02-Jul-97	$1,863.40
Suyama	Manjimup Dried Apples	02-Jul-97	$1,863.40
Peacock	Louisiana Fiery Hot Pepper Sauce	05-Jul-97	$1,552.60
Peacock	Jack's New England Clam Chowder	05-Jul-97	$1,552.60
Peacock	Manjimup Dried Apples	05-Jul-97	$1,552.60
Leverling	Louisiana Fiery Hot Pepper Sauce	05-Jul-97	$654.06
Leverling	Gustaf's Knäckebröd	05-Jul-97	$654.06
Leverling	Ravioli Angelo	05-Jul-97	$654.06
Peacock	Sir Rodney's Marmalade	06-Jul-97	$3,597.90
Peacock	Geitost	06-Jul-97	$3,597.90
Peacock	Camembert Pierrot	06-Jul-97	$3,597.90
Leverling	Maxilaku	07-Jul-97	$1,444.80
Leverling	Chartreuse verte	07-Jul-97	$1,444.80
Leverling	Gorgonzola Telino	07-Jul-97	$1,444.80

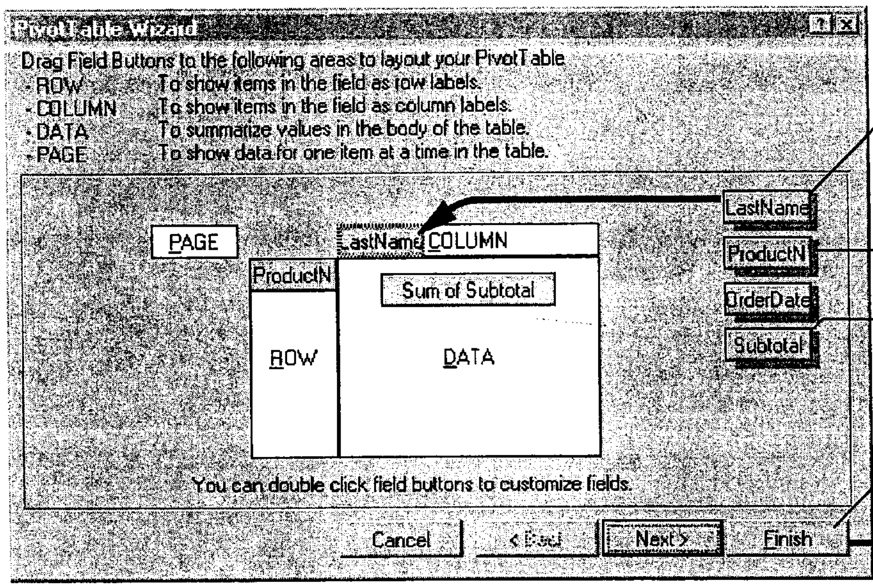
Summarize Data by Product and Salesperson

Now that you have the raw data you need, you want to total and compare the amount of each product sold by each sales representative. While working in Microsoft Access, you can use Microsoft Excel to summarize this information.

In the database window, click the **New Object** button, click **Form**, and then click **PivotTable Wizard**. Select your query and the fields you want to summarize. When the wizard finishes, the PivotTable appears as a Microsoft Excel object inserted in a Microsoft Access form.

New Object button

To create the PivotTable, drag the field buttons on the right to the diagram on the left.



Use the last names of your sales representatives for the column headings.

List the products down the rows.

Show the total orders for each sales representative and product. Only fields containing numbers can be dragged to the data area.

Click here to create the PivotTable.

The resulting PivotTable summarizes the sales figures for you.

Sum of Subtotal	LastName				
ProductName	Buchanan	Callahan	Davolio	Dodsworth	Fuller
Alice Mutton	9423.65	6489	6360.8	1979.23	14358.
Aniseed Syrup	0	2048.22	2468.22	7717.82	
Boston Crab Meat	7724.5	2647.7	5959.36	2367.69	3053
Camembert Pierrot	14342.11	6525.82	25677.58	2679.8	1925
Carnarvon Tigers	0	6575.55	8927.01	6915.8	10579.
Chai	2188	2418.8	2215.86	1788	14387.

Can't read some field names? Double-click a long field name so that you can view all of its characters.

Want to know more? Look up **Getting Results - Microsoft Access Sales Summary** in Help.

Office Assistant button

MS 114311

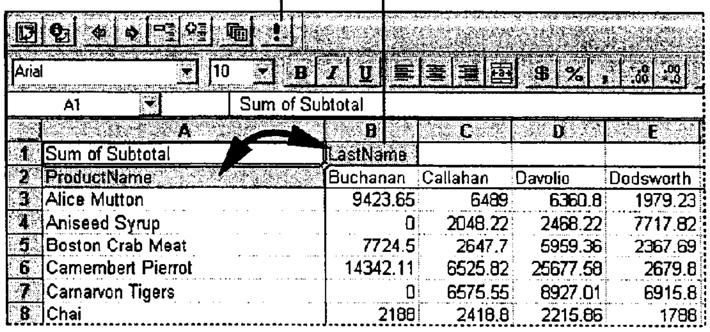
Analyze the Data in Different Ways

After the wizard creates the PivotTable, you can change the layout so that products are displayed across the columns, and sales representatives are listed down each row. Unlike a Microsoft Access table, the PivotTable is dynamic; you can transpose its rows and columns to see different summaries of the data.

You edit the table in Microsoft Excel by clicking the **Edit PivotTable** button on the form. The PivotTable opens in a separate window with Microsoft Excel commands and toolbars displayed.

Click the **Refresh Data** button to update the data in the table.

To display the sales representatives by row and the total amount sold of each product by column, drag the row and column headings to switch their positions.



	A	B	C	D	E
1	Sum of Subtotal	LastName			
2	ProductName	Buchanan	Callahan	Davolio	Dodsworth
3	Alice Mutton	9423.65	6489	6360.8	1979.23
4	Aniseed Syrup	0	2048.22	2468.22	7717.82
5	Boston Crab Meat	7724.5	2647.7	5959.36	2367.69
6	Camembert Pierrot	14342.11	6525.82	25677.58	2679.8
7	Carnarvon Tigers	0	6575.55	8927.01	6915.8
8	Chai	2188	2418.8	2215.66	1788

The PivotTable displays the data based on the new arrangement.

Sum of Subtotal	ProductName	
LastName	Alice Mutton	Aniseed Syrup
Buchanan	9423.65	0
Callahan	6489	2048.22
Davolio	6360.8	2468.22
Dodsworth	1979.23	7717.82
Fuller	14358.45	0
King	7260.91	479.4

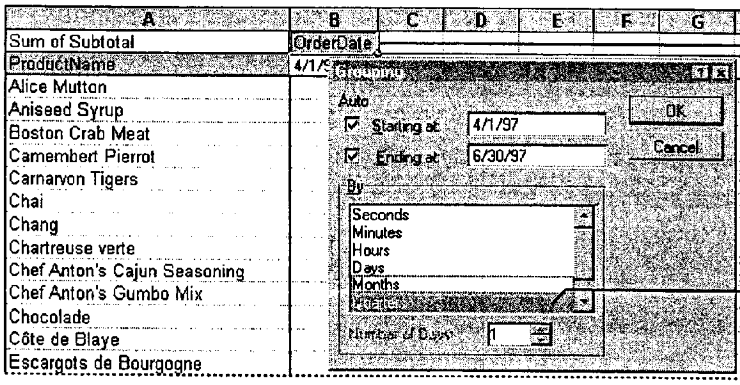
Finished editing in Microsoft Excel? Click **Exit** (**File** menu) to save your changes and return to Microsoft Access.

Want to reactivate Microsoft Excel for further editing? Open the Microsoft Access form, and then double-click the PivotTable.

MS 114312

View Sales Data by Quarter

Suppose you want to compare the total sales figures of each product by quarter. You can have the PivotTable Wizard create another PivotTable from the same query that displays the sales performance of each product (ROW area) by order date (COLUMN area). When the wizard finishes, edit the PivotTable to group the data by quarter.



To summarize the data by quarter, right-click the column heading, and then click **Group** (**Group and Outline** menu).

Select **Quarters** from the list in the **Grouping** dialog box.

Now sales figures for each product are totaled by quarter.

Sum of Subtotal	OrderDate			
ProductName	Qtr1	Qtr2	Qtr3	Qtr4
Alice Mutton	24085.78	16792.06	15194.45	21385.33
Aniseed Syrup	5000.04	18197.42	1291.9	5734
Boston Crab Meat	29900.76	10785.12	27109.46	5968.77
Camembert Pierrot	32392.29	28552.82	33034.06	29439.67
Carnarvon Tigers	14558.09	12922.05	12982.3	18174.11
Chai	16720.43	12415.62	18785.26	5790.4

Display specific products; hide those you don't need Click the **Edit Pivot Table** button on the form, select the rows of products that you want to hide, click **Row**, and then click **Hide** (**Format** menu).

Rank products from most to least sold Click **Edit Pivot Table**, select the products you want to sort, and then click the **Sort Descending** button.

Sort Descending button

MS 114313

Next Steps

To	See
Learn more about queries	"Evaluate Sales Performance in a Microsoft Access Database," page 582
Display data visually	"Create a Chart from a Database," page 272

MS 114314

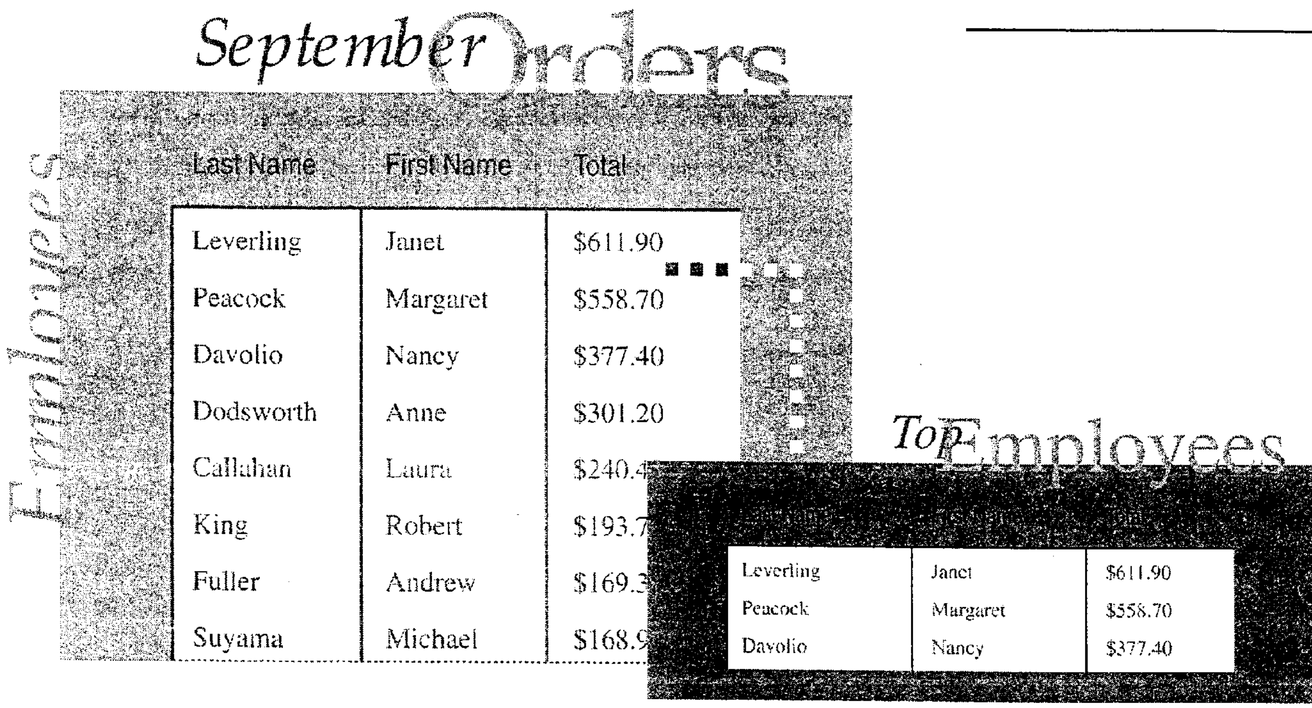
Evaluate Sales Performance in a Microsoft Access Database

Use a Query to Find Out How Well Your Sales Force Is Doing

Suppose you want to review sales figures for your company, Northwind Traders, for September. In particular, you want to see how your sales force is doing and who the top performers are. To retrieve this information, you can create a *query*, a question about data that is stored in more than one table.

Key Features

- Simple Query
- Expressions
- Sorting Records

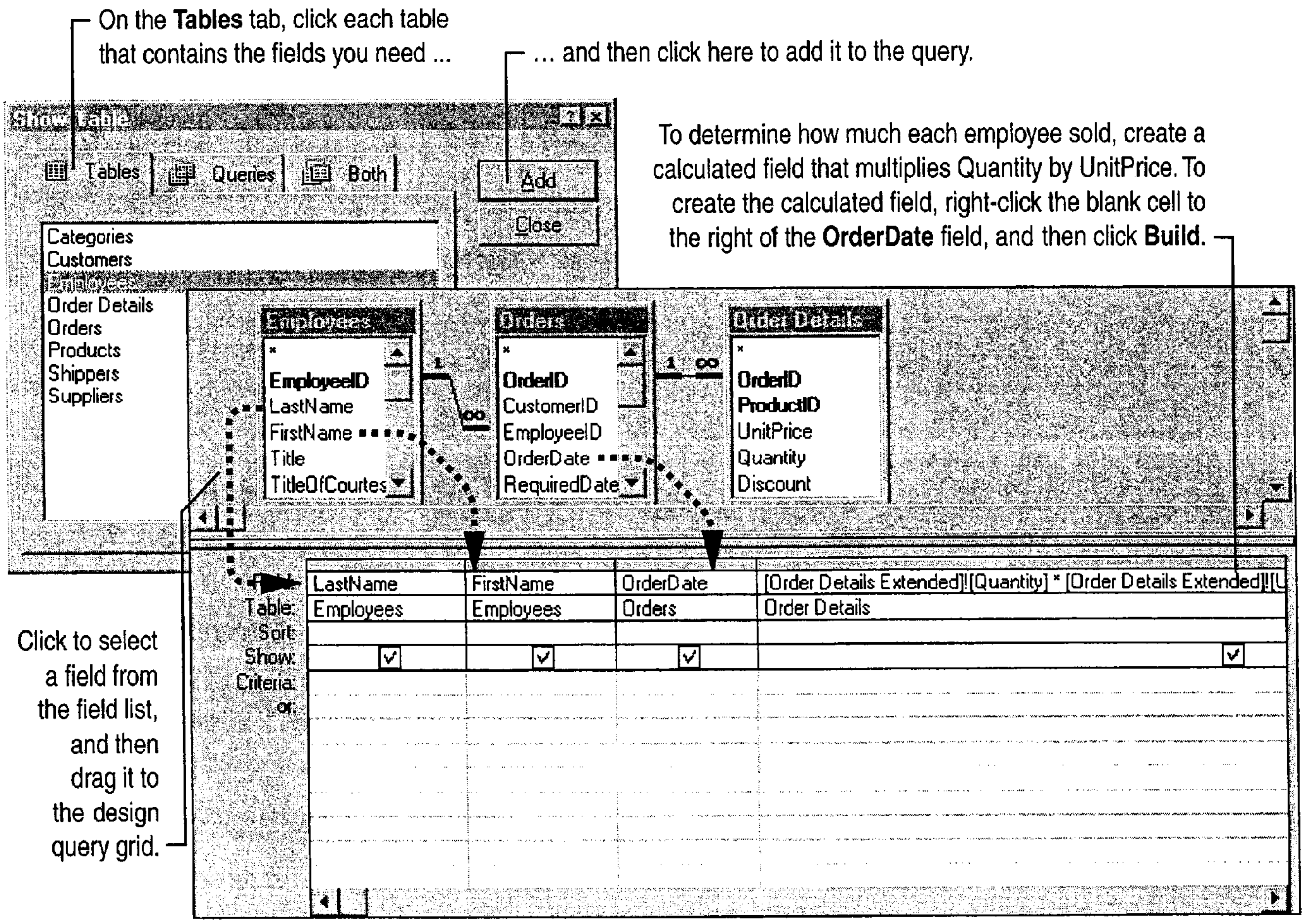


To complete the steps in this topic you need to have Microsoft Office, Professional Edition or an individual copy of Microsoft Access installed. You also need to use the Table Wizard to create the Employees, Orders, and Order Details tables shown in this topic.

Begin the Query

To see how well your sales force is doing, you want to review sales figures. More specifically, you want to see who received each order, the date the order was received, and the amount charged for each order. This information is stored in three tables: Employees, Orders, and Order Details.

To find information that meets specific criteria (such as details on all orders received in September), create a query in design view so that you can define criteria in the query design grid. In the database window, on the **Queries** tab, click **New**, and then click **Design View**.



MS 114316

Want to add all the fields from a table? Double-click the title bar on the field list and then drag all the fields to the grid, or double-click the asterisk (*) on the field list. When you use the asterisk, the query automatically includes fields that you add or delete from an underlying table.

Don't Need to Limit the Information the Query Returns?

Use the Simple Query Wizard to retrieve information that you don't need to refine or limit. For example, you can use the Simple Query Wizard to retrieve the names and phone numbers of all employees in an organization. In the database window, click **Queries**, click **New**, and then double-click **Simple Query Wizard**. However, if you want to retrieve the names and phone numbers of employees hired after a specific date, you need to create the query in query design view.

Want to know more? Look up **Getting Results - Evaluate Sales** in Help.

Office Assistant button

MS 114317

Show Only Last Month's Orders

To find details on all orders received in September, you need to limit your query so that it searches for the data that applies to this specified time period. To do so, type the beginning and ending dates (an *expression*) in the **Criteria** row for the OrderDate field, as shown in the following illustration.

Type the beginning and ending dates here. Date expressions are enclosed in number (#) signs.

Field:	LastName	FirstName	OrderDate	Expr1: [Order Details]![Quantity]*[Order D
Table:	Employees	Employees	Orders	
Sort:				
Show:	☑	☑	☑	☑
Criteria:			Between #9/1/97# And #9/30/97#	
or:				

Last Name	First Name	Order Date	Expr1
Suyama	Michael	01-Sep-97	$69.75
Suyama	Michael	01-Sep-97	$544.60
Suyama	Michael	01-Sep-97	$57.00
Fuller	Andrew	01-Sep-97	$775.00
Fuller	Andrew	01-Sep-97	$231.60
Fuller	Andrew	01-Sep-97	$540.00
Fuller	Andrew	01-Sep-97	$95.00
Fuller	Andrew	01-Sep-97	$1,710.00
Fuller	Andrew	01-Sep-97	$1,020.00
Peacock	Margaret	02-Sep-97	$600.00
Peacock	Margaret	02-Sep-97	$1,288.00
Peacock	Margaret	02-Sep-97	$1,870.00
Peacock	Margaret	02-Sep-97	$910.00
King	Robert	02-Sep-97	$250.00
King	Robert	02-Sep-97	$441.60
King	Robert	02-Sep-97	$600.00
Callahan	Laura	05-Sep-97	$1,701.00
King	Robert	06-Sep-97	$54.00

You can change the name of a field by double-clicking it and then typing a new name, such as "Amount".

Click the **View** arrow and then select **Datasheet View** from the list to see orders filled in September.

View button

MS 114318

Did you make a mistake when you set up the query? In datasheet view, click the **View** arrow to return to the query design grid. You can change the query by adding or deleting fields, or by changing the criteria.

Want to see orders for another range of dates? Change the dates in the Between expression.

Want to know more? Look up **Getting Results - Evaluate Sales** in Help.

Office Assistant button

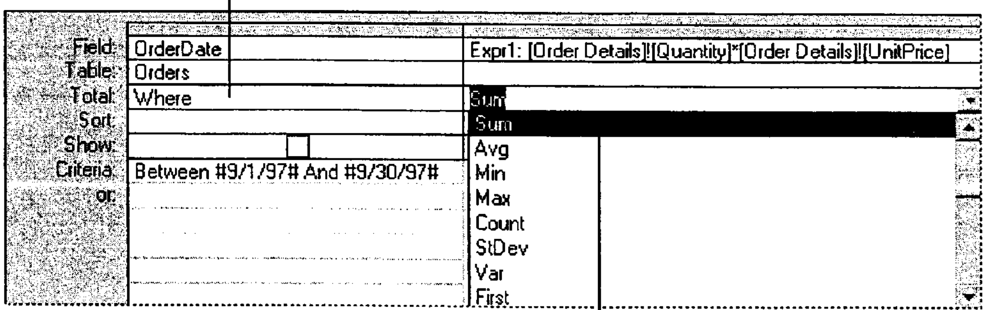
MS 114319

Calculate Total Orders Per Employee

After your query finds every order received by each employee during the month of September, you can modify the query to calculate the total orders received by each employee. Click the **Totals** button to add a Total row to the query design grid, and then select the calculation you want in the Total cell for that field.

Totals button

Click the **Total** cell under the OrderDate column. Click the arrow, and then select **Where** to have Microsoft Access find orders for which the date is between 9/1/97 and 9/30/97.



Under the calculated field you created, click the **Total** cell. Click the arrow, and then select **Sum** to have Microsoft Access total the orders filled by each employee.

Want to find an average value for a field? In the Total cell for the field you want to calculate, click the arrow, and then select the calculation you want from the list.

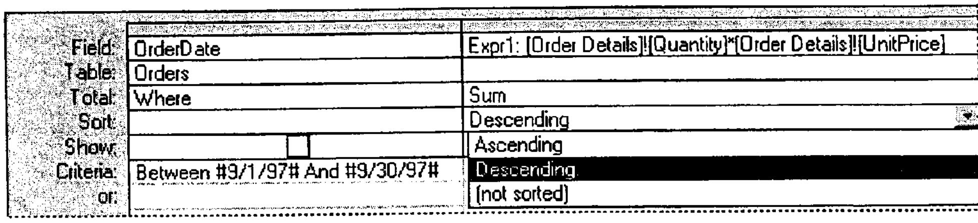
Want to find the minimum and maximum values for the same field? Add the field to the query design grid twice, and then click the calculation you want in the Total cell. For example, you can add the Amount field and then click **Min** in the Total cell. In another column, add the Amount field again and then click **Max**.

Want to know more? Look up **Getting Results - Evaluate Sales** in Help.

Office Assistant button

Rank Your Sales Staff

Now that you know how much each employee has sold, you can rank your sales force. To sort employees by the amount of orders for September, click in the Sort cell of the Amount field. Then select the order in which you want the information sorted. You can rank employees by sorting the grand totals in descending order.



Click here, and then click **Descending** ...

Last Name	First Name	Expr1
Fuller	Andrew	$19,787.05
King	Robert	$13,839.29
Peacock	Margaret	$12,183.85
Dodsworth	Anne	$10,412.40
Davolio	Nancy	$8,845.00
Leverling	Janet	$3,595.50
Callahan	Laura	$2,361.00
Buchanan	Steven	$1,423.00
Suyama	Michael	$671.35

... to rank employees by sales totals.

Want to sort by more than one field? Microsoft Access sorts fields from left to right. In the query design grid, arrange the fields in the order in which you want the sorts performed, and then click the sort order for each field.

Want to use the same query again? Save the query so you can reuse it. Click **Save** (**File** menu).

Create a report from a query In datasheet view, click the **New Object** arrow, and then click **New Report** to create a report based on the query.

New Object button

MS 114321

ARENDI-DEFS00002031

Next Steps

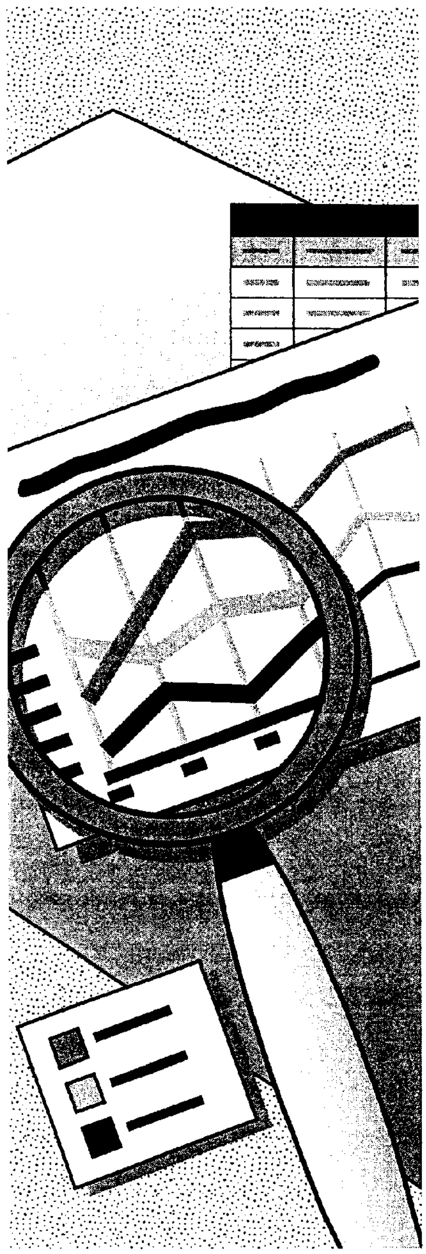
To	See
Learn more about sorting records	"Use Your First Microsoft Access Database," page 104
Create a query by using the Simple Query Wizard	"Create a Sales Summary," page 563

MS 114322

PART 14

Analyze Scientific and Engineering Data

Contents



MS 114323

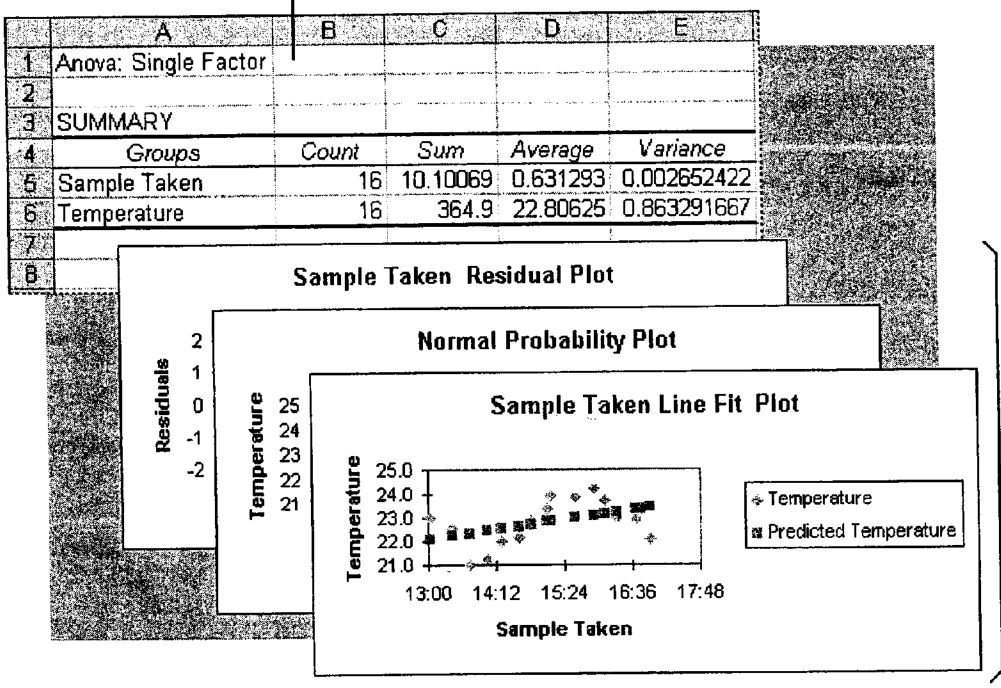
Analyze Data from an Experiment

Have you been performing calculations like exponential smoothing and Fourier analysis using a dedicated math package? Did you know that you can do the same number-crunching in Microsoft Excel and use all of the convenient and powerful analysis and formatting capabilities of Microsoft Excel on your results?

Key Features

Analysis ToolPak

Analysis of variance calculates the comparison factors you need.



The regression analysis tool automatically charts its results.

Important Make sure you've installed the Analysis ToolPak add-in. If you chose the Typical installation for Microsoft Excel rather than Custom, you'll need to run the Setup program to get this add-in. After installation, enable the Analysis ToolPak by clicking **Add-Ins** (**Tools** menu). You can work with data sets of up to 64,000 rows by 256 columns and of up to 32,000 characters per cell.

MS 114324

ARENDI-DEFS00002034

Set Up Your Data

Before you can run the analysis, you need to set up your data. Place each data series in a row or column. Each tool in the Analysis ToolPak has specific input requirements.

The tools store their output wherever you specify: on the same worksheet as the input range, on another worksheet, or in another workbook.

	A	B
1	Sample Taken	Temperature
2	13:01	23.0
3	13:25	22.5
4	13:45	21.0
5	14:02	21.2
6	14:18	22.0
7	14:36	22.2
8	14:48	22.8
9	15:05	23.3
10	15:10	23.9
11	15:35	23.8
12	15:55	24.2
13	16:07	23.7
14	16:19	23.0
15	16:39	22.9
16	16:45	23.3
17	16:55	22.1

Identify your variables for the resulting analysis, or let the tools create labels for you.

Your input range

Bring external data directly into your worksheet Microsoft Excel can read most database formats, or you can import text files. For examples, see "Get Sales Information from a Database," page 548.

Want just a simple forecast? See "Create a Sales Forecast," page 571. For some straightforward techniques to analyze uncomplicated data, see "Create a Sales Summary," page 563, and "Create a Detailed Sales Report," page 556.

Want to know more? Look up **Getting Results - Analyze** in Help.

Office Assistant button

MS 114325

Run the Analysis

Now your data is ready to be analyzed. Click **Data Analysis** (**Tools** menu) to select the type of analysis you want.

	A	B	C	D
1	*Sample Taken*		*Temperature*	
2				
3	Mean	0.631293403	Mean	22.80625
4	Standard Error	0.012875418	Standard Error	0.232283726
5	Median	0.630208333	Median	22.95
6	Mode	#N/A	Mode	23
7	Standard Deviation	0.051501671	Standard Deviation	0.929134902
8	Sample Variance	0.002652422	Sample Variance	0.863291667
9	Kurtosis	-1.137247717	Kurtosis	-0.359166577
10	Skewness	-0.158973114	Skewness	-0.493724094
11	Range	0.1625	Range	3.2
12	Minimum	0.542361111	Minimum	21
13	Maximum	0.704861111	Maximum	24.2
14	Sum	10.10069444	Sum	364.9
15	Count	16	Count	16
16	Confidence Level(95.0%)	0.02744332	Confidence Level(95.0%)	0.495101346

The Descriptive Statistics tool calculates the parameters you want for further analysis.

Important If you don't see the **Data Analysis** command, you might not have enabled the Analysis ToolPak after installing it. Use the **Add-Ins** command (**Tools** menu) to enable the Analysis ToolPak.

Want details about tools? For details about specific tools, look up the name of the tool in Microsoft Excel Help. For a list of the available analysis tools, click **Data Analysis**.

Next Steps

To	See
Create scatter plots and other charts from your data or analysis results	"Display Scientific Data in a Chart," page 595

MS 114326

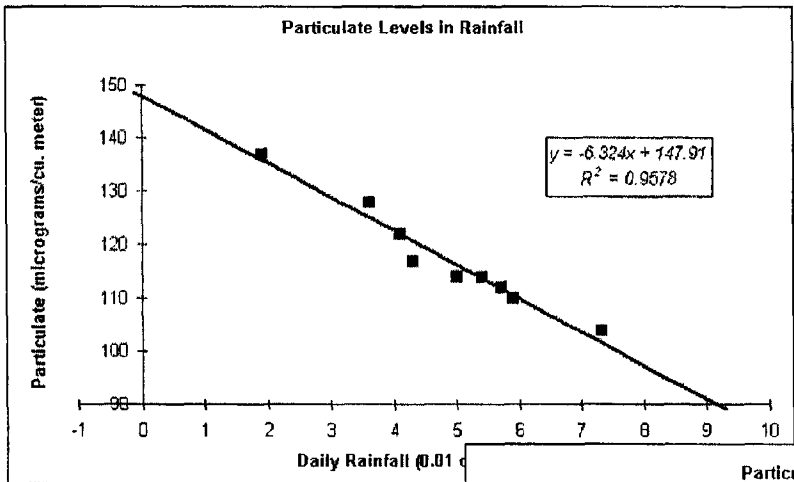
Display Scientific Data in a Chart

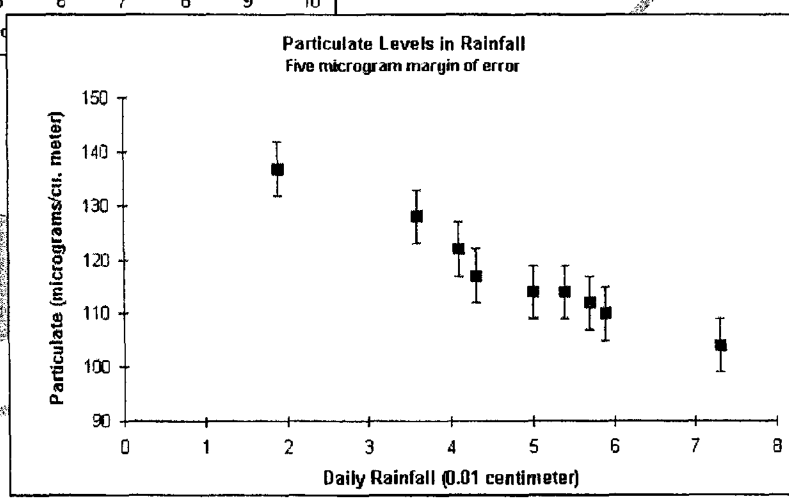
When your data has pairs or grouped sets of values, you can display it effectively in an xy (scatter) chart. This chart type is commonly used for displaying scientific and engineering data. A scatter chart has two value axes, instead of one value axis and one category axis like most chart types. Another difference is that data can be shown in uneven intervals, or clusters.

Optional chart items that can be helpful in analyzing data are trendlines for prediction and error bars to show the margin of error.

Key Features

- Scatter Charts
- Trendlines
- Error Bars





Scatter charts display clustered data along two value axes.

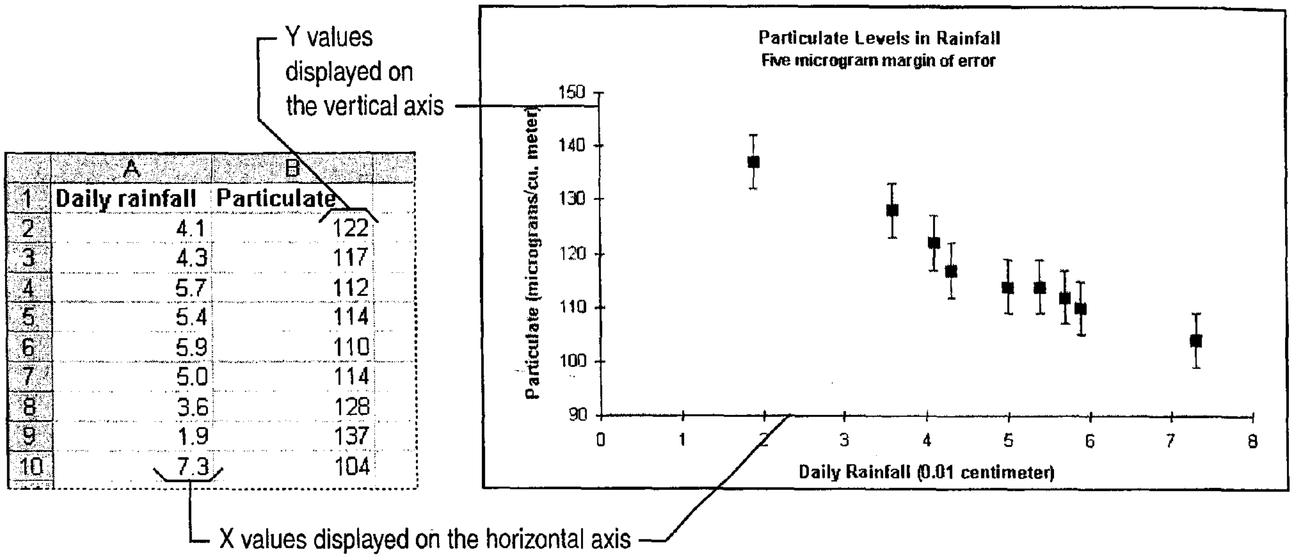
MS 114327

Create a Scatter Chart

Select the data you want to display in the chart. If the selection includes text labels, you can add a legend to help identify data in charts with multiple y values. If there is more than one y value for each x value, see "Display Multiple Y Values," later in this topic.

You can let the Chart Wizard help you create the chart. After selecting the data, click the **Chart Wizard** button, and then select the XY (Scatter) type in step 1 of the wizard. For more information on creating charts, see "Create a Chart from Worksheet Data," page 260.

Chart Wizard button



What's the difference between a line chart and a scatter chart? Line charts and scatter charts look very similar. However, the line chart displays categories of data evenly along the x axis, with values along the y axis. When data should be displayed in uneven clusters, the scatter chart works better. If you want your scatter chart to display connecting lines between points, you can select one of the built-in chart subtypes with lines from the **Chart Type** dialog box (**Chart** menu).

What if my data has three y values? Use the Chart Wizard to create a bubble chart, which is similar to a scatter chart, except that each data point is a "bubble," the size of which is determined by one of the three data series.

MS 114328

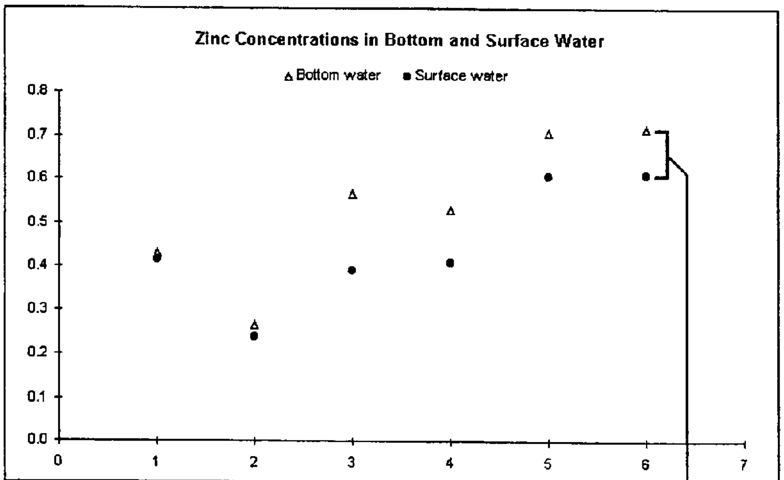
Display Multiple Y Values

When your data has two or more y values corresponding to each x value, arrange the data as shown to get the chart you want. If your data series are in rows instead of columns, the x values should be in the top row and the y values in the following rows.

	A	B	C	D	E
1	Zinc Concentrations in Bottom and Surface Water				
2		Day	Bottom water	Surface water	
3		1	0.430	0.415	
4		2	0.266	0.238	
5		3	0.567	0.390	
6		4	0.531	0.410	
7		5	0.707	0.605	
8		6	0.716	0.609	

X values in leftmost column

Pairs of y values in adjacent columns to the right



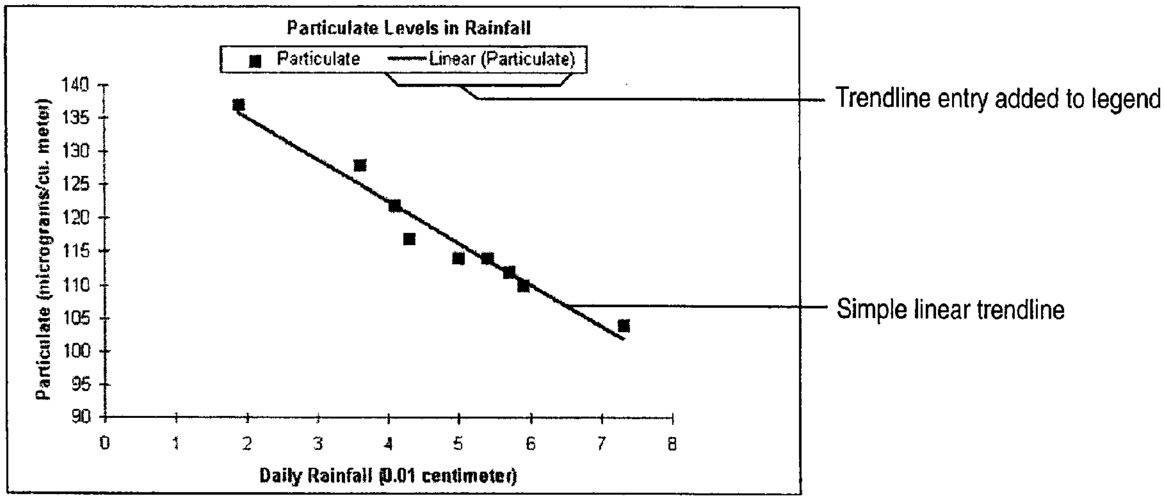
Pair of y values displayed on the chart

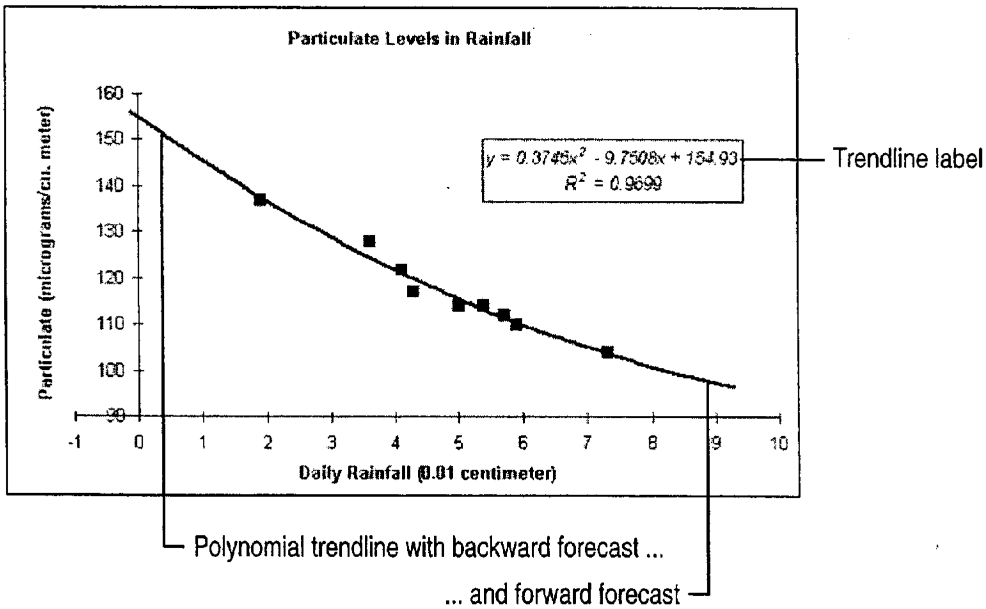
Want to know more? Look up **Getting Results - Scientific Data** in Help.

Office Assistant button

Predict Forward or Backward with a Trendline

To predict a trend based on available data (also known as regression analysis), add a trendline to the data series. Select the data series, and then click **Add Trendline** (**Chart** menu). Specify the trendline type you want; on the **Options** tab, you can display a trendline label with the line equation, the R-squared value, or both.





MS 114330

The trendline belongs to the data series A trendline is calculated from the values in the associated data series. If you delete or move the data series, the trendline is also deleted or moved. If you want to change the type of trendline you use, double-click the line and then make your change in the **Format Trendline** dialog box.

For Help on dialog box options, click this button and then click the option.

Modify the trendline You can change the trendline's type (for example, from linear to polynomial), change its color or line style, give it a name, or add a label. Double-click the line, and then make the changes you want in the **Format Trendline** dialog box.

Format the trendline label You work with a trendline label like any other data label: by double-clicking it. Then you can change the font, change the way numbers are displayed, or add a border or background color. To move the label, select it and then drag it to the new location.

Use trendlines with other chart types You can add trendlines to 2-D bar, column, and line charts, but not to 3-D charts.

Use a moving average trendline All types of trendlines are useful for business data. For more information, see "Create a Sales Forecast," page 571.

Chart Tips Make it Easier to Identify Chart Elements

When you rest the pointer over a chart item, you can see the name and value of the item in a tip. Turn chart tips on or off by selecting or clearing the **Show names** and **Show values** options on the **Chart** tab of the **Options** dialog box (**Tools** menu).

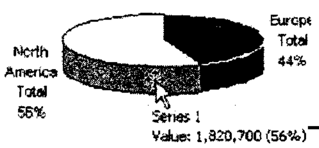


Chart tips help you identify chart elements.

Want to know more? Look up **Getting Results - Scientific Data** in Help.

Office Assistant button

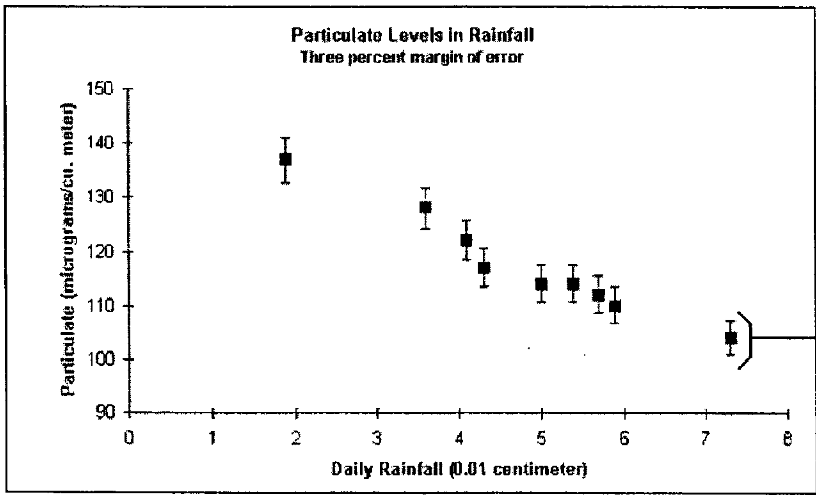
MS 114331

Show "Plus or Minus" with Error Bars

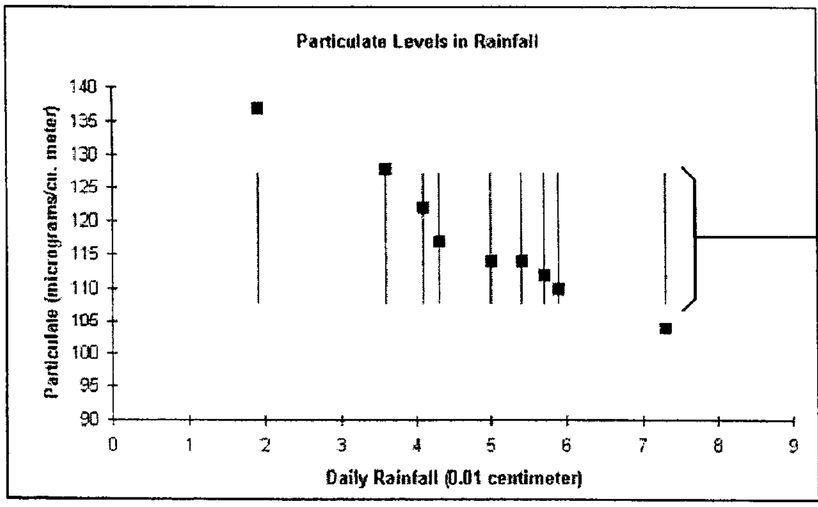
When it's useful to indicate the degree of uncertainty for a data series—the "plus or minus" range—add *error bars*. Double-click the data series to display the **Format Data Series** dialog box. Click the **X Error Bars** tab or the **Y Error Bars** tab, and then specify the display you want and how the error amount should be obtained.

How is the error amount obtained? On the two error bars tabs in the **Format Data Series** dialog box, specify the error amount; it can be a fixed value, a percentage of each value in the data series, a number of standard deviations, the standard error, or another error value in a worksheet range.

[?] For Help on dialog box options, click this button and then click the option.



Error bar calculated as a percentage of y value, with end marker displayed



Error bar showing one standard deviation, with no end marker

MS 114332

The error bars belong to the data series Error bars are obtained from the values in the associated data series. If you delete or move the data series, the error bars are also deleted or moved.

Modify the error bars To change the color, style, and line weight for all error bars associated with a data series, double-click one error bar. In the **Format Error Bars** dialog box, change the look on the **Patterns** tab. You can change other characteristics on the **X Error Bars** tab and the **Y Error Bars** tab.

Use error bars with other chart types You can add error bars to 2-D area, bar, column, bubble, and line charts, but not to 3-D charts.

Next Steps

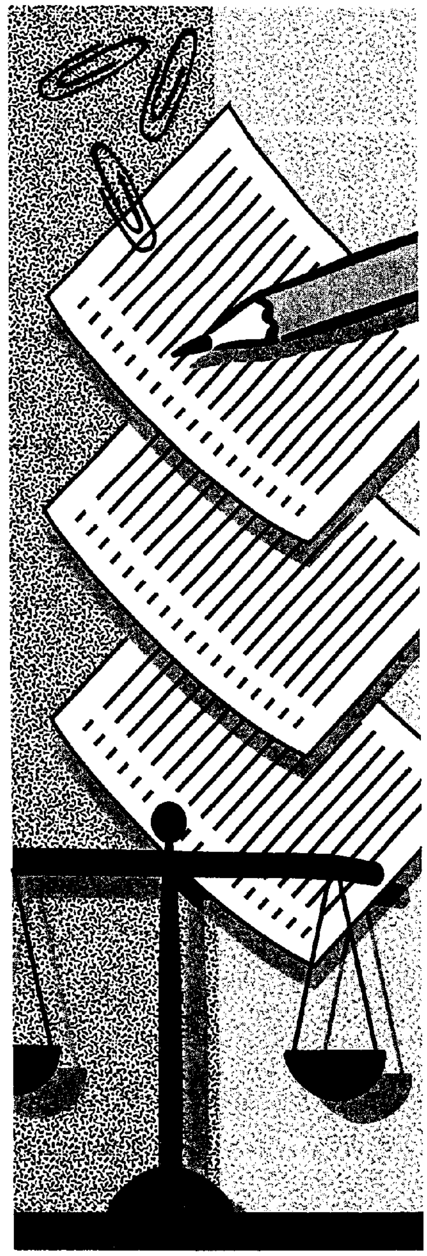
To	See
Custom-format a chart and save the formatting to use for other charts	"Customize the Look of a Chart," page 276
Create a link to, or insert, a chart in a Microsoft Word document or Microsoft PowerPoint presentation	"Add a Chart to a Document or Presentation," page 266

MS 114333

PART 15

Create Legal Documents

Contents



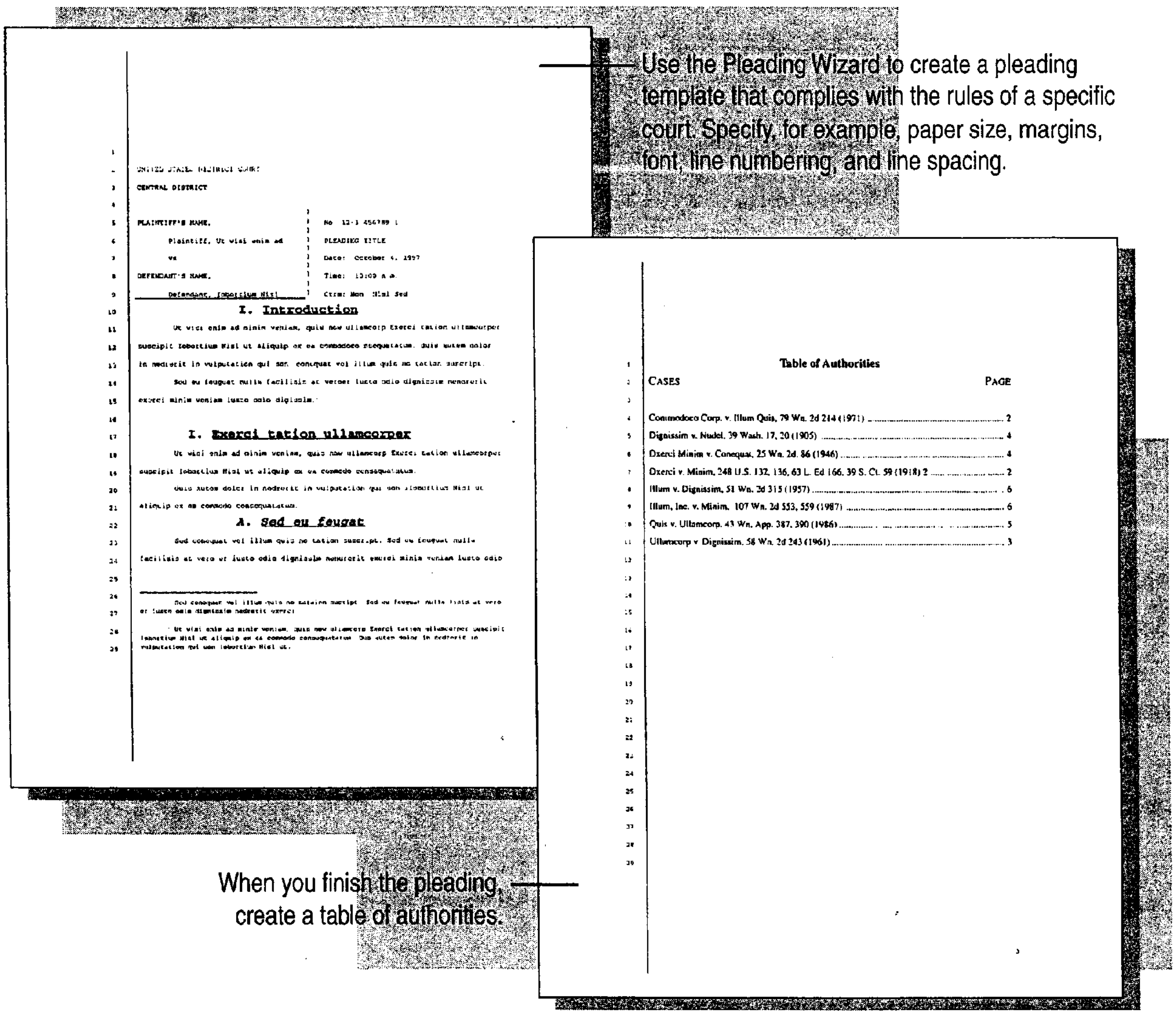
MS 114334

Create a Pleading

If you need to create a pleading to initiate or continue a legal proceeding, it's fast and easy to use the Pleading Wizard. The wizard helps you set up the basic formatting of the pleading so that it meets the requirements of the court you specify. After you've determined the formatting, the wizard saves these settings in a template for easy reuse. Then all you do is fill in the content of the pleading.

Key Features

- Pleading Wizard
- Footnotes
- Table of Authorities



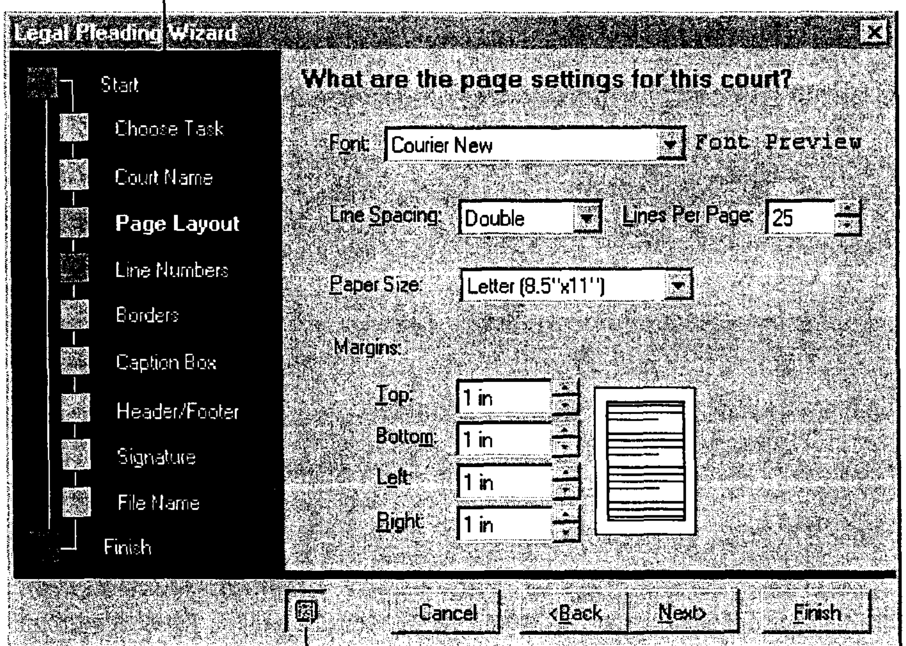
MS 114335

Select Settings to Create a Custom Pleading

To start the Pleading Wizard, click **New** (**File** menu), click the **Legal Pleadings** tab, and then double-click **Pleading Wizard**. There are two parts to the wizard: the first to create a template, and the second to create a pleading based on the template. The wizard asks you a series of easy questions. Your answers determine how Word sets up the basic page elements of the pleading template.

After you specify the basic structure and formatting of the pleading, the wizard saves the settings in a template with a name you specify. You might want to use the name of the court as the template name. The next time you need to create a pleading for that court, you can start with that template.

Through a series of simple steps, the wizard helps you create a pleading customized for a particular court. In this step, for example, you select settings for the page layout.



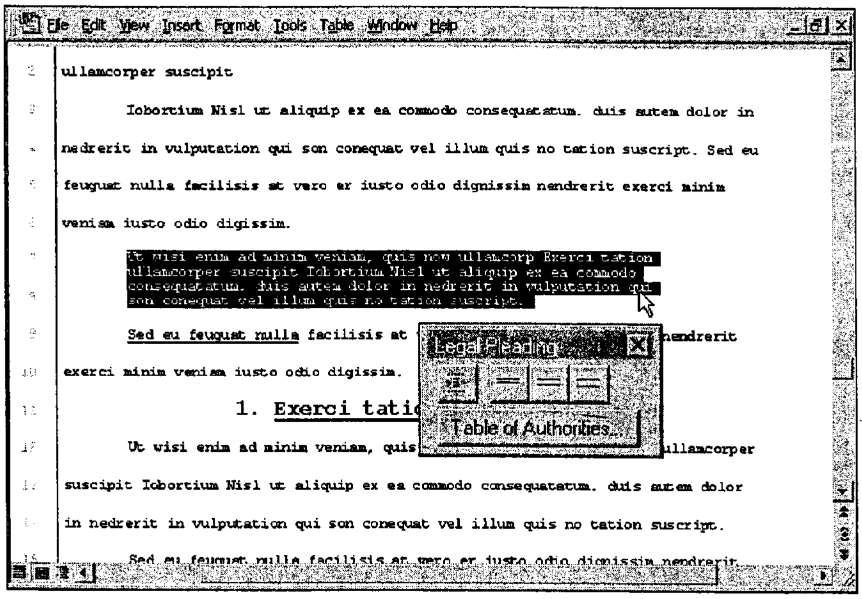
Click here to get Help from the Office Assistant.

Important If the Pleading Wizard isn't available, rerun Setup to install it. For more information, see "Add or Remove Components," page 32.

Write the Pleading

After you create the template, you go to the second part of the wizard, in which you work in a document based on the template you created. You complete additional steps to add the parties to the pleading, the names, case number, attorney names, and so on.

When you have finished filling in these details, click **Finish**. When the pleading is displayed, the Assistant gives you several options for adjusting the formatting. When you have the format you want, add the content of the pleading.



Format the content you add to your pleading by using the **Legal Pleading** toolbar **(View** menu, **Toolbars** submenu).To indent text for a block quotation, or to change line spacing, select the text and then click the appropriate button.

Need a specific type of pleading? When the wizard asks you to select the parties, click **Petitioner and Respondent** to create a summons for legal separation, or click **Debtor** to create a decree of dissolution.

Need numbered and bulleted lists in your pleading? See "Add Numbering to Headings and Paragraphs," page 614.

Including cross-references? See "Add Automatic Cross-References," page 616.

Want more tips on legal forms? See "Create a Legal Contract," page 611.

Want to know more? Look up **Getting Results - Pleading** in Help.

Office Assistant button

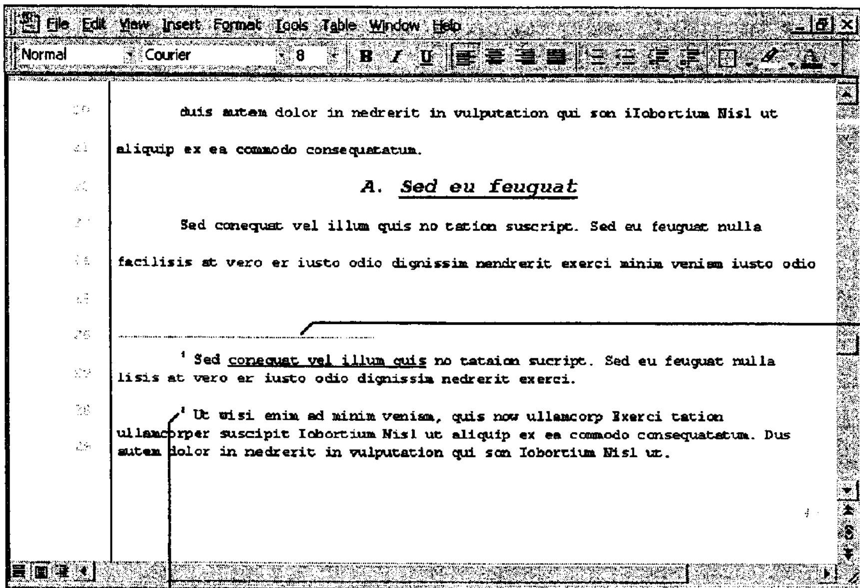
MS 114337

Add Footnotes

When you need to expand upon or include other citations or text, you can insert a footnote. Click where you want to insert the footnote reference mark, and then click **Footnote** (**Insert** menu).

To separate footnotes from the pleading text, Word automatically inserts a short horizontal line. Or, if the footnote continues onto the next page, Word inserts a longer separator line.

You can underline citations and format footnote text just as you would any other text.



Word adds a line to separate footnotes from regular text.

Word automatically numbers footnotes as you add them.

See the contents of a footnote quickly Position the insertion point over the footnote reference mark, and the contents of the footnote are displayed.

Move or delete a footnote To complete either action, you work with the footnote reference mark, not the text in the note pane. To move a footnote, select and drag the mark to a new location. To delete a footnote, select the mark and press DELETE. Whenever you move or delete a footnote, Word automatically renumbers the footnotes accordingly.

Want to add a footnote continuation notice? For footnotes that continue onto the next page, add a continuation notice. In normal view, click **Footnotes** (**View** menu). In the list box at the top of the footnote pane, click **All Footnotes**, click **Footnote continuation notice**, and then type the text of the notice.

MS 114338

Mark Entries for a Table of Authorities

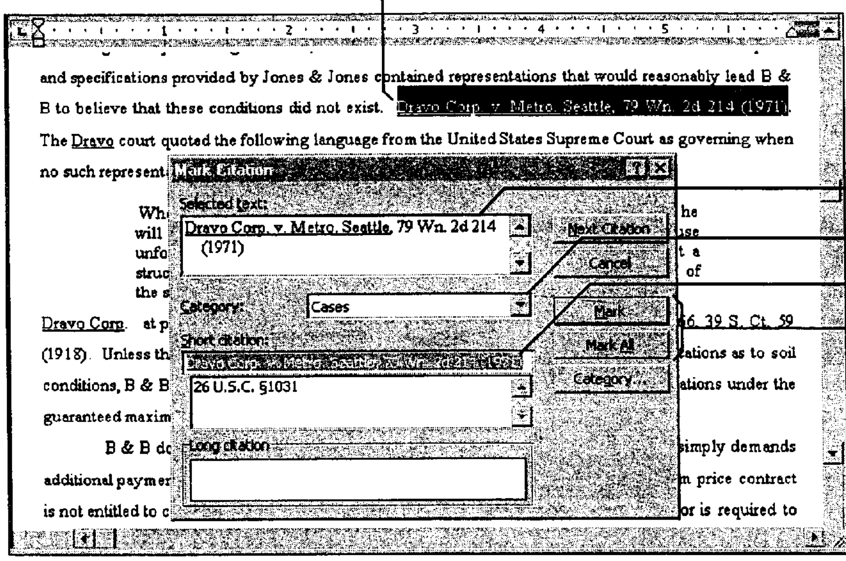
Before you can create a table of authorities, you need to mark the text to be included. After an entry is marked, Word can include the page number on which the citation occurs.

The first occurrence of a citation is the long version, such as "Forrester v. Craddock, 51 Wn. 2d 315 (1957)." Subsequent references are the short version, such as "Forrester v. Craddock."

To find the first long citation, scroll through the text. Select the text for the first citation, and then press ALT+SHIFT+I to display the **Mark Citation** dialog box.

For Help on dialog box options, click this button and then click the option.

Text for the long citation



If necessary, edit the long citation.

Select a category.

Edit or type the short citation.

Click **Mark** to mark only this instance, or click **Mark All** to have Word mark all instances of the citation in the pleading.

Have Word search for citations Word can search for common abbreviations that are found in long citations, such as *v.*, *ID.*, *Ibid*, *Cong.*, *Sess.*, or *in re*. In the **Mark Citation** dialog box, just click **Next Citation**.

Format text for the long citation To apply formatting to the case name, for example, select the text in the **Selected text** box of the **Mark Citation** dialog box, and then apply the formatting you want.

Want to know more? Look up **Getting Results - Pleading** in Help.

Office Assistant button

Create a Table of Authorities

Place the insertion point where you want the table to appear in your pleading. Click the **Table of Authorities** button on the **Legal Pleading** toolbar. Select the format and any other options you want.

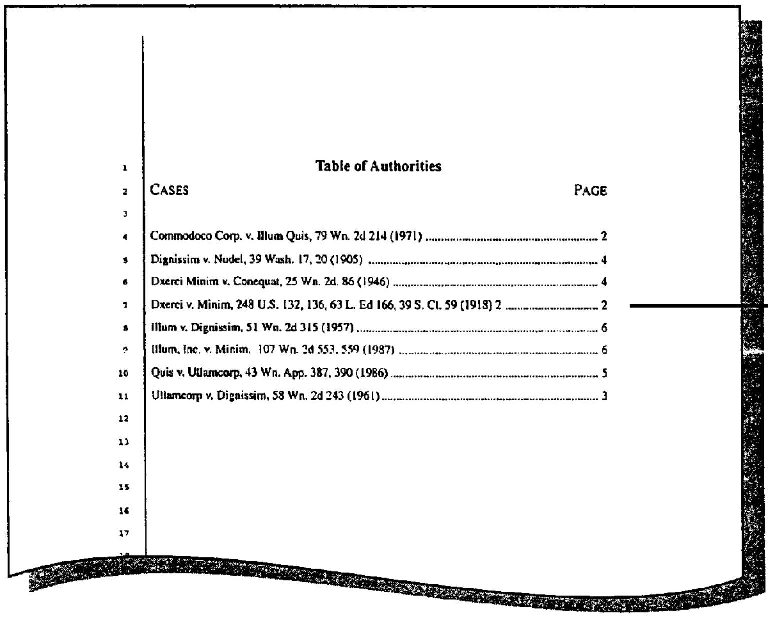


Table of Authorities

CASES	PAGE
Commodoco Corp. v. Illum Quis, 79 Wn. 2d 214 (1971)	2
Dignissim v. Nudel, 39 Wash. 17, 20 (1905)	4
Dxerci Minim v. Conequat, 25 Wn. 2d. 86 (1946)	4
Dxerci v. Minim, 248 U.S. 132, 136, 63 L. Ed 166, 39 S. Ct. 59 (1918) 2	2
Illum v. Dignissim, 51 Wn. 2d 315 (1957)	6
Illum, Inc. v. Minim, 107 Wn. 2d 553, 559 (1987)	6
Quis v. Ullamcorp, 43 Wn. App. 387, 390 (1986)	5
Ullamcorp v. Dignissim, 58 Wn. 2d 243 (1961)	3

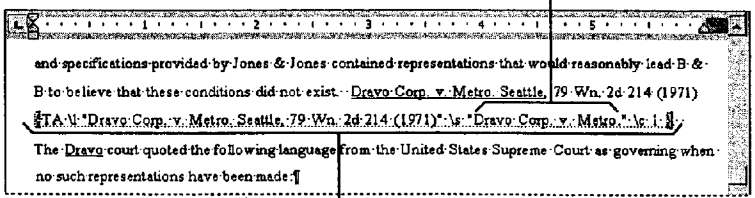
Word can automatically update the page numbers in the table of authorities.

MS 114340

Make Changes to a Table of Authorities

Edit the entries Before you make any changes, display paragraph marks (if they aren't displayed already) by clicking the **Show/Hide ¶** button.

To edit an entry in a table of authorities, edit the text within the quotation marks.



To delete an entry, select the entire entry, including the braces, and then press DELETE or BACKSPACE.

Update the table To have the table of authorities reflect editing changes, click the table of authorities, and then press F9.

Next Steps

To	See
See additional information on legal writing	"Create a Legal Contract," page 611
Fax your pleading to a client	"Create a Fax Cover Sheet and Send a Fax," page 192
Get comments on the pleading	"Have Your Team Review a Word Document," page 406
Change the formatting	"Make Your Word Document Look Great," page 127

MS 114341

Create a Legal Contract

Use Word to Create Legal Documents

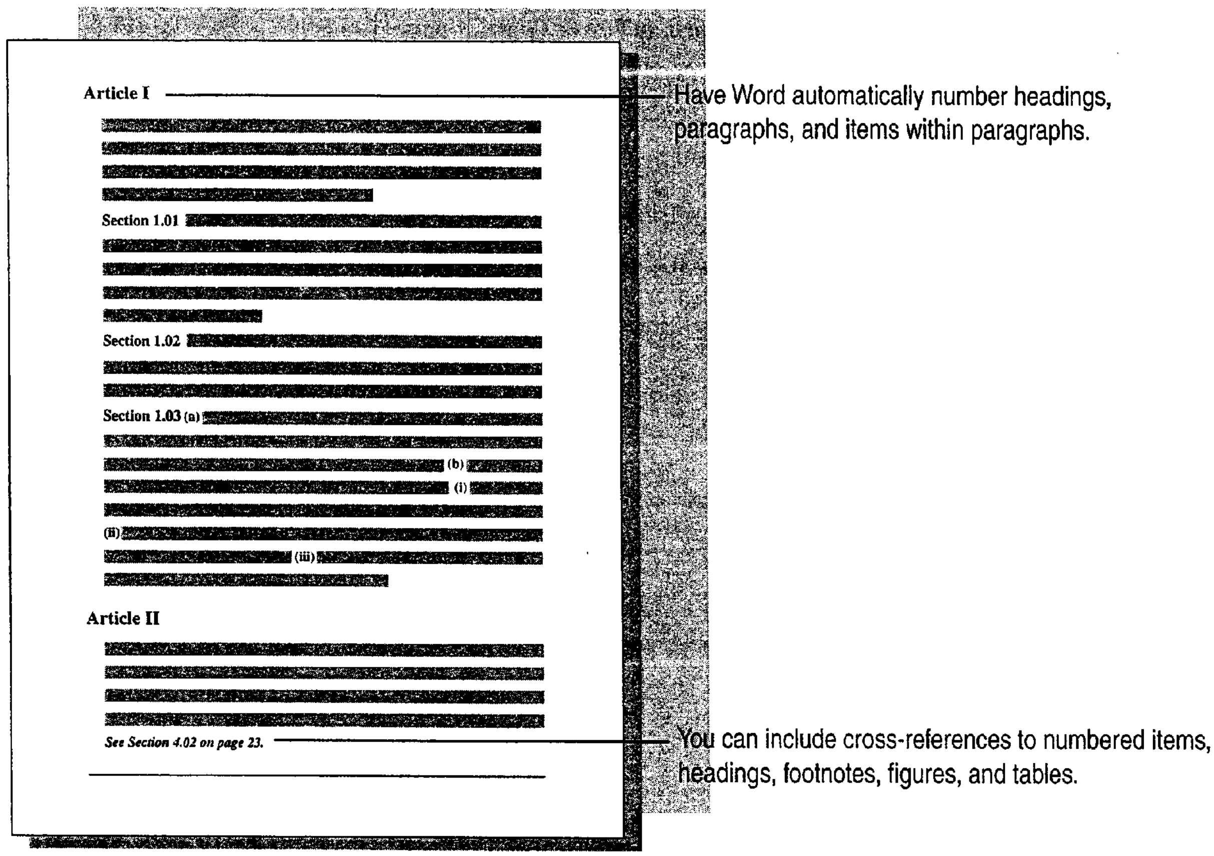
Whether you are writing a contract or corporate bylaws, Word provides tools to help you create the document efficiently.

For example, you can add numbering to headings, paragraphs, or items within a paragraph. You can also add cross-references to numbered paragraphs and to items located elsewhere in the document. Word keeps track of the page numbers for you so that you don't have to manually update the cross-references.

Key Features

Numbering Paragraphs

Cross-References

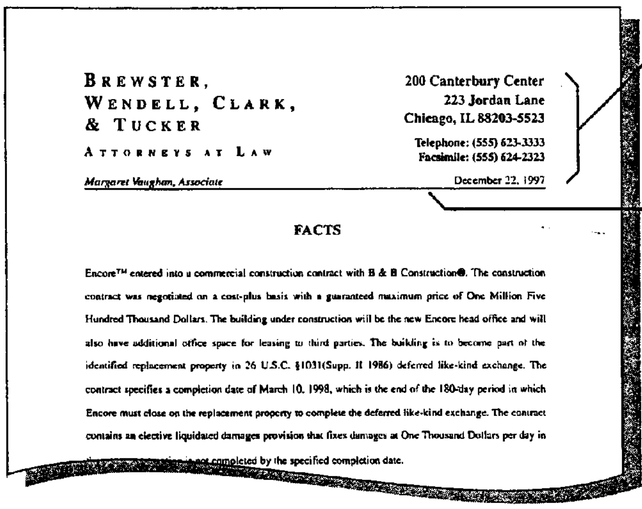


Create and Format the Contract

Chances are you'll want to begin the contract by revising an existing one or by using your firm's template. Open the contract by clicking **Open** (**File** menu). If you want to start from scratch, want to use an existing template, or want to create a new template, click **New** (**File** menu). For more information on templates, see "About Creating and Opening Documents and Databases," page 48.

If you start from scratch, type or insert basic elements, such as your firm's name and logo. Then create standard headers and footers for the document. Click **Header and Footer** (**View** menu), and type the text. Use the buttons on the **Header and Footer** toolbar to insert the elements you want. For more information on formatting your document, see "Make Your Word Document Look Great," page 127, and "Create a Pleading," page 604.

Switch Between Header And Footer button



BREWSTER,
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223 Jordan Lane
Chicago, IL 88203-5523
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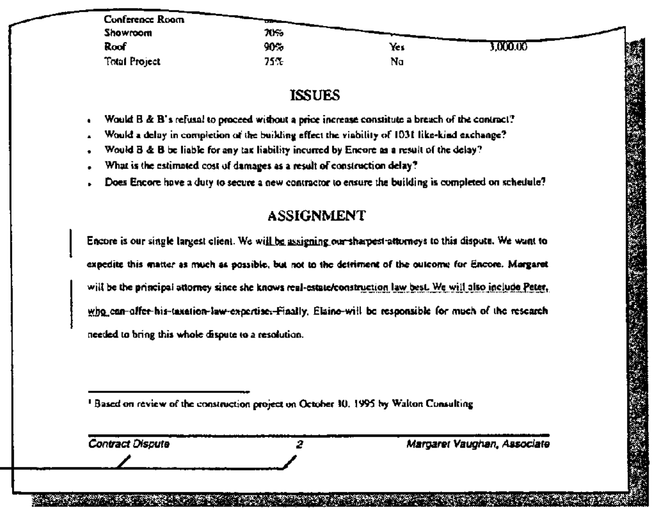
Margaret Vaughan, Associate December 22, 1997

FACTS

Encore™ entered into a commercial construction contract with B & B Construction®. The construction contract was negotiated on a cost-plus basis with a guaranteed maximum price of One Million Five Hundred Thousand Dollars. The building under construction will be the new Encore head office and will also have additional office space for leasing to third parties. The building is to become part of the identified replacement property in 26 U.S.C. §1031(Supp. II 1986) deferred like-kind exchange. The contract specifies a completion date of March 10, 1998, which is the end of the 180-day period in which Encore must close on the replacement property to complete the deferred like-kind exchange. The contract contains an elective liquidated damages provision that fixes damages at One Thousand Dollars per day in ... completed by the specified completion date.

Use a table to align text elements. To insert a table, click the **Insert Table** button and then drag to select the number of rows and columns. Then type the text in the table.

Add a line by clicking the **Borders** button and then select the kind of line style and border you want.



Conference Room			
Showroom	70%		
Roof	90%	Yes	3,000.00
Total Project	75%	No	

ISSUES

- Would B & B's refusal to proceed without a price increase constitute a breach of the contract?
- Would a delay in completion of the building effect the viability of 1031 like-kind exchange?
- Would B & B be liable for any tax liability incurred by Encore as a result of the delay?
- What is the estimated cost of damages as a result of construction delay?
- Does Encore have a duty to secure a new contractor to ensure the building is completed on schedule?

ASSIGNMENT

Encore is our single largest client. We will be assigning ~~our sharpest attorneys~~ to this dispute. We want to expedite this matter as much as possible, but not to the detriment of the outcome for Encore. Margaret will be the principal attorney since she knows real-estate/construction law best. We will also include Peter, who ~~can offer his taxation law expertise. Finally, Elaine~~ will be responsible for much of the research needed to bring this whole dispute to a resolution.

[1] Based on review of the construction project on October 10, 1995 by Walton Consulting

Contract Dispute 2 *Margaret Vaughan, Associate*

The footer can include the contract title and page number.

MS 114343

Create a template you can use next time See "Save Your Own Documents as Templates," page 52.

Insert boilerplate text To make it easy to add boilerplate text from other legal documents, display the **AutoText** toolbar by clicking **AutoText** (**View** menu, **Toolbars** submenu). For more information on using AutoText entries, see "Make Writing Easier," page 231.

Want to know more? Look up **Getting Results - Legal Contract** in Help.

Office Assistant button

MS 114344

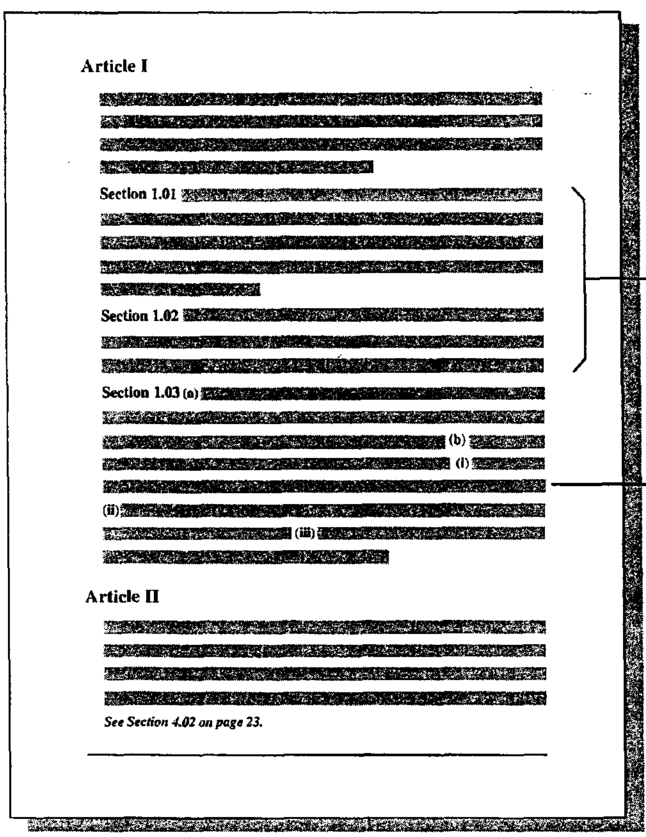
Add Numbering to Headings and Paragraphs

You can apply numbering to headings, paragraphs, and items within a paragraph. You can also mix levels of numbers, such as Section 1.01 (i).

Headings If you apply built-in heading styles, such as Heading 1, to headings in your document, you can have Word automatically number them. Click **Bullets and Numbering** (**Format** menu). On the **Outline Numbered** tab, click the format you want.

Paragraphs Use the same procedure as for numbering headings. If the font and formatting of the heading style is not what you want, you can redefine the heading style by clicking **Style** (**Format** menu). In the **Styles** box, select the style you want to change, and then click the **Modify** button.

Items within a numbered paragraph To include multiple outline numbers in a single line, such as Section 1.01 (i), use the ListNum field. Click in front of the first item you want to number, and then press ALT+CONTROL+L. Repeat for each item you want to number.



To include numbered headings like these, select a format on the **Outline Numbered** tab of the **Bullets and Numbering** dialog box (**Format** menu).

To include different numbering levels on the same line or in the same paragraph, use the ListNum field by pressing ALT+CONTROL+L.

Continue a numbered list across unnumbered paragraphs If you have unnumbered paragraphs in a list, you can still have a continuously numbered list. Select the item with which you want to continue numbering. Click **Bullets and Numbering** (**Format** menu). On the **Numbered** tab, click **Continue previous list**.

Change the numbering format used in the ListNum field To change the format from (i) to (a), for example, select the ListNum field, and then click the **Increase Indent** button or **Decrease Indent** button to see a list of options.

Increase Indent button

Decrease Indent button

Want to know more? Look up **Getting Results - Legal Contract** in Help.

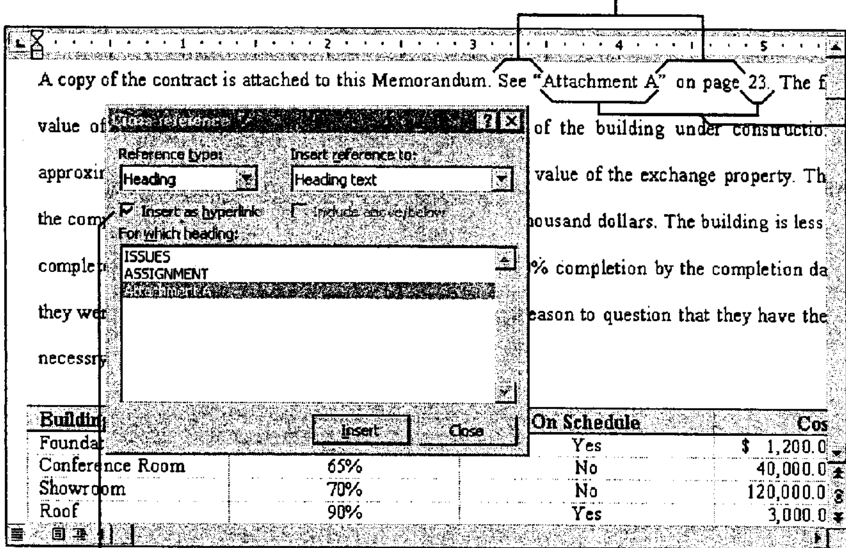
Office Assistant button

MS 114346

Add Automatic Cross-References

When you want readers to be aware of information in other parts of your contract, include the title, the paragraph number, the page number, or all three, so that readers can find the information quickly. Word can automatically add cross-references to many elements in your document: headings with built-in heading styles, numbered headings and paragraphs, footnotes, and figures and tables with captions.

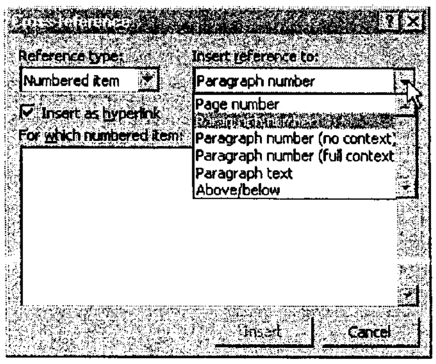
Just type the text for the cross-reference in your document. For example, type **See "** and then click **Cross-Reference** (**Insert** menu). Type the closing quotation mark, and then type **on page** if you want to add the page reference.



Need to update page numbers in cross-references? Select your document by clicking **Select All** (**Edit** menu), and then press F9.

Add Cross-References to Numbered Paragraphs

You can add cross-references to numbered paragraphs, numbered headings, and even numbered items in a paragraph. In the **Cross-Reference** dialog box, select **Numbered Item** from the **Reference type** list. From the **Insert reference to** list, select the numbering option that you want.



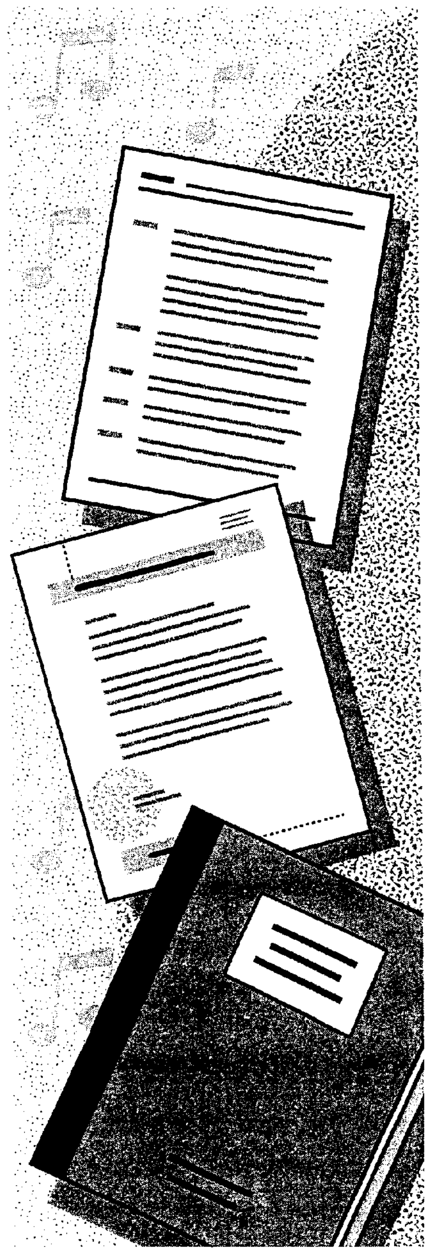
Next Steps

To	See
Fax the document to a client	"Create a Fax Cover Sheet and Send a Fax," page 192
Get comments on the document	"Have Your Team Review a Word Document," page 406
Change the formatting	"Make Your Word Document Look Great," page 127

MS 114348

PART 16

The Home Office



Contents

MS 114349

Create a Resume and Cover Letter

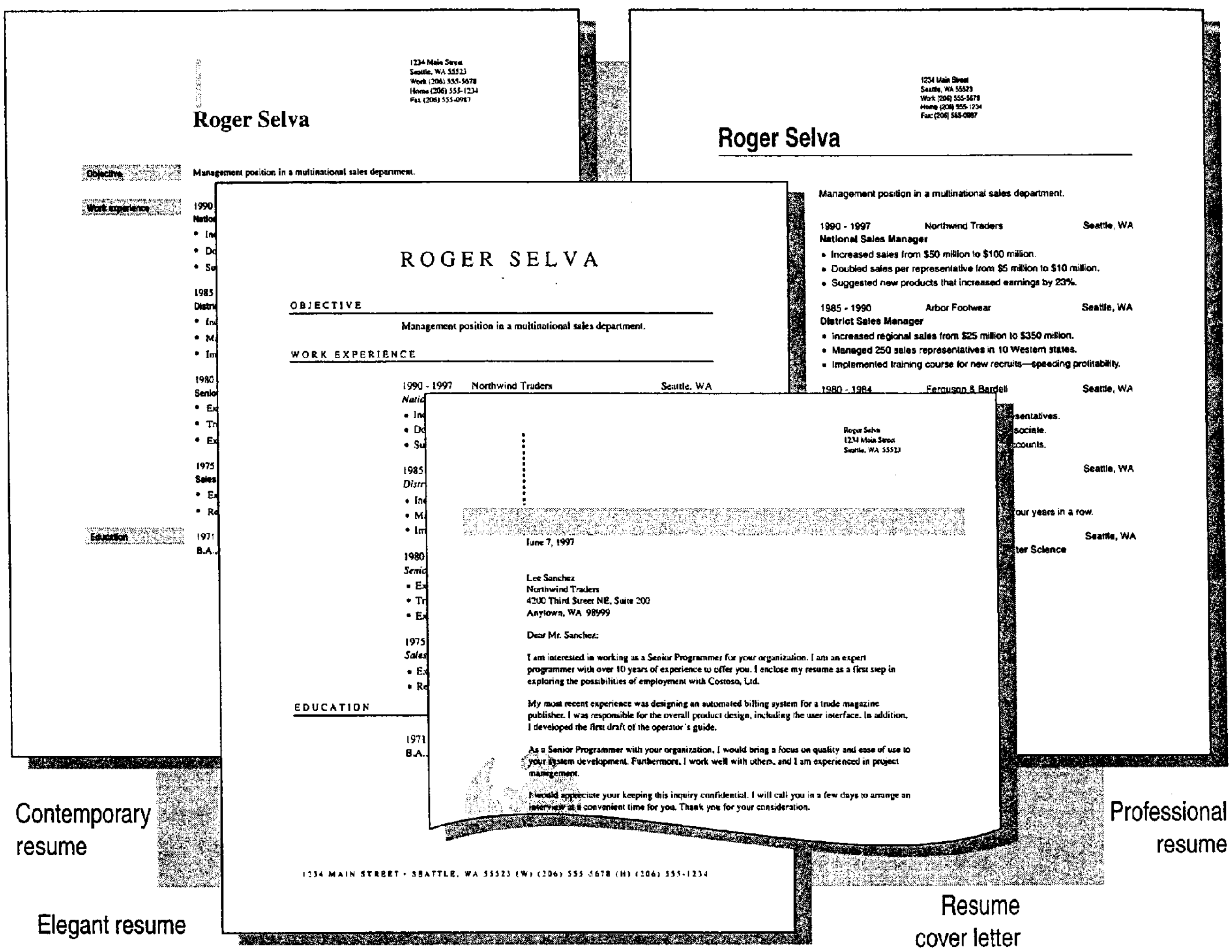
a.k.a. Curriculum Vitae or CV

Creating a resume from scratch may be the first step in your job search. Or you might want to create an online version of your resume so you can update it easily or send it via fax or e-mail. Whatever the reason, you need a resume that stands out from the rest.

The Resume Wizard and resume templates help you create a resume that highlights your skills and experiences. You can also produce a cover letter and matching envelope.

Key Features

Resume Wizard



Contemporary resume

Elegant resume

Resume cover letter

Professional resume

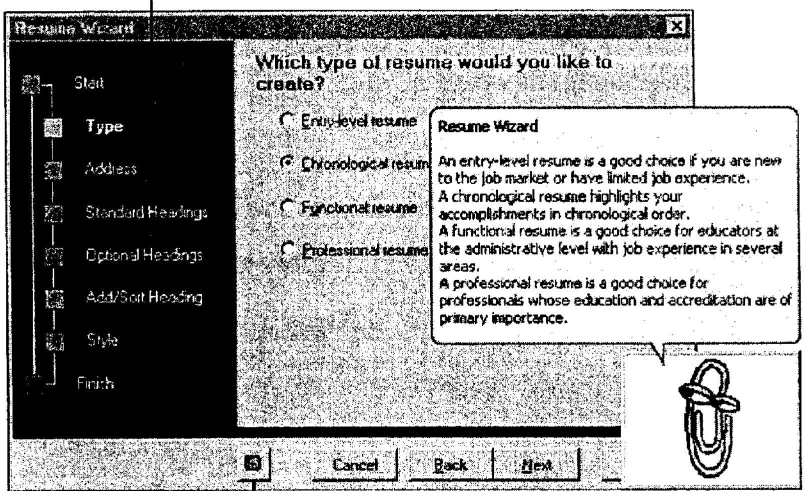
MS 114350

Use the Resume Wizard to Get Started

To start the Resume Wizard, click **New** (**File** menu). On the **Other Documents** tab, double-click **Resume Wizard**. In English versions of Word distributed outside the U.S. and Canada, the Resume Wizard is called the Curriculum Vitae Wizard.

The Resume Wizard walks you through a series of steps in which you add or select information to set up the basic content and layout of the resume. When you click **Finish**, the new resume appears. All you need to do is fill in the details.

The Resume Wizard provides a road map of what you will complete to create a resume.



Click this button to get Help from the Office Assistant.

Need a cover letter or want to send your resume by fax or e-mail? Immediately after you create a resume with the wizard, the Office Assistant gives you these options. Just click the option you want. For more information, see "Write a Cover Letter," page 624.

Don't like the style of your resume? If you want to change your resume right after you've created it, it's very easy. Immediately after you create a resume with the wizard, the Office Assistant gives you several formatting options, such as changing the style or shrinking the resume to fit on a page. Just click the option you want.

Use a resume template If you want an attractive, ready-to-fill-in resume, use one of the resume templates. Click **New**. On the **Other Documents** tab, double-click the resume template you want.

MS 114351

Add Your Information to the Resume

Since you'll probably be following the same formatting for entries, under Work Experience for example, here are some suggestions to make it quicker and easier to add information:

Show table gridlines The resume that the wizard helped you create is set up as a table. Tables make it easy to align information. If the table gridlines aren't already showing, click **Show Gridlines** (**Table** menu). The gridlines make it easier for you to select, copy, add, or delete the contents of a row or cell, but they won't show up when you print the resume.

Copy the contents of a row Select a row or rows, click the **Copy** button, click where you want to insert the information you've copied, and then click the **Paste** button.

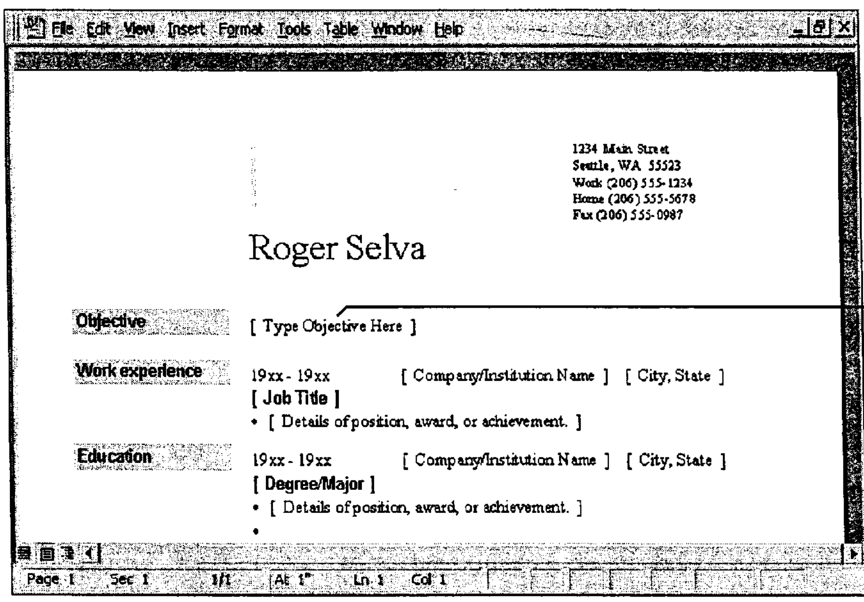
Copy button

Paste button

Add a row to a table Position the insertion point in the row that you want to be below the new row, and then click the **Insert Rows** button.

Insert Rows button

Add a row to the end of a table Position the insertion point in the last cell of the last row, and then press TAB.



Click or select the sample text, and then type your own information.

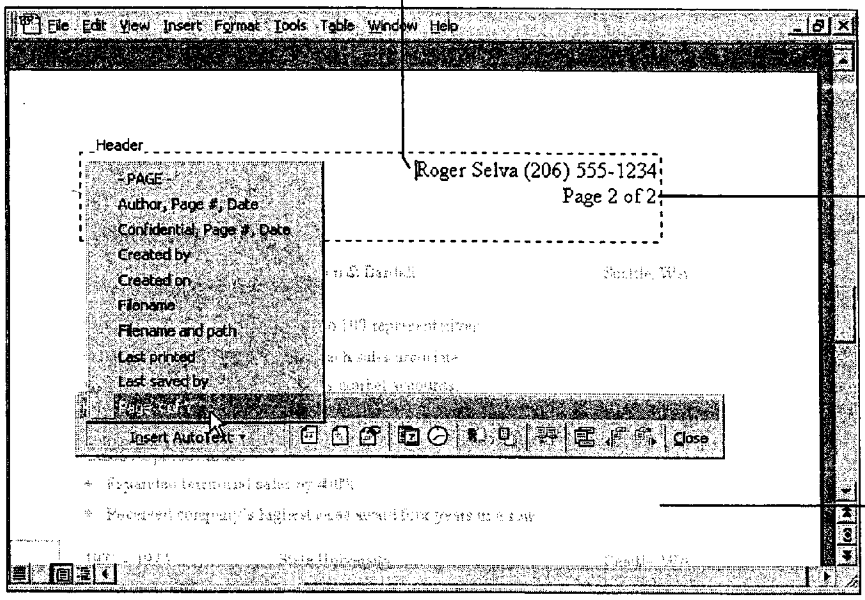
MS 114352

Add a Second Page—or More

If you decide to include multiple pages, you can add your name, phone number or e-mail address, and the page number to the top of each page. That way, a prospective employer can easily tell if pages are missing or out of order.

Click **Header and Footer** (**View** menu) to display the **Header and Footer** toolbar. If necessary, click the **Show Next** button on the **Header and Footer** toolbar to switch to the header for the second and subsequent pages.

Type your name, phone number, and/or e-mail address.



To insert the page number and the total number of pages, click the **Insert AutoText** button on the **Header and Footer** toolbar and then click **Page X of Y**.

When you finish, double-click in the main document.

Like the result—and want to use it to start your next resume? Save your resume as a template. Click **Save As** (**File** menu), and then select **Document Template** in the **Save as type** box.

Want to know more? Look up **Getting Results - Resume** in Help.

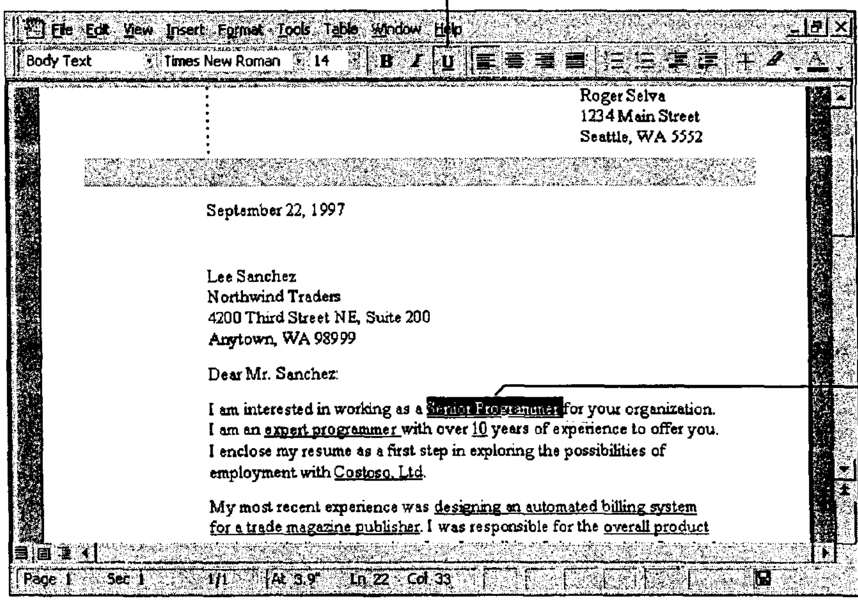
Office Assistant button

MS 114353

Write a Cover Letter

Grab a prospective employer's attention by including a polished, professional cover letter that tailors your skills and achievements to the job description. To get a head start on your cover letter, use the sample that the Office Assistant provides. Select **Add a cover letter** from the options that the Assistant gives you after you create your resume.

To remove the underlining, select the text and then click the **Underline** button.



Select the underlined text, and then type over it.

Did you create a cover letter before filling in your resume? Use the **Window** menu to switch to it and edit the contents. Otherwise, use the Letter Wizard. Start your letter by typing **Dear** followed by a name, and then press ENTER. The Assistant will ask if you want help writing a letter. For more information, see "Write a Business Letter," page 184.

Record the employer's address for follow-up correspondence Use your Microsoft Exchange personal address book or Outlook contact list. For more information, look up **Getting Results - Resume** in Help.

Send your resume via fax or e-mail Immediately after you create a resume, the Office Assistant gives you the **Send resume to someone** option. Click it, and then specify how you want the resume sent. If you decide to fax your resume, the Fax Wizard appears. If you decide to e-mail your resume, a message is opened and your resume is attached.

Print an envelope With the cover letter on the screen, click **Envelopes and Labels** (**Tools** menu). Change any options you want, insert the envelope into the printer as shown in the **Feed** box, and then click **Print**.

Next Steps

To	See
Add even more visual impact	"Make Your Word Document Look Great," page 127
Fax a copy of your resume	"Create a Fax Cover Sheet and Send a Fax," page 192
Send a copy of your resume in an e-mail message	"Distribute Documents Online," page 396
Schedule an interview	"Schedule an Appointment," page 383
Write follow-up correspondence	"Write a Business Letter," page 184
Keep track of contacts	"Manage Contacts with Outlook," page 348
	"Create a Business Contact List in Microsoft Excel," page 353
	"Track Your Business Contacts in Microsoft Access," page 360

MS 114355

Catalog Your Music Collection

If you have a large collection of CDs, tapes, and albums, you can create a database to catalog your collection and make individual selections or artists easier to find. Use the Microsoft Access Database Wizard to create the database. Then, when you need to find recordings by a particular artist or to print a list of your entire CD collection, just specify in your search the information you need.

Key Features

Database Wizard

Filter by Form

Filter by Selection

To complete the steps in this topic you need Microsoft Office, Professional Edition or an individual copy of Microsoft Access installed.

MS 114356

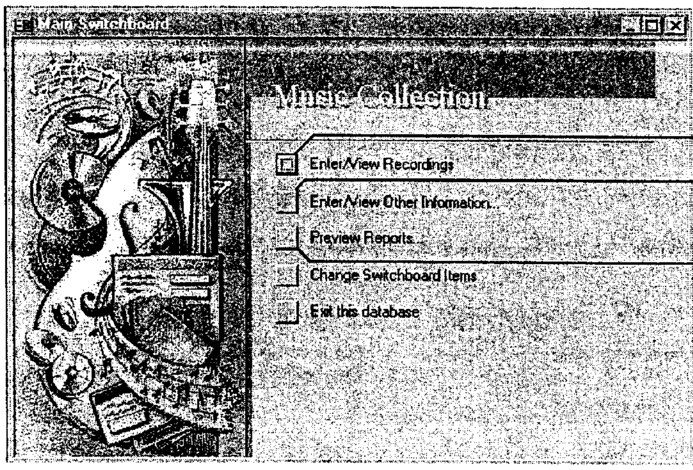
ARENDI-DEFS00002066

Create a Music Database

With the Database Wizard, you can create everything you need to catalog your music collection, so that you can find the information you want. To use the wizard, start Microsoft Access, click **Database Wizard**, and on the **Databases** tab, double-click **Music Collection**. Or, if you've already started Microsoft Access, click the **New Database** button, and on the **Databases** tab, double-click **Music Collection**. Then, follow the instructions in the wizard. If you want ideas on how to catalog your music collection, select the sample data option.

New Database button

The Database Wizard creates everything you need to catalog and search your music database, including a switchboard for opening forms, tables, and reports.



Click here to store information about recordings.

Click here to store information about specific artists or music categories.

Click here to preview reports by artist, category, format, or track.

Want to create a new database without using the Database Wizard? Click the **New Database** button, and on the **General** tab, click **Blank Database**.

Set up other types of databases with the Database Wizard You can use the Database Wizard to create many types of databases for business and personal use, including databases for tracking business contacts and cataloging valuable household items. For more information on creating a database to catalog household items, see "Record Your Home Assets," page 631.

Want to know more? Look up **Getting Results - Music** in Help.

Office Assistant button

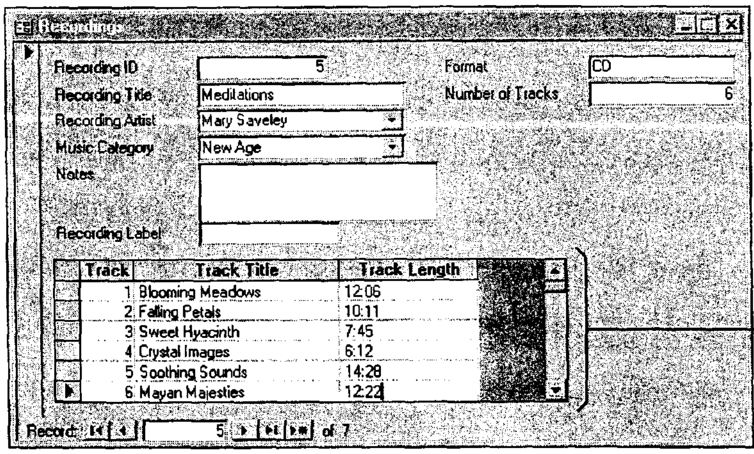
MS 114357

Add Information About Your Music Collection

Now you're ready to add information about your music collection to the new database. You'll enter most of the information you need on the Recordings form.

On the Music Collection switchboard, click **Enter/View Recordings**. If you selected the sample data option when the Database Wizard created the database, you can use this data as an example of what to enter in each field.

Use the Recordings form to store details about each CD, tape, or album in your collection.



Use the Track subform to store details about individual selections from a CD, tape, or album.

Want to track additional details about artists and music categories?
On the switchboard, click **Enter/View Other Information**, and then use the Recording Artists and Music Categories forms.

MS 114358

ARENDI-DEFS00002068

Find Selections by Your Favorite Artist

Now, if you want to hear something by your favorite artist, you can search your database quickly for a list of that artist's selections. Use the **Filter by Form** button to narrow your search.

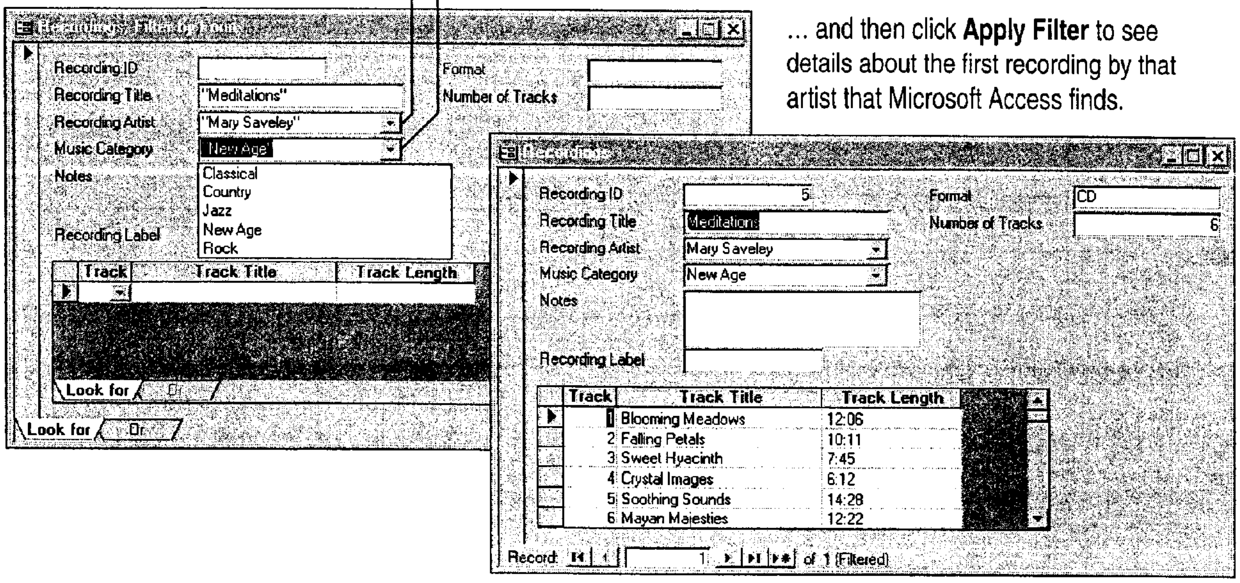
On the Music Collection switchboard, click **Enter/View Recordings**. Click the **Filter by Form** button, and then select the details you want to search for.

Filter by Form button

Choose your favorite artist ...

... and the music category ...

... and then click **Apply Filter** to see details about the first recording by that artist that Microsoft Access finds.



Review all records after filtering Each time you begin a search, click the **Remove Filter** button first, so that Microsoft Access looks through all the records in the database.

Remove Filter button

Find all works by a particular artist or all albums in a particular category In the Recordings form, select the data in the field that contains the information you want (for example, "Chopin," in the Artist field), and then click the **Filter by Selection** button.

Filter by Selection button

Want to find data that meets either of two criteria? For example, to find recordings by either Beethoven or Chopin, click the **Filter by Form** button, click the field that contains Beethoven's name, click the arrow that appears to the right of that field, and then select Beethoven's name from the list of artists. Click the **Or** tab and then click the arrow that appears to the right of the field that contains Chopin's name. Select Chopin's name from the list of artists and then click the **Apply Filter** button.

Filter by Form button

MS 114359

Next Steps

To	See
Create your own database without using wizards	"Design a Custom Inventory Database," page 492

MS 114360

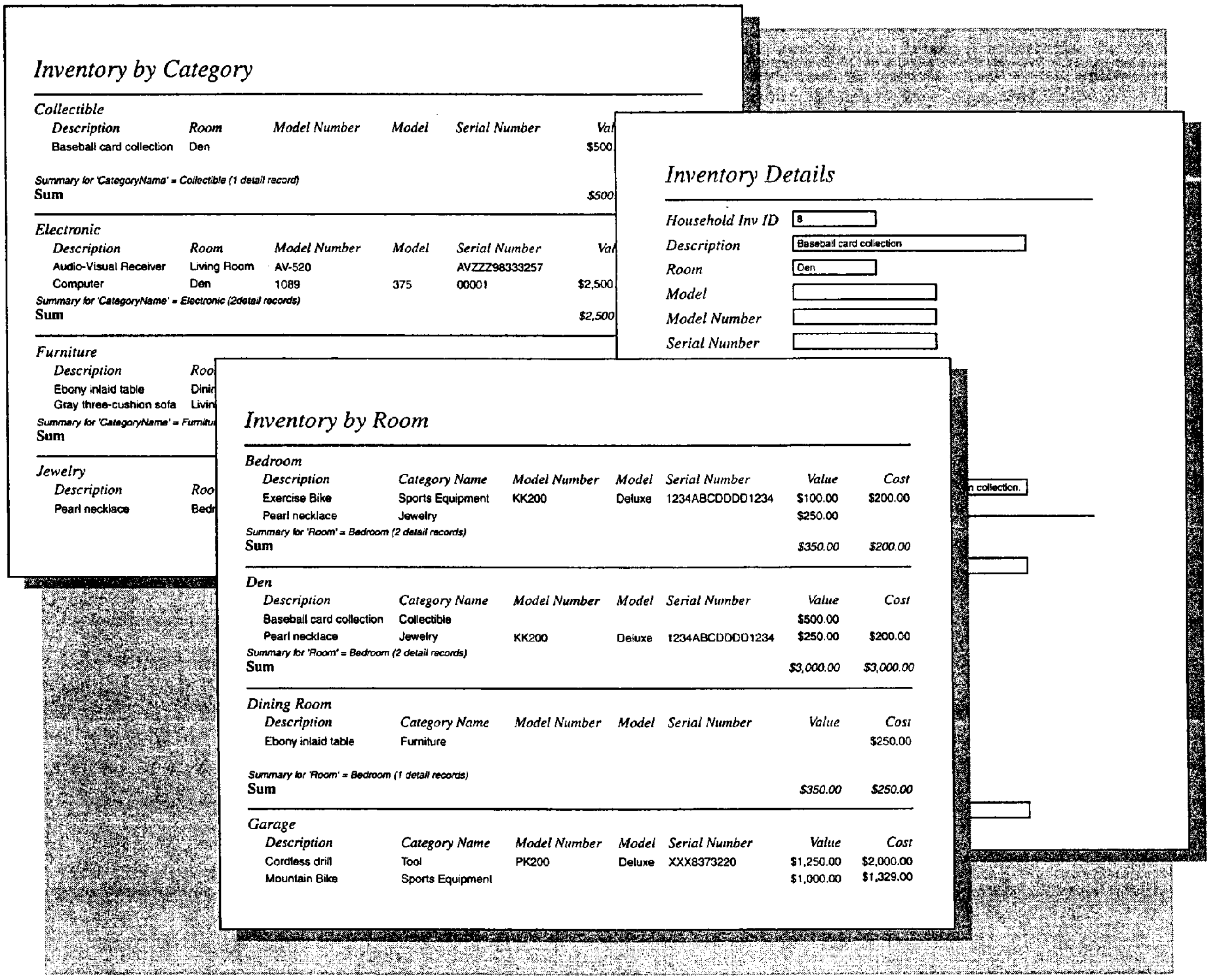
Record Your Home Assets

Do you need to keep track of valuable household items for insurance or inheritance purposes? You can use Microsoft Access to catalog furniture, art, and other assets. When you add this information to a database, you have an inventory of all your assets in one location that's easy to update.

Key Features

Database Wizard

Use Microsoft Access to organize your household inventory and print several types of reports.



MS 114361

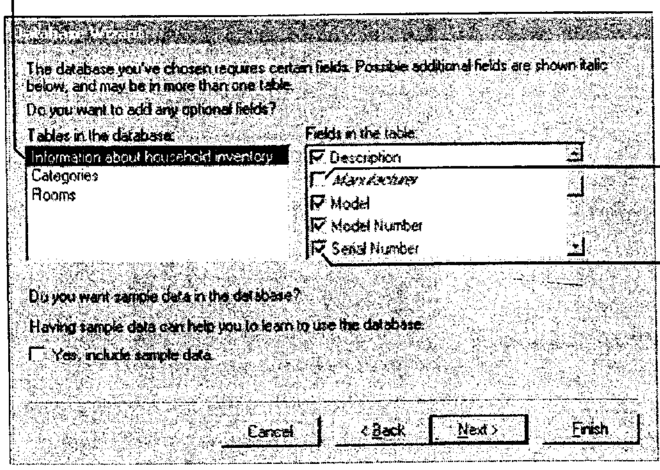
Create a Household Inventory Database

Use the Database Wizard to quickly create a database with the information you need to record your home assets.

To use the wizard, start Microsoft Access, click **Database Wizard**, and on the **Databases** tab, double-click **Household Inventory**. Follow the instructions in the wizard to create the tables, forms, and reports you need to catalog your household assets. If you want to see the types of information that you can include in your database, select the sample data option.

The Database Wizard creates all the fields you need to catalog your household assets.

Click to select a table. All the fields associated with that table are displayed in the adjacent list.



Optional fields are in italics. Select an optional field to add it to the database.

Clear a selected field to remove it from the database.

? **Want to know more?** Look up **Getting Results - Home Assets** in Help.

Office Assistant button

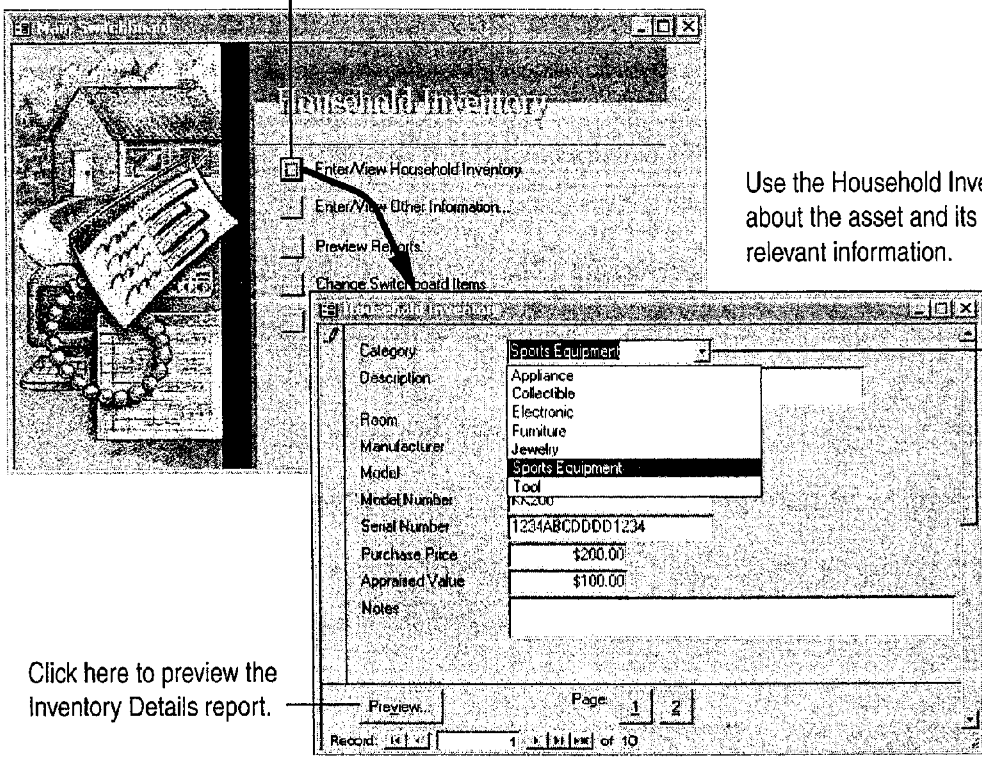
MS 114362

ARENDI-DEFS00002072

Record Assets in the Database

After you create the database, you're ready to add information about your household items. On the Household Inventory switchboard, click **Enter/View House Inventory** to type your data.

Click here to add information to the database.



Use the Household Inventory form to add details about the asset and its location, and any other relevant information.

Click here to select a category for the asset.

Click here to preview the Inventory Details report.

Add additional categories to the database On the Household Inventory switchboard, click **Enter/View Other Information**, and then click **Enter/View Categories** to modify or add new categories to the database.

Print an inventory report organized the way you want On the switchboard, click **Preview Reports**, and then select an option to preview the items in your database. Items can be organized by asset, by value, by category, or by contents per room. When you're ready to print a report, click **Print**.

Print button

Next Steps

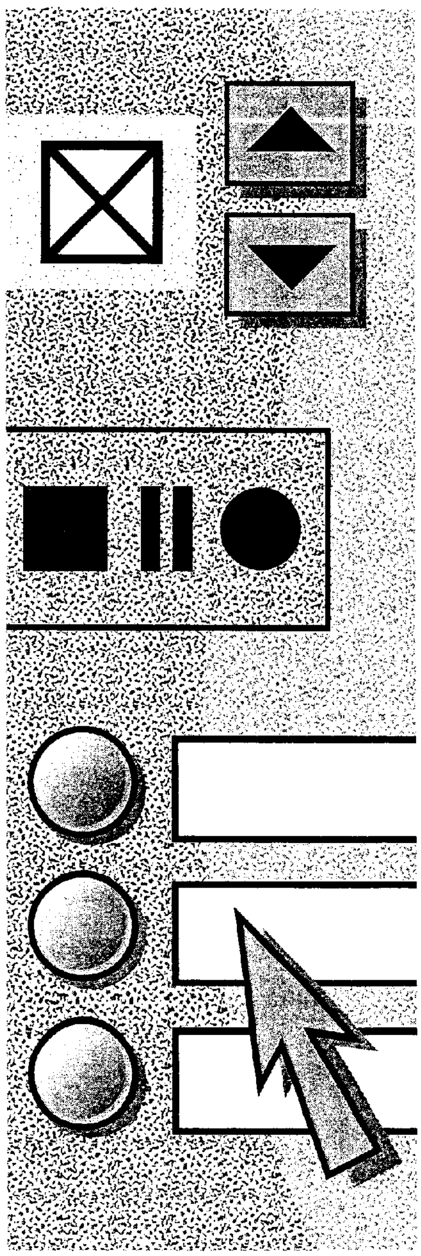
To	See
Use a filter to search for specific items in your database	"Catalog Your Music Collection," page 626

MS 114363

PART 17

Automate and Program Office

Contents



MS 114364

Customize Office

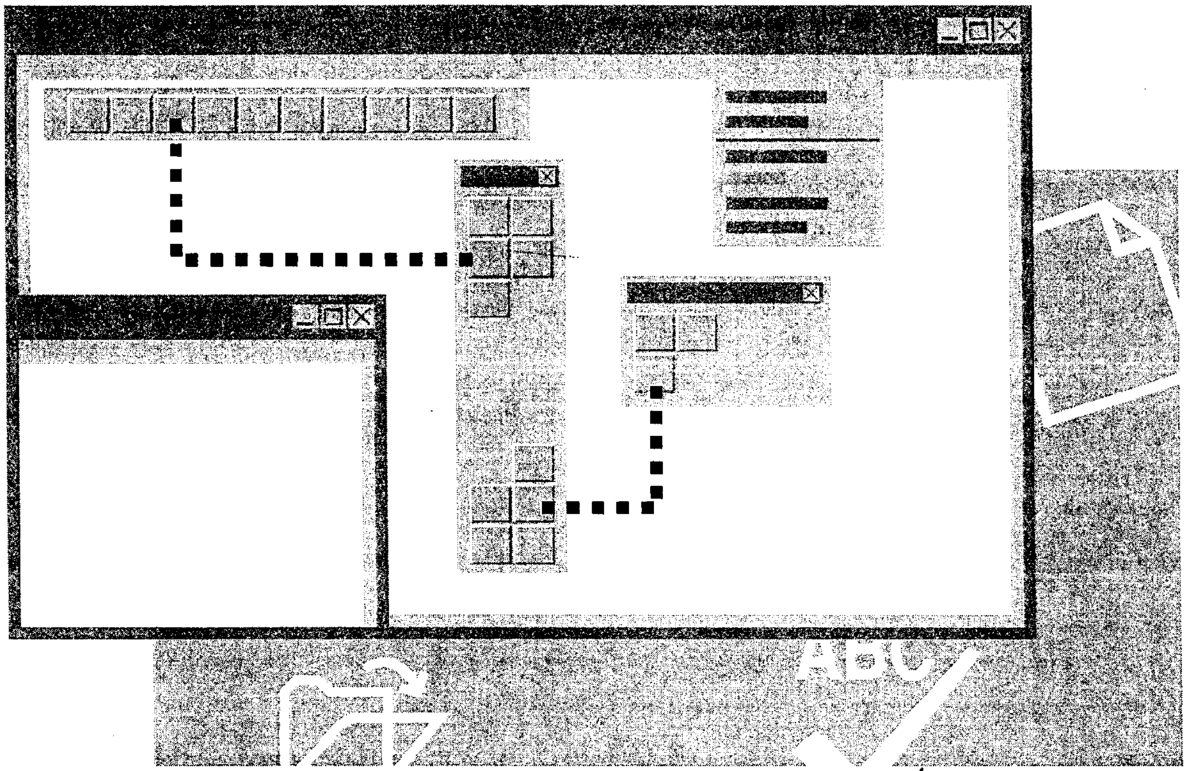
Rearrange Your Work Environment to Suit Your Working Style

When you move into a new office, the first thing you do is adjust things the way you want them: You hang pictures, adjust your chair height, and rearrange the furniture.

You can customize Office applications to match your working style as well. Change the way your screen looks and which elements are displayed, add buttons to toolbars, add commands to menus, or create your own toolbars and menus.

For quick access to commands you use frequently, add a toolbar button ...

... or add a command to a menu.



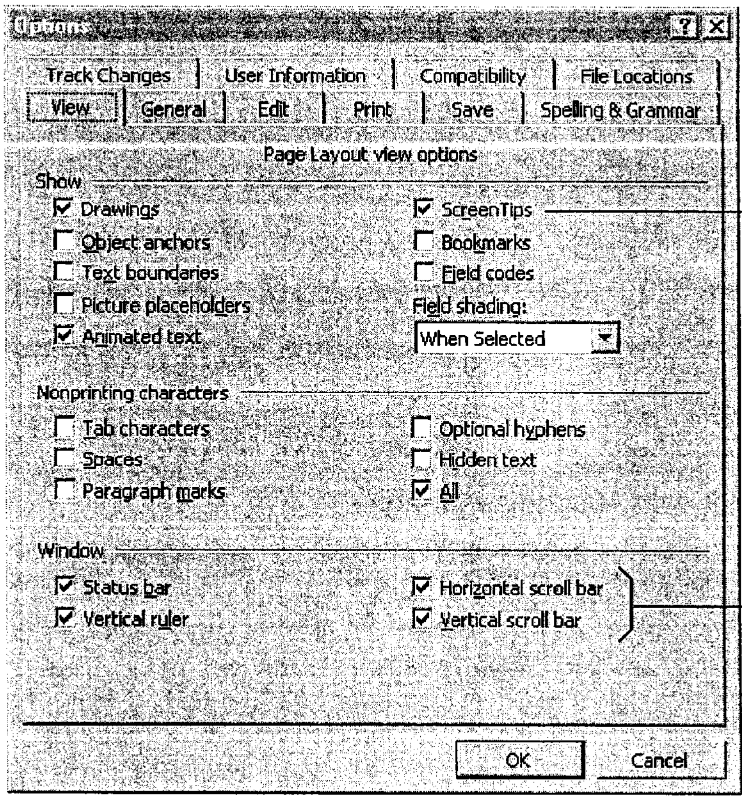
MS 114365

Adjust Your Screen Workspace

Perhaps the easiest way to customize Office applications is to adjust the amount of screen area available for your work. One way to make more screen area available is to hide toolbars that you don't need. Click **Toolbars** (**View** menu). Toolbars with a check mark next to them appear on screen; from these, click the ones you want to hide.

For Help on dialog box options, click this button and then click the option.

In each Office application, you can also select specific screen elements to hide or display by clicking **Options** (**Tools** menu). On the **View** tab, set the options you want.



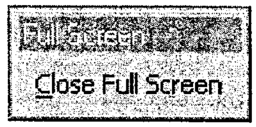
These are the view options for page layout view in Microsoft Word.

Selected check boxes indicate items that appear on the screen.

Clear these check boxes to gain more space on the screen.

MS 114366

Maximize the screen area in Microsoft Excel and Microsoft Word Click **Full Screen** (**View** menu) to remove everything except your workbook or document. To access commands on the menu bar, point to the top of the screen and then click the command you want. To return to the previous view, click the **Close Full Screen** button.

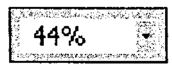


Close Full Screen button

Save and print different views in Microsoft Excel Click **Custom Views** (**View** menu) to create different views of a worksheet or workbook so that you can see your data with different display options. You can display, print, and store different views without saving them as separate sheets.

Want to view your file without the dots, lines, and paragraph marks? In Word, PowerPoint, and Microsoft Excel, you can determine which nonprinting elements (such as spaces, gridlines, page breaks, field codes, and formulas) you want displayed. Click **Options** (**Tools** menu), and on the **View** tab, set the options you want.

Is the text on your screen too small? Use the **Zoom** box to magnify the display up to 400 percent for easy reading. In Microsoft Access, make sure you are in the print preview or layout preview view.



Zoom box

Customize the Office Assistant If you choose to display the Assistant while you're working, you can change the way in which the Assistant appears on the screen. You can also customize the kind of help that the Assistant provides. For more information, see "For Help, Ask the Office Assistant," page 38.

Want to know more? Look up **Getting Results - Customize Office** in Help.

Office Assistant button

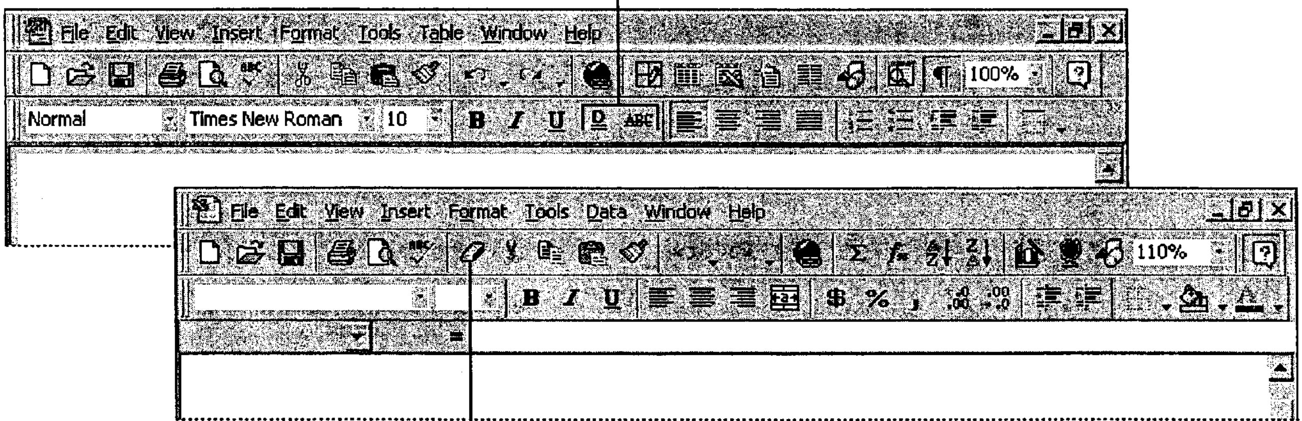
Customize a Toolbar with Your Favorite Buttons

Just as you place items you use often close at hand, you can put your favorite toolbar buttons where you want them. You also can rearrange buttons and remove those you don't use.

For Help on dialog box options, click this button and then click the option.

To add a button to a toolbar, click **Customize** (**View** menu, **Toolbar** submenu). If the toolbar you want to add the button to isn't displayed, click the **Toolbars** tab, and then click the toolbar you want to change. On the **Commands** tab, select the appropriate category, and then drag the command to the toolbar.

In Word, the **Double Underline** and **Strikethrough** buttons were added to the **Formatting** toolbar.



In Microsoft Excel, the **Clear Contents** button was added to the **Standard** toolbar.

MS 114368

ARENDI-DEFS00002078

Guidelines for Working with Toolbar Buttons and Toolbars

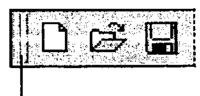
When the **Customize** dialog box is open, you can make a variety of changes to customize toolbars (you can even make some changes without setting options).

Move or delete a toolbar button With the **Customize** dialog box open, drag the button to the new location on the toolbar to move it, or drag it off the toolbar to delete it.

Want larger toolbar buttons? With the **Customize** dialog box open, on the **Options** tab, select the **Large icons** check box.

Display shortcut keys with ScreenTips for toolbar buttons With the **Customize** dialog box open, on the **Options** tab, select the **Show shortcut keys in ScreenTips** check box.

Move a toolbar to another location Click the move handle on a docked toolbar, or click the title bar on a floating toolbar. Then drag the toolbar to a new location.



Want to undo changes to a built-in toolbar? With the **Customize** dialog box open, on the **Toolbars** tab, select the toolbar you want to change, and then click **Reset**.

Move or delete buttons when the Customize dialog box isn't open Hold down ALT, and then drag the button to a new location or off the toolbar.

Create a custom toolbar With the **Customize** dialog box open, on the **Toolbars** tab, click the **New** button, and then type a name for the toolbar. On the **Commands** tab, select a category and drag a command to the toolbar.

Want to know more? Look up **Getting Results - Customize Office** in Help.

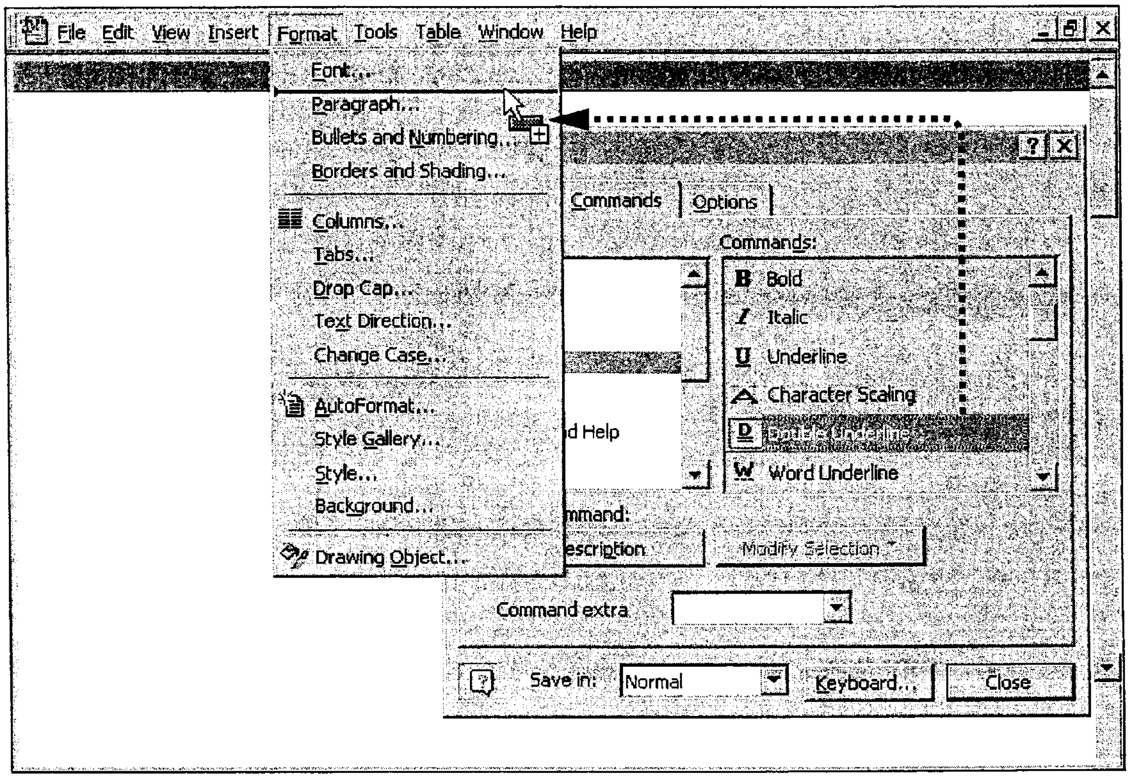

Office Assistant button

Modify Menus and Commands

In your toolbox at home, the tools you use most often tend to end up at the top of the box. In your Office toolbox, you can make it easy to find the menus and commands you use often. Customize existing menus by adding or removing commands, or you can create your own menus.

To add a command to a menu, click **Customize** (**Tools** menu). On the **Commands** tab, select a category.

Drag a command from the **Commands** box to the menu to which you want to add the command. When the menu displays, point to the location where you want the command to appear, and then release the mouse button.



MS 114370

Guidelines for Working with Menu Commands and Menus

Move or delete a menu command With the **Customize** dialog box open, click the menu that contains the command. Drag the command to the new location to move it, or drag it off the menu to delete it.

Create a custom menu With the **Customize** dialog box open, on the **Commands** tab, click **New Menu** in the **Categories** box. Drag **New Menu** from the **Commands** box to where you want the new menu to appear. Right-click the new menu, click in the **Name** box, and then type a name for the new menu. To add a command to the menu, select a category. Drag the command to the new menu, continue holding down the mouse button until the blank list for that menu appears, and then drag the command into the blank list.

Want to undo changes to a menu? With the **Customize** dialog box open, right-click the menu you want to restore, and then click **Reset** on the shortcut menu.

Next Steps

To	See
Create a macro and add it to a menu or toolbar	"Automate Repetitive Tasks," page 643
Customize the Microsoft Office Shortcut Bar	"Take a Shortcut to Work," page 44

MS 114371

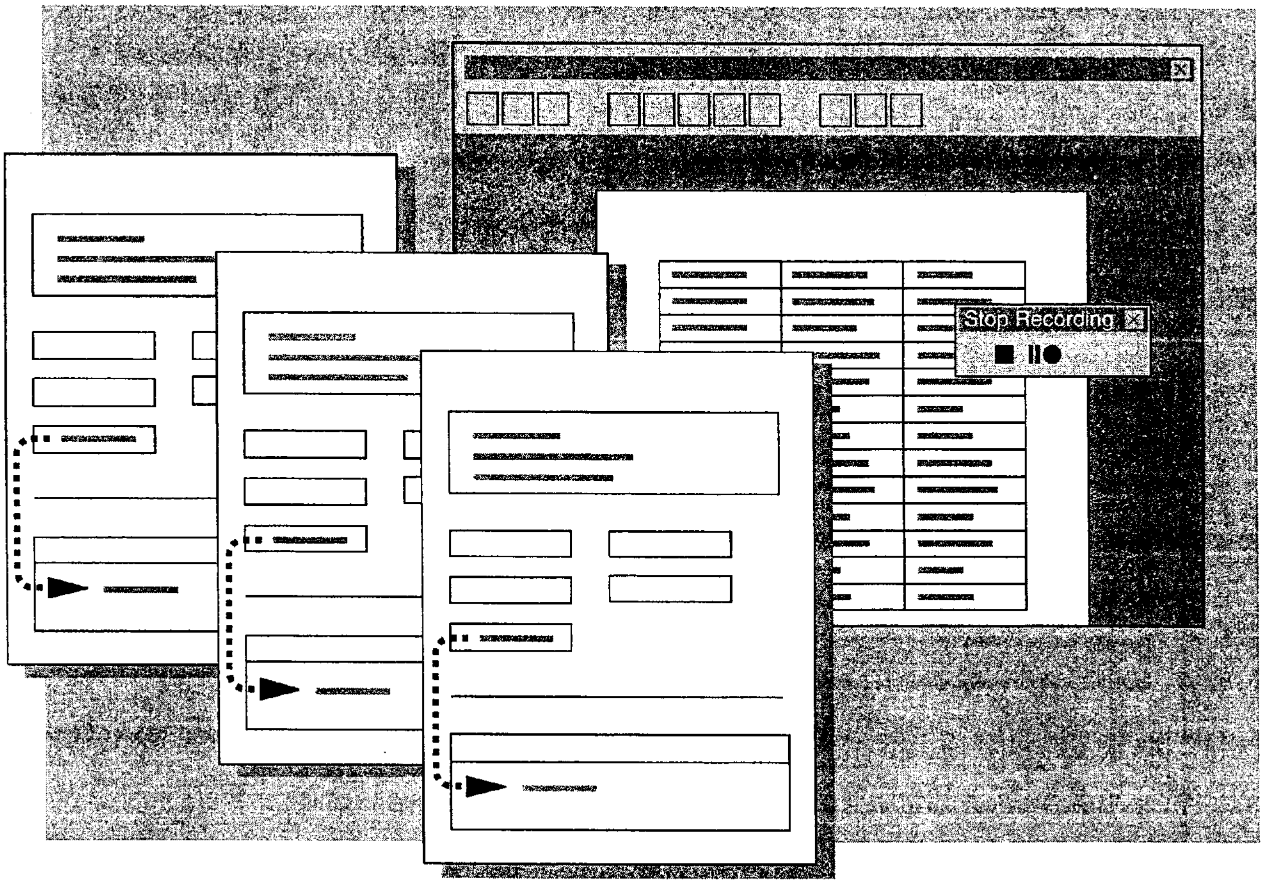
Automate Repetitive Tasks

Do you ever find yourself going through the same steps over and over to perform routine tasks? Perhaps you make the same complex text modifications again and again, repeatedly format certain worksheet cells so that they stand out, or add the same graphic to many of your slides. Or perhaps you perform more complex repetitive tasks, such as filling out employee review forms or collecting and processing payroll information.

Office provides a simple way to perform these tasks automatically. Microsoft Visual Basic for Applications is a powerful built-in programming language that enables a novice user to automate simple tasks and that enables a developer to create customized, multiple application solutions to automate complex tasks.

Key Features

Macro Recorder



MS 114372

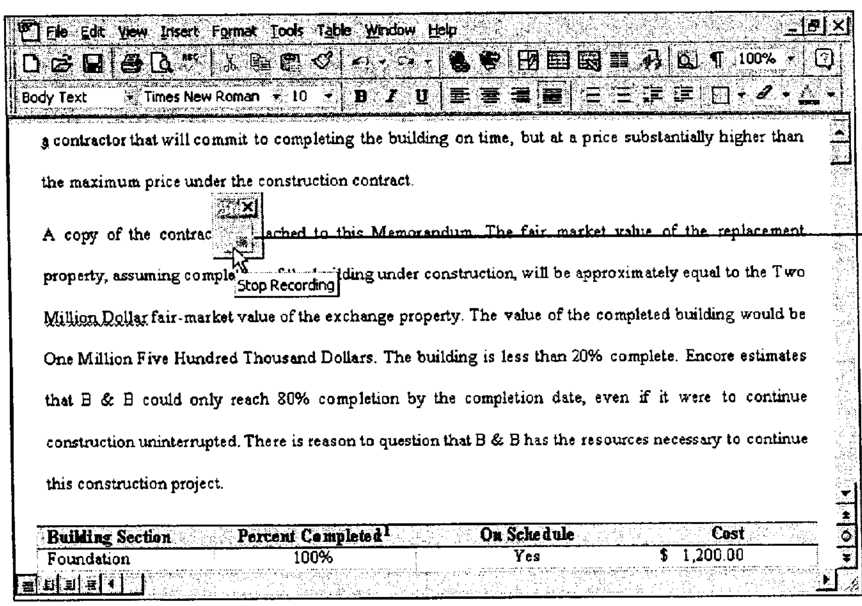
Record a Simple Task

To automate a simple task, you can "record" the task as you perform it. The set of actions you record is called a *macro*. After you have recorded a task, you can "play it back" whenever you want.

For example, suppose you often review Word documents containing revision marks. You can record a macro in Word to display the revision marks automatically. Before you begin recording the macro, make sure the **Highlight changes on screen** check box in the **Highlight Changes** dialog box (**Tools** menu) is cleared and the **Track changes while editing** check box is selected. Then start the macro recorder: Click **Record New Macro** (**Tools** menu, **Macros** submenu), and then type a name for your macro. To make it easy to remember what the macro does, use the descriptive macro name Turn_on_change_tracking.

The **Stop Recording** toolbar appears. Word is now ready to record your actions. Click **Highlight Changes** (**Tools** menu), select the **Highlight changes on screen** check box, and then click **OK**. Click the **Stop Recording** button. The entire sequence of actions you just performed is now stored as a macro.

You can record another macro that automatically hides revision marks. Turn on the macro recorder again and this time name your macro Turn_off_change_tracking. Clear the **Highlight changes on screen** check box, and then turn off the macro recorder.



The **Stop Recording** button

Does the computer beep when you click the mouse button? The macro recorder cannot record all mouse movements. If you try an action using the mouse and the computer beeps, try it again using the keyboard.

Do you really need a macro? Before recording a macro, make sure there isn't a built-in feature that accomplishes the task. Search in Help for words related to the task.

Run through the task once before you record The macro recorder records everything you do. If you know exactly what actions you want to take before you turn on the recorder, you can record a cleaner macro.

Is the Stop Recording Toolbar in the way? Just drag it to another part of the screen or dock it on one side of the window. This will not affect the macro you are recording.

Save your work When you first start recording macros, they might not always work exactly as you expect. For example, if you record a series of keystrokes with text selected and then run it with nothing selected, you might not get the results you wanted. As a precaution, always save your work immediately before you run a macro for the first time. Then, if the results are less than perfect, you can just close the document without saving changes, reopen the document, and try again.

Want to know more? Look up **Getting Results - Automate** in Help.

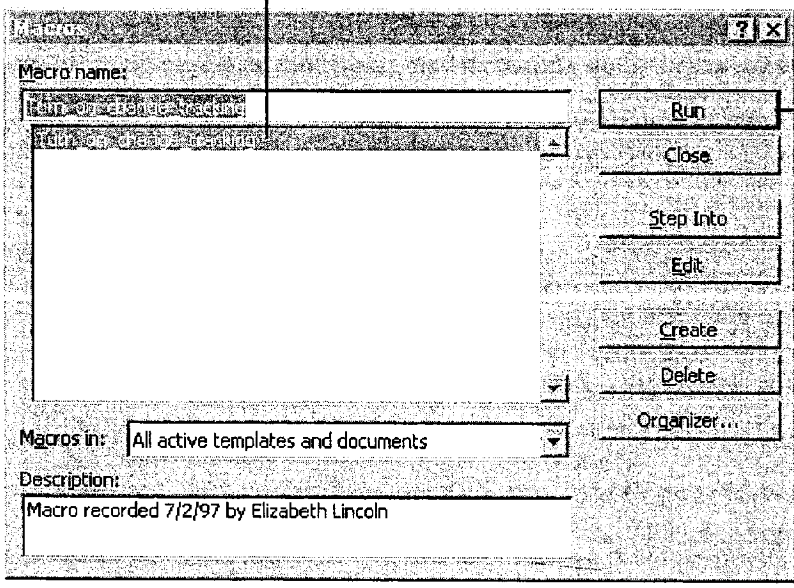
Office Assistant button

MS 114374

Perform the Task Automatically

Now that you have recorded the macro, you can use it whenever you need it. Click **Macros** (**Tools** menu, **Macro** submenu), select **Turn_on_change_tracking**, and then click **Run**.

Click the name of the macro you want to run ...



... then click here to run the macro.

Try it out Type some text in your document. Revision marks should be visible. Then run the Turn_off_change_tracking macro. Revision marks should be hidden.

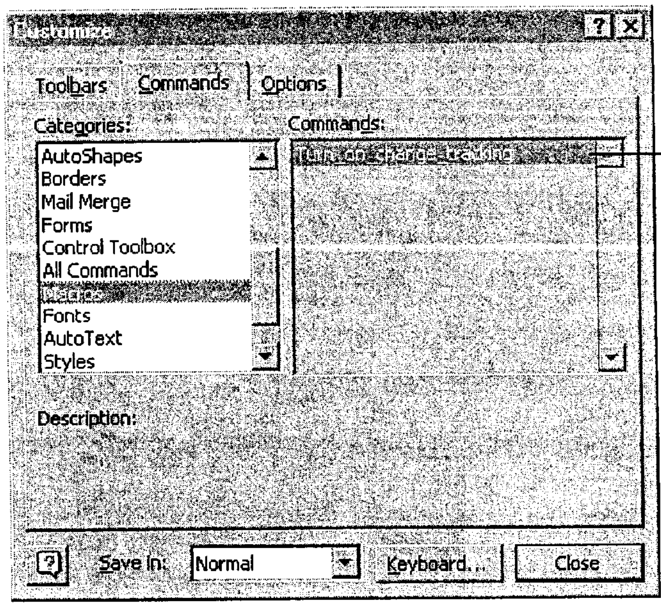
What If Your Macro Doesn't Work?

If your macro isn't working the way you expected, you can try recording it again to make sure you recorded the actions you thought you did. If the macro still doesn't work, make sure that you are running the macro under the same conditions in which you recorded it. For example, if you record the macro with a drawing object selected, select a drawing object before playing the macro back. If you still aren't getting the results you want, look up **Getting Results - Automate** in Help.

MS 114375

Run Your Macro from a Toolbar Button

You can make your macro even easier to use by assigning it to a toolbar button. Click **Customize** (**Tools** menu). On the **Commands** tab, click **Macros** in the **Categories** box. In the **Commands** box, click the name of your macro, and then drag it to a toolbar. If you want to change the image on the button face, right-click the button to display the shortcut menu.



Drag the macro from here to the toolbar you want.

Now you can run your macro whenever you want just by clicking this custom button. For more information on customizing toolbars, see "Customize Office," page 636.

Run a macro with a shortcut key If you would rather run your macro by using a shortcut key, select the name of the macro in the **Macro** dialog box (**Tools** menu, **Macro** submenu), click **Options**, and then type a letter in the **Shortcut key** box.

Want to know more? Look up **Getting Results - Automate** in Help.

Office Assistant button

MS 114376

Automate Complex Tasks

Recorded macros are great when you want to perform exactly the same task every time you run the macro. But what if you want to automate a task in which the actions vary with the situation, or depend on user input, or move data from one Office application to another? For example, you might want to assign a background color to a worksheet cell based on the day of the week that data is entered into the cell, display the performance review form for the employee whose name you enter, or automatically link the most recently created Microsoft Excel chart in your My Documents folder to a PowerPoint slide.

To create automations that are more powerful than recorded macros, you should learn to program in Visual Basic for Applications. If you've never programmed before, don't be scared off! Learning Visual Basic for Applications can be much easier than learning other programming languages, because many of the commands in Visual Basic for Applications are named after familiar interface features, such as dialog box options. A good way to see this is to look at the instructions in a macro you've recorded. Chances are, you'll recognize many of the words and will be able to figure out what some of the instructions mean without knowing anything about programming. For information on displaying a recorded macro, look up **Getting Results - Automate** in Help.

Learning Visual Basic for Applications is well worth the time investment. Many companies are finding that they can use it to extend the features of Office rather than buying dedicated software packages for each task they want to automate. Custom solutions can take less time to develop, since the developer can take advantage of all the features that are built in to Office applications. Creating a custom tool in Visual Basic for Applications can also decrease the amount of training and support employees need in order to use a new tool, since the tool is based on an application they're already familiar with.

You can learn more about Visual Basic for Applications at your own pace. If you like to learn by experimenting, try looking at the code for some of your recorded macros, and then refer to the online reference topics to find out more about specific programming words. (To display a reference topic, place the insertion point in a keyword in the code editing window and then press F1.) If you prefer a more structured approach, try one of the books in the Microsoft Press *Step-by-Step* series. For more information, see "Microsoft Press Publications for Office 97," page 19.

MS 114377

Automate Repetitive Tasks in Microsoft Access

Put Macros and Visual Basic for Applications to Work in Your Forms

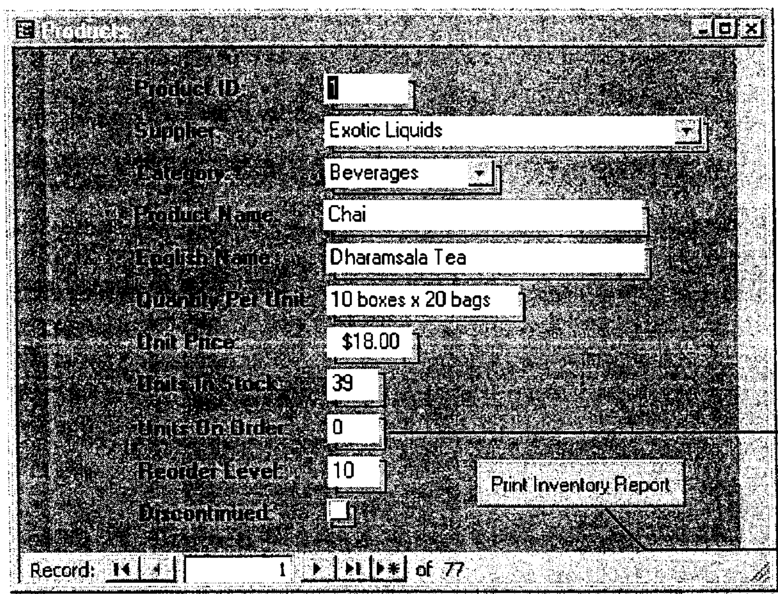
When you set up a database, you want it to be as easy to use as possible, especially for repetitive tasks such as data entry. With Microsoft Access, it's easy to automate tasks such as printing a report or displaying a message that lets you know when a product needs to be reordered. You can automate tasks by creating macros or writing Visual Basic for Applications code procedures. When you create a command button for a form by using the Command Button Wizard, the wizard writes a Visual Basic event procedure for you.

Key Features

Macros

Command Button Wizard

Visual Basic Procedures



Whenever both Units in Stock and Units on Order are zero, Microsoft Access prints an "out of stock" message.

Click here to print the inventory report.

To complete the steps in this topic you need to have Microsoft Office, Professional Edition or an individual copy of Microsoft Access installed. You also need a Products form and an Inventory report. For more information, see "Create a Great-Looking Product Form," page 498, and "Create and Enhance an Inventory Report," page 525. However, you can use the basic steps in this topic to add command buttons to any form and to create any macro.

MS 114378

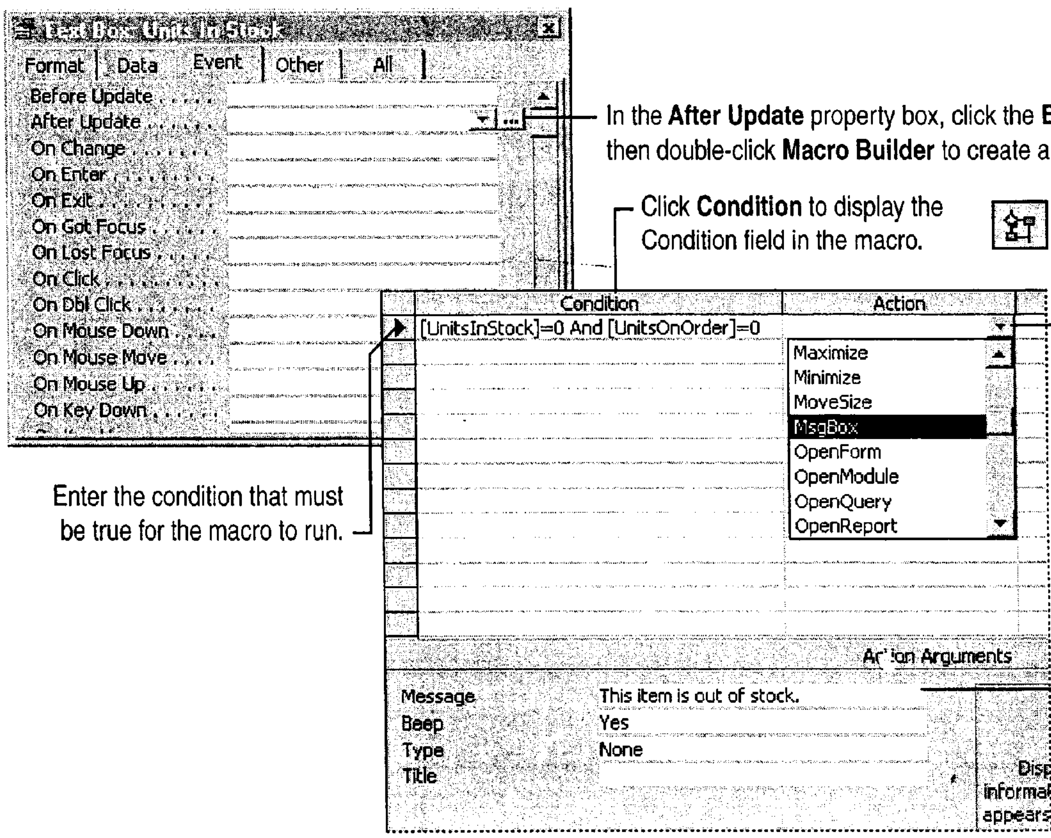
Create a Macro to Display a Message

When you find yourself repeating the same tasks, such as searching for products that you need to reorder, create a macro to display a message that an item is "out of stock" if there are no units in stock and no units on order.

In the database window, on the **Forms** tab, select **Products**. Click **Design** to open the Products form in form design view. Click the **Units In Stock** text box, and then click the **Properties** button. On the **Event** tab, click **After Update**. To open the macro window and create the macro, use the procedures shown in the following illustration. When you're done, click the **Save** button. Microsoft Access runs the macro whenever you change the number of units in stock to zero when the number of units on order is also zero.

Properties button

Save button



In the **After Update** property box, click the **Build** button, and then double-click **Macro Builder** to create a new macro.

Click **Condition** to display the Condition field in the macro.

Click **Action**, click the arrow, and select **MsgBox** from the list ...

Enter the condition that must be true for the macro to run.

... then type the message that you want Microsoft Access to display.

MS 114379

Want to modify a macro? In the database window, on the **Macros** tab, click the macro you want to modify, and then click **Design**.

What other actions can a macro carry out? A macro can set the value in a field, control, or property (the SetValue action), carry out a Microsoft Access menu command (the RunCommand action), or simulate typing on the keyboard (the SendKeys action), among other actions. To learn more about a macro action, in the macro window, select the action in the Action column and then press F1.

Want a macro to carry out a series of actions in response to a single event? Select each action you want to carry out in a separate row of the macro window. Microsoft Access carries out the actions row by row.

More About Macros and Events

How are events named? Events are named after the user actions that cause them. For example, when you change the units in stock to zero in the Products form, the macro that displays the "out of stock" message runs in response to an "AfterUpdate" event.

Create macros that respond to other events You can create other macros that tell Microsoft Access what to do when a user opens a form (an Open event), moves from one record to another (a Current event), or clicks a specific button (a Click event).

Want to know more? Look up **Getting Results - Automate Microsoft Access** in Help.

Office Assistant button

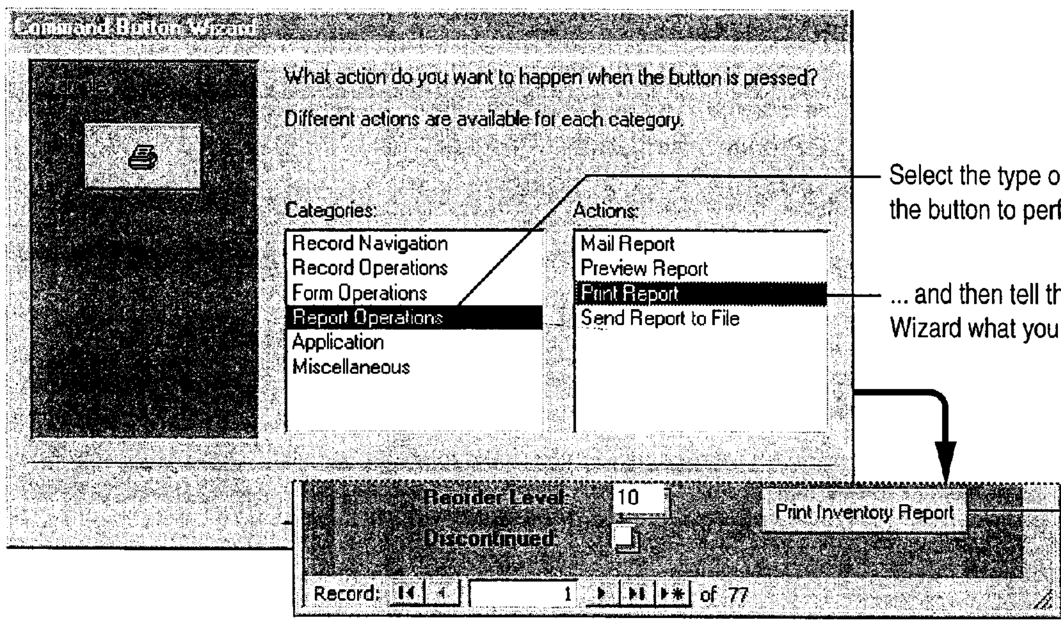
MS 114380

Add a Command Button That Prints a Report

If you often print a report after updating your database, you can save time by using the Command Button Wizard to create a button that automates this task. In the database window, on the **Forms** tab, select **Products** and then click **Design** to open the Products form in form design view. If the toolbox isn't visible, click **Control Toolbox** (**View** menu) to display it. Click the **Command Button** tool, and then click the **Control Wizards** tool if it isn't already selected. In the Products form, click where you want to put the command button, and then follow the instructions in the wizard. When the wizard finishes, Microsoft Access displays the command button in form design view.

Command Button tool

Control Wizards tool



What other types of buttons can the wizard create? Use the wizard to create buttons that automatically open other forms, move between records, and add or delete records, among other tasks. For more information, see "Add Buttons That Open Forms and Reports," page 521.

MS 114381

ARENDI-DEFS00002091

Program in Visual Basic

When the Command Button Wizard creates a button, it writes a Visual Basic event procedure to carry out the action you want. Suppose you want to see the event procedure for the **Print Inventory Report** button. Select the button and then click the **Properties** button to open its property sheet. In the property sheet, select the **OnClick** property, and then click the **Build** button. Using the Visual Basic programming language, you can edit or add to the event procedure that the Command Button Wizard creates. Or, write your own event procedures to customize Microsoft Access even further.

The module window displays the Visual Basic code for the active form.

This event procedure runs whenever you click the **Print Inventory Report** button ...

... and this code prints the report.

Inventory_Report | Click

```
Sub Inventory_Report_Click()
On Error GoTo Err_Inventory_Report_Click

    Dim stDocName As String

    stDocName = "Alphabetical List of Products"
    DoCmd.OpenReport stDocName, acNormal

Exit_Inventory_Report_Click:
    Exit Sub

Err_Inventory_Report_Click:
    MsgBox Err.Description
    Resume Exit_Inventory_Report_Click

End Sub
```

You can customize the error message that appears when an error occurs by replacing the **MsgBox** function argument with your own error message.

MS 114382

Next Steps

To	See
See examples of how to use macros to automate work in forms and reports	The Northwind sample database, which Setup installs with Microsoft Access (if Northwind isn't already installed, rerun Setup to install it)
Learn more about programming in Visual Basic and creating custom database applications using Microsoft Access	*Building Applications with Microsoft Access 97*, available directly from Microsoft by using the order form provided with Microsoft Office (also available as part of the ValuPack on the Office 97, Professional Edition CD)

MS 114383

APPENDIX

Accessibility for People with Disabilities

Microsoft is committed to making its products and services easier for everyone to use. This appendix provides information on the following features, products, and services that make Windows, Windows NT, and Office applications more accessible for people with disabilities:

- Accessibility of Office applications
- Microsoft services for people who are deaf or hard-of-hearing
- The Access Pack for Microsoft Windows NT, a software utility that makes using Windows NT easier for people with motion or hearing disabilities
- Keyboard layouts designed for people who type with one hand or a wand
- Microsoft software documentation on audiocassette, floppy disk, or compact disc (CD)
- Third-party utilities to enhance accessibility
- Hints for customizing Windows or Windows NT
- Other products and services for people with disabilities

Note The information in this section applies only to users who license Microsoft products in the United States. If you obtained Windows or Windows NT outside the United States, your package contains a subsidiary information card that lists Microsoft support telephone numbers and addresses. You can contact your subsidiary to find out whether the types of products and services described in this appendix are available in your area.

MS 114384

Accessibility of Office Applications

In addition to Windows and Windows NT accessibility products and services, several features of Office applications make them more accessible for people with disabilities. For more information, see Help.

Zoom to Magnify the View

You can view your documents or worksheets at any magnification up to 400 percent.

Enlarge Toolbar Buttons

To view enlarged toolbar buttons, click **Large Buttons** (**View** menu, **Toolbars** submenu).

Enlarge Interface Text

You can enlarge the text in row and column headings and in the formula bar and status bar. Click **Options** (**Tools** menu). On the **General** tab, set the font and size you want.

Customize Toolbars

You can add, delete, and move buttons on toolbars to best suit the way you work. You can also create entirely new toolbars that contain buttons for the commands, formats, and macros that you use most frequently. For more information, see the applications' Help.

Customize Menus

You can add new menus, delete existing menus, and customize menus so that they contain the commands, formats, and macros that you use frequently.

MS 114385

Microsoft Services for People Who Are Deaf or Hard-of-Hearing

If you are deaf or hard-of-hearing, complete access to Microsoft product and customer services is available through a text telephone (TT/TDD) service.

Sales information You can contact the Microsoft Sales Information Center on a text telephone by dialing (800) 892-5234 between 6:30 A.M. and 5:30 P.M. Pacific time.

Technical assistance In the United States, you can contact the Microsoft Support Network on a text telephone at (206) 635-4948 between 6:00 A.M. and 6:00 P.M. Pacific time, Monday through Friday, excluding holidays. In Canada, dial (905) 568-9641 between 8:00 A.M. and 8:00 P.M. eastern time, Monday through Friday, excluding holidays. Microsoft support services are subject to the prices, terms, and conditions in place at the time the service is used.

MS 114386

The Access Pack for Microsoft Windows NT

Microsoft distributes the Access Pack for Microsoft Windows NT, which provides people who have motion or hearing disabilities with better access to computers running Windows NT. (If you are running Windows 95, these Access Pack features are already built in. For more information, see Windows 95 Help.) The Access Pack for Microsoft Windows NT contains several features that:

- Allow single-finger typing of SHIFT, CONTROL, and ALT key combinations.
- Ignore accidental keystrokes.
- Adjust the rate at which a character is repeated when you hold down a key, or turn off character repetition entirely.
- Prevent typing extra characters if you unintentionally press a key more than once.
- Enable you to control the mouse pointer by using the keyboard.
- Enable you to control the computer keyboard and mouse by using an alternative input device.
- Provide a visual cue when the computer beeps or makes other sounds.

The Access Pack for Microsoft Windows NT is included in the Microsoft Application Note WNO789. Access Packs are also available for Windows 3.0 and 3.1. If you have a modem, you can download the information you need. See "Which Files to Download or Order," later in this appendix.

MS 114387

Keyboard Layouts for Single-Handed Users

Microsoft distributes Dvorak keyboard layouts that make the most frequently typed characters on a keyboard more accessible to people who have difficulty using the standard "QWERTY" layout. There are three Dvorak layouts: one for two-handed users, one for people who type with their left hand only, and one for people who type with their right hand only. The left-handed or right-handed keyboard layouts can also be used by people who type with a single finger or a wand. Users do not need to purchase any special equipment to use these features.

Windows and Windows NT already support the two-handed Dvorak layout, which can be useful for coping with or avoiding types of repetitive-motion injuries associated with typing. To get this layout, click **Regional Settings** or **International** in the Windows Control Panel. The two layouts for people who type with one hand are distributed as Microsoft Application Note GA0650. For instructions on obtaining this application note, see "Which Files to Download or Order," later in this appendix.

Microsoft Documentation in Alternative Formats

In addition to the standard forms of documentation, many Microsoft products are also available in other formats to make them more accessible.

Most of the Office 97 documentation is also available as Help, on the Office CD in the ValuPack, or on the Web. If you have difficulty reading or handling printed documentation, you can obtain many Microsoft publications from Recording for the Blind & Dyslexic, Inc. Recording for the Blind & Dyslexic distributes these documents to registered, eligible members of their distribution service, either on audiocassettes or on floppy disks. The Recording for the Blind & Dyslexic collection contains more than 80,000 titles, including Microsoft product documentation and books from Microsoft Press. For more information, contact Recording for the Blind & Dyslexic.

Recording for the Blind & Dyslexic, Inc.	Phone:	(609) 452-0606
20 Roszel Road	Fax:	(609) 987-8116
Princeton, NJ 08540	World Wide Web:	http://www.rfbd.org/

MS 114388

Third-Party Utilities to Enhance Accessibility

A wide variety of third-party hardware and software products are available to make personal computers easier to use for people with disabilities. Among the different types of products available for the MS-DOS, Windows, and Windows NT operating systems are the following:

- Programs that enlarge or alter the color of information on the screen for people with visual impairments
- Programs that describe information on the screen in braille or synthesized speech for people who are blind or have difficulty reading
- Hardware and software utilities that modify the behavior of the mouse and keyboard
- Programs that enable users to "type" by using a mouse or their voice
- Word or phrase prediction software that allows the user to type more quickly and with fewer keystrokes
- Alternative input devices, such as single switch or puff-and-sip devices, for those who cannot use a mouse or a keyboard

For more information on obtaining third-party utilities, see "More Accessibility Information," later in this appendix.

MS 114389

Customize Windows or Windows NT

There are many ways you can customize Windows or Windows NT to make your computer more accessible.

- Beginning with Windows 95, accessibility features are built in to Windows. These features are useful for individuals who have difficulty typing or using a mouse, who have moderately impaired vision, or who are deaf or hard-of-hearing. The features can be installed during setup, or you can add them later from your Windows 95 installation disks. For information about installing and using these features, see Windows Help.
- You can also use the Control Panel and other features to adjust the appearance and behavior of Windows or Windows NT to suit varying vision and motor abilities. You can adjust colors and sizes, sound volume, and the behavior of the mouse and keyboard.

The specific features available, and whether they are built in or must be obtained separately, depend on which operating system you are using.

For full documentation on the accessibility features available in your operating system, see the appropriate application notes listed in the next section. Accessibility features are also documented in the *Microsoft Windows 95 Resource Kit* and the *Microsoft Windows NT Resource Kit.*

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Which Files to Download or Order

The resources listed here provide more complete documentation on ways to customize Windows and Windows NT for people with disabilities.

You can obtain these files by downloading them with your modem, or you can order them on disks by phone.

For	You need
Application notes for Windows 95	Ww1062.exe
Application notes for Windows NT 3.1 and 3.5 (includes Access Pack for Microsoft Windows NT)	Wn0789.exe
Application notes for Windows for Workgroups 3.1	Wg0788.txt
Application notes for Windows 3.1	Ww0787.txt
Application notes for Windows 3.0	Ww0786.txt
Access Pack for Microsoft Windows 3.0 and 3.1	Accp.exe
Dvorak keyboard layouts for people who type with one hand (already included in Windows NT 3.5 and later)	Ga0650.exe (most network services) Ga0650.zip (Microsoft Download Service)

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Download the Access Packs, Application Notes, and Alternative Keyboard Layouts by Modem

If you have a modem, you can download these files from the following network services:

- The Microsoft Web site: Click **Microsoft on the Web (Help** menu)
- The Microsoft Internet servers: ftp.microsoft.com and gopher.microsoft.com, in /softlib/mslfiles
- MSN, The Microsoft Network online service
- CompuServe
- GEnie
- Microsoft Download Service (MSDL), which you can reach by calling (206) 936-6735 any time except between 1:00 A.M. and 2:30 A.M. Pacific time (MSDL supports 1200, 2400, 9600, 14400, and 28800 baud rates (V.32 and V.42), with 8 data bits, no parity, and 1 stop bit)
- Various user-group bulletin boards (such as the bulletin board services on the Association of PC User Groups network)

Order the Access Packs, Application Notes, and Alternative Keyboard Layouts on Disks by Phone

If you do not have a modem, within the United States call the Microsoft Sales Information Center at (800) 426-9400 (voice) or (800) 892-5234 (text telephone).

In Canada, you can call (905) 568-3503 or (905) 568-9641 (text telephone).

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More Accessibility Information

In addition to the features and resources already described in this appendix, other products, services, and resources are available from Microsoft and other organizations.

Additional Microsoft Products and Services for People with Disabilities

For more information, contact:

Microsoft Sales Information Center One Microsoft Way Redmond, WA 98052-6393	World Wide Web: Voice telephone: Text telephone:	http://www.microsoft.com/ (800) 426-9400 (800) 892-5234

Directories of Computer Products for People with Disabilities

The Trace R&D Center at the University of Wisconsin–Madison produces the *Trace ResourceBook*, which describes products that help people with disabilities to use computers. It provides descriptions and photographs of about 2,000 products. A compact disc, CO-NET CD, provides a database of more than 18,000 products and other information for people with disabilities. It is issued twice a year.

To obtain these directories, contact:

Trace R&D Center University of Wisconsin S-151 Waisman Center 1500 Highland Avenue Madison, WI 53705-2280	World Wide Web: Fax:	http://trace.wisc.edu/ (608) 262-8848

Assistive Technology Programs and Trained Evaluators

For general information and recommendations on how computers can address specific needs, you should consult a trained evaluator. An assistive technology program in your area will provide referrals to programs and services that are available to you.

To locate the assistive technology program nearest you, contact:

National Information System University of South Carolina Center for Developmental Disabilities Columbia, SC 29208	Voice/text telephone: Fax:	(803) 935-5231 (803) 935-5059

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Getting Results with Microsoft Office 97 helps you get the most out of your software

Get Organized. See how easy it is to organize the information and tasks you work with every day.

Get Connected. Learn how to maximize the potential of the Internet or your company's intranet with innovative tools for finding information, publishing documents, and collaborating with others.

Get Results. Find out how the Office 97 applications work together seamlessly so you can get powerful results faster and easier than ever before.

Read "Start Here" first to:

Chart your course. Learn how to get started with Office 97 quickly, based on your experience and interests.

Find out what's new. Learn about the exciting new features in the Office 97 applications.

Expand your knowledge. Discover the wide range of Microsoft Office 97 publications available from Microsoft Press, tailored to your specific experience level and information needs.

For ***insight,***

information,

interaction,

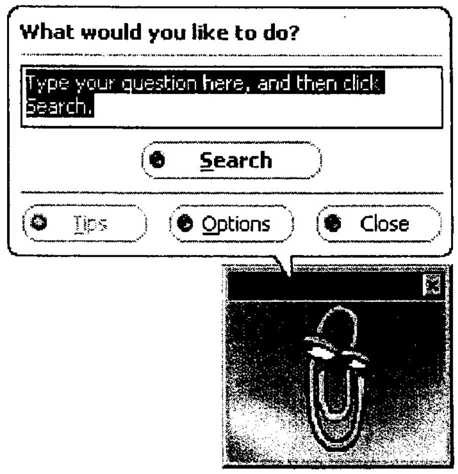
and ***support,***

visit the Microsoft Office Web site at:

http://www.microsoft.com/office/

The Office Assistant is Ready to Help

- **Ask for help when you need it.** The Office Assistant observes your actions, fields your questions, and quickly presents you with a list of the most relevant Help topics.
- **Get expert advice without asking.** The Office Assistant delivers helpful messages and timely tips that can make your work easier.



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