

Microsoft Excel 2003

Workbook - Intermediate Level



SAMPLE

© 1995-2010 Cheltenham Courseware Pty. Ltd.

All trademarks acknowledged. E&OE.

No part of this document may be copied without written permission from Cheltenham Courseware unless produced under the terms of a courseware site license agreement with Cheltenham Courseware.

All reasonable precautions have been taken in the preparation of this document, including both technical and non-technical proofing. Cheltenham Courseware and all staff assume no responsibility for any errors or omissions. No warranties are made, expressed or implied with regard to these notes. Cheltenham Courseware shall not be responsible for any direct, incidental or consequential damages arising from the use of any material contained in this document. If you find any errors in these training modules, please inform Cheltenham Courseware. Whilst every effort is made to eradicate typing or technical mistakes, we apologise for any errors you may detect. All courses are updated on a regular basis, so your feedback is both valued by us and will help us to maintain the highest possible standards.

Sample versions of courseware from Cheltenham Courseware

(Normally supplied in Adobe Acrobat format): If the version of courseware that you are viewing is marked as NOT FOR TRAINING, SAMPLE, or similar, then it cannot be used as part of a training course, and is made available purely for content and style review. This is to give you the opportunity to preview our courseware, prior to making a purchasing decision. Sample versions may not be re-sold to a third party.

For current license information

This document may only be used under the terms of the license agreement from Cheltenham Courseware. Cheltenham Courseware reserves the right to alter the licensing conditions at any time, without prior notice. Please see the site license agreement available at: www.cheltenhamcourseware.com.au/agreement

Contact Information

Australia / Asia Pacific / Europe (ex. UK) / Rest of the World

Email: info@cheltenhamcourseware.com.au

Web: www.cheltenhamcourseware.com.au

USA / Canada

Email: info@cheltenhamcourseware.com


Web: www.cheltenhamcourseware.com


UK

Email: info@cctglobal.com

Web: www.cctglobal.com



COURSE BASICS.....	5
TOOLBARS	5
<i>The Title Bar.....</i>	5
<i>The Menu Bar.....</i>	5
<i>The Tool Bar.....</i>	6
<i>The Status Bar.....</i>	6
<i>The Scroll Bar.....</i>	6
FILE MANAGEMENT.....	7
<i>Opening Files.....</i>	7
<i>Saving Files.....</i>	7
<i>Closing Files.....</i>	9
INSTALLING THE SAMPLE FILES.....	9
VIEWING WORKSHEETS	10
CUSTOMIZING VIEW OPTIONS.....	10
<i>Customizing the Excel window display.....</i>	10
<i>Customizing the Comments View options.....</i>	10
<i>Customizing the Worksheet View options.....</i>	11
DISPLAYING AND CUSTOMIZING TOOLBARS.....	12
<i>Customizing toolbar options.....</i>	12
HIDING WORKBOOKS AND WORKSHEETS	13
FREEZING PANES	14
<i>Freezing a horizontal pane.....</i>	14
<i>Freezing a vertical pane.....</i>	15
<i>Freezing and Unfreezing horizontal and vertical panes.....</i>	15
GROUPING AND UNGROUPING WORKSHEETS.....	16
MORE FORMATTING TECHNIQUES.....	18
USING STYLES.....	18
USING CONDITIONAL FORMATTING.....	21
USING THE FORMAT PAINTER.....	25
USING GUIDELINES.....	26
HIDING AND DISPLAYING CELLS	28
<i>Hiding Columns and Rows.....</i>	28
<i>Displaying Hidden Columns and Rows.....</i>	29
MORE FORMULAS AND FUNCTIONS	31
USING THE SERIES COMMAND.....	31
USING INSERT FUNCTION WIZARD.....	31
USING THE FORMULA ERROR CHECKER.....	33
USING THE FORMULA AUDITING TOOLBAR.....	35
USING THE WATCH WINDOW.....	36
DATABASE AND LIST MANAGEMENT.....	38
CREATING AND EDITING A DATABASE	38
 <i>Creating an assigned list.....</i>	38
SORTING A DATABASE	40
USING AUTOFILTERS.....	41
USING ADVANCED FILTER.....	43
WORKING WITH FILTERED DATA	45
<i>Totaling fields within a filtered database list.....</i>	45
<i>Creating Subtotals.....</i>	47
USING DATA FORMS.....	49

CHARTS	53
USING THE CHART WIZARD	53
FORMATTING THE CHART	55
DRAWING AND PICTURE OBJECTS	60
USING THE DRAWING TOOLBAR	60
WORKING WITH AUTOSHAPES	60
CREATING TEXT BOXES	63
ADDING PICTURES.....	64
 <i>Inserting Clip Art</i>	64
<i>Inserting a picture</i>	65
LAYERING OBJECTS.....	66
<i>Changing the layer order of objects</i>	66
GROUPING AND UNGROUPING OBJECTS	68
<i>Grouping objects</i>	68
<i>Ungrouping objects</i>	69
EXCEL 2003 AND OTHER APPLICATIONS	70
CONVERTING FILES FROM OTHER APPLICATIONS	70
<i>Converting a Lotus 1-2-3- File</i>	70
COPYING DATA FROM ANOTHER APPLICATION	70
<i>Using the Office Clipboard</i>	70
<i>Using Paste Special</i>	71
EMBEDDING OBJECTS.....	72
LINKING OBJECTS	73
HYPERLINKS.....	74
MANAGING LINKS	75

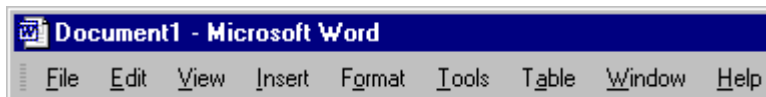
SAMPLE

Course Basics

Toolbars

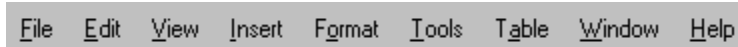
The Title Bar

- The title bar is displayed along the top of almost all program, folder and dialog box windows. It is used to display information such as the name of the application (or folder) and the document you are working on. Information which is displayed here may vary. The example shown illustrates the title bar for a program called **Microsoft Word**, in which a document called **Document1** has been opened or saved:



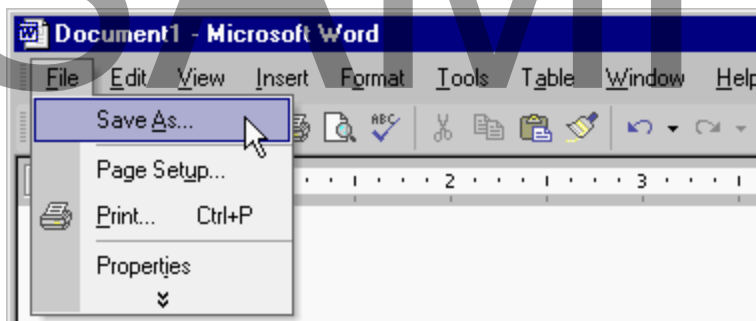
The Menu Bar

- The menu bar is located under the title bar, and contains a series of drop down menus. The example shown illustrates the Microsoft Word Menu Bar:



To execute Menu commands

- In most cases, you are asked to use the mouse to execute a series of menu commands (e.g., **File > Save As**). What this means is that you select **File** from the main menu, followed by **Save As**:



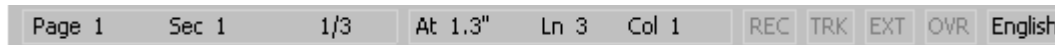
The Tool Bar

- The tool bar contains a series of icons, which allow you to achieve a desired effect as quickly as possible. In the example shown, taken from the Microsoft Word Formatting toolbar, to make the selected text bold, you would click on the **Bold** icon:



The Status Bar

- Most application windows have a status bar displayed along the bottom of the window. In the example illustrated, taken from Microsoft Word, the status bar conveys information about the page within the document which you are working on, along with other relevant information:





The Scroll Bar

- When a program or folder needs to display information within a window, two sets of scroll bars may be displayed along the bottom and right side of the window. By using the scroll bars it is possible to move to any position within a document and also work on a document many times bigger than your physical screen size.

To move up and down within a window (using the scroll bar)

- To scroll upwards in a window, click on the upwards-pointing arrow at the top of the vertical scroll bar: 
- To move downwards in a window, click on the downwards-pointing arrow at the bottom of the vertical scroll bar: 

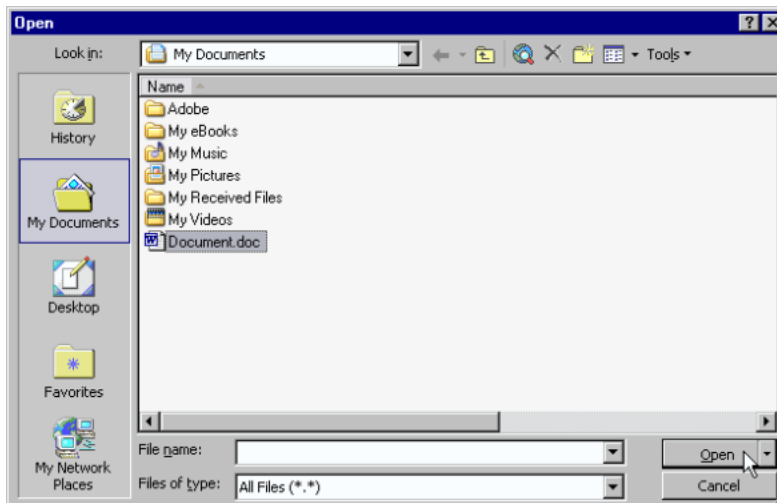
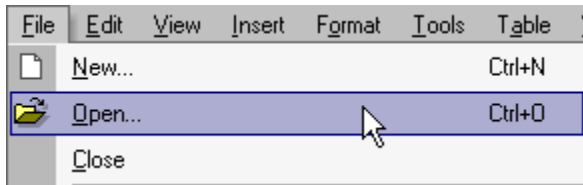
To move right to left within a window

- To move to the right-hand side of a window, click on the right-hand arrow on the horizontal scroll bar: 
- To move to the left-hand side of a window, click on the left-hand arrow on the horizontal scroll bar: 

File Management

Opening Files

- From the main menu, select **File > Open** command or click on the **Open** icon and select the required file from the dialog box displayed:



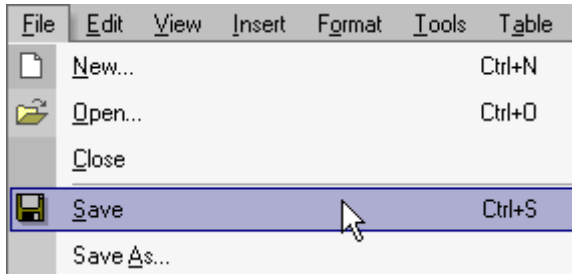
- Use the **Look in** drop-down menu to select the drive or folder which contains the file you want.
- To open the file you require either double-click on the file name or select the file name by clicking on it, and then click on the **Open** button.

Saving Files

To save a new document

- From the main menu, select **File > Save** command or click on the **Save** icon and from the dialog box displayed select the required folder. Enter a file name

and then click on the **Save** button:



- After you have saved the file for the first time, clicking on the **Save** icon will automatically save your document with the filename you gave it. It does not give you the option to rename.

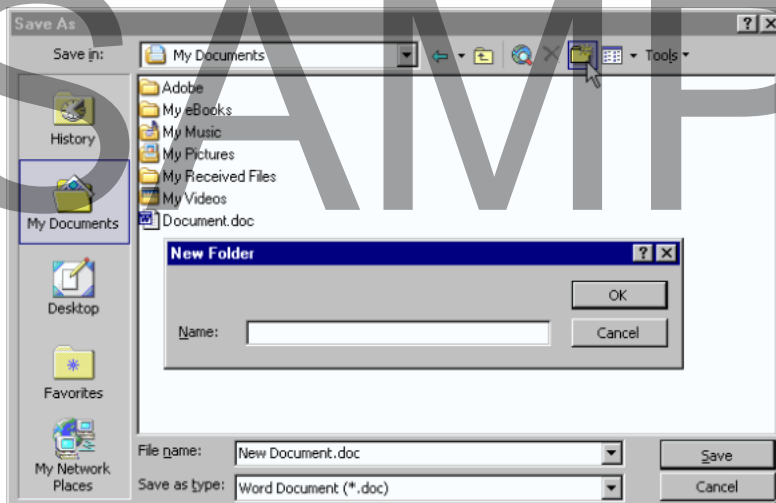
To save a document under another name and/or location

- The **Save As** command can be used to save a file under a different name, to save a file in a different word processor format, or to save a file to a different drive and/or folder. From the main menu, choose **File > Save As** command.

Note: The **File > Save As** command will rename the document on the screen so that you can keep the earlier version, as well as saving any changes you have made.

To create a new folder in which to save your document

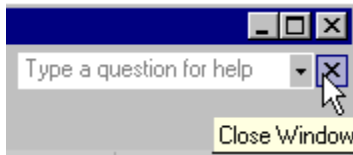
- Click on the **Create New Folder** icon, displayed within the **Save As** dialog box.
- This will display the **New Folder** dialog box. Enter the name of the new folder, and then click on the **OK** button:



Note: The folder will be created under the current folder.

Closing Files

- Click on the **Close Window** icon displayed at the top-right of the document window. Be sure to click on the **Close Window** icon, (as opposed to the **Close** icon):



Installing the Sample Files

- Use Windows Explorer to create a folder called **Excel 2003 Intermediate Samples**, in the **My Documents** folder.
- Copy the sample files for this course to the **My Documents\Excel 2003 Intermediate Samples** folder.
- If these files have been copied to your network server, then ask your trainer/supervisor for more information about how to copy these files to your PC's hard disk.

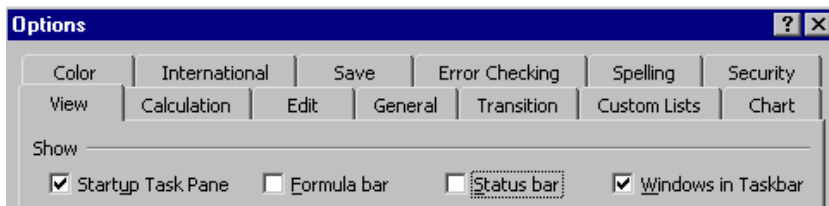
SAMPLE

Viewing Worksheets

Customizing View Options

Customizing the Excel window display

- Start Excel 2003.
- Create a new workbook.
- From the main menu, choose **Tools > Options** to display the **Options** dialog box.
- Click on the **View** tab, and deselect the following options from the **Show** area, as illustrated:



Formula bar *Status bar*

- Click **OK** to change and save the settings.
- Observe that the **Formula bar** and **Status bar** are no longer visible.
- From the main menu, choose **Tools > Options** to display the **Options** dialog box.
- Click on the **View** tab, and select the following options from the **Show** area:

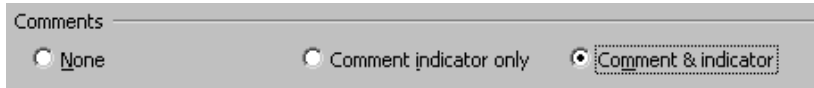
Formula bar *Status bar*

- Click **OK** to change and save the settings.
- Close the workbook.

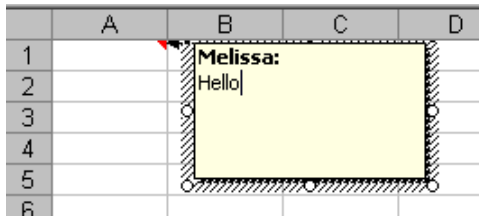
Customizing the Comments View options

- Create a workbook.
- From the main menu, choose **Tools > Options** to display the **Options** dialog box.

- Click on the **View** tab, and select **Comment & indicator** from the **Comments** area:



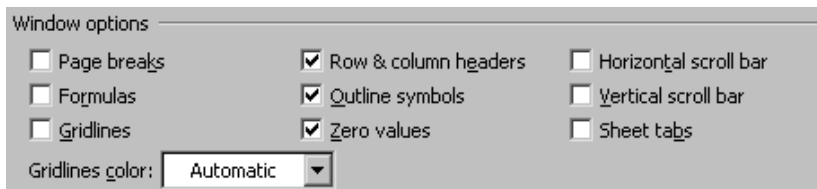
- Click **OK** to change and save the settings.
- Select cell **A1**.
- From the main menu, select **Insert > Comment**.
- Click inside the text box, and type **Hello**:



- Click outside the text box.
- From the main menu, choose **Tools > Options** to display the **Options** dialog box.
- Click on the **View** tab, and select **Comment indicator only** from the **Comments** area.
- Observe that the **Comment** text box is no longer visible, and that only the **Comment Indicator** is visible.
- Click on cell **A1** to display the **Comment** text box.
- Close the workbook without saving the changes.

Customizing the Worksheet View options

- Create a new workbook.
- From the main menu, choose **Tools > Options** to display the **Options** dialog box.
- Click on the **View** tab, and deselect the following options from the **Window options** area:



Gridlines.
Horizontal scroll bar

Vertical scroll bar
Sheet tabs

- Click **OK** to change and save the settings.
- Observe that the Gridlines, Horizontal scroll bar, Vertical scroll bar, and Sheet tabs are no longer visible.
- From the main menu, choose **Tools > Options** to display the **Options** dialog box.
- Click on the **View** tab, and select from the following options from the **Window options** area:

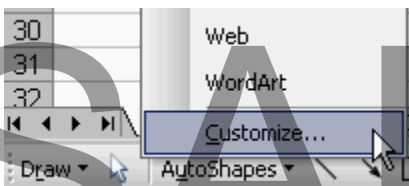
Gridlines
Horizontal scroll bar
Vertical scroll bar
Sheet tabs

- Close the workbook.

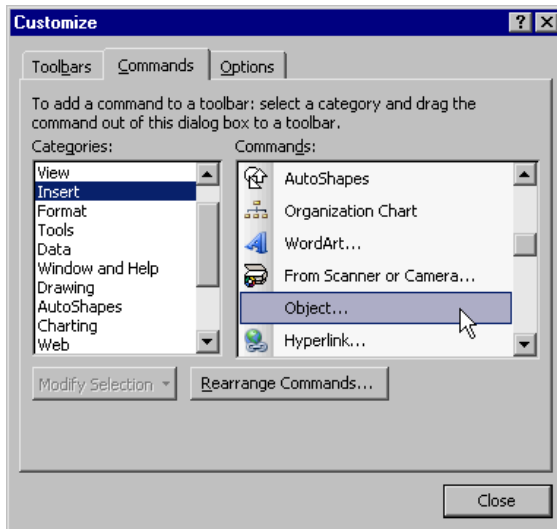
Displaying and Customizing Toolbars

Customizing toolbar options

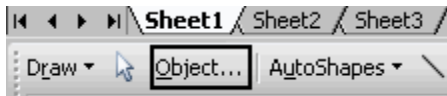
- Create a new workbook.
- Choose **View > Toolbars > Drawing**.
- Right-click on the **Drawing** toolbar, and choose **Customize** from the popup menu:



- Click on the **Commands** tab of the dialog box.
- Select **Insert** from the **Categories** list box, and locate the **Object** command in the **Commands** list box:



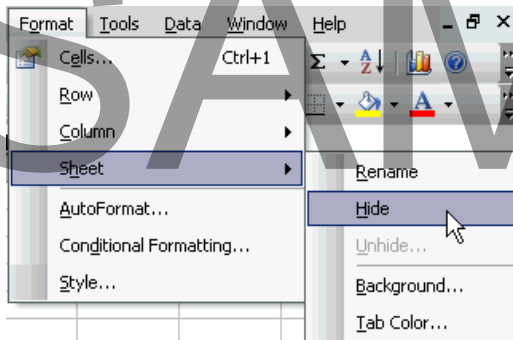
- Click and drag the **Object** command onto the **Drawing** toolbar:



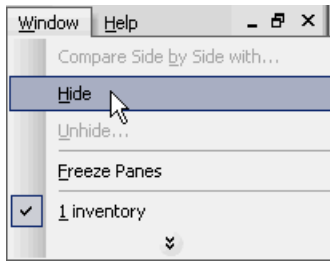
- Click **Close** to close the **Customize** dialog box.
- Close the workbook without saving the changes.

Hiding Workbooks and Worksheets

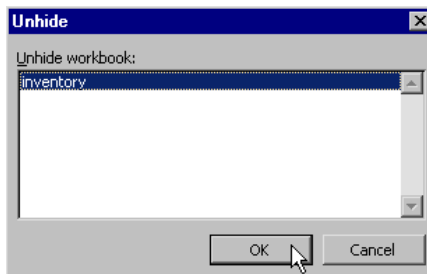
- Open the *inventory.xls* file from the **Excel 2003 Intermediate Samples** folder.
- Click on the **Inventory** sheet tab.
- Choose **Format > Sheet > Hide** to hide the worksheet:



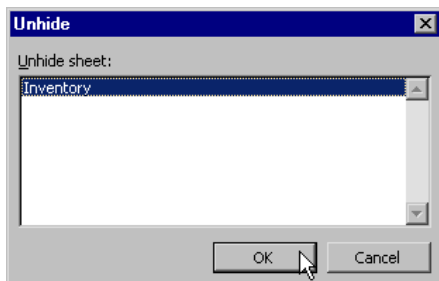
- Choose **Window > Hide** to hide the workbook:



- Choose **Window > Unhide**.
- This will display the **Unhide** dialog box. Select **inventory**, and click **OK** to display the workbook:




- Choose **Format > Sheet > Unhide**.
- Select **Inventory**, and click **OK** to display the worksheet:

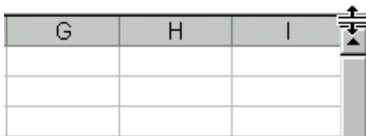


- Close the **inventory.xls** file without saving.

Freezing Panes

Freezing a horizontal pane


- Create a new workbook.
- Begin by placing the mouse pointer over the rectangle above the right scrollbar (your mouse cursor should change to the drag cursor .
- Drag the rectangle **down** to below the row you want to freeze. From the main menu, choose **Window > Freeze Panes**:

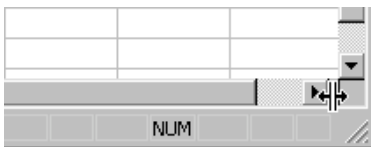


Note: The frozen pane is marked by a horizontal black line.

- From the main menu, choose **Window > Unfreeze Panes**.
- Close the workbook.

Freezing a vertical pane

- Create a new workbook.
- Begin by placing the mouse pointer over the rectangle to the right of the bottom scrollbar (your mouse cursor should change to the drag cursor )
- Drag the rectangle **left** to the right of the column you want to freeze. From the main menu, choose **Window > Freeze Panes**:



Note: The frozen pane is marked by a vertical black line.

- From the main menu, choose **Window > Unfreeze Panes**.
- Close the workbook.

Freezing and Unfreezing horizontal and vertical panes

- Open the *inventory.xls* file from the **Excel 2003 Intermediate Samples** folder.
- Select cell **B2**.
- Choose **Window > Freeze Panes** to freeze the panes.
- Scroll down the worksheet to see the effect of the frozen panes:

	A	B	C	D
1	Type	Item	On Hand	
7	Candy	7873	87	
8	Magazines	2396	12	
9	Newspapers	5271	9	
10	Magazines	2904	35	
11	Candy	8762	93	
12				
13				

- Choose **Edit > Go To**, and enter **B2** in the **Reference** text box, and click **OK**:



- Press and hold the **Right Arrow** key to see the effect of the frozen panes:

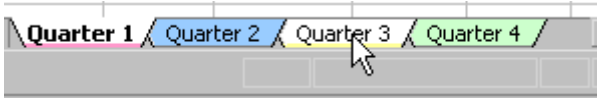
	A	D	E	F
1	Type			
2	Books			
3	Magazines			
4	Newspapers			
5	Books			
6	Books			
7	Candy			
8	Magazines			
9	Newspapers			
10	Magazines			
11	Candy			
12				

- Choose **Window > Unfreeze Panes**.
- Close the *inventory.xls* file without saving.

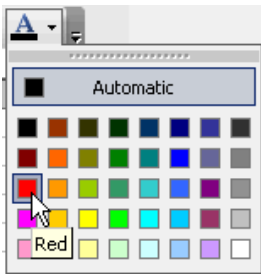
Grouping and Ungrouping Worksheets

- Open the *Format.xls* file from the **Excel 2003 Intermediate Samples** folder.
- Click on the **Quarter 3** sheet tab. (Notice that there is no formatting on this sheet.)

- Click on the **Quarter 1** sheet tab. (Notice that there is no formatting on this sheet.)
- Hold the **Ctrl** key, and click on the **Quarter 3** sheet tab:

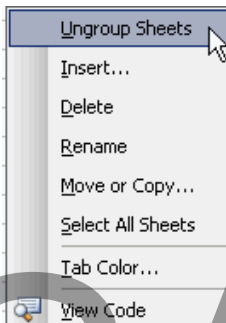


- Select cell **A1**.
- Click on the **Bold** icon on the **Formatting** toolbar.
- Click on the **Font Color** down arrow on the **Formatting** toolbar, and select a **red** color:



	A	B	C	D
1	Computer Sales - Quarter 1			
2	(January to March)			
3				

- Right-click on the **Quarter 1** sheet tab, and choose **Ungroup Sheets** from the popup menu:



- Click on the **Quarter 3** sheet tab to see that cell **A1** has the same formatting as the **Quarter 1** sheet:

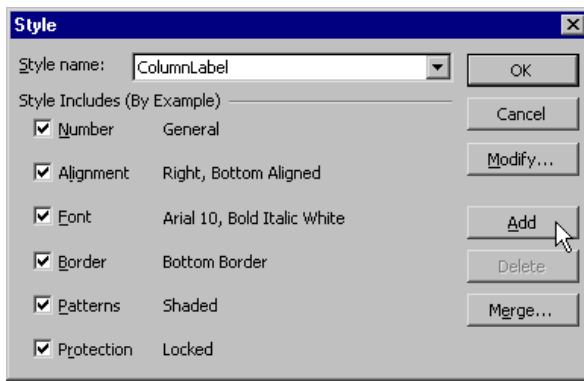
	A	B	C	D
1	Computer Sales - Quarter 3			
2	(July to September)			
3				

- Close the **Format.xls** file without saving.

More Formatting Techniques

Using Styles

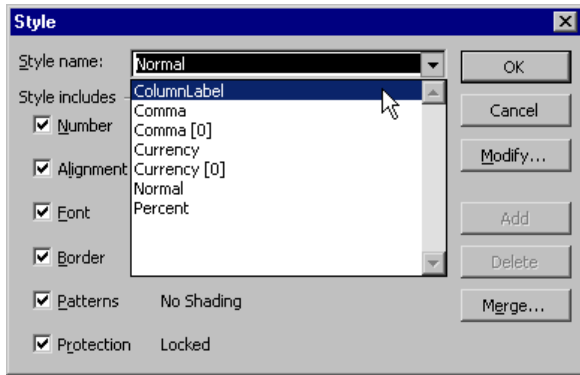
- Open the **Format.xls** file from the **Excel 2003 Intermediate Samples** folder.
- Click on the **Quarter 4** sheet tab.
- Select cell **B4**.
- Choose **Format > Style** to display the **Style** dialog box.
- Type **ColumnLabel** into the **Style name** dropdown list box, and click **Add**:



- Click **OK**.
- Now you will apply this new style to another worksheet. To do this, click on the **Quarter 1** sheet tab.
- Select range **B4:H4**:


	A	B	C	D	E	F	G	H
1	Computer Sales - Quarter 1							
2	(January to March)							
3								
4	Salesperson	Desktop	Notebooks	Monitors	Printers	Scanners	Total Sales	Sales %
5	Ben	95	18	34	70	56	161720	0.107395
6	Frank	57	47	66	19	97	183440	0.121819
7	Mary	93	29	14	81	31	170720	0.113372
8	Nancy	60	52	38	8	70	178800	0.118738
9	Tom	96	43	29	39	87	203240	0.134968
10	Wendy	86	17	89	44	78	170360	0.113133
11								
12	Total	487	206	693	899	1592	1505840	1

- Choose **Format > Style**.
- Click on the **Style name** down arrow, and select **ColumnLabel**:



- Click **OK**. Observe the changes you have made thus far:

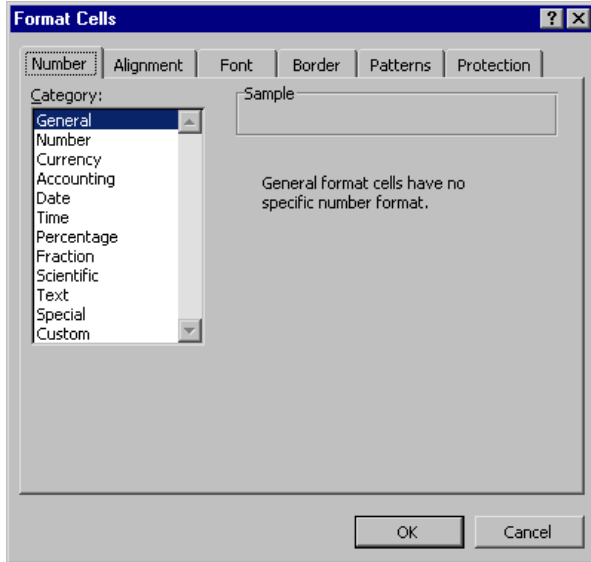
	A	B	C	D	E	F	G	H
1	Computer Sales - Quarter 1							
2	(January to March)							
3								
4	Salesperson	<i>Desktop</i>	<i>lotebooks</i>	<i>Monitors</i>	<i>Printers</i>	<i>Scanners</i>	<i>otal Sales</i>	<i>Sales %</i>
5	Ben	95	18	34	70	56	161720	0.107395
6	Frank	57	47	66	19	97	183440	0.121819

- Select cell **B4**.
- Click on the **Format Painter**  icon on the **Formatting** toolbar.
- Click on cell **A4** to apply the format:

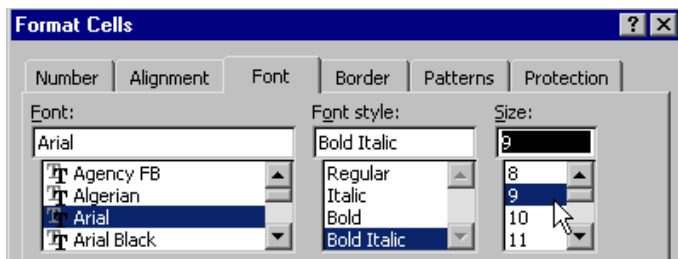
	A	B	C	D	E	F	G	H
1	Computer Sales - Quarter 1							
2	(January to March)							
3								
4	<i>Salesperson</i>	<i>Desktop</i>	<i>lotebooks</i>	<i>Monitors</i>	<i>Printers</i>	<i>Scanners</i>	<i>otal Sales</i>	<i>Sales %</i>
5	Ben	95	18	34	70	56	161720	0.107395
6	Frank	57	47	66	19	97	183440	0.121819

- Now you will modify the **ColumnLabel** style you have just created. From the main menu, choose **Format > Style** to display the **Style** dialog box.
- Click on the **Style name** down arrow, select the **ColumnLabel** style, and click on the **Modify** button to display the **Format Cells** dialog box:

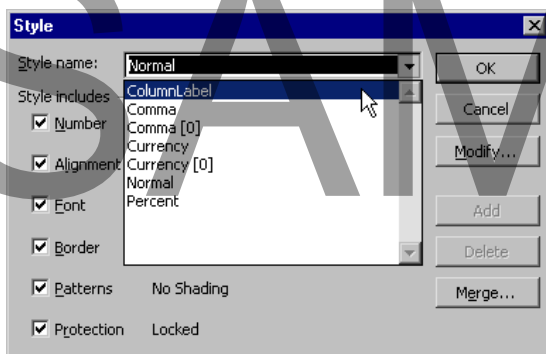
SAMPLE



- Click on the **Font** tab, and select **9** from the **Size** area:

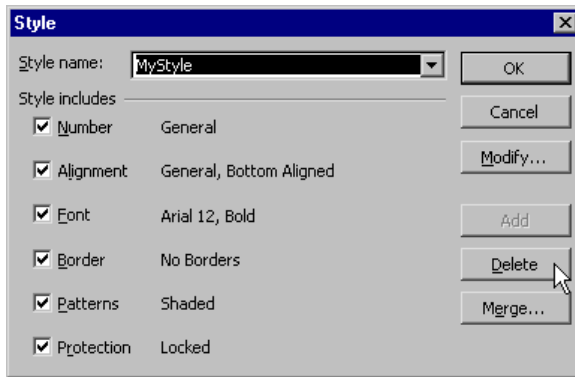


- Click **OK** to return to the **Style** dialog box.
- Click **OK**.
- Select range **A4:H4**.
- Choose **Format > Style**.
- Click on the **Style name** down arrow, and select **ColumnLabel**:



- Click **OK**. You will notice that the font size has now been reduced in tandem with the changes you made to the style.

- Now you will remove the **ColumnLabel** style from the cells you applied it to. To do this, select range **A4:H4**.
- From the main menu, choose **Format > Style** to display the **Style** dialog box.
- Click on the **Style name** down arrow, and select the **Normal** style.
- Click **OK**. You will notice that the formatting has been changed back to its original state.
- The final task is to delete the **ColumnLabel** style. From the main menu, choose **Format > Style** to display the **Style** dialog box.
- Click on the **Style name** down arrow, select **ColumnLabel** from the **Style name** list, and click on the **Delete** button:



- Click **OK**.
- Close **Format.xls** without saving the changes.

Using Conditional Formatting

- Open the **Format.xls** file from the **Excel 2003 Intermediate Samples** folder.
- Click on the **Quarter 2** sheet tab.
- Select range **B5:F10**:

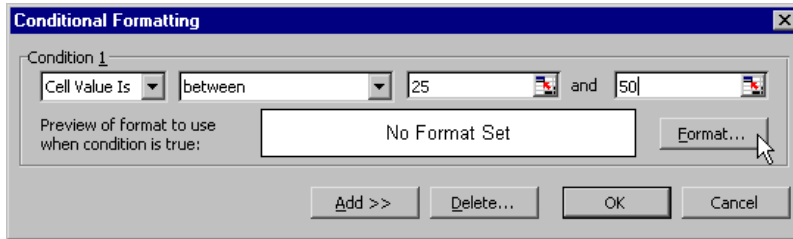
	A	B	C	D	E	F	G	H
1	Computer Sales - Quarter 2							
2	(April to June)							
3								
4	Salesperson	Desktop	Notebooks	Monitors	Printers	Scanners	Total Sales	Sales %
5	Ben	56	49	70	34	57	185,840	15.1%
6	Frank	27	50	47	23	41	145,320	11.8%
7	Mary	56	19	49	58	45	126,800	10.3%
8	Nancy	45	13	52	29	45	100,400	8.1%
9	Tom	92	51	77	55	23	228,360	18.5%
10	Wendy	84	11	47	11	53	131,160	10.6%
11								
12	Total	360	193	553	746	1,299	1,233,680	100.0%

- Choose **Format > Conditional Formatting**.

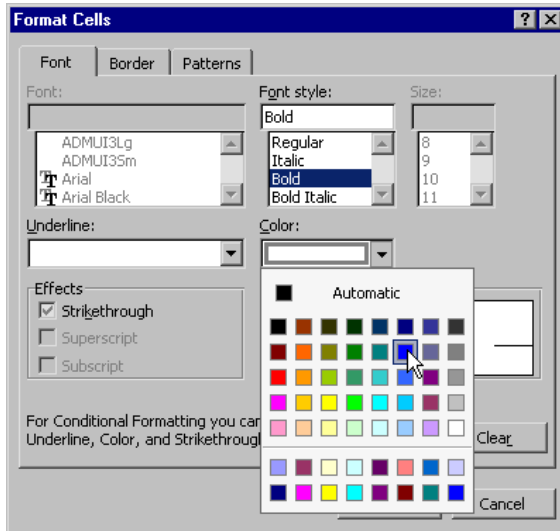
- In **Condition 1**, enter the following criteria:

Cell Value is between 25 and 50

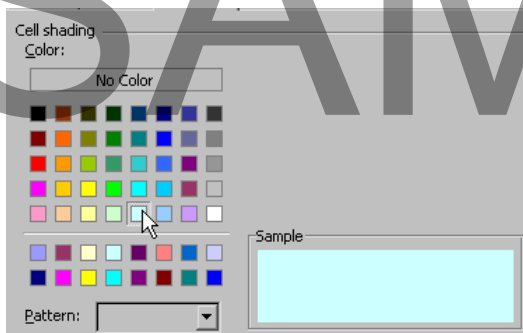
- Click on the **Format** button:



- Click on the **Font** tab, select **Bold** in the **Font style** list box, and select **blue** from the **Color** pop-up menu:

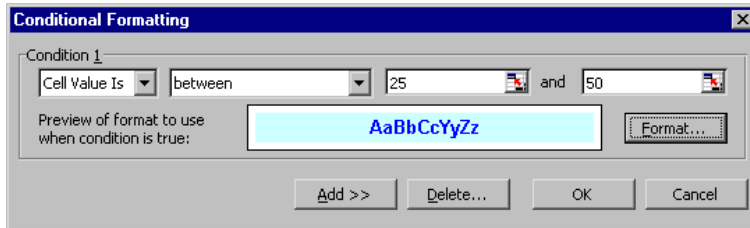


- Click on the **Patterns** tab, and select **light turquoise** from the **Cell shading color**:



SAMPLE

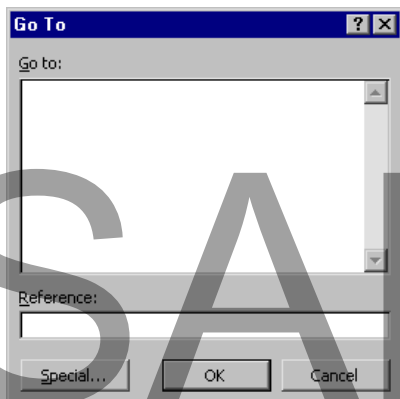
- Click **OK** to close the **Format Cells** dialog box. (An example of a **Conditional Formatting** dialog box is below):



- Click **OK**.
- Deselect the range to see the conditional formatting:

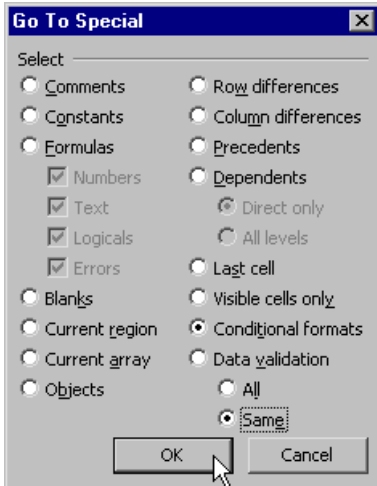
	A	B	C	D	E	F	G	H
1	Computer Sales - Quarter 2							
2	(April to June)							
3								
4	Salesperson	Desktop	Notebooks	Monitors	Printers	Scanners	Total Sales	Sales %
5	Ben	56	49	70	34	57	185,840	15.1%
6	Frank	27	50	47	23	41	145,320	11.8%
7	Mary	56	19	49	58	45	126,800	10.3%
8	Nancy	45	13	52	29	45	100,400	8.1%
9	Tom	92	51	77	55	23	228,360	18.5%
10	Wendy	84	11	47	11	53	131,160	10.6%
11								
12	Total	360	193	553	746	1,299	1,233,680	100.0%

- To find cells with specific conditional formatting, begin by selecting cell **B5**.
- From the main menu, choose **Edit > Go To** to display the **Go To** dialog box:



- Click on the **Special** button to display the **Go To Special** dialog box.
- Select the **Conditional formats** radio button, and select the **Same** radio button below **Data validation**.
- Click **OK** to highlight the cells with the specified conditional formatting:

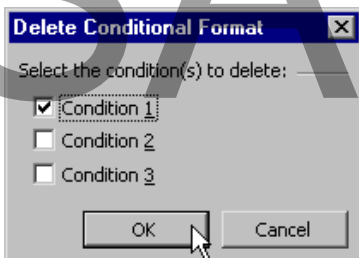
SAMPLE



- You will observe that the entire range **B5:F 10** has now been highlighted:



	A	B	C	D	E	F	G	H
1	Computer Sales - Quarter 2							
2	(April to June)							
3								
4	Salesperson	Desktop	Notebooks	Monitors	Printers	Scanners	Total Sales	Sales %
5	Ben	56	49	70	34	57	185,840.00	15.1%
6	Frank	27	50	47	23	41	145,320.00	11.8%
7	Mary	56	19	49	58	45	126,800.00	10.3%
8	Nancy	45	13	52	29	45	100,400.00	8.1%
9	Tom	92	51	77	55	23	228,360.00	18.5%
10	Wendy	84	11	47	11	53	131,160.00	10.6%
11								
12	Total	360	193	553	746	1,299	1,233,680.00	100.0%

- Now we will delete the conditional formatting you have just created. Begin by selecting range **B5:F 10**.
- From the main menu, choose **Format > Conditional Formatting** to display the **Conditional Formatting** dialog box.
- Click the **Delete** button to display the **Delete Conditional Format** dialog box, select **Condition 1**, and click **OK** to return to the **Conditional Formatting** dialog box:




- Click **OK** to close the **Conditional Formatting** dialog box.
- Close the **Format.xls** file without saving.

Using the Format Painter

- Open the **Format.xls** file from the **Excel 2003 Intermediate Samples** folder.
- Click on the **Quarter 4** sheet tab.
- Begin by selecting cell **A4**.
- Click on the **Format Painter** icon  on the **Formatting** toolbar (your mouse cursor will change to the painter cursor .
- Click on range **A12:H12** to apply the formatting. Your worksheet should look similar to the illustration below:


	A	B	C	D	E	F
1	Computer Sales - Quarter 4					
2	(October to December)					
3						
4	Salesperson	Desktop	Notebooks	Monitors	Printers	Scanners
5	<i>Ben</i>	62	24	17	98	25
6	<i>Frank</i>	81	7	45	23	26
7	<i>Mary</i>	84	23	20	21	53
8	<i>Nancy</i>	85	17	79	25	15
9	<i>Tom</i>	70	22	55	73	49
10	<i>Wendy</i>	82	15	70	52	13
11						
12	Total	464	108	572	680	1252

- Now you will use the **Format Painter** tool to change the width of a column.
- Begin by selecting cell **A1**. From the main menu, select **Format > Cells** to open the **Format Cells** dialog box. Choose **General** from the **Horizontal Text alignment** drop down list. Deselect **Merge cells** from the **Text control** area. Click **OK**. (**Note:** You cannot use **Format Painter** on merged cells).
- Select cell **A2**. From the main menu, select **Format > Cells** to open the **Format Cells** dialog box. Choose **General** from the **Horizontal Text alignment** drop down list. Deselect **Merge cells** from the **Text control** area. Click **OK**.
- Select column **A**.
- Click on the **Format Painter** icon on the **Formatting** toolbar (your mouse cursor will change to the painter cursor .
- Click on the column **B** to apply the column formatting:

	A	B	C
1	Computer Sales - Quarter 4		
2	(October to December)		
3			
4	Salesperson	Desktop	Notebooks
5	<i>Ben</i>	62	24

- Notice how the width of column **B** is now the same as column **A**:

	A	B
1	Computer Sales - Quarter 4	
2	(October to December)	
3		
4	Salesperson	Desktop
5	<i>Ben</i>	62
6	<i>Frank</i>	81
7	<i>Mary</i>	84
8	<i>Nancy</i>	85
9	<i>Tom</i>	70
10	<i>Wendy</i>	82
11		
12	Total	464

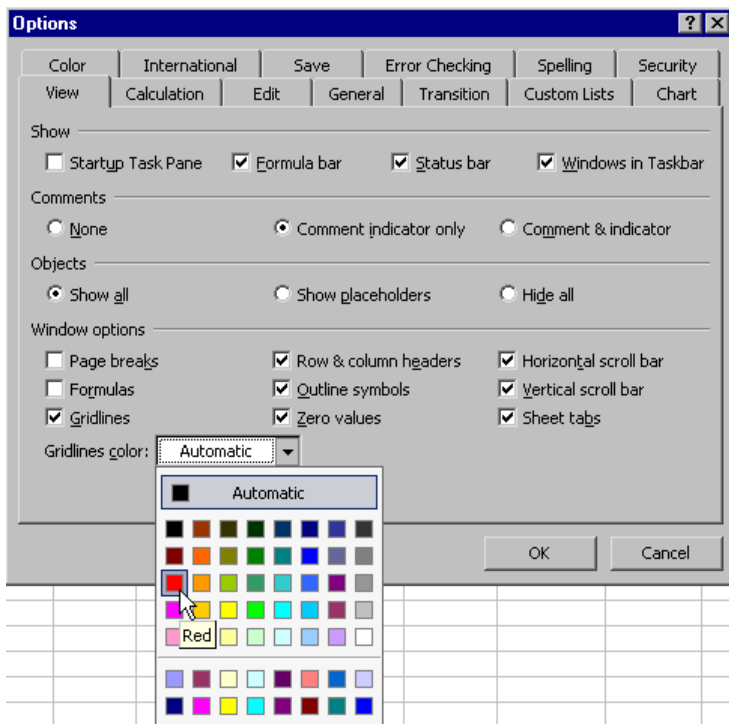
- Now you will copy and apply the **Format Painter** in multiple locations on your worksheet. Begin by selecting cell **A1**.
- Double-click on the **Format Painter** icon on the **Formatting** toolbar (your mouse cursor will change to the painter cursor ).
- In succession, click on the cells **A4** and **A12**.
- Click once on the **Format Painter** icon to end the painter formatting.
- Notice how the new formatting has now been applied to these two cells:

	A	B
1	Computer Sales - Quarter 4	
2	(October to December)	
3		
4	Salesperson	Desktop
5	<i>Ben</i>	62
6	<i>Frank</i>	81
7	<i>Mary</i>	84
8	<i>Nancy</i>	85
9	<i>Tom</i>	70
10	<i>Wendy</i>	82
11		
12	Total	464

- Close the *Format.xls* file without saving.

Using Guidelines

- Open the *Format.xls* file from the **Excel 2003 Intermediate Samples** folder.
- Click on the **Quarter 1** sheet tab.
- Now you will change the color of the gridlines. From the main menu, choose **Tools > Options** to display the **Options** dialog box, and click on the **View** tab.
- Click on the **Gridlines color** down arrow in the **Window options** area, and select **Red**:



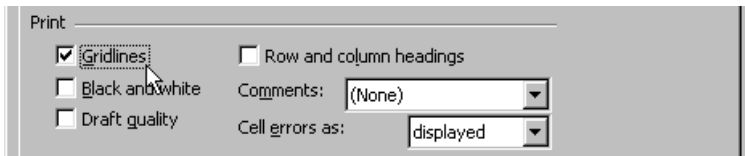
- Click **OK**.
- Notice that the gridlines are now red:

	A	B	C
1	Computer Sales - Quarter 1		
2	(January to March)		
3			
4	Salesperson	Desktop	Notebooks
5	Ben	95	18
6	Frank	57	47
7	Mary	93	29
8	Nancy	60	52
9	Tom	96	43
10	Wendy	86	17

- Now you will turn off the gridlines. From the main menu, choose **Tools > Options** to display the **Options** dialog box, and click on the **View** tab.
- Deselect the **Gridlines** checkbox in the **Window options** area.
- Click **OK**.
- Now you will change the color of the gridlines back to the default color setting (black). From the main menu, choose **Tools > Options** to display the **Options** dialog box, and click on the **View** tab.
- Select the **Gridlines** checkbox in the **Window options** area.
- Click on the **Gridlines color** down arrow in the **Window options** area, and select **Automatic**.
- Click **OK** to close the **Options** dialog box, and apply the changes you made.

- Now you will print the worksheet with the gridlines displayed. From the main menu, choose **File > Page Setup** to display the **Page Setup** dialog box, and click on the **Sheet** tab.
- Select the **Gridlines** checkbox in the **Print** area.
- Click **OK** to exit **Page Setup**

OR click **Print** to print:



- Close the **Format.xls** file without saving.

Hiding and Displaying Cells

Hiding Columns and Rows

- Open the **Format.xls** file from the **Excel 2003 Intermediate Samples** folder.
- Click on the **Quarter 1** sheet tab.
- Begin by selecting columns **B** and **C**.
- From the main menu, choose **Format > Column > Hide**.
- Now select rows **5** and **6**.
- From the main menu, choose **Format > Row > Hide**.
- Now you will hide columns using your mouse. Click and drag the right border of column **F** to the right border of column **A** to hide the columns:

	A	G	H
1	Computer Sales - Quarter 1		
2	(January to March)		
3			
4	Salesperson	Monitors	Printers
7	Mary	14	81
8	Nancy	38	8
9	Tom	29	39
10	Wendy	89	44
11			
12	Total	693	899
13			

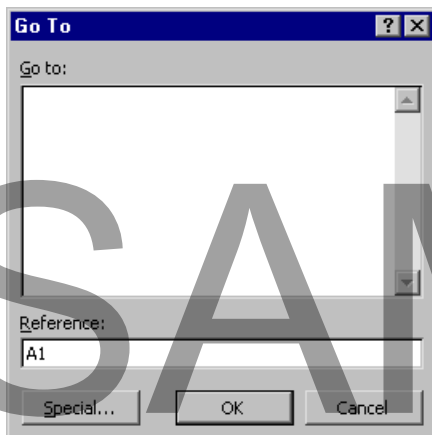
- Click and drag the top border of row **10** to the bottom border of row **4** to hide the rows:

	A	G	H
1	Computer Sales - Quarter 1		
2	(January to March)		
3			
4	Salesperson	Total Sales	Sales %
10	Mary	170720	0.113372
11	Height: 0.00	8800	0.118738
12	Tom	203240	0.134968
13	Wendy	170360	0.113133
14			
15	Total	1505840	1


- Select Column **A**. From the main menu, choose **Format > Column > Hide**.
- From the main menu, select **File > Save As**.
- In the **File name** field, type **Format Sample.xls**, and select **Save**.
- Close **Format Sample.xls**.

Displaying Hidden Columns and Rows

- Open the **Format Sample.xls** file from the **Excel 2003 Intermediate Samples** folder.
- Because column **1** is hidden, you need to use the **Go To** feature to navigate to cell **A1** in order to unhide column **A**. From the main menu, choose **Edit > Go To**, type **A1** in the **Reference** text box, and click **OK**:



- From the main menu, choose **Format > Column > Unhide**.
- Select columns **A** and **G**.
- Now you will unhide the rest of the columns. From the main menu, choose **Format > Column > Unhide**.
- Place the mouse pointer between rows **4** and **10**.

- Move the mouse pointer down slightly until it changes from a single-lined drag cursor to a double-lined drag cursor .
- Drag the row border to down to display the hidden row:

	A
1	Computer Sale
2	(July to Septe
3	
4	Salesperson
5	Wendy
6	
7	
8	
9	
10	
11	
12	Total

Note: You can only display one hidden row at a time, which in this example is row **9**.

- Now we will display the rest of the hidden rows. To do this, select rows **4** and **9**.
- From the main menu, choose **Format > Row > Unhide**.
- Close **Format Sample.xls**, saving the changes you made.

SAMPLE

More Formulas and Functions

Using the Series Command

- Click on the **New** icon on the **Standard** toolbar to create a new workbook.
- Type the number **3** into cell **A1**, and press the **Enter** key.
- Type the number **6** into cell **A2**, and press the **Enter** key.
- Select range **A1:A2**.
- Drag the bottom-right corner to cell **A8**:

	A	B
1	3	
2	6	
3	9	
4	12	
5	15	
6	18	
7	21	
8	24	
9		
10		

- Type **January** into cell **C1**.
- Drag the bottom-right corner of cell **C1** to cell **C12**:

	A	B	C	D
1	3		January	
2	6		February	
3	9		March	
4	12		April	
5	15		May	
6	18		June	
7	21		July	
8	24		August	
9			September	
10			October	
11			November	
12			December	
13				

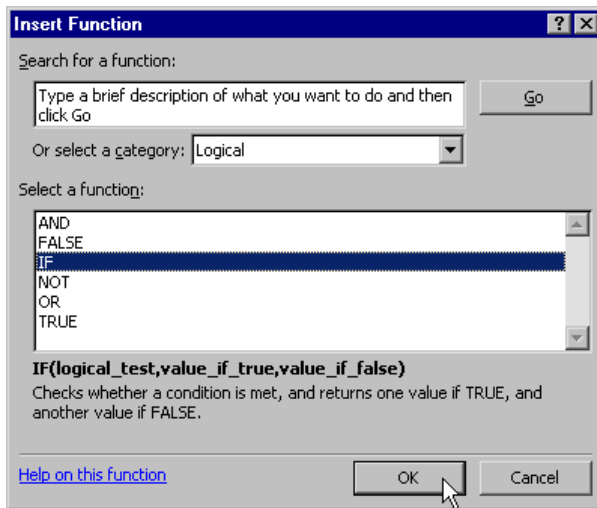
- Close the file without saving.

Using Insert Function Wizard

- The objective of this exercise is to calculate the Bonus for the sales staff of an imaginary company. All sales staff will receive a bonus of \$100. In addition, those who have exceeded their targets will receive a bonus of 5%. Our bonus

calculation will say that if Actual Sales exceeds Forecast Sales, the salesperson will receive \$100 plus 5% of the excess; otherwise, the salesperson will receive just \$100.

- Open the **Bonus.xls** file from the **Excel 2003 Intermediate Samples** folder.
- Select cell **D4**.
- From the main menu, choose **Insert > Function**.
- Choose the **Logical** category.
- Select the **IF** function:

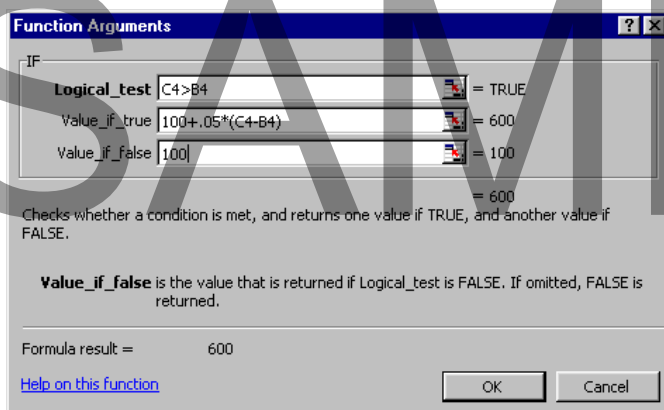


- Click **OK** to display the **Function Arguments** dialog box.
- Enter the following arguments:

Logical_test: C4>B4

Value_if_true: 100+.05*(C4-B4)

Value_if_false: 100



- Click **OK**.

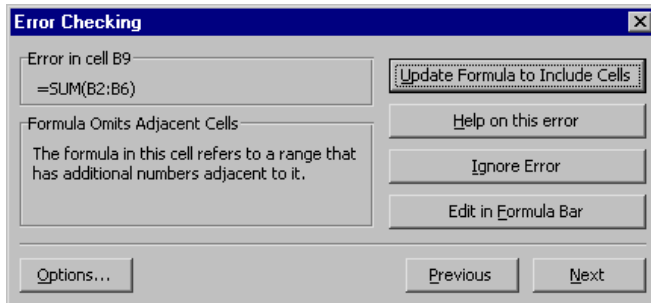
- Copy the contents of cell **D4** to range **D5:D7**:

	A	B	C	D
1	Annual Bonus Calculations			
2				
3	Salesperson	Forecast Sales	Actual Sales	Bonus
4	Murray	50000	60000	600
5	Smith	45000	60000	850
6	Green	40000	45000	350
7	Jones	50000	45000	100
8				

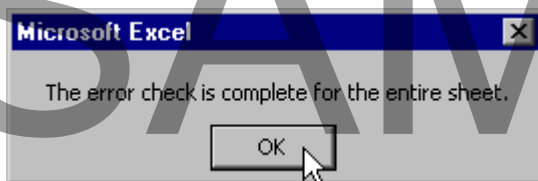
- Close the *Bonus.xls* file without saving.

Using the Formula Error Checker

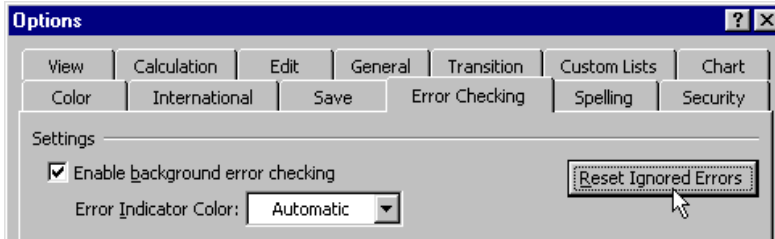
- Open the *CorrectFormula.xls* file from the **Excel 2003 Intermediate Samples** folder.
- Choose **Tools > Error Checking**. This will display the **Error Checking** dialog box:



- Select the **Ignore Error** button.
- In the displayed dialog box, click **OK**:



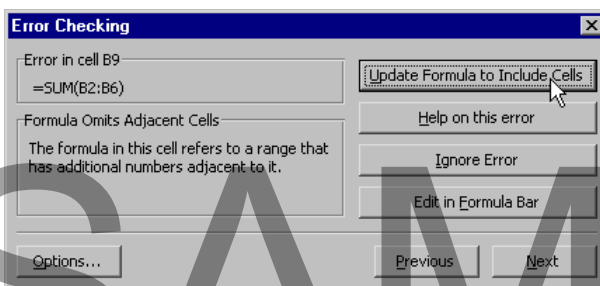
- Now you will recheck the error you just ignored. From the main menu, choose **Tools > Options**, and click the **Error Checking** tab.
- Click on the **Reset Ignored Errors** button.
- Click **OK**:



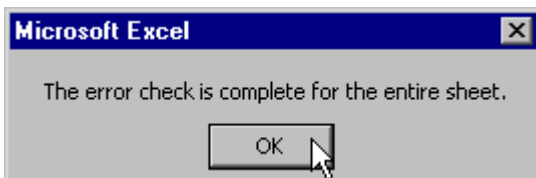
- Choose **Tools > Error Checking** to display the **Error Checking** dialog box:
- Click on the **Help on this error** button, and read the detailed explanation of the error in the **Help** pane. Close the pane.
- From the **Error Checking** dialog box, click **Resume**.
- Click on the **Edit in Formula Bar** to see the formula. Notice that the highlighted range does not include cell **B7**:

	B	C	D	E
1	Desktop	Notebooks	Monitors	Printers
2	95	18	34	70
3	57	47	66	19
4	93	29	14	81
5	60	52	38	8
6	96	43	29	39
7	86	17	89	44
8				
9	=SUM(B2:B6)	206	270	261

- In the **Error Checking** dialog box, click **Resume**.
- Click on the **Update Formula to Include Cells** button:



- Click **OK** to close the displayed Excel message box:





- Take a look at the formula in cell **B9** – it has been corrected to include cell **B7** in the formula:



	B9	fx =SUM(B2:B7)		
	B	C	D	E
1	Desktop	Notebooks	Monitors	Printers
2	95	18	34	70
3	57	47	66	19
4	93	29	14	81
5	60	52	38	8
6	96	43	29	39
7	86	17	89	44
8				
9	487	206	270	261

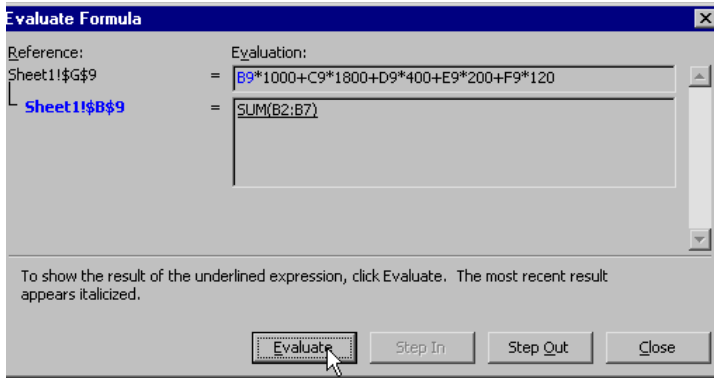
- From the main menu, select **File > Save As**.
- In the **File name** field, type **CorrectFormulaSample.xls**, and click on the **Save** button.
- Close **CorrectFormulaSample.xls**.


Using the Formula Auditing Toolbar

- Open the file **CorrectFormulaSample.xls** from the **Excel 2003 Intermediate Samples** folder.
- Choose **View > Toolbars > Formula Auditing**.
- Select cell **G9**.
- Click on the **Trace Precedents**  icon on the Formula Auditing toolbar.
- Click on the **Trace Precedents** icon again.
- Click on the **Trace Dependents**  icon on the **Formula Auditing** toolbar:

	G9	fx =B9*1000+C9*1800+D9*400+E9*200+F9*120				
	C	D	E	F	G	H
1	Notebooks	Monitors	Printers	Scanners	Total Sales	Sales %
2	18	34	70	56	161,720	15.1%
3	47	66	19	97	183,440	17.2%
4	29	14	81	31	170,720	16.0%
5	52	38	8	70	178,800	16.7%
6	43	29	39	87	203,240	19.0%
7	17	89	44	78	170,360	15.9%
8						
9	206	270	261	419	1,868,200	100.0%

- Click on the **Remove All Arrows**  icon.
- With cell **G9** selected, click on the **Evaluate Formula**  icon on the **Formula Auditing** toolbar to display the **Evaluate Formula** dialog box.
- Click the **Step In** button, and click **Evaluate** to evaluate the secondary formula:



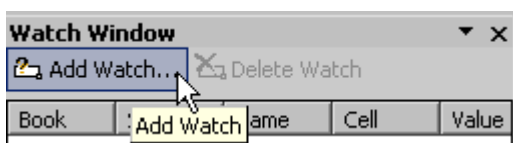
- Click **Step Out**, and click **Evaluate** to evaluate one step of the primary formula.
- Continue clicking the **Evaluate** button until you have stepped through the formula.
- Click **Close**.
- Select cell **B9**.
- From the **Formula Auditing** toolbar, click on the **New Comment** icon .
- Type ***This is a Comment***; and when you are finished, click outside of the comment box to close it:

Tom	96	43	29	39
Wendy	86	17	89	44
Total	487			899

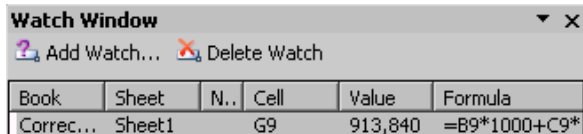
- Close the **Formula Auditing** toolbar.
- From the main menu, choose **File > Save**.
- Close the **CorrectFormulaSample.xls** file.

Using the Watch Window

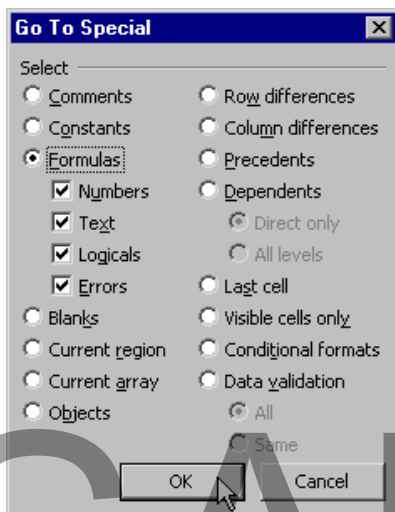
- Open the **CorrectFormulaSample.xls** file from the **Excel 2003 Intermediate Samples** folder.
- Select cell **G9**.
- Choose **Tools > Formula Auditing > Show Watch Window**.
- Click on the **Add Watch** icon:



- In the displayed **Add Watch** dialog box, click **Add**.
- Select cell **C2**.
- Enter the number **25**, and press the **Enter** key. Notice that the value in the **Watch Window** changes.
- Experiment with changing other values, and see the effect in the **Watch Window**:



- Select the watch you have just created, and click **Delete Watch**.
- From the **Watch Window**, click the **Close** icon at the top-right corner of the window to hide it.
- Now you will add a Watch to all the cells in the worksheet with formulas. From the main menu, choose **Edit > Go To** to display the **Go To** dialog box, click on the **Special** button to display the **Go To Special** dialog box.
- Select the **Formulas** radio button, and click **OK** to select all cells with formulas:



- From the main menu, choose **Tools > Formula Auditing > Show Watch Window** to display the Watch Window.
- Click **Add Watch** to display the **Add Watch** dialog, and click **Add**.
- Observe that all the cells with formulas are now listed in the **Watch Window**.
- Close the **Watch Window**.
- From the main menu, choose **File > Save**.
- Close the **CorrectFormulaSample.xls** file.

Database and List Management

Creating and Editing a Database

Creating an assigned list

- Open the *inventory.xls* file from the **Excel 2003 Intermediate Samples** folder.
- Select any cell within the worksheet database.
- Right-click and choose **Create List** from the pop-up menu:



- In the **Create List** dialog box, click **OK**.
- Select any cell in the list to view the changes. Note the distinctive dark blue border around the list, and that the list is automatically in **AutoFilter** mode:

	A	B	C
1	Type	Item	On Hand
2	Books	6356	212
3	Magazines	4786	34
4	Newspapers	8921	22
5	Books	4173	95
6	Books	4392	223
7	Candy	7873	87
8	Magazines	2396	12
9	Newspapers	5271	9
10	Magazines	2904	35
11	Candy	8762	93
12	*		

- Notice that the **List** toolbar is now automatically displayed. If it is not, select **View > Toolbars > List** from the main menu.
- Now you will add more items to our list. Select cell **A12**, type **Candy**, and then press the **Enter** key.
- Notice that the list automatically expands to make room for the data, and that the blue asterisk has moved from cell **A12** to cell **A13**:

	A	B	C
1	Type	Item	On Hand
2	Books	6356	212
3	Magazines	4786	34
4	Newspapers	8921	22
5	Books	4173	95
6	Books	4392	223
7	Candy	7873	87
8	Magazines	2396	12
9	Newspapers	5271	9
10	Magazines	2904	35
11	Candy	8762	93
12	Candy		
13	*		

- To insert a total row, first click anywhere inside an assigned list and then from the main menu, select **Data > List > Total Row**

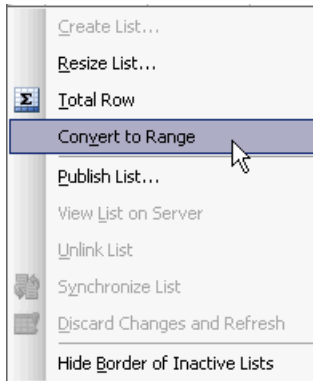
OR click on the **Toggle Total Row** icon on the **List** toolbar:



- The list sum will automatically be displayed in the total row, at the bottom of the column. Click on the drop-down menu to select the **Max** function:

	A	B	C
1	Type	Item	On Hand
2	Books	6356	212
3	Magazines	4786	34
4	Newspapers	8921	22
5	Books	4173	95
6	Books	4392	223
7	Candy	7873	87
8	Magazines	2396	12
9	Newspapers	5271	9
10	Magazines	2904	35
11	Candy	8762	93
12	Candy		
13	*		
14	Total		827
15			None
16			Average
17			Count
18			Count Nums
19			Max
20			Min
21			Sum
			StdDev
			Var

- Note that the total row now displays **223**, which is the maximum number of items on hand in the store.
- Select any cell within the list. Right-click to display the pop-up menu, and select **List > Convert to Range**:

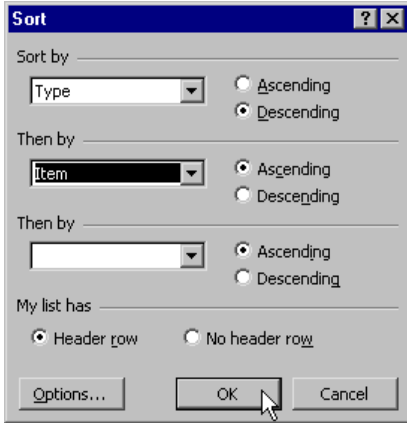


- Click **Yes** to close the dialog box.
- Close the **List** toolbar.
- Close *inventory.xls* without saving the changes.

Sorting a Database

- Open the *inventory.xls* file from the **Excel 2003 Intermediate Samples** folder.
- Select cell **A1**.
- Choose **Data > Sort**.
- Click on the **Sort by** down arrow, and select **Type**. Click on the **Descending** radio button.
- Click on the **Then by** down arrow, and select **Item**. Click on the **Ascending** radio button.
- Click the **Header row** radio button.

SAMPLE



- Click **OK** to sort:

	A	B	C
1	Type	Item	On Hand
2	Newspapers	5271	9
3	Newspapers	8921	22
4	Magazines	2396	12
5	Magazines	2904	35
6	Magazines	4786	34
7	Candy	7873	87
8	Candy	8762	93
9	Books	4173	95
10	Books	4392	223
11	Books	6356	212
12			

- Close the *inventory.xls* file without saving.

Using AutoFilters

- Open the *sales.xls* file from the **Excel 2003 Intermediate Samples** folder.
- Choose **Data > Filter > AutoFilter** to turn on AutoFilter mode.
- Select **Top 10** from the **Desktop** dropdown list:

	A	B
1	Salespersc	Desktop
2	Ben	Sort Ascending
3	Frank	Sort Descending
4	Mary	(All)
5	Nanc	(Top 10...)
6	Tnm	(Custom...)

- Enter the following criteria in the dialog box:

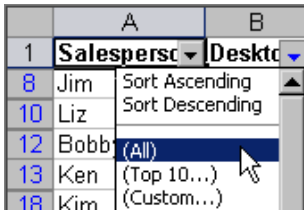
Top 5 Items



- Click **OK**.
- Note the effects of the AutoFilter:

	A	B	C	D	E	F
1	Salespersc	Desktc	Noteboo	Monito	Printe	Scanne
8	Jim	95	18	34	70	56
10	Liz	93	29	14	81	31
12	Bobby	96	43	29	39	87
13	Ken	86	17	89	44	78
18	Kim	92	51	77	55	23
26						

- Select **All** from the **Desktop** dropdown list:

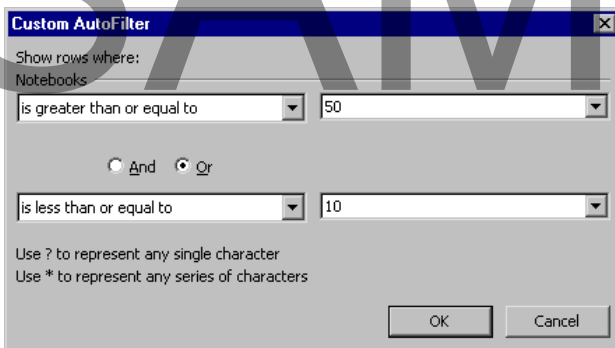


- Select **Custom** from the **Notebook** dropdown list.
- Enter the following criteria in the dialog box **Show rows where: Notebooks**

Is greater than or equal to 50

OR

Is less than or equal to 10



SAMPLE

- Click **OK**:

	A	B	C	D	E	F
1	Salespersc	Desktc	Notebook	Monito	Printe	Scanne
5	Nancy	16	60	35	17	36
11	Rachel	60	52	38	8	70
15	Alison	27	50	47	23	41
18	Kim	92	51	77	55	23
21	Carey	81	7	45	23	26
26						

- Choose **Data > Filter > AutoFilter** to turn off AutoFilter.
- Close the *sales.xls* file without saving.

Using Advanced Filter


- Open the *sales.xls* file from the **Excel 2003 Intermediate Samples** folder.
- Select range **A1:A5**.
- Choose **Insert > Rows**.
- Select range **A6:F6**.
- Click on the **Copy** icon on the **Standard** toolbar.
- Select cell **A1**.
- Click on the **Paste** icon on the **Standard** toolbar:

	A	B	C	D	E	F
1	Salesperson	Desktop	Notebooks	Monitors	Printers	Scanners
2						
3						
4						
5						
6	Salesperson	Desktop	Notebooks	Monitors	Printers	Scanners

- Select cell **B2**, and enter the following
>**80**
- Select cell **C3**, and enter the following
>**50**
- Select cell **D4**, and enter the following
>**75**

SAMPLE

	A	B	C	D	E	F
1	Salesperson	Desktop	Notebooks	Monitors	Printers	Scanners
2		>80				
3			>50			
4				>75		
5						
6	Salesperson	Desktop	Notebooks	Monitors	Printers	Scanners
7	Ben	41	11	30	16	88
8	Frank	17	28	50	94	58

- Select cell **A6**.
- Choose **Data > Filter > Advanced Filter**.
- Select the **Copy to another location** radio button.
- In the **List range** text box, check to see that the range, **\$A\$6:\$F\$30** is entered.
- In the **Criteria range** text box, click on the **Minimize Dialog**  icon, and select range **A1:F4**.
- Press the **Enter** key.
- In the **Copy to** text box, click on the **Minimize Dialog** icon, and select cell **H6**.
- Press the **Enter** key:



- Click **OK**:

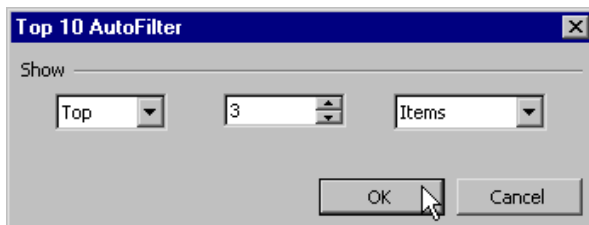
	H	I	J	K	L	M
6	Salesperson	Desktop	Notebook	Monitors	Printers	Scanners
7	Nancy	16	60	35	17	86
8	Jim	95	18	34	70	56
9	Liz	93	29	14	81	81
10	Rachel	60	52	38	8	70
11	Bobby	96	43	29	39	87
12	Ken	86	17	89	44	78
13	Kim	92	51	77	55	23
14	Tyler	84	11	47	11	53
15	Carey	81	7	45	23	26
16	Rita	84	23	20	21	53
17	John	85	17	79	25	15
18	Bill	82	15	70	52	13

- Close the **sales.xls** file without saving.

Working with Filtered Data

Totaling fields within a filtered database list

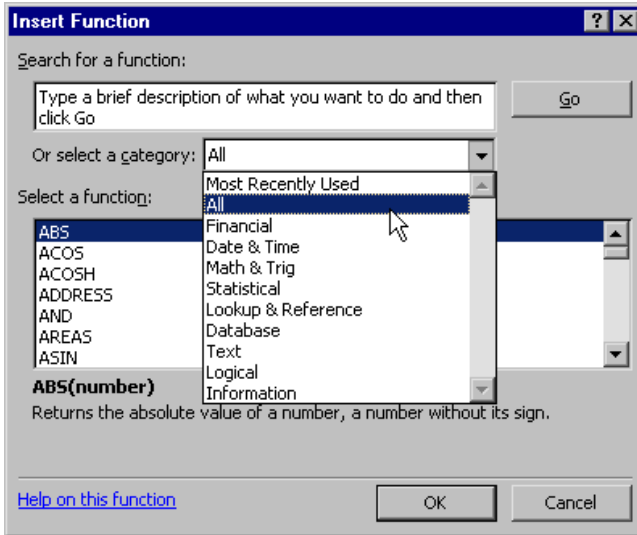
- Open the *sales.xls* file from the **Excel 2003 Intermediate Samples** folder.
- From the main menu, select **Data > Filter > AutoFilter**.
- Choose **Top 10** from the **Desktop** drop-down list.
- In the **Top 10 AutoFilter** dialog box, change the value in the middle text box to **3**, as illustrated:



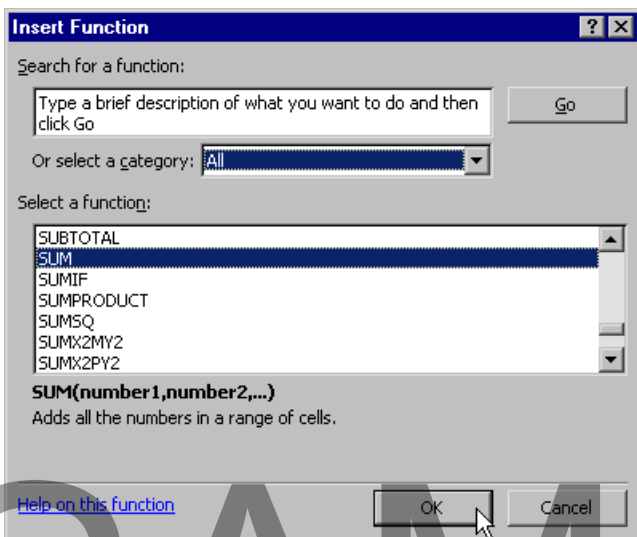
- Click **OK**.
- Click on cell **B26**, and then select the **AutoSum** icon Σ from the **Standard** toolbar.
- Press the **Enter** button on your keyboard.
- As you can see, only the filtered items have been totaled:

	A	B	C	D	E
1	Salespersc	Desktc	Notebook	Monito	Printe
8	Jim	95	18	34	70
10	Liz	93	29	14	81
12	Bobby	96	43	29	39
26		284			

- Now you will include all of the items in your total - including the hidden items.
- To do this, you must use the SUM function. To begin the process, select cell **B26**, and press the **Delete** key.
- Click on the **Insert Function** icon.
- From the **Or select a category** drop-down menu, select **All**:



- In the **Select a function** area, scroll down the list and select **SUM**.
- Click **OK**:



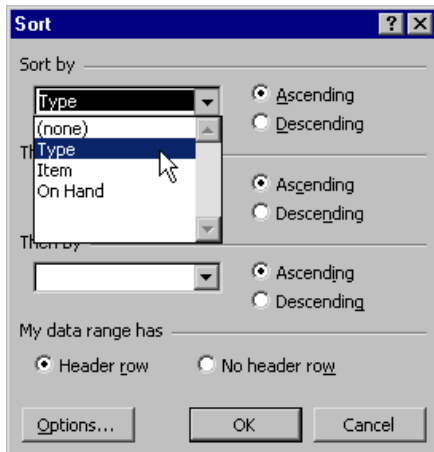
- Click **OK** to close the **Function Arguments** dialog box.
- As you will observe, all of the Desktops have been totaled this time - even the hidden items, which were ignored last time:

	A	B	C	D
1	Salespersc	Desktc	Notebooc	Monito
8	Jim	95	18	34
10	Liz	93	29	14
12	Bobby	96	43	29
26		1532		

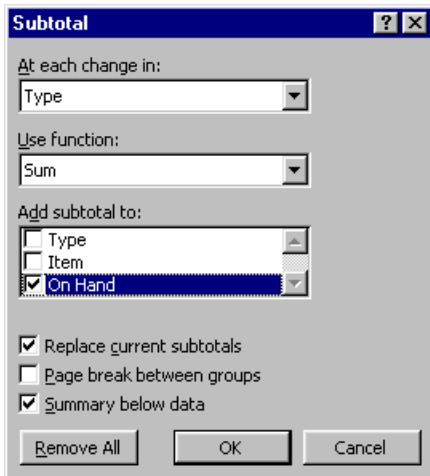
- Close the *sales.xls* file without saving the changes.

Creating Subtotals

- Open the *inventory.xls* file from the **Excel 2003 Intermediate Samples** folder.
- Begin by grouping the rows you want to subtotal together using the **Sort** command. To accomplish this, select **Data > Sort** from the main menu.
- In the displayed **Sort** dialog box, select **Type** from the **Sort by** drop-down menu:



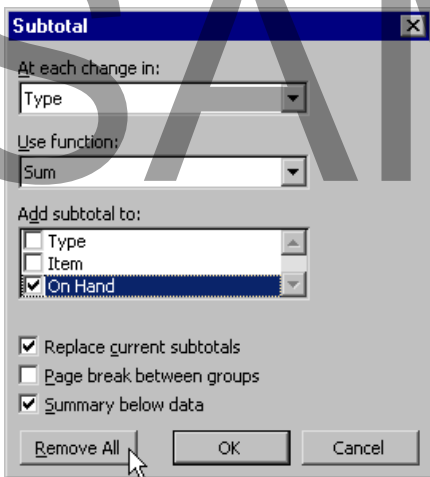
- Click **OK** to close the **Sort** dialog box.
- From the main menu, choose **Data > Subtotals** to display the **Subtotal** dialog box.
- Select **Type** from the **At each change in** dropdown list.
- Select **Sum** from the **Use function** dropdown list.
- Select **On Hand** by checking the appropriate checkbox in the **Add subtotal to** list box.
- Select the **Replace current subtotals** checkbox to replace any existing subtotals.
- Select the **Summary below data** checkbox.
- Click **OK**:



- Collapse any group by clicking on the minus signs (-), and expand a group by clicking on the plus signs (+), as illustrated:

	A	B	C
1	Type	Item	On Hand
5	Books Total		530
6	Candy	7873	87
7	Candy	8762	93
8	Candy Total		180
9	Magazines	4786	34
10	Magazines	2396	12
11	Magazines	2904	35
12	Magazines Total		81
13	Newspapers	8921	22
14	Newspapers	5271	9
15	Newspapers Total		31
16	Grand Total		822

- Now you will remove the subtotals. From the main menu, choose **Data > Subtotals** to display the **Subtotal** dialog box.
- Click **Remove All**:



SAMPLE

- Close *inventory.xls* without saving the changes.

Using Data Forms

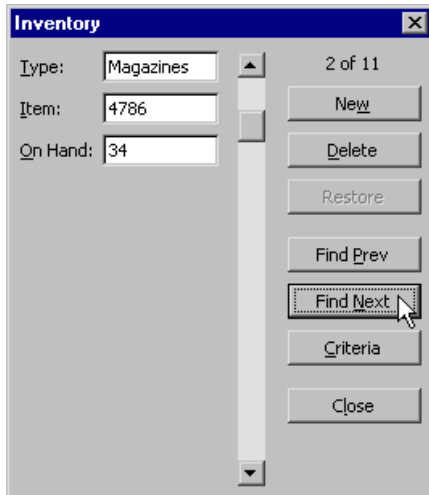
- Open the *inventory.xls* file from the **Excel 2003 Intermediate Samples** folder.
- Select cell **A1**.
- Choose **Data > Form** to display the **Data Form** for the list.
- Click on the **New** button.
- Enter the following record:



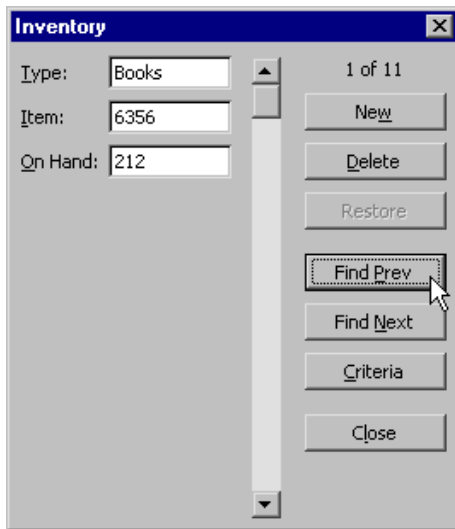
The screenshot shows the 'Inventory' Data Form window. It has a title bar with 'Inventory' and a close button. The form contains three input fields: 'Type:' with 'Books', 'Item:' with '1234', and 'On Hand:' with '8'. To the right of these fields is a vertical scroll bar. On the right side of the form, there is a 'New Record' section with a 'New' button. Below this are buttons for 'Delete', 'Restore', 'Find Prev', 'Find Next', 'Criteria', and 'Close'.

- Press the **Enter** key.
- Click **Close** to close the **Data Form**.
- Select cell **A1**.
- Choose **Data > Form** to display the **Data Form** for the list.
- Click on the **Find Next** button:

SAMPLE

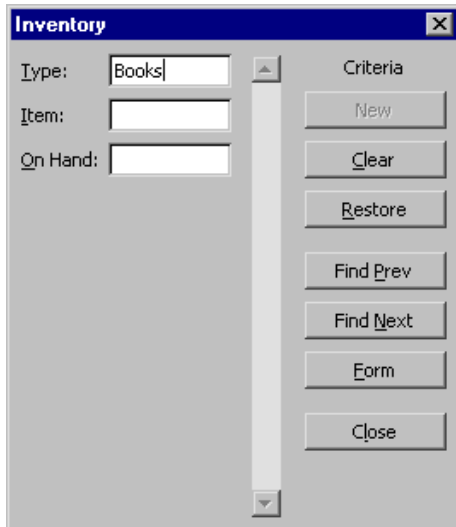


- Click on the **Find Prev** button:

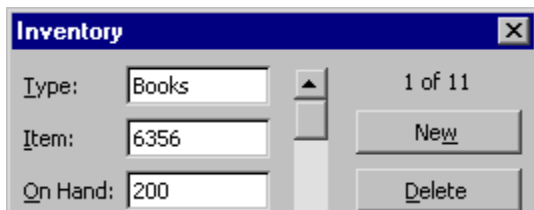


- Click on the **Criteria** button to display a blank criteria form.
- Enter **Books** into the **Type** field:

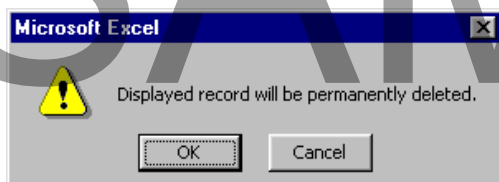
SAMPLE



- Click on the **Find Prev** button to find the previous record that meets your criteria
- Click on the **Find Next** button to find the next record that meets your criteria.
- Click the **Close** button to close the **Data Form**.
- Select cell **A1**.
- Choose **Data > Form** to display the **Data Form** for the list.
- Click in the **On Hand** field, and change the value to **200**:



- Click on the **Close** button to save the changes.
- Select cell **A1**.
- Choose **Data > Form** to display the **Data Form** for the list.
- Click on the **Delete** button. A warning message will be displayed:



- Click **OK** to delete the record.


Note: Deleting a record will delete the entire row, and move the records below up.

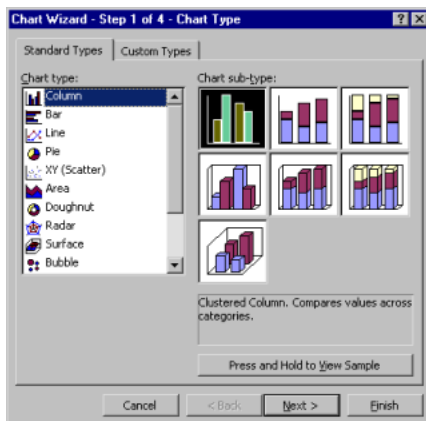
- Click on the **Close** button to save the changes.
- Close the *inventory.xls* file without saving.

SAMPLE

Charts

Using the Chart Wizard

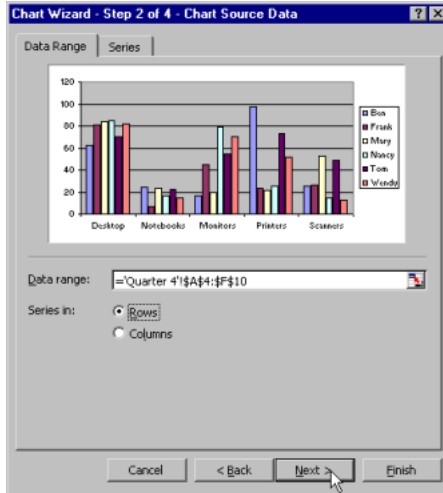
- Open the **Format.xls** file from the **Excel 2003 Intermediate Samples** folder.
- Click on the **Quarter 4** sheet tab.
- Select range **A4:F10**.
- Click on the **Chart Wizard**  icon on the **Standard** toolbar.
- Select **Column** from the **Chart Type** list box.
- Select **Clustered Column** (the first sub-type) from the **Chart sub-type**:



- Click and hold on the **Press and Hold to View Sample** button to preview the chart.
- Click **Next**.
- Select the **Rows** radio button to display the series in rows.

SAMPLE

- Click **Next**:

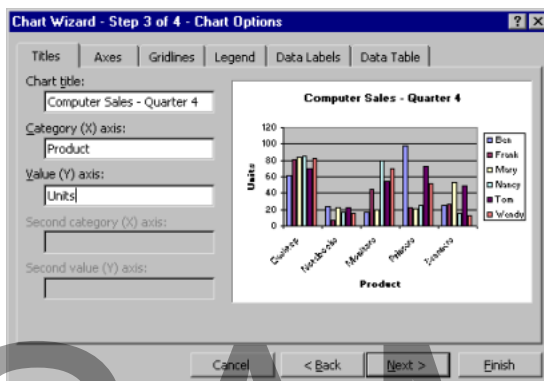


- Click on the **Titles** tab, and enter the following titles:

Chart title: **Computer Sales – Quarter 4**

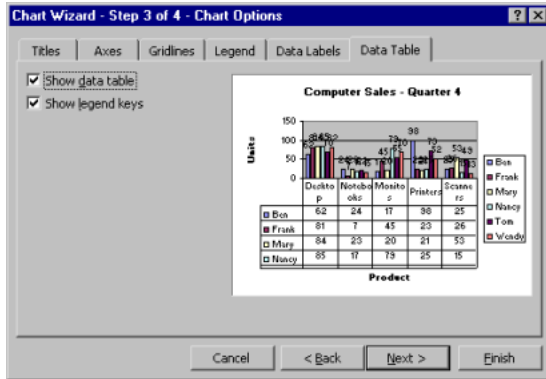
Category (X) axis: **Product**

Value (Y) axis: **Units**

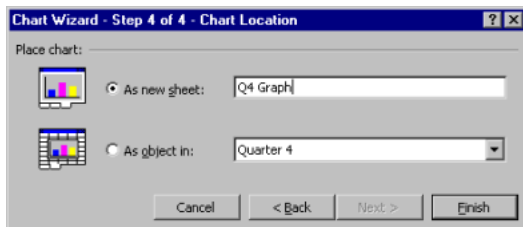


- Click on the **Legend** tab, and select the **Show legend** checkbox.
- Click on the **Data Labels** tab, and select the **Value** checkbox.
- Click on the **Data Table** tab, select the **Show data table** checkbox, and select the **Show legend keys**.

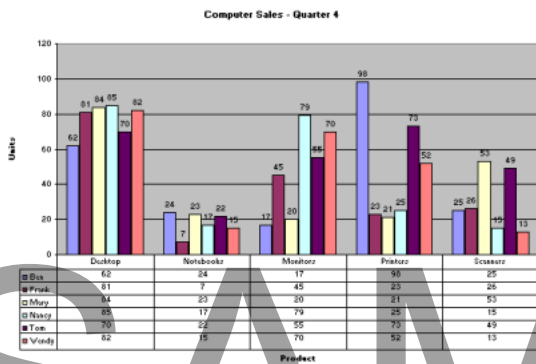
- Click **Next**:



- Select the **As new sheet** radio button, and enter **Q4 Graph** in the text box:




- Click **Finish**:

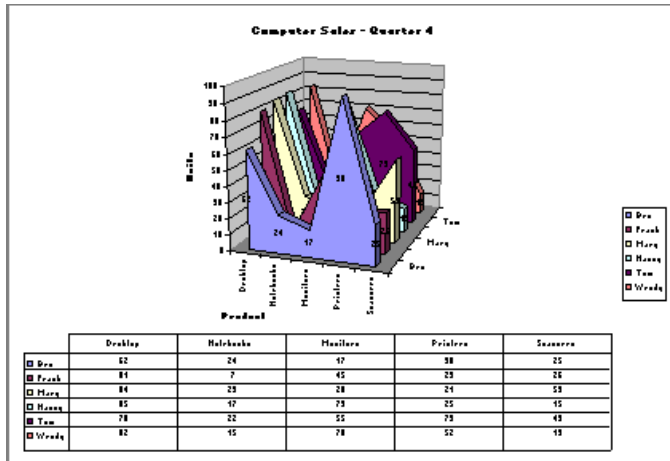


- From the main menu, choose **File > Save As**.
- In the **File** name field, type **FormatChart.xls** and click **Save**.
- Close **FormatChart.xls**.

Formatting the Chart


- Open the **FormatChart.xls** file from the **Excel 2003 Intermediate Samples** folder.

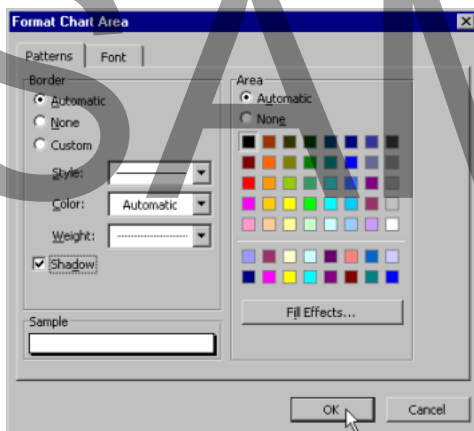
- Click on the chart, and display the **Chart** toolbar by selecting **View > Toolbars > Chart** from the main menu.
- Select **Chart Area** from the **Chart Objects** dropdown list.
- Click the arrow to the right of the **Chart Type** button  on the **Chart** toolbar, and select **3-D Area Chart** from the list:



- Click on the **Undo** icon on the **Standard** toolbar to undo the chart type change.
- Select **Chart Area** from the **Chart Objects** dropdown list:



- Click on the **Format Chart Area**  icon to format the Chart Area.
- In the **Format Chart Area** dialog box, select the **Shadow** checkbox.
- Click **OK** to apply the format:

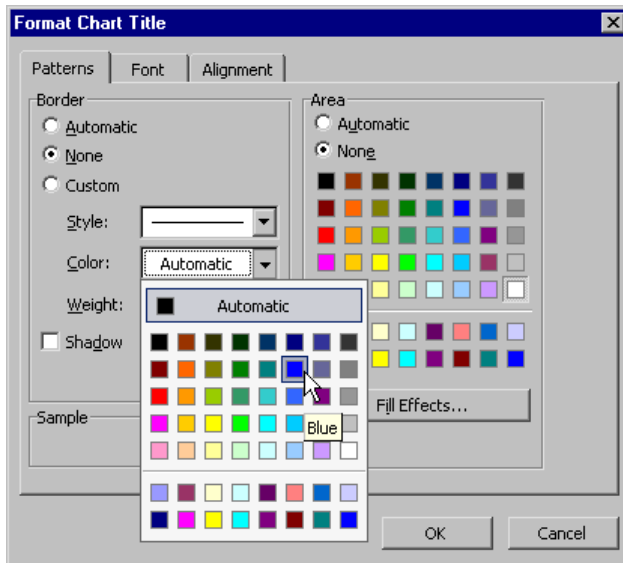


SAMPLE

- From the **Chart** toolbar, click the **Chart Objects** down arrow, select **Chart Title**.
- Click on the **Format Chart Title** icon to display the **Format Chart Title** dialog box.
- Click on the **Patterns** tab to customize your chart title:

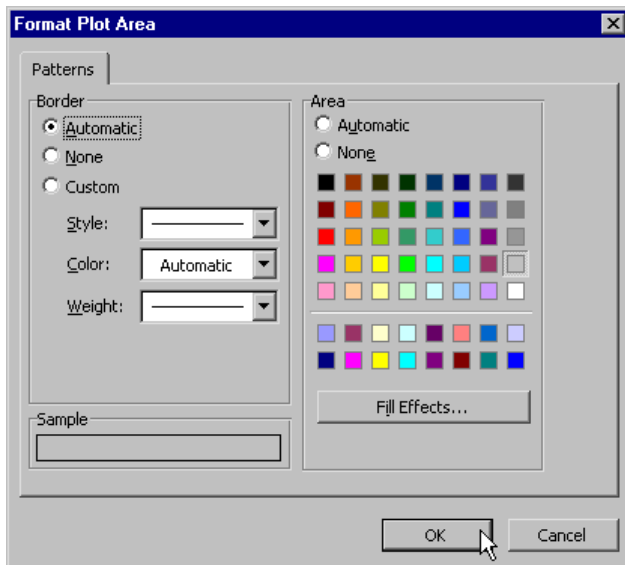


- From the **Color** drop-down menu in the **Border** area, select **Blue**:



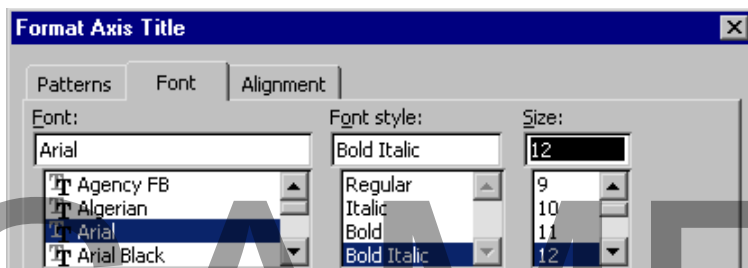
- Click **OK** to apply the changes.
- From the **Chart** toolbar, click the **Chart Objects** down arrow, select **Plot Area**.
- Click on the **Format Plot Area** icon to display the **Format Plot Area** dialog box.
- In the **Border** area, select **Automatic**, and click **OK**:

SAMPLE



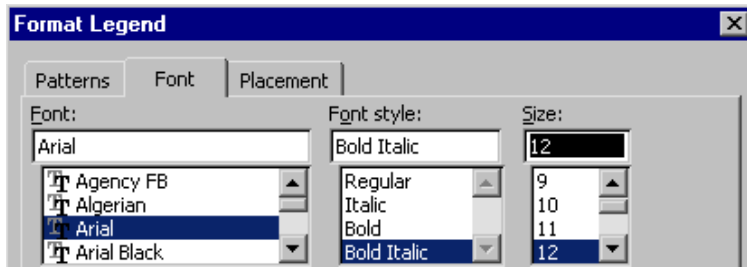
- From the **Chart** toolbar, click the **Chart Objects** down arrow, select **Category Axis Title** to format the **X** axis title.
- Click on the **Format Axis Title** icon to display the **Format Axis Title** dialog box.
- Click on the **Font** tab, and select the following options:

Font: *Arial*
Font Style: *Bold Italic*
Size: *12*



- Click **OK** to apply the changes, and close the dialog box.
- From the **Chart** toolbar, click the **Chart Objects** down arrow, select **Legend**.
- Click on the **Format Legend** icon to display the **Format Legend** dialog box.
- Click on the **Font** tab, and select the following options:

Font: *Arial*
Font Style: *Bold Italic*
Size: *12*



- Click **OK** to apply the changes, and close the dialog box.
- From the main menu, choose **File > Save**.
- Close *FormatChart.xls*.

SAMPLE

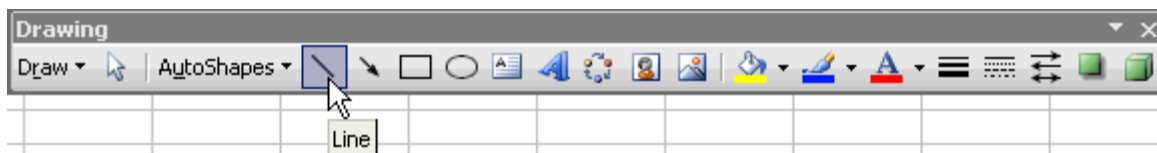
Drawing and Picture Objects

Using the Drawing Toolbar

- Click on the **New** icon on the **Standard** toolbar to create a new workbook.
- From the main menu, choose **View > Toolbars > Drawing**


OR click on the **Drawing** icon  on the **Standard** toolbar.

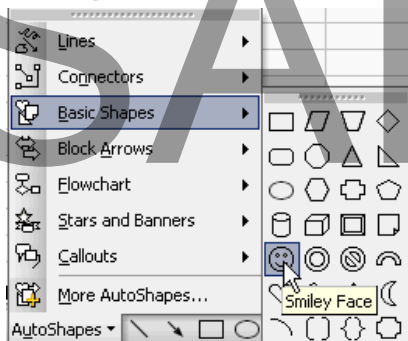
- Hover your mouse over each icon on the **Drawing** toolbar to see a description of each task:



- Close the workbook without saving the changes.

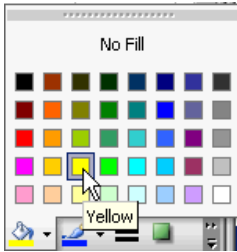
Working with AutoShapes

- Click on the **New** icon on the **Standard** toolbar to create a new workbook.
- Click on the **Drawing**  icon on the **Standard** toolbar to display the **Drawing** toolbar (if it is not already displayed).
- From the **Drawing** toolbar, click on the **AutoShape** icon, select **Basic Shapes**, and choose **Smiley Face**:

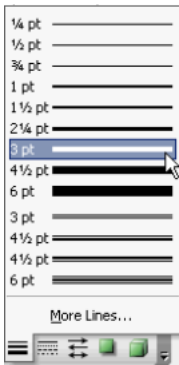


- In the worksheet, click and drag the mouse to draw the object.
- Select the **Smiley Face** object.

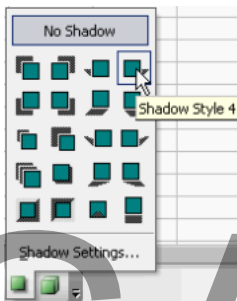
- From the **Drawing** toolbar, click on the **Fill Color**, and select **Yellow**:



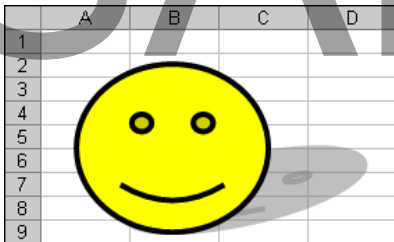
- Click on the **Line Style**  icon, and select **3 pt**:



- Click on the **Shadow Style**  icon, and select **Shadow Style 4**:



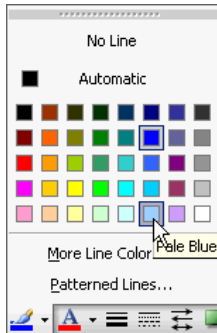
- View the results:



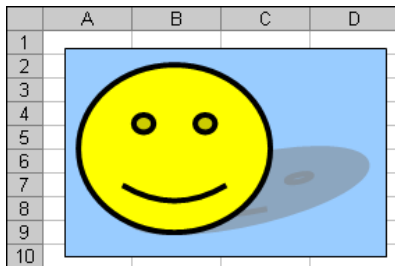
- Click on the **Rectangle**  icon on the **Drawing** toolbar.

SAMPLE

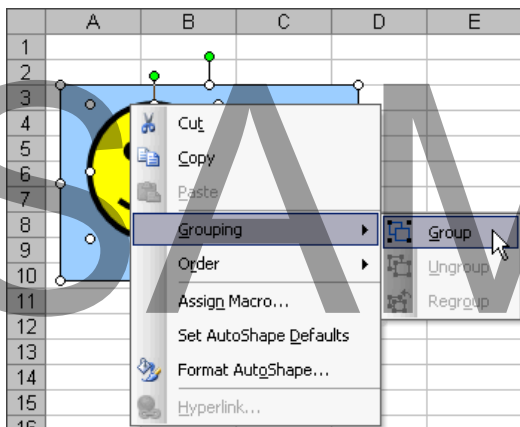
- From the worksheet, click and drag the mouse to draw a **Rectangle** such that it completely covers the **Smiley Face**.
- Select the **Rectangle** object.
- From the **Drawing** toolbar, click on the **Fill Color**, and select **Pale Blue**:



- Right-click on the **Rectangle** object, choose **Order > Send to Back**:




- With the **Rectangle** object selected, hold down the **Shift** key, and click on the **Smiley Face** object to select both objects.
- Right-click on over the selection, and choose **Grouping > Group**:



- From the main menu, choose **File > Save**.
- In the **Save as** dialog box, type **Autoshapes.xls** in the **File name** field.
- Click **Save**, and close **Autoshapes.xls**.

Creating Text Boxes

- Open *Autoshapes.xls* from the **Excel 2003 Intermediate Samples** folder.
- Click on the **Text Box**  icon on the **Drawing** toolbar.
- In the worksheet, click and drag the mouse to draw a **Text Box** in a blank area of the worksheet.
- Type ***This is a nice Smiley Face***, and click outside the box:



- Click on the text box once again to select it in order to edit the text.
- Delete the text and type ***Have a Nice Day!***:



- Click on the **Text Box** border, and resize the text box so that the text fits on one line.
- Select the **Rectangle** object, and drag to move the object so that it overlaps the **Text Box**. (Notice that the Smiley Face and the Rectangle objects move together):




Note: Open the *Drawing.xls* file in the **Excel 2003 Intermediate Samples** folder to see an example.

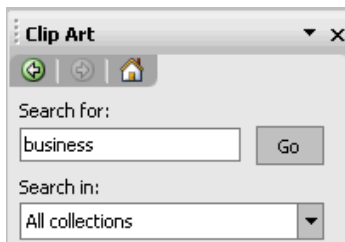
- From the main menu, choose **File > Save**.

- Close *Autoshapes.xls*.

Adding Pictures

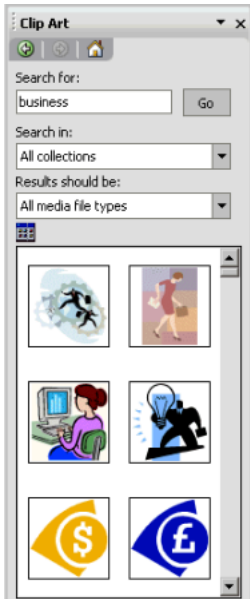
Inserting Clip Art

- Create a new workbook.
- Begin by selecting cell **A1**.
- Display the **Drawing** toolbar by selecting **View > Toolbars > Drawing** from the main menu.
- From the **Drawing** toolbar, click on the **Insert Clip Art** icon  to display the **Clip Art** pane, which has been enhanced in Excel 2003.
- Enter *business* in the **Search for** field.
- Select **All collections** in the **Search in** drop-down menu, and click on the **Go** button:




- Choose the clip art that you want, scrolling the text area to browse the available selections:

SAMPLE




- Click once on the clip art to insert it into your worksheet.
- Close the workbook without saving the changes.

Inserting a picture

- Create a new workbook.
- Select cell **A1**.
- Display the **Picture** toolbar by selecting **View > Toolbars > Picture** from the main menu.
- From the **Picture** toolbar, click on the **Insert Picture From File** icon  to display the **Insert Picture** dialog box.
- Navigate to the **Excel 2003 Intermediate Samples** folder, select **Beach Day.jpg**, and click **Insert**.
- Select the picture in order to resize it.
- Place your mouse pointer over one of the circular resize handles, and drag the resize handle to a much smaller size:



- From the **Picture** toolbar, click on the **Insert Picture From File** icon  to display the **Insert Picture** dialog box.
- Navigate to the **Excel 2003 Intermediate Samples** folder, select ***Sleeping.jpg***, and click **Insert**.
- Select the picture in order to resize it.
- Place your mouse pointer over one of the circular resize handles, and drag the resize handle to a smaller size, similar to the first picture:



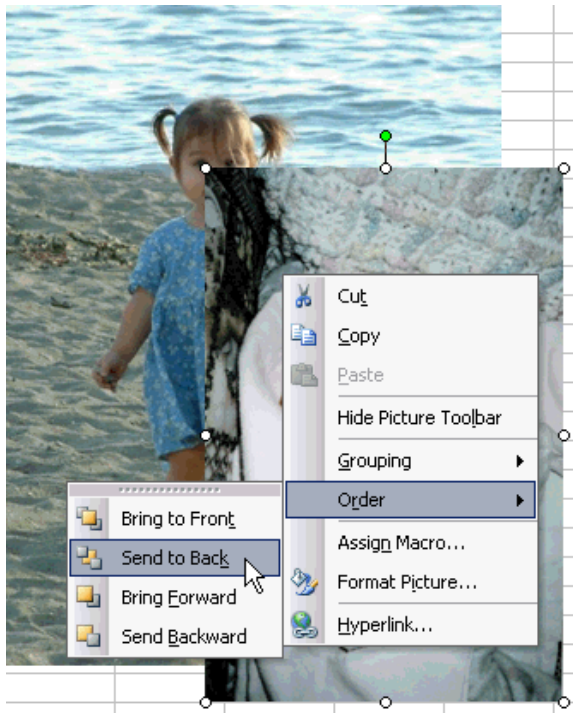
- From the main menu, select **File > Save**.
- In the **Save as** dialog box, type ***Pictures.xls*** in the **File name** field.
- Click **Save**.
- Close ***Pictures.xls***.

Layering Objects

Changing the layer order of objects

- Open ***Pictures.xls*** from the **Excel 2003 Intermediate Samples** folder.
- Select the second picture, and place it on top of the first picture, as illustrated:

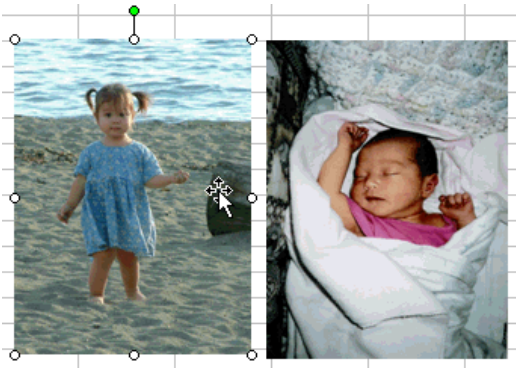
SAMPLE



- Right click over the picture, and choose **Order > Send to Back** from the menu.
- Observe that the first picture is now in front of the second one:



- Now select the first picture again and move it so that it is side-by-side with the second picture:

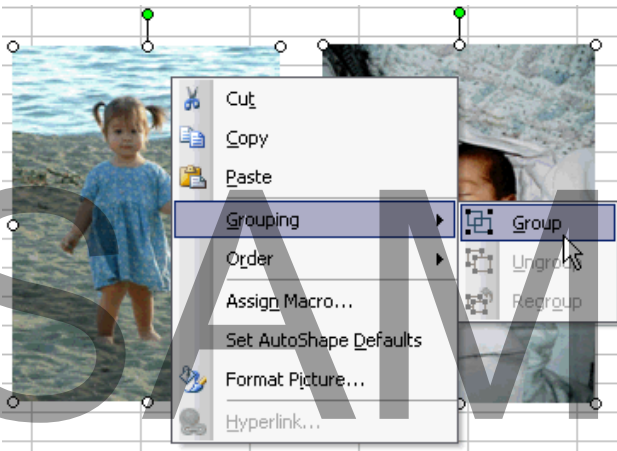


- Choose **File > Save** from the main menu.
- Close *Pictures.xls*.

Grouping and Ungrouping Objects

Grouping objects

- Open *Pictures.xls* from the **Excel 2003 Intermediate Samples** folder.
- Select the first picture.
- Hold down the **Shift** key, and click to select other picture.
- Right-click over the pictures, and choose **Grouping > Group**:



- Click outside the pictures to deselect them.
- Choose **File > Save** from the main menu.
- Close *Pictures.xls*.

Ungrouping objects

- Open *Pictures.xls* from the **Excel 2003 Intermediate Samples** folder.
- Select the pictures.
- Right-click over the pictures, and choose **Grouping > Ungroup**.
- Click outside the pictures to deselect them.
- Choose **File > Save** from the main menu.
- Close *Pictures.xls*.

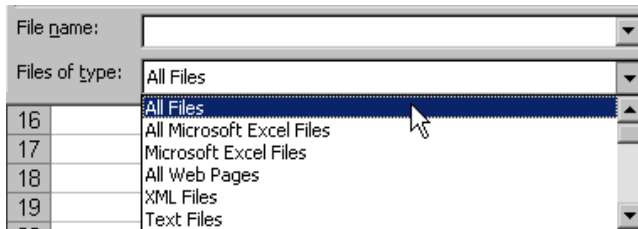
SAMPLE

Excel 2003 and Other Applications

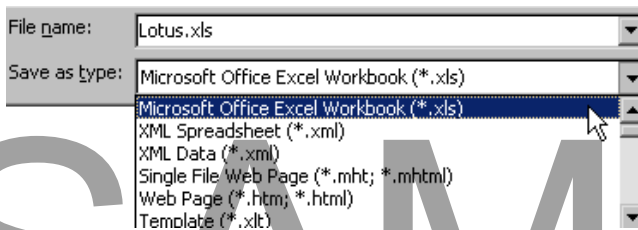
Converting Files from Other Applications

Converting a Lotus 1-2-3- File

- Open the **LOTUS.wk4** file from the **Excel 2003 Intermediate Samples** folder. You should be able to open this Lotus 1-2-3 formatted file without problems.
- If you do not see the Lotus file in the appropriate folder, in the **Open** dialog box, select **All Files** from the **Files of type** drop-down list:



- Now select the **LOTUS.wk4** file, which should be displayed in the folder. Click **Open**, and view the spreadsheet.
- Choose **File > Save As**, and enter **Lotus** into the **File name** field. Save the file in Excel (.xls) format by selecting **Microsoft Office Excel Workbook** from the **Save as type** drop-down list:



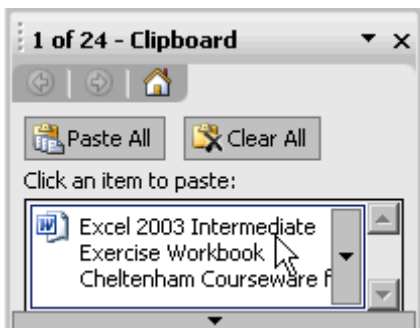
- Click **Save**.
- Close the file.

Copying Data from another Application

Using the Office Clipboard

- Create a new worksheet.

- From the main menu, choose **Edit > Office Clipboard**.
- Open **Microsoft Word**. From the main menu, choose **File > Open**. Navigate to the **Excel 2003 Foundation Samples** folder. Open the **Sample.doc** file, a **Microsoft Word** document.
- Place your cursor anywhere in the document, and press the **Ctrl + A** key combination to select the entire document.
- Right click, and select **Copy** from the pop-up menu.
- Return to your **Microsoft Excel** worksheet, and note that the item you just copied from **Microsoft Word** is on the **Clipboard**.
- Select cell **A1**, and from the **Clipboard** pane, click on the item you just copied from **Word**, as Illustrated:



- Close the workbook without saving the changes.

Using Paste Special

- Open the **Format.xls** file from the **Excel 2003 Intermediate Samples** folder.
- Click on the **Quarter 4** sheet tab.
- Select cell **G12**.
- Click on the **Copy** icon on the **Standard** toolbar.
- Select cell **A14**.
- Choose **Edit > Paste Special**.
- Select the **Values and number formats** radio button:

SAMPLE



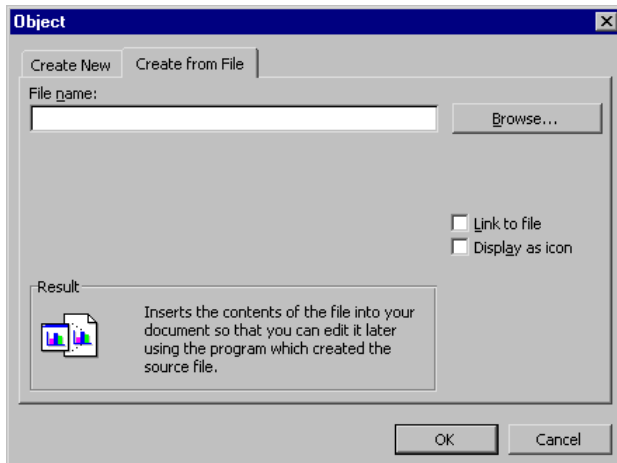
- Click **OK**. (Notice that the formula in cell **G12** was changed into a value, and only the number formatting was copied):

Computer Sales - Quarter 4					
(October to December)					
Salesperson	Desktop	Notebooks	Monitors	Printers	Sales
Ben	62	24	17	98	
Frank	81	7	45	23	
Mary	84	23	20	21	
Nancy	85	17	79	25	
Tom	70	22	55	73	
Wendy	82	15	70	52	
Total	464	108	572	680	
	1,173,440				

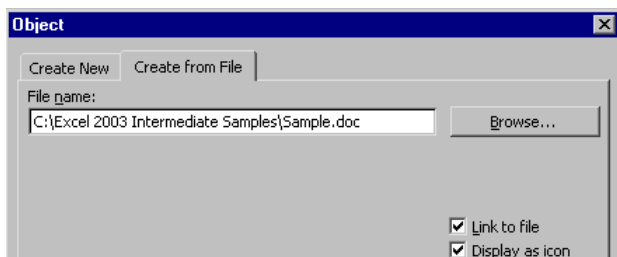
- Experiment with the other paste options.
- Close the *Format.xls* file without saving.

Embedding Objects

- Click on the **New** icon on the **Standard** toolbar to create a new workbook.
- Select cell **A1**.
- Choose **Insert > Object** to open the **Object** dialog box, and click on the **Create from File** tab:



- Click on the **Browse** button, and select the *Sample.doc* file from the **Excel 2003 Intermediate Samples** folder.
- Click **Insert**.
- Deselect the **Link to file** and **Display as icon** checkboxes:

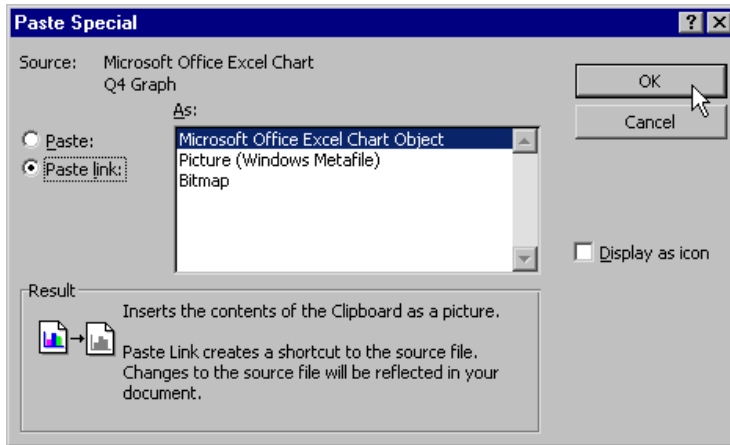



- Click **OK**.
- Double-click on the embedded **Word** document to edit it in **Excel**.
- Select and delete the address or make other significant changes.
- Open the *Sample.doc* file in Microsoft Word to see that your changes did not affect to the original document.
- Close the files without saving.

Linking Objects

- Open the *Chart Sample.xls* file from the **Excel 2003 Intermediate Samples** folder.
- Click on the **Q4 Graph** sheet tab, and select the chart.
- Click on the **Copy** icon on the **Standard** toolbar.
- Start Microsoft Word.
- In a new document, choose **Edit > Paste Special**.
- Select the **Paste link** radio button.

- Select **Microsoft Office Excel Chart Object** from the **As** list box.
- Click **OK**:



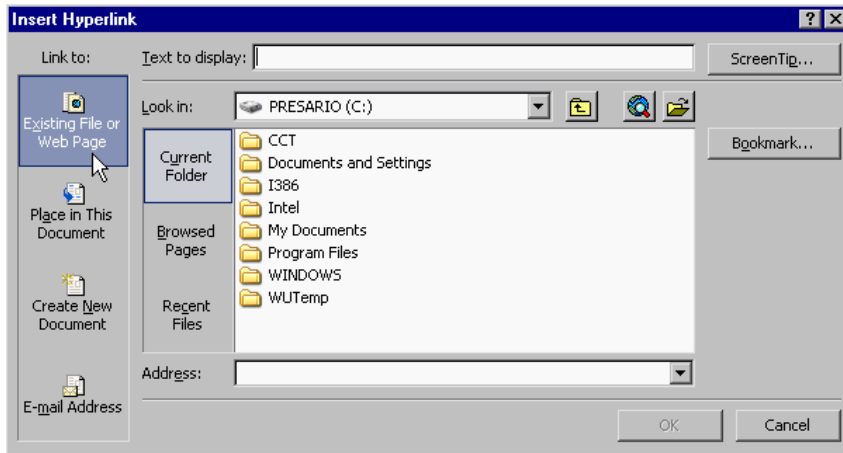
- Save the Word document as **ChartLink.doc** in the **Excel 2003 Intermediate Samples** folder.
- Switch to the **Chart.xls** file in Microsoft Excel.
- From the **Chart** toolbar, click on the **Data Table** icon  to hide it.
- Switch back to **Microsoft Word**.
- Right-click on the chart, and select **Update Link** from the pop-up menu. Notice that the changes made in Excel are reflected in the Word document.

Note: Using Word, open the **ChartLink.doc** file in the **Excel 2003 Intermediate Samples** folder to see an example.

- Close the files without saving.

Hyperlinks

- Click on the **New** icon on the **Standard** toolbar to create a new workbook.
- Select cell **A1**.
- Choose **Insert > Hyperlink**. This will display the **Insert Hyperlink** dialog box:
- From the **Link to** area, select **Existing File or Web Page**:



- In the **Text to display** text box, enter **Test Link**:



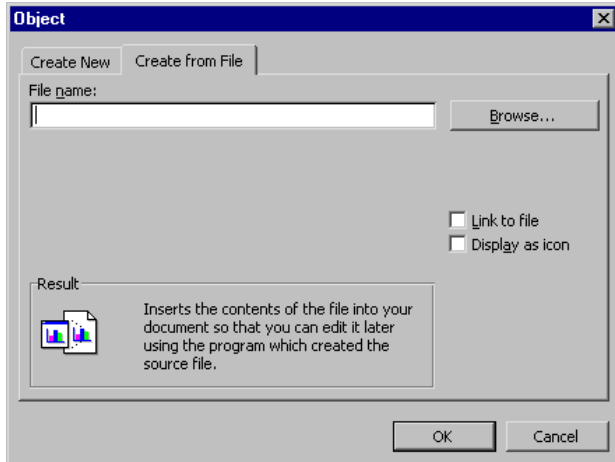
- In the **Look in** area, select the **Sample.doc** file from the **Excel 2003 Intermediate Samples** folder.
- Click **OK**. View the blue Hyperlink in cell **A1**:

	A
1	Test Link

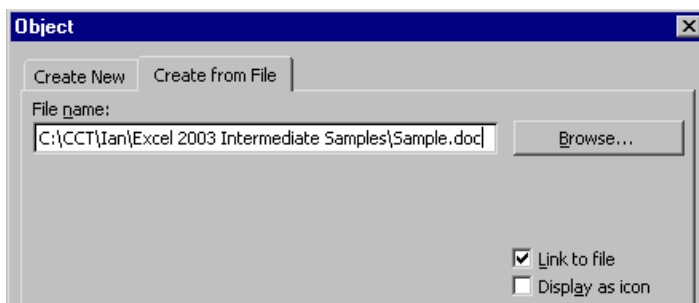
- From the worksheet, click on the Hyperlink in cell **A1** to display the **Sample.doc** file in Microsoft Word:
- Close the file without saving.

Managing Links

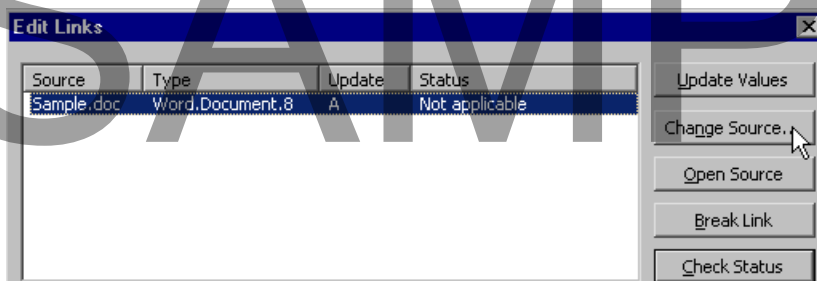
- Click on the **New** icon on the **Standard** toolbar to create a new workbook.
- Select cell **A1**.
- Choose **Insert > Object**, and click on the **Create from File** tab:



- Click on the **Browse** button, and select the **Sample.doc** file from the **Excel 2003 Intermediate Samples** folder.
- Click **Insert**.
- Select the **Link to file** checkbox:

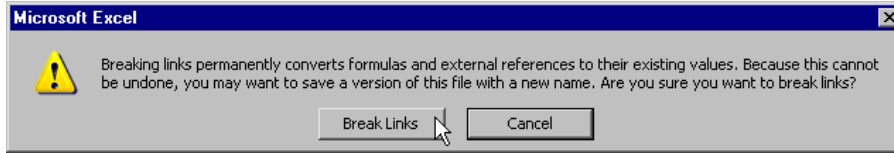


- Click **OK**.
- Double-click on the linked document to display it in **Microsoft Word**.
- Switch back to Microsoft Excel, and choose **Edit > Links** on the main Excel menu.
- Click on the **Change source** button:

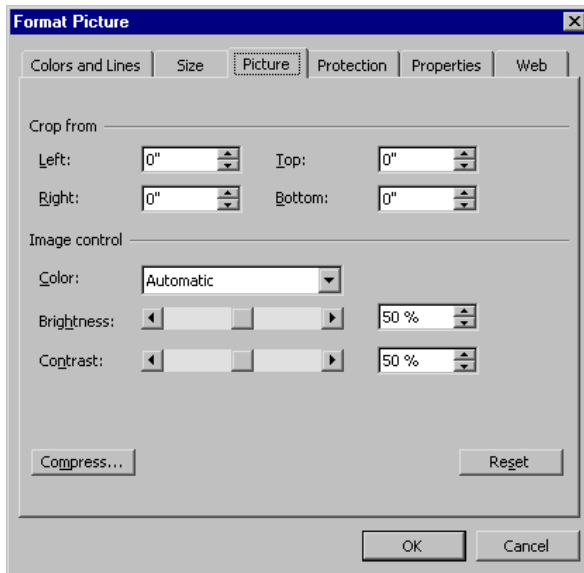


- Look at the link syntax in the **Change Links** dialog box, and click **Cancel** to return to the **Edit Links** dialog box.
- Click on the **Break Link** button.

- Click **Break Links** in the message box to remove the link:



- Click **Close** to close the **Edit Links** dialog box.
- Double-click on the document. Notice that the **Format Picture** dialog box appears instead of displaying the document in Microsoft Word:



- Click **OK** to close the dialog box.
- Close the files without saving.

SAMPLE