Microsoft Excel Help Contents

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Microsoft Excel Help provides information on how to perform Lotus 1-2-3 tasks in Microsoft Excel.   When you select a Lotus topic from the list below, you will get information about the Microsoft Excel equivalent or an index with more specific topics.

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Switching from Multiplan

Microsoft Excel Help provides information on how to perform Multiplan tasks in Microsoft Excel.   When you select one of the Multiplan topics from the list below, you will get information about the Microsoft Excel equivalent of that topic.

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Databases

For more detailed information on databases, see <u>About Databases</u>.

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<u>Defining an extract range</u>

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<u>Finding records using a data form</u>

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<u>Sorting with more than three keys</u>

Charts

For more detailed information on charts, see <u>About Charts</u>.

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<u>Adding or deleting a legend</u>
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<u>Changing the chart type and format</u>
<u>Changing whether a picture marker is stacked or stretched</u>
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Macros

For more detailed information on macros, see <u>Macros</u>.

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For more detailed information on buttons, see <u>Buttons</u>.

<u>Creating or deleting a button on a worksheet or macro sheet</u>

Templates

For more detailed information on templates, see <u>Templates</u>.

<u>Creating a new template</u>
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For more detailed information on importing and exporting, see About Importing and Exporting.

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For more detailed information on linking and embedding, see <u>About Linking and Embedding</u>.

<u>Controlling remote requests</u>

<u>Creating links</u>

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Commands

This index lists the command menus available on the menu bar.   Choose a menu to view a list of the specific commands on each menu.

Keyboard Guide

In some keyboard topics, you will see F11 and F12 keys.   For keyboards with only 10 function keys, use:

ALT+F1 for F11

ALT+F2 for F12

Command Keys
Dialog Box Keys
Formula Bar Keys
Function Keys
Keys for Selecting Chart Items
Keys for Switching Windows
Menu Keys
Outlining Keys
Worksheet Keys

Parts of the Microsoft Excel Screen

Tools

Microsoft Excel provides tools that allow you to do your work quickly and more easily.   The tools are grouped in categories that correspond to tasks you can perform in Microsoft Excel, such as charting and formatting.

There are 10 categories of tools:

Charting Tools Category
Drawing Tools Category
Edit Tools Category
File Tools Category
Formatting Tools Category
Macro Tools Category
Formula Tools Category
Text Formatting Tools Category
Custom Tools Category
Utility Tools Category

Microsoft Excel also has certain related tools grouped on toolbars for your convenience. You can change any toolbar or create new toolbars by adding, deleting, and rearranging tools.   Additional tools are available in the Toolbars dialog box.

There are nine toolbars:

Chart Toolbar
Drawing Toolbar
Formatting Toolbar
Macro Paused Toolbar
Macro Recording Toolbar
Macro Toolbar
Microsoft   Excel 3.0 Toolbar
Standard Toolbar
Utility Toolbar

See Also

Help
Using Tools
About Tools
About Toolbars

Using Workbooks

For more detailed information on workbooks, see <u>Workbooks</u>.

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<u>Opening a new window of a document in a workbook</u>
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<u>Moving between workbook documents</u>
<u>Saving a workbook</u>

Using Tools

Microsoft Excel Product Support

Add-in Functions

Contains five functions in addition to those built into Microsoft Excel.   Use the Add-Ins command on the Options menu to install the add-in functions.

Open the ADDINFNS.XLA file after choosing the Add button.

BASE(number,target_base,precision)

Converts a number from base-10 to another base.

Number is a base-10 number.

Target_base is an integer between 2 and 36 representing the base to convert the number into.   If **target_base** is omitted, BASE will return a base-16 number.

Precision is a positive integer that specifies the number of digits you want after the decimal place in the returned base representation.

DEGREES(angle_in_radians)

Converts radians into degrees.

Angle_in_radians is an angle in radians.

FASTMATCH(lookup_value,lookup_array,type_of_match)

Returns the relative position of an element in an array that matches the specified value.   The elements in the array must be sorted in ascending or descending order. Similar to the built-in function MATCH.

Lookup_value is the value you're searching for in **lookup_array**.

Lookup_array is an array or a contiguous range of cells containing possible lookup values.

Type_of_match is either 1 or -1.   Specifies how FASTMATCH matches **lookup_value** with values in **lookup_array**.

For more information, see MATCH in the Microsoft Excel Function Reference.

RADIANS(angle_in_degrees)

Converts degrees into radians.

Angle_in_degrees is an angle in degrees.

RANDBETWEEN(bottom,top)

Returns a random integer within a given range.

Bottom is the smallest integer RANDBETWEEN returns.

Top is the largest integer RANDBETWEEN returns.

Alternate Startup Directory

Allows you to specify an alternate startup directory for Microsoft Excel.   Documents you place in the alternate startup directory open automatically when you start Microsoft Excel.

To specify an alternate startup directory

1 In the LIBRARY directory, open the ALTSTART.XLA add-in macro.

2 Type the full path of the alternate startup directory you want to use.

   For example, if the directory you want to specify as the alternate startup directory is on your C drive and is called ACCOUNTING, type **c:\accounting**

   The next time you start Microsoft Excel, all the files in the startup directory will open automatically.   The names of templates in the startup directory will appear when you choose New from the File menu.

Auto Save Macro

Automatically saves your documents at a specified interval to prevent data loss.   Use the Add-Ins command on the Options menu to install the Auto Save macro.

Open the AUTOSAVE.XLA file after choosing the Add button.

The following options are available:

High

Saves your documents every three minutes.

Medium

Saves your documents every nine minutes.

Low

Saves your documents every 30 minutes.

Never

Turns off automatic saving.

Prompt Before Saving

Displays a message asking if you want to save before Auto Save saves a file.

Save All Files

Saves all open documents each time Auto Save saves your files.   If cleared, saves only the active document.

To save your work automatically

1 From the Options menu, choose AutoSave.

2 Select an option for saving your files.

If you select High, Medium, or Low, a check mark is displayed next to the AutoSave command on the Options menu.

3 If you want Auto Save to notify you before saving a document, select the Prompt Before Saving check box.

4 If you want Auto Save to save all open Microsoft Excel documents at each automatic save, select the Save All Files check box.

5 Choose the OK button.

Macro Debugger

Creates an environment within Microsoft Excel in which you can easily debug and run macros.   Use the <u>Add-Ins command</u> on the Options menu to install the Macro Debugger. Open the DEBUG.XLA file after choosing the Add button.

You can set <u>tracepoints</u> and <u>breakpoints</u> at key cells of the macro you're debugging.

▪ The debugger pauses the macro at tracepoints and enters single-step mode.   You can trace the macro, continue running it, or stop it.

▪ The debugger pauses the macro at all breakpoints and displays the values of a group of cells and names you specify in advance.   You can continue running the macro, enter single-step mode, or stop the macro.

▪ Collectively, tracepoints and breakpoints are known as debug points.

▪ <u>Document protection</u> must be off before you enter the debugging environment.

To enter the debugging environment

1 Switch to the macro sheet you want to debug.

2 From the Macro menu, choose Debug.

   The debug menu bar is displayed.

   Setting a debug point at a cell on your macro sheet temporarily changes the formula in that cell, but does not change the value when you calculate the formula.   When you leave the debugging environment, all debug points are removed and your formulas are restored.

In the debugging environment, you can't change the formula in a cell containing a debug point.   Before you run a macro in the debugging session, you should set debug points.

To set a tracepoint in the debugging environment

1 Select the cell where you want to set a tracepoint.

2 From the Debug menu, choose Set Trace Point.

To set a breakpoint in the debugging environment

1 Select the cell before which you want to set a breakpoint.

2 From the Debug menu, choose Set Breakpoint.

3 If you want, you can type a message in the Alert String box to be displayed whenever the breakpoint is found.

4 Choose the OK button.

To remove debug points

1 Select a cell or range of cells containing tracepoints or breakpoints.

2 From the Debug menu, choose Erase Debug Point.

To specify variables to be displayed at breakpoints

When you set breakpoints in your macro, you need to specify the cells and names you want the Macro Debugger to display at each breakpoint.

1 From the Debug menu, choose Breakpoint Output.

2 To add a variable, type the reference or name, or switch to the sheet and click the cell.

3 Choose the Add button.

4 Choose the OK button.

   To remove a variable, select the variable from the list and then choose the Delete button.

   After you set the debug points and specify the variables to be displayed at the breakpoints, you are ready to run the macro.

To run a macro

1 From the Debug menu, choose Run Macro.
2 In the Run box, select the name of the macro from the list
   --or--
   In the Reference box, type the name or reference of the macro.
3 Choose the OK button.

   The macro runs normally, except that it carries out special commands at debug points. These commands do not affect the result of the macro.

   When a breakpoint is found, the breakpoint dialog box appears.   Choose the Continue button to continue running the macro, the Step button to enter single-step mode, or the Halt button to stop the macro.

   When a tracepoint is found, the macro switches to single-step mode.

To exit the debugging environment

▪   From the Debug menu, choose Exit Debug.
   The macro restores the previous menu bar and removes all debug points.

Other Macro Debugger Commands

Hidden Names command (Formula menu) displays the definitions of any hidden names on the active document.

Select Debug Points command (Formula menu) selects all the cells on your macro sheet with breakpoints or tracepoints.

Select Errors command (Formula menu) selects cells (within the active selection) that have formulas that result in errors.

Formulas/Values command (Display menu) switches between displaying formulas and displaying values on the macro sheet.

Arrange All command (Display menu) displays all open, displayed windows on your screen at once.   Windows are arranged and sized to show as much of each as possible.

Show Info command (Display menu) is the same as the Show Info check box in the Workspace dialog box that you open from the Options menu.

Document Summary Macro

Records information about a worksheet, such as the title, author, and creation date, and stores it with the worksheet.   Using this macro, you can easily record and view any changes made to the worksheet.

Use the <u>Add-Ins command</u> on the Options menu to install the Document Summary macro. Open the SUMMARY.XLA file after choosing the Add button.

To record and view summary information

1 From the Edit menu, choose Summary Info.

   A dialog box is displayed containing current summary information about the active worksheet.

2 Make the changes you want to the summary information.

   You cannot change the date the document was created.

3 Choose the OK button.

   The summary information is saved automatically with the worksheet.

See Also

User's Guide (Book 1)

Chapter 8, "Organizing and Documenting a Worksheet"

Flat File Macro

Imports or exports data between "flat" text files -- files in which data is separated by spaces, not tabs -- and cell ranges on a worksheet.   The flat file macro creates a text file that contains the data in the selected cells.

Use the Add-Ins command on the Options menu to install the flat file macro.

Open the FLATFILE.XLA file after choosing the Add button.

The flat file macro has two commands:

Export Command (Data Menu)

Exports a group of selected cells to a text file.

Smart Parse Command (Data Menu)

Distributes text values that are in a single column so that they fill several columns. Treats each row independently, placing each logical word into its own cell.

To export cells to a text file

1 Select the range of cells containing the data you want to export.
2 From the Data menu, choose Export.
3 In the Name box, type the name of the text file you are creating.
4 If you want the exported text file to reflect the alignment and number formats of the selected cells, select the Retain Cell Formats check box.

   If you want the exported text file to reflect General alignment and number formats, clear the Retain Cell Formats check box.
5 Choose the Export button.

To parse text values

1 Select the cells you want to parse.

   The selection must be only one column wide, but it can be as many rows high as you want.
2 From the Data menu, choose Smart Parse.

   For the selected cells that contain text, the macro places each group of characters separated by one or more spaces into a separate cell.
3 Select the option button for the column delimiter you want.
4 To include extra blank spaces, clear the Remove Extra Blank Spaces check box.
5 Choose the OK button.

File Functions

Contains six additional macro functions to create and delete directories, get information about directories, and display the standard Open and Save dialog boxes.

Use the <u>Add-Ins command</u> on the Options menu to install the file functions.

Open the FILEFNS.XLA file after choosing the Add button.

CREATE.DIRECTORY(path_text)

Creates a directory.

Path_text is the name of the directory you want to create.   If **path_text** is a full path statement, CREATE.DIRECTORY creates a directory at the specified path location.   Otherwise, a new subdirectory named **path_text** is created in the current directory.

DELETE.DIRECTORY(path_text)

Deletes an empty directory.   If the specified directory is not empty, DELETE.DIRECTORY returns FALSE.

Path_text is the name of the subdirectory in the current directory or the path of the directory you want to delete.

DIRECTORIES(path_text)

Returns a horizontal array of all the subdirectories in the current directory or specified path.

Path_text is the directory from which you want to return a list of subdirectories.   If **path_text** is omitted, DIRECTORIES returns a list of the subdirectories inside the current directory.

FILE.EXISTS(path_text)

Tests for the existence of a file or directory.   Returns TRUE if the file or directory exists; returns FALSE otherwise.

Path_text is the name of the file or directory you want to find.   If the file or directory is not in the current directory, you must enter the full path.

OPEN.DIALOG(file_filter,button_text,title,filter_index)

Displays a dialog box for opening files.   This is the same dialog box that appears when you choose Open from the File menu.   Returns the name of the file that is chosen by the user.

File_filter is a string that determines what type of files will be displayed in the dialog box.   List the filters you want to display as a string, separated by commas.   All files will be displayed if **file_filter** is omitted.

Button_text does not function in Microsoft Excel for Windows.   The button always displays OK.

Title displays a name in the title bar of the dialog box.   If the argument is omitted, the title bar displays Open.

Filter_index is a number corresponding to a **file_filter.**   The corresponding **file_filter** will initially appear in the File Name box.

SAVE.DIALOG(init_filename,title,button_text,file_filter,filter_index)

Displays a dialog box for saving files.   This is the same dialog box that appears when you choose Save from the File menu.   Returns the filename entered by the user.

Init_filename is the proposed name that appears in the File Name box.

Button_text does not function in Microsoft Excel for Windows.   The button always displays OK.

Title displays a name in the title bar of the dialog box.   If the argument is omitted, the title bar displays File Save As.

File_filter is a string that determines what type of files will be displayed in the dialog box.   List the filters you want to display as a string, separated by commas.   All files will be displayed if **file_filter** is omitted.

Filter_index is a number corresponding to a **file_filter.**   The corresponding **file_filter** will initially appear in the File Name box.

Glossary Macro

Saves commonly used formulas and cell contents as glossary entries that you can paste onto worksheets or macro sheets.   The glossary entries are stored in the glossary for further use until you delete them.

Use the <u>Add-Ins command</u> on the Options menu to install the Glossary macro.

Open the GLOSSARY.XLA file after choosing the Add button.

To add a glossary entry

  1 Select the cell or cells whose contents you want to include in the glossary entry.

  2 From the Edit menu, choose Glossary.

  3 In the Name box, type a name for the new entry.

  4 Choose the Define button.

     The macro creates a new glossary entry with the specified name.

  5 Repeat steps 1 through 4 to add any more entries.

To paste a glossary entry onto a worksheet or macro sheet

  1 Select the cell or cells in which you want to insert the glossary entry.

     If your selection is not the same size as the glossary entry, the active cell is the upper-left corner of the area in which the glossary entry is inserted.

  2 From the Edit menu, choose Glossary.

  3 Select the glossary entry you want to paste onto the worksheet or macro sheet.

  4 Choose the Insert button.

To delete a glossary entry

  1 From the Edit menu, choose Glossary.

  2 Select the glossary entry you want to delete.

  3 Choose the Delete button.

  4 Choose the OK button to confirm the deletion.

  5 Repeat steps 2 through 4 for each glossary entry you want to delete.

  6 Choose the Cancel button to save your changes and close the dialog box.

Name Changer Macro

Deletes a name of a cell on a worksheet or macro sheet, or changes the name and then searches the document and replaces each occurrence of the old name with the new one.

▪ Changes the name in the Go To and Define dialog boxes, not the text in cells on the worksheet.

Use the Add-Ins command on the Options menu to install the Name Changer macro.

Open the CHANGER.XLA file after choosing the Add button.

To delete a name

1 From the Formula menu, choose Change Name.

2 In the From box, select the name you want to delete.

3 Choose the Delete button.

If the name you have selected is referred to on the worksheet, Name Changer asks you to confirm the deletion.   Choose the OK button.

4 Repeat steps 2 and 3 for every name you want to delete.

5 When you have finished deleting names, choose the Close button to save your changes and close the dialog box.

To change a name

1 From the Formula menu, choose Change Name.

2 In the From box, select the name you want to change.

3 In the To box, type the new name.

4 Choose the Rename button.

Name Changer automatically changes every occurrence of the old name to the new one.

5 Repeat steps 2 through 4 for every name you want to change.

6 Choose the Close button to save your changes and close the dialog box.

What If Macro

Cycles a worksheet model through several scenarios by supplying a succession of input values to one or more input cells.   For example, in a model that depends on three input cells, each of which can have one of four values, or independent variables, the What If macro allows you to quickly cycle through the 64 possible scenarios.

Use the Add-Ins command on the Options menu to install the What If macro.

Open the WHATIF.XLA file after choosing the Add button.

To use the What If macro, you must specify a data sheet to be used with the model worksheet.   The data sheet stores the sets of values to be entered into each input cell. You can either specify a new data sheet or an existing one.

To specify a new data sheet
1 Switch to the model worksheet.
2 From the Formula menu, choose What If.
3 Choose the New button.
4 Type the name or reference of the first independent variable, and then choose the OK button.
5 Type an input value and choose the OK button.
6 Repeat step 5 for each possible value for the first variable.
7 Choose the Done button.
8 Repeat steps 4 through 7 for each additional independent variable.
9 Choose the Done button.

To specify an existing data sheet
1 Open the existing data sheet.
2 Switch to the model worksheet.
3 From the Formula menu, choose What If.
4 Select the data sheet from the list.
5 Choose the OK button.

To calculate all possible input values at once
1 Switch to the model worksheet.
2 Press CTRL+SHIFT+T.

   The What If macro cycles the worksheet through all the possible scenarios.

   The cycling of variables is similar to that of a counter.   When a new input value has been calculated, the next input value will be supplied to the first variable until all input values for the first variable have been calculated.   Then the first variable will go back to its first value and the second variable will get its next value, and the process will begin for the second variable.

To advance one variable at a time
1 Switch to the model worksheet.
2 Select the input cell to be calculated.
3 Press CTRL+T.

   The What If macro calculates the next input value for the selected variable in the input cell and recalculates the worksheet.

Worksheet Auditor Macro

Provides four tools to help you check the structure and analyze the layout and formulas of your worksheets.   Use the <u>Add-Ins command</u> on the Options menu to install the Worksheet Auditor macro.

Open the AUDIT.XLA file after choosing the Add button.

Audit

Generates a report of potential errors on your worksheet.

Errors includes cells with error values.

References To Blanks includes formulas that refer to blank cells.

References To Text includes formulas that refer to cells containing text.

Circular References includes all cells that are part of circular references.

Names includes questionable or potentially unused worksheet names.

Map

Creates a map of your worksheet to help you see its contents.

Interactive Trace

Displays the cell dependencies on your worksheet to help you understand the data flow.

Find Dependents jumps to the dependents of the active cell.

Find Precedents jumps to the precedents of the active cell.

Reset Active Cell changes the active cell.

Retrace Move Backward and **Retrace Move Forward** retrace your steps.

Go To Sibling Previous moves to other dependents of those found by the most recent Find Dependent.

Go To Sibling Next moves to other precedents of those found by the most recent Find Precedents.

Exit Trace quits Interactive Trace.

Worksheet Info

Displays detailed information about your worksheet.

To generate an audit report

1 From the Formula menu, choose Worksheet Auditor.
2 Select Generate Audit Report.
3 Choose the OK button.
4 In the Audit Report dialog box, clear the check boxes for the types of auditing you don't want included in the report:

   Errors includes cells with error values.

   References To Blanks includes formulas that refer to blank cells.

   References To Text includes formulas that refer to cells containing text.

   Circular Reference includes all cells that are part of circular references.

   Names includes questionable or potentially unused worksheet names.

5 Choose the OK button.

To map a worksheet

1 From the Formula menu, choose Worksheet Auditor.
2 Select Map Worksheet.
3 Choose the OK button.

   Worksheet Auditor creates a map of the cells on your worksheet.

To trace cell dependencies

1 From the Formula menu, choose Worksheet Auditor.

2 Select Interactive Trace.

3 Choose the OK button.

   Worksheet Auditor displays your worksheet on the right side of your screen and the Info Window and the Interactive Trace control panel on the left side.

4 In the Interactive Trace control panel, choose the command buttons for the cell dependencies you want to trace:

   To select all the dependents or precedents of the active cell, choose the Find Dependents button or the Find Precedents button.

   To change the active cell, choose the Reset Active Cell button.

   To retrace the steps you've already made, choose the Retrace Move Back button or the Retrace Move Forward button.

   To move to other dependents of those found by the most recent Find Dependents, choose the Go To Sibling Previous button.   To move to other precedents of those found by the most recent Find Precedents, choose the Go To Sibling Next button.

   To quit the interactive trace, choose the Exit Trace button.

To get information about a worksheet

1 From the Formula menu, choose Worksheet Auditor.

2 Select Worksheet Info.

3 Choose the OK button.

   The Worksheet Auditor macro displays a report containing information about your worksheet.

Worksheet Comparison Macro

Compares the active worksheet to another worksheet and generates a report listing the differences.   Use this macro when you have two different versions of a worksheet and you want to find out what has changed in the newer one.

Use the <u>Add-Ins command</u> on the Options menu to install the add-in functions.

Open the COMPARE.XLA file after choosing the Add button.

To compare two worksheets

1 Open the two worksheets you want to compare.
2 Switch to one of the worksheets.
3 From the Formula menu, choose Compare.
4 In the Compare To Sheet box, select the name of the second worksheet.
5 Choose the OK button.

   Worksheet Comparison performs the comparison and generates a report listing the differences.

Macro Library Overview

The macro library is a collection of Microsoft Excel macros you can use to assist you in a number of common spreadsheet tasks.   These files are located in the LIBRARY directory, a subdirectory of the directory in which you installed Microsoft Excel.   In addition, more add-in macros are installed in subdirectories of the LIBRARY directory.

▪   You must select the Macro Library option during Setup to install the macro library on your hard disk.   The Checkup, Custom Color Palettes, and Slide Show files are located in subdirectories of the LIBRARY directory.   Use the Add-Ins command on the Options menu to make add-in macros automatically available whenever you start Microsoft Excel.
▪   The Checkup, Crosstabs, View Manager, Report Manager, Scenario Manager, Add-in Manager, and Slide Show add-in macros are automatically installed when you choose the Microsoft Excel option during Setup.   You must choose the Analysis ToolPak option during Setup if you want to use these statistical, financial, and engineering functions and tools. You must choose the Solver option during Setup if you want to use Solver for calculating what-if scenarios with several variables.   The Crosstabs, Solver, and Analysis ToolPak files are located in subdirectories of the LIBRARY directory.

Files in the LIBRARY directory

File	Description
ADDINFNS.XLA	Add-in Functions Adds five worksheet functions: BASE, DEGREES, FASTMATCH, RADIANS, and RANDBETWEEN.
*ADDINMGR.XLA	Add-In Manager Controls the Add-ins command on the Options menu.
ALTSTART.XLA	Alternate Startup Directory Lets you designate or change the alternate startup directory.
AUDIT.XLA	Worksheet Auditor Generates reports that help you track down errors or other problems in your worksheets.
AUTOSAVE.XLA	Auto Save Saves documents automatically as you work.
CHANGER.XLA	Name Changer Changes or deletes names.
COMPARE.XLA	Worksheet Comparison Generates a report that shows the cells that differ between two worksheets.
DEBUG.XLA	Macro Debugger Tracks down bugs in your macros.
FILEFNS.XLA	File Functions Adds six macro functions: CREATE.DIRECTORY, DELETE.DIRECTORY, FILE.EXISTS, DIRECTORIES, OPEN.DIALOG, and SAVE.DIALOG.
FLATFILE.XLA	Flat File Parses imported text files with variable-length fields and exports data from a worksheet to a space-delimited text file.
GLOSSARY.XLA	Glossary Saves frequently used formulas or data for pasting into a worksheet or macro sheet.
*REPORTS.XLA	Report Manager Prints reports that consist of a view and a scenario.
*SCENARIO.XLA	Scenario Manager Tests "what-if" scenarios by using a set of values in the input cells you select.
SUMMARY.XLA	Document Summary Stores the author, title, comments, and creation date with a worksheet or macro sheet.
SWITCH.XLA	Switch Adds toolbar tools that you can click to switch to another application, such as Microsoft Word.
*VIEWS.XLA	View Manager Saves the current window display as a view and lets you apply your saved views to see your worksheet data in different formats.
WHATIF.XLA	What-If Cycles a worksheet model through different scenarios.

*These add-in macros open automatically, if installed.

LIBRARY subdirectories

ANALYSIS   <u>Analysis ToolPak</u>   Adds financial and engineering functions as well as providing tools for performing statistical and engineering analysis procedures.

CHECKUP   <u>Checkup</u>   Displays technical information about Microsoft Excel and the environment in which it is running.   This information may be needed when requesting assistance from Microsoft Product Support.

COLOR   <u>Custom Color Palettes</u>   Changes the color palette for the active document or chart.

*CROSSTAB   <u>Crosstabs</u>   Starts the Crosstab ReportWizard so that you can aggregate and compare related data in a database.

*SLIDES   <u>Slide Show</u>   Works with the Slide Show template document to create a slide show from Microsoft Excel worksheets and charts.

*SOLVER   <u>Solver</u>   Calculates solutions to what-if scenarios based on adjustable cells, constraint cells and, optionally, cells that must be maximized or minimized.

* These add-in macros open automatically, if installed.

See Also

Help
<u>Add-Ins Command (Options Menu)</u>
<u>Add-In Functions</u>
<u>Add-In Macros</u>
<u>Alternate Startup Directory</u>
<u>Analysis ToolPak</u>
<u>Auto Save Macro</u>
<u>Checkup</u>
<u>Crosstab</u>
<u>Custom Color Palettes</u>
<u>Document Summary Macro</u>
<u>File Functions</u>
<u>Flat File Macro</u>
<u>Glossary Macro</u>
<u>Macro Debugger</u>
<u>Name Changer Macro</u>
<u>Q+E</u>
<u>Report Manager</u>
<u>Scenario Manager</u>
<u>Slide Show</u>
<u>Switch</u>
<u>Using Solver</u>
<u>View Manager</u>
<u>What If Macro</u>
<u>Worksheet Auditor Macro</u>
<u>Worksheet Comparison Macro</u>

User's Guide (Book 2)
Chapter 4, "Customizing Microsoft Excel"

To assign a macro to an application switching tool

To use one of the application switching tools, you must assign a macro to it. This procedure assigns a macro to the tool and allows you to switch from Microsoft Excel to one of the following applications:

    Microsoft Word

    Microsoft Project

    Microsoft PowerPoint

If the application is open, running this macro is like choosing the Switch To command from the Application Control menu and then selecting the application.

To do this procedure, the LIBRARY directory must be installed.

1 From the File menu, choose Open.   In the LIBRARY directory, open the SWITCH.XLA add-in macro.

2 To use the tool, it must be on a toolbar.   In the list box, select the toolbar where you want to place the tool.

    The tool will be added as the first tool on the toolbar.   You can reposition it after you have added the tools you want.

3 Choose the Add button to add the current tool and move to the next tool.

4 Choose the Skip button to move to the next tool without adding the current tool.

5 When you have finished choosing the toolbar for each tool you want to add, choose the OK button.

    When you choose the OK button, SWITCH.XLA will save the toolbars in the toolbar file and place a macro called SWITCHTO.XLA in the XLSTART directory.

    If you delete an application switching tool from a toolbar, you will need to repeat this process again to make the tool work.

See Also

Help

 Microsoft PowerPoint Tool

 Microsoft Project Tool

 Microsoft Word Tool

Adding and deleting a tool from a toolbar

Adding or removing an add-in macro

Displaying and hiding a toolbar

Macro Library Overview

Moving and copying tools

Switch To Command (Control Menu)

Toolbars

Tools

User's Guide (Book 2)

Chapter 4, "Customizing Microsoft Excel"

Custom Palettes Command (Chart or Options Menu)

Allows you to change the color palette on the active document or chart to the one you select from the Palettes box.

Palettes

Displays a list of the available custom color palettes.

Apply

Applies the selected custom palette to your document or chart.   Choose OK to save this palette.

Checkup

Displays configuration information about Microsoft Excel and your operating environment.

▪ To display checkup information, open CHECKUP.XLM in the CHECKUP subdirectory of the LIBRARY directory.

▪ Checkup information can be helpful when requesting assistance from Microsoft Product Support.

▪ To print Checkup information, choose the Print button in the Checkup dialog box.

Crosstab Command (Data Menu)

Opens the Crosstab ReportWizard to assist you in creating, recalculating, or modifying a cross tabulation table.   A cross tabulation table is a report that groups data from a database into categories and tallies, analyzes, or compares the data in ways you specify.

The Crosstab ReportWizard steps you through the process of selecting the fields from your database to include in the crosstab table and the method or methods of aggregating that data in the cells.

▪   The Crosstab ReportWizard does not modify your original database.   It creates a separate cross tabulation table based on data in the database.

▪   If this command does not appear on the Data menu, you need to install the Crosstab ReportWizard add-in macro.   For more information, see the Help topic on the Add-ins command, or see Chapter 4, "Customizing Microsoft Excel," in Book 2 of the Microsoft Excel User's Guide.

▪   Instructions for using the Crosstab ReportWizard appear on the screen.

This button	Does this
![Explain]	Displays more information about the current step in the left side of the dialog box. Choosing Explain again returns the left side of the dialog box to its previous contents.
![Cancel]	Closes the Crosstab ReportWizard without creating a cross tabulation table.
![K<<]	Goes back to the beginning of the Crosstab ReportWizard.
![<Back]	Goes back to the previous step.
![Next>]	Goes on to the next step.
![>>]	Goes to the end of the Crosstab ReportWizard using the selections you have made so far.

See Also

Help

CROSSTAB

User's Guide (Book 1)

Chapter 10, "Analyzing and Reporting Database Information"

Function Reference

CROSSTAB
CROSSTAB.RECALC
CROSSTAB.CREATE
CROSSTAB.CREATE?
CROSSTAB.DRILLDOWN

Activate QE Command (Data Menu)

Switches from Microsoft Excel to the Q+E application.   If Q+E is not open, Microsoft Excel opens the application and then switches to it.

▪   This command is available on the Data menu only when the QE.XLA data access add-in macro sheet is open.

Delete Command (Data Menu)

Deletes all records that meet the criteria you have defined with the Set Criteria command on the Data menu.

- When the QE.XLA data access add-in macro sheet is open, this command deletes records in external databases as well as those in the current selection in a Microsoft Excel database.
- Asks for verification.
- Other records in the database are shifted to fill in space.
- Can't be undone.
- Make sure you don't include any blank rows in the criteria range.   If you do, every record in the database will be deleted.

Extract Command (Data Menu)

Finds database records that match the criteria defined in the criteria range and copies them into the extract range in your worksheet.

▪   When the QE.XLA data-access add-in macro sheet is open, this command can extract data from external databases as well as from Microsoft Excel worksheet databases.

▪   Before using this command to extract data from an external database, use the Set Database command on the Data menu to connect to an external database source; use the Set Criteria command on the Data menu to specify what to extract; and use the Set Extract command on the Data menu to define the extract range in your worksheet.

▪   The extract range must be a range defined in your Microsoft Excel spreadsheet.   It can be either a range containing only field names or a range containing both field names and references to cells that will contain the extracted data.

▪   You can enter the field names and select them before choosing Extract on the Data menu, or you can define the extract range using Set Extract on the Data menu.   Then you can use the name Extract as a named reference with the Formula Goto command or with database functions.

▪   If you are extracting records from an external database, use Paste Fieldnames on the Data menu to transfer the field names from the external database to your Microsoft Excel worksheet, so that you can define the Criteria and Extract ranges.

▪   If the extract range contains only field names, the extracted records are copied into cells below them.   All cells below the field names are cleared even if no extracted information is copied into them.

▪   If the extract range contains both field names and references to cells below them, all cells in the range are cleared and as many extracted records as will fit are copied into the cells.

▪   The Extract command on the Data menu cannot be undone.

When you choose this command and are connected to an external database, a dialog box is displayed to indicate how many records were retrieved as a result of the extract and to enable you to specify how to paste the records into your worksheet.

Paste

Pastes the records from the external database according to other options you choose in the dialog box.

Paste Options

Provides the option for a linked or unlinked extract.

▪   If you choose the Linked option, the records you paste in your worksheet are dynamically linked, via DDE, with the records in the external database.

▪   If you choose the Unlinked option, the records are merely pasted into your worksheet as text.

Save As

Displays a dialog box where you can specify a filename under which to save the records extracted from the external database.   The records are saved as a text file.

Find Command (Data Menu)

This command is not available from Microsoft Excel when you are using an external database.   Choose Activate Q+E and use the Find command on the Search menu in Q+E for Microsoft Excel.

Form Command (Data Menu)

This command is not available from Microsoft Excel when you are using an external database.   Choose Activate Q+E and use the Form command on the Edit menu in Q+E for Microsoft Excel.

Paste Fieldnames (Data Menu)

Copies field names from an internal or external database into a Microsoft Excel worksheet. Use these field names to set up your criteria and extract ranges when extracting data from a database.

▪ This command is available on the Data menu only when the QE.XLA add-in macro sheet is open.

▪ If the database is a Microsoft Excel worksheet, the field names are copied from the first row of the database.

▪ If the database is an external database, Microsoft Excel queries Q+E for the field names.

▪ If you are connected to more than one database, Microsoft Excel uses the name of the database file containing the field and an extension which is the name of the field as the field name.

▪ You can paste all the field names in the order they appear in the database, or choose which field names to paste and rearrange them prior to pasting using the Order Fields option button.

Fields

Displays the field names from the internal or external database.   Select the ones you want from the list, or choose Paste All to paste all the fields in the order they appear.

Paste

Transfers the currently selected field names into your Microsoft Excel worksheet.

Close

Closes the dialog box without pasting field names.

Paste All

Pastes all the field names from the database into your worksheet in the order given in the Fields box.

Order Fields

Displays additional options that allow you to select what field names to paste and what sequence to place them in:

Available Fields

Displays all the field names in the database.   Select a field name, then choose the Add button.   Each field name is then added to the Selected Fields box.   Select the field names in the order in which you want them to appear in your worksheet.

Selected Fields

Displays the field names you have selected from the Available Fields box.

Add

Adds the field names currently selected in the Available Fields box to the list in the Selected Fields box.

Remove

Removes the selected field name from the Selected Fields box.

Clear All

Removes all field names from the Selected Fields box.

Set Criteria (Data Menu)

Defines the selected range of cells as the criteria range--the range of cells that contain the criteria used to find, extract, or delete matching database records.

- When the QE.XLA add-in macro sheet is open, this command sets the criteria for searching both external database files and Microsoft Excel databases.
- You can specify two types of criteria: comparison or computed.
- Use comparison criteria when you want to find records whose data matches or falls within certain limits of specified criteria.
- Use computed criteria if you want to test the database against the result of a formula that refers to one or more fields in one or more records.
- Use SQL-like commands when using computed criteria to query an external database. You cannot use Microsoft Excel computed criteria as they are specific to Microsoft Excel and cannot be translated into SQL-equivalent functions.
- The criteria range can be any area on the worksheet outside your database range, or it can be on another worksheet.   You must set the criteria range before using the Extract, Delete, or Data Find commands on the Data menu.
- This command assigns the name Criteria to the selection.
- The first row of the criteria range must contain one or more field names   from the database; one or more rows below that must contain the criteria.
- If the criteria range includes a blank row, all database records are matched.
- Once you define a criteria range, you can change the criteria as often as you like.
- A worksheet can have only one criteria range defined at a time.

See Also

Q+E for Microsoft Excel User's Guide

Chapter 10, "Using Dynamic Data Exchange to Communicate with Q+E"

User's Guide (Book 1)

Chapter 10, "Analyzing and Reporting Database Information"

Set Database (Data Menu)

Sets the current worksheet selection as a database, or connects you to one or more external databases; selects one or more external database files from which to extract data; switches back and forth between an internal Microsoft Excel database range and the current external database file or files.

▪ This command is a special version of the Set Database command on the Data menu. This command is available only when the QE.XLA add-in macro sheet is open.

▪ When no external database is currently selected, this command displays a dialog box where you can set a database in your Microsoft Excel worksheet, or set an external database.

Current Selection

Assigns the name Database to the current selection in the Microsoft Excel worksheet.

External Database

Displays a dialog box where you specify the external database file to use.

File name

The name of the external database file to open.

Source

Lists the database systems for which drivers have been installed.

Sources

Leads to another dialog box where you can select sources for logging in and logging off.   Selecting an available source and clicking Logon leads to the Logon dialog box for that particular source.   Selecting a source in the Current Connection's box and choosing Logoff closes the connection for that source.

File List

Lists available files in the current directory.   (Depending on the source, this box may have a different name).

Directory List

Changes current drive or directory.   (Depending on the source, this box may have a different name.)

Options

The options available depend on the type of file selected under Source.   For more information, see the appendix in the Q+E for Microsoft Excel User's Guide that covers the type of source you are connecting to.

If you choose Set Database from the Data Menu when an external database is already active, a dialog box is displayed, allowing you to change or add external database sources.

Current Selection

Assigns the name Database to the current selection in the Microsoft Excel worksheet.

External Database

Specifies that subsequent Data menu commands will work on the currently defined external database file.   The current source and files are displayed in the dialog box.

Change

Changes the current database selection.   Displays the Set External Database dialog box described above.

Add

Allows you to connect to additional databases on the same source by displaying a dialog box similar to the Set External Database dialog box described above.   You cannot change sources or log on to or log off from a source in the Add dialog box: Use the Change option to change sources.

Note   If you are extracting information from more than one database, you should specify a join to set up a relationship between the database files.   For example, if you want to search for records in both EMP.DBF and DEPT.DBF, you could set up a join based on the department ID fields that the database files have in common.   To do this, you would enter

    EMP.DEPT_ID = DEPT.DEPT_ID

anywhere within the criteria range in your spreadsheet before choosing Set Database from the Data menu.

For more information about joins, see Chapter 2, "Sorting and Selecting Records," in the Q+E for Microsoft Excel User's Guide.

Set Extract (Data Menu)

Defines the selected range of cells as an extract range for extracting records from a database.

- The extract range must be outside your database and can be either a range containing only field names or a range containing field names and references to the cells that will contain the extracted data.
- Microsoft Excel names the range Extract.   You can use the name as you would any other named reference.
- If the extract range contains only the field names, all cells below the field names to the bottom of the worksheet are cleared when you extract data, whether or not information is extracted into them.   You cannot reverse the Extract command on the Data menu with the Undo command on the Edit menu.
- You do not have to define an extract range to extract database records; you can simply select the extract range before choosing Extract on the Data menu.   However, if you define the extract range using Set Extract on the Data menu, you can use the name Extract as a named reference with the Goto command on the Formula Menu or database functions.

SQL Query (Data Menu)

Extracts external database records that result from an QL SELECT statement you enter or a Q+E query file that you specify.   Retrieves the results of the query into the current worksheet.

▪   This command is available on Microsoft Excel's Data menu only when the QE.XLA add-in macro sheet is open.
▪   This command works only for querying an external database; it does not work on Microsoft Excel internal database ranges.
▪   If you want to send the query to a database other than the current default source in Q+E, be sure to preface the database name with the source name in the FROM clause.
         For example: SELECT FIRST_NAME, LAST_NAME FROM Microsoft ExcelFile|C:\qe\
         emp.xls

▪   If you send an SQL Query statement that includes an extract command and there are matching records in the database, then another dialog box is displayed which indicates the number of records received and gives you the option to make the extract linked or unlinked.

SQL Query

Type your SQL Query statement here.

Run

Executes the SQL Query statement you have entered.

Save

Saves the current SQL Query statement as a text file with extension .QEF.

Open

Opens an existing text file that contains an SQL Query statement.

New

Clears the SQL Query box.   If your current query has not been saved, displays a dialog box prompting you to save it before it is cleared.

Close

Closes the dialog box without executing the query.

Scenario Manager Command (Formula Menu)

Creates and saves different sets of data as separate scenarios.   You can use these scenarios to view multiple outcomes based on different assumptions.   You can also create a separate summary report that shows the changing cell values and the resulting cell values for each scenario.

▪   If the Scenario Manager command does not appear on the Formula menu, run the Setup program to install it.

▪   You can use any cell with data as a changing cell for a scenario, but if you name the changing cells using the Define Name or Create Names command on the Formula menu, the names will appear in the Add Scenario dialog box next to the data contained in the cell.

▪   You can include the scenario in a report, and then print the scenario as part of the report, using the Print Report command on the File menu.

Scenarios

Lists any existing scenarios.

Changing Cells

Select the cells containing the data that will change in each scenario, or type the cell references.   If you include nonadjacent cells, select them by holding down CTRL and then clicking each cell, or separate the cell references with a comma.

If you later specify different cells as your changing cells, existing scenarios will be changed to reflect the data in the new cells.   If you specify all new changing cells, existing scenarios are deleted.   Before scenarios are changed or deleted, Microsoft Excel displays a message asking you to confirm the change or deletion.

Show

Displays on the worksheet the changing cell values for the scenario selected in the Scenarios box.   The worksheet is recalculated to reflect the new values.

Add

Displays the Add Scenario dialog box, where you can specify the values for each changing cell.   The current values on your worksheet are suggested.

Name

Type a name for the scenario.

OK

Adds the scenario to the list in the Scenarios box in the Scenario Manager dialog box, and closes the Add Scenario dialog box.

Add

Adds the scenario to the list in the Scenarios box in the Scenario Manager dialog box, leaving the Add Scenario dialog box open.

Delete

Deletes the scenario you have selected in the Scenarios box.

Edit

Displays the Edit Scenario dialog box, which lists the scenario's changing cell values next to each cell reference or name.   Type new values to change the scenario.

Name

Use the original name if you want to change the numbers for a scenario, or a new name if you want to create a different scenario.

OK

Accepts the changes and closes the Edit Scenario dialog box.

Add

> Accepts the changes, leaving the Edit Scenario dialog box open.

Summary

> Creates a summary table of your scenarios on a separate worksheet.

Changing Cells

> Lists the cells that will change for each scenario.

Result Cells

> If you want to include cells containing formulas that depend on the changing cells, you can select those cells or type the cell references or names.   The table will then include the results of the formulas for each scenario.

See Also

Help

Adding a scenario to the Scenario list

Create Names Command (Formula Menu)

Define Name Command (Formula Menu)

Deleting a scenario

Displaying data from a scenario on the active worksheet

Editing a scenario

Generating a summary report of your scenarios

Print Report Command (File Menu)

View Command (Window Menu)

User's Guide (Book 1)

Chapter 1, "Getting Started With Microsoft Excel"

User's Guide (Book 2)

Chapter 2, "Performing What-if Analysis on a Worksheet Model"

To add a scenario to the Scenario list

1 From the Formula menu, choose Scenario Manager.

  If the Scenario Manager command does not appear on the Formula menu, run the Setup program to install it.

2 If you have not already specified the cells you want to change, or if you want to specify new cells, select the cells or type the cell references in the Changing Cells box.

3 Choose the Add button.

4 In the Name box, type the name of your scenario.

5 Edit the values for each changing cell.

  The current values on the sheet are suggested.

  If you have more than nine changing cells, only the values of the first nine can be edited in the Add Scenario dialog box.   The current sheet values are used for the others.

6 If you want to add the scenario to the list, and then create additional scenarios, choose the Add button.

  If you want to add the scenario to the list and return to the Scenario Manager dialog box, choose the OK button.

  If you want to return to the Scenario Manager dialog box without adding the current scenario, choose the Close button.

See Also

Help

Deleting a scenario

Displaying data from a scenario on the active worksheet

Editing a scenario

Scenario Manager Command (Formula Menu)

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User's Guide (Book 2)

Chapter 2, "Performing What-if Analysis on a Worksheet Model"

To edit a scenario

1 From the Formula menu, choose Scenario Manager.

2 In the Scenarios box, select the scenario you want to edit.

3 Choose the Edit button.

4 In the Name box, type a name for the new scenario.

If you use the scenario's original name, the new changing cell values will replace those in the original scenario.

5 Edit the values for each changing cell.

6 If you want to add the edited scenario to the list, and then create additional scenarios, choose the Add button.

If you want to add the edited scenario to the list and return to the Scenario Manager dialog box, choose the OK button.

If you want to return to the Scenario Manager dialog box without adding the current scenario, choose the Close button.

See Also

Help

Adding a scenario to the Scenario list

Deleting a scenario

Displaying data from a scenario on the active worksheet

Generating a summary report of your scenarios

Scenario Manager Command (Formula Menu)

User's Guide (Book 2)

Chapter 2, "Performing What-if Analysis on a Worksheet Model"

To delete a scenario

1 From the Formula menu, choose Scenario Manager.
2 In the Scenarios box, select the scenario that you want to delete.
3 Choose the Delete button.
4 To delete additional scenarios, repeat steps 2 and 3.
5 Choose the Close button.

See Also

Help

Adding a scenario to the Scenario list

Editing a scenario

Scenario Manager Command (Formula Menu)

User's Guide (Book 2)

Chapter 2, "Performing What-if Analysis on a Worksheet Model"

To display data from a scenario on the active worksheet

1 From the Formula menu, choose Scenario Manager.
2 In the Scenarios box, select the scenario that you want to show.
3 Choose the Show button.

   The changing cell values for the scenario that you selected will appear in the changing cells on the worksheet.   The worksheet is recalculated to reflect the new values.
4 Repeat steps 2 and 3 to display other scenarios.
5 Choose the Close button.

See Also

Help

Adding a scenario to the Scenario list

Deleting a scenario

Editing a scenario

Generating a summary report of your scenarios

Scenario Manager Command (Formula Menu)

User's Guide (Book 2)

Chapter 2, "Performing What-if Analysis on a Worksheet Model"

To generate a summary report of your scenarios

1 From the Formula menu, choose Scenario Manager.

2 Choose the Summary button.

3 In the Results Cells box, specify the cells that contain the significant results of each scenario by selecting the cells or typing the cell references.   These cells should have formulas that refer to changing cells.

   If you include nonadjacent cells, select them by holding down CTRL and then clicking each cell, or separate the cell references with a comma.

   You do not have to include result cells in your summary report.

4 Choose the OK button.

   Microsoft Excel creates a summary table of your scenarios on a separate worksheet.

See Also

Help

Adding a scenario to the Scenario list

Deleting a scenario

Displaying data from a scenario on the active worksheet

Editing a scenario

Scenario Manager Command (Formula Menu)

User's Guide (Book 2)

Chapter 2, "Performing What-if Analysis on a Worksheet Model"

Slide Show

Opens a slide show template with which you can create a slide show. You can include a variety of graphics in a slide show and apply video and audio transition effects between slides.

- To create and display slide shows, you must have installed the Slide Show add-in. If it is not installed, run Setup again to install the Slide Show add-in.
- Slide shows can only be displayed on your computer screen. They cannot be printed.
- Graphics that you've created in Microsoft Excel, such as worksheet objects and charts, should not be saved on the slide show template. Save them on another worksheet.

Paste Slide

Pastes the current contents of the Clipboard onto the slide show template as a slide and then displays the Edit Slide dialog box.

Edit Slide

Allows you to change the display settings of the current slide.

Start Show

Allows you to choose to repeat a slide show and to specify the slide at which the show should begin.

Set Defaults

Allows you to change the default settings that are used each time you create a new slide.

Cut Row

Cuts the current row or rows and places them on the Clipboard.

Copy Row

Copies the current row or rows onto the Clipboard.

Paste Row

Pastes the row or rows from the Clipboard into a blank row or rows created above the currently selected row.

Delete Row

Deletes the currently selected row or rows.

See Also

Help

Creating a slide

Editing a slide

Moving and copying a slide

Deleting a slide

Running or interrupting a slide show

Edit Slide Dialog Box

Allows you to change the display settings of the current slide. When you choose the Set Defaults button on the Slide Show template, the Edit Slide dialog box allows you to change the defaults for all subsequent slides you paste into the template.

Effect

Allows you to choose the effect you want applied to the transition between the previous slide and the current slide.

Speed

Allows you to choose the speed of the transition effect.

Advance

Allows you to specify a method for advancing between slides. Choose Manual to advance slides by clicking the mouse button or pressing the SPACEBAR.   Choose Timed and specify an interval in seconds to advance slides automatically.

Sound

If you are using Microsoft Windows with MultiMedia Extensions, Microsoft Windows 3.1 or later, you can import and record sounds to be played during the transition between slides.

Start Show Dialog Box

Allows you to choose to repeat a slide show and to specify the slide at which the slide show should begin.

Slide Show Options Dialog Box

Allows you to stop the current slide show, continue running the slide show, or go to a specific slide.

To create a slide

1 Select the range of worksheet cells that contain the data you want in the slide.

   If you want to use a graphic on a worksheet in a slide, select the cells underneath the graphic.

   If you want to use a graphic from another application, select the object you want to use, choose Copy from the Edit menu, and then switch to Microsoft Excel.

2 From the Edit menu or the shortcut menu, choose Copy.

3 Open or switch to the slide show template.

4 Choose the Paste Slide button.

   A picture of the range of cells you've selected is pasted into column A as a slide, and the Edit Slide dialog box is displayed.

5 Select the options you want.

6 Choose the OK button.

See Also

Help

SlideShow

To edit a slide

1 On the slide show template, select any cell in the row or rows containing the slide or slides you want to edit.
2 Choose the Edit Slide button.

   The Edit Slide dialog box is displayed.
3 Select the options you want.
4 Choose the OK button.

See Also

Help

SlideShow

To move or copy a slide

1. On the slide show template, select any cell in the row or rows containing the slide or slides you want to copy or move.
2. Choose the Cut Row button or the Copy Row button.
3. Select a cell in the row below which you want to insert the slide or slides.
4. Choose the Paste Row button.

The row or rows are pasted to the new location.

See Also

Help

SlideShow

To delete a slide

1 On the slide show template, select any cell in the row or rows containing the slide or slides you want to delete.

2 Choose the Delete Row button.

The slide is deleted.

See Also

Help

SlideShow

To run or interrupt a slide show

To run a slide show

1 On the slide show template, choose the Start Show button.

   The Start Show dialog box is displayed.

2 Select the Repeat option button and the slide you want to start with.

3 Choose the OK button.

To interrupt a slide show

- Press ESC.
  The slide show is paused and the Slide Show Options dialog box is displayed. You can choose to stop the slide show, continue running the slide show, or go to a specific slide.

See Also

Help

SlideShow

This is not a valid slide show document.   Switch to a slide show document and try again.

You tried to use a command or run a macro that requires a slide show document to be active, when a slide show document was not active.   Switch to the slide show that you want to operate on and try the command again.

Out of memory or system resources.   Quit Microsoft Excel and any unnecessary applications, and try again.

Microsoft Excel was unable to perform a command because there was not enough available memory.   Try closing other documents or quitting applications that you are not using, or quitting and restarting Microsoft Excel.

The slide show sheet is full.

The active slide show document is full.   If you want to add more slides, delete some existing slides or create a new slide show sheet.

The contents of the Clipboard cannot be pasted as a slide.

The data that you have copied to the Clipboard cannot be used as a slide in Microsoft Excel. Note that Microsoft Excel graphic objects cannot be used directly as slides.   Try selecting the cells underneath the object, copying those cells, and then pasting them as a slide.

Cannot locate the slide show add-in code.   Run Setup again and install the Library option.

Microsoft Excel cannot locate a file which is required to run the slide show add-in.   To fix this problem, run Setup again and specify the Library option only.

This slide contains an invalid parameter.

The slide show you are working with contains an invalid parameter.   Choose the Edit Slide button to select new properties.

Cannot paste a slide because the Clipboard is empty. Select the data you want as a slide, copy it, and then choose the Paste Slide button.

Microsoft Excel cannot paste a slide before data has been copied to the Clipboard. To create a slide, select the cells you want to paste as a slide, switch to the slide show sheet, and choose the Paste Slide button.

Cannot do that command when a graphic object is selected.   Select the underlying sheet row.

Microsoft Excel cannot perform the desired action when a graphic object is selected.   Select a cell in the same row as the graphic object you want to operate on, and try the command again.

Cannot unprotect the slide show sheet.

Microsoft Excel was unable to unprotect the active slide show sheet.   To edit a slide show, first use the Unprotect Document command on the Options menu to remove password protection.   Then, edit your slide show.   You can then turn on password protection.

The slide show image cannot be displayed because the image source link has been misplaced or deleted.   Try deleting the selected slide show row and pasting the slide again.

Either the slide show picture or the picture's formula has been corrupted.   Select the row and use the Delete Row button to remove the slide.   Then create the slide again.

Select a single row to mark where the slide rows should be inserted.

You chose the Paste Row button when more than one row was selected.   Choose a single row in front of which you want Microsoft Excel to paste the slides.

There is no slide information on the selected row.

The currently selected row does not contain any slide information, or the entire slide show sheet is empty.   Select a cell on a row with slide information, and try again.

There are no slides to paste.   Choose the Cut Row button or Copy Row button to select the rows to paste.

You chose the Paste Row button when there was no slide information on the Clipboard to paste.   Choose the Cut Row or Copy Row button first to select the rows to paste, and then choose the Paste Row button.

Solver Command (Formula Menu)

Displays the Solver Parameters dialog box, in which you define the problem you want to solve.

With Microsoft Excel Solver, you can solve complex problems by creating a worksheet model with multiple adjustable cells.   You can set constraints on your problem that must be satisfied before a solution is reached.

Set Cell

Specifies the cell whose value must reach a certain value, be maximized, or be minimized.

Equal To

Specifies whether you want the cell value identified in the Set Cell box to be maximized, minimized, or reach a certain value.

By Changing Cells

Specifies the adjustable cells.   An adjustable cell is one that can be changed by Solver until the constraints in the problem are satisfied and the cell in the Set Cell box reaches its target.

Guess

Guesses all non-formula cells referred to by the formula in the Set Cell box and places their references in the By Changing Cells box.

Subject To The Constraints

Lists the current constraints on the problem.   A constraint is a condition that needs to be satisfied by the solution; for example, Sales > 0.   A constraint is listed as a cell or cell range, usually containing a formula that depends on one or more adjustable cells, whose value is required to fall within certain bounds or satisfy a target.

Add

Displays the Add dialog box, where you can add constraints to the current problem.

Change

Displays the Change dialog box, where you can modify the existing constraints.

Delete

Removes the selected constraint.

Solve

Starts the problem-solving process for a problem you've defined.

Close

Closes the dialog box without solving the problem.   Retains only those changes made with the Options, Add, Change, or Delete button.   Does not retain any setting changes you may have made since using any of these buttons.

Options

Displays the Options dialog box, where you can control advanced features of the solution process and load or save the specifications, such as cell selections and constraints, for a particular problem on the worksheet.

Reset All

Clears the current Solver problem settings and resets all options to their defaults.

See Also

Help

Using Solver

User's Guide (Book 2)
Chapter 2, "Performing What-if Analysis on a Worksheet Model"

Add Constraint Dialog Box

Allows you to add constraints to the problem currently defined in the Solver Parameters dialog box.

Cell Reference

Specifies the cell or range of cells whose values you want to constrain.

Relationship

The unnamed list box between the Cell Reference box and the Constraint box, which specifies the relationship you want between the referenced cell or cell range and the constraint.   You can select <=, =, >=, or int.   If you choose int to specify that a variable must be an integer, the Constraint box is unavailable.

Constraint

Specifies a restriction you want placed on the contents of the Cell Reference box.   The constraint can be a number, a cell reference, a range reference, or a formula.   If you specify a range of cells, the range must be the same size as the range of cells in the Cell Reference box.

Add

Allows you to add another constraint without returning to the Solver Parameters dialog box.

See Also

Help

Using Solver

User's Guide (Book 2)

Chapter 2, "Performing What-if Analysis on a Worksheet Model"

Change Constraint Dialog Box

Allows you to change or modify a constraint to the problem currently defined in the Solver Parameters dialog box.

Cell Reference

Specifies the cell or range of cells whose values you want to constrain.

Relationship

The unnamed list box between the Cell Reference box and the Constraint box, which specifies the relationship you want between the referenced cell or cell range and the constraint.   You can select <=, =, >=, or int.   If you choose int to specify that a variable must be an integer, the Constraint box is unavailable.

Constraint

Specifies a restriction you want placed on the contents of the Cell Reference box.   The constraint can be a number, a cell reference, a range reference, or a formula.   If you specify a range of cells, the range must be the same size as the range of cells in the Cell Reference box.

See Also

Help

Using Solver

User's Guide (Book 2)

Chapter 2, "Performing What-if Analysis on a Worksheet Model"

Solver Options Dialog Box

Allows you to control advanced features of the solution process and load or save the specifications, such as the cell reference and constraints, for a particular problem on the worksheet.   You can define parameters for both linear and nonlinear problems.

Each of the options in this dialog box has a default setting that is appropriate for most problems.

Max Time

Specifies the maximum amount of time in seconds that you want Solver to spend on a problem.   Solver will only spend as much time on a problem as needed.

Iterations

Specifies the maximum number of trial solutions Solver is permitted.

Precision

Specifies how close the Cell Reference and Constraint formula must be to satisfy a constraint.

Tolerance

The maximum percentage of error allowed for integer solutions.   Only used if there is an integer constraint.

Assume Linear Model

Speeds the solution process.   Can be used only if all the relationships in the model are linear.

Show Iteration Results

Interrupts Solver and shows the results after each iteration.

Use Automatic Scaling

Turns on automatic scaling.   This is useful when the inputs (By Changing Cells) and outputs (Set Cell and Constraints) have large differences in magnitude; for example, maximizing percent profit based on million-dollar investments.

Estimates

Specifies the approach used to obtain initial estimates of the basic variables in each one-dimensional search.

Tangent

Uses linear extrapolation from a tangent vector.

Quadratic

Uses quadratic extrapolation; this may improve the results on highly nonlinear problems.

Derivatives

Specifies forward differencing or central differencing for estimates of partial derivatives.

Forward

The default method.

Central

Requires more worksheet recalculations, but may help on problems when you get a message saying that Solver could not improve the solution.

Search

Specifies either a quasi-Newton or Conjugate gradient method of searching.

Newton

The default method.

Conjugate

Useful if stepping through the iterations reveals slow progress between successive trial points.

Load Model

Displays the Load Model dialog box, where you can specify the reference for the model you want to load.

Save Model

Displays the Save Model dialog box, where you can specify the reference of the model you want to save.

Choose the Save Model button only when you want to save more than one Solver model with your worksheet.   The first Solver model is automatically saved with your worksheet.

See Also

Help

Using Solver

User's Guide (Book 2)

Chapter 2, "Performing What-if Analysis on a Worksheet Model"

Solution Dialog Box

Displays the results of the last calculation, using the adjustable cell values that are closest to the solution you want.   One of the following completion messages is displayed:

- Solver found a solution.   All constraints and optimality conditions are satisfied.
  All constraints are satisfied within the Precision setting and, if appropriate, a maximum or minimum value has been found for the cell in the Set Cell box.

- Solver has converged to the current solution.   All constraints are satisfied.
  The value in the cell specified in the Set Cell box is virtually unchanged for the last five trial solutions.   A solution may have been found, but it is also possible that the iterative solution process is making very slow progress.

- Unsuccessful completion messages.
  For details on any unsuccessful completion messages, see Chapter 2, "Performing What-if Analysis on a Worksheet Model," in Book 2 of the Microsoft Excel User's Guide.

Keep Solver Solution

Accepts the solution Solver found and puts these values in the adjustable cells.

Restore Original Values

Restores the original values in the adjustable cells.

Reports

Creates the type of report you specify.   Each report appears in its own worksheet window.

Answer

Lists the cell named in the Set Cell box and the adjustable cells, with both their original and final values.   Also shows the constraints and information about the constraints.

Limit

Lists the cell named in the Set Cell box, and the adjustable cells with their respective values, upper and lower limits, and target results.   The lower limit is the smallest value that the adjustable cell can take while holding all other adjustable cells fixed and still satisfying the constraints.   The upper limit is the greatest such value.   The target result is the value of the cell in the Set Cell box when the adjustable cell is at its lower or upper limit.

Sensitivity

Provides information about how sensitive the solution is to small changes in the Set Cell formula or the constraints.   For non-linear models, the report provides dual values (reduced gradients and Lagrange multipliers).   For linear models, the report includes dual values (reduced costs and shadow prices) and objective coefficient and constraint right-hand side ranges.

OK

Sets the adjustable cells as specified and generates any requested reports.

Cancel

Closes the Solution dialog box and restores the original values to the adjustable cells.

See Also

Help
Using Solver

User's Guide (Book 2)
Chapter 2, "Performing What-if Analysis on a Worksheet Model"

Using Solver

By using Solver, you can get better answers to questions such as: "What product price or promotion mix will maximize profit?   How can I live within the budget? How fast can we grow without running out of cash?"   Instead of guessing over and over, you can use Solver to find the best answer.

Once you install Solver, you can use it whenever you run Microsoft Excel.   If the Solver command does not appear on the Formula menu, see Chapter 1, "Getting Started with Microsoft Excel," in Book 1 of the Microsoft Excel User's Guide for information on how to install Solver.   After you choose the Solver command from the Formula menu, follow these four steps to a solution:

- Specify a cell (such as net profit) whose value is to be maximized, minimized, or made to reach a certain value.
- Specify the adjustable cells whose values are to be adjusted until a solution is found.
- Specify constraint cells, which must fall within certain limits or satisfy target values.
- Choose the Solve button.

Solver goes to work and the solution values appear in the adjustable cells.   You can then create three types of reports that summarize the results of a successful solution process.

About Solver. . .

See Also

Help

Add Constraints Dialog Box

Change Constraints Dialog Box

Solution Dialog Box

Solver Command (Formula Menu)

Solver Options Dialog Box

User's Guide (Book 2)

Chapter 2, "Performing What-if Analysis on a Worksheet Model"

Save Scenario Dialog Box

This box allows you to save your problem for use with the Microsoft Excel Scenario Manager. If you have not previously defined a scenario, the reference in Solver's By Changing Cells box is used in Scenario Manager's Changing Cells box.

Scenario Name

Allows you to enter a name for the scenario.

See Also

Help

Scenario Manager Command (Formula Menu)

Using Solver

User's Guide (Book 2)

Chapter 2, "Performing What-if Analysis on a Worksheet Model"

Show Trial Solution Dialog Box

If you select the Show Iteration Results check box in the Options dialog box and then choose the Solve button, Solver stops and displays each iteration's results.

Save Scenario

Allows you to save your problem for use with the Microsoft Excel Scenario Manager.   If you have not previously defined a scenario, the reference in Solver's By Changing Cells box is used in Scenario Manager's Changing Cells box.   The Save Scenario dialog box appears and you are asked to enter a scenario name.

Continue

Continues the solution process.

Stop

Displays the Solution dialog box without completing the solution.

See Also

Help

Scenario Manager Command (Formula Menu)

Using Solver

User's Guide (Book 2)

Chapter 2, "Performing What-if Analysis on a Worksheet Model"

Load Model Dialog Box

The last model you worked with on the active worksheet is automatically opened by default when you choose the Solver command.

Select Model Area

To open an alternate model you've previously saved, type its reference in this box or select the range containing the model.

See Also

Help

Using Solver

User's Guide (Book 2)

Chapter 2, "Performing What-if Analysis on a Worksheet Model"

Save Model Dialog Box

Use this dialog box only when you want to save more than one Solver model with your worksheet.   The current Solver model is automatically saved with your worksheet.

Select Model Area

Specify a range where you want to save the current model, or accept the range Solver proposes, which begins with the active cell.

See Also

Help

Using Solver

User's Guide (Book 2)

Chapter 2, "Performing What-if Analysis on a Worksheet Model"

About Solver

The Microsoft Excel Solver program code is copyright 1990, 1991, 1992 by Frontline Systems, Inc.   Portions copyright 1989 by Optimal Methods, Inc.

The Microsoft Excel Solver uses the GRG2 nonlinear optimization code developed by Leon Lasdon, University of Texas at Austin and Allan Waren, Cleveland State University.

Linear and integer problems use the simplex method with bounds on the variables and the branch and bound method, implemented by John Watson and Dan Fylstra, Frontline Systems, Inc.

For more information, contact:

> Frontline Systems, Inc.
> P.O. Box 4288
> Incline Village, Nevada   89450-4288
> (702) 831-0300

Anova: Single-Factor

Performs simple analysis of variance, which tests the hypothesis that means from several samples are equal. Generally, analysis of variance, or anova, is a statistical procedure that you use to determine whether means from two or more samples are drawn from populations with the same mean. This technique expands on the tests for two means, such as the t-test.

Input Range

Type the reference for the range of worksheet data you want to analyze. The input range should contain two or more blocks of data arranged in columns or rows. If your input range includes row or column labels, you must select the Labels In First Column or Labels In First Row check box, or Microsoft Excel will display a message.

Output Range

Type the reference for the upper-left cell of the range where you want the output table to appear. If existing data is about to be overwritten in the output range, Microsoft Excel displays a message.

Grouped By

Select either the Rows or Columns option button to indicate whether the data in the input range is arranged in rows or by columns.

Labels In First Row/Labels In First Column

If you selected the Columns option button under Grouped By, and the first row of your input range contains labels, select the Labels In First Row check box.

If you selected the Rows options button under Grouped By, and the first column of your input range contains labels, select the Labels In First Columns check box.

If your input range does not include labels, clear the Labels In First Row or Labels In First Column check box.   Microsoft Excel will then generate the appropriate data labels for the output table (Row 1, Row 2, Row 3, and so on; or Column 1, Column 2, Column 3, and so on).

Alpha

Type the significance level at which you want to evaluate critical values for the F statistic. The default alpha value is 0.05. This critical value appears in the output table.

See Also

Help

Using an Analysis ToolPak tool

Function Reference

ANOVA1

User's Guide (Book 2)

Chapter 1, "Analyzing and Calculating Data"

Anova: Two-Factor With Replication

Performs an extension of the single-factor anova that includes more than one sample for each group of data. Analysis of variance, or anova, is a statistical procedure that you use to determine whether means from two or more samples are drawn from populations with the same mean. This technique expands on the tests for two means, such as the t-test.

Input Range

Type the reference for the range of worksheet data you want to analyze. The input range should contain two or more blocks of data arranged in columns. Type column labels in the first row, and one row label in the first column for each group of data in the input range; Microsoft Excel assumes that the first row and column of the input range contain labels.

Output Range

Type the reference for the upper-left cell of the range where you want the output table to appear.

Rows Per Sample

Type the number of rows contained in each sample.   Each now represents a replication of the data. Each sample must contain the same number of rows.

Alpha

Type the significance level at which you want to evaluate critical values for the F statistic. The default alpha value is 0.05. This critical value appears in the output table.

See Also

Help

Using an Analysis ToolPak tool

Function Reference

ANOVA2

User's Guide (Book 2)

Chapter 1, "Analyzing and Calculating Data"

Anova: Two-Factor Without Replication

Performs simple anova that does not include more than one sampling per group. In general, analysis of variance, or anova, is a statistical procedure you use to determine whether means from two or more samples are drawn from populations with the same mean. This technique expands on the tests for two means, such as the t-test.

Input Range

Type the reference for the range of worksheet data you want to analyze. The input range should contain two or more blocks of data arranged in columns or rows. If your input range includes row or column labels, you must select the Labels check box, or Microsoft Excel will display a message.

Output Range

Type the reference for the upper-left cell of the range where you want the output table to appear.

Labels

If the first row and column of your input range contain labels, select the Labels check box.

If your input range does not contain labels, clear the Labels check box.   Microsoft Excel will then generate the appropriate data labels for the output table.

Alpha

Type the significance level at which you want to evaluate critical values for the F statistic. The default alpha value is 0.05. This critical value appears in the output table.

See Also

Help

Using an Analysis ToolPak tool

Function Reference

ANOVA3

User's Guide (Book 2)

Chapter 1, "Analyzing and Calculating Data"

Correlation

Measures the relationship between two data sets that are scaled to be independent of the unit of measurement. The population correlation calculation returns the covariance of two data sets divided by the product of their standard deviations.

You can use Correlation to determine whether two data sets move together; that is, whether large values of one set are associated with large values of the other (positive correlation), whether small values of one set are associated with large values of the other (negative correlation), or whether values in both sets are unrelated (correlation near zero).

Input Range

Type the reference for the range of worksheet data you want to analyze. The input range should contain two or more blocks of data arranged in columns or rows. If your input range includes row or column labels, you must select the Labels In First Column or Labels In First Row check box, or Microsoft Excel will display a message.

Output Range

Type the reference for the upper-left cell of the output table. Only half of the table is complete because correlation between two data sets is independent of the order in which the data sets are processed. Cells in the output table with matching row and column coordinates contain the value 1 because each data set correlates perfectly with itself. The output table is a square whose width and height are one larger than the number of cell ranges of data. If existing data is about to be overwritten in the output range, Microsoft Excel displays a message.

Grouped By

Select either the Rows or Columns option button to indicate whether the data in the input range is arranged in rows or by columns.

Labels In First Row/Labels In First Column

If you selected the Columns option button under Grouped By, and the first row of your input range contains labels, select the Labels In First Row check box.

If you selected the Rows options button under Grouped By, and the first column of your input range contains labels, select the Labels In First Columns check box.

If your input range does not include labels, clear the Labels In First Row or Labels In First Column check box.   Microsoft Excel will then generate the appropriate data labels for the output table (Row 1, Row 2, Row 3, and so on; or Column 1, Column 2, Column 3, and so on).

See Also

Help

CORREL

COVAR

Using an Analysis ToolPak tool

Function Reference

MCORREL

MCOVAR

User's Guide (Book 2)

Chapter 1, "Analyzing and Calculating Data"

Covariance

Returns the average of the product of deviations of data points from their respective means. Covariance is a measure of the relationship between two ranges of data. Covariance is sensitive to the unit of measure for X and Y. Two pairs of similarly related ranges of data will yield different covariance values if the magnitude of the data points vary.

Use the Covariance tool to determine whether two ranges of data move together; that is, whether large values of one set are associated with large values of the other (positive covariance), whether small values of one set are associated with large values of the other (negative covariance), or whether values in both sets are unrelated (covariance near zero).

Input Range

Type the reference for the range of worksheet data you want to analyze. The input range should contain two or more blocks of data arranged in columns or rows. If your input range includes row or column labels, you must select the Labels In First Column or Labels In First Row check box, or Microsoft Excel will display a message.

Output Range

Type the reference for the upper-left cell of the range where you want the output to appear. Microsoft Excel populates only half of the table because covariance between two ranges of data is independent of the order in which the ranges of data are processed. The output table is a square whose width and height are one larger than the number of cell ranges of data. The table's diagonal contains the variance of each range

Grouped By

Select either the Row or Column option button to indicate whether the data in the input range is arranged in rows or by columns.

Labels In First Row/Labels In First Column

If you selected the Columns option button under Grouped By, and the first row of your input range contains labels, select the Labels In First Row check box.

If you selected the Rows options button under Grouped By, and the first column of your input range contains labels, select the Labels In First Columns check box.

If your input range does not include labels, clear the Labels In First Row or Labels In First Column check box.   Microsoft Excel will then generate the appropriate data labels for the output table (Row 1, Row 2, Row 3, and so on; or Column 1, Column 2, Column 3, and so on).

See Also

Help

CORREL

COVAR

Using an Analysis ToolPak tool

Function Reference

MCORREL

MCOVAR

User's Guide (Book 2)

Chapter 1, "Analyzing and Calculating Data"

Descriptive Statistics

Generates a report of univariate statistics for data in the input range. This procedure provides information about the central tendency and variability of your data. The statistics in this table are a common starting point for further analysis and can indicate which tests are appropriate to explore next.

Input Range

Type the reference for the range of worksheet data you want to analyze. If your input range includes labels, you must select the Labels In First Column or Labels In First Row check box, or Microsoft Excel will display a message.

Output Range

Type the reference for the upper-left cell of the range where you want the output to appear. The Descriptive Statistics tool produces two columns of information for each data set. The left column contains the statistics labels (see the Summary Statistics option below); the right column contains the statistics.

- If the Columns option button is selected under Grouped By, Microsoft Excel writes a two-column table of statistics for each column in the input range.
- If the Rows option button is selected under Grouped By, Microsoft Excel writes a two-column table of statistics for each row in the input range.

Grouped By

Select either the Rows or Columns option button to indicate whether the data in the input range is arranged in rows or columns.

Labels In First Row/Labels In First Column

If you selected the Columns option button under Grouped By, and the first row of your input range contains labels, select the Labels In First Row check box.

If you selected the Rows options button under Grouped By, and the first column of your input range contains labels, select the Labels In First Columns check box.

If your input range does not include labels, clear the Labels In First Row or Labels In First Column check box.   Microsoft Excel will then generate the appropriate data labels for the output table (Row 1, Row 2, Row 3, and so on; or Column 1, Column 2, Column 3, and so on).

Summary Statistics

Select the Summary Statistics check box if you want Microsoft Excel to produce one field for each of the following statistics in the output table:

Mean
Standard Error (of the mean)
Median
Mode
Standard Deviation
Variance
Kurtosis
Skewness
Range
Minimum
Maximum
Sum
Count
Largest (#)
Smallest (#)
Confidence Level

Kth Largest

Select the Kth Largest check box if you want to include a row in the output table for the kth largest value for each range of data. In the Kth Largest box, type the number to use for k. If k is 1, this row contains the maximum of the data set.

Kth Smallest

Select the Kth Smallest check box if you want to include a row in the output table for the kth smallest value for each range of data. In the Kth Smallest box, type the number to use for k. If k is 1, this row contains the minimum of the data set.

Confidence Level For Mean

Select the Confidence Level For Mean check box if you want to include a row for the confidence level of the mean in the output table. In the Confidence Level For Mean box, type the confidence level that you want. For example, a value of 95% calculates the confidence level of the mean at a significance of 0.05.

See Also

Help

Using an Analysis ToolPak tool

Function Reference

DESCR

User's Guide (Book 2)

Chapter 1, "Analyzing and Calculating Data"

Exponential Smoothing

Predicts a value based on the forecast for the prior period, adjusted for the error in that prior forecast. Uses a smoothing constant, a, the magnitude of which determines how strongly forecasts respond to errors in the prior forecast.

You can use exponential smoothing to forecast sales, inventory, or other trends. Another method, Regression, also predicts values based on relationships in existing data.

Input Range

Type the reference for the range of worksheet data you want to analyze. The input range must consist of a single column or row containing four or more cells of data. If data in the Input Range is nonnumeric, Microsoft Excel displays a message.

Output Range

Type the reference for the upper-left cell of the range where you want the output table to appear. The input range and output range must be on the same worksheet.

▪ If the Standard Errors check box is selected, Microsoft Excel generates a two-column output table with standard error values in the right column.
▪ If there are insufficient historical values to project a fore cast or calculate a standard error, Microsoft Excel returns the #N/A error value.

Damping Factor

Type the Damping Factor that you want to use as the exponential smoothing constant. Microsoft Excel uses 0.3 as the default value for the damping factor.

Standard Errors

Select the Standard Errors check box if you want to include a column that contains standard error values in the output table.

▪ If the Standard Errors check box is selected, Microsoft Excel generates a two-column output table with standard error values in the right column.
▪ If the Standard Errors check box is cleared, Microsoft Excel generates a single-column output table without standard error values.

Chart Output

Select the Chart Output check box if you want Microsoft Excel to automatically generate a chart for the actual and forecast values with the output table. If you save the original chart with the filename EXPSMTH.XLC, subsequent charts will automatically update this file. Each time you use Exponential Smoothing and select the Chart Output check box, Microsoft Excel searches for the file EXPSMTH.XLC. If this chart is active, Microsoft Excel modifies the chart for the current data. If the chart is in a default directory but inactive, Microsoft Excel opens the chart and modifies it to reflect current data. In either of these cases, legends and titles are unaffected. If EXPSMTH.XLC cannot be found, a new chart is opened with the next available default chart name. In this case, legend and title information are added to the chart.

If the Chart Output check box is cleared, Microsoft Excel does not generate the chart.

See Also

Help

Creating a chart
FORECAST
GROWTH
MOVEAVG
Regression
Using an Analysis ToolPak tool

Function Reference

EXPON

User's Guide (Book 2)
Chapter 1, "Analyzing and Calculating Data"

F-Test: Two-Sample for Variances

Performs a two sample F-test. An F-test is a method for comparing two population variances. For example, you can use an F test to determine whether the time scores in a swimming meet have a difference in variance for samples from two teams.

Variable 1 Input Range

Type the reference for the first column or row of data you want analyzed. If any data point in the range of data is nonnumeric, Microsoft Excel displays a message.

Variable 2 Input Range

Type the reference for the second column or row of data you want analyzed. If any data point in the range of data is nonnumeric, Microsoft Excel displays a message.

Output Range

Type the reference for the upper-left cell of the range where you want the output table to appear.

Labels

If the first row or column of your input range contains labels, select the Labels check box. If your input range does not contain labels, clear the Labels check box.   Microsoft Excel will then generate the appropriate data labels for the output table (Variable 1 and Variable 2).

See Also

Help

FDIST

FINV

FTEST

Using an Analysis ToolPak tool

Function Reference

FTESTV

User's Guide (Book 2)

Chapter 1, "Analyzing and Calculating Data"

Histogram

Calculates individual and cumulative frequencies for a cell range of data and data bins. Generates data for the number of occurrences of a value in a data set. For example, in a class of 20 students, you may be interested in the distribution of scores in letter grade categories. A histogram table presents the letter grade boundaries and the number of scores between the lowest bound and the current bound. The single most frequent score is the mode of the cell range of data.

Input Range

Type the reference for the range of worksheet data that you want to analyze. You can type either a column, a row, or a block of numeric data for frequency generation. Data must be numeric or Microsoft Excel will display a message.

Bin Range (optional)

Type a cell range with an optional set of boundary values that define bin ranges. These values should be in ascending order.

- Microsoft Excel counts the number of data points between the current bin number and the adjoining higher bin, if any. Microsoft Excel includes values at the lower bin boundary and excludes the values at the upper bin boundary. For example, bins might equal 2 to 2.9999, 3 to 3.9999, 4 to 4.9999, and so on.
- If you omit the Bin Range, Microsoft Excel will create a set of evenly distributed bins between the data's minimum and maximum values.

Output Range

Type the reference for the upper-left cell of the output table. If existing data is about to be overwritten in the output range, Microsoft Excel displays a message.

Pareto

Select the Pareto check box to present the data in order of descending frequency.

- If the Pareto check box is selected, Microsoft Excel presents data in descending frequency order in the output table.
- If the Pareto check box is cleared, Microsoft Excel presents data in ascending bin order in the output table and omits the three rightmost columns containing the sorted data.

Cumulative Percentage

Select the Cumulative Percentage check box to generate cumulative percentages.

- If the Cumulative Percentage check box is selected, Microsoft Excel generates an output table column for cumulative percentages and includes a cumulative percentage line in the histogram chart.   For more information about generating a histogram chart, see the Chart Output option, which follows.
- If the Cumulative Percentage check box is cleared, Microsoft Excel omits the cumulative percentage column in the output table and the cumulative percentage line in the charts.

Chart Output

Select the Chart Output check box if you want Microsoft Excel to automatically generate a histogram chart with the output table. If the Chart Output check box is selected, Microsoft Excel generates a chart in addition to the output table. If you save the original chart with the filename HISTOGRM.XLC, subsequent charts will automatically update this file. Each time you use Histogram and select the Chart Output check box, Microsoft Excel searches for the file HISTOGRM.XLC. If this chart is active, Microsoft Excel modifies the chart for the current data. If the chart is in a default directory but inactive, Microsoft Excel opens the chart and modifies it to reflect current data. In either of these cases, legends and titles are unaffected. If HISTOGRM.XLC cannot be found, a new chart is opened with the next available default chart name.   In this case, legend and title information are added to the chart.

See Also

Help

Creating a chart

MODE

Using an Analysis ToolPak tool

Function Reference

HISTOGRAM

User's Guide (Book 2)

Chapter 1, "Analyzing and Calculating Data"

Moving Average

Projects values in the forecast period, based on the average value of the variable over a specific number of preceding periods. You can use this procedure to forecast sales, inventory, or other trends.

Input Range

Type the reference for the range of worksheet data that you want to analyze. The input range must consist of a single column or row containing four or more cells of data.   If any data in the input range is nonnumeric, Microsoft Excel displays a message.

Output Range

Type the reference for the upper-left cell of the range where you want the output table to appear. If there are insufficient historical values to project a forecast, Microsoft Excel returns the #NUM! error value.

Interval

Type the number of values you want to include in the moving average. The default interval is 3.   If interval is nonnumeric, Microsoft Excel displays a message.

Standard Errors

Select the Standard Errors check box if you want to include a column that contains standard errors in the output table.

▪   If the Standard Errors check box is selected, Microsoft Excel generates a two-column output table, with standard error values in the right column.

▪   If the Standard Errors check box is cleared, Microsoft Excel generates a single-column output table without standard error values.

Chart Output

Select the Chart Output check box if you want Microsoft Excel to automatically generate a chart of the forecast values with the output table. If the Chart Output check box is selected, Microsoft Excel generates a chart in addition to the output table. If you save the original chart with the filename MOVEAVG.XLC, subsequent charts will automatically update this file.

Each time you use Moving Average and select the Chart Output check box, Microsoft Excel searches for the file MOVEAVG.XLC. If this chart is active, Microsoft Excel modifies the chart for the current data. If the chart is in a default directory but inactive, Microsoft Excel opens the chart and modifies it to reflect current data. In either of these cases, legends and titles are unaffected. If MOVEAVG.XLC cannot be found, a new chart is opened with the next available default chart name. In this case, legend and title information are added to the chart.

▪   If the Chart Output check box is cleared, Microsoft Excel does not generate a chart.

See Also

Help

Creating a chart

EXPONDIST

FORECAST

GROWTH

SUMPRODUCT

TREND

Using an Analysis ToolPak tool

Function Reference

MOVEAVG

User's Guide (Book 2)
Chapter 1, "Analyzing and Calculating Data"

Random Number Generation

Fills a range with independent random numbers drawn from one of several distributions. Random variables have a variety of applications in statistical simulations. One application of this procedure characterizes subjects in a population with a probability distribution. For example, you might use a normal distribution to characterize the population of individuals' heights, or a Bernoulli distribution of two possible outcomes to characterize the population of coin flip results.

Output Range

Type the reference for the upper-left cell of the range where you want output table to appear.

Number Of Variables

Type the number of columns of values you want Microsoft Excel to place in the output table. If you do not type the number of variables, Microsoft Excel fills all output table columns.

Number Of Random Numbers

Type the number of data points you want generated for each variable. Each data point is placed in a row of the output table. If this item is blank, Microsoft Excel fills all output table rows.

Distribution

Select the distribution you want to use to create random variables.

Parameters

Type the parameters you want to use to characterize a distribution.

Uniform

Characterized by lower and upper bounds. Variables are drawn with equal probability from all values in the range. A common application uses a uniform distribution in the range 0…1.

Normal

Characterized by a mean and standard deviation. A common application uses a mean of zero and a standard deviation of one for the standard normal distribution.

Bernoulli

Characterized by a probability of success on a given trial. Bernoulli random variables will have the value zero or one. For example, you can draw a uniform random variable in the range 0…1. If the variable is less than or equal to the probability of success, the Bernoulli random variable is assigned the value of one; otherwise, it is assigned the value of zero.

Binomial

Characterized by a probability of success for a number of trials. For example, you can generate number_of_trials Bernoulli random variables, the sum of which is a binomial random variable.

Poisson

Characterized by a value lambda, equal to 1/mean. The Poisson distribution is often used to characterize the number of events that occur per unit of time; for example, the average rate at which cars arrive at a toll plaza.

Patterned

Characterized by a lower and upper bound, a step, repetition rate for values, and a repetition rate for the sequence.

Discrete

Characterized by a value and the associated probability range. The range must contain two columns: the left column must contain values and the right column must contain probabilities associated with the value in that row. The sum of the probabilities must be one.

Random Seed

Type an optional value from which to generate random numbers. You can reuse this value to produce the same random numbers at a later time.

See Also

Help

RAND

Using an Analysis ToolPak tool

Function Reference

RANDOM

User's Guide (Book 2)

Chapter 1, "Analyzing and Calculating Data"

Rank and Percentile

Produces a table that contains the ordinal and percent rank of each value in a data set. You can use this procedure to analyze the relative standing of values in a data set.

Input Range

Type the reference for the range of worksheet data that you want to analyze. If your input range includes row or column labels, you must select the Labels In First Row or Labels In First Column check box, or Microsoft Excel will display a message.

Output Range

Type the reference for the upper-left cell of the range where you want the output table to appear. Microsoft Excel generates one output table for each data set in the input range. Each output table contains four columns: the data point number, the data point value, the data point's rank, and the data point's percent rank. Microsoft Excel sorts each output table in ascending rank order.

Grouped By

Select either the Rows or Columns option button to indicate whether the data in the input range is arranged in rows or columns.

Labels In First Row/Labels In First Column

If you selected the Columns option button under Grouped By, and the first row of your input range contains labels, select the Labels In First Row check box.

If you selected the Rows option button under Grouped By, and the first column of your input range contains labels, select the Labels In First Column check box.

If your input range does not include labels, clear the Labels In First Row or Labels In First Column check box.   Microsoft Excel will then generate the appropriate row and column labels for the output table (Column 1, Column 2, Column 3, and so on; or Row 1, Row 2, Row 3, and so on).

See Also

Help

PERCENTRANK

PERCENTILE

Using an Analysis ToolPak tool

Function Reference

RANKPERC

User's Guide (Book 2)

Chapter 1, "Analyzing and Calculating Data"

Regression

Performs linear regression analysis. Regression fits a line through a set of observations using the "least squares" method. Regression is used in a wide variety of applications that seek to analyze how a single dependent variable is affected by the values of one or more independent variables. For example, several factors affect an athlete's performance including age, sex, height, and weight. Regression apportions shares in the performance measure to each of these four factors based on a set of performance data. You can then use the regression results to predict the performance of a new, untested athlete.

Input Y Range

Type the reference for the range of dependent data that you want to analyze. The dependent data should be typed in a single column.

If you include a report label in the first row of the input y range, you must select the Labels check box, or Microsoft Excel will display a message.

Input X Range

Type the reference for the range of independent data that you want to analyze.

Microsoft Excel orders independent variables in ascending order from left to right, and uses 1, 2, 3, and so on for the variable names in the summary output table.

Constant Is Zero

Select the Constant Is Zero check box to force the regression line to pass through the origin.

Labels

If the first row in the input range includes report labels, select the Labels check box.

If your input range does not contain labels, clear the labels check box.   Microsoft Excel will then generate the appropriate data labels for the summary output table.

Confidence Level

Select the Confidence Level check box if you want an additional level included in the summary output table.   In the Confidence Level box, type an additional confidence level that you want Microsoft Excel to apply to the regression in addition to the default 95% confidence level.

Summary Output Range

Type the reference for the upper-left cell of the range where you want the summary output table to appear.   Allow at least seven columns for the summary output table.

The summary output table includes the following:

Anova table

Coefficients

Standard error of y estimate

r2 values

Number of observations

Standard error of coefficients

Residuals

Select the Residuals check box if you want to include residuals in the residuals output table.

If you select the Residuals check box, you must type a cell reference in the Residuals Output Range box.

Standardized Residuals

Select the Standardized Residuals check box if you want to include standardized residuals

in the output table.

If you select the Standardized Residuals check box, you must type a cell reference in the Residuals Output Range box.

Residual Plots

Select the Residual Plots check box if you want Microsoft Excel to generate a chart for each independent variable versus the residual.

If you select the Residual Plots check box, you must type a cell reference in the Residuals Output Range box.

Line Fit Plot

Select the Line Fit Plot check box if you want Microsoft Excel to generate a chart for predicted values versus the observed values.

If you select the Line Fit Plot check box, you must type a cell reference in the Residuals Output Range box.

Residuals Output Range

Type the reference for the upper-left cell of the range where you want the residuals output table to appear.   The residuals output table can include residuals, standardized residuals, and predicted values.

Allow at least four columns for the residuals output table.

Normal Probability Plot

Select the Normal Probability Plot check box if you want Microsoft Excel to generate a chart plotting normal probability plots.

If you select the Normal Probability Plot check box, you must type a cell reference in the Probability Data Output Range box.

Probability Data Output Range

Type the reference for the upper-left cell of the range where you want the probability data output table to appear.   The probability data output table displays the dependent variable values and percentiles used to generate the normal probability plot.

Allow al least two columns for the probability data output table.

See Also

Help

FORECAST

GROWTH

LINEST

LOGEST

TREND

Using an Analysis ToolPak tool

Function Reference

REGRESS

User's Guide (Book 2)

Chapter 1, "Analyzing and Calculating Data"

t-Test: Paired Two-Sample for Means

Performs a two-sample paired student's t-Test. This form of the t-test tests whether a samples' means are distinct, and does not assume the variances of both populations from which the data sets are drawn are equal. A paired test is appropriate whenever there is a natural pairing of observations in the samples, such as when a sample group is tested twice, before and after an experiment.

The two input ranges of data must contain the same number of data points.

Variable 1 Input Range

Type the reference for the first range of data you want analyzed. The data must occupy a single column or row on the worksheet. If any data points in the range of data are nonnumeric, Microsoft Excel displays a message.

Variable 2 Input Range

Type the reference for the second range of data you want analyzed. The data must occupy a single column or row on the worksheet. If any data points in the range of data are nonnumeric, Microsoft Excel displays a message.

Output Range

Type the reference for the upper-left cell of the range where you want the output table to appear.

Labels

If the first row or column of your input range contains labels, select the Labels check box.

If your input range does not contain labels, clear the Labels check box.   Microsoft Excel will then generate the appropriate data labels for the output table (Variable 1 and Variable 2).

Alpha

Type the confidence level for the test. The default alpha value is 0.05. If alpha is nonnumeric or outside the range 0...1, Microsoft Excel displays a message.

Hypothesized Mean Difference

Type the number that you want for the shift in sample means. A value of 0 indicates that the sample means are hypothesized to be equal.

See Also

Help

Using an Analysis ToolPak tool

TDIST

TTEST

Function Reference

PTTESTM

User's Guide (Book 2)

Chapter 1, "Analyzing and Calculating Data"

t-Test: Two-Sample Assuming Equal Variances

Performs a two-sample student's t-Test. This form of the t-test assumes that the means of both data sets are equal and is referred to as a homoscedastic t-test. You use t-tests to determine whether the two samples' means are equal.

Variable 1 Input Range

Type the reference for the first range of data you want analyzed. The data must occupy a single column or row on the worksheet. If any data point in the range of data is nonnumeric, Microsoft Excel displays a message.

Variable 2 Input Range

Type the reference for the second range of data you want analyzed. The data must occupy a single column or row on the worksheet. If any data point in the range of data is nonnumeric, Microsoft Excel displays a message.

Output Range

Type the reference for the upper-left cell of the range where you want the output table to appear.

Labels

If the first row or column of your input range contains labels, select the Labels check box.

If your input range does not contain labels, clear the Labels check box.   Microsoft Excel will then generate the appropriate data labels for the output table (Variable 1 and Variable 2).

Alpha

Type the confidence level for the test. The default alpha value is 0.05. If alpha is nonnumeric or outside the range 0...1, Microsoft Excel displays a message.

Hypothesized Mean Difference

Type the number that you want for the shift in sample means. A value of 0 indicates that the sample means are hypothesized to be equal.

See Also

Help

Using an Analysis ToolPak tool
TDIST
TTEST

Function Reference

TTESTM

User's Guide (Book 2)

Chapter 1, "Analyzing and Calculating Data"

t-Test: Two-Sample Assuming Unequal Variances

Performs a two-sample student's t-Test. This form of the test assumes that the variances of both ranges of data are equal and is referred to as a heteroscedastic t-test. Use t-tests to determine whether two sample means are equal. Use this test when the groups under study are distinct. Use a paired test when there is one group before and after a treatment.

Variable 1 Input Range

Type the reference for the first range of data you want to analyzed. The data must occupy a single column or row on the worksheet. If any data point in the range of data is nonnumeric, Microsoft Excel displays a message.

Variable 2 Input Range

Type the reference for the second range of data you want to analyzed. The data must occupy a single column or row on the worksheet. If any data point in the range of data is nonnumeric, Microsoft Excel displays a message.

Output Range

Type the reference for the upper-left cell of the range where you want the output table to appear.

Labels

If the first row or column of your input range contains labels, select the Labels check box.

If your input range does not contain labels, clear the Labels check box.   Microsoft Excel will then generate the appropriate data labels for the output table (Variable 1 and Variable 2).

Alpha

Type the confidence level for the test. The default alpha value is 0.05. If alpha is nonnumeric or outside the range 0...1, inclusive, Microsoft Excel displays a message.

See Also

Help

Using an Analysis ToolPak tool

TDIST

TTEST

Function Reference

PTTESTV

User's Guide (Book 2)

Chapter 1, "Analyzing and Calculating Data"

z-Test: Two-Sample for Means

Performs a two-sample z-test for means with known variances. This procedure is commonly used to test hypotheses about the difference between two population means. For example, you can use this test for differences between the performance of two car models.

Variable 1 Input Range

Type the reference for the first range of data you want to analyzed. The data must occupy a single column or row on the worksheet. If any data point in the range of data is nonnumeric, Microsoft Excel displays a message.

Variable 2 Input Range

Type the reference for the second range of data you want to analyzed. The data must occupy a single column or row on the worksheet. If any data point in the range of data is nonnumeric, Microsoft Excel displays a message.

Output Range

Type the reference for the upper-left cell of the range where you want the output table to appear.

Labels

If the first row or column of your input range contains labels, select the Labels check box.

If your input range does not contain labels, clear the Labels check box.   Microsoft Excel will then generate the appropriate data labels for the output table (Variable 1 and Variable 2).

Alpha

Type the confidence level for the test. The default alpha value is 0.05. If alpha is nonnumeric or outside the range 0...1, inclusive, Microsoft Excel displays a message.

Variable 1 Variance (Known)

Type the known population variance for the Variable 1 input range. If the variance is nonnumeric, Microsoft Excel displays a message.

Variable 2 Variance (Known)

Type the known population variance for the Variable 2 input range. If the variance is nonnumeric, Microsoft Excel displays a message.

See Also

Help

NORMDIST

NORMSDIST

NORMINV

NORMSINV

Using an Analysis ToolPak tool

STANDARDIZE

ZTEST

Function Reference

ZTESTM

User's Guide (Book 2)

Chapter 1, "Analyzing and Calculating Data"

Fourier Analysis

Fourier analysis is a technique for solving problems in linear systems and analyzing periodic data. The Fourier Analysis tool transforms data using the Fast Fourier Transform (FFT) method. The procedure also supports inverse transformations, where the inverse of transformed data returns the original data.

Input Range

Type the reference for the range of real or complex data you want to transform. Complex data must be in either the x+yi or x+yj format. The number of input range values must be an even power of two.   If x is a negative number, it must be preceded by an apostrophe ('), or Microsoft Excel will display a message.

Output Range

Type the reference for the upper-left cell of the range where you want the output table to appear.

Inverse

Clear or select the Inverse check box to perform or undo a transform. If the Inverse check box is selected, the data in the input range is considered transformed and is returned to its original state in the output table. If the Inverse check box is cleared, the data in the input range is transformed in the output table.

See Also

Help

Using an Analysis ToolPak tool

Function Reference

FOURIER

User's Guide (Book 2)

Chapter 1, "Analyzing and Calculating Data"

Sampling

Creates a sample from a population by treating the input range as a population. When the population is too large to process or chart, you can use a representative sample of your population. In addition, if you believe the input data is periodic, you can create a sample that contains only values from a particular part of a cycle. For example, if the input range contains quarterly sales figures, sampling with a periodic rate of four places values from the same quarter in the output range.

Input Range

Type the references for the block of data on the worksheet that contains the population of values from which you want Microsoft Excel to draw a sample.   Microsoft Excel draws samples from the first column, then the second column, and so on.

Output Range

Type the reference for the upper-left cell of the range where you want the output table to appear. Data is written in a single column below the output range.

▪   If you select the Periodic option button, the number of values in the output table is equal to the number of values in the input range divided by period, the sampling rate.

▪   If you select the Random option button, the number of values in the output table is equal to the number of samples.

Sampling

Select either the Periodic or Random option button for the interval at which to sample values from the input range.

▪   If you select the Periodic option button, type a number in the Period box.

▪   If you select the Random option button, type a number in the Number of Samples box.

Period

Type the periodic interval at which you want sampling to take place.   The period-th value in the input range and every period-th value thereafter is copied to the output column. Sampling stops when the end of the input range is reached.   When you select the Periodic option button, if period is not numeric, is less than or equal to zero, or is greater than the number of values in the input range, Microsoft Excel displays a message.

Number Of Samples

Type the number of random values that you want Microsoft Excel to place in the output column. Each value is drawn from a random position in the input range. Values are drawn with replacement; that is, the sample position may be selected more than once. If you select the Random option button under Period, and the number of the sample is nonnumeric or less than or equal to zero, Microsoft Excel displays a message.

See Also

Help

Using an Analysis ToolPak tool

Function Reference

SAMPLE

User's Guide (Book 2)

Chapter 1, "Analyzing and Calculating Data"

To use an Analysis ToolPak tool

Before you use an analysis tool, you must organize the data you want analyzed into columns or rows on your worksheet.   This is your input range.   You can also include a text label in the first cell of a row or column to identify your variables.

When you use an analysis tool to analyze data in an input range, Microsoft Excel creates an output table of the results.   The contents of the output table depend on the analysis tool that you are using.   If you included labels in the input range, Microsoft Excel uses them to label data in the output table.   If you did not include labels in the input range, Microsoft Excel automatically generates data labels for the results in the output table

1 From the Options menu, choose Analysis Tools.

   If the Analysis Tools command does not appear on the Options menu, run the Setup program to install the Analysis ToolPak.

2 In the Analysis Tools box, select the tool that you want to use.

3 Choose the OK button.

4 Type the input range, the output range, and any other options you want.

   You can type cell ranges in the Input Range and Output Range boxes by typing a cell reference in the box or by selecting the contents of each box and then selecting the cell range on the worksheet.

   You can also type references to other worksheets in the Input Range and Output Range boxes.

5 Choose the OK button.

   The results of the analysis will appear in the cell range that you designated as the output range.

See Also

Help

Macro Library Overview

Using an Analysis ToolPak tool

User's Guide (Book1)

Chapter 11, "Working with Multiple Microsoft Excel Documents"

User's Guide (Book 2)

Chapter 1, "Analyzing and Calculating Data"

Chapter 4, "Customizing Microsoft Excel"

Analysis Tools Command (Options Menu)

Displays the Analysis Tools dialog box with a list of the statistical and engineering Analysis ToolPak tools.   The Microsoft Excel Analysis ToolPak was developed by GreyMatter International, Inc., 173 Otis Street, P.O. Box 388, Cambridge, MA 02141.

▪   If the Analysis Tools command does not appear on the Options menu, run the Setup program to install the Analysis ToolPak.

Analysis Tools

Lists the available Analysis ToolPak tools.

See Also

Help

Using an Analysis ToolPak tool
Anova: Single-Factor
Anova: Two Factor With Replication
Anova: Two Factor Without Replication
Correlation
Covariance
Descriptive Statistics
Exponential Smoothing
F-Test: Two-Sample for Variances
Fourier Analysis
Histogram
Moving Average
Random Number Generation
Rank and Percentile
Regression
Sampling
t-Test: Paired Two-Sample for Means
t-Test: Two-Sample Assuming Equal Variances
t-Test: Two-Sample Assuming Unequal Variances
z-Test: Two-Sample for Means

User's Guide (Book 2)

Chapter 1, "Analyzing and Calculating Data"

Chart Menu

Attach Text

Adds a title to a chart or attaches text to an axis or data marker.

Add Arrow

Adds an arrow to the active chart.

Delete Arrow

Removes an arrow from the active chart.

Add Legend

Adds a legend to the active chart.

Delete Legend

Removes the legend from the active chart.

Axes

Controls whether axes are visible on the active chart.

Gridlines

Controls whether gridlines are visible on the active chart.

Add Overlay

Creates an overlay chart on the active chart.

Delete Overlay

Removes the overlay chart from the active chart.

Edit Series

Allows you to create or edit a data series on the active chart.

Select Chart

Selects the entire active chart.

Select Plot Area

Selects the plot area of the active chart.

Protect Document

Prevents changes to a chart's data series, formats, or windows.

Unprotect Document

Removes protection.

Custom Palettes

Allows you to change the color palette for the active document or chart.

Color Palette

Allows you to edit the colors in the palette for the active chart or copy the colors from another document.

Calculate Now

Calculates open worksheets and redraws any open charts dependent on those worksheets.

Spelling

Checks the spelling of all chart text not linked to a worksheet cell.

Add Arrow and Delete Arrow Commands (Chart Menu)

Inserts an arrow in the active chart.   When an arrow is selected, the command name changes to Delete Arrow.

▪   You can add as many arrows to your chart as you want.
▪   Change the size and direction of an arrow by selecting the arrow and dragging one of the black selection handles.   You can also use the Size command on the Format menu and the arrow keys.
▪   Move an arrow by dragging its shaft with the mouse.   You can also use the Move command on the Format menu and the arrow keys.

Shortcut: Arrow tool (Charting toolbar)

See Also

Help

   Arrow Tool
Adding or deleting a chart arrow
Moving and sizing an arrow
Size Command (Format Menu)

User's Guide (Book 1)

Chapter 14, "Formatting a Chart"

Add Legend and Delete Legend Commands (Chart Menu)

Add Legend places a legend along the right side of the active chart.

- The plot area is reduced to accommodate the legend.
- The command name changes to Delete Legend.
- You can move and format a legend with commands from the Format menu.

Shortcut: Legend tool (Charting toolbar)

Delete Legend removes a legend from the active chart.

- The plot area returns to its original size.
- The command name changes to Add Legend.
- If you delete a legend and then add it again, the legend returns to the default format.
- The legend can be moved using the mouse or the Legend command on the Format menu.

Shortcut: Legend tool (Charting toolbar)

See Also

Help

 Legend Tool

Adding or deleting a legend

Formatting a legend

Legend Command (Format Menu)

Moving a legend

User's Guide (Book 1)

Chapter 14, "Formatting a Chart"

Add Overlay and Delete Overlay Commands (Chart Menu)

Add Overlay creates an overlay chart on the active chart.

▪ If there is an even number of data series, the first half appears on the main chart and the second half on the overlay chart.

▪ If there is an odd number of data series, one more series appears on the main chart than on the overlay chart.   For example, in a chart with five data series, the first three appear on the main chart and the last two on the overlay chart.

▪ The overlay chart is initially a line chart.

▪ You cannot add an overlay chart to a 3-D chart.

▪ You can change the distribution of series between the main and overlay charts with the Edit Series command on the Chart menu and the Overlay command on the Format menu.

Delete Overlay removes the overlay chart.

▪ All data series on the overlay chart are returned to the main chart.

See Also

Help

Adding or deleting an overlay chart

User's Guide (Book 1)

Chapter 12, "Creating a Chart"

Attach Text Command (Chart Menu)

Places a title on a chart or axis or attaches a label to a data point.

- If you select an axis or a data point before choosing Attach Text, Microsoft Excel selects that option in the dialog box for you.
- If an axis or a data point moves or changes size, attached text stays with it.
- Change attached text by selecting the title or label and entering new text.

Shortcut: Text Box tool (Charting toolbar)

Chart Title

Attaches "Title" above the plot area.

Value (Y) Axis (or Value (Z) Axis)

For 2-D charts, attaches a "Y" centered on the value axis (y-axis).

For 3-D charts, this option changes to Value (Z) Axis, and attaches a "Z" centered on the value axis (z-axis).

Category (X) Axis

Attaches an "X" centered on the category (x) axis.

Series (Y) Axis

Attaches a "Y" centered on the series axis (y-axis).

This option is not available for 2-D charts.

Series and Data Point

Attaches the value of a data point to its marker in the chart.   For all charts except area charts, you must specify both the series number and the data point number.

In area charts, if you specify only the series number, this option attaches the text that you type to the center of the series area.

Overlay Value (Y) Axis

Attaches a "Y" centered on the overlay value axis.

This option is not available for 3-D charts.

Overlay Category (X) Axis

Attaches an "X" centered on the overlay category axis.

This option is not available for 3-D charts.

See Also

Help

   Text Box Tool

Editing chart text

Formatting the chart text font

Formatting chart text alignment and orientation

User's Guide (Book 1)

Chapter 14, "Formatting a Chart"

Axes Command (Chart Menu)

Controls whether axes are visible on the active chart.

- You can display or hide any available axis under Main Chart.
- If there is an overlay chart, separate options are included for the overlay chart axes.

See Also

Help

Adding or deleting a chart title, an axis title, or a data marker label

Formatting an axis scale

Formatting axes patterns and tick mark and label location

Calculate Now Command (Chart Menu)
Calculates open worksheets and redraws any open charts dependent on those worksheets.

▪   Microsoft Excel calculates according to the settings in the Calculation Options dialog box.   To change the settings, choose Calculation from the Options menu.

Shortcuts: F9
　　　　　　　Calculate Now tool (Utility toolbar)

See Also

Help

   Calculate Now Tool
Adjusting a data value by dragging a data marker
Calculation Command (Options Menu)

User's Guide (Book 1)

Chapter 13, "Editing a Chart"

Color Palette Command (Chart Menu)

Customizes the colors on the Microsoft Excel color palette and copies color palettes between documents.   You can customize colors in the color palette for worksheets, macro sheets, and chart documents.

▪	If you do not have a color monitor, standard color names appear in the dialog box rather than the actual colors. Customized colors have the names Color 1, Color 2, and so on.

▪	If you are working with a worksheet, use the Color Palette command on the Options menu.

▪	You can copy an object with a custom color from one document to another. The color is copied along with the object.

▪	The Color Palette command is not available for charts embedded in a worksheet. To customize colors for an embedded chart, use the Color Palette command on the Options menu for the worksheet.

▪	You can change the color by choosing the Edit button to open the color editing dialog box. You can use the color box and the brightness bar, or change the values in the boxes below.

▪	The boxes at the bottom of the color editing dialog box provide alternative systems for precisely setting the color. One system uses hue, saturation, and luminosity. The other uses the three primary colors used by color monitors: red, green, and blue. These systems work independently.

Color Palette

Displays the color palette.

Copy Colors From

Contains the list of open documents from which you can copy a color palette. Selecting a document copies its palette to the active document.

Default

Resets the color palette to its original 16 colors.

Edit

Displays the color editing dialog box.   You can edit any of the original 16 colors on the color palette to create custom colors.

Color box

This is the large colored box. Clicking or dragging in this box changes the current color. This is reflected in the Color|Solid box; in the Hue, Sat (saturation), and Lum (luminosity) boxes; and in the Red, Green, and Blue boxes.

Brightness bar

This is the colored bar to the right of the dialog box. Dragging the arrow along this bar changes the amount of white and black in the current color. This has the same effect as changing the value in the Luminosity box.

Color|Solid

The left side of this box displays the current color. The right side shows the nearest solid color. To use the nearest solid color to the one you have created, double-click the solid color.

Hue

The basic color: red, yellow, green, blue, and so on.   You can change the hue by typing a value from 0 to 239 or by clicking the arrows. Changing this value has the same effect as dragging horizontally in the color box.

Sat (saturation)

A measure of how pure the color is; in other words, how different it is from gray.   You can change the saturation by typing a value from 0 to 240 or by clicking the arrows. Changing this value has the same effect as dragging vertically in the color box.

Lum (luminosity)

The lightness (amount of white) or darkness (amount of black) in the current color. You can change the luminosity by typing a value from 0 to 240 or by clicking the arrows. Changing this value has the same effect as dragging the arrow along the brightness bar.

Red, Green, Blue

Changing the amounts of red, green, and blue changes the overall color. You can change these values by typing values from 0 to 255 for each, or by clicking the arrows. Changing the red, green, and blue values is an alternate method of changing the hue, saturation, and luminosity.

See Also

Help

Copying color palettes between documents

Customizing colors in the color palette

User's Guide (Book 2)

Chapter 4, "Customizing Microsoft Excel"

Edit Series Command (Chart Menu)

Creates or edits a data series on the active chart.

■ The categories (x labels/values) are determined by the first data series in the main chart and the first data series in the overlay chart.   Category values in other series are ignored unless the chart is an xy (scatter) chart.

■ When you select the contents of one of the option boxes, the corresponding cells on the worksheet are surrounded by a moving border.   Selecting a different range of cells changes the contents of the option box.

Series

Lists the names of all defined data series, in plot order.

If you select a data series before you choose Edit Series from the Chart menu, that series is selected.

Select New Series if you want to create a new series.

Name

Displays the name of the data series selected in the Series box.   If you do not enter a name, Microsoft Excel names the series Series N, where N is the same as the plot order.

The name can be an <u>external absolute reference</u> to a single cell, a name defined to be a single cell. It can also be text.   This name is the series name for the legend if there is one.

X Labels or X Values

Displays the category label reference for the first data series in the Series box.   If the chart is an xy (scatter) chart, displays the x-values reference for the series you select.

The reference can be an external reference to the worksheet and cells that contain the categories or x-values, a reference to a named range, or an array constant.

Y Values (Y Label for 3-D Chart)

For a 2-D chart, contains the values reference for the data series selected in the Series box.

The reference can be an external reference to the worksheet and cells that contain the values, a reference to a named range, or an array constant.

For a 3-D chart, this option contains the text "Series Name" and cannot be edited.

Z Values

For a 3-D chart, contains the values reference for the data series selected in the Series box.

The reference can be an external reference to the worksheet and cells that contain the values, a reference to a named range, or an array constant.

This option is not displayed for a 2-D chart.

Plot Order

Contains an integer (1, 2, 3, . . .) that defines the order in which the selected data series is plotted in the chart.   The data labels and values associated with the series remain associated with the series.

Define

Creates a newly defined data series or applies your changes to an existing data series without closing the dialog box.

Delete

Deletes the selected data series from the chart.   The data on the worksheet is not affected.

See Also

Help

Adding or editing series

Adjusting a data value by dragging a data marker

Deleting a data series

User's Guide (Book 1)

Chapter 13, "Editing a Chart"

Function Reference

SERIES Function

Gridlines Command (Chart Menu)

Controls whether the major and minor gridlines are visible on the active chart.

- Gridlines extend from a chart axis across the plot area.
- Major gridlines are aligned with tick marks.
- Minor gridlines are positioned between tick marks.
- To control spacing of gridlines, use the Scale command on the Format menu.

Shortcuts: Horizontal Gridlines tool (Charting toolbar)
Vertical Gridlines tool

See Also

Help

 Horizontal Gridlines Tool

 Vertical Gridlines Tool

Adding and deleting a tool from a toolbar

Adding or deleting gridlines

Formatting gridlines

Toolbars Command (Options Menu)

User's Guide (Book 1)

Chapter 14, "Formatting a Chart"

Protect Document and Unprotect Document Commands (Chart Menu)

Protect Document protects a chart so that its data series and formats cannot be changed or its window cannot be moved, sized, or hidden.   Unprotect Document returns a chart to an unprotected state.

- Before you can protect a chart, its window must be active.
- The Protect Document command is not available when an embedded chart window is active.
- To protect an embedded chart, use the Protect Document command on the Options menu for the worksheet.

Password

Any combination of letters, numbers, spaces, or symbols.

Passwords are case sensitive; lower-case and upper-case letters are regarded as different. The password is optional; you can protect a document without using one.   The password is not displayed when you type it.   If you forget the password, you will not be able to unprotect the document.

Chart

Protects all aspects of the chart except window characteristics.

Windows

Prevents the chart window from being sized or moved; prevents the chart window from being closed except with the Close command on the File menu.

Password

If you assigned a password when you protected the chart, you must type the same password to remove protection.

See Also

Help

Close Command (File Menu)
Protecting chart data
Protecting a document
Protecting windows
Protecting worksheet cells

User's Guide (Book 1)

Chapter 4, "Managing Document Files"

Select Chart Command (Chart Menu)

Selects the entire active chart.   When selected, the chart is surrounded by white selection squares.

Shortcut: Click just outside the plot area.

See Also

Help

Select Plot Area Command (Chart Menu)

Select Plot Area Command (Chart Menu)

Selects the plot area of the active chart.   When selected, the plot area is surrounded by white selection squares.

See Also

Help

Select Chart Command (Chart Menu)

Spelling Command (Chart Menu)

Checks the spelling of all text in the chart not linked to a worksheet cell.

▪ To check text linked to a worksheet cell, switch to the worksheet and choose Spelling from the Options menu.

Shortcut: Check Spelling tool (Utility toolbar)

Change To/Suggestions

Type or select a replacement for the word not found in the dictionary.

Add Words To

Select the dictionary to which you want to add words that are correctly spelled but not found in the main dictionary. The first time you use the Spelling command, the dictionary CUSTOM.DIC appears in the Add Words To box. The dictionary is empty until you add words to it.

Ignore

Leaves the selected instance of the word unchanged.

Ignore All

Leaves the selected word unchanged throughout the document.

Change

Changes the selected word to the word in the Change To box.

Change All

Changes the selected word throughout the document to the word in the Change To box.

Add

Adds the selected word to the dictionary in the Add Words To box.

Cancel/Close

Closes the dialog box. The Cancel button changes to Close when you change a misspelled word or add a new word to the dictionary.

Suggest

Displays a list of proposed suggestions. This button is dimmed if the Always Suggest box is selected.

Ignore Words in UPPERCASE

Does not check the spelling of words that contain only capital letters.

Always Suggest

Causes a list of suggested words to be displayed whenever Microsoft Excel encounters a word that is not in the dictionary.

See Also

Help

Check Spelling Tool
Checking Spelling
Spelling Command (Options Menu)

User's Guide (Book 1)

Chapter 14, "Formatting a Chart"

Control Menu

Restore

Restores the active document window or Microsoft Excel window to its former size and location.

Move

Displays a four-headed arrow you can use to reposition the active document window, Microsoft Excel window, or an open dialog box.

Size

Displays a four-headed arrow you can use to change the size of the active document window or Microsoft Excel window.

Minimize

Shrinks the active document window or Microsoft Excel window to an icon.

Maximize

Enlarges the active document window or Microsoft Excel window to fill the available space.

Close

Closes the active document window or an open dialog box.   Quits Microsoft Excel.

Switch To

Lists all currently open applications and activates the one you select.

Appears only on the Microsoft Excel Control menu.

Next Window

Switches to the next Microsoft Excel document window.

Appears only on the document Control menu.

Run

Displays the Run dialog box. Select the Clipboard, Control Panel, Macro Translator, or Dialog Editor option button.

Appears only on the Microsoft Excel Control menu.

Split

Switches to the next Microsoft Excel document window.

Appears only on the document Control menu.

Close Command (Control Menu)

Closes the active document window, or an open dialog box.   Quits Microsoft Excel.

Double-clicking the Control-menu box is the same as choosing the Close command.

▪   Closing the Microsoft Excel window is the same as choosing the Exit command from the File Menu.

▪   To close all of a document's windows, use the Close command on the File menu.

▪   To close all open windows for all documents, use the Close All command on the File menu (hold down the SHIFT key and select the File menu).

Shortcuts: CTRL+F4 (document windows)
                ATL+F4 (Microsoft Excel window or open dialog box)

Maximize Command (Control Menu)

Enlarges the active document window or Microsoft Excel window to fill the available space.

Clicking the Maximize button is the same as choosing the Maximize command.

▪   The Microsoft Excel window fills the entire screen.
▪   A document window fills the entire Microsoft Excel workspace.
▪   You can restore a maximized window to its former size by using the Restore command on the Control menu.

Shortcut: CTRL+F10 (document windows)

See Also

   Help

        Maximize button

Minimize Command (Control Menu)

Shrinks the active document window or Microsoft Excel window to an icon.

Clicking the Minimize button is the same as choosing the Minimize command.

■   Double-clicking a minimized window icon restores the window to its former size.   You can also restore a minimized window by using the Restore command on the Control menu.

Shortcut: CTRL+F9 (document windows)

See Also

   Help

▼   Minimize button

Move Command (Control Menu)

Displays a four-headed arrow.   Use the arrow keys to move the active document window, Microsoft Excel window, or open dialog box.

-     If the window is maximized, this command is unavailable.
-     You can also move a window that is not maximized, or an open dialog box, by dragging the title bar.

Shortcut: CTRL+F7 (document windows)

Next Window Command (Control Menu for Documents)

Switches to the next document window.

Shortcut: CTRL+F6

Restore Command (Control Menu)

Restores the active document window or Microsoft Excel window to the size and location it had before you maximized or minimized the window.

▪ You can also restore the size of a window by clicking its Restore button.
▪ To restore a minimized window, click the icon and choose the Restore command, or double-click the icon.
▪ Restoring a window does not affect changes made to the window with the Move or Size commands on the Control menu.

Shortcut: CTRL+F5 (document windows)

See Also

   Help

🔼 Restore button

Run Command (Control Menu for Microsoft Excel)

Displays a dialog box from which you can run other applications.

This command appears on the Microsoft Excel Control menu.

Clipboard

Runs the Clipboard Viewer.   Use the Clipboard Viewer to see data cut or copied using the Cut and Copy commands on the Edit menu.

Control Panel

Runs the Windows Control Panel.   Use the Control Panel to adjust your computer's screen color, font, port, mouse speed, desktop, network, printer, international, keyboard, date/time, and sound settings.

Macro Translator

Runs the Macro Translation Assistant.   Use the Macro Translation Assistant to convert Lotus 1-2-3 and Multiplan macros to Microsoft Excel macros.

Dialog Editor

Runs the Dialog Editor.   Use the Dialog Editor to create custom dialog boxes.

See Also

Help

Macro Translation Assistant--Lotus 1-2-3

Size Command (Control Menu)

Displays a four-headed arrow you can use to change the size of the active document window or Microsoft Excel window.   Press the arrow key (RIGHT, LEFT, UP, or DOWN) of the side you want to size, and the mouse pointer changes to an arrow.   You can then use the arrow keys to make the window the size you want.

▪   If the window is maximized, this command is unavailable.

Shortcut: CTRL+F8 (document windows)

Switch To Command (Control Menu for Microsoft Excel)

Displays the Task List dialog box of Windows Program Manager.

▪ For more information, see your Windows documentation.

Shortcut: CTRL+ESC

Split Command (Control Menu)

Displays a four-headed arrow you can use to split the window both horizontally and vertically.   Press the arrow keys (RIGHT, LEFT, UP, DOWN) to position the pointer where you want the splits to intersect; then press ENTER.

Data Menu

Form

Displays a database form you use to view, change, add, and delete records.

Find

Locates records in the database that match the criteria you define.

Exit Find

Quits Find mode.

Extract

Copies into an extract range all records from the database that meet the criteria you define.

Delete

Deletes all records from the database that meet the criteria you define.

Series

Fills a selected range of cells with one or more series of numbers or dates.

Set Database

Defines the selected range of cells as a database.

Set Criteria

Defines the selected range of cells as the criteria range you use to select records for search or extract operations.

Set Extract

Defines the selected range of cells as an extract range to contain records extracted from the database.

Sort

Rearranges the rows or columns of a selection according to the cell contents of the rows or columns you specify.

Table

Creates a data table based on input values and formulas on a worksheet.

Parse

Redistributes the contents of a range one column wide to fill several columns.

Consolidate

Consolidates data from multiple ranges on multiple sheets into a single range.

Crosstabs*

Creates a special data table to examine relationships between database fields.

* If this command does not appear on the Data menu, you need to install the Crosstab ReportWizard add-in macro.   For more information, see the Help topic on the Add-Ins command on the Options menu, or see Chapter 4, "Customizing Microsoft Excel" in Book 2 of the Microsoft Excel User's Guide.

Consolidate Command (Data Menu)

Consolidates data from multiple ranges on multiple sheets into a single range.   For example, you could use consolidation to combine the totals from four quarterly reports (source areas) and display the summary totals in one range (destination area).

- This command consolidates data to the destination area you select.
- If you <u>consolidate by category using labels</u>, you must include in your source area selection the labels you want to appear in the destination area.   If you <u>consolidate by position using references</u>, you should not include category labels.
- This command consolidates data by category using labels when source areas contain similar data, but source areas are arranged differently than destination areas.
- This command consolidates data by position using references when source areas include similar categories of data arranged identically to destination areas.
- This command optionally consolidates data with links to source worksheets.
- If the destination area is a single cell, the area expands down and to the right to accommodate all categories from the source areas.
- If the destination area is a single row, the area expands down to accommodate all row categories from the source data.   You can consolidate only as many column categories as there are columns in your initial selection.
- If the destination area is a single column, the area expands to the right to accommodate all column categories from the source areas.   You can consolidate only as many row categories as there are rows in your initial selection.
- If the destination area is a range of cells with multiple rows and columns, this command consolidates as many categories as will fit within the range.   If the destination area is not large enough to hold all consolidated information, only as many categories as will fit into the selection will be consolidated.
- If you consolidate data using labels, you can include category labels in the destination range to indicate where you want the consolidated totals to appear.

Function

Specifies the function Microsoft Excel will use to consolidate data.

Reference

Specifies a source area <u>reference </u>to add to the consolidation.

You can specify up to 255 source areas for Microsoft Excel to consolidate.   The worksheets containing the source areas do not have to be open during consolidation. Although you can use unsaved worksheets as sources of data, it is recommended that you save source worksheets before consolidation.

All References

Displays the source area references you have chosen for the consolidation.

Use Labels In

Specifies whether to consolidate by category using labels or by position using references. If the Top Row check box is selected, labels in the top row of the source area are used as category names.   If the Left Column check box is selected, labels in the left column of the source area are used as category names.   Labels must be identical in all source worksheets.   If you are consolidating by position using references, cell locations of similar data must be identical in all source worksheets. If only one check box is selected, this command consolidates data using labels for the check box that is selected and by position for the check box that is cleared.

Create Links To Source Data

Creates links from the destination area to the source areas when you consolidate data so that the destination area will be automatically updated whenever the source data changes.

Microsoft Excel creates a linking formula for every cell and inserts rows or columns into the destination area to hold the linking formulas for each piece of source data.   The destination area is then outlined with linking formulas placed in hidden rows or columns subordinate to positions or categories in the destination area.

Browse

Opens a dialog box where you can select a file to add to the All References list from the files you have saved on disk. The name and complete path of the file you select will be pasted into the References box. You then add the cell or range reference to the area you want to include in the consolidation.

Add

Adds the source area reference specified in the Reference box to the consolidation. The new source area appears in the All References box.

Delete

Deletes the source area reference selected in the All References box.

See Also

Help

Consolidating data

Displaying outline levels

User's Guide (Book 1)

Chapter 11, "Working with Multiple Microsoft Excel Documents"

Delete Command (Data Menu)

Deletes all records from the <u>database</u> that meet the <u>criteria</u> you defined with the Set Criteria command on the Data menu.

- A message appears asking for verification.
- Other records in the database shift to fill in space.
- This command can't be undone.   To preview the records before deleting, choose the Find command from the Data menu.
- Do not include blank rows in the criteria range.   If you do, every record in the database will be deleted.

See Also

Help

<u>Canceling the database, criteria, or extract range</u>

<u>Deleting records from a database</u>

<u>Editing records using a data form</u>

User's Guide (Book 1)

Chapter 10, "Analyzing and Reporting Database Information"

Extract Command (Data Menu)

Finds <u>database</u> <u>records</u> that match the <u>criteria</u> defined in the criteria range and copies them into the extract <u>range</u>.

- The extract range must be a range outside of your database.   It can be either a range containing only field names or a range containing field names and cells that will contain the extracted data.
- You can either enter the field names and select them or define the extract range using the Set Extract command on the Data menu before extracting data.
- If the extract range contains only field names, the extracted records are copied into cells below them.   All cells below the field names are cleared even if no extracted information is copied into them.
- If the extract range contains both field names and cells below them, all cells in the range are cleared and as many extracted records as will fit are copied into the cells.
- The Extract command can't be undone.

Unique Records Only

Extracts only one copy of repeated records.

See Also

Help

<u>Databases</u>

<u>Defining a database</u>

<u>Extracting data from a database</u>

User's Guide (Book 1)

Chapter 10, "Analyzing and Reporting Database Information"

Find and Exit Find Commands (Data Menu)

The Find command on the Data menu locates <u>records</u> in the <u>database</u> that match the <u>criteria</u> you define.

▪   You must define both a database <u>range</u> and a criteria range before using the Find command.

▪   If a cell outside the database range is active, the Find command selects the first matching record; if a cell inside the database range is active, it selects the first matching record below that cell.

▪   Until you exit Find mode, scrolling can locate only matching records within the database range.

The Exit Find command on the Data menu exits Find mode and returns scrolling to normal.

▪   The Exit Find command appears on the Data menu while you're using the Find command.

▪   You can also exit Find mode by choosing any other command, by selecting a cell outside the database range, by editing a cell, or by pressing ESC.

See Also

Help

<u>Databases</u>

<u>Defining a database</u>

<u>Finding records in a database</u>

User's Guide (Book 1)

Chapter 9, "Creating and Using a Database on a Worksheet"

Chapter 10, "Analyzing and Reporting Database Information"

Form Command (Data Menu)

Displays a <u>database</u> form you use to view, change, add, search for, and delete <u>records</u>.

- Use this command to view one complete record at a time.
- A database can contain as many records as you want.   However, the data form displays only as many <u>fields</u> as will fit in the form.   You cannot scroll the data form to view the remaining fields.
- This command provides an alternative to the database commands for working with a database.
- In the form, the left column of text lists database <u>field names</u>.
- The contents of corresponding fields for one record in the database appear beside the field names.   Fields you can edit appear in text boxes.   You can't edit computed or protected fields.
- The scroll bar shows your position in the database.
- The position indicator in the upper-right corner of the form tells you which record is displayed and how many records there are, for example, 1 of 3.   The indicator changes to New Record when you scroll beyond the last nonblank record in the database.

New

Scrolls to the first blank record at the end of the database.   Adds a blank record there if none exists.   You can then add data to the new record's fields.

Delete

Deletes the data in the currently displayed record; the other records shift to fill in the space.   Deleted records can't be restored.

Restore

Restores edited fields in the displayed record, removing your changes.   You must restore before pressing ENTER or scrolling to another record.

Find Prev

Displays the previous record that matches criteria you defined with the Criteria button.   If the criteria range in the data form is blank, displays the previous record in the database.

Find Next

Displays the next record that matches criteria you defined with the Criteria button.   If the criteria range in the data form is blank, displays the next record in the database.

Criteria

Displays a dialog box in which you can use criteria to display matching records.

Does not affect criteria specified with the <u>Set Criteria command</u> on the Data menu.

The Clear button removes existing criteria used in this dialog box.

Form

Returns you to the regular data form.   Available only after you choose the Criteria button.

Close

Closes the data form.

See Also

Help

<u>Editing records using a data form</u>

<u>Finding records using a data form</u>

User's Guide (Book 1)

Chapter 9, "Creating and Using a Database on a Worksheet"

Parse Command (Data Menu)

Redistributes the contents of a range one column wide to fill several columns.

- Use the Parse command after you import data from other applications into Microsoft Excel if several columns of data have been condensed into a single column.
- The range you parse can have any number of rows but only one column.
- The parse settings you create for the first cell in the range apply to all cells in the range.
- Parsed data fills cells to the right of the column you are parsing.   If there is data in those cells, that data is replaced by the parsed data.   Make sure there are enough blank cells to the right of the range you are parsing to accommodate the data.

Parse Line

Displays the contents of the first nonblank cell in the selected range.   Brackets you set here determine how the contents of all cells in the range will be distributed into separate columns.

Microsoft Excel saves the parse line you used last for each worksheet.

Guess

Makes a best guess at where brackets should go in data displayed in the parse line.   You can modify the guess by adding or deleting brackets.

Clear

Removes all brackets from the parse line.

Destination

Displays the reference of the upper-left cell of the selection. Parsed data will replace original data if the destination is left unchanged. You can enter any single cell reference as the destination for your parsed data. Range references, range names, and external references are not allowed.

See Also

Help
Parsing imported data

User's Guide (Book 2)
Chapter 3, "Exchanging Data with Other Applications"

Set Criteria Command (Data Menu)

Defines the selected range of cells as the criteria range -- the range of cells that contain or will contain the criteria used to find, extract, or delete matching database records.

- You can specify two types of criteria: comparison or computed.
- Use comparison criteria when you want to find records whose data matches or falls within certain limits of specified criteria.
- Use computed criteria if you want to test the database against the result of a formula that refers to one or more fields in one or more records.
- The criteria range can be any area on the worksheet outside your database range, or it can be on another worksheet.   You must set the criteria range before using the Extract, Delete, or Find command on the Data menu.
- Microsoft Excel names the selection Criteria Range, which can be used like any other named reference.
- The first row of the criteria range must contain one or more field names from the database; one or more rows below that must contain the criteria.
- If the criteria range you define includes a blank row, all database records will be matched.
- Once you define a criteria range, you can change the criteria as often as you like.
- A worksheet can have only one criteria range defined at a time.

See Also

Help

Canceling the database, criteria, or extract range

Defining a criteria range

Deleting records from a database

Extracting data from a database

Finding records in a database

Setting up a criteria range with comparison criteria

Using comparison criteria

Using computed criteria

User's Guide (Book 1)

Chapter 9, "Creating and Using a Database on a Worksheet"

Chapter 10, "Analyzing and Reporting Database Information"

Series Command (Data Menu)

This command fills the selected range of cells with one or more series of numbers or dates. The contents of the first cell or cells in each row or each column of the selection are used as the starting values for the series.

You can also create a series of numbers or dates directly on a worksheet using the <u>AutoFill</u> feature.

Series In

Fills series across rows or down columns.

Type

Linear

Adds a step value to each cell value in turn.

Growth

Multiplies the value of each cell in turn by your entry in the Step Value box.

Date

Calculates a series of dates according to your selected option under Date Unit.

AutoFill

Fills blank cells in a selection with a series based on data included in the selection. Overrides any entry in the Step Value box or any selected Date Unit option.

The following table shows samples of AutoFill operations on a selected cell or cells.

Data in selection	Series created
1, 2	3, 4, 5, 6,...
1, 3	5, 7, 9, 11,...
Mon	Tues, Wed, Thurs,...
Qtr1	Qtr2, Qtr3, Qtr4, Qtr1,...
text1, textA	text2, textA, text3, textA,...
1-Jan, 1-Mar	1-May, 1-Jul, 1-Sept,...

Date Unit

Determines whether a series of dates will increase by days, weekdays, months, or years. Used only when creating a Date series.

Step Value

The amount by which a series increases or decreases.   A positive number causes the series to increase; a negative number causes it to decrease.

Stop Value

The value at which you want the series to end.   If the selection is filled before the series reaches the stop value, the series stops at that point.   Can be left blank.

Trend

Creates a linear or exponential growth trend based on the values in the selected range. Calculates a step value from the existing values at the top or left of the selection to produce a best fit line (for linear series) or exponential curve (for growth series) based on those values. This calculated step value overrides anything entered in the Step Value box. Trend overwrites the original values in your selection. For example, if the selection is one row high, begins with the values 1, 4, 5, and you enter a step value of 2 with the Linear Type option selected, the resulting series will be:

Linear	Resulting series
Trend cleared	1, 3, 5, 7, 9, 11,...

Trend selected   1, 3.33, 5.33, 7.33, 9.33, 11.33,...

Using the same example with the Growth Type option selected, the resulting series will be:

Growth	Resulting series
Trend cleared	1, 2, 4, 8, 16, 32, 64,...
Trend selected	1.21, 2.71, 6.07, 13.57, 30.35, 67.86,...

See Also

Help

Creating a trend series

Extending a series of numbers or dates

Fill Commands (Edit Menu)

Turning AutoFill on or off

Using AutoFill

User's Guide (Book 1)

Chapter 5, "Creating a Worksheet"

Set Database Command (Data Menu)

Defines the selected <u>range</u> of cells as a <u>database</u>.

- This command names the selection Database.
- Make sure you include in the selection the <u>field names</u> and an extra blank row below the last record of your database.
- Your database can include text, numbers, formulas, and functions.
- A worksheet can have only one database defined at a time.

See Also

Help

<u>Databases</u>

<u>Defining a database</u>

User's Guide (Book 1)

Chapter 9, "Creating and Using a Database on a Worksheet"

Set Extract Command (Data Menu)

Defines the selected <u>range</u> of cells as an extract range for extracting <u>records</u> from a <u>database</u>.

▪   The extract range must be outside of your database and can be either a range containing field names only or a range containing field names and the cells that will contain the extracted data.

▪   Microsoft Excel names the range Extract.   You can use the name as you would any other named reference.

▪   If the extract range contains only the field names, all cells below the field names to the bottom of the worksheet will be cleared when you extract data, whether or not information is extracted into them.   You cannot undo the Extract command.

▪   If the extract range contains the field names and a range of cells beneath the field names, only the selected range will be filled with extracted data. If there is more data to extract than will fit into the selected range, a message is displayed.

See Also

Help

<u>Canceling the database, criteria or extract range</u>

<u>Databases</u>

<u>Defining an extract range</u>

<u>Extracting data from a database</u>

User's Guide (Book 1)

Chapter 10, "Analyzing and Reporting Database Information"

Sort Command (Data Menu)

Rearranges the rows or columns of a selection according to the contents of a key row or column within the selection.   You can sort with the Sort Ascending and Sort Descending tools on the Utility toolbar. Use the Toolbars command on the Options menu to display the Utility toolbar. Additional sort options are available using the Sort command on the Data menu.

▪   This command can be used in any worksheet cell range, whether in a database or not.

▪   When sorting a database, don't include field names in the selection.

▪   You can specify up to three sort keys.   A sort key identifies which column to sort by when sorting rows, or which row to sort by when sorting columns.

▪   You can refer to any cell in a row or column to identify that row or column as a sort key.

▪   You can refer to a named cell to identify its row or column as a sort key.

▪   If you use more than one sort key, columns or rows with duplicates in the first key are sorted according to the second and third keys.

▪   If you have not identified second and third keys, rows or columns with duplicates in the first key are left in the order in which they are found.

▪   To sort more than three levels, sort more than once using the least significant keys first.

Sort by

Specifies whether to sort by rows or columns.

1st Key

Identifies the column to sort by when sorting rows or the row to sort by when sorting columns.   Select a cell (or type any cell reference or name) from the column or row you want to sort by.   Specifies whether to sort in ascending or descending order.

2nd Key

Sorts duplicates in the first key column or row according to the additional key you specify.

3rd Key

Sorts duplicates in the second key column or row according to the additional key you specify.

See Also

Help

[icon]   Sort Ascending tool

[icon]   Sort Descending tool

Sorting a range of cells
Sorting with more than three keys
Toolbars Command (Options Menu)

User's Guide (Book 1)

Chapter 6, "Editing a Worksheet"

Chapter 9, "Creating and Using a Database on a Worksheet"

Table Command (Data Menu)

Creates a <u>data table</u> based on input values and formulas you define on a worksheet.

- Use this command to show the results of substituting different values in one or more formulas.
- For a <u>one-input table</u>, enter the reference of either the row <u>input cell</u> or the column input cell; for a <u>two-input table</u>, enter both.
- You cannot create a table on a <u>macro sheet</u>.

Row Input Cell

Specifies the input cell reference if the input values are in a row.

Column Input Cell

Specifies the input cell reference if the input values are in a column.

See Also

Help

<u>Filling in a one-input data table</u>

<u>Filling in a two-input data table</u>

User's Guide (Book 2)

Chapter 1, "Analyzing and Calculating Data"

Edit Menu

Undo

Reverses certain commands or actions.

Repeat

Repeats the last command you chose.

Cut

Removes the selection and places it onto the Clipboard.

Copy

Copies the selection and places it onto the Clipboard.

Copy Tool Face

Copies the picture on the selected tool onto the Clipboard.   This command appears only when the Customize dialog box or the Toolbars dialog box is displayed.

Copy Picture

Copies a picture of the current selection and places it onto the Clipboard.   From the Clipboard, you can paste it into another application.   This command appears only when you hold down SHIFT and select the Edit menu.

Paste

Pastes the contents of the Clipboard into a worksheet, chart, or group, or into the formula bar.

Paste Tool Face

Pastes the picture on the Clipboard onto the selected tool.   This command appears only when the Customize dialog box or the Toolbars dialog box is displayed.

Clear

Removes the selected object or the data, formats, or both from the selected worksheet cells.   If the active document is a chart, removes the chart data series or formats, or the selected item.   If a workbook window is active, removes the selected document from the workbook without deleting it.

Paste Special

Pastes selected attributes of copied cells into the current selection on the active worksheet or group, or if the active document is a chart, pastes data series from a worksheet or another chart into the active chart.

Paste Picture

Pastes the contents of   the Clipboard as a picture into a Microsoft Excel worksheet or macro sheet or into another application.   This command appears only when you hold down SHIFT and select the Edit menu.

Paste Link

Pastes copied data into the selection and creates a link with the source data.

Paste Picture Link

Pastes the contents of the Clipboard as a picture into a Microsoft Excel document and creates a link between the picture and the source data.   This command appears only when you hold down SHIFT and select the Edit menu.

Delete

Removes selected cells from a worksheet and shifts surrounding cells to fill the space.

Insert

Inserts a range of cells equivalent in size and shape to the selection, and shifts the selection to accommodate new cells.   In a workbook, inserts existing, open documents (worksheets, charts, or macro sheets) into the workbook.

Insert Object

Inserts a new embedded object in a Microsoft Excel document.

Insert Paste

Inserts the contents of the Clipboard between existing cells.   This command is only available immediately following the use of Cut or Copy.

Fill Left

Copies the contents and formats of the cells in the right column of a selected range into the remaining cells in the selection.   This command appears only when you hold down SHIFT and select the Edit menu.

Fill Right

Copies the contents and formats of the cells in the left column of a selected range into the remaining cells in the selection.

Fill Down

Copies the contents and formats of the cells in the top row of a selected range into the remaining cells in the selection.

Fill Up

Copies the contents and formats of the cells in the bottom row of a selected range into the remaining cells in the selection.   This command appears only when you hold down SHIFT and select the Edit menu.

Fill Group

Copies the contents of the active sheet's selection to the same area on all sheets in the group.

Clear Command (Edit Menu)

Worksheets

Removes the selected object or the formats, formulas, notes, or all three, from the selected cells.   If the selection is in the formula bar, removes the selected characters. For detailed information, see Clear Command (Worksheet).

Charts

Removes the selected item or the data series, formats, or both from the selected chart. If the selection is in the formula bar, removes the selected characters.   For detailed information, see Clear Command (Chart).

Workbooks

Removes the active document from the workbook but does not delete it.

Clear Command (Edit Menu for Charts)

When a chart is selected, removes data series, chart formats, or both.   If the selection is in the formula bar, removes selected characters.   If an item (such as the chart title or the legend) is selected, removes the item.

Shortcut: DEL

All

Clears all data series and chart formats.   This option appears in the dialog box when the entire chart is selected.

Formats

Removes formats only; the data is not affected.   This option appears in the dialog box when the entire chart or a data series is selected.

Shortcut: Clear Formats tool

Formulas

Removes all data series, leaving chart formats unchanged.

Removes a single data series, if you select the series and then choose Edit Clear.

This option only appears in the dialog box when the entire chart is selected.

Shortcut: Clear Formulas tool

Series

Removes data series when a series or a single point of a series is selected.   This option appears in the dialog box only when a data series or a single point is selected.

See Also

Help

   Clear Formulas Tool

   Clear Formats Tool

Clear Command (Edit Menu for Worksheets)

Removes the contents, formats, notes, or all three from selected cells in the worksheet.   If a graphic object or embedded chart is selected, removes the object or chart.

▪   A worksheet formula containing a reference to a cleared cell assumes that the cell has a value of zero.

▪   The Delete command removes not only the contents of the selected cells, but the cells themselves.   A formula containing a reference to a deleted cell displays the #REF! error value.

Shortcuts: DEL   (displays the Clear dialog box)

CTRL+DEL   (clears formulas from the selection)

All

Removes contents, formats, and notes from selected cells.

Formats

Removes formats only; cell formulas and notes are unchanged.   The cells return to General format.

Shortcut: Clear Formats tool

Formulas

Removes cell contents from selected cells without affecting formats or notes.

Shortcut: Clear Formulas tool

Notes

Removes notes from selected cells, but leaves contents and formats intact.

See Also

Help

      Clear Formulas Tool

      Clear Formats Tool

Clearing data from cells

Copy Command (Edit Menu)

Copies the selection onto the Clipboard. The selection can be a cell, cell range, formula bar selection, chart, graphic object, or document within a workbook (worksheet, chart, or macro sheet).

- To copy a picture of a cell range or chart to another Microsoft Excel document or to another application, use the Copy Picture command.   This command appears only when you hold down SHIFT and select the Edit menu.

Shortcuts: Copy tool

> CTRL+C

Worksheets

- If the selection is a single cell, a cell range, or a nonadjacent selection and you choose Paste after choosing Copy, cell contents and formats are copied.   If you choose Paste Special, specified cell attributes are copied.   If you choose Insert Paste, cell contents and formats are copied and inserted between existing cells.
- If your selection contains hidden rows or columns that you don't want to copy, you can select only the visible cells in the worksheet using the Select Special command from the Formula menu or the Select Visible Cells tool on the Utility toolbar.
- Choosing Copy surrounds selected cells with a moving border.

Formula Bar

- If the formula bar is active, choosing Copy copies selected characters onto the Clipboard.   You can then paste the contents of the Clipboard into another part of the same formula, formulas in other cells, or another application.

Charts

- If an embedded chart is selected, choosing Copy copies the entire embedded chart.
- If a chart within a chart document or open embedded chart is selected, choosing Copy copies data series and formats, which you can then paste into another Microsoft Excel document.
- Choosing Copy surrounds the chart with a moving border.

Workbooks

- After copying a worksheet in a workbook window, you can paste a copy into the same workbook, another workbook, or a non-workbook window. The Save As dialog box appears so you can give the copy a new name. The copy has no links to the original worksheet.

See Also

Help

 Copy Tool

Copying a chart to a worksheet
Copying cells to multiple locations
Copying color palettes between documents
Copying data from a worksheet and saving it in a separate file
Copying data
Copying a cell's value, formula, formatting, or note
Copying styles from another document
Copying to a range of adjacent cells
Copying visible cells
Copying within and between worksheets
Copying within the formula bar

User's Guide (Book 1)

Chapter 6, "Editing a Worksheet"

Copy Picture Command (Edit Menu)

Copies a picture of the selected cell, cell range, graphic object, or chart onto the <u>Clipboard</u>. From the Clipboard, you can paste the picture into another application.

▪   Appears on the Edit menu in place of the <u>Copy command</u> when you hold down SHIFT and select the Edit menu.

Appearance

Select the As Shown On Screen option button to paste the selection into a Microsoft Excel worksheet.

Select the As Shown When Printed option button to paste the selection into another application.

Size (Charts Only)

As Shown On Screen copies the selection so it is the same size as appears on the screen. The picture size varies according to the size and shape of the chart window.

As Shown When Printed copies the selection so it is the same size as it would appear when printed.   The picture size varies according to the size and shape of the chart window, the capabilities of your printer, and the Size option in the Page Setup dialog box.

Format

Picture

Copies the picture in Windows metafile format. This format can be displayed on screens with varying resolutions.

Bitmap

Copies the picture in bitmap format. The bitmap can be displayed correctly only on a screen of the same type and resolution as the screen from which it was copied.

Cut Command (Edit Menu)

Removes the selection from the document and places it onto the <u>Clipboard</u>.   The selection can be a cell, cell <u>range</u>, characters in the <u>formula bar</u>, embedded chart, graphic object, or a document within a project (worksheet, chart, or macro sheet).

▪   When you cut characters in the formula bar, the characters are deleted and placed on the Clipboard.   The cut characters are then available for pasting to a new location in the same formula or into a formula in another cell.

▪   When you cut cells on a worksheet, Microsoft Excel surrounds the selected cell or cell range with a moving border.

▪   Within a worksheet, the selection to be cut must be a single, continuous, rectangular area.

▪   Within a worksheet, if Cut is followed by Paste, the cell contents and formats are pasted into the <u>paste area</u>; if Cut is followed by Insert Paste, the cell contents and formats are inserted between existing cells.

▪   To completely remove selected cells and shift other cells to fill the space, use the Delete command.

▪   Within a project window, use Cut and Paste to rearrange the order of worksheets or to move a worksheet from one project to another.

Shortcuts: Cut tool

CTRL+X

SHIFT+DEL or SHIFT+DELETE

See Also

Help

   <u>Cut Tool</u>
<u>Moving cells and data</u>

User's Guide (Book 1)

Chapter 6, "Editing a Worksheet"

Delete Command (Edit Menu)

Removes selected cells, rows, or columns from a worksheet, including the contents and formats contained within the selection.   Surrounding cells shift to fill the space.

- If you delete an entire row or column, rows or columns are shifted to fill the space.
- If you select less than an entire row or column, a dialog box appears asking whether to shift the surrounding cells up or to the left, or to delete the entire column or row.
- A worksheet formula containing a reference to a deleted cell displays the #REF! value.
- To remove the contents, formats, or both from selected cells, but not the cells themselves, use the Clear command. A worksheet formula containing a reference to a cleared cell assumes that the cell has a value of zero.

Shortcuts: Delete tool
CTRL+MINUS SIGN

Shift Cells Left

Shifts surrounding cells to the left.

Shift Cells Up

Shifts surrounding cells up.

Entire Row

Deletes the entire row and shifts entire rows to fill the space.

Entire Column

Deletes the entire column and shifts entire columns to fill the space.

See Also

Help

   Delete Tool
Deleting cells, rows, or columns

Fill Commands (Edit Menu)

Copy the contents and formats of cells along one side of a selected range into the remaining cells in the selection.

- Copied contents and formats replace existing contents and formats.
- To display Fill Left and Fill Up, hold down SHIFT and select the Edit menu. In this case, they replace Fill Right and Fill Down.
- Fill Right appears dimmed when the selection is only one column wide; Fill Down appears dimmed when the selection is only one row high.
- If your selection contains hidden rows or columns that you don't want to include, you can select only the visible cells using the Select Special command on the Formula menu or the Select Visible Cells button on the Utility toolbar.

Shortcuts: Fill Down tool
Fill Right tool
CTRL+R or CTRL+> (Fill Right)
CTRL+D or CTRL+< (Fill Down)

Fill command	Copies
Fill Down	Top row
Fill Right	Left column
Fill Up	Bottom row
Fill Left	Right column
Fill Group	Selection to same position on all other sheets in the group

See Also

Help

Fill Down Tool

Fill Right Tool

Copying data and formats to all sheets in a group
Copying to a range of adjacent cells
Copying visible cells
Fill Group Command (Edit Menu)
Series Command (Data Menu)
Turning AutoFill on or off
Using AutoFill

Fill Group Command (Edit Menu)

Copies the contents of the range of cells selected on the active worksheet to the same range of cells in all the other sheets in a <u>group</u>.   This command is available only if a group is active.

All

   Copies all data and formats.

Formulas

   Copies all data.   Formats are unchanged.

Formats

   Copies formats only.   Data is unchanged.

Insert Command (Edit Menu)

Inserts a row, column, or range of blank cells equivalent in size and shape to the selected cell range, or inserts a selection you defined with the Copy or Cut command.   The selected rows, columns, or cells are shifted to accommodate the insertion.   In a workbook, inserts existing, open documents (worksheets, charts, or macro sheets) into the workbook.

Shortcuts: Insert tool

CTRL+PLUS SIGN

Worksheet or Macro Sheet

After selecting a cell or range of cells, you can choose the Insert command and specify the kind of insertion you want.

Shift Cells Right

Shifts the existing cells to the right when inserting.

Shift Cells Down

Shifts the existing cells down when inserting.

Entire Row

Inserts an entire row above the selection.

Shortcut: Insert Row tool

Entire Column

Inserts an entire column to the left of the selection.

Shortcut: Insert Column tool

See Also

Help

 Insert Tool

 Insert Column Tool

 Insert Row Tool

Inserting cells, rows, or columns

Paste Command (Edit Menu)

Pastes the contents of the Clipboard into a worksheet, macro sheet, or chart, into the formula bar, or into a workbook window.

Shortcuts: Paste tool
ENTER
CTRL+V
SHIFT+INS

Worksheet

▪   Choosing this command pastes the contents and formats of copied or cut cells into the selected cells.
▪   The paste area can be a single cell, a cell range, or a graphic object.
▪   If the paste area is a graphic object, choosing Paste creates a new graphic object consisting of a picture of the copied cells.
▪   If the paste area is a single cell, this cell is the upper-left corner of the paste area; the rest of the copied data is pasted down and to the right.
▪   If you choose Cut before pasting and you are pasting into a cell range, the paste area must be the same size and shape as the cut area.
▪   If you choose Copy before pasting, you can paste multiple copies, either simultaneously or sequentially.

Chart

▪   Choosing Paste creates a data series from copied worksheet cells and pastes them into the active chart.
▪   You can also copy an entire chart and paste it into another chart.   The copied chart's data series are added to the active chart, and its format replaces the active chart's format.
▪   To control how data series are organized and plotted, use the Paste Special command.

Formula Bar

▪   Choosing Paste inserts the contents of the Clipboard into the formula bar at the insertion point.
▪   If any characters in the formula bar are selected, those characters are replaced with the Clipboard contents.

Workbook

▪   Choosing Paste inserts a previously cut document above the selection in the workbook window.
▪   Choosing Paste inserts a copy of a previously copied document in a workbook window. If the copy is being inserted into the same workbook, the Save As dialog box appears so you can give the copy a new name.

See Also

Help

Paste Tool
Copying a chart to a worksheet
Copying cells to multiple locations
Copying data
Copying to another worksheet or application
Copying within the formula bar
Moving cells and data

User's Guide (Book 1)

Chapter 6, "Editing a Worksheet"

Chapter 13, "Editing a Chart"

Insert Object Command (Edit Menu)

Inserts a new embedded object in a Microsoft Excel document.

- The dialog box displays a list of objects you can embed.
- The list is determined by the applications you have installed.

Insert Paste Command (Edit Menu)

Inserts the contents of the Clipboard between existing cells.   The existing cells shift to accommodate the inserted cells.

▪   When you copy or cut a selection using the Copy or Cut command, the Insert command changes to Insert Paste.

▪   If you cut or copy an entire row and then choose Insert Paste, the new row is inserted above the selected row.

▪   If you cut or copy an entire column and then choose Insert Paste, the new column is inserted to the left of the selected column.

▪   Unless you cut or copied entire rows or columns, a dialog box is displayed for you to specify which direction existing cells will shift to accommodate the pasted cells.

Shift Cells Right

Shifts the existing cells to the right when inserting.

Shift Cells Down

Shifts the existing cells down when inserting.

Paste Link Command (Edit Menu)

Pastes copied data into the selected cells and establishes a link with the source of the data.

- When the source data changes, the pasted data reflects those changes.
- The source can be another Microsoft Excel worksheet or another application.
- If the source is a Microsoft Excel worksheet, the source selection must be a single cell or a range of cells.
- If the source is more than one cell, Paste Link pastes an <u>array</u>.
- The <u>paste area</u> can be a single cell, a cell range, or a named range.
- If the paste area is a single cell and the source is another Microsoft Excel worksheet, the upper-left cell of the copied area is pasted into the paste area, filling the rest of the range downward and to the right.
- If the paste area is a range and the source is another Microsoft Excel worksheet, the paste area should be the exact size and shape of the copied area.

See Also

Help

<u>Copying visible cells</u>

<u>Creating links between documents</u>

User's Guide (Book 2)

Chapter 3, "Exchanging Data with Other Applications"

Paste Picture Command (Edit Menu)

Pastes a picture of the contents of the <u>Clipboard</u> into a Microsoft Excel document.

▪   This command appears on the menu when you hold down SHIFT and select the Edit menu.

▪   You can move or size a picture as you would any other graphic object.

Paste Picture Link Command (Edit Menu)

Pastes a picture of the contents of the Clipboard into a Microsoft Excel document and creates a link between the picture and the document from which it came.

- This command appears on the menu when you hold down SHIFT and select the Edit menu.
- When the source document changes, the pasted picture reflects those changes.
- You can move and size a linked picture as you would any other graphic object.

Shortcut: Camera tool (Utility toolbar)

See Also

Help

   Camera Tool
Displaying and hiding a toolbar
Toolbars Command (Options Menu)

User's Guide (Book 1)

Chapter 15, "Working with Graphic Objects"

Paste Special Command (Edit Menu)

Worksheets

Pastes values, formats, formulas, or notes of copied cells into the selected cells on the active sheet or <u>group</u>.   This command also combines copied data with data in the <u>paste area</u>, transposes data, and pastes data copied from other applications.   For detailed information, see <u>Paste Special (Worksheet)</u>.

Charts

Pastes data series from a worksheet or another chart into the active chart.   For detailed information, see <u>Paste Special (Chart)</u>.

See Also

Help

<u>Adding data to a chart from a worksheet</u>

<u>Copying specific cell attributes</u>

Paste Special Command (Edit Menu for Charts)

Controls how the data series are organized and plotted when pasted from a worksheet or another chart.

▪ Dialog box options vary, depending on what type of chart you are pasting into and whether you paste from a worksheet or from another chart.

Pasting from a Worksheet

The following dialog box options appear if you start by copying worksheet cells.   The first two check boxes in the dialog box change, depending on which options you select in the Values In box.

Rows

Uses the contents of each row in the copied selection to create the data series.

Columns

Uses the contents of each column in the copied selection to create the data series.

Series Names In First Column (or Row)

If Rows is selected under Values In, uses the contents of the cell in the first column of each row as the name of the data series in that row.

If Columns is selected under Values In, uses the contents of the cell in the first row of each column as the name of the data series in that column.

If cleared, uses the contents of the first cell as the first data point in the data series.

This option changes to Series Names (Y Labels) In First Column/Row when a 3-D chart is the active document.

Categories (X Labels) In First Row (or Column)

If Rows is selected under Values In, uses the contents of the first row of the selection as the chart categories.

If Columns is selected under Values In, uses the contents of the first column of the selection as the chart categories.

If cleared, uses the contents of the first row or column as the first data series in the chart.

This option changes to Categories (X Values) In First Column/Row when an xy (scatter) chart is the active document.

Replace Existing Categories

Replaces the existing chart categories with the categories you are pasting.

Available only when Categories In First Column/Row is selected.

Pasting from a Chart

If you start by copying data series from another chart, the following dialog box options appear:

All

Pastes both the data series and their formats from the copied chart into the active chart.

Formats

Replaces the format of the active chart with the format of the copied chart.   Does not affect the data in the chart you're pasting into.

Formulas

Adds data series from the copied chart to any data series already on the active chart. Does not change the format of the chart you're pasting into.

See Also

Help

Adding data to a chart from a worksheet

Copying a chart's series or formats

User's Guide (Book 1)

Chapter 13, "Editing a Chart"

Paste Special Command (Edit Menu for Worksheets)

Pastes the values, formats, formulas, or notes of the copy area you defined with the Copy command into the cells in the current selection.   Paste Special also controls how data copied from an application other than Microsoft Excel is pasted.

▪   Paste Special does not paste a selection defined with the Cut command.
▪   The <u>paste area</u> can be a cell, cell range, or <u>nonadjacent selection</u>.   If the paste area is a single cell, Paste Special uses this cell as the upper-left corner of the paste area and pastes the rest of the copied area down and to the right.   If the paste area is a range or nonadjacent selection, it must be able to contain one or more rectangles the exact size and shape of the copied area.
▪   If a <u>group</u> is active, Paste Special pastes properties of the copied area of each sheet into the corresponding paste area on each sheet in the group.
▪   Paste Special can be used to combine the formulas or values in the copied cells with the formulas or values in the paste area cells.   You specify whether the copied formulas or values are added to, subtracted from, multiplied by, or divided into the contents of the paste area cells.
▪   Paste Special can also be used to transpose a range of values.

Dialog Box Options When Copied Data is From Microsoft Excel

All
  Pastes all cell attributes.

Formulas
  Pastes only formulas as entered in formula bar.

Values
  Pastes only values as displayed in cells.

Formats
  Pastes only cell formats.

Notes
  Pastes only cell notes.

None
  Completely replaces the cells in the <u>paste area</u> with the cells from the copy area.

Add
  Adds copied formulas or values to those of the cells in the paste area.

Subtract
  Subtracts copied formulas or values from those of the cells in the paste area.

Multiply
  Multiplies copied formulas or values by those of the paste area.

Divide
  Divides copied formulas or values into those of the paste area.

Skip Blanks
  Does not paste blank cells from the copy area to your paste area, so copying a blank cell will not delete the existing data in the corresponding cell in your paste area.

Transpose
  Switches the orientation of data when you paste it.   Data from the top row of the copied area appears in the left column of the paste area; data from the left column appears in the top row.

Dialog Box Options When Copied Data is From Another Application

Data Type

This lists the different forms in which the data can be pasted into Microsoft Excel.   For example, text copied from a Microsoft Word document can be embedded into a Microsoft Excel worksheet as a Microsoft Word object or copied into cells as either formatted or unformatted text.   When copied into cells, the text can be edited and formatted just as text in any worksheet cell.   If you select a Microsoft Word object, the object can be moved and sized just like an embedded chart or a graphic object.   Double-clicking the object opens it in Microsoft Word so that you can edit it.

Paste Button

Choosing this button pastes the information from the Clipboard into the worksheet.   No link is established to the source document.

Paste Link Button

Choosing this button links the pasted information to its source document.   Unavailable if a link cannot be established.

See Also

Help

Combining copied formulas or values with those in the paste area

Combining values on different worksheets

Converting a formula to its displayed values

Copying a cell's value, formula, formatting, or note

User's Guide (Book 1)

Chapter 6 "Editing a Worksheet"

Repeat Command (Edit Menu)

Repeats the last command you chose, if possible, including any dialog box settings.

▪ The command name reflects the command to be repeated; for example, Repeat Display, Repeat Alignment.

▪ This command is useful for applying the same formats to different groups of cells or different chart items.

▪ Can't Repeat appears on the Edit menu instead of Repeat if the last command you chose is not repeatable.

Shortcuts: Repeat tool (Utility toolbar)

ALT+ENTER

See Also

Help

 Repeat Tool
Displaying and hiding a toolbar
Toolbars Command (Options Menu)

Undo Command (Edit Menu)

Reverses certain commands, or deletes the last entry you typed.

- The command name reflects the command or action to be undone; for example, Undo Cut; Undo Typing.
- Can't Undo appears on the Edit menu if you cannot undo the previous action.
- Immediately after you undo an action, this command changes to Redo, allowing you to restore what you reversed.

Shortcuts: Undo tool (Utility toolbar)

CTRL+Z

ALT+BACKSPACE

See Also

Help

 Undo Tool
Displaying and hiding a toolbar
Toolbars Command (Options Menu)

Delete Tool Command

Removes the selected tool from the toolbar.   You can only delete custom tools.

▪   This command appears on the shortcut menu for a tool only when the Customize dialog box or the Toolbars dialog box is displayed.   To display either of these dialog boxes, choose Customize or Toolbars from the toolbar shortcut menu.

▪   You cannot delete built-in tools.

See Also

Help

Adding and deleting a tool from a toolbar

User's Guide (Book 2)

Chapter 4, "Customizing Microsoft Excel"

Copy Tool Face Command (Edit Menu)

Copies the picture on the selected tool onto the Clipboard.   From the Clipboard, you can paste the picture onto another tool.

▪   This command appears on the Edit menu and the shortcut menu for a tool only when the Customize dialog box or the Toolbars dialog box is displayed.   To display either of these dialog boxes, choose Customize or Toolbars from the toolbar shortcut menu.

See Also

Help

Customizing the appearance of a tool

User's Guide (Book 2)

Chapter 4, "Customizing Microsoft Excel"

Paste Tool Face Command (Edit Menu)

Pastes the picture on the Clipboard onto the selected tool.

▪ This command appears on the Edit menu and the shortcut menu for a tool only when the Customize dialog box or the Toolbars dialog box is displayed.   To display either of these dialog boxes, choose Customize or Toolbars from the toolbar shortcut menu.

▪ The picture can be copied from another tool, or it can be an object drawn in Microsoft Excel or another application.

See Also

Help

Customizing the appearance of a tool

User's Guide (Book 2)

Chapter 4, "Customizing Microsoft Excel"

Reset Tool Face Command

Restores the original appearance of a tool.

▪   This command appears on the shortcut menu for a tool only when the Customize dialog box or the Toolbars dialog box is displayed.   To display either of these dialog boxes, choose Customize or Toolbars from the toolbar shortcut menu.

See Also

Help

Customizing the appearance of a tool

User's Guide (Book 2)

Chapter 4, "Customizing Microsoft Excel"

File Menu

New

Creates a new worksheet, chart, macro sheet, workbook, slideshow, or a document based on one of the templates you have created.

Open

Opens an existing document or lets you import information from a different application. Also used for changing directories and drives.

Close

Closes all windows of the active document.

Close All

Closes all windows of all open Microsoft Excel documents.

Close Workbook

Closes the active workbook and all <u>bound</u> and <u>unbound</u> workbook documents.

Links

Opens documents linked to the active document, or changes those links.

Save

Saves changes made to the active document.

Save As

Saves a new document or a new version of an existing document in the file format and with the filename you specify.   Also used for saving a file in a different directory or drive.

Update

Updates information in an application containing a Microsoft Excel object.

Save Workbook

Saves all changes made to all documents in the workbook.

Delete

Removes from a disk the document you specify.

Record Macro**

Creates a new macro sheet and starts recording your actions as a macro.

Unhide**

Makes a hidden window visible.

Print Preview

Displays the document's pages so you can see how they will look when printed.

Page Setup

Controls the appearance of items such as headers, footers, and margins on the document's printed pages.

Print

Prints the active document according to the selections you make in the Print dialog box.

Print Report*

Prints a sequence of views and scenarios.

1,2,3,4

Lists the last four files you opened.

Exit

Ends your Microsoft Excel work session.

Send Mail***

Sends Microsoft Excel files to other users through Microsoft Mail or other mail clients that suppport the Windows simple mail interface (SMI).

* If this command does not appear on the File menu, run the Setup program to install it. For more information, see Chapter 4, "Customizing Microsoft Excel," in Book 2 of the Microsoft Excel User's Guide.

** These commands appear only when all windows are closed or hidden.

*** Available only with Microsoft Mail version 2.0 or later.

1,2,3,4 Commands (File Menu)

Refers to the files listed at the bottom of the File menu.   The names on the list are the last four files you opened.   To open one of these files, select the filename you want from the list.   You do not need to choose the Open command from the File menu to open one of these files.

Close and Close All Commands (File Menu)

Close Command

Closes the active document and all of its windows.   If you have made any changes to the document, you will be asked if you want to save those changes.

▪   If you have several windows open for the same document and only want to close one of them, switch to the window you want to close, and then use the Close command on the Control menu.

Shortcut: CTRL+F4

Close All Command

Closes all windows of all open Microsoft Excel documents.

▪   To display the Close All command, hold down SHIFT and select the File menu.
▪   If you have made changes to any of the open documents, you will be asked if you want to save those changes.
▪   The Close All command does not close add-in macros.

Shortcut: SHIFT+F4

See Also

Help

Close Command (Control Menu)
Closing the active document
Quitting Microsoft Excel
Switching to or closing a document window

Delete Command (File Menu)

Permanently removes selected documents from the disk.

- After you choose the OK button, Microsoft Excel asks you to verify the deletion.
- This command can be undone only if the deleted document is still displayed on your screen.   If it is displayed, you can save it again with the <u>Save As</u> command on the File menu.

File Name

Displays *.* as the default until you type the name of the file you want to delete, or select the file you want from the File Name box.

Directories

Lists the current directory and any subdirectories.

List Files Of Type

Lists the available file formats.

Drives

Lists the available drives.

See Also

Help

<u>Deleting a file from a disk</u>

<u>Deleting a chart document or an embedded chart</u>

Exit Command (File Menu)

Ends your Microsoft Excel work session.

▪   If you have made changes to any open document, you are asked if you want to save those changes.

▪   The contents of the Clipboard are also saved when you quit.   If a cut or copied selection is surrounded with a moving border when you quit, Microsoft Excel copies the selection to the Clipboard.

Shortcut: ALT+F4

See Also

Help

Quitting Microsoft Excel

Links Command (File Menu)

Lists the source documents for the active <u>dependent worksheet</u>.   Provides options you can use to change the links in linked documents.   The available options vary, depending on the type of link specified in the Link Type box.

Link Type

   Select the type of link you want to display in the Links box.

Links

   Lists the names of source documents of the type specified in the Link Type box.

Open

   Opens the selected source document.

Close

   Cancels the command and closes the Links dialog box.

Read Only

   Opens the selected source document as read-only.

Change

   Displays the <u>Change Links dialog box</u>, which you can use to redirect links to the dependent worksheet.

   Type the name of the document to which you want to redirect links, or select the document's name from the File Name box.   The filenames displayed in the File Name box are contained in the current directory.   If the document you want is in a different directory, select the directory you want from the Directories box.

Update

   Updates the active dependent document with information from the selected source documents.

Options

   Displays the <u>DDE/OLE Options dialog box</u>.   The Options button is unavailable if Excel Links is specified in the Link Type box.

   Automatic

     Select the check box if you want the linked data to be updated automatically.

See Also

   Help

   <u>Creating links between documents</u>
   <u>Disabling updating of all links on a worksheet</u>
   <u>Linking and Embedding</u>
   <u>Opening source documents for the active worksheet</u>
   <u>Recalculating linked worksheets</u>
   <u>Redirecting links to source documents</u>
   <u>Replacing a source worksheet with another worksheet</u>
   <u>Saving new unnamed linked worksheets</u>
   <u>Updating information in linked documents</u>
   <u>Viewing a list of source documents for a dependent worksheet</u>

User's Guide (Book 1)

   Chapter 11, "Working with Multiple Microsoft Excel Documents"

User's Guide (Book 2)

Chapter 3, "Exchanging Data with Other Applications"

New Command (File Menu)

Creates a new document in the form you specify: worksheet, chart, macro sheet, or workbook; slides; or based on one of the templates you have created.

▪   Any templates saved in the XLSTART directory or alternate startup directory appear in the list automatically.

Worksheet

Creates a new worksheet.

Shortcuts: New Worksheet tool
SHIFT+F11
ALT+SHIFT+F1

Chart

Using selected data, creates a new chart in the default chart type and format.   Initially, Microsoft Excel uses the simple column chart.   You can change the default chart format by choosing the chart format you want, and then choosing the Set Preferred command from the Gallery menu.   The preferred chart format you select remains in effect for the current work session only.

If the selection to be plotted contains more than one row or column and does not contain text labels or dates in both the first row and the first column, the New Chart dialog box is displayed.   Select an option button to specify how the data in the first row or column should be plotted.

Shortcuts: New Chart tool (File Tools category)
ChartWizard tool
F11
ALT+F1

Macro Sheet

Creates a new macro sheet.

Shortcuts: New Macro Sheet tool (Macro toolbar)
CTRL+F11
ALT+CTRL+F1

Workbook

Creates a new workbook.

Shortcut: New Workbook tool (File Tools category)

Slides

Creates a new slideshow.

See Also

Help

 ChartWizard Tool

 New Chart Tool

 New Macro Sheet Tool

 New Workbook Tool

 New Worksheet Tool

Changing the chart type and format

Creating a chart

Creating a new macro sheet

Creating a new template

Creating a new worksheet
Preferred Command (Gallery Menu)
Set Preferred Command (Gallery Menu)

User's Guide (Book 1)

Chapter 4, "Managing Document Files"
Chapter 6, "Editing a Worksheet"
Chapter 12, "Creating a Chart"
Chapter 13, "Editing a Chart"
Chapter 15, "Working with Graphic Objects"

Open Command (File Menu)

Opens an existing document and displays it on the screen.   You can have more than one document open at a time.

▪   In addition to opening Microsoft Excel documents, you can also use this command to import files in different <u>file formats</u> from other applications, such as Lotus 1-2-3 file formats.

▪   If the document you want to open was assigned a password when it was saved with the <u>Save As</u> command on the File menu, you will be asked to type that password before you can open the document.   Be sure to type the password with correct capitalization and punctuation.

▪   If the document you want to open was saved with a Write Reservation Password using the Save As command on the File menu, and you do not select the Read Only check box, you will be asked to type a password to open the document as read-write.

▪   To reopen one of the last four documents you opened, select that document's name from the list of recently opened documents on the File menu.

▪   You can open any <u>template</u> using the Open command on the File menu.   You can open templates saved in the XLSTART directory or an <u>alternate startup directory</u> with the New command on the File menu.

Shortcuts: <u>File Open tool</u>
> CTRL+F12
> ALT+CTRL+F2

File Name

Displays the default file specification *.XL*, and a list of the Microsoft Excel files in the current directory.   Type the name of the file you want to open, or select it from the list.

Directories

Lists the current directory and any subdirectories.

List Files Of Type

Lists the available file formats.

Drives

Lists the available drives.

Read Only

Select this check box if you want to view the document, but don't want to save changes to it.

Text

Displays additional options.   When you open a text file, you can choose the character used to separate fields or columns of text.   Microsoft Excel places the text following each delimiter character in a separate cell.   You can also specify the original source of the text file you're opening: Macintosh, Windows (ANSI), and DOS or OS/2 (PC-8).

See Also

Help

<u>Open File Tool</u>
<u>Changing the drive or directory</u>
<u>Changing the default directory for opening files</u>
<u>Opening a file from a disk</u>

Page Setup Command (File Menu)

Controls the appearance of the printed worksheet, chart, macro sheet, or Info window contents.

▪   When you save a document, its specific printer settings are also saved.

▪   When you are working with a group of worksheets, any changes you make in the Page Setup dialog box change the settings for all documents in the group.

▪   If an <u>embedded chart</u> is selected, the specifications in the Page Setup dialog box refer to the chart only.

Current Printer

Lists the printer selected in the Printer Setup dialog box.

Orientation

Specify the orientation for the printed image: Portrait prints the document down the length of the paper; Landscape prints the document across the width of the paper.

Paper

Specify letter, legal, or other paper size and source options.

Margins

Specify the amount of space you want to appear between the edge of the paper and the printed document, and whether the document is centered horizontally or vertically. Available for sheets and charts only.

Row and Column Headings

Select to print row and column headings, and cell references when printing notes. Available for sheets only.

Cell Gridlines

Select to print the cell gridlines.   Clear to print cell contents without gridlines.   Available for sheets only.

Black & White Cells

Select to print cells in black and white.   Available for sheets only.

Start Page No.'s At

Type the number you want page numbering to start with.   Available for sheets and charts only.

Page Order

To print pages from top to bottom, and then right, select the Down, Then Over option button.   To print pages from left to right, and then down, select the Over, Then Down option button.   Available for sheets only.

Scaling

Select the Reduce/Enlarge To option button to specify the percentage of reduction or enlargement for a document.

Select the Fit To option button to compress the document or selection during the printing process so that it can be printed on the specified page layout.

Chart Size

Select the Size On Screen option button to print the chart the same size as it appears on the screen.   Select the Scale To Fit Page option button to print the chart as large as possible while retaining the chart's height-to-width ratio as shown on the screen.   Select the Full Page option button to print the chart to fit the page, adjusting the height-to-width ratio as necessary.   Available for charts only.

Header, Footer

Displays the Header Edit and Footer Edit Windows, in which you can specify text, page numbers, and formatting for headers and footers.

Default header and footer margins are 0.5 inch from the top or bottom of the page and 0.75 inch from the side of the page.

Print

Displays the Print dialog box.

Printer Setup

Displays the Printer Setup dialog box, listing the printers that are installed for your system.

See Also

Help

Header and Footer Code

Changing the layout of a printed page

Set Page Break and Remove Page Break Commands (Options Menu)

Print Command (File Menu)

Prints the active document according to the settings in the <u>Page Setup</u> dialog box.

▪ If the active document is a worksheet or a macro sheet, it is printed according to settings you have specified using the <u>Set Print Area</u>, <u>Set Print Titles</u>, and <u>Set Page Break</u> commands on the Options menu.

▪ If you want to print an <u>embedded</u> chart only, without the surrounding worksheet, you must first double-click the chart to display it in a chart window.   You can specify the printed size of such a chart using the Page Setup command on the File menu.

▪ If the <u>Info window</u> is active, information about the selected cells in the worksheet is printed.

Shortcuts: <u>Print tool</u>
CTRL+SHIFT+F12
ALT+CTRL+SHIFT+F2

Printer

Displays the name of the printer you selected in the Printer Setup dialog box.

Print Range

Select the All option button to print all the pages in the document or the Pages option button to specify in the From and To boxes a range of pages to print.

Print Quality

Displays the resolution levels offered by the current printer.

Copies

Type the number of copies you want to print.

Print

Select the Sheet option button to print only the active document, the Notes option button to print only the notes, or the Both option button to print the document and notes on separate pages.

Preview

Displays the <u>Print Preview</u> window when you choose the OK button.

Fast, But No Graphics

Select to print the document without graphics, and therefore more quickly.

Page Setup

Displays the <u>Page Setup</u> dialog box.

See Also

Help

 <u>Print Tool</u>
<u>Changing the layout of the printed page</u>
<u>Page Setup Command (File Menu)</u>
<u>Previewing a document before printing</u>
<u>Print Preview Command (File Menu)</u>
<u>Print Preview Window</u>
<u>Print Report Command (File Menu)</u>
<u>Printing a chart</u>
<u>Printing a section of a worksheet</u>
<u>Printing reports</u>

User's Guide (Book 1)
Chapter 16, "Printing"

Print Preview Command (File Menu)

Displays each page as it will look when you print the document.

▪ If an embedded chart is active in a chart window, Print Preview displays the chart only.

▪ To preview specific pages, choose the Print command from the File menu, specify a print range in the From and To boxes, select the Preview check box, and then choose the OK button.

Shortcut: Print Preview tool (File Tools category)

Next

Displays the next page of the document.

Previous

Displays the previous page of the document.

Zoom

Switches between full page view and actual size view of document pages.

Print

Displays the Print dialog box.

Setup

Displays the Page Setup dialog box.

Margins

Displays the current margin and column width settings.   You can adjust these by dragging the margins or column markers.   Choose the Margins button again to turn the margins and column markers off.

Close

Closes the Print Preview window and displays the active document.

See Also

Help

   Print Preview Tool

Adding and deleting a tool from a toolbar

Page Setup Command (File Menu)

Previewing a document before printing

Print Command (File Menu)

Print Preview Window

Toolbars Command (Options Menu)

User's Guide (Book 1)

Chapter 16, "Printing"

Record Macro Command (File Menu)

Opens a <u>macro sheet</u> and records your subsequent actions as macro functions.

- This command appears on the File menu when all windows are closed or hidden.
- This command is the same as the <u>Record</u> command on the Macro menu.

Shortcut: <u>Record Macro tool</u> (Macro toolbar)

Name

Displays a name for the macro.   Accept the proposed name or type a new one that will remind you what the macro does.

Key

Defines a shortcut key you can use later to quickly run the macro.   Accept the proposed letter or type another one.   Shortcut keys are case sensitive and must be letters; numbers are not allowed.

Store Macro In

Specify whether to record the macro on the <u>global macro sheet</u> or on a new <u>macro sheet</u>.

See Also

Help

    <u>Record Macro Tool</u>
<u>Macro Toolbar</u>
<u>Creating a new macro sheet</u>
<u>Defining a macro name</u>
<u>Record Command (Macro Menu)</u>
<u>Recording a macro</u>
<u>Toolbars Command (Options Menu)</u>

User's Guide (Book 2)

Chapter 6, "Automating Tasks with Command Macros"

Save Command (File Menu)

Saves changes made to the active document.

- This command replaces the previous version of the document with the current version.
- The newly saved document is still displayed in the window.
- If the document hasn't been saved yet, or if it was last saved in a <u>file format</u> other than Normal, the <u>Save As</u> dialog box is displayed.
- When the active document is in a group, choosing Save from the File menu saves all the documents in the group, one at a time.

Shortcuts: <u>Save File tool</u>

          SHIFT+F12

          ALT+SHIFT+F2

See Also

   Help

 <u>Save File Tool</u>

<u>Save As Command (File Menu)</u>

<u>Saving a chart</u>

<u>Saving a document as a template</u>

<u>Saving a document for the first time</u>

<u>Saving a file for use by another application</u>

Save As Command (File Menu)

Saves a new document or a new version of an existing document.   The saved document remains displayed in the window.

▪   You can also use this command to export files to other applications, such as Lotus 1-2-3.

▪   When an <u>embedded chart</u> is active in a chart window, choosing this command saves a copy of the chart as a separate document.

Shortcuts: F12
                          ALT+F2

File Name

Saves the document in the current directory unless you type a full path for the document or select a different directory from the directory listing.

Type a name for the document, or accept the proposed name.   A file name cannot contain a left bracket ([ ) or a right bracket ( ]).

Directories

Lists the current directory and any subdirectories.

Save File As Type

Lists the available <u>file formats</u>.   The formats available depend on whether you're saving a worksheet, macro sheet, chart, workbook, or template.

Drives

Lists the available drives.

Options

Create Backup File

Creates a backup copy of a document every time you save it.

The backup copy is the previous version of the document, renamed with a .BAK extension.

Protection Password

Type text as the password that is required to open the file.

A password can contain up to 15 characters and can include spaces, symbols, and numbers, as well as letters.

As you type the password, Microsoft Excel displays an asterisk (*) for each character entered.

If you assign a password, you must use the same password to open the document after you close it, typing uppercase and lowercase letters exactly.

You can assign passwords to documents saved in template and add-in macro file formats, in addition to those saved in the Normal Microsoft Excel file format.

Write Reservation Password

Type text as the password required to save changes to the file.

Read Only Recommended

Select this check box to display a message requesting that readers access the file as read only.

This message is displayed before the document is opened only if readers have cleared the Read Only check box in the <u>Open</u> dialog box.

The file remains read only even when it is saved under another name using the Save As command on the File menu.

See Also

Help

Exporting documents to other applications

Saving a chart

Saving a document as a template

Saving a document for the first time

User's Guide (Book 1)

Chapter 5, "Creating a Worksheet"

Unhide Command (File Menu)

Makes a hidden window visible.

▪ This command appears on the File menu only when all open windows are hidden. When at least one window is visible, the Unhide command appears on the Window menu.

Unhide

Lists all hidden windows.   Select the one you want and choose the OK button.

If the window is protected with a password, Microsoft Excel asks for the password before displaying the window.

See Also

Help

Protecting windows

Send Mail Command (File Menu)

Sends copies of Microsoft Excel documents to other users through Microsoft Mail.

▪ This command is only available with mail clients that support the Windows simple mail interface (SMI).

For more information, see your Microsoft Mail User's Guide or other mail client's documentation.

Save Workbook Command (File Menu)

Saves all changes made to all documents in the workbook.

- When you save a new workbook, the Save Workbook command displays the File Save As dialog box, described below.

File Name

Type a name for the workbook, or accept the proposed name.

Saves the workbook in the current directory unless you type the full path of the workbook or select a different directory from the list.

Directories

Lists the current directory and any subdirectories.

Save File As Type

Lists the available file formats.

Drives

Lists the available drives.

Options

Create Backup File

Creates a backup copy of the workbook every time you save it.

The backup copy is the previous version of the workbook renamed with a .BAK extension.

Protection Password

Enter text for the password that is required to open the workbook.

A password can contain up to 15 characters and include spaces, symbols, and numbers, as well as letters.

As you type the password, Microsoft Excel displays an asterisk for each character typed.

If you assign a password, you must use the same password to open the workbook after you close it, typing uppercase and lowercase letters exactly.

Write Reservation Password

Type text for the password that is required to save changes to the workbook.

Read Only Recommended

Select this check box to display a message requesting that readers access the workbook as read only.

This message is displayed before the workbook is opened only if readers have cleared the Read Only check box in the Open dialog box.

The workbook remains read only even when it is saved under another name using the Save As command on the File menu.

See Also

Help

Saving a workbook

Workbooks

User's Guide (Book 1)

Chapter 4, "Managing Document Files"

Update Command (File Menu)

 Updates information in a document containing a Microsoft Excel object.

▪   This command replaces the Save command on the File menu when you are editing a Microsoft Excel object that has been embedded in another document.

▪   If you want to update the object and return to the other application, choose the Exit command from the File menu.

 See Also

Help

About Linking and Embedding

User's Guide (Book 2)

Chapter 3, "Exchanging Data with Other Applications"

Print Report Command (File Menu)

Prints a set sequence of views and scenarios.

▪   If the Print Report command does not appear on the File menu, run the Setup program to install it.

Reports

Select a report to print, edit, or delete.

Print

Prints the document.

Copies

Type the number of copies you want to print.

Add, Edit

Report Name

Type a name for the report.

Report Section

In the View box, select the view that you want in the section.

In the Scenario box, select the scenario, if any, that you want for the view in this section.

Current Sections

Lists the current sections.

Add

Choose the Add button to add the selected section to the Current Sections list.

Continuous Page Numbers

Select this check box if you want pages to be numbered consecutively.

Move Up, Move Down

Select the section you want to move and choose these buttons to change the section's order in the Current Sections list.

Delete

Deletes the current selection.

Delete

Deletes the selected report.

See Also

Help

Creating a view of a worksheet

Formula Menu

Printing a report

View Command (Window Menu)

User's Guide (Book 1)

Chapter 1, "Getting Started With Microsoft Excel"

User's Guide (Book 2)

Chapter 4, "Customizing Microsoft Excel"

Close Workbook Command (File Menu)

Closes the active workbook and all of its documents.   If you have made changes to any workbook documents, you will be asked if you want to save those changes.

▪   If you have several windows open for a document, the Close Workbook command closes all the document windows.

See Also

Help

Quitting Microsoft Excel

Saving a workbook

Workbooks

User's Guide (Book 1)

Chapter 4, "Managing Document Files"

Format Menu for Charts

The Format menu changes depending on whether the active document is a worksheet or a chart.

Patterns

Changes the appearance of the selected chart item.

Font

Changes the font of the selected chart text.

Text

Changes the alignment of the selected chart text.

Scale

Changes characteristics of a chart's axes, tick marks, and labels.

Legend

Repositions a chart's legend.

Main Chart

Changes the main chart's type and formats.

Overlay

Changes the overlay chart's type and formats.

3-D View

Changes the view of a 3-D chart.

Move

Moves a selected chart item.

Size

Resizes arrows and unattached text in a chart.

Format Menu for Worksheets

The Format menu changes depending on whether the active document is a <u>worksheet</u> or a <u>chart</u>.   Commands for formatting worksheets also apply to <u>macro sheets</u>.

<u>Number</u>

   Determines how numbers, currency, dates, and times are displayed in selected cells.

<u>Alignment</u>

   Aligns the contents of selected cells and allows you to wrap text.

<u>Text</u>

   Changes the alignment of text in a selected text box or button.   The Alignment command is replaced by the Text command when a text box or button is selected.

<u>Font</u>

   Changes the font for text in the selected cells or text boxes.

<u>Border</u>

   Adds or removes solid border lines, shading, or both in selected cells.

<u>Patterns</u>

   Changes the appearance of the selected cells or objects.

<u>Cell Protection</u>

   Determines whether cells will be locked or their formulas hidden when you protect the document.   Changes to Object Protection when an object is selected.

<u>Object Protection</u>

   Determines whether objects or selected text in a text box are locked when you protect the document.   Changes to Cell Protection when a cell is selected.

<u>Style</u>

   Defines cell styles.

<u>AutoFormat</u>

   Automatically formats a range of cells using one of several built-in table formats.

<u>Row Height</u>

   Changes the height of selected rows.

<u>Column Width</u>

   Changes the width of selected columns.

<u>Justify</u>

   Distributes the text contained in the left column evenly throughout the selected <u>range</u>.

<u>Bring To Front</u>

   Places the selected objects in front of all other objects.

<u>Send To Back</u>

   Places the selected objects behind all other objects.

<u>Group</u>

   Groups several objects into a single object.

<u>Ungroup</u>

   Ungroups previously grouped objects into individual objects.   Ungroup replaces Group on the Format menu when a group of objects is selected.

<u>Object Properties</u>

Specifies whether an object is attached to its underlying cells and whether it is repositioned with them if they move or change size.   Also defines whether the object will be printed.

3-D View Command (Format Menu for Charts)

Controls the angles at which you view the data in a three-dimensional chart.

▪ A sample chart in the dialog box shows the current settings.

Elevation

Controls the height at which you view the data. The elevation is measured in degrees. For all charts except pie charts and 3-D bar charts, ranges from -90 (view from directly below the plot area) to 90 degrees (view from directly above the plot area).   For pie charts, ranges from 10 to 80 degrees.   For 3-D bar charts, ranges from 0 to 44 degrees.

Perspective

Controls the amount of perspective for 3-D charts.   A greater degree of perspective provides a greater sense of depth when viewing the chart.   The perspective value specifies the ratio of the front of the chart to the back of the chart and can range from 0 to 100.   Unavailable when the Right Angle Axes check box is selected, and for 3-D bar charts.

Rotation

Controls the rotation of the plot area around the z-axis (vertical axis).   The rotation is measured in degrees from 0 to 360.   For 3-D bar charts, the rotation ranges from 0 to 44 degrees.

Right Angle Axes

Sets the axes at right angles independent of chart rotation or elevation.   Clear this check box to show axes in perspective.   For 3-D bar charts, this check box is always selected.

Auto Scaling

Available only if the Right Angle Axes check box is selected.   When you change a 2-D chart into a 3-D chart, it is sometimes drawn smaller.   For charts with right-angle axes and a rotation of less than 45 degrees, this option scales the 3-D chart so that it is closer in size to the 2-D version.

Height % of Base

Controls the height of the z-axis and walls relative to the length of the x-axis or the width of the base of the chart.   The height is measured as a percentage of the x-axis length. For example, a value of 200% makes the chart height twice the x-axis length.

Apply

Applies the current settings to the active chart without closing the dialog box so that you can see the effects of your changes.

Default

Resets all the settings in the dialog box to the default values.   If you change the chart type using a Gallery menu command, the 3-D view formats are not reset to their original values.   Choosing the Default button is the only way to restore the original settings.

See Also

Help

Adjusting the 3-D chart view
Formatting the plot area on a chart

User's Guide (Book 1)

Chapter 14, "Formatting a Chart"

Alignment Command (Format Menu for Worksheets)

Aligns the contents of selected cells.   Only affects the appearance of cells, not the actual values within them.

Horizontal

General

Aligns text to the left and numbers to the right; centers logical and error values.   This is the default alignment.   Alignment is set to General if the Left Align, Right Align, and Center Align tools are not selected.

Left

Aligns all selected cell entries to the left.

Center

Centers all selected cell entries.

Right

Aligns all selected cell entries to the right.

Fill

Repeats the contents of the selected cell until the cell is full.   If blank cells to the right also have the Fill format, they are filled as well.

Justify

Aligns text within a cell to the right and left.

Center Across Selection

Centers a cell entry across the selected cells.

Wrap Text

Displays long strings of text on multiple lines within a cell.   Wrapped text may be left-aligned, right-aligned, centered, or justified in a cell.   If you change the length of the text, double-click the lower border of the row heading or use the Row Height command on the Format menu to reset the row height.

Vertical

Aligns cell entries with the top, center, or bottom of a cell.

Orientation

Rotates selected cell entries.   You must adjust the height of the row to the length of the rotated text.

See Also

Help

Center Across Columns Tool

Center Align Tool

Justify Align Tool

Left Align Tool

Right Align Tool

Aligning text and numbers within cells

Toolbars Command (Options Menu)

User's Guide (Book 1)

Chapter 7, "Formatting a Worksheet"

Border Command (Format Menu for Worksheets)

Adds or removes border lines and shading in selected cells.

Border

Outline

Puts a border around the outer edges of the selection.

Shortcuts: CONTROL+SHIFT+ &

CTRL+SHIFT+ MINUS SIGN (removes all borders)

Left, Right, Top, Bottom

Puts a border along the specified edges of each cell in the selection.

Style

Sets the line style to apply to a border: hairline, thin, medium, thick, double, dotted, or dashed lines, or no border.

Color

Sets the border color to one of 16 colors.   The Automatic option applies the default border color and style.

Shade

Applies or removes shading in selected cells.   Use the Patterns command on the Format menu to adjust the applied shading.

See Also

Help

Bottom Border Tool

Drop Shadow Tool

Left Border Tool

Outline Border Tool

Right Border Tool

Top Border Tool

Adding borders

Adding shading

Toolbars Command (Options Menu)

User's Guide (Book 1)

Chapter 7, "Formatting a Worksheet"

Bring To Front Command (Format Menu for Worksheets)

Places selected objects in front of all other objects.

▪ This command has no effect if the selected object is already in front.

See Also

Help

 Bring To Front Tool
Selecting a graphic object
Send To Back Command (Format Menu for Worksheets)

User's Guide (Book 1)

Chapter 15, "Working with Graphic Objects"

Cell Protection Command (Format Menu for Worksheets)

Determines whether cells will be locked or their formulas hidden when you choose the Protect Document command from the Options menu.

- Locked cells can't be edited if the document is protected.
- Hidden cells display their values, but no formula appears in the formula bar.
- All cells in a new worksheet are initially locked but not hidden.

Locked

Prevents selected cells from being changed when a document is protected.   All cells in a new worksheet are locked by default.

Hidden

Prevents a cell's formula from being displayed in the formula bar when a document is protected.

See Also

Help

 Lock Cell Tool
Object Protection Command (Format Menu for Worksheets)
Protecting a chart
Protecting a document with a password
Protecting an object
Protecting windows
Protecting worksheet cells
Toolbars Command (Options Menu)

User's Guide (Book 1)

Chapter 4, "Managing Document Files"

Column Width Command (Format Menu for Worksheets)

Changes the width of selected columns.

▪ Only one cell in a column needs to be selected to change the width for the entire column.

▪ To change the width of all columns in a <u>worksheet</u>, select the entire worksheet or one entire row.

▪ To change the width of columns in several worksheets at once, use the <u>Group Edit command</u> on the Option menu.

▪ To select Best Fit, double-click the right border of the column heading.

▪ Choosing the Hide, Unhide, or Best Fit button overrides the Use Standard Width check box or an entry in the Column Width box.

Column Width

Changes the width of the selected column or columns.   You can enter an integer or decimal fraction from 0 through 255.   This number represents the number of characters that can be displayed in a cell for the current font and size.

Use Standard Width

Returns the selected columns to standard width.

Hide

Hides the selected columns.

Shortcut: CTRL+0 (zero)

Unhide

Unhides hidden columns within the selection.   To select hidden columns, select cells in the columns immediately to the left and right of the hidden one.

Shortcut: CTRL+SHIFT+)

Best Fit

Sets the column to the minimum width necessary to display the contents of the selected cells.   If you change the cell contents later, you must choose the Best Fit button again.

Standard Width

Changes the width of all columns in the active worksheet that have not been individually changed.   You can enter an integer or decimal fraction from 0 through 255.   This number represents the number of characters that can be displayed in a cell for the current font and size.

See Also

Help

<u>Changing the width of columns</u>

<u>Group Edit Command (Options Menu)</u>

<u>Hiding and unhiding a column</u>

<u>Row Height Command (Format Menu for Worksheets)</u>

Font Command (Format Menu for Charts)

Changes the font, font style, size, and color of the selected chart text.

▪ To change the font of all chart text, you must first select the entire chart using the Select Chart command on the Chart menu.   You can also select the entire chart using the mouse or the keyboard.

Font

Lists available fonts.

You can select a font or type the name of the font you want in the box above the list of fonts.

Font Style

Lists the available font styles.   You can select one of the styles in the list.

Shortcuts: CTRL+B (Bold)
CTRL+I (Italic)
Bold tool (Standard or Formatting toolbar)
Italic tool (Standard or Formatting toolbar)

Size

Lists the available sizes for the font selected in the Font box.

You can select a font size or type the size you want in the box above the list of sizes.

Effects

Strikeout

Formats selected text with a line through the middle.

Shortcut: CTRL+5

Underline

Formats selected text with an underline.

Shortcut: CTRL+U

Color

Controls the text color.   Select a color from the list or select Automatic to set the color to the window text color defined in the Windows Control Panel.   Unless you have changed the window text color, selecting Automatic sets the text color to black.

Sample

Shows a sample of text with the current font formatting choices applied.

Background

Automatic

Applies the default background.

Transparent

Leaves the area behind the text transparent.

Opaque

Removes any pattern but leaves the foreground color behind the text.

Patterns

Applies the font changes you've made and displays the Patterns dialog box so you can format the selected chart item.

Text

Applies the font changes you've made and displays the Text dialog box so you can choose text alignment and orientation.

Scale

Applies the font changes you've made and displays the <u>Scale dialog box</u> so you can format the selected axis.

See Also

Help

Font   <u>Font Name Box</u>

Size   <u>Font Size Box</u>

Style   <u>Style Box</u>

<u>Formatting a chart embedded in a worksheet</u>

<u>Formatting a legend</u>

<u>Formatting chart text alignment and orientation</u>

<u>Formatting the chart text font</u>

<u>Toolbars Command (Options Menu)</u>

User's Guide (Book 1)

Chapter 14, "Formatting a Chart"

Font Command (Format Menu for Worksheets)
Changes the font, style, size, and color of the text in selected cells, buttons, or text boxes.

Font

    Lists available screen and printer fonts.

    You can select a font or type the name of the font you want in the box above the list of fonts.

Font Style

    Lists the available font styles.   You can select one of the styles in the list.

    Shortcuts: CTRL+B (Bold)
                            CTRL+I (Italic)
                            Bold tool (Standard or Formatting toolbar)
                            Italic tool (Standard or Formatting toolbar)

Size

    Lists the available sizes for the font selected in Font box.

    You can select a font size or type the size you want in the box above the list of sizes.

Effects

    Strikeout

        Formats selected text with a line through the middle.

        Shortcut: CTRL+5

    Underline

        Formats selected text with an underline.

        Shortcut: CTRL+U

    Color

        Controls the text color.   Select a color from the list or select Automatic to set the color to the window text color defined in the Windows Control Panel.   Unless you have changed the window text color, selecting Automatic sets the text color to black.

Sample

    Shows a sample of text with the current font formatting choices applied.

Normal Font

    Sets the font, font style, size, and effects to the normal style.

    Shortcut: CTRL+1

See Also

    Help

    `Font` Font Name Box

    `Size` Font Size Box

    `Style` Style Box

    Setting the default font for worksheets

    Setting a format for the entire worksheet

    Formatting cells

    Toolbars Command (Options Menu)

    User's Guide (Book 1)

    Chapter 7, "Formatting a Worksheet"

Group and Ungroup Commands (Format Menu for Worksheets)

Group Command

Creates a single graphic object from several selected graphic objects.   The grouped objects can be moved and sized as one object or ungrouped and handled as individual objects.

- The Group command is available only when two or more objects are selected.
- You can group and ungroup objects that are already grouped, creating multiple layers of groupings.

Ungroup Command

Separates grouped objects into individual objects.

- The Ungroup command is available only when a grouped object is selected.

See Also

Help

Group Tool

Ungroup Tool

Grouping graphic objects

Toolbars Command (Options Menu)

User's Guide (Book 1)

Chapter 15, "Working with Graphic Objects"

Justify Command (Format Menu for Worksheets)

Redistributes text within a <u>range</u> of cells into even lines.   Each line of text is as close as possible to the maximum width of the range.   Use this command if you have several entries in consecutive rows and you want to move the text into a selected range.

▪   This command can only be used for ranges that contain text or blank cells.   If you select a range that contains numeric values, an error message is displayed.

▪   Blank cells in the left column divide text into paragraphs, separated by a blank cell, that are justified separately.   Except for the left column, cells in the range should be blank or they will interfere with the display of text.

See Also

Help

<u>Justifying text to fill a selected range</u>

<u>Switching from Lotus 1-2-3</u>

User's Guide (Book 1)

Chapter 7, "Formatting a Worksheet"

Legend Command (Format Menu for Charts)

Repositions the selected <u>legend</u> on a chart.

▪   You can move a legend using the mouse or the Legend command.

Top, Bottom
   Centers the legend above or below the chart.

Corner
   Places the legend in the upper-right corner of the chart.

Right, Left
   Centers the legend vertically to the right or left of the chart.

Patterns
   Applies the legend changes and displays the <u>Patterns dialog box</u>.

Font
   Applies the legend changes and displays the <u>Font dialog box</u>.

See Also

   Help
   <u>Adding or deleting a legend</u>
   <u>Formatting a legend</u>

   User's Guide (Book 1)
   Chapter 14, "Formatting a Chart"

Main Chart Command (Format Menu for Charts)

Controls the main chart's type and formats.

▪   Use this command instead of a <u>Gallery command</u> to change the chart type or other options when you want to preserve the chart's custom formats.

▪   Only options that are relevant to the selected chart type are available.

▪   To change an overlay chart's type and formats, choose the <u>Overlay command</u> from the Format menu.

Main Chart Type

Changes the main chart to the type selected in the box.

Data View

Shows the available marker arrangements for the selected chart type.   Select the marker arrangement you want.

Bar/Column

Overlap

Determines how much the markers within a cluster overlap each other in a bar or column chart.   The number in the box is a percentage of the bar or column width.   A negative value sets a gap between markers.

Gap Width

Determines the width of the space between clusters in a bar or column chart.   The number in the box is a percentage of the bar or column width.

Series Lines

Connects the tops of the data markers for each series with lines. Available for stacked bar and stacked column charts only.

Format

Vary By Categories

If a chart contains only one data series, assigns a different color or pattern to each data marker.   Does not apply to a chart with more than one series.

Drop Lines

Extends drop lines from each marker to the x-axis.   Applies only to line or area charts.

Hi-Lo Lines

Extends hi-lo lines from the highest to the lowest value in each category.   Applies only to 2-D line charts.

Up/Down Bars

This option is for open-high-low-close charts which track stock prices. An up/down bar is a rectangle extending from the opening price to the closing price on a given day. Available for line charts only.

Radar Axis Labels

Displays labels for category axes on radar charts.

Angle Of First Pie Slice

Determines the angle at which the first pie slice starts.   The angle is measured in degrees clockwise from vertical.

3-D

Gap Depth

Determines the distance between the data series in a 3-D chart.   The number in the

box is a percentage of the marker width.

Chart Depth

Determines the depth of a 3-D chart relative to its width.   The number in the box is a percentage of the chart width.

See Also

Help

- [Horizontal Gridlines Tool](#)
- [Vertical Gridlines Tool](#)

[Changing the chart type and format](#)

[Chart Toolbar](#)

[Formatting the data marker layout](#)

[Toolbars Command (Options Menu)](#)

User's Guide (Book 1)

Chapter 14, "Formatting a Chart"

Move Command (Format Menu for Charts)

Lets you move chart arrows, unattached text, slices of pie charts, and chart legends using the arrow keys.

▪   To position a chart legend, use the <u>Legend command</u> on the Format menu.
Shortcut: Use the mouse to move selected chart items.

See Also

   Help

   <u>Adding or deleting unattached chart text</u>

   <u>Moving a legend</u>

   <u>Moving or sizing an arrow</u>

Number Command (Format Menu for Worksheets)

Determines how information is displayed in the selected cells.   You can use one of the built-in number formats, or you can create your own custom formats.

Category

Lists a variety of number, date, and time formats.   When you select a category, the built-in and custom formats for that category are displayed in the Format Codes box.

Format Codes

Lists all available formats for a selected category.

All cells in a new worksheet are formatted with the General format.   When you type a number in a cell formatted as General, Microsoft Excel assigns the number a built-in format based on what you typed.

Shortcuts: CTRL+SHIFT+~ (General format)
CTRL+SHIFT+ ! (0.00)
CTRL+SHIFT+ @ (h:mm)
CTRL+SHIFT+ # (d-mmm-yy)
CTRL+SHIFT+ $ [$#,##0.00);($#,##.00)]
CTRL+SHIFT+ % (0%)
CTRL+SHIFT+ ^ (0.00E+00)

Code

Displays the format selected in the Format Codes box.

To add a custom format, edit the format shown in the Format box or type a new one.   The custom format is added to the current category.

Sample

Displays a sample of the format selected in the Format Codes box.

Delete

Deletes a selected custom format displayed in the Code box.

You cannot delete built-in number formats.

See Also

  Help

      Comma Style Tool

      Currency Style Tool

      Percent Style Tool
  Creating or deleting a custom number format
  Preventing the display of zero values

  User's Guide (Book 1)

Chapter 7, "Formatting a Worksheet"

Object Properties Command (Format Menu for Worksheets)

Determines how graphic objects are attached to cells.   Lets you position graphic objects by attaching them to cells and specifying how they move and size relative to the underlying cells.   Also determines whether the object prints or not.

▪   Graphic objects are initially formatted to move and size with the underlying cells.
▪   Pictures are initially formatted to move but not size with underlying cells.
▪   Graphic objects that are not attached to cells stay in the same position regardless of changes to the underlying cells.
▪   Unattached graphic objects must be repositioned manually if cells move or change size.
▪   Buttons do not print by default; other objects do.

Move And Size With Cells

The object changes its position and size along with the cells under its upper-left and lower-right corners.

Move But Don't Size With Cells

The object moves with the cells under its upper-left corner, but does not change size.

Don't Move Or Size With Cells

The object is detached from the cell grid so that it maintains its position and size regardless of changes to the underlying cells.

Print Object

Prints the object when you print the worksheet.

See Also

Help

Moving and sizing a graphic object along with cells

User's Guide (Book 1)

Chapter 15, "Working with Graphic Objects"

Object Protection Command (Format Menu for Worksheets)

Specifies whether objects are locked when you use the <u>Protect Document command</u> on the Options menu.   Use the Object Protection command when you want to lock a <u>graphic object</u> or the text in a text box.

▪   This command is available only when the active document is a worksheet or macro sheet.

Locked

Locks the selected object so that it can't be deleted, formatted, moved, or sized when the document is protected.   If only the Locked check box is selected and the selected object is a text box, the text in the text box can be edited or formatted, but the text box itself cannot be deleted, formatted, moved, or sized.

Lock Text

Locks the text in the selected text box so that it can't be edited when the document is protected.   If only the Lock Text check box is selected, the text box can be formatted, moved, or sized, but the text within the text box cannot be edited or formatted.

See Also

Help

      <u>Lock Cell Tool</u>
<u>Cell Protection Command (Format Menu for Worksheets)</u>
<u>Protecting a chart</u>
<u>Protecting a document with a password</u>
<u>Protecting an object</u>
<u>Protecting windows</u>
<u>Protecting worksheet cells</u>
<u>Toolbars Command (Options Menu)</u>

User's Guide (Book 1)

Chapter 4, "Managing Document Files"

Overlay Command (Format Menu for Charts)

Controls the overlay chart's type and formats.

▪   This command is available only when you have created an overlay chart with the <u>Add Overlay command</u> on the Chart menu or by choosing a combination chart from the Gallery menu.

▪   Only the dialog box options relevant to the selected chart type are available.

▪   To change the main chart's type and formats, choose the <u>Main Chart command</u> from the Format menu.

Overlay Chart Type

Changes the overlay chart to the type selected in the box: Area, Bar, Column, Line, Pie, XY (Scatter), or Radar.

Data View

Shows the available marker arrangements for the selected chart type.   Select the marker arrangement you want.

Bar/Column

Overlap

Determines how much the markers within a cluster overlap each other in a bar or column chart. The number in the box is a percentage of the bar or column width.   A negative value sets a gap between markers.

Gap Width

Determines the width of the space between clusters in a bar or column chart.   The number in the box is a percentage of the bar or column width.

Series Lines

Connects the tops of the data markers for each series with lines. Available for stacked bar and stacked column charts only.

Format

Vary By Categories

If a chart contains only one data series, assigns a different color or pattern to each data marker.   Does not apply to a chart with more than one series.

Drop Lines

Extends drop lines from the highest value in each category to the category axis. Applies only to line and area charts.

Hi-Lo Lines

Extends hi-lo lines from the highest to the lowest value in each category.   Applies only to line charts.

Up/Down Bars

This option is for open-high-low-close charts which track stock prices. An up/down bar is a rectangle extending from the opening price to the closing price on a given day. Available for line charts only.

Radar Axis Labels

Displays labels for category axes on radar charts.

Angle Of First Pie Slice

Determines the angle at which the first pie slice starts.   The angle is measured in degrees clockwise from vertical.

Series Distribution

Automatic

Instructs Microsoft Excel to automatically divide the data series between the main chart and the overlay chart.

If there is an odd number of series, one more series appears on the main chart than on the overlay chart.   For example, in a chart with five data series, the first three appear on the main chart, and the last two on the overlay chart.

First Overlay Series

Controls which data series are in the overlay chart.

Type the plot number of the first series you want in the overlay chart.   That series, and any with higher plot order numbers, is put in the overlay chart.

You can use the Edit Series command on the Chart menu to reorder the series.

 See Also

Help

- Horizontal Gridlines Tool
- Vertical Gridlines Tool

Add Overlay and Delete Overlay Commands (Chart Menu)

Chart Toolbar

Edit Series Command (Chart Menu)

Main Chart Command (Format Menu for Charts)

Toolbars Command (Options Menu)

User's Guide (Book 1)

Chapter 14, "Formatting a Chart"

Patterns Command (Format Menu for Charts)

Controls the appearance of the selected item in a chart.

▪   The options available depend on the item selected.

Automatic

Applies the default patterns to the selection.

None

Makes the selected item or part of the chart item invisible.

Axes, tick mark labels, and gridlines can't be made invisible.   Use the Axes command on the Chart menu, the Scale command on the Format Menu for Charts, and the Gridlines command on the Chart menu to turn off axes, labels, and gridlines.

Custom

Indicates whether custom formatting has been selected for the item.

Style

Controls the line style of an axis, line, marker, or item border or the marker style in a line chart.

Color

Controls the color of an axis, line, or item border.

Weight

Controls the weight of an axis, line, or item border.

Shadow

Adds a shadow to the bottom and right side of a text box, legend, or the entire chart.

Pattern, Foreground, Background

Controls the fill pattern, foreground color, and background color for the selected text box, arrow, plot area, or chart background; or controls the foreground and background colors for a data series marker in a chart.   A solid pattern is the foreground color.   A pattern other than solid is a combination of the foreground and background colors.

Invert If Negative

Reverses the foreground and background colors for the data series marker in a bar, column, area, or pie chart when the value it represents is negative.

Apply To All

Applies the choices you make to all data points in the chart.

Available only when a data point, data series, or text attached to a data point is selected.

Tick Mark Type

Displays major or minor tick marks on the chart side of axes, on the other side of axes, across the axes, or not at all.

Tick Labels

Displays tick mark labels at the low end of the axis, high end of the axis, next to the axis, or not at all.

Arrow Head

Controls the style, width, and length of the arrowhead for a line.

Sample

Shows the current line or pattern format.

Font, Scale, Text

Carries out pattern changes you've made and displays the <u>Font</u>, <u>Scale</u>, or <u>Text</u> dialog box.

Legend

Carries out pattern changes you've made and displays the <u>Legend dialog box</u>, which offers options for positioning the legend and formatting the legend pattern and text font.

Picture Chart Format Options

Stretch

Stretches the picture.

Stack

Stacks a picture at normal size.

Stack And Scale

Stacks a scaled picture.

Units/Picture

Indicates the number of value units per picture.

See Also

Help

 <u>Color Tool</u>

 <u>Dark Shading Tool</u>

 <u>Light Shading Tool</u>

<u>Formatting axis patterns and tick mark and label location</u>

<u>Formatting gridlines</u>

<u>Formatting text box borders and fill patterns</u>

<u>Selecting items in a chart</u>

User's Guide (Book 1)

Chapter 14, "Formatting a Chart"

Patterns Command (Format Menu for Worksheets)

Controls the shading of selected cells or the appearance of the selected graphic object. You can format text boxes, ovals, arcs, rectangles, picture borders, and lines.

▪   The options available depend on the object selected.

▪   If you select multiple objects and choose the Patterns command, the options selected apply only to the objects that have those characteristics.   For example, if a line and a rectangle are selected, the Fill option applies only to the rectangle.

▪   Double-clicking an object displays the Patterns dialog box unless the object is a chart or a linked picture.

Automatic

Applies the default patterns for an object border or fill or a line style.   Does not apply to cells.

None

Makes the entire selected object or part of the selected object invisible.   Does not apply to cells.

Custom

Removes default settings so you can customize the style, color, and weight of a selected object border or line, or the fill pattern and background and foreground color of an object.

Style

Controls the style of a line or object border.

Color

Controls the color of a line or object border.

Weight

Controls the weight of a line or object border.

Pattern

Controls the fill pattern for the selected cells or objects.   Select None if you don't want any pattern in selected cells.

Foreground

Controls the foreground color of the fill pattern.   A solid pattern is the foreground color. A pattern other than solid is a combination of the foreground and background colors.

Background

Controls the background color of the fill pattern.   A solid pattern is the foreground color. A pattern other than solid is a combination of the foreground and background colors.

Shadow

Adds a shadow to the bottom and right side of a rectangle, oval, chart, or text box.

Round Corners

Rounds the corners of a rectangle, chart, or text box.

Arrow Head

Controls the style, width, and length of the arrowhead for a line.   An arrowhead style must be selected for the width and length options to apply.

Sample

Displays the formats selected for the line or object.

See Also

Help

Bottom Border Tool

Color Tool

Dark Shading Tool

Drop Shadow Tool

Left Border Tool

Light Shading Tool

Outline Border Tool

Right Border Tool

Top Border Tool

Adding shading to cells

Formatting text box borders and fill patterns

User's Guide (Book 1)

Chapter 7, "Formatting a Worksheet"

Chapter 15, "Working with Graphic Objects"

Row Height Command (Format Menu for Worksheets)

Changes the height of selected rows.

- You need to select only one cell in a row to change the height for the entire row.
- To change the height of all rows in a worksheet, select the entire worksheet or one entire column.
- This command is unavailable if the document is protected.

Row Height

An integer or decimal fraction, representing the row height in points.   If set to 0, the row is hidden.

Standard Height

Varies according to font size.

Returns each row in the selection to the standard height for the font within the row.   If a row contains more than one font, standard height is adjusted for the largest font.

Hide

Hides rows.

Shortcut: CTRL+9

Unhide

Unhides rows.

Shortcut: CTRL+SHIFT+ (

See Also

Help

Adjusting row height

Changing the width of columns

Hiding and unhiding a row

Scale Command (Format Menu for Charts)

Controls the scale settings (tick marks, labels, and gridline spacing) used for each of the chart axes.

- The scale command is available only when a chart axis is selected.
- Different options are available depending on which axis is selected: a category (x) axis, value (y or z) axis, or series (y) axis.

Category Axis Scale Options

Value (Y) Axis Crosses At Category Number

Specifies the number of the category at which the value axis will cross the category axis.

This option is not available for 3-D charts.

Number Of Categories Between Tick Labels

Specifies which categories are labeled.

Type 1 to label every category, 2 to label every other category, 3 to label every third category, and so on.

Number Of Categories Between Tick Marks

Specifies the number of categories between each pair of tick marks.

Value (Y) Axis Crosses Between Categories (or Value (Z) Axis Crosses Between Categories)

For a 2-D chart, displays the value axis at the edge of the category indicated in the Value (Y) Axis Crosses At Category Number box; otherwise, the value axis crosses through the center of the category.

This option changes to Value (Z) Axis Crosses Between Categories for a 3-D chart plotted with three axes.

For 2-D charts, controls whether data is plotted between tick marks or at tick marks. If selected, data points are plotted between tick marks; if cleared, they are plotted at the tick mark positions. For 3-D charts, applies only to line and area charts.

Categories In Reverse Order

Reverses the displayed order of the categories and the data within a category. This does not reverse the plot order of the data or categories.

Value (Y) Axis Crosses at Maximum Category

Displays the value axis at the last plotted category. This option overrides the Value (Y) Axis Crosses At Category Number value and is not available on a 3-D chart.

Patterns

Displays the Patterns dialog box so you can format the axis, tick mark type, and tick labels.

Font

Displays the Font dialog box so you can format the axis font, size, style, color, and background.

Text

Displays the Text dialog box so you can select the axis text orientation.

Value Axis Scale Options

Minimum

Specifies the smallest data value to appear on the value axis. If the Auto check box is selected, displays the lowest value (rounded) from all data series.

Maximum

Specifies the highest data value to appear on the value axis.   If the Auto check box is selected, displays the highest value (rounded) from all data series.

Major Unit

Specifies the increment between major tick marks and major gridlines on the value axis.   If the Auto check box is selected, automatically calculates the increment.

Minor Unit

Specifies the increment between minor tick marks and minor gridlines on the value axis.   If the Auto check box is selected, automatically calculates the increment.

Category (X) Axis Crosses At (or Value (Y) Axis Crosses At)

Specifies the value at which the category axis crosses the value axis.   If the Auto check box is selected, the category axis crosses at zero or at the number in the value axis range closest to zero.

This option changes to Value (Y) Axis Crosses At for the x-axis of an xy (scatter) chart and specifies the value at which the y-axis crosses the x-axis.

For 3-D charts plotted with three axes, this option changes to the Floor (XY Plane) Crosses At option.   This option is not available for radar charts.

Floor (XY Plane) Crosses At

Specifies the value at which the floor of a 3-D plotted chart crosses the value axis (z-axis).   If the Auto check box is selected, the floor crosses at zero or at the number closest to zero in the value axis range.

Logarithmic Scale

Recalculates the Minimum, Maximum, Major Unit, and Minor Unit values as powers of 10, based on the range of data plotted in the chart.   No zero or negative data values are permitted on logarithmic charts.   The Major Unit and Minor Unit must both be at least 10.   If you type a value that is not a power of 10 in the Maximum or Minimum box, it will be rounded up or down to the next power of 10.

Values In Reverse Order (or Categories In Reverse Order)

Inverts the chart and displays the lowest scale value at the chart top and the highest scale value at the chart bottom.

This option changes to Categories In Reverse Order for the x-axis of an xy (scatter) chart and reverses the x-axis scale.   This option is not available for radar charts.

Category (X) Axis Crosses At Maximum Value (or Value (Y) Axis Crosses At Maximum Category)

Makes the category axis cross the value axis at the highest value.   This option overrides the Category (X) Axis Crosses At value.

This option changes to Value (Y) Axis Crosses At Maximum Category for the x-axis on an xy (scatter) chart, and displays the y-axis at the highest x-axis value.

For 3-D charts plotted with three axes, this option changes to the Floor (XY Plane) Crosses At Minimum Value option.   This option is not available for radar charts.

Floor (XY Plane) Crosses At Minimum Value

Displays the floor of a 3-D plotted chart at the lowest value on the chart.   This option overrides the Floor (XY Plane) Crosses At value.

Patterns

Displays the Patterns dialog box so you can format the axis, tick mark type, and tick labels.

Font

Displays the <u>Font dialog box</u> so you can format the axis font, size, style, color, and background.

Text

Displays the <u>Text dialog box</u> so you can select the axis text orientation.

Series Axis Scale Options

Number Of Series Between Tick Labels

Specifies which data series are labeled.

Type 1 to label every series, 2 to label every other series, 3 to label every third series, and so on.

Number Of Series Between Tick Marks

Specifies the number of data series between each pair of tick marks.

Series In Reverse Order

Reverses the displayed order of the data series.   This does not reverse the plot order of the series.

Patterns

Displays the <u>Patterns dialog box</u> so you can format the axis, tick mark type, and tick labels.

Font

Displays the <u>Font dialog box</u> so you can format the axis font, size, style, color, and background.

Text

Displays the <u>Text dialog box</u> so you can select the axis text orientation.

See Also

User's Guide (Book 1)

Chapter 14, "Formatting a Chart"

Send To Back Command (Format Menu for Worksheets)

Places selected objects behind all other objects.

- This command has no effect if the selected object is already in back.

See Also

Help

 Send To Back Tool

Bring To Front Command (Format Menu for Worksheets)

Selecting a graphic object

User's Guide (Book 1)

Chapter 15, "Working with Graphic Objects"

Size Command (Format Menu for Charts)

Lets you size arrows and text boxes in a chart using the arrow keys.

Shortcut: Use the mouse to size chart arrows and unattached text.

See Also

Help

Moving or sizing an arrow
Adding or deleting unattached chart text

Style Command (Format Menu for Worksheets)

Lets you define a cell style by choosing the combination of formats you want and assigning them a name.   You can apply the defined style to various worksheets and copy it for use in other files.

▪   You can create styles in three ways: by definition, by example, or by copying styles from another file.

▪   You can change a style by redefining the style name.   Cells formatted with the style are automatically updated to reflect the new formats.

▪   You can also select a style from the Style box on the toolbar.

Style Name

Displays the name of the style applied to the selected cells and lists the existing styles.

Description

Describes the format of the selected style.   You can accept this definition as the style or choose the Define button to change the style definition.

Define

Displays attributes you can choose from to define a new style or redefine existing styles.

Style Includes

Lists the cell attributes you can choose to have included in a style: Number, Font, Alignment, Border, Patterns, and Protection.   Select an attribute check box to change the format of that attribute when the style is applied; clear an attribute check box to retain the current selection's formatting when the style is applied.

Number, Font, Alignment, Border, Patterns, and Protection

Buttons that allow you to change the format of these attributes when you define a style.

Add

After defining a style, choose the Add button to add the style.

Delete

After selecting a style name, choose the Delete button to delete the style.

Merge

Choose the Merge button to copy styles from one document to another.

See Also

Help

[,]   Comma Style Tool

[$]   Currency Style Tool

[%]   Percent Style Tool

▪   Style Box

Applying a style

Copying styles from another document

Creating or deleting a style

Redefining a style

Redefining the Normal style

Toolbars Command (Options Menu)

User's Guide (Book 1)

Chapter 7, "Formatting a Worksheet"

Text Command (Format Menu for Charts)

Controls the alignment and orientation of selected text.

- You can format a chart title, axis label, data series or data point label, <u>unattached text</u>, title, or tick labels.
- The options available depend on the type of text that is selected.

Text Alignment

Controls the horizontal and vertical alignment of selected chart text within its text border. This option is not available for tick labels.

Orientation

Controls the orientation of selected chart text.   If there is too much text to format into a single line, Microsoft Excel wraps the text into lines.

If a chart axis is selected, controls orientation of the tick-mark labels.   If the orientation of the labels has been changed, the Automatic option button restores the original orientation.

Automatic Text

If you created text with the <u>Attach Text command</u> on the Chart menu and later edited it, this option restores the original text.

Automatic Size

Sizes the border to fit exactly around the text.   The border changes automatically if the text is changed.

Show Value

If a data point or series label is selected, this option replaces the label with the value of the data point.

Show Key

If a data point or series label is selected, this option displays the pattern used by the data point or series label next to the label.

Patterns

Applies the text changes you've made and displays the <u>Patterns dialog box</u>.

Font

Applies the text changes you've made and displays the <u>Font dialog box</u>.

Scale

Applies the text changes you've made and displays the <u>Scale dialog box</u>.   Available only when an axis is selected.

See Also

Help

<u>Rotate Text Down Tool</u>

<u>Rotate Text Up Tool</u>

<u>Vertical Text Tool</u>

<u>Formatting chart text alignment and orientation</u>

<u>Formatting tick-mark label orientation</u>

User's Guide (Book 1)

Chapter 14, "Formatting a Chart"

Text Command (Format Menu for Worksheets)

Controls the alignment and orientation of selected text.

Text Alignment

Controls the horizontal and vertical alignment of selected text within its text border.

Orientation

Controls the orientation of selected text.   If there is too much text to format into a single column, Microsoft Excel wraps the text into additional columns.

Automatic Size

Sizes the border to fit exactly around the text.   The border changes automatically if the text is changed.

Font

Applies the text changes you've made and displays the <u>Font dialog box</u>.

Patterns

Applies the text changes you've made and displays the <u>Patterns dialog box</u>.

See Also

Help

<u>Rotate Text Down Tool</u>

<u>Rotate Text Up Tool</u>

<u>Vertical Text Tool</u>
<u>Aligning text box or button text</u>

User's Guide (Book 1)

Chapter 7, "Formatting a Worksheet"

Format Menu

The Format menu changes depending on whether the active document is a worksheet or a chart.   For more information, see the <u>Format Menu for Charts</u> or the <u>Format Menu for Worksheets</u>.

AutoFormat Command (Format Menu for Worksheets)

Allows you to automatically apply a built-in format to a range of cells or a table on a worksheet.   Microsoft Excel provides a variety of automatic formats that apply combined formats for numbers, alignments, fonts, borders, patterns and shading, column width, and row height.

■   You can clear an automatic format immediately after choosing it, by choosing Undo AutoFormat from the Edit menu.
■   You can retain any formatting you have already applied to a worksheet by choosing the Options button and then clearing the appropriate check box.

Shortcut: AutoFormat tool (Standard or Formatting toolbar)   Applies the last AutoFormat used.

Table Format

Lists the available built-in formats.

Sample

Displays an example of the format selected in the Table Format list.

Options

Displays a list of formats to apply.

Formats To Apply

Lists the format categories.   Clear the check boxes for the types of formatting you don't want to change.   Changes are reflected in the Sample box.

See Also

Help

   AutoFormat Tool
Formatting a table using AutoFormat
Toolbars Command (Options Menu)

User's Guide (Book 1)

Chapter 7, "Formatting a Worksheet"

Formula Menu

Paste Name

Inserts the selected name into the formula bar.

Paste Function

Inserts the selected function into the formula bar.

Reference

Converts the selected references in the formula bar from relative to absolute, absolute to mixed, and mixed to relative.

Define Name

Creates a name for a cell, range, value, or formula.

Create Names

Uses text in the top or bottom row, the left or right column, or any combination of a selected range to name the rows and columns in the range.

Apply Names

Searches through formulas in the selected cells and replaces cell references with names defined for them.

Note

Allows you to add, delete, edit, or view notes for specific cells on the active worksheet.

Goto

Selects a cell or a named area you specify.

Find

Searches for specified characters and selects the first cell containing those characters.

Replace

Finds specified characters and replaces them with other specified characters.

Select Special

Selects cells that have the characteristics you specify, or selects all objects.

Show Active Cell

Scrolls the worksheet until the active cell is visible.

Outline

Creates an outline from an existing worksheet or range.

Goal Seek

Changes the value in a specified cell until a formula dependent on that cell reaches the value you specify.

Solver *

Allows you to define the parameters of a problem you want to solve.

Scenario Manager **

Allows you to maintain multiple variations of a what-if analysis model.

* If this command does not appear on the Formula menu, you need to install the Solver add-in application.   For more information, see Chapter 2, "Performing What-if Analysis on a Worksheet Model," in Book 2 of the Microsoft Excel User's Guide.

** If this command does not appear on the Formula menu, you need to install the Scenario Manager add-in macro.   For more information, see the Help topic on the Add-Ins command on the Options menu, or see Chapter 4, "Customizing Microsoft Excel," in Book 2 of the

Microsoft Excel User's Guide.

Apply Names Command (Formula Menu)

Searches formulas in the selected cells and replaces references with names defined for them, if they exist.   You can name cells and ranges using the Define Name and the Create Names commands on the Formula menu.

Apply Names

Lists all names defined on a worksheet.   Select the name or names you want to use in place of references.

To select more than one name, hold down CTRL while you press the UP ARROW or DOWN ARROW key.   Then press the SPACEBAR to add the item to the selection.

Ignore Relative/Absolute

Replaces references with names regardless of the reference types of either the names or references.

If you clear this check box, replaces absolute references only with absolute names, relative references only with relative names, and mixed references only with mixed names.

Use Row And Column Names

Uses the names of row and column ranges containing the cells referred to if names for the exact cells referred to can't be found.

Options

Displays the following additional options.

Omit Column Name If Same Column

If the referenced cell is in the same column as the formula and within a row-oriented named range, replaces the reference with the row-oriented name without including a column-oriented name.

Omit Row Name If Same Row

If the referenced cell is in the same row as the formula within a column-oriented named range, replaces reference with the column-oriented name without including a row-oriented name.

Name Order

Determines which range name is listed first when a cell reference is replaced by both a row-oriented and a column-oriented range name.

See Also

Help

Create Names Command (Formula Menu)

Define Name Command (Formula Menu)

Defining a name

Replacing references in formulas with names

User's Guide (Book 1)

Chapter 8, "Organizing and Documenting a Worksheet"

Create Names Command (Formula Menu)

Creates <u>names</u> using labels in a selected range.

▪ Uses text in the top or bottom row, the left or right column, or any combination of a selected range to name the other cells in the range.

Text in	Names cells in
Top row	Rows below
Left column	Columns to the right
Bottom row	Rows above
Right column	Columns to the left

▪ If the cell at the edge of the selection contains a number formatted as a date, Microsoft Excel converts the date to text to create a name.   For example, a date formatted as "February 1, 1987" becomes "February_1_1987".

▪ If a name is already defined on the worksheet, Microsoft Excel asks if you want to replace the existing definition of the name.

▪ From the Formula menu, choose <u>Define Name</u> to see a list of the names you've created and their references.

Shortcut: CTRL+SHIFT+F3

See Also

Help

<u>Apply Names Command (Formula Menu)</u>

<u>Creating names</u>

<u>Define Name Command (Formula Menu)</u>

<u>Defining a name</u>

<u>Replacing references in formulas with names</u>

User's Guide (Book 1)

Chapter 8, "Organizing and Documenting a Worksheet"

Outline Command (Formula Menu)

Allows you to make an outline from an existing worksheet or range.   You can create one outline at a time on a worksheet and assign up to eight levels of information.   Microsoft Excel automatically outlines your worksheet or the range based on the formulas and direction of underlined references.

▪   References in your formulas must point in a consistent direction; for example, summary formulas that are always located below or to the right of detail data, referring to cells above or to the left.

▪   Outline symbols are automatically displayed on worksheets that contain outlines.

▪   You can hide or display individual rows or columns within levels. From the Format menu, choose the Row Height or Column Width command, and in the dialog box choose the Hide or Unhide button.

Shortcuts: ALT+SHIFT+LEFT ARROW (Promote a row or column)
ALT+SHIFT+RIGHT ARROW(Demote a row or column)
CTRL+8 (Show or hide outline symbols)
Show Outline Symbols tool (Utility toolbar)
Promote tool (Utility toolbar)
Demote tool (Utility toolbar)

Automatic Styles

Applies built-in cell styles for the summary rows and columns of an outline. Styles are applied to entire rows and columns.

Summary Rows Below Detail

Specifies the location of summary rows in the outline.

Summary Columns To Right Of Detail

Specifies the location of summary columns in the outline.

Create

Automatically assigns outline levels based on the formulas in your worksheet.   If the Automatic Styles check box is selected, Microsoft Excel applies the built-in cell styles as well.

Apply Styles

Applies row and column level styles to the selected outline, or the part of an outline, that does not currently have them.

Outline

Creates a new outline based on the options specified.

See Also

Help

    Demote Tool

    Promote Tool

    Show Outline Symbols Tool

    Select Visible Cells Tool

Assigning an outline level to a row or column

Collapsing an outline level

Creating an outline from a existing worksheet

Clearing an outline from a worksheet

User's Guide (Book 1)
Chapter 8, "Organizing and Documenting a Worksheet"

Define Name Command (Formula Menu)

Creates a <u>name</u> for a cell, <u>range</u>, or <u>constant</u> or computed value.   You can then use this name to refer to the cell, range, or value.   Names make formulas easier to read, understand and maintain. You can change or delete names that have already been defined, and define constant or computed values that you intend to use later.   Names appear in the reference area of the <u>formula bar</u> when a named cell or an entire named range is selected.

Shortcut: CTRL+F3

Names In Sheet

Lists all names currently defined on the worksheet or macro sheet.

When you select a name from the list, the name appears in the Name text box and its reference appears in the Refers To box.

Name

If the active cell contains text, proposes that text as the name.   Otherwise, proposes text in the cell to the left or above the active cell as the name.

You can accept or edit the proposed name, type a new name, or select a name from the Names In Sheet box.

The first character must be a letter, an underline character (_), or a backslash character (\).

The name can be as long as 255 characters, and can contain letters, numerals, underlines (_), backslashes (\), periods (.), and question marks (?).

Names that resemble numbers or cell references are not allowed.

If you use a name you have already defined, the new definition replaces the old definition.

Refers To

Displays the reference for the selected cell or range. Can be a cell range, a constant value, or a formula.

If you select a previously defined name in the list, proposes the range, value, or formula that name currently refers to.   If you type the previously defined name, the range, value, or formula is not displayed.

You can edit the reference.   While doing so, you can make worksheet selections, choose formula editing commands, and switch to and move windows.

Category

Appears in the dialog box only when a <u>macro sheet</u> is active.   The Category list is available only when the Command or Function option is selected in the Macro box.

A list of available categories is displayed for command or function macros that you create.   You can assign a macro to an existing category, or you can create your own category.   The default category proposed is User Defined.   After you assign a macro to a category, the macro will appear in the <u>Paste Function</u> dialog box under that category.

Macro

Appears in the dialog box only when a macro sheet is active.

The Function and Command options indicate which type of macro you are naming.

If you're defining a command macro, you can also assign any letter as a shortcut key. Type any letter in the Key: Ctrl+ box.

OK

Adds the current entry in the Name and Refers To boxes to the list of names defined for the worksheet, and then closes the Define Name dialog box.

Close

Closes the Define Name dialog box without adding the current entry in the Name and Refers To boxes to the list of names defined for the worksheet.   However, any names already entered using the Add button remain.

Add

Adds the current entry in the Name and Refers To boxes to the list of names defined for the worksheet, without closing the Define Name dialog box, allowing you to define more names.

Delete

Deletes the name selected in the Names in Sheet box.

See Also

Help

Create Names Command (Formula Menu)

Creating names

Defining a macro name

Defining a name

Deleting a name

User's Guide (Book 1)

Chapter 8, "Organizing and Documenting a Worksheet"

Find Command (Formula Menu)

Searches selected cells or the entire worksheet for specified characters, and selects the first cell containing those characters.

- Unless you select a range of cells, Find searches the entire worksheet.
- The Find command displays a message if no matching characters are found.

Shortcuts: SHIFT+F5
F7 (next)
SHIFT+F7 (previous)

Find What

Specifies what to search for.   Can include any letter, number, punctuation mark, or wildcard character.   Can include uppercase and lowercase characters and any letter, number, punctuation mark, or wildcard.   Does not distinguish between uppercase and lowercase characters.   To search for an actual wildcard character (* or ?), precede it with a tilde (~).

Proposes the last text or value you searched for, which you can accept or change.

Look In

Searches in cell formulas, cell values, or cell notes.

Look At

The Whole option searches for an exact and complete match of characters specified in the Find What box.   The Part option searches for any occurrence of those characters within cells.

Look By

Determines the direction of the search: across rows or down columns.   To reverse the search direction, hold down SHIFT while choosing the OK button.

Match Case

Distinguishes between uppercase and lowercase characters in the search text specified in the Find What box.

See Also

Help

Finding characters

Replacing characters

User's Guide (Book 1)

Chapter 5,   "Creating a Worksheet"

Chapter 6,   "Editing a Worksheet"

Goal Seek Command (Formula Menu)

Adjusts the value in a specified cell until a formula dependent on that cell reaches the value you specify.

Set Cell

Specifies the cell containing the formula for which you want to find a solution.   You can enter a cell reference or a name in this box.

To Value

Specifies the new value you want to reach.

By Changing Cell

Specifies the cell whose value you want Microsoft Excel to change to achieve the desired result.   You can enter a cell reference or a name in this box.

OK

Displays the Goal Seek Status dialog box.

OK

Replaces the value in the cell specified in the By Changing Cell box with the new value.

Cancel

Stops the calculation and preserves the original value.

Step

Proceeds through the goal-seeking calculation one step at a time.

Pause

Interrupts the calculation.   When you choose the Pause button, it changes to the Continue button.

Continue

Continues the calculation after a pause.   When you choose the Continue button, it changes back to the Pause button.

See Also

Help

Solving equations using goal seeking

Adjusting a data value by dragging a data marker

User's Guide (Book 2)

Chapter 2,   "Performing What-if Analysis on a Worksheet Model"

Goto Command (Formula Menu)

Scrolls the worksheet and selects the cell or range you specify.

▪   The Reference entry in the Goto dialog box can be an intersection, a union, or a range of cell references or names.

▪   You can go to a reference or a named area in another open worksheet by typing an external reference containing the sheet name, an exclamation point, and the desired reference or name.   For example, BUDGET.XLS!B3.

▪   Named cells or ranges defined with the Define Name command on the Formula menu appear in the Goto box.

▪   The Goto dialog box stores the last four references from which you chose the Goto command.   These appear at the top of the Goto box, with the latest reference at the top of the list.

▪   You can extend the selection from the current cell or range to the reference you enter in the Goto dialog box by pressing SHIFT while you choose the OK button.

▪   You can move back and forth between two parts of a worksheet by repeating the command.

▪   When Goto is used while the formula bar is active, you can insert a reference that is listed in the Goto box into the formula.

Shortcut: F5

Goto

Lists all names defined on the active worksheet.   Also lists the last four references from which you chose the Goto command at the top of the list, with the latest one first.

Reference

Specifies the desired reference or named area.   If a name in the Goto list is selected, displays that name.

See Also

Help

Scrolling to and selecting specified cells or a named range

User's Guide (Book 1)

Chapter 5, "Creating a Worksheet"

Note Command (Formula Menu)

Attaches comments to a cell.   You can add, edit, view, or delete notes on the active worksheet.

▪   A cell note indicator appears in the upper right corner of the cell when a note is attached.

▪   If a note already exists, double-click the cell to edit, view, or delete the note.   If a sound note is attached and your system is capable of playing it, the sound note will play automatically after you double-click.

▪   A note does not appear in the cell, but you can view it by using the Note command on the Formula menu or by choosing the Workspace command on the Options menu and selecting the Show Info check box.

▪   You can print notes using the Page Setup and Print commands on the File menu while the worksheet or the Show Info window is active.

Shortcut: SHIFT+F2

Cell

Displays the reference of the active cell or the cell selected in the Notes In Sheet box.

Notes In Sheet

Lists the cell reference and partial note text for each note on the worksheet. If a cell contains a sound note, an asterisk (*) appears next to the cell reference.

Text Note

Shows the text of the note selected in the Notes In Sheet box.   Enter, edit, or view text notes here.

Pressing CTRL+ENTER starts a new line.

Add

Attaches the current text note and sound note to the cell in the Cell box.   The Cell Note dialog box remains open so you can continue adding, editing, or deleting other notes.

Delete

Deletes the note selected in the Notes In Sheet box and removes the cell note indicator. Does not otherwise affect the cell to which the note was attached.

OK

Attaches the new or changed text or sound note to the cell in the Cell box, and then closes the Cell Note dialog box.

Close

Closes the Cell Note dialog box, but does not cancel your actions; any notes you have added, edited, or deleted remain as you changed them.

Sound Note

Allows you to attach sounds to the cell in the Cell box. This feature is available only if you have the necessary hardware and software to record and/or play sounds.

If a cell has only a sound note attached without a text note, double-clicking the cell causes the sound note to be played immediately; otherwise, the Cell Note dialog box appears first, and then the sound note plays.

Record/Erase

Displays the Record dialog box containing Record, Stop, Pause, and Play buttons, as well as a time scale showing elapsed recording time relative to the total amount available.

If a selected cell has a sound note attached, the Record button in the Cell Note dialog box changes to an Erase button, allowing you to remove the sound note from the cell.

Play

Allows you to play a sound note in a selected cell.

Import

Displays the Open dialog box listing available sound files.

See Also

Help

Copying a text or sound note to another cell

Creating or editing a note

Creating a sound note

Deleting a note

Displaying or hiding cell note indicators

Playing a sound note

Removing a sound note

User's Guide (Book 1)

Chapter 8, "Organizing and Documenting a Worksheet"

Paste Function Command (Formula Menu)

Inserts the selected function into the formula bar.

▪   If the formula bar is active and you began the formula by typing an equal sign (=), Paste Function pastes the selected function at the insertion point.

▪   If the formula bar is not active, Paste Function activates it and pastes an equal sign (=) followed by the selected function.

Shortcuts: Paste Function tool (Utility toolbar)
          SHIFT+F3

Function Category

Allows you to select subsets of all available functions.   If All is selected in the Function Category box, all available functions are listed.   If any other category is selected, lists only those functions that belong to that category.   Custom functions that you define are listed under their assigned categories, or in the User Defined category if no other categories are assigned.   Macro function categories are available only when a macro sheet is active.

Function

Lists all built-in and custom functions that are available in the selected category.   Also lists built-in and custom macro functions if a macro sheet is active. The display area below the Function Category list box shows the selected function with its argument names. If there is more than one form of the selected function, an ellipsis (...) is displayed in place of the arguments.

Paste Arguments

Pastes a function's argument names into the formula bar along with the function's name. For example, Paste Function pastes DATE(year,month,day) when Paste Arguments is selected; otherwise, it pastes DATE().   You must then replace these argument names with the actual arguments you want to use.

Select Arguments

This dialog box appears when the Paste Arguments box is selected and you select a function that has more than one form.   The Select Arguments box lists the different sets of arguments available for all the forms of the selected function.

See Also

Help

Paste Function Tool
Pasting functions
Toolbars Command (Options Menu)
Worksheet functions

User's Guide (Book 1)

Chapter 5, "Creating a Worksheet"

Paste Name Command (Formula Menu)

Inserts the selected name into the formula bar.

- If the formula bar is active and you began a formula by typing an equal sign (=), Paste Name pastes the selected name at the insertion point.
- If the formula bar is not active, Paste Name activates it and pastes an equal sign (=) followed by the selected name.

Shortcuts: Paste Names tool (Utility toolbar)

F3

Paste Name

Lists all names defined on the active worksheet or macro sheet.

Paste List

Pastes all names defined on your worksheet or macro sheet, starting at the active cell. On a worksheet, the list of names is an area two columns wide. The left column lists names; the right column lists cell references that the names refer to.   On a macro sheet, the list of names is five columns wide and includes a name column, a reference column, a column for the type of macro (0=none, 1=function, 2=command), a column for assigned shortcut keys, and a column for the category.

See Also

Help

 Paste Names Tool

Defining a name

Pasting names

Toolbars Command (Options Menu)

User's Guide (Book 1)

Chapter 5, "Creating a Worksheet"

Reference Command (Formula Menu)

Changes the <u>reference type</u> of selected <u>references</u> in the <u>formula bar</u> from relative to absolute, from absolute to mixed, and from mixed back to relative.

Reference	Changes to	Description
A1	$A$1	Relative to absolute
$A$1	A$1	Absolute to mixed
A$1	$A1	Mixed to mixed
$A1	A1	Mixed to relative

▪   This command is available only when you are editing a formula in the formula bar.

▪   A reference is selected when it or the formula containing it is highlighted in the formula bar, when the insertion point is within the reference, or when the insertion point is to the immediate right or left of the reference.   If more than one reference is selected, the Reference command changes the type of all selected references simultaneously. If there are different reference types in the selection, the Reference command changes each reference to the next type according to the table above.

Shortcut: F4

See Also

User's Guide (Book 1)

Chapter 5, "Creating a Worksheet"

Replace Command (Formula Menu)

Finds and replaces characters in selected cells or on the entire worksheet.

- Unless you select a range of cells, Replace searches the entire worksheet.
- Replace displays a message if nothing matches.
- Searched characters and replacement characters can include text, numbers, formulas, or parts of formulas.

Find What

Specifies what to search for.   Can include any letter, number, punctuation mark, or wildcard character.   Can include uppercase and lowercase characters.   Does not distinguish between uppercase and lowercase characters.   To search for an actual wildcard character (* or ?), precede it with a tilde (~).

Proposes the last text or value you searched for, which you can accept or change.

Replace With

Identifies the characters that will replace the characters searched for.   Proposes the characters last used for replacement.

Look At

The Whole option searches for an exact and complete match of the characters specified in the Find What box. The Part option searches for any occurrence of those characters within cells.

Look By

Determines the direction of the search: across rows or down columns.

Match Case

Distinguishes between uppercase and lowercase characters in the search text specified in the Find What box.

Replace All

Finds and replaces every occurrence of the characters in the Find What box with the characters in the Replace With box.

Close

Closes the dialog box but does not affect replacements already made.

Find Next

Finds the next occurrence of the characters specified in the Find What box.

To find the previous occurrence, press SHIFT while you choose the Find Next button.

Replace

Replaces the searched characters in the active cell with the new characters and then finds the next occurrence of the searched characters.   To find and replace the previous occurrence, press SHIFT while you choose Replace.   To replace without finding the next cell, press CTRL while you choose Replace.

See Also

Help

Finding characters

Replacing characters

User's Guide (Book 1)

Chapter 5, "Creating a Worksheet"

Select Special Command (Formula Menu)

Selects cells that have the characteristics specified in the dialog box, or selects all objects.

▪ The resulting selection can contain many cells and ranges.

▪ To search the entire worksheet, select a single cell before choosing the Select Special command; to search only a specific range, select that range.

▪ When searching for precedents or dependents, Microsoft Excel always searches the entire worksheet.   The selection determines the cells whose precedents or dependents are searched for.

Notes

Selects all cells that contain a note.

Shortcut: CTRL+SHIFT+?

Constants

Selects all cells that contain constants, based on the check boxes you select.

Numbers

Selects constant numbers.

Text

Selects constant text.

Logicals

Selects cells containing the logical values TRUE and FALSE that were entered as constants.

Errors

Selects cells containing error values that were entered as constants.

Formulas

Selects all cells that contain formulas, based on the check boxes you select.

Numbers

Selects cells with formulas that produce numbers.

Text

Selects cells with formulas that produce text.

Logicals

Selects cells with formulas that produce the logical values TRUE and FALSE.

Errors

Selects cells with formulas that produce error values.

Blanks

Selects all blank cells.

Current Region

Selects a rectangular range of cells around the active cell.   The range selected is an area bounded by any combination of blank rows and blank columns.

Shortcuts: Select Current Region tool (Utility Tools category)
               CTRL+* (asterisk on keypad)

Current Array

Selects the entire array to which the active cell belongs, if any.

Shortcut: CTRL+/

Row Differences

Selects cells whose contents are different from the comparison cell in each row.   For each row, the comparison cell is in the same column as the active cell.

Shortcut: CTRL+\

Column Differences

Selects cells whose contents are different from the comparison cell in each column.   For each column, the comparison cell is in the same row as the active cell.

Shortcut: CTRL+SHIFT+|

Precedents

Selects cells to which the formulas in the selected cells refer.

Direct Only

Selects only cells directly referred to by formulas in the selection.

Shortcut: CTRL+[

All Levels

Selects all cells directly or indirectly referred to by cells in the selection.

Useful for selecting the entire network of cells that affect a particular cell in a complex worksheet.

Useful for tracking the logic of a model one step at a time.

Shortcut: CTRL+SHIFT+{

Dependents

Selects cells with formulas that refer to the cells in the current selection.

Direct Only

Selects only cells with formulas that refer directly to the cells in the selection.

Shortcut: CTRL+]

All Levels

Selects all cells that directly or indirectly refer to cells in the selection.

Useful for selecting the entire network of cells that depend on a particular cell in a complex worksheet.

Useful for tracking the logic of a model one step at a time.

Shortcut: CTRL+SHIFT+}

Last Cell

Selects the last cell that contains data or formatting in the worksheet or macro sheet.

Visible Cells

Selects the visible cells on a worksheet so that changes you make affect only the visible cells and not the hidden rows or columns.

Shortcut: Select Visible Cells tool (Utility toolbar)

Objects

Selects all graphic objects, including buttons and text boxes.

See Also

Help

Select Current Region Tool

Select Visible Cells Tool

Finding cells referred to by formulas in selected cells (precedents)

User's Guide (Book 1)

Chapter 5, "Creating a Worksheet"

Chapter 8, "Organizing and Documenting a Worksheet"

Show Active Cell Command (Formula Menu)

Scrolls the worksheet until the active cell is visible.

See Also

User's Guide (Book 1)

Chapter 6, "Editing a Worksheet"

Chapter 8, "Organizing and Documenting a Worksheet"

Gallery Menu

Area
Changes the format of the active chart to the area chart format you specify.

Bar
Changes the format of the active chart to the bar chart format you specify.

Column
Changes the format of the active chart to the column chart format you specify.

Line
Changes the format of the active chart to the line chart format you specify.

Pie
Changes the format of the active chart to the pie chart format you specify.

Radar
Changes the format of the active chart to the radar chart format you specify.

XY (Scatter)
Changes the format of the active chart to the xy (scatter) chart format you specify.

Combination
Changes the active chart into a combination of main and overlay charts.

3-D Area
Changes the format of the active chart to the three-dimensional (3-D) area chart format you specify.

3-D Bar
Changes the format of the active chart to the 3-D bar chart format you specify.

3-D Column
Changes the format of the active chart to the 3-D column chart format you specify.

3-D Line
Changes the format of the active chart to the 3-D line chart format you specify.

3-D Pie
Changes the format of the active chart to the 3-D pie chart format you specify.

3-D Surface
Changes the format of the active chart to the 3-D surface chart format you specify.

Preferred
Changes the format of the active chart to the format you define as preferred.

Set Preferred
Makes the format of the active chart the preferred format which is the default format for new charts.

3-D Area Command (Gallery Menu)

Changes the format of the active chart to the 3-D area chart format you specify.   A 3-D area chart emphasizes the sum of plotted values and separates series into distinct rows to show differences between the series.

▪   If the chart has an overlay, choosing this command deletes the overlay.

3-D area chart formats

1 Stacked area chart with 3-D markers

2 Stacked 3-D areas and labels

3 Stacked 3-D areas and drop lines

4 Stacked 3-D areas and gridlines

5 3-D areas, each series plotted separately

    Shortcut: 3-D Area Chart tool

6 3-D areas plotted separately with gridlines

7 3-D areas plotted separately with x-axis and y-axis gridlines only

Next

   Displays the gallery for the next chart type on the Gallery menu.

Previous

   Displays the gallery for the previous chart type on the Gallery menu.

See Also

   Help

      3-D Area Chart Tool
Creating a chart

   User's Guide (Book 1)

   Chapter 12, "Creating a Chart"

3-D Bar Command (Gallery Menu)

Changes the format of the active chart to the 3-D bar chart format you specify.   A 3-D bar chart emphasizes the values of individual figures at a specific time or draws comparisons among items.   It is similar to a 3-D column chart, but the vertical ordering of the bars places less emphasis on the flow of time and more on the comparisons.   The stacked and 100% options show relationships to the whole.

▪   If the chart has an overlay, choosing this command deletes the overlay.

3-D bar chart formats
1 Simple bar chart with 3-D markers
      Shortcut: 3-D Bar Chart tool
2 Stacked 3-D bars
3 Stacked 100% 3-D bars
4 3-D bars with value axis (z-axis) gridlines

Next
    Displays the gallery for the next chart type on the Gallery menu.

Previous
    Displays the gallery for the previous chart type on the Gallery menu.

See Also

Help

     3-D Bar Chart Tool
Creating a chart

User's Guide (Book 1)
Chapter 12, "Creating a Chart"

3-D Column Command (Gallery Menu)

Changes the format of the active chart to the 3-D column chart format you specify.   A 3-D column chart emphasizes the comparison of data points along two axes--a category axis and a series axis--so you can compare data points within a series more easily, yet still view data by category.

▪   If the chart has an overlay, choosing this command deletes the overlay.

3-D column chart formats
  1 Simple column chart with 3-D markers
     Shortcut: 3-D Column Chart tool
  2 Stacked 3-D columns
  3 Stacked 100% 3-D columns
  4 3-D columns with value axis (z-axis) gridlines
  5 3-D columns, each series plotted separately
     Shortcut: Perspective 3-D Column Chart tool
  6 3-D columns plotted separately with gridlines
  7 3-D columns plotted separately with x-axis and y-axis gridlines only

Next
  Displays the gallery for the next chart type on the Gallery menu.

Previous
  Displays the gallery for the previous chart type on the Gallery menu.

See Also

  Help

    3-D Column Chart Tool

    Perspective 3-D Column Chart Tool
Creating a chart

  User's Guide (Book 1)
  Chapter 12, "Creating a Chart"

3-D Line Command (Gallery Menu)

Changes the format of the active chart to the 3-D line chart format you specify.   Shows lines in a line chart as 3-D ribbons.   This makes individual lines easier to view, particularly when they cross, while still showing all series in one chart for comparison.

- If the chart has an overlay, choosing this command deletes the overlay.

3-D line chart formats

   1 3-D line chart

      Shortcut: 3-D Line Chart tool

   2 3-D line chart with gridlines

   3 3-D line chart with x-axis and y-axis gridlines only

   4 3-D line chart with logarithmic value (z) axis and gridlines

Next

Displays the gallery for the next chart type on the Gallery menu.

Previous

Displays the gallery for the previous chart type on the Gallery menu.

See Also

Help

 3-D Line Chart Tool

Creating a chart

User's Guide (Book 1)

Chapter 12, "Creating a Chart"

3-D Pie Command (Gallery Menu)

Changes the format of the active chart to the 3-D pie chart format you specify.   Shows a pie chart with 3-D slices.

▪   If the chart has an overlay, choosing this command deletes the overlay.

3-D pie chart formats

    1 Each slice patterned or colored differently

    2 All slices patterned and colored the same and labeled with categories

    3 First slice exploded

    4 All slices exploded

    5 With category labels

    6 With value labels expressed as percentages

      Shortcut: 3-D Pie Chart tool

    7 With category labels and value labels expressed as percentages

Next

  Displays the gallery for the next chart type on the Gallery menu.

Previous

  Displays the gallery for the previous chart type on the Gallery menu.

See Also

  Help

      3-D Pie Chart Tool
Creating a chart

  User's Guide (Book 1)

  Chapter 12, "Creating a Chart"

3-D Surface Command (Gallery Menu)

Changes the format of the active chart to the surface chart format you specify.   Creating a surface chart is like stretching a rubber sheet over a regular 3-D column chart.   Color is used in a surface chart not to mark data series, but to indicate areas that are at the same height, as in a 3-D topographic map.   A wireframe chart is the same as a surface chart but without color.   The third and fourth chart formats provide 2-D views of these charts from above, like 2-D topographic maps.

▪   If the chart has an overlay, this command deletes the overlay.
▪   Colors cannot be edited directly.   To change colors in a surface chart, you must change the colors in the color palette.
▪   If the chart is a separate chart document, you can change the colors in the color palette for that document.
▪   If the chart is embedded in a worksheet, you can change the colors in the color palette for that worksheet.

3-D surface chart formats

 1 3-D surface chart

    Shortcut: 3-D Surface Chart tool

 2 3-D wireframe chart

 3 Contour chart (surface chart viewed from above)

 4 Contour chart (wireframe chart viewed from above)

Next

Displays the gallery for the next chart type on the Gallery menu.

Previous

Displays the gallery for the previous chart type on the Gallery menu.

See Also

Help

    3-D Surface Chart Tool
Creating a chart

User's Guide (Book 1)

Chapter 12, "Creating a Chart"

Area Command (Gallery Menu)

Changes the format of the active chart to the area chart format you specify.   An area chart shows how values change in proportion to the total over a period of time. It is similar to a line chart, but emphasizes magnitude of values rather than flow of time and rate of change. The 100% option shows relationships to the whole.

▪   If the chart has an overlay, choosing this command deletes the overlay.

Area chart formats

1 Simple area chart

    Shortcut: <u>Area Chart tool</u>

2 100% area chart

3 Area chart with drop lines

4 Area chart with gridlines

5 Area chart with areas labeled

Next

Displays the gallery for the next chart type on the Gallery menu.

Previous

Displays the gallery for the previous chart type on the Gallery menu.

See Also

Help

   <u>Area Chart Tool</u>
<u>Creating a chart</u>

User's Guide (Book 1)

Chapter 12, "Creating a Chart"

Bar Command (Gallery Menu)

Changes the format of the active chart to the bar chart format you specify.   A bar chart shows individual figures at a specific time or draws comparisons among items.   It is similar to a column chart, but the vertical ordering of bars places less emphasis on the flow of time and more on the comparisons.   The stacked and 100% options show relationships to the whole.

▪   If the chart has an overlay, choosing this command deletes the overlay.

Bar chart formats

   1   Simple bar chart
         Shortcut: Bar Chart tool
   2   Bar chart for one series with varied patterns or colors
   3   Stacked bar chart
   4   Overlapped bar chart
   5   Stacked 100% bar chart
   6   Bar chart with vertical gridlines
   7   Bar chart with value labels
   8   Step chart (no space between categories)
   9   Stacked bar chart with series lines
  10   Stacked 100% bar chart with series lines

Next

   Displays the gallery for the next chart type on the Gallery menu.

Previous

   Displays the gallery for the previous chart type on the Gallery menu.

See Also

   Help

   Bar Chart Tool
   Creating a chart

   User's Guide (Book 1)

   Chapter 12, "Creating a Chart"

Column Command (Gallery Menu)

Changes the format of the active chart to the column chart format you specify.   A column chart shows variations over a period of time or draws comparisons among items.   The stacked and 100% options show relationships to the whole.

▪   If the chart has an overlay, choosing this command deletes the overlay.

Column chart formats

  1 Simple column chart
      Shortcut: Column Chart tool
  2 Column chart for one series with varied patterns
  3 Stacked column chart
      Shortcut: Stacked Column Chart tool
  4 Overlapped column chart
  5 Stacked 100% column chart
  6 Column chart with horizontal gridlines
  7 Column chart with value labels
  8 Step chart (no space between categories)
  9 Stacked column chart with series lines
 10 Stacked 100% column chart with series lines

Next

   Displays the gallery for the next chart type on the Gallery menu.

Previous

   Displays the gallery for the previous chart type on the Gallery menu.

See Also

   Help

   Column Chart Tool

   Stacked Column Chart Tool
   Creating a chart

   User's Guide (Book 1)
   Chapter 12, "Creating a Chart"

Combination Command (Gallery Menu)

Changes the active chart into the combination of two chart types you specify.   A combination chart consists of two charts: a main chart with an overlay chart above.   It shows data that may be related but measured in different units.   Combination charts are useful for comparing two different kinds of data or juxtaposing series to show correlations that might not otherwise be recognized.

▪   If there is an even number of data series, the first half appear on the main chart and the second half on the overlay chart.

▪   If there is an odd number of data series, the main chart will have one series more than the overlay chart.   For example, in a chart with five data series, the first three appear on the main chart and the last two on the overlay chart.

▪   You can change the order in which the series are plotted with the Edit Series command on the Chart menu and the Overlay command on the Format menu.

Combination chart formats

1 Column chart overlaid by a line chart

   Shortcut: Line/Column Chart tool

2 Column chart overlaid by a line chart with an independent y-axis scale

3 Line chart overlaid by a line chart with an independent y-axis scale

4 Area chart overlaid by a column chart

5 Column chart overlaid by a line chart containing three data series (for showing stock volumes related to high, low, and closing prices)

   Shortcut: Volume/Hi-Lo-Close Chart tool

6 Column chart overlaid with open-high-low-close chart (for showing stock volumes related to opening, high, low, and closing prices)

Next

Displays the gallery for the next chart type on the Gallery menu.

Previous

Displays the gallery for the previous chart type on the Gallery menu.

See Also

Help

   Line/Column Chart Tool

   Volume/Hi-Lo-Close Chart Tool

Creating a chart

User's Guide (Book 1)

Chapter 12, "Creating a Chart"

Line Command (Gallery Menu)

Changes the format of the active chart to the line chart format you specify.   A line chart shows trends or changes in data over a period of time. It is similar to an area chart, but emphasizes the flow of time and rate of change rather than the magnitude of values. This type is often used for stock quotes.

▪   If the chart has an overlay, choosing this command deletes the overlay.

Line chart formats

  1 Simple line chart with lines and markers

     Shortcut: Line Chart tool

  2 Line chart with lines only

  3 Line chart with markers only

  4 Line chart with lines and markers with horizontal gridlines

  5 Line chart with lines and markers with horizontal and vertical gridlines

  6 Line chart with lines and markers with logarithmic scale and gridlines

  7 Hi-lo chart with markers and hi-lo lines

  8 Hi-lo-close chart (for stock quotes)

  9 Open-hi-lo-close chart (for stock quotes)

Next

  Displays the gallery for the next chart type on the Gallery menu.

Previous

  Displays the gallery for the previous chart type on the Gallery menu.

See Also

  Help

    Line Chart Tool
  Creating a chart

  User's Guide (Book 1)

  Chapter 12, "Creating a Chart"

Pie Command (Gallery Menu)

Changes the format of the active chart to the pie chart format you specify.   A pie chart shows the relationship of parts to the whole.   It can contain only one series.

▪   If the chart has an overlay, choosing this command deletes the overlay.

Pie chart formats

1 Each slice patterned or colored differently
2 All slices patterned and colored the same and labeled with categories
3 First slice exploded
4 All slices exploded
5 With category labels
6 With value labels expressed as percentages
    Shortcut: Pie Chart tool
7 With category labels and value labels expressed as percentages

Next

Displays the gallery for the next chart type on the Gallery menu.

Previous

Displays the gallery for the previous chart type on the Gallery menu.

See Also

Help

   Pie Chart Tool
Creating a chart

User's Guide (Book 1)

Chapter 12, "Creating a Chart"

Radar Command (Gallery Menu)

Changes the format of the active chart to the radar chart format you specify.   Each category in a radar chart has its own axis radiating from the center point.   The data points belonging to the same series are connected by lines.

▪   If the chart has an overlay, choosing this command deletes the overlay.

Radar chart formats

   1 Radar chart with lines and markers

     Shortcut: Radar Chart tool

   2 Radar chart with lines only

   3 Radar chart with lines and without axes

   4 Radar chart with lines, axes, and gridlines

   5 Radar chart with logarithmic scale

Next

   Displays the gallery for the next chart type on the Gallery menu.

Previous

   Displays the gallery for the previous chart type on the Gallery menu.

See Also

   Help

     Radar Chart Tool
Creating a chart

   User's Guide (Book 1)

   Chapter 12, "Creating a Chart"

Preferred Command (Gallery Menu)

Changes the format of the active chart to the previously defined "preferred" chart format.

▪   Use the Set Preferred command on the Gallery menu to define your preferred chart format.

▪   If you haven't specified a preferred format, Microsoft Excel uses the simple column chart (the first option in the gallery for the column chart type).

▪   You can retrieve a preferred chart from a workbook if you saved it with the Save Workbook command on the File menu.   Loading the workbook sets the preferred format to the one saved with the workbook.

Shortcut: Preferred Chart tool (Chart Toolbar)

See Also

Help

   Preferred Chart Tool

Creating a chart

Set Preferred Command (Gallery Menu)

Save Workbook

User's Guide (Book 1)

Chapter 12, "Creating a Chart"

Set Preferred Command (Gallery Menu)

Changes the default format Microsoft Excel uses when you create a new chart with the New command from the File menu, or when you change the format of an existing chart using the Preferred command on the Gallery menu.

- Until you use this command to specify a preferred format, Microsoft Excel uses the simple column chart (the first option in the gallery for the column chart type) as the default format.
- The new preferred chart setting remains in effect for the current work session only. When you quit Microsoft Excel and start it again, the preferred chart setting will be the Microsoft Excel default, the simple column chart.
- You can save your preferred format in a workbook file with the Save Workbook command on the File menu, or use a chart template.

See Also

Help

   Preferred Chart Tool
Creating a chart
Creating a new template
New Command (File Menu)
Preferred Command (Gallery Menu)
Save Workbook Command (File Menu)

User's Guide (Book 1)

Chapter 12, "Creating a Chart"

Chapter 13, "Editing a Chart"

XY (Scatter) Command (Gallery Menu)

Changes the format of the active chart to the xy (scatter) chart format you specify.   An xy (scatter) chart shows the relationship or degree of relationship between numeric values in different groups of data. It is useful for finding patterns or trends and for determining whether variables are dependent on or affect one another.

- If the chart has an overlay, choosing this command deletes the overlay.

XY (scatter) chart formats

1 XY chart with data point markers only

   Shortcut: XY (Scatter) Chart tool

2 XY chart with markers from the same series connected by lines
3 XY chart with markers with horizontal and vertical gridlines
4 XY chart with markers with logarithmic y axis and gridlines
5 XY chart with markers with log-log axes and gridlines

Next

Displays the gallery for the next chart type on the Gallery menu.

Previous

Displays the gallery for the previous chart type on the Gallery menu.

See Also

   Help

    XY (Scatter) Chart Tool
Creating a chart

   User's Guide (Book 1)

Chapter 12, "Creating a Chart"

Help Menu

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Gives details on all the product support services for Microsoft Excel.

Introducing Microsoft Excel

Starts an introductory tutorial.   The lessons include a basic lesson that teaches you the fundamental features of Microsoft Excel, a lesson describing what's new in Microsoft Excel version 4.0, and a lesson for Lotus 1-2-3 users.

Learning Microsoft Excel

Starts a tutorial on using Microsoft Excel.   The lessons cover worksheets, charts, databases, macros, and toolbars.

Lotus 1-2-3

Displays a dialog box that shows the Microsoft Excel equivalent to a Lotus 1-2-3 menu item.

Multiplan

Displays a dialog box that shows the Microsoft Excel equivalent to a Multiplan command.

About Microsoft Excel

Displays the version number of Microsoft Excel you are using and how much memory is available.

About Microsoft Excel Command (Help Menu)

Displays the version number of Microsoft Excel you are using, how much memory is available, and whether a math co-processor is installed.   Also shows the user name, organization name, and software serial number.

See Also

User's Guide (Book 1)

Chapter 1, "Getting Started with Microsoft Excel"

Contents Command (Help Menu)

Displays the Microsoft Excel Help table of contents.

-      With the mouse, click the name of the topic you want.

--Or--

-      Press TAB to move to the topic you want, and then press ENTER.

See Also

Tutorial

"Learning Microsoft Excel"

User's Guide (Book 1)

Chapter 2, "Learning Microsoft Excel"

Search Command (Help Menu)

Displays the Search dialog box, which allows you to search for Help topics by typing or selecting a keyword.

Keyword

Type an entry or select one from the list, and then choose the Show Topics button.

Topics

Select a Help topic from the list and then choose the Go To button.

Shortcut: Double-click a Help topic in the list.

Microsoft Excel displays the selected Help topic.

See Also

Tutorial

"Learning Microsoft Excel"

User's Guide (Book 1)

Chapter 2, "Learning Microsoft Excel"

Lotus 1-2-3 Command (Help Menu)

Displays a dialog box that helps you learn Microsoft Excel equivalents to Lotus 1-2-3 menu items.   You can display the instructions for the equivalent command on your worksheet, or you can view a demonstration showing the Microsoft Excel steps.

See Also

Help

Help for Lotus 1-2-3 Users

Microsoft Excel Equivalents for Frequently Used Lotus 1-2-3 Commands

Switching from Lotus 1-2-3

Tutorial

"Introducing Microsoft Excel"

Switching to Microsoft Excel from Lotus 1-2-3

Multiplan Command (Help Menu)

Displays a dialog box that provides online Help about equivalents to Multiplan commands.

Command

Specify the Multiplan command for which you want the Microsoft Excel equivalent.

See Also

Help

Switching from Multiplan

Introducing Microsoft Excel Command (Help Menu)

Starts online interactive lessons that introduce Microsoft Excel version 4.0.

▪ Microsoft Excel closes all open documents (other than workbooks) before starting the tutorial.   A message appears asking whether you want to save any changes.   At the end of the tutorial, your documents are reopened.

▪ If you have any workbooks open, you must close them yourself using the Close command on the File menu before starting the tutorial.

The online tutorial includes the following lessons:

The Basics

Teaches the basic skills you need to start using Microsoft Excel right away.

What's New?

Shows the exciting new features of Microsoft Excel version 4.0.

For Lotus 1-2-3 Users

Shows how you can use your Lotus 1-2-3 skills and files immediately in Microsoft Excel.

Learning Microsoft Excel Command (Help Menu)

Starts online interactive lessons that introduce the fundamental skills and concepts you need to work with worksheets, charts, databases, macros, and toolbars.

▪   Microsoft Excel closes all open documents (other than workbooks) before starting the tutorial.   A message appears asking whether you want to save any changes.   At the end of the tutorial, your documents are reopened.

▪   If you have any workbooks open, you must close them yourself using the <u>Close command</u> on the File menu before starting the tutorial.

The online tutorial includes the following sections:

Introduction

Provides an overview of Microsoft Excel, and shows you how to use Microsoft Excel online Help.

Worksheets

Introduces worksheet basics, such as how to create worksheets, choose commands, change formats, and print.

Charts

Introduces chart basics, such as how to create, change, and print a chart.

Databases

Introduces databases.   You will learn how to create a database and use it to organize and retrieve data.

Macros

Introduces macros.   You will learn how to create, run, and edit macros.

Toolbars

Explains how to use Microsoft Excel tools and toolbars.

Product Support Command (Help Menu)

Gives details on all the product support services for Microsoft Excel available to you from Microsoft, including how to contact Microsoft Product Support worldwide.

Info Menu

The Info menu appears on the menu bar when you select the Info Window check box in the Workspace dialog box.   To open the dialog box, choose <u>Workspace</u> from the Options menu. The Info menu controls which information about the active cell is displayed in the Info window.   Each option corresponds to a unique item of information.

Cell

Displays the cell's reference.

Formula

Displays the contents of the cell.

Value

Displays the value in the cell in General format.

Format

Displays the number format, alignment, font, borders, and shading of the cell.

Protection

Displays the protection status of the cell.

Names

Displays the names that include references to the cell.

Precedents

Displays a dialog box containing two options.   Direct Only displays only the direct precedents that the cell refers to.   All Levels displays both direct and indirect precedents that the cell refers to.

Dependents

Displays a dialog box containing two options.   Direct Only displays only the direct dependents that refer to the cell.   All Levels displays both direct and indirect dependents that refer to the cell.

Note

Displays the cell note, or indicates if a sound note has been added to a cell.

Macro Menu

Run

Runs a command macro from the global macro sheet or an open macro sheet.

Record

Records your subsequent actions as macro functions.

Start Recorder

Records your actions as macro functions.   You must first define the recorder range on the macro sheet with the Set Recorder command.

Stop Recorder

Ends macro recording.   This command is available only during the recording of a macro.

Resume

Continues macro operation after you choose the Pause button in the Single Step dialog box or after a PAUSE macro function.

The following commands appear on the Macro menu for worksheets and macro sheets only:

Set Recorder

Defines the selection on your macro sheet as the recorder range.

Relative Record

Changes recording of references from absolute to relative, so that the macro operates on cells a fixed distance from the active cell when run.   This command is available only when the Absolute Record command is active.

Absolute Record

Changes recording of references from relative to absolute, so that the macro operates on a fixed range of cells each time it is run.   This command is available only when the Relative Record command is active.

Assign to Object

Assigns a macro to an object on a worksheet or macro sheet.   When you click the object, the macro runs.

Assign to Tool

Assigns a macro to a tool on a toolbar.   When you click the tool, the macro runs.   This command only appears on the menu when you are customizing tools.

Assign To Object Command (Macro Menu)

Assigns a macro to an object on a worksheet or macro sheet.   When you click the object, the macro runs.

▪   Macros can be assigned to any object, including buttons, lines, arcs, ovals, rectangles, embedded charts, and pictures.
▪   The mouse pointer changes to a hand when it is over an object that has a macro assigned to it.   The hand indicates that the macro will run when you click the object.

Assign Macro

Lists the command macros from the <u>global macro sheet</u> and any other open <u>macro sheets</u>.

Reference

Displays the name of the macro selected in the Assign Macro box.   If the macro you want to assign to an object is not listed in the Assign Macro box, you can type its cell <u>reference</u> or name (name of the macro sheet, exclamation point, macro name) in the Reference box.   For example,   Macro1!Record1   would appear in the Reference box if you had created a macro using Microsoft Excel's default names.

Record

Equivalent to the <u>Record command</u> (Macro menu), which allows you to record your subsequent actions as a macro assigned to the graphic object.

See Also

Help

<u>Assign To Tool Command (Macro Menu)</u>

<u>Assigning a macro to a graphic object</u>

<u>Creating or deleting a button on a worksheet or macro sheet</u>

User's Guide (Book 2)

Chapter 6, "Automating Tasks with Command Macros"

Resume Command (Macro Menu)

Resumes macro operation after choosing the Pause button in the <u>Single Step dialog box</u> or after a PAUSE macro function.

You can resume macro operation in three ways:

▪ Click the Resume Macro tool, which automatically appears whenever you pause a macro.

▪ Choose Resume from the Macro menu.

▪ Use the RESUME macro function.

See Also

Help

 <u>Resume Macro Tool</u>

User's Guide (Book 2)

Chapter 6, "Automating Tasks with Command Macros"

Function Reference

PAUSE

RESUME

Record and Stop Recorder Commands (Macro Menu)

Record Command

Records your subsequent actions as macro functions so that you can repeat those actions later using the <u>Run command</u> on the Macro menu.

- The dialog box proposes a macro name and shortcut key combination.   You can record to the <u>global macro sheet</u>, a new macro sheet, or an existing macro sheet (if opened).
- This command starts recording in the first cell of the recorder range, or if the first cell is occupied, in the first completely blank column of the macro sheet.
- If all documents are closed, Record appears on the File menu as the Record Macro command.

Name

The macro name.   Accept the proposed name or type one that will remind you what the macro does.   This name will appear in the Run box when you choose the Run command from the Macro menu.

Key

Defines a shortcut key you can use later to quickly run the macro.   Accept the proposed letter or type another one.   Shortcut keys are case sensitive and must be letters; numbers aren't allowed.

Store Macro In

Global Macro Sheet

Records macros on a hidden macro sheet automatically managed by Microsoft Excel. Macros recorded in the global macro sheet are available every time you start the program.

New Macro Sheet or Macro Sheet (Name)

Records macros on a new or existing <u>macro sheet</u>.   If you haven't already opened a macro sheet, Microsoft Excel automatically opens a new macro sheet for you.

If you want to add macros to an existing macro sheet, you must first open the macro sheet and <u>set a recorder range</u>.

Stop Recorder Command

Ends macro recording.

See Also

Help

- <u>Record Macro Tool</u>

   <u>Stop Recording Macro Tool</u>
<u>Macro Toolbar</u>
<u>Recording a macro</u>
<u>Toolbars Command (Options Menu)</u>

User's Guide (Book 2)

Chapter 6, "Automating Tasks with Command Macros"

Relative Record and Absolute Record Commands (Macro Menu)

Relative Record Command records cell references as relative, so that the macro operates on cells a fixed distance from the active cell at the time the macro is run.

Absolute Record Command records cell references as absolute, so that the macro operates on a fixed range of cells each time the macro is run, regardless of where the active cell is.

▪   Initially, references are recorded as absolute.
▪   You can switch between Relative Record and Absolute Record at any time.   When the Relative Record command is displayed on the Macro menu, you are currently recording cell references as absolute.   When the Absolute Record command is displayed, you are recording the cell references as relative.

See Also

User's Guide (Book 2)

Chapter 7, "Designing and Writing a Command Macro"

Run Command (Macro Menu)

Runs a <u>command macro</u> from the <u>global macro sheet</u> or an open <u>macro sheet</u>.

▪   You open a macro sheet the same way you open a worksheet, using the <u>Open command</u> on the File menu.

▪   A macro name is preceded by the name of the macro sheet containing the macro and an exclamation point; for example, Macro1!Record1.   Microsoft Excel labels macro sheets with the default filename extension .XLM.

Run

Lists all global command macros and all named command macros on open macro sheets, preceded by their shortcut keys, if any.

Reference

Displays the name of the command macro selected in the Run box.   If the active sheet is a macro sheet, the <u>reference</u> of the active cell is displayed in the Reference box.

Step

Displays the <u>Single Step dialog box</u>, which allows you to step through the macro one cell at a time.

See Also

Help

  <u>Run Macro Tool</u>

  <u>Step Macro Tool</u>

<u>Macro Toolbar</u>

<u>Running a macro</u>

<u>Stepping through a macro</u>

<u>Toolbars Command (Options Menu)</u>

User's Guide (Book 2)

Chapter 6, "Automating Tasks with Command Macros"

Chapter 7, "Designing and Writing a Command Macro"

Set Recorder Command (Macro Menu)

Defines the selection on your <u>macro sheet</u> as the recorder range.   Before you can use this command, a macro sheet must be active.

- Use this command when you want to record a macro on an existing macro sheet or specific part of a macro sheet.
- If the selection is a single cell, all the cells below it in the same column become the recorder range.   Recording starts in the selected cell and continues downward.   For recording to proceed without interruption, all cells below the selected cell must be blank.
- If the selection is a range of cells, recording starts in the upper-left corner of the range and proceeds down its leftmost column.   When recording reaches the last selected cell in a column, it is redirected to the first selected cell in the next column and continues down from there.   All cells within the selected range should be blank.

See Also

Help

<u>Recording a macro</u>

User's Guide (Book 2)

Chapter 6, "Automating Tasks with Command Macros"

Start Recorder Command (Macro Menu)

Records your subsequent actions and commands as macro functions until you choose the Stop Recorder command from the Macro menu.

▪ Before recording, you must set a recorder range on your macro sheet by selecting a cell or range of cells and choosing the Set Recorder command from the Macro menu.

▪ If Microsoft Excel encounters a nonblank cell while recording or reaches the bottom of the recorder range, it stops recording and displays a message telling you that the recorder range is full.

See Also

Help

Macro Toolbar
Recording a macro

Assign To Tool Command (Macro Menu)

Assigns a macro to a tool on a toolbar.   When you click the tool, the macro runs.

Assign Macro

Lists the command macros on the global macro sheet and any other open macro sheets.

Reference

Displays the name of the macro selected in the Assign Macro box.   If the macro you want to assign to a tool is not listed in the Assign Macro box, you can type its cell reference or name (name of the macro sheet, exclamation point, macro name) in the Reference box.   For example,   Macro1!Record1   would appear in the Reference box if you had created a macro using Microsoft Excel's default names.

Record

Equivalent to the Record command on the Macro menu, which allows you to record your subsequent actions as a macro assigned to the graphic object.

See Also

Help

Assigning or recording a macro to a tool

Creating a custom tool

Changing the action that a tool performs

User's Guide (Book 2)

Chapter 6, "Automating Tasks with Command Macros"

Add-Ins Command (Options Menu)

The Add-Ins command allows you to specify a working set of add-in macros that are automatically opened and ready to run when you open Microsoft Excel.   With the Add-Ins command, you can add to or delete from this working set of macros any of the add-in macros that come with Microsoft Excel or that you have created yourself and then saved as add-in macros.

Add

Displays the Open dialog box where you can choose add-in macro files to be added to the working set.

Edit

Allows you to edit add-in macro settings.   You can specify the path for your add-in macro.

Remove

Removes from the working set the add-in macro selected in the Add-Ins Installed dialog box.

See Also

Help

Add-In Macros

Adding or removing an add-in macro from the working set

Editing add-in macro settings

Macro Library Overview

User's Guide (Book 2)

Chapter 4, "Customizing Microsoft Excel"

Options Menu

Set Print Area

Defines the area of a worksheet that you want to print.

Remove Print Area

Removes the previously defined print area so the entire worksheet can be printed.

Set Print Titles

Defines text in selected rows and columns of a worksheet as titles in the printed document.

Remove Print Titles

Cancels previously selected print titles.

Set Page Break

Sets a manual page break for printing a worksheet.

Remove Page Break

Removes a manual page break.

Display

Controls the screen display of formulas, gridlines, headings, zero values, and objects in the active worksheet.   Also controls the color of gridlines and row and column headings.

Toolbars

Allows you to add, create, edit, hide, and customize the toolbars.

Custom Palettes

Allows you to change the color palette for the active worksheet or chart.

Color Palette

Controls the shade and intensity of each color in the color palette for a document and copies the color palette from one document to another.

Protect Document

Prevents changes to a document's data, formats, or windows.

Unprotect Document

Removes protection.

Calculation

Controls when and how formulas in open documents are calculated.

Workspace

Controls option settings that apply to the current Microsoft Excel work session.

Analysis Tools*

Allows you to select from a list of analysis tools for special statistical and engineering applications.

Add-Ins

Allows you to specify a working set of add-in macros that are automatically opened and ready to run when you start Microsoft Excel.

Group Edit

Groups multiple sheets so you can choose a command once and have it apply to every sheet in the group.   Only available for worksheets and macro sheets.

Spelling

Checks the spelling of text in worksheets, macro sheets, embedded charts, graphic objects, or the formula bar.

* If this command does not appear on the Options menu, run the Setup program to install the Analysis ToolPak.   For more information about adding or removing add-in macros, see Chapter 4, "Customizing Microsoft Excel," in Book 2 of the Microsoft Excel User's Guide.

Calculation Command (Options Menu)

Controls when and how formulas in open documents are calculated.

Automatic

Calculates all dependent formulas every time you make a change to a value, formula, or name.

The default calculation setting for all new worksheets.

Automatic Except Tables

Calculates all dependent formulas except data tables.   You can calculate tables by choosing the Calc Now button in this dialog box.

Manual

Calculates open documents only when you choose the Calc Now button.

When you choose Manual calculation, the Recalculate Before Save check box is automatically selected.

Iteration

Limits iteration for <u>goal seeking</u>, or for resolving circular references.   Unless you specify otherwise, stops after 100 iterations or when all values change by less than 0.001.   You can limit iteration by changing Maximum Iterations, Maximum Change, or both.

Calc Now

Calculates all open worksheets, including data tables, and updates all open chart documents.

Shortcuts: Calculate Now tool (Utility toolbar)

CTRL+EQUAL SIGN (=)

F9

Calc Document

Calculates only the active worksheet and updates only the charts on the worksheet and open charts linked to the worksheet.

Shortcut: SHIFT+F9

Update Remote References

Calculates formulas that include references to other applications.   When cleared, formulas use the last value received from the other application.

Precision As Displayed

Changes stored values in cells from full precision (15 digits) to whatever format is displayed.   The displayed values are then used for calculations.

1904 Date System

Changes the starting date from which all dates are calculated from January 1, 1900 to January 2, 1904.   Choose this option when creating models that you plan to use with Microsoft Excel for the Macintosh.

Save External Link Values

Saves copies of values contained in an external document linked to your Microsoft Excel worksheet.   If a worksheet with links to large ranges on an external document requires an unusually large amount of disk space, or takes a very long time to open, clearing this check box can reduce the disk space and time needed to open the worksheet.

Alternate Expression Evaluation

Evaluates text strings to 0, Boolean expressions to 0 or 1, and database criteria according to the rules used in Lotus 1-2-3.   This allows you to open Lotus 1-2-3 files without losing

or changing information.

Alternate Formula Entry

Converts formulas entered with Lotus 1-2-3 syntax into Microsoft Excel syntax.

See Also

Help

▪ Calculate Now Tool
Setting calculation options for open documents
Calculate Now Command (Chart Menu)
Goal Seek Command (Formula Menu)
Recalculating linked worksheets
Solving equations using goal seeking

User's Guide (Book 1)

Chapter 5, "Creating a Worksheet"

User's Guide (Book 2)

Chapter 1, "Analyzing and Calculating Data"

Color Palette Command (Options Menu)

Customizes the colors on the Microsoft Excel color palette and copies color palettes between documents.   You can customize colors in the color palette for worksheets, macro sheets, and chart documents.

▪   If you do not have a color monitor, standard color names rather than the actual colors appear in the dialog box.   Customized colors have the names Color 1, Color 2, and so on.
▪   If you are working with a chart document, choose the <u>Color Palette</u> command from the Chart menu.
▪   You can copy an object with a custom color from one document to another.   The color is copied along with the object.
▪   The Color Palette command is not available for charts embedded in worksheets.   To customize colors for an embedded chart, use this command for the worksheet.
▪   You can change the color by choosing the Edit button to open the color editing dialog box.   You can use the color box and the brightness bar, or change the values in the boxes below.
▪   The boxes at the bottom of the color editing dialog box provide alternative systems for precisely setting the color.   One system uses hue, saturation, and luminosity.   The other uses the three primary colors used by color monitors: red, green, and blue.   These systems work independently.

Color Palette

Displays the color palette.

Copy Colors From

Contains the list of open documents from which you can copy a color palette. Selecting a document copies its palette to the active document.

Default

Resets the color palette to its original 16 colors.

Edit

Displays the color editing dialog box.   You can edit any of the original 16 colors on the color palette to create custom colors.

Color box

The large colored box where you can click or drag to change the current color. The current color is reflected in the Color|Solid box; in the Hue, Sat (saturation), and Lum (luminosity) boxes; and in the Red, Green, and Blue boxes.

Brightness bar

The colored bar to the right of the color box. Dragging the arrow along this bar changes the amount of white and black in the current color. This has the same effect as changing the value in the Lum (luminosity) box.

Color|Solid

The left side of this box displays the current color. The right side shows the nearest solid color. To use the nearest solid color to the one you have created, double-click the solid color.

Hue

Displays the number of the current color.   You can change the hue by typing a value from 0 to 239 or by clicking the arrows. Changing this value has the same effect as dragging horizontally in the color box.

Sat (saturation)

Indicates how pure the color is; in other words, how different it is from gray.   You can change the saturation by typing a value from 0 to 240 or by clicking the arrows.

Changing this value has the same effect as dragging vertically in the color box.

Lum (luminosity)

Indicates the lightness (amount of white) or darkness (amount of black) in the current color. You can change the luminosity by typing a value from 0 to 240 or by clicking the arrows. Changing this value has the same effect as dragging the arrow along the brightness bar.

Red, Green, Blue

Changes the overall color by changing the amounts of red, green, and blue . You can change these values by typing values from 0 to 255 for each, or by clicking the arrows. Changing the red, green, and blue values is an alternate method to changing the hue, saturation, and luminosity.

See Also

Help

- Color Tool

 Text Color Tool

Copying color palettes between documents

Customizing colors in the color palette

User's Guide (Book 2)

Chapter 4, "Customizing Microsoft Excel"

Display Command (Options Menu)

Controls how cells and <u>graphic objects</u> are displayed on the screen.   Also controls the color of gridlines and row and column headings.

▪   These settings affect only the active worksheet window.

Shortcut: CTRL+6 (Switches among displaying all objects, displaying placeholders, and hiding all objects.)

Formulas

Displays the formulas in cells instead of the values produced.   Also doubles the width of all columns and left-aligns cell contents.

Shortcut: CTRL+` (left single quotation mark)

Gridlines

Displays gridlines.

Row & Column Headings

Displays row and column headings.

Zero Values

Displays all zero values.   If cleared, displays cells that have zero values as blank cells.

Does not affect cells you've formatted to display zeros by using the Number command from the Format menu.

Outline Symbols

Displays outlining symbols.

Shortcuts: Show Outline Symbols tool (Utility toolbar)
                 CTRL+8

Automatic Page Breaks

Displays page breaks that have been set automatically by Microsoft Excel.

Show All

Displays all graphic objects, buttons, text boxes, drawn objects, and pictures.

Show Placeholders

Displays selected pictures and charts as gray rectangles.   Other graphic objects, buttons, and text boxes are displayed normally.

Hide All

Hides all graphic objects, buttons, text boxes, drawn objects, and pictures.

Gridline & Heading Color

Sets the color for gridlines and column and row headings.

If Automatic is selected, the color is based on the text color defined in the <u>Control Panel</u>.

See Also

Help

▪   <u>Show Outline Symbols Tool</u>
<u>Converting a formula or a portion of a formula to its displayed values</u>
<u>Displaying or hiding outline symbols</u>
<u>Preventing display of zero values</u>

User's Guide (Book 1)

Chapter 7, "Formatting a Worksheet"
Chapter 8, "Organizing and Documenting a Worksheet"

Protect Document and Unprotect Document Commands (Options Menu)

Protect Document Command

Prevents changes to a document's data and formats.   You can also use this command to protect document windows so that they cannot be moved, resized, hidden, or closed using the Close command on the Control menu.

Caution: If you forget the password of a document that was previously protected with a password, you cannot unprotect the document.

▪   The Cell Protection command on the Format menu determines the type of cell protection.
▪   The Object Protection command on the Format menu turns protection on or off for selected objects.
▪   The Protect Document command on the Chart menu turns protection on or off for the active chart.

Password

Can be any combination of letters, numbers, or symbols, up to 255 characters long.

Passwords are case-sensitive and optional.   You can protect a document without using one.

Cells

Protects the contents of locked cells from being changed.   This option appears only for worksheets or macro sheets.

Contents

Protects the contents of all documents in a workbook.   This option appears only if a workbook's Contents window is active.

Windows

Prevents a document's windows from being moved, sized, hidden, or closed with the Close command on the Control menu.   You can close a protected window using the Close command on the File menu.

Objects

Locks graphic objects so they cannot be selected, moved, resized, or reformatted. When the Move And Size With Cells option is selected in the Object Properties dialog box, the object will move when surrounding cells are moved, but retain its locked and protected status.

This option appears only for worksheets and macro sheets.

Unprotect Document Command

Removes protection for the active document.

Password

If you assigned a password when you protected the worksheet, you must type the same password to remove protection.

See Also

Help

Protecting a document with a password

Protecting an object

Protecting windows

Protecting worksheet cells

User's Guide (Book 1)
Chapter 4, "Managing Document Files"
Chapter 15, "Working with Graphic Objects"

Set Page Break and Remove Page Break Commands (Options Menu)

Set Page Break

Sets a manual page break.   Manual page breaks you set override the page breaks that Microsoft Excel automatically sets.

▪   Manual page breaks appear on the screen as bold dashed lines and are darker than automatic page breaks.

Remove Page Break

Removes manual page breaks.

▪   This command is available on the Options menu when the active cell is directly below or to the right of a manual page break.

▪   To remove all manual page breaks, select the entire worksheet before choosing this command.

▪   You cannot remove automatic page breaks.

See Also

Help

Setting or removing a manual page break

User's Guide (Book 1)

Chapter 16, "Printing"

Workspace Command (Options Menu)

Controls Microsoft Excel settings for the current session.

Fixed Decimal

Determines where Microsoft Excel will automatically put the decimal point in the numbers you enter as constants on a worksheet.   A positive number moves the decimal to the left; a negative number moves the decimal to the right.   If the option is left blank or set at 0 (zero), the decimal point must be entered manually.   To override this option when entering a number, type a decimal point as you enter the number.

R1C1

Changes the reference style of row and column headings and cell references from A1 to R1C1.

Status Bar

Displays the status bar in the Microsoft Excel window.

Info Window

Displays the Info window for the active worksheet or macro sheet.

Scroll Bars

Displays the scroll bars in the document window.

Formula Bar

Displays the formula bar.   When you edit a cell, its contents are visible in the formula bar.

Note Indicator

Displays a small dot in the upper-right corner of cells with notes attached.

Alternate Menu Or Help Key

Displays the key you press to activate the Microsoft Excel menu bar or Help for Lotus 1-2-3 Users.   Accept the default key or type a new key symbol in the box.

If you select Microsoft Excel Menus, pressing the Alternate Menu or Help key activates the Microsoft Excel menu bar.   If you select Lotus 1-2-3 Help, pressing the Alternate Menu or Help key activates Help for Lotus 1-2-3 Users.

Alternate Navigation Keys

Provides an alternate set of keys for worksheet navigation, formula entry, label entry, and other actions.

Ignore Remote Requests

Ignores remote requests to Microsoft Excel made by other applications.

Move Selection After Enter

Automatically moves the active cell down one row after you press ENTER to enter a formula or value in a cell.

Cell Drag And Drop

Allows you to move and copy cells and data by dragging.

See Also

Help

Alternate Navigation Keys
Controlling remote requests
Displaying or hiding cell note indicators
Turning AutoFill on or off

Turning drag and drop on or off

User's Guide (Book 2)

Chapter 3, "Exchanging Data with Other Applications"
Chapter 4, "Customizing Microsoft Excel"

Toolbars Command (Options Menu)

Allows you to add, create, edit, hide, and customize the toolbars.

Show Toolbars

Lists built-in toolbars in the order you've added them followed by custom toolbars in alphabetic order.

Toolbar Name

Displays the name of the selected toolbar.   Typing a new name creates a new toolbar. You cannot rename a customized or built-in toolbar.

Show

Shows the toolbar selected in the Show Toolbars box.   Changes to Hide if the selected toolbar is already displayed.

Shortcut: CTRL+7 (Standard toolbar only)

Hide

Hides the toolbar selected in the Show Toolbars box.   Changes to Show if the selected toolbar is already hidden.

Shortcut: CTRL+7 (Standard toolbar only)

Close

Closes the dialog box and automatically saves any changes.

Customize

Displays the Customize dialog box so that you can add tools to toolbars and customize both tools and toolbars.

Categories

Lists all of the tool categories.

Tools

Shows the tools that are in the selected tool category.

Tool Description

Describes the selected tool.

Reset

Returns to the built-in version of the selected toolbar.   Changes to Delete if you select a custom toolbar.

Delete

Deletes the selected custom toolbar.   Changes to Reset if you select a built-in toolbar.

See Also

Help

Adding and deleting a tool from a toolbar

Creating a new toolbar

Deleting a custom toolbar

Displaying and hiding a toolbar

Resetting a built-in toolbar

Toolbars

Tools

User's Guide (Book 2)

Chapter 4, "Customizing Microsoft Excel"

Set Print Area and Remove Print Area Commands (Options Menu)

Set Print Area Command

Defines the selection as the area of the worksheet that will be printed when you choose the Print command from the File menu.

- Names the selected cells Print_Area.
- The default print area of a worksheet is the portion that includes all entered data.

Shortcut: Set Print Area tool (Utility toolbar)

Remove Print Area Command

Removes the previously defined print area so the entire worksheet can be printed.

- Available on the Options menu only when the entire worksheet has been selected.

Shortcut: Set Print Area tool (Utility toolbar)

See Also

Help

Set Print Area Tool
Resetting the print area

User's Guide (Book 1)

Chapter 16, "Printing"

Set Print Titles and Remove Print Titles Commands (Options Menu)

Set Print Titles Command

Defines text in selected rows and columns of your worksheet as titles.   When you print the worksheet with the Print command on the File menu, the titles appear on every page.

▪   The text selected can include any number of adjacent rows, adjacent columns, or a combination.
▪   This command names the selection Print_Titles.
▪   If the print area is smaller than the area with the assigned titles, only those titles within the print area are printed.

Titles For Rows

Identifies the column or columns to be used for row titles.   You can change the selected range by entering new text, or by selecting the columns you want to use.   If you don't want row titles, leave this blank.

Titles For Columns

Identifies the row or rows to be used for column titles.   You can change the selected range by entering new text, or by selecting the rows you want to use.   If you don't want column titles, leave this blank.

Remove Print Titles Command

Cancels previously selected print titles.

▪   Available on the Options menu only when the entire worksheet has been selected.

See Also

Help

Canceling print titles
Setting print titles for rows and columns

User's Guide (Book 1)

Chapter 16, "Printing"

Group Edit Command (Options Menu)

Lets you edit designated worksheets and macro sheets as a group.   Once you've created a group, you can apply many of the Microsoft Excel editing, file management, and formatting commands to the active sheet in the group and have those commands automatically applied to the other sheets.   For example, by changing column width in one sheet, you cause the column width in all other sheets in the group to be changed as well.

- A document must be open to be included in a group.
- You cannot include charts in a group; however, you can include a worksheet that contains embedded charts.
- To copy data and formats from the selection on the active sheet to the same area on the other sheets in a group, choose the Fill Group command from the Edit menu.
- To display all the sheets in a group, choose the Arrange command from the Window menu; then select the Documents Of Active Group check box.
- Drawing operations are not available when you are editing a group.

See Also

Help

Adding or removing open documents from a group

Copying data and formats to all sheets in a group

Editing worksheets as a group

Starting or ending a group editing session

User's Guide (Book 1)

Chapter 11, "Working with Multiple Microsoft Excel Documents"

Spelling Command (Options Menu)

Checks the spelling of text in worksheets, macro sheets, graphic objects, or the formula bar. When Microsoft Excel encounters a word that is not in its dictionary, a dialog box appears to help you correct the possible misspelling.

- If the formula bar is active, this command checks the spelling of selected words; if no words are selected, it checks the spelling of the entire contents of the formula bar.
- If a single cell of a worksheet or macro sheet is selected, then the headers and footers, all cells, cell notes, and objects in the document are checked for spelling errors.
- If more than one cell is selected, or if one or more objects are selected, then only the contents of the selection are checked for spelling errors.
- Hidden cells and all cells in collapsed outlines are also checked for spelling errors.
- Cells containing formulas are not checked for spelling errors.
- For graphic objects, only the text in <u>text boxes</u> and <u>buttons</u> is checked for spelling errors.
- If a chart window is active, you can check spelling by choosing the Spelling command from the Chart menu.

Shortcut: Check Spelling tool (Utility toolbar)

Change To/Suggestions

Type or select a replacement for the word not found in the dictionary.

Add Words To

Select the dictionary to which you want to add words that are correctly spelled but not found in the main dictionary.   The first time you use the Spelling command, the dictionary CUSTOM.DIC appears in the Add Words To list.   The dictionary is empty until you add words to it.

Ignore

Leaves the selected word unchanged.

Ignore All

Leaves the selected word unchanged throughout the document.

Change

Changes the selected word to the word in the Change To box.

Change All

Changes the selected word throughout the document to the word in the Change To box.

Add

Adds the selected word to the dictionary in the Add Words To box.

Cancel/Close

Closes the dialog box.   The Cancel button changes to Close when you change a misspelled word or add a new word to the dictionary.

Suggest

Displays a list of proposed suggestions.   This button is dimmed if the Always Suggest box is selected.

Ignore Words in UPPERCASE

Skips words that contain only capital letters.

Always Suggest

Displays a list of proposed suggestions whenever Microsoft Excel encounters a word that is not in the dictionary.

See Also

Help

- [Check Spelling Tool](#)
[Checking spelling](#)
[Spelling Command (Chart Menu)](#)

User's Guide (Book 1)

Chapter 7, "Formatting a Worksheet"

Window Menu

Show Document*

Opens the worksheet or macro sheet containing the information on shown in the Info window, while keeping the Info window open.

New Window

Opens an additional window for the active document.   Only available for worksheets and macro sheets.

Arrange

Arranges all open windows so that they can be viewed at the same time.

Arrange Icons

Arranges the icons if all the windows have been minimized.

Hide

Hides the active window from view.

Unhide

Unhides a hidden window.

Split

Splits a window into two or four panes so that different areas of a large worksheet can be viewed simultaneously.

Remove Split

Removes the splits from a window.

Freeze Panes

Freezes the top pane, the left pane, or both, on the active worksheet.

Creates panes if your window is not split yet.

Unfreeze Panes

Unfreezes frozen panes on your worksheet.

Zoom

Allows you to view your sheet at different scales.   This is useful for navigating, arranging the placement of data and objects, print setup, and getting an overview of the structure of the information.

View**

Creates different views of a worksheet.   You can display and print the views without saving them as separate documents.

1,2,3,...9

Lists the names of open windows and switches to the one you choose.

More Windows

Displays a list of the open and unhidden windows that do not appear on the Window menu and switches to the one you choose.   Available only when there are more than nine windows open.

*This command appears only after you select the Info Window check box from the Workspace Options dialog box, accessed from the Options menu.

** If this command does not appear on the Window menu, you need to install the View command.   For more information, see the Help topics on the Add-Ins command on the Options menu, or see Chapter 4, "Customizing Microsoft Excel" in Book 2 of the Microsoft Excel User's Guide.

1,2,3,...9 Commands (Window Menu)

List the currently open windows at the bottom of the Window menu.   Choosing a window switches to it.

▪   A check mark is displayed beside the active window.
▪   If more than nine windows are open, the More Windows command appears at the end of the list.   Choose it to see a list of all open windows.

Arrange and Arrange Icons Commands (Window Menu)

The **Arrange** command provides ways to arrange windows and synchronize scrolling.

- You can arrange individual windows in your workspace by dragging them with the mouse.
- You can also arrange individual windows in your workspace using the Move and Size commands on the Control menu.
- If the active window is in a group, you can arrange all the windows in the group.
- If the active window is in a workbook, you can arrange all the windows in the workbook.

You can arrange windows in the following ways:

Tiled

Arranges open windows in small sizes to fit on the screen.

Horizontal

Arranges windows to be stacked evenly from top to bottom.

Vertical

Arranges windows evenly from left to right.

None

Allows you to change the synchronization without arranging the windows.

Windows Of Active Document

If selected, arranges only the windows of the active document.

If cleared, arranges all unhidden windows.

Sync Horizontal

Synchronizes horizontal scrolling in all windows of the active document.

Available only if the Windows Of Active Document check box is selected.

Sync Vertical

Synchronizes vertical scrolling in all windows of the active document.

Available only if the Windows Of Active Document check box is selected.

The **Arrange Icons** command arranges all the minimized windows.   Available only when a minimized window is active.

- All icons will be arranged horizontally from left to right at the bottom of the application window.

Hide Command (Window Menu)

Hides the active window from view.

- Even though you cannot see a hidden window, it is still open.
- You can hide source documents that need to be open but do not need to be seen.
- You can hide windows before choosing <u>Arrange</u> from the Window menu to exclude certain windows from being rearranged.
- If you have protected the document's window with a password, you will be asked for the password when hiding the window.
- Use the <u>Unhide</u> command on the Window menu to make a hidden window visible again.

See Also

Help

<u>Protecting windows</u>

More Windows Command (Window Menu)

Displays a list of open windows and switches to the window you choose.

▪ This command appears on the Window menu only when you have more than nine windows open.

New Window Command (Window Menu)

Creates an additional window for the active worksheet or macro sheet so you can view different parts of your worksheet simultaneously.

▪   You can open more than one new window for a given document; the maximum number is limited only by the available memory.

▪   The title bar shows the original document name followed by a colon and the number of the new window.   For example, the second window of your BUDGET.XLS worksheet would be named BUDGET.XLS:2.

See Also

Help

Creating an additional window for the active document

Unhide Command (Window Menu)

Makes a hidden window visible.

- This command lists all hidden windows and unhides the one you choose.
- If you have protected the document's window with a password, you will be asked for the password before the window is displayed.
- Add-in macros cannot be made visible with this command.
- If all the windows have been hidden, this command moves from the Window menu to the File menu.

See Also

Help

Protecting windows

Split and Remove Split Commands (Window Menu)

The **Split** command splits the active window into two or four panes.

▪ This command allows you to scroll multiple panes simultaneously.   Two top-to-bottom stacked panes always have the same column headings; two side-by-side panes always have the same row headings.

▪ This command is available when a worksheet or macro sheet is the active document.

▪ Use the Freeze Panes command to prevent the top pane, left pane, or both, from scrolling.

The **Remove Split** command removes the split from the active window.

▪ This command is available only when the active window has been split.

▪ Double-clicking the split bar also removes the split.

See Also

Help

Splitting a window into panes

Closing panes in a window

User's Guide (Book 1)

Chapter 7, "Formatting a Worksheet"

Freeze Panes and Unfreeze Panes Commands (Window Menu)

The **Freeze Panes** command freezes the top pane, the left pane, or both, on the active worksheet.

▪ This command is useful for keeping row or column titles on the screen while you scroll to other parts of the worksheet.

▪ This command prevents panes to the left of a vertical split from scrolling horizontally and prevents panes above a horizontal split from scrolling vertically.

▪ The panes that are not frozen do not scroll into the frozen part of the worksheet.

▪ You can also use the Freeze Panes tool to freeze or unfreeze panes in your worksheet. Use the Toolbars command on the Options menu to put the Freeze Panes tool onto a toolbar.

▪ If the window is not divided into panes, this command will split the window at the location of the active cell.

The **Unfreeze Panes** command unfreezes frozen panes on your worksheet.

▪ This command appears on the Window menu only when you have frozen panes with the Freeze Panes command.

See Also

Help

Freeze Panes tool
Splitting a window into panes
Freezing and unfreezing panes
Freezing and unfreezing worksheet titles

User's Guide (Book 1)

Chapter 7, "Formatting a Worksheet"

View Command (Window Menu)

Creates different views of a worksheet.   A view provides an easy and powerful way to see your data in a different format.   You can display and print the views without saving them as separate documents.

- The View dialog box appears when you choose the View command.   You can choose to save a view with different print settings, hidden rows and columns, display settings, selected cells, and window size.
- You can choose the View command to show a view you created earlier, to add a new view, or to delete a view.
- When you create a view, you name the view and choose the settings as part of the view.
- A view you create always includes window size, position, frozen panes, selection, the active cell, and the settings in the Display dialog box, which you open from the Options menu.

See Also

Help

Creating a view of a worksheet

User's Guide (Book 1)

Chapter 7, "Formatting a Worksheet"

Zoom Command (Window Menu)

Displays a worksheet at different scales for navigating, arranging and placing objects and data, setting print options, and getting an overview of the information presented.

▪   This command allows you to see a worksheet in detail or view more of a worksheet.
▪   You can select a zoom factor between 10% and 400% in addition to the five built-in zoom factors in the Zoom dialog box.
▪   When you select the Fit Selection option button in the Zoom dialog box, Microsoft Excel calculates a zoom factor so that all the selected cells fit in the current window size.
▪   You can also use the Zoom In tool and the Zoom Out tool on the Utility toolbar.   Use the Toolbars command on the Options menu to display the Utility toolbar.

See Also

Help

       Zoom In Tool

       Zoom Out Tool
Zooming in or out on your worksheet

User's Guide (Book 1)

Chapter 7, "Formatting a Worksheet"

Show Document (Window Menu)

Displays the worksheet or macro sheet containing the information shown in the Info window, while keeping the Info window open.

▪   This command appears only when you select the Info Window check box in the Workspace Options dialog box, accessed from the Options menu.

▪   To switch between the worksheet or macro sheet and the Info window, press CTRL+F2.

See Also

User's Guide (Book 1)

Chapter 8, "Organizing and Documenting a Worksheet"

Basic Concepts

For introductory information on basic spreadsheet concepts and Microsoft Excel features, choose one of the underlined topic titles in the table below.   To return to this topic once you have selected another topic, choose the Back button at the top of the Help window until this topic reappears.

You may also want to complete the Microsoft Excel tutorials, "Introducing Microsoft Excel" and "Learning Microsoft Excel," available on the Help menu.   These tutorials provide additional information on these topics.

Worksheets
   Primary documents for recording, calculating, and analyzing data.

Charts
   Graphic presentations of worksheet data.

Databases
   Parts of a worksheet used for organizing, managing, and retrieving information.

Tools
   Buttons on a toolbar that help you perform selected actions faster and more easily.

Toolbars
   Bars containing tools to help you to work faster and more easily.

Graphic objects
   Graphic shapes and pictures that enhance a worksheet's appearance.

Macros
   Instructions that you create to automate repetitive tasks and create customized functions and applications.

Add-in macros
   Macros integrated with Microsoft Excel, which work as if they were built into the application.

Importing and exporting
   Data exchange between Microsoft Excel documents and documents created in other applications.

Linking and embedding
   Dynamic data exchange between Microsoft Excel documents and documents created in other applications (linking).   Inserting data as an updatable object from another application (embedding).

Templates
   Documents created for use as basic patterns or forms for other similar documents.

AutoFill
   Allows you to create a series of incremental or repeating values on a worksheet by dragging the fill handle of the selection border with the mouse.

Drag and Drop
   Allows you to copy, move, or delete cell contents, notes, and formats on a worksheet by dragging with the mouse.

About Worksheets

A worksheet, also called a spreadsheet, is the main document used in Microsoft Excel to store and work with data.   A worksheet is a rectangular grid of 256 columns and 16,384 rows.   The basic unit of a worksheet is a cell, the intersection of a column and a row, in which you store data.   Columns are labeled from left to right, beginning with A through Z. After Z, labeling continues with AA through AZ, then BA through BZ, and so on through column IV for a total of 256.   Rows are numbered down from 1 to 16,384.

You fill in a worksheet by entering text, numbers, and formulas in the cells.   Microsoft Excel automatically recalculates any mathematical formulas in your worksheet when you add or change data.

- You can change the way information is displayed in your worksheet by changing the size, style, and color of data within cells.
- You can also add graphic objects to enhance your worksheet's appearance.

With Microsoft Excel, you can link worksheets.   For example, you can link several worksheets that calculate monthly financial data to one worksheet that calculates quarterly data.   When worksheets are linked, changes you make in one worksheet produce corresponding changes in dependent worksheets.

See Also

Help

Copying data

Creating a new worksheet

Editing cell contents

Formatting cells

Linking and embedding

Selecting a range of cells

Selecting cells, rows, or columns

Learning Microsoft Excel (Online Tutorial)

What Is a Worksheet?

Using a Worksheet

User's Guide (Book 1)

Chapter 5, "Creating a Worksheet"

Chapter 6, "Editing a Worksheet"

Chapter 7, "Formatting a Worksheet"

—

About Databases

A <u>database</u> is an area on a worksheet used for organizing, managing, and retrieving information.   You create a database on a portion of a worksheet and use it to store and manipulate large or complex bodies of data.

You can use a Microsoft Excel database to:

- Search or query using <u>defined criteria</u> to find specific data.
- <u>Sort</u> all or part of a worksheet alphabetically and numerically.
- Extract subsets of data based on criteria you define.
- Simplify adding, changing, and deleting worksheet data.
- Print data organized for specific purposes.

You create a database by using the <u>Set Database command</u> on the Data menu to define a range of worksheet cells as a database .   Each row of the range contains a database record and each column contains a field, or category of data.   The first row of the database contains the <u>field names</u>.   For example, if you are tracking sales orders, the fields might include the date, the client's name, address, and phone number, the quantity and price of each item ordered, and the order total, each in its own column.   Each sales order transaction will be a record, or row, containing this information.

See Also

Help

<u>Data Menu Commands</u>

<u>Defining a database</u>

<u>Extracting data from a database</u>

<u>Finding records in a database</u>

<u>Sorting a range of cells</u>

Learning Microsoft Excel (Online Tutorial)

What Is a Database?

Using a Database

User's Guide (Book 1)

Chapter 9, "Creating and Using a Database on a Worksheet"

Chapter 10, "Analyzing and Reporting Database Information"

About Macros

A macro is a set of instructions, like a script, that Microsoft Excel carries out when you press a special key combination or click an object, tool, or button to which the macro has been assigned.   A macro may be very simple, carrying out two or three commands, or very complex, carrying out hundreds of commands.   You record macros and design custom functions on macro sheets.

You can use macros to:
- Create custom functions.
- Automate routine tasks.
- Create menus and dialog boxes for custom applications.
- Automatically run other applications.

You can write a macro by entering formulas in the cells of a macro sheet, or you can use the macro recorder.   The macro recorder works like a tape recorder: it records your actions so you can play them back on request.

See Also

Help

Creating a new macro sheet

Macro Menu Commands

Recording a macro

Running a macro

Stepping through a macro

Learning Microsoft Excel (Online Tutorial)

What Is a Macro?

Using a Macro

User's Guide (Book 2)

Chapter 5, "Creating and Using Custom Worksheet Functions"

Chapter 6, "Automating Tasks with Command Macros"

Chapter 7, "Designing and Writing a Command Macro"

Chapter 8, "Creating a Custom Application"

About Graphic Objects

Using the tools on the Microsoft Excel toolbars, you can draw graphic objects on worksheets and macro sheets.   You can also import graphics, as pictures, from other applications to enhance the appearance of your worksheets and macro sheets.

With the tools on the Drawing toolbar, you can draw lines, arcs, and transparent or filled ovals, rectangles, and polygons.   Once you have added a graphic object, you can change its position, shape, or size; group it with other graphic objects; make copies of it; and format its color, border, or pattern.

You can assign a macro to a graphic object so that the macro will run whenever you click the object.

With the Camera tool on the Utility toolbar, you can create pictures of Microsoft Excel charts, worksheet cells, or macro sheet cells.   You can then place the pictures on other parts of the sheet, on another sheet, or in another application.

See Also

Help
Assigning a macro to a graphic object
Drawing a line, oval, arc, or rectangle with tools from the toolbar
Showing and hiding toolbars

User's Guide (Book 1)
Chapter 15, "Working with Graphic Objects"

About Templates

A template is a document you create as the basic pattern to use for other similar documents.   When you create a new document from a template, you get an exact copy. For instance, you can create a tax form, a quarterly report, or an annual budget; save it as a template; and then use the template to insert data that varies every month, quarter, or year.

You can create templates from worksheets, charts, macro sheets, and workbooks by using the <u>Save As command</u> on the File menu to save them in the Template <u>file format</u>. Templates can contain text, such as row and column labels on a worksheet; formats, such as colors or column widths; macros, such as printing macros; formulas, such as the SUM formula and other mathematical formulas; or your own custom cell styles.

▪   Chart templates use the preferred chart type to generate the chart.   To change the chart type for the current session, use the <u>Set Preferred command</u> on the Gallery menu.

▪   When you save a template in the XLSTART directory, Microsoft Excel automatically adds the template name to the list of available choices when you choose the <u>New command</u> from the File menu.

See Also

Help

<u>Creating a new template</u>

<u>Editing a template</u>

<u>Saving a document as a template</u>

User's Guide (Book 1)

Chapter 4, "Managing Document Files"

About Add-In Macros

Add-in macros are <u>macro sheets</u> that are integrated with Microsoft Excel and appear to be part of the application.   You can create an add-in macro by using the <u>Save As command</u> on the File menu to save a macro sheet in the add-in <u>file format</u>.   The add-in file format is available only when a macro sheet is active.   You can create your own add-in macros or use the many third-party products created for Microsoft Excel as add-in macros.

▪   Add-in macros are given the filename extension .XLA.

▪   To open an add-in macro every time you start Microsoft Excel, place it in the <u>XLSTART directory</u>.

▪   Add-in macros located in other directories can be opened using the <u>Open command</u> on the File menu.

▪   Add-in macros are hidden from the user and cannot be unhidden using the <u>Unhide command</u> on the Window or File menu.

▪   Add-in command macro names do not appear in the Run or Assign To Object dialog boxes when you choose the <u>Run</u> or <u>Assign to Object</u> command from the Macro menu.

▪   Custom functions in the add-in macros are listed in alphabetic order, without the name of the preceding add-in macro, in the Paste Function dialog box when you choose the <u>Paste Function command</u> from the Formula menu.

▪   The <u>Close All command</u> on the File menu does not close add-in macros.

See Also

Help

<u>Opening an add-in macro as a regular macro sheet</u>

<u>Saving a macro sheet as an add-in macro</u>

User's Guide (Book 2)

Chapter 8, "Creating a Custom Application"

About Importing and Exporting

Because Microsoft Excel automatically recognizes the file formats of many other applications, there are several ways to exchange data between Microsoft Excel documents and documents created in other applications.

You can import documents from other applications, such as spreadsheets and databases, by opening them in Microsoft Excel with the Open command on the File menu.   You can format Microsoft Excel documents for other applications using the Save As command on the File menu.

▪   If you import data into Microsoft Excel from another application, especially a text or database file, several columns of data may be condensed into a single column during the transfer.   You can separate the fields of each record into columns with the Parse command on the Data menu.

See Also

Help

Exporting a document to another application

Importing a document from another application

User's Guide (Book 2)

Chapter 3, "Exchanging Data with Other Applications"

About Toolbars

The toolbars contain <u>tools</u> to help you to work faster and more easily.   The Standard toolbar contains tools for some of the most frequently used commands.   By choosing the <u>Toolbars</u> command from the Options menu, you can hide the toolbar at any time to allow more space for your work.

Microsoft Excel has nine toolbars.   They are:

<u>Chart toolbar</u>
<u>Drawing toolbar</u>
<u>Formatting toolbar</u>
<u>Macro Paused toolbar</u>
<u>Macro Recording toolbar</u>
<u>Macro toolbar</u>
<u>Microsoft Excel 3.0 toolbar</u>
<u>Standard toolbar</u>
<u>Utility toolbar</u>

You can display any of these toolbars by choosing the Toolbars command from the Options menu.

You can change the toolbars or create new toolbars to suit the way you work or the way you have developed your Microsoft Excel documents.   You can add as many toolbars as you like.

See Also

Help

<u>Adding and deleting a tool from a toolbar</u>
<u>Assigning or recording a macro to a tool</u>
<u>Changing the action that a tool performs</u>
<u>Changing the shape of a floating toolbar</u>
<u>Creating a new toolbar</u>
<u>Customizing the appearance of a tool</u>
<u>Deleting a custom toolbar</u>
<u>Displaying and hiding a toolbar</u>
<u>Grouping and ungrouping tools</u>
<u>Moving a toolbar</u>
<u>Moving tools</u>
<u>Resetting a built-in toolbar</u>

User's Guide (Book 2)

Chapter 4, "Customizing Microsoft Excel"

About Tools

Tools are buttons located on the toolbar that allow you to perform selected actions quickly and more easily.   In addition to the Standard toolbar, Microsoft Excel has eight toolbars, each containing a related group of tools.   You can change any toolbar or create new toolbars by adding, deleting, and rearranging tools.   Additional tools are available in the Toolbars dialog box.

Microsoft Excel has 10 categories of tools.   They are:

Charting Tools category
Custom Tools category
Drawing Tools category
Edit Tools category
File Tools category
Formatting Tools category
Formula Tools category
Macro Tools category
Text Formatting Tools category
Utility Tools category

You can customize toolbars by:

▪ Moving tools from a tool category or another toolbar.
▪ Grouping and ungrouping tools so that the arrangement of tools is more compatible with your work style and needs.
▪ Creating tools to carry out macros or commands that you use frequently.   You can add tools you create to toolbars.

See Also

Help

Adding and deleting a tool from a toolbar
Assigning or recording a macro to a tool
Changing the action that a tool performs
Creating tools
Customizing the appearance of a tool
Grouping and ungrouping tools
Moving tools

User's Guide (Book 2)

Chapter 4, "Customizing Microsoft Excel"

About Charts

A chart is a graphic presentation of <u>worksheet</u> data.   Microsoft Excel offers 14 types of charts, in 88 built-in formats.   When you create a chart, Microsoft Excel plots the chart based on the shape of the selected range of data and on the types of data in the row and columns.

You can create a chart directly on a worksheet, to be displayed and saved as a part of the worksheet; this is called an embedded chart.   Or, you can create a chart as a separate document in its own window.   Both embedded charts and separate chart documents are linked to the worksheet data they were created from, and will be updated when you update the worksheet.

You can change the format of a chart using the commands on the <u>Chart menu</u> and the <u>Format menu</u>.   You can add a legend, text, or arrows to emphasize certain information, and change colors, patterns, axes, and gridlines.

▪   Chart types are: area, bar, column, line, pie, radar, xy (scatter), combination, 3-D area, 3-D bar, 3-D column, 3-D line, 3-D pie, and 3-D surface.
▪   To change the chart type, use the tools on the <u>Chart toolbar</u> or the commands on the <u>Gallery menu</u>.

See Also

Help

<u>Changing the chart type and format</u>

<u>Copying a chart</u>

<u>Creating a chart</u>

<u>Editing chart text</u>

<u>Formatting a chart created on a worksheet</u>

<u>Selecting items in a chart</u>

Learning Microsoft Excel (Online Tutorial)

What Is a Chart?

Using a Chart

User's Guide (Book 1)

Chapter 12, "Creating a Chart"

Chapter 13, "Editing a Chart"

Chapter 14, "Formatting a Chart"

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Workbooks

A workbook is a Microsoft Excel document in which you can store other documents.   A workbook can include any combination of worksheets, macro sheets, and charts.   Workbooks make it easy to keep related Microsoft Excel documents together.

▪ 　　By opening and closing a single workbook document, you can open or close all of the documents you need for a specific task.
▪ 　　Workbook files have the .XLW extension.
▪ 　　You can save worksheets and related macro sheets in a single workbook file.   This ensures that when you are using a worksheet, the macro sheets you need are open.
▪ 　　Workbooks can be used to keep linked or dependent worksheets, macro sheets, and charts together.
▪ 　　Workbooks make it easy to manage files and maintain security.   For example, you can set up password protection once for a workbook containing several financial worksheets.
▪ 　　The size and position of all open windows in the workbook are saved with the workbook, and appear just as you saved them the next time you open the workbook.
▪ 　　You can quickly display any document in a workbook by clicking one of the paging buttons or by selecting it from the Workbook Contents window.
▪ 　　With workbooks you can ensure that several people will use the same documents across a network.   For example, you can create a single macro sheet to be used by many people.   Save the macro sheet as read-only and store it on your network.   If you distribute a workbook file that includes that macro sheet as an unbound document, when you update the macro sheet all your users will automatically use the latest version.
▪ 　　Bound workbook documents can be given extended names up to 31 characters long. You can use this feature to describe the document in more detail than the normal filename allows.

Workbook Contents

When you open a workbook, the documents in the workbook are listed in the Workbook Contents window.

From the Workbook Contents window, you can add or remove documents from your workbook, give the document a descriptive name, and specify whether you want the documents saved as part of the workbook or as separate files.

Bound and Unbound Documents

Documents may be bound in the workbook or unbound as separate files.   A document bound in a workbook can appear in only that workbook, but unbound documents can be part of several workbooks.   You can tell by the icon in the Workbook Contents window whether a document is:

　　Bound

or

　　Unbound.

Paging

Every workbook document has a set of paging buttons in the lower-right corner of the window.

　　Displays the next document in the workbook.

　　Displays the previous document in the workbook.

　　Displays the Workbook Contents window.

Clicking any of these buttons with the right mouse button displays a shortcut menu listing all workbook documents and the Group Edit and New commands.

See Also

Help

- <u>New Workbook Tool</u>
<u>Adding or removing a document from a workbook</u>
<u>Binding and unbinding workbook documents</u>
<u>Copying a document from one workbook to another workbook</u>
<u>Creating a workbook</u>
<u>Editing a group of worksheets in a workbook</u>
<u>Giving a bound workbook document an extended name</u>
<u>Moving between workbook documents</u>
<u>Opening a new window of a document in a workbook</u>
<u>Reordering documents in a workbook</u>
<u>Saving a workbook</u>
<u>Toolbars Command (Options Menu)</u>

User's Guide (Book 1)
Chapter 4, "Managing Document Files"

Using AutoFill

Allows you to create a series of incremental or fixed values on a worksheet by dragging the fill <u>handle</u> of the selection border with the mouse.

For example, if you want to copy the value from one cell into the five cells below it, you can use AutoFill.   In this instance, AutoFill works in the same way as the <u>Fill commands</u> on the Edit menu.

Or, you can extend a series in the same way you use the <u>Series command</u> on the Data menu.   For example, if you type Monday and Tuesday in consecutive columns, then drag the fill handle to the right, Microsoft Excel fills Wednesday, Thursday and so on into the selected cells.

▪   Series are useful when creating table row or column headings on a worksheet, and then extending linear projections, or any time you need a series of incremental numbers, time periods, or other entries that include incremental values.

▪   AutoFill works well for creating or extending a small series, while the Series command on the Data menu is better for creating very large series or for specifying a stop value.

▪   Just as you can create a series that incrementally increases in value in one direction, you can create a series that decreases in value in the reverse direction. You do this by dragging the fill handle up or to the left.

▪   You can clear data within a selection by dragging the fill handle up or to the left of the selection and stopping within the selected cells, without going past the column or the row border. The data to be cleared appears in gray as you drag the fill handle.

> For example, if you want to clear Saturday and Sunday from a series of the days of the week, drag the fill handle to the left until Saturday and Sunday appear in gray; then release the mouse button.   Saturday and Sunday will be cleared from the cell.

▪   If you select an entire column or row, the fill handle appears at the lower right of the row or column heading and not at the end of the selection.

▪   If you hold down SHIFT while dragging the fill handle into the selection, the cursor changes to a horizontal I-beam for rows or a vertical I-beam for columns, the data in those rows or columns over which you drag turns gray, and the cells are deleted when you release the mouse button.

▪   If you hold down SHIFT while dragging the fill handle out of the selection, the cursor changes to the I-beam, and the number of rows or columns over which you drag are inserted.   The surrounding rows or columns shift when you release the mouse button.

See Also

Help

<u>Copying to a range of adjacent cells</u>
<u>Creating a trend series</u>
<u>Extending a series of numbers or dates</u>
<u>Turning AutoFill on and off</u>

User's Guide (Book 1)

Chapter 5, "Creating a Worksheet"
Chapter 6, "Editing a Worksheet"

Using Drag and Drop

With Microsoft Excel, you can copy, move, or delete cell contents, notes, and formats on a worksheet by dragging with the mouse.

▪   When moving or copying cells, you cannot drag the entire selection into hidden columns or rows.

▪   The border that appears skips the hidden rows or columns and moves to the next visible column or row.

▪   You can, however, partially move or copy a selection into hidden rows or columns.

Copying cells by dragging

You can copy formulas or values and all the attributes of the cell to a new location by holding down CTRL and dragging the border surrounding the cells.

▪   When working with values that would otherwise increment, you can use this method to create a series or to copy a single cell or range of cells to adjacent cells.

▪   When you move a cell by holding down CTRL and dragging, Microsoft Excel adjusts all references to the moved cells to reflect their new location.

Moving cells by dragging

You can move cells to another area of the worksheet by dragging the border surrounding the cells.

▪   When you select and drag any group of cells that is not an entire row or column, the contents move to the new location and the cells in the old location are cleared.

▪   When you hold down SHIFT while dragging the fill handle out of the selection, the cursor changes to an I-beam, and the number of rows or columns over which you dragged are inserted.   The surrounding rows or columns shift when you release the mouse button.

▪   When you select and drag an entire row or column, the contents of the row or column are moved, and the row or column is deleted.

To delete a row, column, or range of cells by dragging

1 Select the row, column, or range.

2 Position the mouse pointer on the fill <u>handle</u>.   Press SHIFT while dragging the fill handle up for rows or left for columns, selecting the number of rows or columns you want to delete.

3 Release the mouse button.

To move or copy a selection into hidden rows or columns

1 Select the row, column, or range you want to move or copy.

2 Drag the border of a selection to the gridline of the hidden row or column.

Part of the border you are dragging vanishes and part remains visible. This indicates that part of the data will be pasted into the hidden rows or columns and part will be pasted into the visible rows or columns.

You cannot paste an entire selection into hidden rows or columns.

3 Release the mouse button.

See Also

Help

<u>Copying data</u>

<u>Moving cells and data</u>

<u>Deleting cells, rows, or columns</u>

<u>Turning drag and drop on and off</u>

User's Guide (Book 1)

Chapter 5, "Creating a Worksheet"

Chapter 6, "Editing a Worksheet"

About Linking and Embedding

Linking and embedding are two different ways to exchange data between Microsoft Excel documents, and between Microsoft Excel documents and documents created in other applications.   Use linking when you want the data updated dynamically as the data in the source document changes.   Use embedding when you want to be able to edit or format the data within another document.

Linking data between Microsoft Excel documents

You can link a Microsoft Excel worksheet to source data in another Microsoft Excel worksheet.   Any changes you make in the source worksheet are immediately reflected in the dependent worksheet.   You can also link macro sheets.   When you create a chart, the data in the chart is automatically linked to the worksheet containing the data from which the chart was created.

Linking data between a Microsoft Excel document and a document in another application

You can link data from a document in another application to a Microsoft Excel document, or from a Microsoft Excel document to a document in another application.

For example, you can link a Microsoft Excel chart to a Microsoft Word document. Whenever you edit the chart in Microsoft Excel, your changes are displayed in the chart in the Microsoft Word document, if it is open.   If the Microsoft Word document is not open, the chart is updated the next time you open it.

To create a link between a Microsoft Excel document and a document in another application, that application must be running with Windows, and it must support dynamic data exchange (DDE) or object linking and embedding (OLE).

Use the Links command on the File menu to edit or change existing links, and to open source documents.

Embedding data from one document into another document

You can embed a Microsoft Excel cell, cell range, or chart into another document.   You can also embed information from another document, such as text, a table, a chart, or a graphic, in Microsoft Excel.   Information that you embed is called an embedded object.

For example, you can embed a Microsoft Excel chart as an object in a report created in another application.   All the information that was used to create the object, in this case a chart, is encapsulated in the embedded object in the report.   If you want to change the chart while you're working in the report, double-click the embedded object.   This opens the object in Microsoft Excel so that you can make the editing and formatting changes you want.   When you close the object, the report is displayed again, and the embedded object is updated with the changes you made.

To use embedding with Microsoft Excel and another application, both applications must be running with Microsoft Windows and must support object linking and embedding (OLE).

See Also

Help

Creating links between documents
Disabling updating of all links on a worksheet
Editing a Microsoft Excel object embedded in another document
Editing an object embedded in a Microsoft Excel document
Embedding a Microsoft Excel object in another document
Embedding an object in a Microsoft Excel document
Insert Object Command (Edit Menu)
Links Command (File Menu)

Paste Link Command (Edit Menu)

Paste Special Command (Edit Menu)

Redirecting links to source documents

Saving an embedded Microsoft Excel object as a separate document

Updating linked information

Viewing the source data for a link

User's Guide (Book 1)

Chapter 1, "Getting Started With Microsoft Excel"

Chapter 11, "Working with Multiple Microsoft Excel Documents"

User's Guide (Book 2)

Chapter 3, "Exchanging Data with Other Applications"

Argument

Information you supply to a Microsoft Excel function for calculation.

Array

Used to build formulas that produce multiple results or that operate on a group of arguments arranged into rows and columns.   There are two types of arrays in Microsoft Excel: array ranges and array constants.   An array range is a rectangular area of cells sharing one common formula; an array constant is a specially arranged group of constants used as an argument in a formula.

ASCII Character

A standard code for representing characters as numbers.   Used on most microcomputers, computer terminals, and printers.   Includes not only printable characters but also nonprintable characters, such as control codes that indicate carriage return and backspace.

Axes

Lines bordering the plot area providing a frame of reference for measurement or comparison on a chart.   A two-dimensional (2-D) chart has two axes.   A three-dimensional (3-D) plotted chart has two or three axes depending on the data view selected.

Breakpoint

A location that you set on a macro sheet where the macro pauses and displays a dialog box containing three options: step through each formula, continue running the macro, or stop the macro. Set a breakpoint to stop the macro and look at the value of the variables you specified.

Chart

A graphic presentation of data from a worksheet.   You can create a chart in a separate document or embedded as a graphic object on a worksheet.   An embedded chart can be linked to data on other worksheets.

Chart Data Series

A group of related data points to be plotted on a chart.   Each data point consists of a category and a value.   You can plot one or more data series on a chart.

Clipboard

The holding place for information you cut or copy with the Cut, Copy, and Copy Picture commands.

If you cut or copy worksheet cells, the Clipboard does not display the actual cells.   Instead, it displays the action you are taking and the location of the cells you are cutting or copying, for example, "Copy 2R x 3C" or "Cut 2R x 3C".

Comparison Operators

There are six standard comparison (logical) operators you can use in Microsoft Excel formulas:

Operator	Meaning
=	Equal to
>	Greater than
<	Less than
>=	Greater than or equal to
<=	Less than or equal to
<>	Not equal to

Consolidation by Category

Consolidates worksheet cells based on their category name.   The worksheet cells you want to consolidate must have identical category labels, but the position of the categories within each worksheet may vary.

Consolidation by Position

Consolidates worksheet cells based on their position.   The worksheets that contain the cells you want to consolidate must have identical layouts so that similar categories of data occupy exactly the same location in each source area.

Constant

A number, text, logical, or error value that does not start with an equal sign (=).

Criteria

Information you enter in a worksheet range that determines which records will be affected when you choose either the Find, Extract, or Delete command from the Data menu.

Data Table

A range of cells summarizing the results of substituting different values in one or more formulas on your worksheet.   In Microsoft Excel, there are one-input tables and two-input tables.

Database

A range of cells on a worksheet.   The first row of the database contains the field names. Each additional row of the database is one record; each column in the record is one field.

Dependent Worksheet

A worksheet that contains an external reference formula or a remote reference formula. When you link two Microsoft Excel worksheets, the dependent worksheet relies on another worksheet for the value in the external reference formula.   When you link a Microsoft Excel worksheet to a document in a different application, the worksheet is dependent on that document for the value in the remote reference formula.

Embedding

The process by which an object is copied into another document.   Embedding can take place between documents within the same application or between documents in different applications, as long as both applications support the embedding process.

Because an embedded object maintains "ties" with its original application, you can open that application and edit the object simply by double-clicking the embedded object.

External Reference

A reference to another Microsoft Excel worksheet.   An external reference can designate a single cell, a cell range, or a named cell or range.

External Reference Formula

A formula in a worksheet that contains a reference to a single cell, cell range, or named cell or range in another worksheet.   An external reference formula creates the actual link between Microsoft Excel worksheets.

Extract Range

A separate area on a worksheet set aside for data retrieved and copied from the database.

Field

A column or a cell in a database.   Each column in a database contains a different category of data, and each cell in a database shares a common characteristic with other cells in the same column.

Field Name Row

The first row of a database.   Each cell in the row contains a name describing the contents of the cells beneath it.

File Format

The way information in a document is stored in a file.   Different programs use different file formats.   You can save documents in a variety of file formats using the Save As command on the File menu.

Formula

A sequence of values, cell references, names, functions, or operators that is contained in a cell and produces a new value from existing values.   A formula always begins with an equal sign (=).

Formula Bar

A bar at the top of your Microsoft Excel window used to enter or edit values and formulas in cells or charts.   Displays the constant value or formula contained in the active cell.

Function

A built-in formula that takes a series of values, uses them to perform an operation, and returns the result of the operation.   Functions can be entered in the formula bar as part of cell formulas.

Global Macro Sheet

A hidden macro sheet automatically managed by Microsoft Excel.   Macros recorded in the global macro sheet are available every time you start the program.

Graphic Object

A line or shape (button, text box, oval, rectangle, arc, picture) you draw using the tools on the toolbar, or a picture you paste into Microsoft Excel.

Input Cell

The cell into which values from a data table are substituted.

International File Format

Saves a worksheet or macro sheet in an international format so that you can open the file in any other language version of Microsoft Excel.

Legend

A key that identifies the series markers in a chart.   Includes each pattern or symbol used as a marker, followed by the corresponding data series or category name.

Linked Documents

Separate documents that are dynamically connected so that a formula in one document refers to a value in another document.   Since the link enables Microsoft Excel to update the value when it changes, the changes made in one document are immediately reflected in the other.

Any time you build a formula or define a name in one worksheet by entering a reference to a cell, cell range, or name in another worksheet, Microsoft Excel links the two worksheets.

Logarithm

The exponent that indicates the power to which a number is raised to produce a given number.

For example, LOG(100) = 2, since 100 = 10 squared.

Logical Value

The result of a formula that contains a logical function or equation, such as 1=1, that is either true or false. Microsoft Excel recognizes both TRUE and FALSE and one and zero (1,0) as logical values.

Macro Sheet

A document similar to a worksheet that contains sets of instructions (macros) for accomplishing specific tasks.

Macro Translation Assistant
A utility that helps translate Lotus 1-2-3 and Multiplan macros into Microsoft Excel macros.

Moving Border

A moving dotted line that surrounds a cell or range of cells.   A moving border appears around a cell or range that has been cut or copied, or around a cell or range you are inserting in a formula while in Point mode.

Menu Key

The menu key activates the menu bar.   In Microsoft Excel the ALT key and F10 both function as menu keys.   In addition, you can specify an alternate menu key in the Workspace dialog box.

Nonadjacent Selection

A selection of noncontiguous cells and/or objects.

Name

An identifier you create to refer to a cell, a group of cells, a constant value, an array of values, or a formula.   When you use names in a formula, the formula is easier to read and remember than a formula containing cell references

Normal Style
The style automatically applied to documents until you apply your own style.

Pause

A macro function that suspends macro operation allowing you to perform other tasks.

Parsing

Distributing the contents of a single cell to fill several cells, or a single column to fill several columns.

Paste Area

The target destination for data you cut with the Cut command or copied with the Copy command from the Edit menu.

Plot Area

The area of a chart in which Microsoft Excel plots data.   On a 2-D chart, it is bounded by the axes and includes all markers that represent data points.   On a 3-D chart, the plot area is defined by the walls and floor of the chart.   The walls and floor can be formatted independently.

Range

A rectangular section of a worksheet containing two or more cells.

Record

One row in a database.   The first row of the database contains the field name.   Each additional row of the database is one record.   Each record contains the same categories of data as every other record in the database.

Reference

The location of a cell or group of cells on a worksheet, indicated by column letter and row number.   Examples: "C5"; "A1:D3"; "R1C1"; and "R[1]C[3]".   If the cell or cells are on a different worksheet, the cell location is preceded by the name of the worksheet and an exclamation point (!).   Example: "Sales!$A$1:$H$1".

Reference Style

A method of identifying cells in a worksheet.   In the A1 reference style, columns are labeled with letters and rows with numbers.   In the R1C1 reference style, R indicates row, C indicates column; both columns and rows are labeled with numbers.

Reference Type

A relative reference (A1) in a formula indicates the location of another cell in relationship to the cell containing the formula.

An absolute reference ($A$1) always refers to the exact location of a specific cell.

A mixed reference ($A2; A$2) is half relative and half absolute.

Remote Reference

A reference to a document in a different application.   A remote reference can designate a single cell, cell range, value, or field of data in the other document.

Remote Reference Formula

A formula in a Microsoft Excel worksheet that contains a reference to a cell, cell range, value, or field of data in a document from a different application.   A remote reference formula creates the actual link between a Microsoft Excel worksheet and the other document.

Scroll Bars

Bars along the right and bottom sides of your worksheet or macro sheet that allow you to scroll through the document vertically and horizontally, using a mouse.   Clicking an arrow moves one column or row at a time.   Clicking a shaded area moves one window at a time.

The length of the scroll bar represents the entire document.   Dragging the scroll box to a different position on the scroll bar and releasing the mouse button displays the part of the document that is in that position.

Series Formula

A formula that contains the data used to plot a data series on a chart.   When you create a new chart, Microsoft Excel automatically builds a series formula for each data series. The formula consists of the SERIES function followed by four arguments, each of which defines one aspect of the data series.

Startup Directory

The startup directory is an optional directory named XLSTART which is located in the same directory as EXCEL.EXE.   If you have an XLSTART directory, any documents placed in it are automatically opened when you start Microsoft Excel.

Templates placed in the startup directory are not automatically opened, but are listed as options in the New dialog box when you choose the New command from the File menu.

Documents in startup subdirectories are not automatically opened.

Status Bar

The bar at the bottom of the screen that displays information about the currently selected command, the active dialog box, standard keys on the keyboard, and the current state of the program and the keyboard.

Source Document

A Microsoft Excel worksheet referred to by an external reference formula or a remote reference formula.   The source document is the source of the value contained in the external reference formula or remote reference formula and therefore provides "supporting data" to the dependent worksheet.

Destination Macro Sheet

A Microsoft Excel macro sheet on which the Macro Translation Assistant enters a translated macro.

Templates

Templates are worksheets, charts, or macro sheets created as patterns for subsequent documents.

Since templates keep all the formatting, styles, and formulas--including row and column headings--of the original documents, they offer a quick way of creating similar documents with variable data in them, such as quarterly reports or annual budgets.

Topic

An article in Microsoft Excel Help that explains how to use Microsoft Excel.

Tracepoint

A location that you set on a macro sheet where the macro pauses so that you can step through the formulas one at a time.   Set a tracepoint so that you can debug a section of a macro without having to step through every formula in the macro.

Unattached Text

Text that is not linked to a chart object and can be moved anywhere on the chart.

Wildcard

A character (? or *) that stands for one or more characters.   Used for finding data in a worksheet or as part of database criteria.   Use the asterisk (*) to represent any number of characters.   Use the question mark (?) to represent any single character in the same position as the question mark.

Group

A temporary grouping of worksheets and macro sheets.   Any changes you make in data or formatting on the active sheet is reflected in all sheets in the group.

Worksheet

Also called a spreadsheet.   The worksheet is the primary document you use in Microsoft Excel to store and manipulate data.   A worksheet consists of cells organized into columns and rows.

XY (Scatter) Chart

A 2-D chart that has numeric values plotted along both axes rather than values along the vertical axis and categories along the horizontal axis.   This kind of chart type is typically used to analyze scientific data to see if one set of values is dependent on or affects another set of values.

Command Macro

A sequence of commands that you record on a macro sheet.   Later, you can run the recorded commands to automate your work.   A command macro can be assigned to a shortcut key, a button, an object, or a tool, for easy use.

One-Input Data Table

A table you produce using the Table command on the Data menu.   Using a formula containing one variable and a series of values to be substituted for that variable, you can generate a one-row or one-column series of results based on the series of values you entered.

Two-Input Data Table

A table you produce using the Table command on the Data menu.   Using a formula containing two variables and two series of values to be substituted for those variables, you can generate a two-dimensional matrix of results based on the series of values you entered.

External Absolute Reference

An external absolute reference consists of the name of the source worksheet, followed by an exclamation point (!) and the absolute reference to the cell range.   Example: "Sales!$A$1:$H$1".

Shortcut Menu

With the mouse pointer pointing to a selection on a chart, worksheet, or macro sheet, click the right mouse button to display a menu of useful commands.   You can display shortcut menus from cells, columns, rows, text boxes, objects, buttons, charts, chart items, toolbars, tools, or workbooks.

Frequency Distribution

For a given set of values and a given set of intervals (or bins), counts how many of the values occur in each interval.

Workbook

A Microsoft Excel document in which you can store other documents.   A workbook can include worksheets, macro sheets, and charts.

Tick Mark

A small line that intersects an axis like a division on a ruler. Tick marks are considered parts of an axis. Double-clicking an axis displays the Patterns dialog box, in which you can specify what kind of tick marks you want.

Toolbar Dock

The region above the formula bar and below the menu bar, or the regions on the left, right, and bottom sides of the application window, where toolbars can reside.

Floating Toolbar

A toolbar that is in a window with a title bar, stays on top of the other windows, and is not docked.

Bound

When a document is bound to a workbook, it can only appear in that workbook.   A bound document is saved in the workbook file.

Unbound

An unbound document can be a part of several workbooks and is saved as a separate file.

Handles

Small black squares located in the lower-right corner of selected cells or around selected graphic objects, chart items, or text.   By dragging the handles you can perform actions such as moving, copying, filling, sizing, or formatting, on the selected cells, object, chart item, or text.

Using comparison criteria

There are three types of comparison criteria:

- A series of characters you want matched
- A quantity you want compared
- A wildcard character

To find all <u>records</u> in your <u>database</u> that contain a <u>field</u> or fields with specific series of characters or exact quantities, you can simply type the characters or quantities into the corresponding field or fields in your criteria range.

To find all records that contain a field or fields that fall within a range, or that match certain inexact criteria, you can use <u>comparison operators</u>. An equal sign (=) with nothing after it will find only blank fields, while a not-equal sign (<>) with nothing after it will find only nonblank fields.

To find all records that contain a field or fields with certain combinations of known and unknown characters, use <u>wildcard characters</u>. Microsoft Excel assumes that any text entries you use in your criteria are followed by the asterisk (*) wildcard. For example, entering BAT is the same as entering BAT*. Either will return BAT, BATS, BATH, or any other series of characters starting with BAT. To match BAT exactly, the form ="=BAT" will find only those records without returning BATS, BATH, and so on.

See Also

Help

<u>Defining a criteria range</u>

<u>Defining a database</u>

<u>Setting up a criteria range with comparison criteria</u>

<u>The Set Criteria Command (Data Menu)</u>

<u>Using Computed Criteria</u>

User's Guide (Book 1)

Chapter 10, "Analyzing and Reporting Database Information"

Using computed criteria

When you use computed criteria, you use formulas as your comparison criteria. Your formula must refer to one or more fields in the database. The database fields must be named ranges if you use names in your formulas, or your criteria formulas must use relative references to refer to the first cell in the field below the corresponding field name. The computed criteria must reside in a separate column in your criteria range, which must either remain unnamed by leaving the first row of the column blank, or be labeled with a unique name.

For example, the computed criteria =Jan_sales<Feb_sales would find any records in which the field Feb_sales contains a larger value that of Jan_sales.

You can also use other constants in computed criteria that are not part of the database, as long as you refer to at least one database field in your formula.

See Also

Help

Defining a criteria range

Defining a database

Setting up a criteria range with comparison criteria

The Set Criteria Command (Data Menu)

Using Comparison Criteria

User's Guide (Book 1)

Chapter 10, "Analyzing and Reporting Database Information"

File Formats

File formats determine the way information in a document is stored in a file.   Different programs use different file formats.   Microsoft Excel allows you to save a file in the following formats, using the <u>Save As</u> command on the File menu.

Normal*   **   ***

Saves documents in the standard Microsoft Excel file format.   Unless you type your own extension, worksheets are saved in this file format with the .XLS extension, charts with the .XLC extension, macro sheets with the .XLM extension, and workbook files with the .XLW extension.

Template*   **

Saves documents in Template format.   By default, templates are saved with the .XLT extension.

Excel 3.0* **

Saves documents in the Microsoft Excel version 3.0 format.

Excel 2.1*   **

Saves documents in the Microsoft Excel version 2.1 format.

SYLK**

Saves documents in the Symbolic Link format.

Text**

Saves documents in the Text (tab delimited) format.

CSV**

Saves documents in the Comma Separated Values format.

Add-In**

Saves a macro or custom function in the Add-In format.   By default, add-ins are saved with the .XLA extension.   This option is only available when a macro sheet is active.

Int'l Macro**

Saves a macro sheet in the <u>International</u> Macro format.

Int'l Add-In**

Saves a macro sheet in the <u>International</u> Add-In format.   This option is only available when using a non-English (American) version of Microsoft Excel.

WKS

Saves documents in Lotus 1-2-3 Release 1.x format.

WK1

Saves documents in Lotus 1-2-3 Release 2.x format.

WK3***

Saves documents in Lotus 1-2-3 Release 3.x format.

DIF**

Saves documents in Data Interchange Format (VisiCalc).

DBF 2

Saves documents in dBASE II format.

DBF 3

Saves documents in dBASE III format.

DBF 4

Saves documents in dBASE IV format.

Text (Macintosh)**
Saves documents in the Macintosh Text (tab delimited) format.

Text (OS/2 or DOS)**
Saves documents in the OS/2 or MS-DOS Text (tab delimited) format.

CSV (Macintosh)**
Saves documents in the Macintosh Comma Separated Values format.

CSV (Windows)**

CSV (OS/2 or DOS)**
Saves documents in the OS/2 or MS-DOS Comma Separated Values format.

* These formats are available when a chart is the active document.

** These formats are available when a macro sheet is the active document.

*** These formats are available when a workbook is the active document.

Header and Footer Codes

You can customize headers and footers for printed documents in the Header and Footer Edit Windows.   To display the Header or Footer Edit Window, choose the Page Setup command from the File menu, and then choose the Header button or the Footer button.   You can type text in the three text boxes (left, center, or right), and enter any of the codes listed below.

Click the following buttons to enter the codes in the text boxes:

Button	Button name	Code	Action
	Font button	---	Displays the Font dialog box
	Page Number button	&P	Inserts the page number
	Total Pages button	&N	Inserts the total number of pages
	Date button	&D	Inserts the current date
	Time button	&T	Inserts the current time
	Filename button	&F	Inserts the filename of the active document

See Also

Help

Changing headers and footers

Page Setup Command (File Menu)

User's Guide (Book 1)

Chapter 16, "Printing"

Serial Number

Microsoft Excel uses serial numbers to represent time.

The numbers to the left of the decimal point represent the date.   The numbers to the right of the decimal point represent the time.

To the left of the decimal point, each integer from 1 to 65380 represents a different day.

- 1 represents January 1, 1900.
- 2 represents January 2, 1900.
- 65380 represents December 31, 2078.

To the right of the decimal point, the numbers .0 to .99999 represent a different time.

- .0 represents the time 0:00:00 (12:00:00 midnight).
- .5 represents the time 12:00:00 (12:00:00 noon).
- .99999 represents the time 23:59:59 (11:59:59 PM).

The date system used here is the 1900 date system.   You can also use the1904 date system, which has a serial number range of 0 to 63918, where 0 represents January 1, 1904 and 63918 represents December 31, 2078.

To change to the 1904 date system, choose Calculation from the Options menu, and then select the 1904 Date System check box.

Error Values

Microsoft Excel displays an error value in a cell when it cannot properly calculate the formula for that cell.   For more detailed information on the causes and corrections for error values, see Chapter 5, "Creating a Worksheet," in Book 1 of the Microsoft Excel User's Guide.

If a formula includes a reference to a cell that contains an error value, that formula also produces an error value (unless you are using the special worksheet functions ISERR, ISERROR, or ISNA, which look for error values).   You may have to trace the references back through a series of cells to discover the source of the error.

Error value	Meaning
#DIV/0!	The formula is trying to divide by zero.
#N/A!	No value is available. Usually, you enter this value directly into worksheet cells that will eventually contain data that is not yet available. Formulas referring to those cells will return #N/A! instead of calculating a value.
#NAME?	Microsoft Excel does not recognize a name used in the formula.
#NULL!	You specified an intersection of two areas that do not intersect.
#NUM!	There is a problem with a number.
#REF!	The formula refers to a cell that is not valid.
#VALUE!	An argument or operand is of the wrong type.

Database Function Arguments

Each database function uses three arguments:

database

- Range of cells that make up the database.
- Can be entered as a cell range or as a name assigned to a range.
- If you use the Set Database command on the Data menu to define a range as a database, Microsoft Excel names that range Database.

field

- Indicates which field to use in the function.
- Can be given as text or a number.

criteria

- Range of cells that contain database criteria.
- Can be entered as a cell range or as a name assigned to a range.
- If you use the Set Criteria command on the Data menu on a selected range of cells, Microsoft Excel names the range Criteria.

When you use a name as an argument, do not enclose the name in quotation marks.

If you want to perform an operation on an entire column in a database, enter a blank line or lines below the field names in the criteria range.

See Also

Help

List of Database Functions

DAVERAGE(database,field,criteria)

Averages the values in **field** column of **database** records that satisfy the **criteria**.

Example

For an example of this function, see DATABASE FUNCTIONS in the Microsoft Excel Function Reference.

See Also

Help

AVERAGE   Returns average of arguments.

DSUM   Returns sum of values in a database field.

Database Function Arguments

List of Database Functions

DCOUNT(database, field, criteria)

Returns the number of **database** values that are numbers in the **field** whose records satisfy the **criteria**.

- **Field** is optional.
- If **field** omitted, returns the number of records in the **database** that satisfy the criteria.

Example

For an example of this function, see DATABASE FUNCTIONS in the Microsoft Excel Function Reference.

See Also

Help

DCOUNTA   Counts nonblank cells.

Database Function Arguments

List of Database Functions

DCOUNTA(database,field,criteria)

Returns the number of **database** values that are nonblank in the **field** whose records satisfy the **criteria**.

Example

For an example of this function, see DATABASE FUNCTIONS in the Microsoft Excel Function Reference.

See Also

Help

COUNTA   Counts how many values are in the list of arguments.

DCOUNT   Counts cells containing numbers from selected database entries.

Database Function Arguments

List of Database Functions

DGET(database,field,criteria)

Extracts single values from a database.   Returns the value of a **field** in the **database** record that satisfies the **criteria**.

- Returns #VALUE! if no records satisfy the criteria.
- Returns #NUM! if more than one record satisfies the criteria.

Example

For an example of this function, see DATABASE FUNCTIONS in the Microsoft Excel Function Reference.

See Also

Help

Database Function Arguments

List of Database Functions

DMAX(database,field,criteria)

Returns the largest number from the specified **field** in a group of **database** records that satisfy the **criteria**.

Example

For an example of this function, see DATABASE FUNCTIONS in the Microsoft Excel Function Reference.

See Also

Help

DMIN   Returns smallest value in a field of records that satisfy criteria.

MAX   Returns largest number in list of arguments.

MIN   Returns smallest number in list of arguments.

Database Function Arguments

List of Database Functions

DMIN(database,field,criteria)

Returns the smallest number from the specified **field** in a group of **database** records that satisfy the **criteria**.

Example

For an example of this function, see DATABASE FUNCTIONS in the Microsoft Excel Function Reference.

See Also

Help

DMAX   Returns largest value in a database field.

MAX   Returns largest number in list of arguments.

MIN   Returns smallest number in list of arguments.

Database Function Arguments

List of Database Functions

DPRODUCT(database,field,criteria)

Multiplies the values in the column **field** of **database** records that satisfy the **criteria**.

Example

For an example of this function, see DATABASE FUNCTIONS in the Microsoft Excel Function Reference.

See Also

Help

DSUM   Adds all numbers in a database field.

PRODUCT   Multiplies its arguments.

Database Function Arguments

List of Database Functions

DSTDEV(database,field,criteria)

Estimates the standard deviation of a population based on a sample.   Uses the numbers in the column **field** of **database** records that satisfy the **criteria**.

Example

For an example of this function, see DATABASE FUNCTIONS in the Microsoft Excel Function Reference.

See Also

Help

DSTDEVP   Returns the standard deviation of a population using numbers from a database.

STDEV   Estimates the standard deviation of a population based on a sample.

Database Function Arguments

List of Database Functions

DSTDEVP(database,field,criteria)

Calculates the standard deviation of a population based on the entire population.   Uses the numbers in the column **field** of **database** records that satisfy the **criteria**.

Example

For an example of this function, see DATABASE FUNCTIONS in the Microsoft Excel Function Reference.

See Also

Help

STDEVP   Returns the standard deviation for a population based on the entire population.

DSTDEV   Estimates the standard deviation of a population based on a sample from a database.

Database Function Arguments

List of Database Functions

DSUM(database,field,criteria)

Adds the numbers in the column **field** of **database** records that satisfy the **criteria**.

Example

For an example of this function, see DATABASE FUNCTIONS in the Microsoft Excel Function Reference.

See Also

Help

DAVERAGE   Returns average of values in a database field.

DPRODUCT   Multiplies values in a database field.

SUM   Adds all numbers given as arguments.

Database Function Arguments

List of Database Functions

DVAR(database,field,criteria)

Estimates the variance of a population based on a sample.   Uses **database** values in **field** whose records satisfy the **criteria**.

Example

For an example of this function, see DATABASE FUNCTIONS in the Microsoft Excel Function Reference.

See Also

Help

DVARP   Returns the variance of an entire population based on values from a database.

VAR   Returns variance of a population based on a sample.

Database Function Arguments

List of Database Functions

DVARP(database,field,criteria)

Calculates the variance of a population based on the entire population.   Uses **database** values in **field** whose records satisfy the **criteria**.

Example

For an example of this function, see DATABASE FUNCTIONS in the Microsoft Excel Function Reference.

See Also

Help

DVAR   Estimates variance of an entire population based on a sample from a database.

VARP   Calculates the variance of a population based on the entire population.

Database Function Arguments

List of Database Functions

CROSSTAB()

Defines the structure and content of a cross-tabulation table. It is generally easier to use the Crosstab Wizard to create the cross-tabulation table and to enter the necessary CROSSTAB formulas. Once the table is created, you can modify it by editing the CROSSTAB formulas. For more information, see "Viewing Data Using Crosstab Tables" in Chapter 10 in Book 1 of the Microsoft Excel User's Guide.

If this function is not available, you must install the Crosstab add-in macro. For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

For an example of this function and a description of arguments, see CROSSTAB in the Microsoft Excel Function Reference.

DATE(year,month,day)

Returns the serial number of the date corresponding to **year**, **month**, and **day**.

- **Year** is a number between 1900 and 2078.   To specify a year in the range 1920 to 2019, you can give the last two digits of the year.   To specify a year before 1920 or after 2019, give all four digits of the year.
- **Month** is a number representing the month of the year.   If the **month** value is greater than 12, **month** adds the number of months to the first month in the year specified and adjusts the year accordingly.
- **Day** is a number representing the day of the month.   If the **day** value is greater than the number of days in the specified month, **day** adds the number of days to the first day in the month specified and adjusts both the month and year accordingly.
- You can use negative numbers as arguments, if the resulting serial number is positive.

Example

DATE(91,1,1) = 33239, the serial number corresponding to January 1. 1991 in the 1900 Date System.

See Also

Help

DATEVALUE   Is like DATE, but takes a text argument.

TODAY   Returns serial number of the current date.

List of Date & Time Functions

DATEVALUE(date_text)

Returns the serial number of **date_text**.   Use DATEVALUE to convert a date represented by text to a serial number.

- **Date_text** must represent a date from January 1, 1900, to December 31, 2078.
- Can be in any of the built-in Microsoft Excel date formats.
- If the year is omitted, DATEVALUE uses the current year from your computer's built-in clock.
- Time information in **date_text** is ignored.

Examples

DATEVALUE("8/22/55") = 20323
VALUE("22-Aug-55") = 20323

See Also

Help

DAY   Converts a serial number to a day of the month.
NOW   Returns serial number of current date and time.
TIMEVALUE   Converts a time in the form of text to a serial number.
TODAY   Returns serial number of current date.

List of Date & Time Functions

DAY(serial_number)

Returns the day of the month corresponding to **serial_number**.   The day is given as an integer from 1 to 31.

▪   **Serial_number** is the date-time code used by Microsoft Excel for date and time calculations.
▪   If given as text, the text is automatically converted to a serial number.

Examples

DAY("4-Jan") = 4
DAY("15-Apr-1991") = 15
DAY("8/11/91") = 11

See Also

Help

HOUR   Returns hour (0-23).
MINUTE   Converts serial numbers to minutes.
MONTH   Converts serial numbers to months.
NOW   Returns serial number of current date and time.
SECOND   Converts serial numbers into seconds.
TODAY   Returns serial number of current date.
WEEKDAY   Converts serial numbers into weekdays.
YEAR   Converts serial numbers into years.

List of Date & Time Functions

HOUR(serial_number)

Returns the hour corresponding to **serial_number**.   The hour is given as an integer, ranging from 0 (12:00 AM) to 23 (11:00 PM).

- **Serial_number** is the date-time code used by Microsoft Excel for date and time calculations.
- If given as text, the text is automatically converted to a serial number.

Examples

HOUR(0.7) = 16
HOUR(29747.7) = 16
HOUR("3:30:30 PM") = 15

See Also

Help

DAY	Converts a serial number to a day of the month.
MINUTE	Converts serial numbers to minutes.
MONTH	Converts serial numbers to months.
NOW	Returns serial number of current date and time.
SECOND	Converts serial numbers to seconds.
WEEKDAY	Converts serial numbers to weekdays.
YEAR	Converts serial numbers to years.

List of Date & Time Functions

MINUTE(serial_number)

Returns the minute corresponding to **serial_number**.   The minute is given as an integer ranging from 0 to 59.

▪ **Serial_number** is the date-time code used by Microsoft Excel for date and time calculations.
▪ If given as text, the text is automatically converted to a serial number.

Examples

MINUTE("4:48:00 PM") = 48
MINUTE(.01) = 14
MINUTE(4.02) = 28

See Also

Help

HOUR   Returns hour (0-23).
SECOND   Returns second (0-59).
TIME   Returns serial number of specified time.

List of Date & Time Functions

MONTH(serial_number)

Returns the month corresponding to **serial_number**.   The month is given as an integer from 1 to 12.

- **Serial_number** is the date-time code used by Microsoft Excel for date and time calculations.
- If given as text, the text is automatically converted to a serial number.

Examples

MONTH("6-May") = 5
MONTH(366) = 12
MONTH(367) = 1

See Also

Help

DAY   Converts a serial number to a day of the month.
TODAY   Returns serial number of current date.
YEAR   Returns year (1900-2078).

List of Date & Time Functions

NOW()

Returns the serial number of the current date and time, according to your computer's clock.

You must include empty parentheses with NOW, otherwise Microsoft Excel will not recognize it as a function.

Examples

If your computer's built-in clock is set to 12:30:00 PM, 1-Jan-1991:

NOW() =33239.52

Ten minutes later:

NOW() =33239.53

See Also

Help

DATE   Returns the serial number of a particular date.

TIME   Returns serial number of specified time.

TODAY   Returns serial number of current date.

List of Date & Time Functions

SECOND(serial_number)

Returns the second corresponding to **serial_number**.   The second is given as an integer, ranging from 0 to 59.

- **Serial_number** is the date-time code used by Microsoft Excel for date and time calculations.
- If given as text, the text is automatically converted to a serial number.

Examples

SECOND("4:48:18 PM") = 18
SECOND(0.01) = 24
SECOND(4.02) = 48

See Also

Help

HOUR   Returns the hour (0-23).
MINUTE   Returns the minute (0-59).

List of Date & Time Functions

TIME(hour,minute,second)

Returns the serial number of the time specified by **hour**, **minute**, and **second**.

Examples

TIME(12,0,0) = 0.5 (which is 12:00:00)

TIME(16,48,0) - TIME(12,0,0) = 0.2 (which is 4:48:00)

See Also

Help

DATE   Returns the serial number of a particular date.

NOW   Returns serial number of current date and time.

TIMEVALUE   Returns serial number of time specified by text.

List of Date & Time Functions

TIMEVALUE(time_text)

Returns the serial number of the time specified by **time_text**.

- **Time_text** is a quoted text string that gives a time in any one of Microsoft Excel's time formats.
- The Number dialog box which appears when you choose Number from the Format menu lists all built-in time formats.

Example

TIMEVALUE("2:24 AM") = 0.1

See Also

Help

DATEVALUE   Returns serial number of date specified by text.

NOW   Returns serial number of current date and time.

TIME   Returns serial number of specified time.

List of Date & Time Functions

TODAY()

Returns the serial number of the current date according to your computer's clock.   Even though TODAY does not have an argument, you must include the empty parentheses so that Microsoft Excel recognizes it as a function.

See Also

Help

DAY   Converts a serial number to a day of the month.
MONTH   Converts serial number to month.
NOW   Returns serial number of current date and time.
YEAR   Converts serial number to year.

List of Date & Time Functions

WEEKDAY(serial_number)

Returns the day of the week corresponding to a specified **serial_number**.   The day is given as an integer from 1 to 7, where 1 equals Sunday.

▪   **Serial_number** is the date-time code used by Microsoft Excel for date and time calculations.

▪   If given as text, the text is automatically converted to a serial number.

Examples

WEEKDAY(29747.007) = 4 (Wednesday)
WEEKDAY("2/14/90") = 4 (Wednesday)

See Also

Help

DAY   Converts a serial number to a day of the month.
NOW   Returns serial number of current date and time.
TEXT   Formats a number and converts it to text.
TODAY   Returns serial number of current date.

List of Date & Time Functions

YEAR(serial_number)

Returns the year corresponding to a specified **serial_number**.   The year is given as an integer from 1900 to 2078.

▪   **Serial_number** is the date-time code used by Microsoft Excel for date and time calculations.

▪   If given as text, the text must be enclosed in quotes and is automatically converted to a serial number.

Examples

YEAR(0.007) = 1900

YEAR(29747.007) = 1981

See Also

Help

DATE   Returns the serial number of a particular date.

DAY   Converts a serial number to a day of the month.

MONTH   Returns the month (1-12).

List of Date & Time Functions

DAYS360(start_date,end_date)

Returns the number of days between two dates based on a 360-day year (12 months, each with 30 days).   To calculate the difference between two dates based on a 365-day year, use normal subtraction ("12/31/91"-"1/1/91" = 364).

If the **start_date** is after the **end_date**, DAYS360() returns a negative number.

Examples

DAYS360("1/30/91","2/1/91") = 1
DAYS360("1/1/91","12/31/91") = 360

See Also

Help

List of Date & Time Functions

BESSELI(x,n)

Returns the modified Bessel function $I_n(x)$, which is equivalent to the Bessel function J_n evaluated for purely imaginary arguments.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

- **X** is the value at which to evaluate the function.
- **N** is the order of the Bessel function. If **n** is not an integer, it is truncated.

Example

BESSELI(1.5,1) = 0.981666

See Also

Help

BESSELJ   Returns the Bessel function $J_n(x)$.

BESSELK   Returns the modified Bessel function $K_n(x)$.

BESSELY   Returns the Bessel function $Y_n(x)$.

List of Engineering Functions

BESSELJ(x,n)

Returns the Bessel function $J_n(x)$.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

- **X** is the value at which to evaluate the function.
- **N** is the order of the Bessel function. If n is not an integer, it is truncated.

Example

BESSELJ(1.9,2) = 0.329926

See Also

Help

BESSELI   Returns the modified Bessel function $I_n(x)$.

BESSELK   Returns the modified Bessel function $K_n(x)$.

BESSELY   Returns the Bessel function $Y_n(x)$.

List of Engineering Functions

BESSELK(x,n)

Returns the modified Bessel function $K_n(x)$, which is equivalent to the Bessel functions J_n and Y_n evaluated for purely imaginary arguments.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

- **X** is the value at which to evaluate the function.
- **N** is the order of the function. If **n** is not an integer, it is truncated.

Example

BESSELK(1.5,1) = 0.277388

See Also

Help

BESSELJ   Returns the Bessel function $J_n(x)$.

BESSELY   Returns the Bessel function $Y_n(x)$.

BESSELI   Returns the modified Bessel function $I_n(x)$.

List of Engineering Functions

BESSELY(x,n)

Returns the Bessel function $Y_n(x)$, which is also called the Weber function or the Neumann function.

If this function is not available, you must install the Analysis ToolPak add-in macro. For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

- **X** is the value at which to evaluate the function.
- **N** is the order of the function. If **n** is not an integer, it is truncated.

Example

BESSELY(2.5,1) = 0.145918

See Also

Help

BESSELJ   Returns the Bessel function $J_n(x)$.

BESSELK   Returns the modified Bessel function $K_n(x)$.

BESSELI   Returns the modified Bessel function $I_n(x)$.

List of Engineering Functions

COMPLEX(real_num,i_num,suffix)

Converts real and imaginary coefficients into a complex number of the form x+yi or x+yj. The result is text.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

- **Real_num** is the real coefficient of the complex number.
- **I_num** is the imaginary coefficient of the complex number.
- **Suffix** is the suffix, as quoted text, for the imaginary component of the complex number.   If omitted, **suffix** is assumed to be i.

Examples

COMPLEX(3,4) = 3+4i
COMPLEX(3,4,"j") = 3+4j
COMPLEX(0,1) = i
COMPLEX(1,0) = 1

See Also

Help

List of Engineering Functions

CONVERT(number,from_unit,to_unit)

Converts a number from one measurement system to another.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

- **Number** is the value in **from_unit**s to convert.
- **From_unit** is the unit for **number**.
- **To_unit** is the units for the result.

Weight and mass	From_unit or to_unit
Gram	g
Slug	sg
Pound mass (avoirdupois)	lbm
U	u
Ounce mass (avoirdupois)	ozm

Distance	From_unit or to_unit
Meter	m
Statute mile	mi
Nautical mile	nmi
Inch	in
Foot	ft
Yard	yd
Angstrom	ang

Temperature	From_unit or to_unit
Degree Celsius	cel
Degree Fahrenheit	fah
Degree Kelvin	kel

For a complete list of values for **from_unit** and **to_unit**, see CONVERT in the Microsoft Excel Function Reference.

Examples

CONVERT(1.0,"lbm","kg") = 0.453592
CONVERT(68,"fah","cel") = 20
CONVERT(2.5,"ft","cel") = #N/A!

See Also

Help

BIN2DEC	Converts a binary number to decimal.
DEC2BIN	Converts a decimal number to binary.
HEX2DEC	Converts a hexadecimal number to decimal.
OCT2DEC	Converts an octal number to decimal.

List of Engineering Functions

DELTA(number1,number2)

Tests whether two values are equal. Returns 1 if **number1** = **number2**; returns 0 otherwise.   Use this function to filter a set of values.   This function is also known as the Kronecker Delta function.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

- **Number1** is the first number.
- **Number2** is the second number. If omitted, **number2** is assumed to be zero.

Examples

DELTA(5,4) = 0
DELTA(5,5) = 1
DELTA(0.5,0) = 0

See Also

Help

GESTEP   Tests whether a number is greater than a threshold value.

List of Engineering Functions

ERF(lower_limit,upper_limit)

Returns the error function integrated between **lower_limit** and **upper_limit**.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

- **Lower_limit** is the lower bound for integrating ERF.
- **Upper_limit** is the upper bound for integrating ERF. If omitted, ERF integrates between zero and **lower_limit**.

Examples

ERF(0.74500) = 0.70793

ERF(1) = 0.84270

See Also

Help

ERFC   Returns the complementary error function.

List of Engineering Functions

FACTDOUBLE(number)

Returns the double factorial of a number.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

▪   **Number** is the value for which to return the double factorial. If **number** is not an integer, it is truncated.

Examples

FACTDOUBLE(6) = 6*4*2 = 48
FACTDOUBLE(7) = 7*5*3 = 105

See Also

Help

FACT   Returns the factorial of a number.
MULTINOMIAL Returns the multinomial of a set of numbers.

List of Math & Trig Functions

GCD(number1,number2,number3,...)

Returns the greatest common divisor of two or more integers.   The greatest common divisor is the largest integer that divides both **number1** and **number2** without a remainder.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

- **Number1,number2,...** are 1 to 29 values. If any value is not an integer, it is truncated.

Examples

GCD(5,2) = 1
GCD(24,36) = 12
GCD(7,1) = 1
GCD(5,0) = 5

See Also

Help

LCM   Returns the least common multiple.

List of Math & Trig Functions

GESTEP(number,step)

Returns 1 if **number** is greater than or equal to **step**; returns 0 otherwise.   Use this function to filter a set of values.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

- **Number** is the value to test against **step**.
- **Step** is the threshold value. If you omit a value for **step**, GESTEP uses zero.

Examples

GESTEP(5,4) = 1
GESTEP(5,5) = 1
GESTEP(-4,-5) = 1
GESTEP(-1,0) = 0

See Also

Help

DELTA   Test whether two numbers are equal.

List of Engineering Functions

IMABS(inumber)

Returns the absolute value (modulus) of a complex number in x+yi or x+yj text format.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

- **Inumber**   is a complex number for which you want the absolute value.

Example

IMABS("5+12i") = 13

See Also

Help

List of Engineering Functions

IMAGINARY(inumber)

Returns the imaginary coefficient of a complex number in x+yi or x+yj text format.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

■   **Inumber** is a complex number for which you want the imaginary coefficient.

Examples

IMAGINARY("3+4i") = 4

IMAGINARY("0-j") = -1

IMAGINARY(4) = 0

See Also

Help

List of Engineering Functions

IMARGUMENT(inumber)

Returns the argument q, an angle expressed in radians.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

- **Inumber** is a complex number for which you want the argument q.

Example

IMARGUMENT(3+4i) = 0.927295

Related Functions

List of Engineering Functions

IMCONJUGATE(inumber)

Returns the complex conjugate of a complex number in x+yi or x+yj text format.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

- **Inumber** is a complex number for which you want the conjugate.

Example

IMCONJUGATE("3+4i") = 3-4i

See Also

Help

List of Engineering Functions

IMCOS(inumber)

Returns the cosine of a complex number in x+yi or x+yj text format.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

- **Inumber** is a complex number for which you want the cosine.

Example

IMCOS("1+i") = 0.83373-0.988898i

See Also

Help

List of Engineering Functions

IMEXP(inumber)

Returns the exponential of a complex number in x+yi or x+yj text format.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

- **Inumber** is a complex number for which you want the exponential.

Example

IMEXP("1+i") = 1.468694+2.287355i

See Also

Help

List of Engineering Functions

IMLN(inumber)

Returns the natural logarithm of a complex number in x+yi or x+yj text format.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

- **Inumber** is a complex number for which you want the natural logarithm.

Example

IMLN("3+4i") = 1.609438+0.927295i

See Also

Help

List of Engineering Functions

IMLOG10(inumber)

Returns the common logarithm (base 10) of a complex number in x+yi or x+yj text format.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

▪ **Inumber** is a complex number for which you want the common logarithm.

Example

IMLOG10("3+4i") = 0.69897+0.402719i

See Also

Help

List of Engineering Functions

IMLOG2(inumber)

Returns the base-2 logarithm of a complex number in x+yi or x+yj text format.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

▪   **Inumber** is a complex number for which you want the base-2 logarithm.

Example

IMLOG2("3+4i") = 2.321928+1.337804i

See Also

Help

List of <u>Engineering Functions</u>

IMPOWER(inumber,number)

Returns a complex number in x+yi or x+yj text format raised to an integer power.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

- **Inumber** is a complex number you want to raise to a power.
- **Number** is the power to which you want to raise the complex number.

Example

IMPOWER("2+3i",3) = -46+9i

See Also

Help

List of Engineering Functions

IMPRODUCT(inumber1,inumber2)

Returns the product of two complex numbers in x+yi or x+yj text format.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

- **Inumber1** is the complex number multiplicand.
- **Inumber2** is the complex number multiplier.

Examples

IMPRODUCT("3+4i","5-3i") = 27+11i

IMPRODUCT("1+2i",30) = 30+60i

See Also

Help

List of Engineering Functions

IMSIN(inumber)

Returns the sine of a complex number in x+yi or x+yj text format .

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

- **Inumber** is a complex number for which you want the sine.

Example

IMSIN("3+4i") = 3.853738-27.016813i

See Also

Help

List of Engineering Functions

IMSQRT(inumber)

Returns the square root of a complex number in x+yi or x+yj text format.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

▪   **Inumber** is a complex number for which you want the square root.

Example

IMSQRT(1+i) = 1.098684+0.45509i

See Also

Help

List of Engineering Functions

IMSUM(inumber1,inumber2,inumber3,...)

Returns the sum of two or more complex numbers in x+yi or x+yj text format.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

▪   **Inumber1,inumber2,inumber3,...** are from 1 to 12 complex numbers to add.

Example

IMSUM("3+4i","5-3i") = 8+i

See Also

Help

List of Engineering Functions

ERFC(x)

Returns the complementary error function integrated between **x** and infinity.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

- **X** is the lower bound for integrating ERF.

Example

ERFC(1) = 0.1573

See Also

Help

ERF   Returns the error function.

List of Engineering Functions

IMDIV(inumber1,inumber2)

Returns the quotient of two complex numbers in x+yi or x+yj text format.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

- **Inumber1** is the complex numerator or dividend.
- **Inumber2** is the complex denominator or divisor.

Example

IMDIV("-238+240i","10+24i") = 5+12i

See Also

Help

List of Engineering Functions

IMREAL(inumber)

Returns the real coefficient of a complex number in x+yi or x+yj text format.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

- **Inumber** is a complex number for which you want the real coefficient.

Example

IMREAL("6-9i") = 6

See Also

Help

List of Engineering Functions

IMSUB(inumber1,inumber2)

Returns the difference of two complex numbers in x+yi or x+yj text format.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

- **Inumber1** is the complex number from which to subtract **inumber2**.
- **Inumber2** is the complex number to subtract from **inumber1**.

Example

IMSUB("13+4i","5+3i") = 8+i

See Also

Help

List of Engineering Functions

ISEVEN(number)

Returns TRUE if **number** is even, or FALSE if **number** is odd.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

▪   **Number** is the value to test. If number is not an integer, it is truncated.

Examples

ISEVEN(-1) = FALSE

ISEVEN(2.5) = TRUE

ISEVEN(5) = FALSE

See Also

Help

ISODD   Tests whether a number is odd.

List of Information Functions

ISODD(number)

Returns TRUE if **number** is odd, or FALSE if **number** is even.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

▪   **Number** is the value to test. If **number** is not an integer, it is truncated.

Examples

ISODD(-1) = TRUE

ISODD(2.5) = FALSE

ISODD(5) = TRUE

See Also

Help

ISEVEN   Tests whether a number is even.

List of Information Functions

BIN2DEC(number)

Converts a binary number to decimal.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

▪   **Number** is the binary number you want to convert. **Number** can contain a maximum of 10 characters (10 bits). The most significant bit of **number** is the sign bit. The remaining 9 bits are magnitude bits. Negative numbers are represented using two's-complement notation.

Examples

BIN2DEC(1100100) = 100
BIN2DEC(1111111111) = -1

See Also

Help

DEC2BIN   Converts a decimal number to binary.
HEX2BIN   Converts a hexadecimal number to binary.
OCT2BIN   Converts an octal number to binary.

List of Engineering Functions

BIN2HEX(number,places)

Converts a binary number to hexadecimal.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

- **Number** is the binary number you want to convert. **Number** can contain a maximum of 10 characters (10 bits).   The most significant bit of **number** is the sign bit. The remaining 9 bits are magnitude bits.   Negative numbers are represented using two's-complement notation.
- **Places** is the number of characters to use. If **places** is omitted, BIN2HEX uses the minimum number of characters necessary.   **Places** is useful for padding the return value with leading zeros.

Examples

BIN2HEX(11111011,4) = 00FB
BIN2HEX(1110) = E
BIN2HEX(1111111111) = FFFFFFFFFF

See Also

Help

DEC2BIN   Converts a decimal number to binary.
HEX2BIN   Converts a hexadecimal number to binary.
OCT2BIN   Converts an octal number to binary.

List of Engineering Functions

BIN2OCT(**number,**places**)**

Converts a binary number to octal.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

- **Number** is the binary number you want to convert. **Number** can contain a maximum of 10 characters (10 bits). The most significant bit of **number** is the sign bit. The remaining 9 bits are magnitude bits. Negative numbers are represented using two's-complement notation.
- **Places** is the number of characters to use. If **places** is omitted, BIN2OCT uses the minimum number of characters necessary. **Places** is useful for padding the return value with leading zeros.

Examples

BIN2OCT(1001,3) = 011
BIN2OCT(01100100) = 144
BIN2OCT(1111111111) = 7777777777

See Also

Help

DEC2BIN	Converts a decimal number to binary.
HEX2BIN	Converts a hexadecimal number to binary.
OCT2BIN	Converts an octal number to binary.

List of Engineering Functions

DEC2BIN(**number,**places**)**

Converts a decimal integer to binary.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

- **Number** is the decimal integer you want to convert. If **number** is negative, **places** is ignored and DEC2BIN returns a 10-character (10-bit) binary number in which the most significant bit is the sign bit.   The remaining 9 bits are magnitude bits. Negative numbers are represented using two's-complement notation.
- **Places** is the number of characters to use. If **places** is omitted, DEC2BIN uses the minimum number of characters necessary.   **Places** is useful for padding the return value with leading zeros.

Examples

DEC2BIN(9,4) = 1001
DEC2BIN(-100) = 1110011100

See Also

Help

BIN2DEC   Converts a binary number to decimal.

HEX2DEC   Converts a hexadecimal number to decimal.

OCT2DEC   Converts an octal number to decimal.

List of Engineering Functions

DEC2HEX(**number,**places**)**

Converts a decimal integer to hexadecimal.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

▪   **Number** is the decimal integer you want to convert. If **number** is negative, **places** is ignored and DEC2HEX returns a 10-character (40-bit) hexadecimal number in which the most significant bit is the sign bit.   The remaining 39 bits are magnitude bits. Negative numbers are represented using two's-complement notation.

▪   **Places** is the number of characters to use.   If **places** is omitted, DEC2HEX uses the minimum number of characters necessary.   **Places** is useful for padding the return value with leading zeros.

Examples

DEC2HEX(100,4) = 0064

DEC2HEX(-54) = FFFFFFFFCA

See Also

Help

BIN2DEC   Converts a binary number to decimal.

HEX2DEC   Converts a hexadecimal number to decimal.

OCT2DEC   Converts an octal number to decimal.

List of Engineering Functions

DEC2OCT(number,places)

Converts a decimal integer to octal.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

▪   **Number** is the decimal integer you want to convert. If **number** is negative, **places** is ignored and DEC2OCT returns a 10-character (30-bit) octal number in which the most significant bit is the sign bit.   The remaining 29 bits are magnitude bits. Negative numbers are represented using two's-complement notation.

▪   **Places** is the number of characters to use. If **places** is omitted, DEC2OCT uses the minimum number of characters necessary.   **Places** is useful for padding the return value with leading zeros.

Examples

DEC2OCT(58,3) = 072
DEC2OCT(-100) = 7777777634

See Also

Help

BIN2DEC   Converts a binary number to decimal.

HEX2DEC   Converts a hexadecimal number to decimal.

OCT2DEC   Converts an octal number to decimal.

List of Engineering Functions

ERROR.TYPE(error_val)

Returns a number corresponding to a Microsoft Excel error value.   Use ERROR.TYPE to determine what type of error occurred so that your macro can run an appropriate error-handling subroutine. ERROR.TYPE can also be used on a worksheet.

▪   **Error_val** is the error value whose identifying number you want to find. Although **error_val** can be the actual error value, it will usually be a reference to a cell containing a formula that   you want to test.

If error_val is	ERROR.TYPE returns
#NULL!	1
#DIV/0!	2
#VALUE!	3
#REF!	4
#NAME?	5
#NUM!	6
#N/A	7
Anything else	#N/A

Example

The following macro formula checks the cell named Ratio to see if it contains a #DIV/0! error.   If it does, a subroutine named DivisionByZero is run.

IF(ERROR.TYPE(Ratio)=2,DivisionByZero())

See Also

Help

ISERR   Returns TRUE if its argument refers to any error except #N/A.

ISERROR   Returns TRUE if its argument refers to any error value.

List of Information Functions

HEX2BIN(**number,**places**)**

Converts a hexadecimal number to binary.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

- **Number** is the hexadecimal number you want to convert.   **Number** can contain no more than 10 characters.   The most significant bit of **number** is the sign bit.   The remaining 9 bits are magnitude bits.   Negative numbers are represented using two's-complement notation.
- A negative **number** cannot be less than FFFFFFFE0. A positive **number** cannot be more than 1FF.
- **Places** is the number of characters to use. If **places** is omitted, HEX2BIN uses the minimum number of characters necessary.   **Places** is useful for padding the return value with leading zeros.

Examples

HEX2BIN("F",8) = 00001111
HEX2BIN("B7") = 10110111
HEX2BIN("FFFFFFFFFF") = 1111111111

See Also

Help

BIN2HEX   Converts a binary number to hexadecimal.
DEC2HEX   Converts a decimal number to hexadecimal.
OCT2HEX   Converts an octal number to hexadecimal.

List of Engineering Functions

HEX2DEC(number)

Converts a hexadecimal number to decimal.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

▪   **Number** is the hexadecimal number you want to convert.   **Number** can contain a maximum of 10 hexadecimal characters (40 bits).   The most significant bit of **number** is the sign bit.   The remaining 39 bits are magnitude bits.   Negative numbers are represented using two's-complement notation.

Examples

HEX2DEC("A5") = 165
HEX2DEC("FFFFFFFF5B") = -165
HEX2DEC("3DA408B9") = 1034160313

See Also

Help

BIN2HEX   Converts a binary number to hexadecimal.
DEC2HEX   Converts a decimal number to hexadecimal.
OCT2HEX   Converts an octal number to hexadecimal.

List of Engineering Functions

HEX2OCT(**number,**places**)**

Converts a hexadecimal number to octal.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

▪   **Number** is the hexadecimal number you want to convert.   **Number** can contain a maximum of 10 characters.   The most significant bit of **number** is the sign bit. The remaining 39 bits are magnitude bits.   Negative numbers are represented using two's-complement notation.

▪   A negative **number** cannot be less than FFE0000000. A positive **number** cannot be more than 1FFFFFFF.

▪   **Places** is the number of characters to use.   If **places** is omitted, HEX2OCT uses the minimum number of characters necessary.   **Places** is useful for padding the return value with leading zeros.

Examples

HEX2OCT("F",3) = 017
HEX2OCT("3B4E") = 35516
HEX2OCT("FFFFFFFF00") = 7777777400

See Also

Help

BIN2HEX   Converts a binary number to hexadecimal.
DEC2HEX   Converts a decimal number to hexadecimal.
OCT2HEX   Converts an octal number to hexadecimal.

List of Engineering Functions

LCM(number1,number2,...**)**

Returns the least common multiple of integers.   The least common multiple is the smallest positive integer that is a multiple of all integer arguments **number1**, **number2**, and so on. Use LCM to add fractions with different denominators.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

▪   **Number1,number2,...** are 1 to 29 values for which you want the least common multiple. If a value is not an integer, it is truncated.

Examples

LCM(5,2) = 10
LCM(24,36) = 72

See Also

Help

GCD   Returns the greatest common divisor.

List of Math & Trig Functions

MROUND(number,multiple)

Returns a number rounded to the desired multiple.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

- **Number** is the value to round.
- **Multiple** is the multiple to which you want to round number.

Examples

MROUND(10,3) = 9
MROUND(-10,-3) = -9
MROUND(1.3,0.2) = 1.4
MROUND(5,-2) = 6

See Also

Help

CEILING   Rounds a number up to the nearest integral value.
EVEN   Rounds a number up to the nearest even value.
FLOOR   Rounds a number down to the nearest integral value.
ODD   Rounds a number up to the nearest odd value.
ROUND   Rounds a number to a specified number of digits.
TRUNC   Truncates a number to an integer.

List of Math & Trig Functions

MULTINOMIAL(**number1,**number2,...**)**

Returns the ratio of the factorial of a sum of values to the product of factorials.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

▪ **Number1,number2,...** are 1 to 29 values for which you want the multinomial.

Example

MULTINOMIAL(2,3,4) = (2+3+4)!/(2!*3!*4!) = 1260

See Also

Help

FACT   Returns the factorial of a number.

FACTDOUBLE   Returns the double factorial of a number.

List of Math & Trig Functions

OCT2BIN(number,places)

Converts an octal number to binary.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

▪   **Number** is the octal number you want to convert.   **Number** can contain a maximum of 10 characters.   The most significant bit of **number** is the sign bit.   The remaining 29 bits are magnitude bits.   Negative numbers are represented using two's-complement notation.

▪   A negative **number** cannot be less than 7777777000. A positive **number** cannot be more than 777.

▪   **Places** is the number of characters to use.   If **places** is omitted, OCT2BIN uses the minimum number of characters necessary.   **Places** is useful for padding the return value with leading zeros.

Examples

OCT2BIN(3,3) = 011

OCT2BIN(7777777000) = 1000000000

See Also

Help

BIN2OCT   Converts a binary number to octal.

DEC2OCT   Converts a decimal number to octal.

HEX2OCT   Converts a hexadecimal number to octal.

List of Engineering Functions

OCT2DEC(number)

Converts an octal number to decimal.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

▪   **Number** is the octal number you want to convert.   **Number** can contain a maximum of 10 octal characters (30 bits).   The most significant bit of **number** is the sign bit. The remaining 29 bits are magnitude bits.   Negative numbers are represented using two's-complement notation.

Examples

OCT2DEC(54) = 44
OCT2DEC(7777777533) = -165

See Also

Help

BIN2OCT   Converts a binary number to octal.
DEC2OCT   Converts a decimal number to octal.
HEX2OCT   Converts a hexadecimal number to octal.

List of Engineering Functions

OCT2HEX(number,places)

Converts an octal number to hexadecimal.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

- **Number** is the octal number you want to convert.   **Number** can contain a maximum of 10 octal characters (30 bits).   The most significant bit of **number** is the sign bit. The remaining 29 bits are magnitude bits.   Negative numbers are represented using two's-complement notation.
- **Places** is the number of characters to use.   If **places** is omitted, OCT2HEX uses the minimum number of characters necessary.   **Places** is useful for padding the return value with leading zeros.

Examples

OCT2HEX(100,4) = 0040
OCT2HEX(7777777533) = FFFFFFFF5B

See Also

Help

BIN2OCT   Converts a binary number to octal.
DEC2OCT   Converts a decimal number to octal.
HEX2OCT   Converts a hexadecimal number to octal.

List of Engineering Functions

QUOTIENT(numerator,denominator)

Returns the integer portion of a division.   Use this function when you want to discard the remainder of a division.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

- **Numerator** is the dividend.
- **Denominator** is the divisor.

Examples

QUOTIENT(5,2) = 2
QUOTIENT(4.5,3.1) = 1
QUOTIENT(-10,3) = -3

See Also

Help

MOD   Returns the remainder from a division.

List of Math & Trig Functions

SERIESSUM(x,n,m,coefficients)

Returns the sum of a power series.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

- **X** is the input value to the power series.
- **N** is the initial power to which you want to raise **x**.
- **M** is the step by which to increase **n** for each term in the series.
- **Coefficients** is a set of coefficients by which each successive power of **x** is multiplied.   The number of values in **coefficients** determines the number of terms in the power series.   For example, if there are three values in **coefficients**, then there will be three terms in the power series.

Example

For an example of this function, see SERIESSUM in the Microsoft Excel Function Reference.

See Also

Help

List of Math & Trig Functions

SQRTPI(number)

Returns the square root of (**number** * pi).

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

- **Number** is the number by which pi is multiplied.

Examples

SQRTPI(1) = 1.772454
SQRTPI(2) = 2.506628

See Also

Help

PI   Returns the value pi.

List of Math & Trig Functions

DDB(cost,salvage,life,period,factor)

Returns the depreciation of an asset for a specific **period** using the double-declining balance method based on the asset's initial **cost**, its **salvage** value at the end of its **life**, and the rate at which the balance is to be declined (**factor**).

- All arguments must be positive numbers.
- The default value for **factor** is two, indicating that the balance is double-declined.

Example

You just purchased a new machine for $2400.   It has a lifetime of 10 years and a salvage value of $300.

DDB(2400,300,10,1) = $480.00, the depreciation for the first year.

DDB(2400,300,10,2,1.5) = $306.00, the depreciation for the second year using a **factor** or 1.5 instead of the double-declining balance method.

DDB(2400,300,10,10) = $22.12, the depreciation for the tenth year.

See Also

Help

SLN   Returns straight-line depreciation.

SYD   Returns sum-of-the-years' digits depreciation.

VDB   Returns depreciation of an asset for a partial period.

List of Financial Functions

SLN(cost,salvage,life)

Returns straight-line depreciation of an asset for a single period.   All arguments must be positive numbers.

Argument	Description
cost	Initial cost of the asset
salvage	Value at end of depreciation (also called **salvage value** of the asset)
life	Number of periods over which the asset is being depreciated (also called **useful life** of the asset)

Example

For an example of this function, see SLN in the Microsoft Excel Function Reference.

See Also

Help

DDB	Returns the depreciation of an asset using the double-declining balance method.
SYD	Returns the depreciation of an asset using the sum-of-years' digits method.
VDB	Returns the depreciation of an asset for a partial period.

List of Financial Functions

SYD(cost,salvage,life,per)

Returns sum-of-years' digits depreciation of an asset for a specified period.

Argument	Description
cost	Initial cost of the asset
salvage	Value at end of depreciation (also called **salvage value** of the asset)
life	Number of periods over which the asset is being depreciated (also called **useful life** of the asset)
per	Period

Example

For an example of this function, see "SYD" in the Microsoft Excel Function Reference.

See Also

Help

DDB	Returns depreciation of an asset using the double-declining balance method.
SLN	Returns straight-line depreciation of an asset for one period.
VDB	Returns depreciation of an asset for a partial period.

List of Financial Functions

VDB(cost,salvage,life,start_period,end_period,factor,no_switch)

Returns the depreciation of an asset for a length of time specified by **start_period** and **end_period**.   If **factor** is not supplied, uses the double-declining balance method based on the asset's initial **cost** and its **salvage** value at the end of its **life**.

▪   Arguments must be positive numbers or references to positive numbers, except **no_switch** which can be TRUE or FALSE.

▪   VDB uses the formula, "**cost** minus the total depreciation from prior periods," to calculate bookvalue and the formula, "(Bookvalue*2)/**life**", to calculate depreciation for a period.

▪   **Factor** is the rate at which you can depreciate an asset relative to straight-line depreciation.
         If omitted, **factor** is assumed to be 2 (double-declining balance).

▪   If **no_switch** is FALSE or omitted, VDB will switch to straight-line depreciation when that depreciation is greater than the declining-balance calculation.

▪   If **no_switch** is TRUE, VDB will not switch to straight-line depreciation, even if depreciation is greater than the declining-balance calculation.

Example

You purchased a new machine for $2400 in the middle of the first quarter of the fiscal year.   It has a lifetime of 5 years and a salvage value of $300.   You want to determine the amount of depreciation for the first fiscal year that you own the asset, assuming tax laws limit you to 150% depreciation of the declining balance.

    VDB(2400,300,5,0,.875,1.5) = $630.00

See Also

Help

DDB   Returns depreciation for an asset using the double-declining balance method.

SLN   Returns straight-line depreciation.

SYD   Returns sum-of-years' digits depreciation.

List of Financial Functions

FV(rate,nper,pmt,pv,type)

Returns the future value of an investment based on a number (**nper**) of periodic constant payments (**pmt**) and a constant interest rate (**rate**).   The **pv** and **type** arguments are optional; if they are omitted, FV uses the value 0.

Examples

FV(0.5%,10,-200,-500,1) = $2,581.40

FV(1%,12,-1000) = $12,682.50

FV(11%/12,35,-2000,,1) = $82,846.25

See Also

Help

FVSCHEDULE   Returns the future value of an initial principal after applying a series of compound interest rates.

PV   Returns the present value of an investment based on even cash flows.

Financial Function Arguments

List of Financial Functions

IPMT(rate,per,nper,pv,fv,type)

Returns the interest payment for a given period (**per**) for an investment based on periodic, constant payments and a constant interest rate (**rate**). **Fv** and **type** are optional; if omitted, IPMT uses 0.

Examples

The following function finds the interest due in the first month of a 3-year $8,000 loan at 10% annual interest, where payments are made monthly:

IPMT(0.1/12,1,36,8000) = -$66.67

The following function finds the interest due in the last year of a 3-year $8,000 loan at 10% annual interest:

IPMT(0.1,3,3,8000) = -$292.45

See Also

Help

CUMIPMT	Returns the cumulative interest paid between start_period and end_period.
FV	Returns the future value of an investment.
PV	Returns the present value of an investment based on even cash flows.

Financial Function Arguments

List of Financial Functions

IRR(values,guess)

Returns the internal rate of return for a series of periodic cash flows represented by the numbers in **values**.   The internal rate of return is the interest rate received for an investment consisting of payments (negative values) and incomes (positive values) that occur at regular periods.

IRR is closely related to the net present value function, NPV.   The rate of return calculated by IRR is the interest rate corresponding to a net present value of zero.

- **Values** must be an array or a reference to cells that contain numbers.   There must be at least one positive value and one negative value.   Otherwise the internal rate of return would be infinite.
- In cases where **values** reflects payments (negative cash flows) and incomes (positive cash flows) for the same period, the payments and incomes should be totaled and the net positive or negative cash flow should be used for that period.
- IRR uses the order of **values** to interpret the order of cash flows.   Be sure to enter your payment and income values in the correct sequence.
- Text, logical, and blank **values** are ignored.   However, if no cash flow or net cash flow occurs for a particular period, you must enter 0 (zero) as the value for that period (not leave it blank) to signify that a period has gone by in which no cash flow occurred.

Starting with the value of **guess**, IRR uses an iterative technique to cycle through the calculation until the value is accurate within .00001%.   If after 20 tries it can't find a value that works, IRR returns the error value #NUM!

In most cases you don't need to provide **guess**.   If you omit it, IRR guesses in the range .1% to 10%.   However, if IRR returns the error value #NUM!, try again with different values of **guess**.

Example

For an example of this function, see IRR in the Microsoft Excel Function Reference.

See Also

Help

MIRR   Returns the internal rate of return including cost of investment.

NPV   Returns the net present value of an investment based on a series of periodic cash flows and a discount rate.

PV   Returns the present value of an investment based on even cash flows.

RATE   Returns the interest rate per period of an annuity.

Financial Function Arguments

List of Financial Functions

MIRR(values,finance_rate,reinvest_rate)

Returns modified internal rate of return for a series of periodic cash flows represented by the numbers in **values**.   Considers both cost of the investment, **finance_rate**, and interest received on reinvestment of cash, **reinvest_rate**.

▪   **Values** must be an array or a reference to cells that contain numbers.   These numbers represent a series of payments (negative values) and income (positive values) occurring at regular periods.

▪   In cases where **values** reflects payments (negative cash flows) and incomes (positive cash flows) for the same period, the payments and incomes should be totaled and the net positive or negative cash flow should be used for that period.

▪   There must be at least one positive value and one negative value; otherwise, MIRR returns #DIV/0!.

▪   MIRR uses the order of **values** to interpret order of cash flows.   It ignores text, logical, and blank **values**.   However, if no cash flow occurs for a particular period, you must enter 0 (zero) as the value for that period (not leave it blank) to signify that a period has gone by in which no cash flow occurred.

Example

For an example of this function, see MIRR in the Microsoft Excel Function Reference.

See Also

Help

IRR   Returns internal rate of return for a series of cash flows.

RATE   Returns the interest rate per period of an annuity.

Financial Function Arguments

List of Financial Functions

NPER(rate,pmt,pv,fv,type)

Returns the number of periods for an investment based on periodic, constant payments and a constant interest rate.

- **NPER, rate**, and **pmt** refer to the same period of time.   If **rate** is per year then **NPER** returns the number of years and **pmt** is yearly.
- The **fv** and **type** arguments are optional; if omitted, **NPER** uses 0.

Examples

NPER(12%/12,-100,-1000,10000,1) =60

NPER(1%,-100,-1000,10000) =60

NPER(1%,-100,1000) =11

See Also

Help

IPMT   Returns interest payment for an investment for a given period.

PPMT   Returns principal payment for an investment for a given period.

Financial Function Arguments

List of Financial Functions

NPV(rate,value1,value2,...)

Returns the net present value of an investment based on a series of periodic cash flows, **value1, value2,...** and a discount rate equal to **rate**.

- **Rate** is the rate of discount over the length of one period.
- **Value1,value2,...** must be equally spaced in time and occur at the end of each period.
- NPV uses the order of **value1,value2,...** to interpret the order of cash flows.
- The list of values can contain up to 29 arguments representing the payments and income.
- The individual arguments must be numbers, empty cells, logical values, or text representations of logical values.
- If the argument is an array or a reference, only numbers in that array or reference are counted.
- Error values or text that cannot be converted into numbers are ignored.

The NPV investment begins one period before the date of the **value1** cash flow, and ends with the last cash flow in the list.   If your first cash flow occurs at the beginning of the first period, the first value must be added to the NPV result, not included in the **values** arguments.

Example

For an example of this function, see NPV in the Microsoft Excel Function Reference*.

See Also

Help

FV   Returns future value of an investment based on constant cash flows.

IRR   Returns internal rate of return for a series of cash flows.

PV   Returns present value of an investment based on constant cash flows.

Financial Function Arguments

List of Financial Functions

PMT(rate,nper,pv,fv,type)

Returns payment for an investment based on periodic, constant payments and a constant interest rate.

▪ Make sure that you are consistent about the units you use for specifying **rate** and **nper**. If **rate** is per year then PMT returns the number of payments per year and **nper** is the number of years.

▪ **Fv** and **type** are optional; if omitted, PMT uses 0.

Examples

PMT(8%/12,10,0,10000,1) =-$963.94

PMT(8%/12,10,0,10000) =-$970.37

PMT(12%/12,5,-5000) =$1,030.20

See Also

Help

IPMT   Returns interest payment for an investment for a given period.

PPMT   Returns principal payment for an investment for a given period.

Financial Function Arguments

List of Financial Functions

PPMT(rate,per,nper,pv,fv,type)

Returns the payment on the principal for a given period for an investment based on periodic, constant payments and a constant interest rate.

- The **fv** and **type** arguments are optional; if omitted, PPMT uses 0.
- **Per** specifies the period and must be in the range 1 to **nper**.

Example

For an example of this function, see PPMT in the Microsoft Excel Function Reference.

See Also

Help

IPMT   Returns interest payment for an investment for a given period.

PMT   Returns periodic total payment for an investment.

Financial Function Arguments

List of Financial Functions

PV(rate,nper,pmt,fv,type)

Returns the present value of an investment based on periodic, constant payments and a constant interest rate.

- The **fv** and **type** arguments are optional; if omitted, PV uses 0.

Example

For an example of this function, see PV in the Microsoft Excel Function Reference.

See Also

Help

IPMT　　　　　Returns interest payment for an investment for a given period.

PPMT　　　　　Returns principal payment for an investment for a given period.

Financial Function Arguments

List of Financial Functions

RATE(nper,pmt,pv,fv,type,guess)

Returns the interest rate per period for an annuity.

- Calculated by iteration; can have zero or more solutions.   If the successive results of RATE do not converge to within 0.0000001 after 20 iterations, RATE returns #NUM!.
- **Guess** is your guess for what the rate will be.

    If you omit **guess**, RATE uses 10%.

    If RATE does not converge, try different values for **guess**.   RATE usually converges if given a **guess** between 0 and 1.

- The **fv** and **type** arguments are optional; if omitted, RATE uses 0.

Example

For an example of this function, see RATE in the Microsoft Excel Function Reference.

See Also

Help

IPMT   Returns interest payment for an investment for a given period.

PPMT   Returns principal payment for an investment for a given period.

Financial Function Arguments

List of Financial Functions

DB(cost,salvage,life,period,month)

Returns the real depreciation of an asset for a specific period using the fixed-declining balance method.

- **Cost** is the initial cost of the asset.
- **Salvage** is the value at the end of the depreciation (sometimes called the salvage value of the asset).
- **Life** is the number of periods over which the asset is being depreciated (sometimes called the useful life of the asset).
- **Period** is the period for which you want to calculate the depreciation. **Period** must use the same units as **life**.
- **Month** is the number of months in the first year. If **month** is omitted, it is assumed to be 12.

Examples

Suppose a factory purchases a new machine.   The machine costs $1,000,000 and has a lifetime of six years.   The salvage value of the machine is $100,000.   The following examples show depreciation over the life of the machine.   The results are rounded to whole numbers.

DB(1000000,100000,6,1,7) = $186,083

DB(1000000,100000,6,2,7) = $259,639

DB(1000000,100000,6,3,7) = $176,814

DB(1000000,100000,6,4,7) = $120,411

DB(1000000,100000,6,5,7) = $82,000

DB(1000000,100000,6,6,7) = $55,842

DB(1000000,100000,6,7,7) = $15,845

See Also

Help

DDB	Returns the depreciation of an asset using the double-declining balance method.
SLN	Returns the straight-line depreciation of an asset for one period.
SYD	Returns the sum-of-years' digits depreciation of an asset for a specified period.
VDB	Returns the depreciation of an asset for a partial period.

Financial Function Arguments

List of Financial Functions

ACCRINTM(issue,settlement,rate,par,basis)

Returns the accrued interest for a security that pays interest at maturity.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

Example

A note has the following terms:

April 1, 1991 issue date

June 15, 1991 maturity date

10.0% coupon

$1,000 par value

Actual/365 basis

The accrued interest (in the 1900 date system) is:

ACCRINTM(33329,33404,0.1,1000,3) = 20.54795

See Also

Help

ACCRINT   Returns the accrued interest for a security.

DATE   Returns the serial number of a particular date.

Financial Function Arguments

List of Financial Functions

COUPDAYBS(settlement,maturity,frequency,basis)

Returns the number of days from the beginning of the coupon period to the settlement date.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

Example

A bond has the following terms:

January 25, 1991 settlement date

November 15, 1992 maturity date

Semiannual coupon

Actual/actual basis

The number of days from the beginning of the coupon period to the settlement date (in the 1900 date system) is:

COUPDAYBS(33263,33923,2,1) = 71

See Also

Help

COUPDAYS	Returns the number of days in coupon period that contains settlement date.
COUPDAYSNC	Returns the number of days from settlement to next coupon date.
COUPNCD	Returns the next coupon date after settlement date.
COUPNUM	Returns the number of coupons payable between settlement date and maturity date.
COUPPCD	Returns the previous coupon date before settlement date.
NOW	Returns the serial number of the current date and time.

Financial Function Arguments

List of Financial Functions

COUPDAYS(settlement,maturity,frequency,basis)

Returns the number of days in the coupon period that contains the settlement date.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

Example

A bond has the following terms:

January 25, 1991 settlement date

November 15, 1992 maturity date

Semiannual coupon

Actual/actual basis

The number of days in the coupon period that contains the settlement date (in the 1900 date system) is:

COUPDAYS(33262,33923,2,1) = 181

See Also

Help

COUPDAYBS   Returns the number of days from beginning of coupon period to settlement date.

COUPDAYSNC Returns the number of days from settlement to next coupon date.

COUPNCD   Returns the next coupon date after settlement date.

COUPNUM   Returns the number of coupons payable between settlement date and maturity date.

COUPPCD   Returns the previous coupon date before settlement date.

NOW   Returns the serial number of the current date and time.

Financial Function Arguments

List of Financial Functions

COUPDAYSNC(settlement,maturity,frequency,basis)

Returns the number of days from the settlement date to the next coupon date.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

Example

A bond has the following terms:

January 25, 1991 settlement date

November 15, 1992 maturity date

Semiannual coupon

Actual/actual basis

The number of days from the beginning of the coupon period to the settlement date (in the 1900 date system) is:

COUPDAYSNC(33263,33923,2,1) = 110

See Also

Help

COUPDAYBS	Returns the number of days from beginning of coupon period to settlement date.
COUPDAYS	Returns the number of days in coupon period that contains settlement date.
COUPNCD	Returns the next coupon date after settlement date.
COUPNUM	Returns the number of coupons payable between settlement date and maturity date.
COUPPCD	Returns the previous coupon date before settlement date.
NOW	Returns the serial number of the current date and time.

Financial Function Arguments

List of Financial Functions

COUPNCD(settlement,maturity,frequency,basis)

Returns the next coupon date after the settlement date.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

Example

A bond has the following terms:

January 25, 1991 settlement date
November 15, 1992 maturity date
Semiannual coupon
Actual/actual basis

The next coupon date after the settlement date (in the 1900 date system) is:
COUPNCD(33263,33923,2,1) = 33373 or May 15, 1991

See Also

Help

COUPDAYBS	Returns the number of days from beginning of coupon period to settlement date.
COUPDAYS	Returns the number of days in coupon period that contains settlement date.
COUPDAYSNC	Returns the number of days from settlement to next coupon date.
COUPNUM	Returns the number of coupons payable between settlement date and maturity date.
COUPPCD	Returns the previous coupon date before settlement date.
NOW	Returns the serial number of the current date and time.

Financial Function Arguments

List of Financial Functions

COUPNUM(settlement,maturity,frequency,basis)

Returns the number of coupons payable between the settlement date and the maturity date, rounded to the nearest whole coupon.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

Example

A bond has the following terms:
   January 25, 1991 settlement date
   November 15, 1992 maturity date
   Semiannual coupon
   Actual/actual basis

The number of coupon payments (in the 1900 date system) is:
COUPNUM(33263,33923,2,1) = 4

See Also

Help

COUPDAYBS   Returns the number of days from beginning of coupon period to settlement date.

COUPDAYS   Returns the number of days in coupon period that contains settlement date.

COUPDAYSNC   Returns the number of days from settlement to next coupon date.

COUPNCD   Returns the next coupon date after settlement date.

COUPPCD   Returns the previous coupon date before settlement date.

NOW   Returns the serial number of the current date and time.

Financial Function Arguments

List of Financial Functions

COUPPCD(settlement,maturity,frequency,basis)

Returns the previous coupon date before the settlement date.

If this function is not available, you must install the Analysis ToolPak add-in macro. For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

Example

A bond has the following terms:

January 25, 1991 settlement date

November 15, 1992 maturity date

Semiannual coupon

Actual/actual basis

The previous coupon date before the settlement date (in the 1900 date system) is:

COUPPCD(33263,33923,2,1) = 33192 or November 15, 1990

See Also

Help

COUPDAYBS	Returns the number of days from beginning of coupon period to settlement date.
COUPDAYS	Returns the number of days in coupon period that contains settlement date.
COUPDAYSNC	Returns the number of days from settlement to next coupon date.
COUPNCD	Returns the next coupon date after settlement date.
COUPNUM	Returns the number of coupons payable between settlement date and maturity date.
NOW	Returns the serial number of the current date and time.

Financial Function Arguments

List of Financial Functions

CUMIPMT(rate,nper,pv,start_period,end_period,type)

Returns the cumulative interest paid on a loan between **start_period** and **end_period**.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

Examples

A home mortgage loan has the following terms:

Interest rate, 9.00% per annum (**rate** = 9.00%   divided by 12 = 0.0075)

Term, 30 years (**nper** = 30 x 12 = 360)

Present value, $125,000

The total interest paid in the second year of payments (periods 13 through 24) is:

CUMIPMT(0.0075,360,125000,13,24,0) = -11135.23

The interest paid in a single payment, in the first month, is:

CUMIPMT(0.0075,360,125000,1,1,0) = -937.50

See Also

Help

CUMPRINC   Returns the cumulative principal paid on a loan between two periods.

Financial Function Arguments

List of Financial Functions

CUMPRINC(rate,nper,pv,start_period,end_period,type)

Returns the cumulative principal paid on a loan between **start_period** and **end_period**.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

Examples

A home mortgage loan has the following terms:

Interest rate, 9.00% per annum (**rate** = 9.00% divided by 12 = 0.0075)

Term, 30 years (**nper** = 30 x 12 = 360)

Present value, $125,000

The total principal paid in the second year of payments (periods 13 through 24) is:
CUMPRINC(0.0075,360,125000,13,24,0) = -934.1071

The principal paid in a single payment, in the first month, is:
CUMPRINC(0.0075,360,125000,1,1,0) = -68.27827

See Also

Help

CUMIPMT   Returns the cumulative interest between two periods.

Financial Function Arguments
List of Financial Functions

DISC(settlement,maturity,pr,redemption,basis)

Returns the discount rate for a security.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

Example

A bond has the following terms:

February 15, 1991 settlement date

June 10, 1991 maturity date

97.975 price

$100 redemption value

Actual/360 basis

The bond discount rate (in the 1900 date system) is:

DISC(33284,33399,97.975,100,2) = 0.063391 or 6.3391%

See Also

Help

NOW   Returns the serial number of the current date and time.

PRICEDISC   Returns the price per $100 face value for a discounted security.

YIELDDISC   Returns the annual yield for a discounted security.

Financial Function Arguments

List of Financial Functions

DOLLARDE(fractional_dollar,fraction)

Converts a dollar price expressed as a fraction into a dollar price expressed as a decimal number. Use DOLLARDE to convert fractional dollar numbers, such as securities prices, to decimal numbers.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

Examples

DOLLARDE(1.02,16) = 1.125
DOLLARDE(1.1,8) = 1.125

See Also

Help

DOLLAR   Converts a number to text, using currency format.

DOLLARFR   Converts a dollar price expressed as a decimal number to a dollar price expressed as a fraction.

Financial Function Arguments

List of Financial Functions

DOLLARFR(decimal_dollar,fraction)

Converts a dollar price expressed as a decimal number to a dollar price expressed as a fraction. Use DOLLARFR to convert decimal numbers to fractional dollar numbers, such as securities prices.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

Examples

DOLLARFR(1.125,16) = 1.02
DOLLARFR(1.125,8) = 1.1

See Also

Help

DOLLAR   Converts a number to text, using currency format.

DOLLARDE   Converts a dollar price expressed as a fraction to a dollar price expressed as a decimal number.

Financial Function Arguments

List of Financial Functions

DURATION(settlement,maturity,coupon,yld,frequency,basis)

Returns the Macauley duration for an assumed par value of $100.   Duration is defined as the weighted average of the present value of the cash flows, and is used as a measure of a bond price's response to changes in yield.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

Example

A bond has the following terms:

January 1, 1986 settlement date

January 1, 1994 maturity date

8.0% semiannual coupon

9.0% yield

Actual/actual basis

The duration (in the 1900 date system) is:

DURATION(31413,34335,0.08,0.09,2,1) = 5.993775

See Also

Help

MDURATION   Returns the modified Macauley duration.

NOW   Returns the serial number of the current date and time.

Financial Function Arguments

List of Financial Functions

EFFECT(nominal_rate,npery)

Returns the effective annual interest rate, given the nominal annual interest rate and the number of compounding periods per year.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

Example

EFFECT(5.25%,4) = 0.053543 or 5.3543%

See Also

Help

NOMINAL   Returns the nominal annual interest rate.

Financial Function Arguments
List of Financial Functions

EOMONTH(start_date,months)

Returns the serial number date for the last day of the month that is the indicated number of months before or after **start_date**. Use EOMONTH to calculate maturity dates or due dates that fall on the last day of the month.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

Examples

In the 1900 date system:

EOMONTH(DATEVALUE("01/01/91"),1) = 33297 or 02/28/91

EOMONTH(DATEVALUE("01/01/91"),-1) = 33238 or 12/31/90

See Also

Help

EDATE   Returns the date before or after a specified number of months.

NETWORKDAYS   Returns the number of whole workdays between two dates.

NOW   Returns the serial number of the current date and time.

WORKDAY   Returns the date before or after a specified number of workdays.

List of Date & Time Functions

FVSCHEDULE(principal,schedule)

Returns the future value of an initial principal after applying a series of compound interest rates. Use FVSCHEDULE to calculate the future value of an investment with a variable or adjustable rate.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

Example

FVSCHEDULE(1.0,{0.09,0.11,0.1}) = 1.33089

See Also

Help

FV   Returns the future value of an investment.

Financial Function Arguments
List of Financial Functions

INTRATE(settlement,maturity,investment,redemption,basis)

Returns the interest rate for a fully invested security.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

Example

A bond has the following terms:

February 15, 1991 settlement (issue) date

May 15, 1991 maturity date

$1,000,000 investment

$1,014,420 redemption value

Actual/360 basis

The bond discount rate (in the 1900 date system) is:

INTRATE(33284,33373,1000000,1014420,2) = 0.058328 or 5.8328%

See Also

Help

NOW   Returns the serial number of the current date and time.

RECEIVED   Returns the amount received at maturity for a fully invested security.

Financial Function Arguments

List of Financial Functions

MDURATION(settlement,maturity,coupon,yld,frequency,basis)

Returns the modified Macauley duration for a security with an assumed par value of $100.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

Example

A bond has the following terms:

January 1, 1986 settlement date

January 1, 1994 maturity date

8.0% semiannual coupon

9.0% yield

Actual/actual basis

The modified duration (in the 1900 date system) is:

MDURATION(31413,34335,0.08,0.09,2,1) = 5.73567

See Also

Help

DURATION   Returns the Macauley duration.

NOW   Returns the serial number of the current date and time.

Financial Function Arguments

List of Financial Functions

NETWORKDAYS(start_date,end_date,holidays)

Returns the number of whole working days between **start_date** and **end_date**.   Working days exclude weekends and any dates identified in **holidays**.   Use NETWORKDAYS to calculate employee benefits that accrue based on the number of days worked during a specific term.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

Example

NETWORKDAYS(DATEVALUE("10/01/91"),DATEVALUE("12/01/91"),DATEVALUE("11/28/91")) = 43

See Also

Help

EDATE   Returns the date before or after a specified number of months.

EOMONTH   Returns the serial number last day of the month before or after a specified number of months.

NOW   Returns the serial number of the current date and time.

WORKDAY   Returns the date before or after a specified number of workdays.

List of Date & Time Functions

NOMINAL(effect_rate,npery)

Returns the nominal annual interest rate, given the effective rate and the number of compounding periods per year.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

Example

   NOMINAL(5.3543%,4) = 0.0525 or 5.25%

See Also

   Help

   EFFECT   Returns the effective annual interest rate.

   Financial Function Arguments
   List of Financial Functions

ODDFPRICE(settlement,maturity,issue,first_coupon,rate,yld, redemption,frequency,basis)

Returns the price per $100 face value for a security having an odd (short or long) first period.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

See Also

Help

NOW	Returns the serial number of the current date and time.
ODDFYIELD	Returns the yield for a security with an odd first period.
ODDLPRICE	Returns the price per $100 face value for a security with an odd last period.
ODDLYIELD	Returns the yield for a security with an odd last period.

Financial Function Arguments

List of Financial Functions

ODDFYIELD(settlement,maturity,issue,first_coupon,rate, pr,redemption,frequency,basis**)**

Returns the yield of a security that has an odd (short or long) first period.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

See Also

Help

NOW   Returns the serial number of the current date and time.

ODDFPRICE   Returns the price per $100 face value for a security with an odd first period.

ODDLPRICE   Returns the price per $100 face value for a security with an odd last period.

ODDLYIELD   Returns the yield for a security with an odd last period.

Financial Function Arguments

List of Financial Functions

ODDLPRICE(settlement,maturity,last_coupon,rate,yld, redemption,frequency,basis**)**

Returns the price per $100 face value of a security having an odd (short or long) last coupon period.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

See Also

Help

NOW   Returns the serial number of the current date and time.

ODDFPRICE   Returns the price per $100 face value for a security with an odd first period.

ODDFYIELD   Returns the yield for a security with an odd first period.

ODDLYIELD   Returns the yield for a security with an odd last period.

Financial Function Arguments

List of Financial Functions

ODDLYIELD(settlement,maturity,last_coupon,rate,pr, redemption,frequency,basis)

Returns the yield of a security that has an odd (short or long) last period.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

See Also

Help

NOW   Returns the serial number of the current date and time.

ODDFPRICE   Returns the price per $100 face value for a security with an odd first period.

ODDLPRICE   Returns the price per $100 face value for a security with an odd last period.

ODDFYIELD   Returns the yield for a security with an odd first period.

Financial Function Arguments

List of Financial Functions

PRICE(settlement,maturity,rate,yld,redemption,frequency,basis)

Returns the price per $100 face value of a security that pays periodic interest.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

Example

A bond has the following terms:

February 15, 1991 settlement date

November 15, 1999 maturity date

5.75% semiannual coupon

6.50% yield

$100 redemption value

30/360 basis

The bond price (in the 1900 date system) is:

PRICE(33284,36479,0.0575,0.065,100,2,0) = 95.04287

See Also

Help

NOW   Returns the serial number of the current date and time.

YIELD   Returns the yield for a security with periodic interest payments.

Financial Function Arguments

List of Financial Functions

PRICEDISC(settlement,maturity,discount,redemption,basis)

Returns the price per $100 face value of a discounted security.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

Example

A bond has the following terms:

February 15, 1991 settlement date

March 1, 1991 maturity date

5.25% yield

$100 redemption value

Actual/360 basis

The bond price (in the 1900 date system) is:

PRICEDISC(33284,33298,0.0525,100,2) = 99.79583

See Also

Help

DISC   Returns the discount rate for a security.

NOW   Returns the serial number of the current date and time.

YIELDDISC   Returns the yield for a discounted security.

Financial Function Arguments

List of Financial Functions

PRICEMAT(settlement,maturity,issue,rate,yld,basis)

Returns the price per $100 face value of a security that pays interest at maturity.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

Example

A bond has the following terms:

February 15, 1991 settlement date
April 13, 1991 maturity date
November 11, 1990 issue date
6.1% semiannual coupon
6.1% yield
30/360 basis

The price (in the 1900 date system) is:
PRICEMAT(33284,33341,33188,0.061,0.061,0) = 99.984499

See Also

Help

NOW   Returns the serial number of the current date and time.
YIELDMAT   Returns the yield for a security that pays interest at maturity .

Financial Function Arguments
List of Financial Functions

RECEIVED(settlement,maturity,investment,discount,basis)

Returns the amount received at maturity for a fully invested security.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

Example

A bond has the following terms:

February 15, 1991 settlement (issue) date

May 15, 1991 maturity date

$1,000,000 investment

5.75% discount rate

Actual/360 basis

The bond discount rate (in the 1900 date system) is:

RECEIVED(33284,33373,1000000,0.0575,2) = 1,014,420.266

See Also

Help

INTRATE   Returns the interest rate for a fully invested security.

NOW   Returns the serial number of the current date and time.

Financial Function Arguments

List of Financial Functions

TBILLEQ(settlement,maturity,discount)

Returns the bond-equivalent yield for a Treasury bill.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

Example

A Treasury bill has the following terms:

March 31, 1991 settlement date

June 1, 1991 maturity date

9.14% discount rate

The Treasury bill price (in the 1900 date system) is:

TBILLEQ(33328,33390,0.0914) = 0.094151 or 9.4151%

See Also

Help

NOW	Returns the serial number of the current date and time.
TBILLPRICE	Returns the price per $100 face value for a Treasury bill.
TBILLYIELD	Returns the yield for a Treasury bill.

Financial Function Arguments

List of Financial Functions

TBILLPRICE(settlement,maturity,discount)

Returns the price per $100 face value for a Treasury bill.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

Example

A Treasury bill has the following terms:

March 31, 1991 settlement date

June 1, 1991 maturity date

9% discount rate

The Treasury bill price (in the 1900 date system) is:

TBILLPRICE(33328,33390,0.09) = 98.43

See Also

Help

DATE   Returns the serial number of a particular date.

TBILLEQ   Returns the bond-equivalent yield for a Treasury bill.

TBILLYIELD   Returns the yield for a Treasury bill.

Financial Function Arguments

List of Financial Functions

TBILLYIELD(settlement,maturity,pr)

Returns the yield for a Treasury bill.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

Example

A Treasury bill has the following terms:

March 31, 1991 settlement date
June 1, 1991 maturity date
98.45 price per $100 face value

The Treasury bill price (in the 1900 date system) is:

TBILLYIELD(33328,33390,98.45) = 9.1417

See Also

Help

DATE	Returns the serial number of a particular date.
TBILLEQ	Returns the bond-equivalent yield for a Treasury bill.
TBILLPRICE	Returns the price per $100 face value for a Treasury bill.

Financial Function Arguments
List of Financial Functions

WORKDAY(start_date,days,holidays)

Returns the serial number date that is the indicated number of working days before or after **start_date**. Working days exclude weekends and any dates identified in **holidays**.   Use WORKDAY to exclude weekends or holidays when you calculate invoice due dates, expected delivery times, or the number of days of work performed.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

Examples

In the 1900 date system:

WORKDAY(DATEVALUE("01/03/91"),5) = 33248 or 01/10/91

If January 7, 1991 and January 8, 1991 are holidays, then

WORKDAY(DATEVALUE("01/03/91"),5,{33245,33246}) = 33252 or 01/14/91

See Also

Help

EDATE	Returns the date before or after a specified number of months.
EOMONTH	Returns the serial number last day of the month before or after a specified number of months.
NETWORKDAYS	Returns the number of whole workdays between two dates.
NOW	Returns the serial number of the current date and time.

List of Date & Time Functions

XIRR(values,dates,guess)

Returns the internal rate of return for a schedule of cash flows that is not necessarily periodic.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

Example

Consider an investment that requires a $10,000 cash payment on January 1, 1991, and returns $2,750 on March 1, 1991, $4,250 on October 30, 1991, $3,250 on February 15, 1992, and $2,750 on April 1, 1992.   The internal rate of return (in the 1900 date system) is:

XIRR({-10000,2750,4250,3250,2750},{33239,33298,33541,33649,33695},0.1) = 0.374581 or 37.4581%

See Also

Help

IRR   Returns the internal rate of return for a series of periodic cash flows.

MIRR   Returns the internal rate of return where positive and negative cash flows
                 are financed at different rates.

NPV   Returns the net present value of investment.

RATE   Returns the interest rate per period of an annuity.

XNPV   Returns the net present value for a schedule of cash flows that is not
                 necessarily periodic.

Financial Function Arguments

List of Financial Functions

XNPV(rate,values,dates)

Returns the net present value for a schedule of cash flows that is not necessarily periodic.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

Example

Consider an investment that requires a $10,000 cash payment on January 1, 1991, and returns $2,750 on March 1, 1991, $4,250 on October 30, 1991, $3,250 on February 15, 1992, and $2,750 on April 1, 1992.   Assume that the cash flows are discounted at 9%. The net present value (in the 1900 date system) is:

XNPV(0.09,{-10000,2750,4250,3250,2750},{33239,33298,33541,33649,33695}) = 2088.918556

See Also

Help

IRR   Returns the internal rate of return for a series of periodic cash flows.

MIRR   Returns the internal rate of return where positive and negative cash flows are financed at different rates.

NPV   Returns the net present value of an investment.

RATE   Returns the interest rate per period for an annuity.

XIRR   Returns the internal rate of return for a schedule of cash flows that is not necessarily periodic.

Financial Function Arguments

List of Financial Functions

YEARFRAC(start_date,end_date,basis)

Returns the year fraction representing the number of whole days between **start_date** and **end_date**.   Use YEARFRAC to identify the proportion of a whole year's benefits or obligations to assign to a specific term.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

Examples

In the 1900 date system:

YEARFRAC(DATEVALUE("01/01/91"),DATEVALUE("06/30/91"),0) = 0.5

YEARFRAC(DATEVALUE("01/01/91"),DATEVALUE("07/01/91"),3) = 0.49589

See Also

Help

EDATE	Returns the date before or after a specified number of months.
EOMONTH	Returns the serial number last day of the month before or after a specified number of months.
NETWORKDAYS	Returns the number of whole workdays between two dates.
NOW	Returns the serial number of the current date and time.
WORKDAY	Returns the date before or after a specified number of workdays.

List of Date & Time Functions

YIELD(settlement,maturity,rate,pr,redemption,frequency,basis)

Returns the yield for a security that pays periodic interest. Use YIELD to calculate bond yield.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

Example

A bond has the following terms:

February 15, 1991 settlement date

November 15, 1999 maturity date

5.75% semiannual coupon

95.04287 price

$100 redemption value

30/360 basis

The bond yield (in the 1900 date system) is:

YIELD(33284,36479,0.0575,95.04287,100,2,0) = 0.065 or 6.5%

See Also

Help

NOW   Returns the serial number of the current date and time.

PRICE   Returns the price per $100 face value for a security with periodic interest payments.

Financial Function Arguments

List of Financial Functions

YIELDDISC(settlement,maturity,pr,redemption,basis)

Returns the annual yield for a discounted security.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

Example

A bond has the following terms:

February 15, 1991 settlement date

June 10, 1991 maturity date

99.795 price

$100 redemption value

Actual/360 basis

The bond yield (in the 1900 date system) is:

YIELDDISC(33284,33298,97.975,100,2) = 0.052823 or 5.2823%

See Also

Help

DISC   Returns the discount rate for a security.

NOW   Returns the serial number of the current date and time.

PRICEDISC   Returns the price per $100 face value for a discounted security.

Financial Function Arguments

List of Financial Functions

YIELDMAT(settlement,maturity,issue,rate,pr,basis)

Returns the annual yield for a security that pays interest at maturity.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

Example

A bond has the following terms:

March 15, 1991 settlement date

November 3, 1991 maturity date

November 8, 1990 issue date

6.25% semiannual coupon

100.0123 price

30/360 basis

The yield (in the 1900 date system) is:

YIELDMAT(33312,33545,33185,0.0625,100.0123,0) = 0.060954 or 6.0954%

See Also

Help

NOW   Returns the serial number of the current date and time.

PRICEMAT   Returns price per $100 face value for a security that pays interest at maturity.

Financial Function Arguments

List of Financial Functions

ACCRINT(issue,first_interest,settlement,coupon,par,frequency,basis)

Returns the accrued interest for a security that pays periodic interest.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

Example

A Treasury bond has the following terms:

February 28, 1991 issue date

May 1, 1991 settlement date

August 31, 1991 first interest date

10.0% semiannual coupon

$1,000 par value

30/360 basis

The accrued interest (in the 1900 date system) is:

ACCRINT(33297,33481,33359,0.1,1000,2,0,) = 16.94444

See Also

Help

ACCRINTM   Returns the accrued interest for a security that pays interest at maturity.

DATE   Returns the serial number of a particular date.

Financial Function Arguments

List of Financial Functions

Financial Function Arguments

Basis	An optional value that indicates the type of calendar to use. If **Basis** is 0 or omitted, the calendar is 30/360; if 1, actual/actual; if 2, actual/360; if 3, actual/365.
Coupon	The security's annual coupon rate.
Dates	A schedule of payment dates that corresponds to the cash flow payments. The first payment date indicates the beginning of the schedule of payments. All other dates must be later than this date, but they may occur in any order.
Days	The number of non-weekend and non-holiday days before or after **start_date**. A positive value for **days** yields a future date; a negative value yields a past date.
Decimal_dollar	A decimal dollar.
Discount	The security's discount rate.
Effect_rate	The effective interest rate.
End_date	A serial date number that represents the end date.
End_period	The last period in the calculation.
First_coupon	The security's first coupon date, expressed as a serial date number.
First_interest	The security's first interest date, expressed as a serial date number.
Fraction	The number in the denominator of the fraction.
Fractional_dollar	A number expressed as a fraction.
Frequency	The number of coupon payments per year. For annual payments, **frequency** =1; for semiannual, **frequency** = 2; for quarterly, **frequency** = 4.
Fv	Future value, cash balance attained sometime in the future after the last payment is made.
Guess	A number that you guess is close to the result.
Holidays	An set of one or more serial date numbers to exclude from the working calendar.
Investment	The amount invested in the security.
Issue	The security's issue date expressed as a serial date number.
Last_coupon	The security's last coupon date, expressed as a serial number date.
Maturity	The security's maturity date, expressed as a serial date number.
Months	The number of months before or after **start_date**. A positive value for **months** yields a future date; a negative value yields a past date.
Nominal_rate	The nominal interest rate.
Nper	Number of periods (payments) in a loan.
Npery	The number of compounding periods per year.
Par	A security's par value. If omitted, the function uses $1,000.
Per	Period for which payment is calculated.
Pmt	The security's payment.
Pr	The security's price per $100 face value.
Principal	The present value.
Pv	Present value, the lump sum value of a series of future payments.
Rate	Interest rate for one period.
Redemption	The security's redemption value per $100 face value.
Schedule	An array of interest rates to apply.

Settlement	The security's settlement date, expressed as a serial date number.
Start_date	A serial date number that represents the start date.
Start_period	The first period in the calculation. Payment periods are numbered beginning with 1.
Type	Indicates when payments are due. 0 (zero) means payments are due at the end of the period; 1 means they are due at the beginning.
Values	A series of cash flows that correspond to a schedule of payments in **dates**. The first payment is options, and corresponds to a cost or payment that occurs at the beginning of the investment. All succeeding payments are discounted based on a 365-day year.
Yld	The security's annual yield.

See Also

Help

List of Financial Functions

EDATE(start_date,months)

Returns the serial number date that is the indicated number of months before or after **start_date**.   Use EDATE to calculate maturity dates or due dates that fall on the same day of the month as the date of issue.

If this function is not available, you must install the Analysis ToolPak add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

Examples

In the 1900 date system:

EDATE(DATEVALUE("01/15/91"),1) = 33284 or "02/15/91"

EDATE(DATEVALUE("03/31/91"),-1) = 33297 or "02/28/91"

See Also

Help

EOMONTH	Returns the serial number last day of the month before or after a specified number of months.
NETWORKDAYS	Returns the number of whole workdays between two dates.
NOW	Returns the serial number of the current date and time.
WORKDAY	Returns the date before or after a specified number of workdays.

List of Date & Time Functions

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STEYX()
SUBSTITUTE()
SUM()
SUMPRODUCT()
SUMSQ()
SUMX2MY2()
SUMX2PY2()

Financial Functions

Function	Returns
ACCRINT()	Accrued interest for a security that pays periodic interest
ACCRINTM()	Accrued interest for a security that pays interest at maturity
COUPDAYBS()	Number of days from the beginning of the coupon period to the settlement date
COUPDAYS()	Number of days in the coupon period that contains the settlement date
COUPDAYSNC()	Number of days from the settlement date to the next coupon date
COUPNCD()	Next coupon date after the settlement date
COUPNUM()	Number of coupons payable between the settlement date and maturity date
COUPPCD()	Previous coupon date before the settlement date
CUMIPMT()	Cumulative interest paid between start_period and end_period
CUMPRINC()	Cumulative principal paid on a loan between start_period and end_period
DB()	Real depreciation of an asset for a specific period using the fixed-declining balance method
DDB()	Depreciation of an asset using the double-declining balance method
DISC()	Discount rate for a security
DOLLARDE()	Converts a dollar price, expressed as a fraction, into a dollar price, expressed as a decimal number
DOLLARFR()	Converts a dollar price, expressed as a decimal number, into a dollar price, expressed as a fraction
DURATION()	Annual duration for a security with periodic interest payments
EFFECT()	Effective annual interest rate
FV()	Future value of an investment
FVSCHEDULE()	Future value of an initial principal after applying a series of compound interest rates
INTRATE()	Interest rate for a fully invested security
IPMT()	Interest payment for an investment for a given period
IRR()	Internal rate of return for a series of cash flows
MDURATION()	Macauley modified duration for a security with an assumed par value of $100
MIRR()	Modified internal rate of return for a list of values
NOMINAL()	Annual nominal interest rate
NPER()	Number of periods (payments) for an investment
NPV()	Net present value of an investment based on a series of periodic cash flows and a discount rate
ODDFPRICE()	Price per $100 face value of a security with an odd first period
ODDFYIELD()	Yield of a security with an odd first period
ODDLPRICE()	Price per $100 face value of a security with an odd last coupon period
ODDLYIELD()	Yield of a security with an odd last period
PMT()	Periodic payment for an annuity
PPMT()	Payment on the principal for a given period
PRICE()	Price per $100 face value of a security that pays periodic interest
PRICEDISC()	Price per $100 face value of a discounted security

PRICEMAT()	Price per $100 face value of a security that pays interest at maturity
PV()	Present value of an investment
RATE()	Interest rate per period of an annuity
RECEIVED()	Amount received at maturity for a fully invested security
SLN()	Straight-line depreciation for an asset
SYD()	Sum-of-years' digits depreciation for an asset
TBILLEQ()	Bond-equivalent yield for a treasury bill
TBILLPRICE()	Price per $100 face value for a treasury bill
TBILLYIELD()	Yield for a treasury bill
VDB()	Depreciation of an asset for a specified or partial period using a declining balance method
XIRR()	Internal rate of return of a schedule of cash flows, amounts, and dates
XNPV()	Net present value of a schedule of cash flows
YIELD()	Yield on a security that pays periodic interest
YIELDDISC()	Annual yield for a discounted security
YIELDMAT()	Annual yield of a security that pays interest at maturity

See Also

Help

Financial Function Arguments

Date & Time Functions

Microsoft Excel stores dates as serial numbers.   The Date and Time functions either translate a serial number into a recognized unit of time or the reverse.

Function	Returns
DAYS360()	Number of days between two dates based on a 360-day year
NETWORKDAYS()	Number of whole work days between start_date and end_date
YEARFRAC()	Year fraction representing the number of whole days between start_date and end_date

Function	Returns serial number of
DATE()	Specified date
DATEVALUE()	date_text
EDATE()	Date that is the indicated number of months before or after start_date
EOMONTH()	Last day of the month before or after a specified number of months
NOW()	Current date and time
TIME()	Specified time
TIMEVALUE()	time_text
TODAY()	Current date
WORKDAY()	Date a specified number of workdays before or after start_date

Function	Converts serial_number to
DAY()	Day of the month
HOUR()	Hour of the day
MINUTE()	Minute
MONTH()	Month
SECOND()	Second
WEEKDAY()	Day of the week
YEAR()	Year

Mathematical & Trigonometric Functions

Function	Returns
ABS()	Absolute value of number
ACOS()	Arccosine of a number
ACOSH()	Inverse hyperbolic cosine of number
ASIN()	Arcsine of a number
ASINH()	Inverse hyperbolic sine of number
ATAN()	Arctangent of a number
ATAN2()	Arctangent, given the x- and y-coordinates
ATANH()	Inverse hyperbolic tangent of number
BASE()	Equivalent of a base-10 number in another base
CEILING()	Number rounded up to the nearest integer
COMBIN()	Number of combinations for a given number of objects
COS()	Cosine of an angle
COSH()	Hyperbolic cosine of number
EVEN()	Rounds a number up to the nearest even integer
EXP()	e raised to the power of a given number
FACT()	Factorial of number
FACTDOUBLE()	Double factorial of a number
FLOOR()	Number rounded down toward zero
GCD()	Greatest common divisor
INT()	Number rounded down to the nearest integer
LCM()	Least common multiple
LN()	Natural logarithm of a number
LOG()	Logarithm of a number to a specified base
LOG10()	Base-10 logarithm of a number
MDETERM()	Matrix determinant of array
MINVERSE()	Matrix inverse of array
MMULT()	Matrix product of two arrays
MOD()	Remainder of number from division
MROUND()	Number rounded to the desired multiple
MULTINOMIAL()	Multinomial of a set of numbers
ODD()	Number rounded up to the nearest odd integer
PI()	Value of pi
PRODUCT()	Product of numbers
QUOTIENT()	Integer portion of a division
RAND()	Random number between 0 and 1
RANDBETWEEN()	Random number between two specified numbers
ROUND()	Number rounded to a specified number of digits
SERIESSUM()	Sum of a power series
SIGN()	Sign of number
SIN()	Sine of an angle
SINH()	Hyperbolic sine of number
SQRT()	Positive square root of number

SQRTPI()	Square root of number multiplied by pi
SUM()	Total of arguments
SUMPRODUCT()	Sum of the products of corresponding array components
SUMSQ()	Sum of the squares of all the arguments
SUMX2MY2()	Sum of the difference of squares of corresponding values in two arrays
SUMX2PY2()	Sum of the sum of squares of corresponding values in two arrays
SUMXMY2()	Sum of squares of differences of corresponding values in two arrays
TAN()	Tangent of an angle
TANH()	Hyperbolic tangent of number
TRUNC()	Number truncated to an integer

Text Functions

Function	Returns
CHAR()	ANSI character corresponding to given numeric code
CLEAN()	Text without nonprintable characters
CODE()	Numeric ANSI code of the first character
DOLLAR()	Number converted to text, in currency format
EXACT()	TRUE or FALSE depending on likeness of two text strings
FIND()	Position of matching text, case sensitive
FIXED()	Formats a number as text with a fixed number of decimals
LEFT()	Leftmost characters from a text value
LEN()	Number of characters in a text string
LOWER()	Text in noncapital letters
MID()	Returns a specific number of characters from a text string starting at the position you specify
PROPER()	Text with the first letter in each word capitalized
REPLACE()	Text with selected character positions replaced
REPT()	Text repeated specified number of times
RIGHT()	Rightmost characters from a text value
SEARCH()	Finds one text value within another (not case sensitive)
SUBSTITUTE()	Substitutes new text for old text in a text string
T()	Argument converted to text
TEXT()	Number as a formatted text value
TRIM()	Text minus excess spaces
UPPER()	Text in capital letters
VALUE()	Numeric text as number

Logical Functions

Function	Returns
AND()	True if every argument is TRUE
FALSE()	Logical value FALSE
IF()	Returns a specified value depending on the outcome of a test
NOT()	Returns True if its argument is FALSE; false if its argument is TRUE
OR()	True if any argument is TRUE
TRUE()	Logical value TRUE

Lookup & Reference Functions

Function	Returns
ADDRESS()	A reference as text for a single cell specified by row_num and column_num
AREAS()	Number of areas in a reference
CHOOSE()	Value selected from values using index_num
COLUMN()	Column number of a reference
COLUMNS()	Number of columns in a reference or array
FASTMATCH()	Index of a value selected by lookup_value (sorted arrays only)
HLOOKUP()	Looks in the top row of an array and returns the value of the indicated cell
INDEX()	Uses an index to choose a value from a reference or array
INDIRECT()	The contents of a reference in the form of text
LOOKUP()	Looks up values in a vector or array
MATCH()	Index of a value selected by lookup_value
OFFSET()	Reference offset by a specified number of rows and columns
ROW()	An array of row numbers from a reference
ROWS()	Number of rows in a reference or array
TRANSPOSE()	Transpose of array
VLOOKUP()	Looks in the first column of an array and moves across the row to return the value of a cell

Database Functions

Function	Returns
CROSSTAB()	Structure and content of a cross-tabulation table
DAVERAGE()	Average of numbers
DCOUNT()	Count of numbers
DCOUNTA()	Count of nonblank cells
DGET()	Single record that matches the specified criteria
DMAX()	Largest of numbers
DMIN()	Smallest of numbers
DPRODUCT()	Product of numbers
DSTDEV()	Estimated standard deviation of a population based on a sample
DSTDEVP()	Standard deviation of a population based on the entire population
DSUM()	Sum of numbers
DVAR()	Estimated variance of a population based on a sample
DVARP()	Variance of a population based on the entire population

See Also

Help

Database Function Arguments

AVERAGE

COUNT

COUNTA

MAX

MIN

STDEV

STDEVP

SUM

VAR

VARP

Statistical Functions

Function	Returns
AVEDEV()	Average of absolute deviations of data points from their mean
AVERAGE()	Average of arguments
BETADIST()	Cumulative beta probability density function
BETAINV()	Inverse of the cumulative beta probability density function
BINOMDIST()	Individual term binomial distribution
CHIDIST()	One-tailed probability of the chi-squared (χ^2) distribution
CHIINV()	Inverse of the chi-squared (χ^2) distribution
CHITEST()	Test for independence
CONFIDENCE()	Confidence interval for a population
CORREL()	Correlation coefficient between two data sets
COUNT()	Tally of the arguments that are numbers
COUNTA()	Tally of the nonblank values in the list of arguments
COVAR()	Covariance, the average of the products of paired deviations
CRITBINOM()	Smallest value for which the cumulative binomial distribution is less than or equal to a criterion value
DEVSQ()	Sum of squares of deviations
EXPONDIST()	Exponential distribution
FDIST()	F probability distribution
FINV()	Inverse of the F probability distribution
FISHER()	Fisher transformation
FISHERINV()	Inverse of the Fisher transformation
FORECAST()	Returns values along a linear trend
FREQUENCY()	Frequency distribution as a vertical array
FTEST()	Result of an F-test
GAMMADIST()	Gamma distribution
GAMMAINV()	Inverse of the gamma cumulative distribution
GAMMALN()	Natural logarithm of the gamma function, $\Gamma(x)$
GEOMEAN()	Geometric mean
GROWTH()	Values along an exponential trend
HARMEAN()	Harmonic mean
HYPGEOMDIST()	Hypergeometric distribution
INTERCEPT()	Intercept of the linear regression line
KURT()	Kurtosis of a data set
LARGE()	k-th largest value in a data set
LINEST()	Parameters of a linear trend
LOGEST()	Parameters of an exponential trend
LOGINV()	Inverse of the lognormal distribution
LOGNORMDIST()	Lognormal distribution
MAX()	Maximum value in a data set
MEDIAN()	Middle value in a data set
MIN()	Minimum value in a data set
MODE()	Most common value in a data set

NEGBINOMDIST()	Negative binomial distribution
NORMDIST()	Normal cumulative distribution
NORMINV()	Inverse of the normal cumulative distribution
NORMSDIST()	Standard normal cumulative distribution
NORMSINV()	Inverse of the standard normal cumulative distribution
PEARSON()	Pearson product moment correlation coefficient
PERCENTILE()	Value from a range at the k-th percentile
PERCENTRANK()	Percentage rank of x among the values in a data set
PERMUT()	Number of permutations for a given number objects
POISSON()	Poisson probability distribution
PROB()	Probability that values in a range are between two limits
QUARTILE ()	Quartile from a data set
RANK()	The rank of a number in a list of numbers
RSQ()	r2 value of the linear regression line
SKEW()	Skewness of a distribution
SLOPE()	Slope of the linear regression line
SMALL()	k-th smallest value in a data set
STANDARDIZE()	Normalized value
STDEV()	Estimate of standard deviation based on a sample
STDEVP()	Standard deviation for a population based on the entire population
STEYX()	Standard error of the predicted y value for each x in the regression
TDIST()	Student's t-distribution
TINV()	Inverse of the Student's t-distribution
TREND()	Values along a linear trend
TRIMMEAN()	Mean of the interior of a data set
TTEST()	Probability associated with a Student's t-test
VAR()	Estimates variance based on a sample
VARP()	Calculates variance based on the entire population
WEIBULL()	Weibull distribution
ZTEST()	Two-tailed P-value of a z-test

Information Functions

Function	Returns
CELL()	Information about formatting, location, or contents of a cell
INFO()	Information about the current operating system

Function	TRUE if value is
ISBLANK()	Blank
ISERR()	Any error value except #N/A
ISERROR()	Any error value
ISEVEN()	Even
ISLOGICAL()	Logical value
ISNA()	Error value #N/A
ISNONTEXT()	Not text
ISNUMBER()	Number
ISODD()	Odd
ISREF()	Reference
ISTEXT()	Text

Function	Returns
ERROR.TYPE()	A number corresponding to an error type
N()	Argument converted to a number
NA()	The error value #N/A
TYPE()	A number indicating the data type of a value

Engineering Functions

Function	Result
BESSELI()	Modified Bessel function In(x)
BESSELJ()	Bessel function Jn(x)
BESSELK()	Modified Bessel function Kn(x)
BESSELY()	Bessel function Yn(x)
BIN2DEC()	Converts a binary number to decimal
BIN2HEX()	Converts a binary number to hexadecimal
BIN2OCT()	Converts a binary number to octal
COMPLEX()	Converts real and imaginary coefficients into a complex number
CONVERT()	Converts a number from one measurement system to another
DEC2BIN()	Converts a decimal number to binary
DEC2HEX()	Converts a decimal number to hexadecimal
DEC2OCT()	Converts a decimal number to octal
DEGREES()	Converts radians into degrees
DELTA()	Tests whether two numbers are equal
ERF()	Error function
ERFC()	Complementary error function
GESTEP()	Tests whether a number is greater than a threshold value
HEX2BIN()	Converts a hexadecimal number to binary
HEX2DEC()	Converts a hexadecimal number to decimal
HEX2OCT()	Converts a hexadecimal number to octal
IMABS()	Absolute value (modulus) of a complex number
IMAGINARY()	Imaginary coefficient of a complex number
IMARGUMENT()	The angle theta, expressed in radians
IMCONJUGATE()	Complex conjugate of a complex number
IMCOS()	Cosine of a complex number
IMDIV()	Quotient of two complex numbers
IMEXP()	Exponential of a complex number
IMLN()	Natural logarithm of a complex number
IMLOG2()	Base-2 logarithm of a complex number
IMLOG10()	Common logarithm (base 10) of a complex number
IMPOWER()	Complex number raised to an integer power
IMPRODUCT()	Product of two complex numbers
IMREAL()	Real coefficient of a complex number
IMSIN()	Sine of a complex number
IMSQRT()	Square root of a complex number
IMSUB()	Difference of two complex numbers
IMSUM()	Sum of complex numbers
OCT2BIN()	Converts an octal number to binary
OCT2DEC()	Converts an octal number to decimal
OCT2HEX()	Converts an octal number to hexidecimal
RADIANS()	Converts degrees into radians

AREAS(reference)

Returns the number of areas in **reference**.   An area is a single cell or a range of cells. **Reference** can be a reference to multiple areas.

Example

AREAS(B2:D4) = 1

If the name "Prices" refers to the areas B1:D4, B2, and E1:E10, then AREAS(Prices) = 3.

See Also

Help

ADDRESS   Returns a reference as text to a single cell in a worksheet.

CELL   Returns information about the formatting, location, or contents of a cell.

COLUMN   Returns the column number of a reference.

COLUMNS   Returns the number of columns in a reference.

INDEX   Reference in reference or value in array selected by index values.

ROW   Returns the row number of a reference.

ROWS   Returns the number of rows in a reference.

List of Lookup & Reference Functions

CELL(info_type,reference)

Returns information about the formatting, location, or contents of the upper-left cell in **reference**.

- If **reference** is omitted, the active cell is used.
- If **reference** is a nonadjacent selection, returns the error value #VALUE!.
- **Info_type** specifies the kind of cell information you want.

Info_type	Result
"address"	Reference of the first cell in **reference**, as text.
"col"	Column number of cell in **reference**.
"color"	0 (zero) if the cell font is not formatted for color for negative values; 1 if it is.
"contents"	Contents of the upper-left cell in **reference**.
"filename"	The name of the file that contains the cell, including full path. Returns empty text ("") if the worksheet that contains **reference** has not yet been saved to a file.
"format"	Text value corresponding to format of the cell. In addition, returns "-" if the cell is formatted for color for negative values and "()" if the cell is formatted for parentheses for negative values.
"parentheses"	0 (zero) if the cell is not formatted for parentheses for positive values; 1 if it is.
"prefix"	Symbol corresponding to the alignment of the cell:
	' Left-aligned text
	" Right-aligned text
	^ Centered text
	\ Fill-aligned text
	"" All other values
"protect"	0 (zero) if the cell is not locked; 1 if the cell is locked.
"row"	Row number of cell in **reference**.
"type"	Text corresponding to the type of data in the cell:
	b Blank
	l Label(text constant)
	v Value(anything else)
"width"	Column width of cell. (Units for column width are the width of one character in the currently selected font.)

Examples

CELL("row",A20) = 20

If B12 has format "d-mmm", CELL("format",B12) = "D2"

See Also

Help

COLUMN   Returns the column number of a reference.

ROW   Returns the row number of a reference.

List of Information Functions

COLUMN(reference)

Returns the column number of **reference**.

- If **reference** is a range of cells and it is entered as an array formula, COLUMN returns the column numbers of **reference** as a horizontal array.
- **Reference** cannot be a reference to multiple areas.
- If **reference** is omitted, COLUMN refers to its own cell.

Examples

COLUMN(A3) = 1
COLUMN(A3:C5) = {1,2,3}

See Also

Help

COLUMN   Returns the number of columns in a reference.
ROW   Returns the row numbers in a reference.
ROWS   Returns the number of rows in a reference.

List of Lookup & Reference Functions

COLUMNS(array)

Returns the number of columns in **array**.

Examples

COLUMNS(A1:C4) = 3
COLUMNS({1,2,3;4,5,6}) = 3

See Also

Help

COLUMN   Returns the column numbers in a reference.
ROW   Returns the row numbers in a reference.
ROWS   Returns the number of rows in a reference.

List of Lookup & Reference Functions

INDIRECT(ref_text,a1)

Returns the contents of a cell or reference specified by **ref_text**.

- **Ref_text** must indicate a cell containing an A1 reference, an R1C1 reference, or a name assigned to a cell.   If the cell indicated by **ref_text** is not a valid cell reference, it returns error value #REF!.
- **A1** is optional, but must be a logical value when included.   If you enter FALSE, INDIRECT interprets the contents of the **ref_text** cell as the R1C1 reference style.   If **a1** is TRUE or omitted, INDIRECT interprets the contents of the **ref_text** cell as the A1 reference style.
- The **a1** argument refers to the style of the cell referenced by **ref_text** and not by the style of **ref_text** itself.

Examples

If cell B2 contains the value 1.33 and cell A1 contains the text B2, INDIRECT(A1) = 1.33

If cell B2 contains "Jones" and A1 contains R2C2, INDIRECT(A1,FALSE) = "Jones".

If the name Customer refers to a cell containing the text "Jones", INDIRECT("Customer") = "Jones".

See Also

Help

CELL   Returns information about formatting, location, or contents of a cell.

TYPE   Returns a number indicating the data type of a value.

List of Lookup & Reference Functions

INFO(type_text)

Returns information about the current operating environment. **Type_text** is text specifying what type of information you want returned.

Type_text	Returns
"directory"	The path of the current directory.
"memavail"	The amount of memory available, in bytes.
"memused"	Amount of memory being used for data
"numfile"	The number of active worksheets.
"origin"	Absolute A1-style reference, as text, prepended with "$A:" for Lotus 1-2-3 release 3.x compatibility.
"osversion"	The current operating system version, as text.
"recalc"	The current recalculation mode; returns "Automatic" or "Manual".
"release"	The version of Microsoft Excel, as text.
"system"	The name of the operating system, for example: Windows = "pcdos"
"totmem"	Total memory available, including that already in use, in bytes.

Example

If two worksheets are currently open:

INFO("numfile") = 2

See Also

Help

CELL   Returns information about formatting, location, or contents of a cell.

List of Information Functions

N(value)

If **value** is a number, returns that number; if **value** is a date, returns the serial number of that date; if **value** is TRUE, returns 1; otherwise, returns zero.   Provided for compatibility with other worksheet programs.

Example

For an example of this function, see N in the Microsoft Excel Function Reference.

See Also

Help

CELL   Returns information about the formatting, location, or contents of a cell.
T   Converts its argument into text.

List of Information Functions

NA()

Returns #N/A, which indicates "No value is available."   Provided for compatibility with other worksheet programs.   You can also enter #N/A directly into a cell.

- You must include empty parentheses with NA, otherwise Microsoft Excel will not recognize it as a function.
- Used primarily for marking blank cells.   By entering #N/A or =NA() in cells where you are missing information, you can avoid the problem of unintentionally including blank cells in your calculations.
- If you use a formula with calculations involving a cell containing the value #N/A, the formula returns the value #N/A.
- #N/A values are skipped in line charts without breaking the line.

See Also

Help

List of Information Functions

OFFSET(reference,rows,cols,height,width)

Returns a reference of a specified **height** and **width**, offset from **reference** by a specified number of **rows** and **cols**.

- **Reference** is the cell reference from which you want to base the offset.
- **Rows** is the number of rows, up or down, to which you want the upper-left cell in the result to refer.
- **Cols** is the number of columns, to the left or right, to which you want the upper-left cell of the result to refer.
- If **rows** and **cols** offset the reference over the edge of the worksheet, returns the #REF! error value.
- **Rows** and **cols** can be positive or negative numbers.
- **Height** is the height, in number of rows, that you want the returned reference to be.
- **Width** is the width, in number of columns, that you want the returned reference to be.
- If **height** or **width** is omitted, assumed to be same height and width as **reference**.

Examples

    OFFSET(C3,2,3,1,1) = F5
    OFFSET(C3:E5,-1,0,3,3) =C2:E4

See Also

Help

List of <u>Lookup & Reference Functions</u>

ROW(reference)

Returns the row number of **reference**, if **reference** is the reference of a single cell.   If **reference** includes more than one row and if ROW is entered as an array, ROW returns the row numbers as a vertical array.

▪   If **reference** is omitted, it is assumed to be the reference of the cells in which the ROW function appears.
▪   **Reference** cannot be a reference to multiple areas.

Examples

ROW(A3) =3
ROW(A3:B5) ={3;4;5}

See Also

Help

COLUMN   Returns column number or array of column numbers in a reference.
COLUMNS   Returns number of columns in an array.
ROWS   Returns the number of rows in a reference.

List of Lookup & Reference Functions

ROWS(array)

Returns the number of rows in **array**.

Examples

ROWS(A1:C4) =4
ROWS({1,2,3;4,5,6}) =2

See Also

Help

COLUMN   Returns column number or array of column numbers in a reference.
COLUMNS   Returns number of columns in an array.
ROW   Returns row number or array of row numbers in a reference.

List of Lookup & Reference Functions

T(value)

Returns the text referred to by **value.**   If **value** does not refer to text, T returns "" (empty text).

It is not necessary to use the T function in a formula since Microsoft Excel automatically converts values as necessary.   This function is provided for compatibility with other worksheet programs.

Example

   For an example of this function, see T in the Microsoft Excel Function Reference.

See Also

   Help

   <u>CELL</u>   Returns information about the formatting, location, or contents of a cell.
   <u>N</u>   Converts its arguments to a number.
   <u>VALUE</u>   Converts a text argument to a number.

   List of <u>Information Functions</u>
   List of <u>Text Functions</u>

TYPE(value)

Returns a number indicating the type of **value**.

If value is	Returns
A number	1
Text	2
A logical value	4
An error value	16
An array	64

Examples

TYPE({1,2;3,4}) = 64

If A1 contains the text "Smith", then:

TYPE(A1) = TYPE("Smith") = 2

TYPE("Mr."&A1) = 2

TYPE(2+A1) = TYPE(#VALUE!) = 16

See Also

Help

List of <u>Information Functions</u>

ADDRESS(row_num,column_num,abs_num,a1,sheet_text)

Returns a reference as text for a single cell specified by **row_num** and **column_num**.

- **Abs_num** specifies the type of cell reference to return, according to the following:
  1 Absolute reference (default)
  2 Absolute row, relative column
  3 Relative row, absolute column
  4 Relative reference
- If **a1** is true or omitted, references are given in A1 reference style.
- If **a1** is false, references are given in R1C1 reference style.
- **Sheet_text** specifies the name of the worksheet or macro to be used as an external reference.   If omitted, no sheet name is used.

Examples

ADDRESS(2,3) = $C$2
ADDRESS(2,3,2) = $C$2
ADDRESS(13,5,4,TRUE) = E13
ADDRESS(13,5,4,FALSE,"Sheet1.XLS") = Sheet1!R[13]C[5]

See Also

Help

CELL   Returns information about the formatting, location, or contents of a cell.
COLUMN   Returns the column number of a reference.
OFFSET   Returns a reference offset from a given reference.
ROW   Returns the row number of a reference.

List of Lookup & Reference Functions

ISBLANK(value)

Returns TRUE if **value** refers to an empty cell; otherwise returns FALSE.

Example

For an example of this function, see ISBLANK in the Microsoft Excel Function Reference.

See Also

Help

CELL   Returns information about the formatting, location, or contents of a cell.

TYPE   Returns a number indicating the data type of a value.

List of Information Functions

ISERR(value)

Returns TRUE if **value** is any error value except #N/A; otherwise returns FALSE.

Example

For an example of this function, see ISERR in the Microsoft Excel Function Reference.

See Also

Help

CELL	Returns information about the formatting, location, or contents of a cell.
ISERROR	Returns TRUE, if value is any error value.
ISNA	Returns TRUE, if value is #N/A.
TYPE	Returns a number indicating the data type of a value.

List of Information Functions

ISERROR(value)

Returns TRUE if **value** is any error value: #N/A, #VALUE!, #REF!, #DIV/0!, #NUM!, #NAME?, or #NULL!; otherwise returns FALSE.

Example

For an example of this function, see ISERROR in the Microsoft Excel Function Reference.

See Also

Help

CELL	Returns information about the formatting, location, or contents of a cell.
ISERR	Returns TRUE, if value is any error value except #N/A.
ISNA	Returns TRUE, if value is #N/A.
TYPE	Returns a number indicating the data type of a value.

List of Information Functions

ISLOGICAL(value)

Returns TRUE if **value** is a logical value; otherwise returns FALSE.

See Also

Help

CELL   Returns information about the formatting, location, or contents of a cell.

TYPE   Returns a number indicating the data type of a value.

List of Information Functions

ISNA(value)

Returns TRUE if **value** is the error value #NA (no value available); otherwise returns FALSE.

Example

For an example of this function, see ISNA in the Microsoft Excel Function Reference.

See Also

Help

CELL	Returns information about the formatting, location, or contents of a cell.
ISERROR	Returns TRUE, if value is any error value.
ISERR	Returns TRUE, if value is any error value except #N/A.
TYPE	Returns a number indicating the data type of a value.

List of Information Functions

ISNONTEXT(value)

Returns TRUE if **value** is not text; otherwise returns FALSE.

See Also

Help

CELL   Returns information about the formatting, location, or contents of a cell.

TYPE   Returns a number indicating the data type of a value.

List of Information Functions

ISNUMBER(value)

Returns TRUE if **value** is a number; otherwise returns FALSE.

Example

For an example of this function, see ISNUMBER in the Microsoft Excel Function Reference.

See Also

Help

CELL   Returns information about the formatting, location, or contents of a cell.

TYPE   Returns a number indicating the data type of a value.

List of Information Functions

ISREF(value)

Returns TRUE if **value** is a reference; otherwise returns FALSE.

Example

For an example of this function, see ISREF in the Microsoft Excel Function Reference*.*

See Also

Help

CELL   Returns information about the formatting, location, or contents of a cell.

TYPE   Returns a number indicating the data type of a value.

List of Information Functions

ISTEXT(value)

Returns TRUE if **value** is text; otherwise returns FALSE.

Example

For an example of this function, see ISTEXT in the Microsoft Excel Function Reference.

See Also

Help

CELL   Returns information about the formatting, location, or contents of a cell.

TYPE   Returns a number indicating the data type of a value.

List of Information Functions

AND(logical1,logical2,...)

Returns the logical value TRUE if all arguments are true.   If any argument is false, returns FALSE.

- Can have 1 to 30 arguments.
- Arguments should be either logical values, or arrays or references that contain logical values.
- Ignores any values other than logical values in arrays and references.
- If there are no logical values in the range specified, returns the error value #VALUE!.

Examples

AND(TRUE,TRUE) = TRUE

AND(FALSE,TRUE) = FALSE

AND(2+2=4,2+3=5) = TRUE

If B1:B3 contains the values TRUE, FALSE, and TRUE, then AND(B1:B3) = FALSE.

See Also

Help

NOT   Reverses the logic of its argument.

OR   Returns TRUE if any argument is TRUE.

List of Logical Functions

FALSE()

Returns the logical value FALSE.

- Usually used as an argument within another formula.
- You can also generate the value FALSE by typing it as a constant with no parentheses.

Example

FALSE() = FALSE

See Also

Help

IF   Returns specified value depending on outcome of a test.

TRUE   Returns the logical value TRUE.

List of Logical Functions

IF(logical_test,value_if_true,value_if_false)

Returns **value_if_true** if **logical_test** is TRUE.   Returns **value_if_false** if **logical_test** is FALSE.   Use IF to make conditional tests of cell values and formulas.

- If omitted, **value_if_false** is assumed to be FALSE.
- The outcome of the **logical_test** determines the value given by the IF function.
- The **value_if_true** and **value_if_false** arguments can be any value.
- Up to seven IF functions can be nested as **value_if_true** and **value_if_false** arguments to construct more elaborate tests.

Examples

IF(TRUE,1,2) = 1
IF(FALSE,1,2) = 2

See Also

Help

AND   Returns TRUE, if all arguments are true.
NOT   Reverses the logic of its argument.
OR   Returns TRUE, if at least one argument is TRUE.

List of Logical Functions

TRUE()

Returns the logical value TRUE.   Usually used as an argument within another formula.
You can also generate the value TRUE by typing it as a constant without parentheses.

Example

  TRUE() = TRUE

See Also

  Help

  FALSE   Returns the logical value FALSE.
  IF   Returns a specified value depending on the outcome of a test.

  List of Logical Functions

NOT(logical)

Changes the value of **logical**.

- If **logical** is FALSE, returns TRUE.
- If **logical** is TRUE, returns FALSE.

Examples

NOT(FALSE) =TRUE

NOT(1+1=2) =FALSE

See Also

Help

AND   Is TRUE if all its arguments are true.

OR   Is TRUE if one or more arguments are true.

List of Logical Functions

OR(logical1,logical2,...)

Returns logical value TRUE if any argument is true.   Returns FALSE if all arguments are false.

- Can have from 1 to 30 arguments.
- Arguments should be logical values, or arrays or references that contain logical values.
- Ignores text, numbers, and empty cells in arrays and references.
- If there are no logical values in the range specified, returns the error value #VALUE!.

Examples

OR(TRUE) =TRUE

OR(1+1=1,2+2=5) =FALSE

If A1:A3 contains the values TRUE, FALSE, and TRUE, then:

OR(A1:A3) =TRUE

See Also

Help

AND   Returns TRUE if all arguments are true.

NOT   Reverses the logic of its argument.

List of Logical Functions

CHOOSE(index_num,value1,value2,...)

Uses **index_num** to select a value from the list of value arguments.

Index_num is a number indicating the placement of a value in the list of arguments.

- If 1, returns value1; if 2, returns value2; and so on.
- If less than 1 or greater than the number of the last value in the list, returns the #VALUE! error value.

Value1,value2,... are 1 to 29 value arguments from which CHOOSE selects.

- Can be numbers, cell references, or text.
- Must be a list, not a range.   To choose from a range, use INDEX.

Examples

CHOOSE(2,"apple","orange","banana") = "orange"

CHOOSE(1,3.5,14.2,2.5) = 3.5

CHOOSE(-2,4,6,7) = #VALUE!

If cell D5 contains the value 3, CHOOSE(D5,"xx","yy","zz") equals "zz"

SUM(A1:CHOOSE(3,A10,A20,A30)) equals the sum of the range A1:A30

See Also

Help

INDEX   Uses an index to choose a value from a reference or array.

List of Lookup & Reference Functions

HLOOKUP(lookup_value,table_array,row_index_num)

Looks in **table_array** for a column whose first row contains **lookup_value** and then moves down the column according to **row_index_num** and returns the value of the cell.

The values in the first row of **table_array** can be text, numbers, or logical values.   They must be placed in ascending order: 0, 1, 2, ...; A-Z; FALSE, TRUE.

- A **row_index_num** of 1 returns the first row value in the **table_array**, a **row_index_num** of 2 returns the second row value, and so on.
- Returns error value #REF! if **row_index_num** is greater than the number of rows in **table_array** and #VALUE! if **row_index_num** is less than 1.
- If HLOOKUP can't find **lookup_value**, it uses the largest value that is less than **lookup_value**.
- Returns error value #N/A if **lookup_value** is smaller than smallest value in first row of array.

Example

For an example of this function, see HLOOKUP in the Microsoft Excel Function Reference.

See Also

Help

INDEX   Uses an index to choose a value from a reference or array.

LOOKUP   Looks up values in a vector or array.

MATCH   Returns the relative position of an element in an array that matches a specified value.

VLOOKUP   Looks in the first column of an array and moves across the row to return the value of a cell.

List of Lookup & Reference Functions

INDEX()

There are two forms of the INDEX() function: reference and array.   The reference form always returns a reference; the array form always returns a value or an array of values.

- **INDEX(reference,row_num,column_num,**area_num**)** returns a reference to a specified cell or cells within **reference**.
- **INDEX(array**,row_num,column_num**)** returns the value of a specified cell or array of cells within **array**.

See Also

Help

INDEX (array)
INDEX (reference)

INDEX(array,row_num,column_num)

Returns the value of a specified cell within **array** or a specified array of values from within **array**.

Formulas that give arrays must be entered as array formulas.

- **Array** is a range of cells entered as an array.
- **Row_num** and **column_num** select the row number and column number of the desired cell within array.   Row 1 is the first row in the array; column 1 is the first column in the array.
- If **row_num** is 0, returns array of values for entire row.
- If **column_num** is 0, returns array of values for entire column.
- For a single row array, use INDEX(array,column_num).
- For a single column array, use INDEX(array,row_num).
- If row and column point to a cell outside **array**, returns error value #REF!.

You can enter a formula by:

- Pressing CONTROL+SHIFT+ENTER
- Pressing CONTROL+SHIFT and clicking the enter box in the formula bar

Example

INDEX(A1:A5,3) = the value in A3

See Also

Help

HLOOKUP	Looks in the top row of an array and returns the value of the indicated cell.
INDEX(reference)	Returns a reference to a cell or range of cells within a reference.
LOOKUP	Looks up values in a vector or array.
MATCH	Returns the relative position of an element in an array that matches a specified value.
VLOOKUP	Looks in the first column of an array and moves across the row to return the value of a cell.

List of Lookup & Reference Functions

INDEX(reference,row_num,column_num,area_num)

Returns a reference to a cell or range of cells within **reference**.

- **Reference** is a reference to one or more cell ranges.   May be a complex reference to more than one nonadjacent range; for example, A1:B4,D1:E4,G1:H4.
- If **reference** includes more than one rectangular area, **area_num** specifies which of those rectangles or ranges contains the desired result.   For example, for the **reference** A1:B4,D1:E4,G1:H4, area 1 is A1:B4, area 2 is D1:E4, and area 3 is G1:H4.
- If you are entering a multiple selection for reference, enclose it in parentheses.
- If **area_num** is omitted, uses area 1.
- **Row_num** and **column_num** indicate the row number and column number of the desired cell within the specified range.   Row 1 is the first row in the range; column 1 is the first column in the range.
- If **row_num** is 0 or omitted, returns **reference** for entire row.
- If **column_num** is 0 or omitted, returns **reference** for entire column.
- If **row_num**, **column_num**, or **area_num** point to a cell outside **reference**, returns error value #REF!.

Example

INDEX(A1:A5,3) = the value in A3

See Also

Help

HLOOKUP	Looks in the top row of an array and returns the value of the indicated cell.
INDEX(array)	Returns value of a cell or array of cells within array.
LOOKUP	Looks up values in a vector or array.
MATCH	Returns the relative position of an element in an array that matches a specified value.
OFFSET	Returns a reference offset by a specified number of rows and columns.
VLOOKUP	Looks in the first column of an array and moves across the row to return the value of a cell.

List of Lookup & Reference Functions

LOOKUP()

Has two forms, vector and array.

- **LOOKUP(lookup_value, lookup_vector, result_vector)**   A vector is an array that contains only one row or one column.   Looks in **lookup_vector** for **lookup_value**, moves to the corresponding position in **result_vector**, and then returns this value.
- **LOOKUP(lookup_value,array)**   This form is provided for compatibility with other worksheet programs.   Looks in the first row or column of **array** for **lookup_value**, moves down or across to the last cell and returns the value of the cell.

See Also

Help

LOOKUP (array)
LOOKUP (vector)

LOOKUP(lookup_value,lookup_vector,result_vector)

A vector is an array that contains only one row or one column.   LOOKUP looks in **lookup_vector** for **lookup_value** and then moves to the corresponding position in **result_vector** and returns this value.

▪   If LOOKUP can't find **lookup_value**, it uses the largest value less than or equal to **lookup_value**.

▪   If **lookup_value** is smaller than the smallest value in **lookup_vector**, LOOKUP returns the error value #N/A.

▪   Values in **lookup_vector** can be text, numbers, or equal to logical values; these values must be placed in ascending order: ...-1, 0, 1,..., A-Z, FALSE, TRUE.
     Uppercase and lowercase text are equivalent.

Example

For an example of this function, see LOOKUP in the Microsoft Excel Function Reference.

See Also

Help

HLOOKUP   Looks in the top row of an array and returns the value of the indicated cell.

MATCH   Returns the relative position of an element in an array that matches a specified value.

VLOOKUP   Looks in the first column of an array and moves across the row to return the value of a cell.

List of Lookup & Reference Functions

LOOKUP(lookup_value,array)

Provided for compatibility with other worksheet programs.   Looks in the first row or column of **array** for **lookup_value**, moves down or across to the last cell, and returns the value of the cell.

▪   If **array** is square, or an area with more columns than rows, LOOKUP searches for **lookup_value** in the first row; if **array** has more rows than columns, LOOKUP searches in the first column.

▪   If LOOKUP can't find the **lookup_value**, it uses the largest value less than or equal to **lookup_value**.

▪   If **lookup_value** is smaller than the smallest value in the first row or column (depending on the **array** dimensions), LOOKUP returns the error value #N/A.

▪   The LOOKUP search range (first row or column) must contain text, numbers, or logical values in ascending order: ...-1,0,1,..., A-Z, FALSE, TRUE.

Examples

LOOKUP("C",{"a","b","c","d";1,2,3,4}) = 3
LOOKUP("bump",{"a",1;"b",2;"c",3}) = 2

See Also

Help

HLOOKUP	Looks in the top row of an array and returns the value of the indicated cell.
INDEX	Uses an index to choose a value from a reference or array.
MATCH	Returns the relative position of an element in an array that matches a specified value.
VLOOKUP	Looks in the first column of an array and moves across the row to return the value of a cell.

List of Lookup & Reference Functions

MATCH(lookup_value,lookup_array,match_type)

Returns the relative position of the element in **lookup_array** that matches the **lookup_value**, according to the **match_type**.   The three types of matching you can choose are listed in following table.

Match_type	MATCH
1 or omitted	Finds the largest value less than or equal to **lookup_value**; **lookup_array** must be in ascending order: ...-1, 0, 1..., A-Z, FALSE, TRUE.
-1	Finds the smallest value greater than or equal to **lookup_value**; **lookup_array** must be in descending order: TRUE, FALSE, Z-A, ...1, 0, -1....
0	Finds the first value equal to **lookup_value; lookup_array** can be in any order.

- If **match_type** is omitted, it is assumed to be 1.
- If no match is found, MATCH returns error value #N/A.
- Uppercase and lowercase letters are equivalent.
- If **match_type** is 0 and **lookup_value** is text, **lookup_value** can contain the wildcards   *   and   ?.   MATCH will look for text with any single character in the   ?   position and any string of characters in the   *   position.
- MATCH returns the position of the matched value, not the value itself.

Example

For an example of this function, see MATCH in the Microsoft Excel Function Reference.

See Also

Help

HLOOKUP	Looks in the top row of an array and returns the value of the indicated cell.
INDEX	Uses an index to choose a value from a reference or array.
LOOKUP	Looks up values in a vector or array.
VLOOKUP	Looks in the first column of an array and moves across the row to return the value of a cell.

List of Lookup & Reference Functions

VLOOKUP(lookup_value,table_array,col_index_num)

Looks in **table_array** for a row whose first column contains **lookup_value**, and then moves across the row according to **col_index_num** and returns the value of the cell.   A **col_index_num** of 1 returns the first column value in **table_array**, a **col_index_num** of 2 returns the second column value in **table_array**, and so on.

- Values in the first column of **table_array** can be text, numbers, or logical values. Values must be placed in ascending order: ...-2, -1, 0, 1, 2,..., A-Z, FALSE, TRUE. Uppercase and lowercase text are equivalent.

- If VLOOKUP can't find **lookup_value**, it uses the largest value that is less than or equal to **lookup_value**.   If **lookup_value** is smaller than the smallest value in the first column of **table_array**, VLOOKUP returns the error value #N/A.

- Returns the error value #VALUE! if **col_index_num** is less than 1.

- Returns the error value #REF! if **col_index_num** is greater than the number of columns in **table_array**.

Example

For an example of this function, see VLOOKUP in the Microsoft Excel Function Reference.

See Also

Help

HLOOKUP	Looks in the top row of an array and returns the value of the indicated cell.
INDEX	Uses an index to choose a value from a reference or array.
LOOKUP	Looks up values in a vector or array.
MATCH	Returns the relative position of an element in an array that matches a specified value.

List of Lookup & Reference Functions

FASTMATCH(lookup_value,lookup_array,type_of_match)

Returns the relative position of the element in **lookup_array** that matches the **lookup_value**, according to the **type_of_match**.   If this function is not available, you must install the Add-in Functions add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.   The two types of matching you can choose are listed in following table.

Type_of_match	FASTMATCH
1 or omitted	Finds the largest value less than or equal to **lookup_value**; **lookup_array** must be in ascending order: …-1, 0, 1…, A-Z, FALSE, TRUE.
-1	Finds the smallest value greater than or equal to **lookup_value**; **lookup_array** must be in descending order: TRUE, FALSE, Z-A, …1, 0, -1….

- If **type_of_match** is omitted, assumed to be 1.
- If no match is found, FASTMATCH returns error value #N/A.
- Uppercase and lowercase letters are equivalent.
- FASTMATCH returns the position of the matched value, not the value itself.
- Unlike MATCH, FASTMATCH requires the values in **lookup_array** to be in sorted order.

Use FASTMATCH instead of MATCH when you need to search large sorted arrays.

Example

For an example of how to use FASTMATCH, see MATCH in the Microsoft Excel Function Reference.

See Also

Help

HLOOKUP	Looks in the top row of an array and returns the value of the indicated cell.
INDEX	Uses an index to choose a value from a reference or an array.
LOOKUP	Looks up values in a vector or array.
MATCH	Index of a value selected by lookup_value.
VLOOKUP	Looks in the first column of an array and moves across the row to return the value of a cell.

List of Lookup & Reference Functions

FACT(number)

Returns the factorial of **number**.

- The factorial of a number is the product of all positive integers from 1 to **number**.
- If **number** is not an integer, FACT truncates it.
- If **number** is negative, returns the error value #NUM!.

Examples

FACT(5) = 5*4*3*2*1, and returns 120

FACT(3.9) = FACT(3), and returns 6

FACT(1) = 1

FACT(0) = 1

FACT(-1) = #NUM!

See Also

Help

PRODUCT   Returns the product of its arguments.

List of Math & Trig Functions

MOD(number,divisor)

Returns the remainder (modulus) after **number** is divided by **divisor**.

- Result has same sign as **divisor**.
- If **divisor** is 0, returns the error value #DIV/0!.
- MOD(n,d) is equivalent to n - d*INT(n/d).

Examples

MOD(3,2) = 1
MOD(-3,2) = 1
MOD(3,-2) = -1
MOD(-3,-2) = -1

See Also

Help

INT   Returns number rounded down to nearest integer.

ROUND   Returns number rounded to specified number of digits.

TRUNC   Rounds a number down to an integer or to specified decimal place.

List of Math & Trig Functions

PI()

Returns the number 3.14159..., the mathematical constant pi, accurate to 15 decimal places.

You must include empty parentheses with PI(); otherwise Microsoft Excel will not recognize it as a function.

Examples

PI()/2 =1.57079
SIN(PI()/2) =1

See Also

Help

COS   Returns the cosine of a number.
SIN   Returns the sine of a number.
TAN   Returns the tangent of a number.

List of Math & Trig Functions

PRODUCT(number1,number2,...)

Returns the product of all the numbers given as arguments.   Can have from 1 to 30 arguments.   All text, logical, or blank arguments are ignored.

▪   Arguments that are numbers, logical values, or text representations of numbers are counted.
▪   Errors result from arguments that are error values or text that cannot be converted to numbers.
▪   If an argument is an array or reference, only numbers are counted.

Example

For an example of this function, see PRODUCT in the Microsoft Excel Function Reference.

See Also

Help

FACT   Returns the factorial of a number.
SUM   Adds its arguments.
SUMPRODUCT   Returns sum of the products of corresponding array elements.

List of Math & Trig Functions

SIGN(number)

Returns a value representing the sign of **number**.

If number is	Returns
Positive	1
Zero	0
Negative	-1

Examples

SIGN(10) = 1

SIGN(4-4) = 0

SIGN(-0.00001) = -1

If cell B5 contains the number 20.9,   SIGN(B5) = 1

See Also

Help

ABS   Returns the absolute value of a number.

List of Math & Trig Functions

SQRT(number)

Returns the positive square root of **number**.   If **number** is negative, returns the error value #NUM!

Examples

SQRT(16) = 4
SQRT(-16) = #NUM!

See Also

Help

PRODUCT   Returns the product of its arguments.

List of Math & Trig Functions

ABS(number)

Returns the absolute value of **number**.   The absolute value of a number is the number without its sign.

Examples

ABS(-2) = 2
ABS(2) = 2

See Also

Help

IMABS   Returns the absolute value (modulus) of a complex number.
SIGN   Returns the sign of a number.

List of Math & Trig Functions

EXP(number)

Returns e raised to the power of **number**.   The constant e equals 2.71828182845904, the base of the natural logarithm.

- ▪   EXP is the inverse of the LN function.
- ▪   To calculate powers of other bases, use the exponential operator (^).

Examples

EXP(1) = 2.71828 (the approximate value of e)

EXP(LN(3)) = 3

See Also

Help

IMEXP   Returns the exponential of a complex number.

LN   Returns natural logarithm (inverse of the EXP function).

LOG   Returns logarithm of a number to a specified base.

LOG10   Returns base 10 logarithm of a number.

List of Math & Trig Functions

INT(number)

Rounds **number** down to nearest integer.   Negative numbers are rounded away from zero.

Examples

INT(8.9) = 8
INT(-8.9) = -9

See Also

Help

CEILING	Returns a number rounded up to the nearest integer.
FLOOR	Returns a number rounded down, towards zero.
MOD	Returns the remainder from division.
MROUND	Returns number rounded to the nearest multiple.
ROUND	Returns number rounded to specified decimal place.
TRUNC	Truncates a number to an integer.

List of Math & Trig Functions

LN(number)

Returns the natural logarithm of number.   Natural logarithms are based on the constant e (2.71828182845904).   LN is the inverse of the EXP function.

Number must be positive.

Examples

LN(86) = 4.45
LN(2.7182818) = 1
LN(EXP(3)) = 3

See Also

Help

EXP	Returns e raised to the power of a given number.
IMLN	Returns the natural logarithm of a complex number.
IMLOG2	Returns the logarithm base 2 of a complex number.
IMLOG10	Returns the logarithm base 10 of a complex number.
LOG	Returns logarithm of a number to a specified base.
LOG10	Returns base 10 logarithm of number.

List of Math & Trig Functions

LOG(number,base)

Returns the logarithm of **number** to **base**.

Number must be positive.   If **base** is omitted, it is assumed to be 10.

Examples

   LOG(10) = 1
   LOG(8,2) = 3
   LOG(86,2.7182818) = 4.45

See Also

   Help

EXP	Returns e raised to the power of a given number.
IMLN	Returns the natural logarithm of a complex number.
IMLOG2	Returns the logarithm base 2 of a complex number.
IMLOG10	Returns the logarithm base 10 of a complex number.
LN	Returns the natural logarithm of a number.
LOG10	Returns base 10 logarithm of a number.

   List of Math & Trig Functions

LOG10(number)

Returns the base 10 logarithm of number.

Number must be positive.

Examples

   LOG10(86) = 1.93
   LOG10(10) = 1
   LOG10(1E5) = 5
   LOG10(10^5) = 5

See Also

Help

EXP	Returns e raised to the power of a given number.
IMLN	Returns the natural logarithm of a complex number.
IMLOG2	Returns the logarithm base 2 of a complex number.
IMLOG10	Returns the logarithm base 10 of a complex number.
LN	Returns the natural logarithm of a number.
LOG	Returns the logarithm of a number to the specified base.

List of Math & Trig Functions

RAND()

Returns an evenly distributed random number greater than or equal to 0 but less than 1.

- You must include empty parentheses with RAND, otherwise Microsoft Excel will not recognize it as a function.
- To generate a random integer, use the RANDBETWEEN function.
- If you don't want the random number to change every time the cell is recalculated, you can enter =RAND() in the formula bar and choose the Calc Now button in the Calculation dialog box on the Options menu to change the formula to a random number.

Example

To generate a number greater than or equal to 0 but less than 100:

RAND()*100

See Also

Help

RANDBETWEEN   Returns a random number between two specified numbers.

List of Math & Trig Functions

ROUND(number,num_digits)

Rounds **number** to **num_digits**.

- If **num_digits** greater than zero, rounds **number** to specified decimal places.
- If **num_digits** equals zero, rounds **number** to nearest integer.
- If **num_digits** is less than zero, rounds **number** to the left of the decimal point.

Examples

ROUND(2.15,1) = 2.2
ROUND(2.149,1) = 2.1
ROUND(-1.475,2) = -1.48
ROUND(21.5,-1) = 20
ROUND(5.7,0) = 6

See Also

Help

CEILING	Returns a number rounded up to the nearest integer.
FLOOR	Returns a number rounded down, towards zero.
INT	Returns a number rounded down to nearest integer.
MOD	Returns the remainder from division.
MROUND	Returns number rounded to the nearest multiple.
TRUNC	Truncates a number to an integer.

List of Math & Trig Functions

SUM(number1,number2,...)

Returns total of all numbers included as arguments.

- 1 to 30 arguments are allowed.
- Arguments should be either numbers, or arrays or references that contain numbers.
- To automatically insert the SUM function, press Alt+= (equal sign) or, if the toolbar is displayed, choose the AutoSum button.

Example

If A1:A3 contains the numbers 5, 8, and 2, then:

SUM(A1:A3) = 15

SUM(A1:A3,15,5) = 35

See Also

Help

AVERAGE	Returns the average of the arguments.
COUNT	Returns tally of the arguments that are numbers.
COUNTA	Returns tally of the non-blank values in the list of arguments.
DSUM	Returns the sum of the numbers in a particular field of a database.
PRODUCT	Multiplies all arguments together.
SUMPRODUCT	Returns the sum of the products of corresponding array elements.

List of Math & Trig Functions

TRUNC(**number,**num_digits**)**

Rounds **number** down to nearest integer or nearest specified **num_digits** decimal places.

▪ **Num_digits** argument is optional.   If omitted, it is assumed to be zero.

Examples

TRUNC(8.975,0) = 8
TRUNC(8.975,1) = 8.9
TRUNC(8.975,2) = 8.97
TRUNC(-8.975,2) = -8.97

See Also

Help

CEILING	Returns a number rounded up to the nearest integer.
FLOOR	Returns a number rounded down, towards zero.
INT	Returns a number rounded down to nearest integer.
MOD	Returns the remainder from division.
ROUND	Returns a number rounded to a specified number of digits.

List of Math & Trig Functions

BASE(**number**,target_base,precision)

Returns the equivalent of a base 10 number in another base.

If this function is not available, you must install the Add-in Functions add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

- **Number** is a base-10 number.
- **Target_base** is the base you want to convert **number** into and must be between 2 and 36.   If omitted, it is assumed to be 16.
- **Precision** is the number of digits you want after the decimal point in the result.   If omitted, **precision** is assumed to be 0.

Example

BASE(256,8) = 400

BASE(299.875,7,5) = 605.6061

See Also

Help

AVERAGE   Returns the average of the arguments.

COUNT   Returns tally of the arguments that are numbers.

List of Math & Trig Functions

DEGREES(angle_in_radians)

Converts **angle_in_radians** into degrees.

If this function is not available, you must install the Add-in Functions add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

Example

DEGREES(PI()) = 180

See Also

Help

RADIANS   Converts degrees into radians.

List of Engineering Functions
List of Math & Trig Functions

RADIANS(angle_in_degrees)

Converts **angle_in_degrees** into radians.

If this function is not available, you must install the Add-in Functions add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

Example

RADIANS(270) = 4.712389 (3*pi/2 radians)

See Also

Help

DEGREES   Converts radians into degrees.

List of Engineering Functions
List of Math & Trig Functions

RANDBETWEEN(bottom,top)

Returns an evenly distributed random integer within a given range of numbers.   A new random number is returned every time the worksheet is calculated.

If this function is not available, you must install the Add-in Functions add-in macro.   For more information, see "Managing Add-in Commands and Functions" in Chapter 4 in Book 2 of the Microsoft Excel User's Guide.

▪   **Bottom** is the smallest integer RANDBETWEEN will return.
▪   **Top** is the largest integer RANDBETWEEN will return.

See Also

Help

RAND   Returns a random number between 0 and 1.

List of Math & Trig Functions

MDETERM(array)

Returns the matrix determinant value of **array**, where **array** must be a numeric array with an equal number of rows and columns.   Generally used for solving systems of mathematical equations that involve several variables.

- **Array** can be given as a cell range (for example, A1:C3), or as an array constant (such as {1,2,3;4,5,6;7,8,9}).
- If **array** is blank or contains nonnumeric values or if **array** is not a square array, MDETERM returns the #VALUE! error value.

Example

For an example of this function, see MDETERM in the Microsoft Excel Function Reference.

See Also

Help

MINVERSE   Returns matrix inverse of an array.

MMULT   Returns matrix product of two arrays.

TRANSPOSE   Returns transpose of an array.

List of Lookup & Reference Functions

List of Math & Trig Functions

MINVERSE(array)

Returns the inverse matrix for the matrix stored in **array**, where **array** must be a square array containing numbers.   Generally used for solving systems of mathematical equations that involve several variables.   The product of a matrix and its inverse is the identity matrix, the square array in which the diagonal values equal 1 and all other values equal 0.

- **Array** can be given as a cell range (for example, A1:C3), an array constant (such as {1,2,3;4,5,6;7,8,9}), or as a reference.
- If **array** contains blank cells or nonnumeric values, or if **array** is not a square array, returns the error value #VALUE!.

Example

For an example of this function, see MINVERSE in the Microsoft Excel Function Reference.

See Also

Help

MDETERM   Returns matrix determinant of an array.

MMULT   Returns the matrix product of two arrays.

TRANSPOSE   Returns transpose of an array.

List of Lookup & Reference Functions

List of Math & Trig Functions

MMULT(array1,array2)

Returns the matrix product of **array1** and **array2**.   Result is array with same number of rows as **array1** and same number of columns as **array2**.

Number of columns in **array1** must be the same as number of rows in **array2**; both arrays must contain only numbers.

▪   They can be given as cell ranges, array constants, or as references.
▪   If any cells are blank or contain text, or if number of columns in **array1** is different than the number of rows in **array2**, MMULT returns the error value #VALUE!.

Example

For an example of this function, see MMULT in the Microsoft Excel Function Reference.

See Also

Help

MDETERM   Returns matrix determinant of an array.

MINVERSE   Returns matrix inverse of an array.

TRANSPOSE   Returns transpose of an array.

List of Lookup & Reference Functions
List of Math & Trig Functions

SUMPRODUCT(array1,array2,array 3…)

Multiplies corresponding components in the given arrays and returns the sum of those products.

- All **arrays** must have the same dimensions.   If they do not, returns the #VALUE! error value.
- SUMPRODUCT can have from 2 to 30 arguments.
- **Array** can be a cell range (for example, A1:C3), or an array constant (such as {1,2,3;4,5,6;7,8,9}).
- Blank cells and text are interpreted as zero.

Example

SUMPRODUCT({1,2,3},{1,2,3}) = 14

For an example of this function using cell ranges, see SUMPRODUCT in the Microsoft Excel Function Reference.

See Also

Help

MMULT	Returns the matrix product of two arrays.
PRODUCT	Multiplies its arguments.
SUM	Adds all numbers given as arguments.

List of Lookup & Reference Functions

List of Math & Trig Functions

TRANSPOSE(array)

Returns the transpose of **array**.   To form the transpose of an array, Microsoft Excel uses the first row of the array as the first column of the new array, uses the second row of the array as the second column of the new array, and so on.

Example

For an example of this function, see TRANSPOSE in the Microsoft Excel Function Reference.

See Also

Help

MDETERM   Returns matrix determinant of an array.

MINVERSE   Returns matrix inverse of an array.

MMULT   Returns matrix product of two arrays.

List of Lookup & Reference Functions

List of Math & Trig Functions

COUNT(value1,value2,...)

Counts how many numbers are in the list of arguments.

- Can have 1 to 30 arguments.
- Arguments should be logical values, empty cells, text representation of numbers, numbers, or arrays or references that contain numbers.

Example

If all cells in A1:A10 contain data except cell A3, then:

COUNT(A1:A10) = 9

See Also

Help

AVERAGE	Averages arguments.
COUNTA	Counts values.
DCOUNT	Counts cells containing numbers from selected database entries.
DCOUNTA	Counts nonblank cells.
PRODUCT	Multiplies arguments.
SUM	Adds arguments.

List of Statistical Functions

COUNTA(value1,value2,...)

Counts the number of nonblank values in the list of arguments.

- Can have 1 to 30 arguments.
- Arguments should be either numbers, or arrays or references that contain numbers.

Example

If all cells in A1:A10 contain data except cell A3, then:

COUNTA(A1:A10) = 9

See Also

Help

AVERAGE	Averages arguments.
COUNT	Counts numbers.
DCOUNT	Counts cells containing numbers from selected database entries.
DCOUNTA	Counts cells containing values from selected database entries.
PRODUCT	Multiplies arguments.
SUM	Adds arguments.

List of Statistical Functions

MAX(number1,number2,...)

Returns the largest number in the list of arguments.

- Can have up to 30 arguments.
- Arguments should be either numbers, or arrays or references that contain numbers.
- Arguments that are numbers, empty cells, logical values, or text representations of numbers are used.
- Arguments that are error values or text that cannot be translated into numbers cause errors.
- If an argument is an array or reference, only numbers in that array or reference are used.

Examples

If A1:A5 contains the numbers 10, 7, 9, 27, and 2, then:

MAX(A1:A5) = 27

MAX(A1:A5,30) = 30

See Also

Help

DMAX   Returns largest value from selected database entries.

MIN   Returns smallest number in list of arguments.

List of Statistical Functions

MIN(number1,number2,...)

Returns the smallest number in the list of arguments.

- Can have up to 30 arguments.
- Arguments should be either numbers, or arrays or references that contain numbers.

Examples

If A1:A5 contains the numbers 10, 7, 9, 27, and 2, then:

MIN(A1:A5) = 2

MIN(A1:A5,0) = 0

See Also

Help

DMIN   Returns smallest value from selected database entries.

MAX   Returns largest number in list of arguments.

List of Statistical Functions

AVERAGE(number1,number2,...)

Returns the average (arithmetic mean) of the arguments.

- Can have 1 to 30 arguments.
- Arguments should be either numbers, or arrays or references that contain numbers.

Example

For an example of this function, see AVERAGE in the Microsoft Excel Function Reference.

See Also

Help

DAVERAGE	Returns the average of selected database entries.
GEOMEAN	Returns the geometric mean.
HARMEAN	Returns the harmonic mean.
MEDIAN	Returns the middle value in a data set.
MODE	Returns the most common value in a data set.
SUM	Adds its arguments.

List of Statistical Functions

GROWTH(known_y's,known_x's,new_x's,const)

Fits an exponential curve to **known_y's** and **known_x's**.   Returns y-values along that curve for the **new_x's**.

If any number in **known_y's** is negative, returns error value #NUM!.

The **known_x's, new_x's,** and **const** arguments are optional.

- If **known_x's** includes only one variable, then **known_x's** and **known_y's** can be ranges of any shape, as long as they have the same dimensions.
- If **known_x's** include more than one variable, **known_y's** must be in a single row or column.
- If **known_y's** are in a single column, **known_x's** and **new_x's** should have the same number of columns; GROWTH interprets each column of **known_x's** as a separate variable.
- If **known_y's** are in a single row, **known_x's** and new_x's should have the same number of rows; GROWTH interprets each row of **known_x's** as a separate variable.
- If both **known_x's** and **new_x's** are omitted, they are assumed to be the array {1,2,3,...} of the same size as **known_y's**.
- If any of the numbers in **known_y's** are negative, GROWTH returns the error value #NUM!.
- One dimension of **new_x's** must be the same as **known_x's**.
- If **const** is FALSE, the constant term b equals 1.
- If **const** is TRUE or omitted, the constant term will be estimated.

Example

For an example of this function, see GROWTH in the Microsoft Excel Function Reference.

See Also

Help

LINEST   Returns the parameters of a linear trend.

LOGEST   Returns the parameters of an exponential trend.

TREND   Returns values along a linear trend.

List of Statistical Functions

LINEST(known_y's,known_x's,const,stats)

Fits a straight line to your data and returns an array that describes that line.   The accuracy of the line depends on the degree of scattering in the data you provide.   The more linear the data, the more accurate the LINEST model.   LINEST uses the method of least squares for determining the best fit for the data.

The **known_x's**, const, and **stats** arguments are optional.

▪   If the array **known_y's** is in a single row, then each row of **known_x's** is interpreted as a separate variable.

▪   If the array **known_y's** is in a single column, then each column of **known_x's** is interpreted as a separate variable.

▪   The array **known_x's** can include one or more sets of variables.

   If you use only one variable, **known_y's** and **known_x's** can be shaped differently.

   If you use more than one variable, **known_y's** must be a vector (a range with a height or width of 1).

▪   If you omit **known_x's**, LINEST uses the values {1,2,3,...} in an array the same size as **known_y's**.

▪   If **const** is FALSE, the constant term b equals zero.

▪   If **const** is TRUE or omitted, the constant term will be estimated.

▪   If **stats** is FALSE or omitted, LINEST returns only the slope and y-intercept.

▪   If **stats** is TRUE, LINEST returns the additional values:

   Standard error for each coefficient

   Standard error for the constant b

   Coefficient of determination (r-squared)

   Standard error for the y-estimate

   F-statistic

   Degrees of freedom

   Regression sum of squares

   Residual sum of squares

Example

   For an example of this function, see LINEST in the Microsoft Excel Function Reference.

See Also

Help

GROWTH   Returns values along an exponential trend.

LOGEST   Returns the parameters of an exponential trend.

TREND   Returns values along a linear trend.

List of Statistical Functions

LOGEST(known_y's,known_x's,const,stats)

Fits an exponential curve to the arrays **known_y's** and **known_x's**. Returns a horizontal array that describes that curve. The closer your data resembles an exponential curve, the better the calculated line will fit your data.

The **known_x's**, **const**, and **stats** arguments are optional.

▪ If the array **known_y's** is in a single row, then each row of **known_x's** is interpreted as a separate variable.

▪ If the array **known_y's** is in a single column, then each column of **known_x's** is interpreted as a separate variable.

▪ The array **known_x's** can include one or more sets of variables.
   If you use only one variable, **known_y's** and **known_x's** can be shaped differently as long as they have equal dimensions.
   If you use more than one variable, **known_y's** must be a vector (a range with a height or width of 1).

▪ If you omit known_x's, LOGEST uses the values {1,2,3,...} in an array the same size as known_y's.

▪ If const is FALSE, the constant term b equals 1.

▪ If const is TRUE or omitted, returns the estimated constant term.

▪ If stats is FALSE or omitted, LOGEST returns only the slope and y-intercept.

▪ If stats is TRUE, LOGEST returns the additional values:
   Standard error for each coefficient
   Standard error for the constant b
   Coefficient of determination (r-squared)
   Standard error for the y-estimate
   F-statistic
   Degrees of freedom
   Regression sum of squares
   Residual sum of squares

Example

For an example of this function, see LOGEST in the Microsoft Excel Function Reference.

See Also

Help

GROWTH   Returns values along an exponential trend.
INDEX   Reference in reference or value in array selected by index values.
LINEST   Returns the parameters of a linear trend.
TREND   Returns values along a linear trend.

List of Statistical Functions

MEDIAN(number1,number2,...)

Returns the middle value of the arguments.

▪ If there is an even number of arguments, MEDIAN() returns the average of the two middle values.

Examples

MEDIAN(9,5,3,1,7,2,8) = 5
MEDIAN(3,1,9,5) = 4

See Also

Help

AVERAGE   Returns average of arguments.
DAVERAGE   Returns the average of selected database entries.
GEOMEAN   Returns the geometric mean.
HARMEAN   Returns the harmonic mean.
MODE   Returns the most common value in a data set.
SUM   Adds its arguments.

List of Statistical Functions

STDEV(**number1**,number2,...**)**

Returns an estimate for the standard deviation of a population based on the population sample provided in the list of arguments.   Use when you have data for a sample of the population.   If you have data for the whole population, use STDEVP.

- Can have 1 to 30 arguments.
- Arguments should be either numbers, or arrays or references that contain numbers.

Example

For an example of this function, see STDEV in the Microsoft Excel Function Reference.

See Also

Help

DSTDEV   Estimates the standard deviation of a population based on a sample from a database.

DVARP   Calculates the variance of an entire population based on the entire population in a database.

STDEVP   Calculates the standard deviation for a population based on the entire population.

VAR   Estimates the variance for a population based on a sample.

VARP   Calculates the variance of a population based on the entire population.

List of Statistical Functions

STDEVP(number1,number2,...)

Returns the standard deviation of an entire population based on a list of arguments.   Use when you have data for the entire population.   If you have data for a sample, use STDEV.

- Can have 1 to 30 arguments.
- Arguments should be either numbers, or arrays or references that contain numbers.

Example

For an example of this function, see STDEVP in the Microsoft Excel Function Reference.

See Also

Help

DSTDEVP	Calculates the standard deviation for a population based on the entire population in a database.
DVARP	Calculates the variance of an entire population based on the entire population in a database.
STDEV	Estimates the standard deviation for a population based on a sample.
VAR	Estimates the variance for a population based on a sample.
VARP	Calculates the variance for a population based on the entire population.

List of Statistical Functions

TREND(known_y's,known_x's,new_x's,const)

Fits a straight line (using the method of least squares) to arrays **known_y's** and **known_x's**.   Returns y-values along that line for the array of **new_x's**.

The **const** argument is optional.

- If array **known_y's** is in a single column, then each column of **known_x's** is interpreted as a separate variable.   If array **known_y's** is in a single row, then each row of known_x's is interpreted as a separate variable.

- The array **known_x's** can include one or more sets of variables.

If only one variable is used, **known_y's** and **known_x's** can be shaped differently but must have the same dimensions.

If more than one variable is used, **known_y's** must be a vector (a range with a height or width of 1).

- If **new_x's** is included, one dimension of that array must be the same as **known_x's**. If you omit **new_x's**, it is assumed to be the same as **known_x's**.

- If you omit both **known_x's** and **new_x's**, they are assumed to be the array {1,2,3,...} of the same size as **known_y's**.

- If **const** is FALSE, the constant term b equals zero.

- If **const** is TRUE or omitted, the constant term will be estimated.

You can also use TREND for curve-fitting by regressing against the same variable raised to different powers.

Example

For an example of this function, see TREND in the Microsoft Excel Function Reference.

See Also

Help

GROWTH   Returns values along an exponential trend.

LINEST   Returns the parameters of a linear trend.

LOGEST   Returns the parameters of an exponential trend.

List of Statistical Functions

VAR(**number1,**number2,…**)**

Returns an estimate for the variance of a population based on the population sample provided in the list of arguments.   Use when you have data for a sample of the population. If you have data for the entire population, use VARP.

- Can have 1 to 30 arguments.
- Arguments should be either numbers, or arrays or references that contain numbers.

Example

For an example of this function, see VAR in the Microsoft Excel Function Reference*.*

See Also

Help

DSTDEV   Estimates the standard deviation of a population based on a sample in a database.

DVARP   Calculates the variance of an entire population based on the entire population in a database.

VARP   Calculates the variance of a population based on the entire population.

STDEV   Returns the standard deviation of a population based on a sample.

STDEVP   Returns the standard deviation of a population based on the entire population.

List of Statistical Functions

VARP(number1,number2,…**)**

Returns the variance for an entire population, based on the list of arguments.   Use when you have data for the entire population.   If you have data for a sample, use VAR.

- ▪ Can have 1 to 30 arguments.
- ▪ Arguments should be either numbers, or arrays or references that contain numbers.

Example

For an example of this function, see VARP in the Microsoft Excel Function Reference.

See Also

Help

DSTDEV   Estimates the standard deviation of a population based on a sample in a database.

DVARP   Calculates the variance of an entire population based on values from the database.

STDEV   Estimates the standard deviation for a population based on a sample.

STDEVP   Calculates the standard deviation for a population based on the entire population.

VAR   Estimates the variance for a population based on a sample.

List of Statistical Functions

FREQUENCY(data_array,bins_array)

Returns a <u>frequency distribution</u> as a vertical array.

- **Data_array** is an array of, or reference to, a set of values for which you want to count frequencies.   If **data_array** is empty, returns an array of zeros.
- **Bins_array** is an array of, or reference to, intervals into which you want to group the values in **data_array**.   If **bins_array** is empty, returns the number of elements in **data_array**.
- FREQUENCY ignores blank cells and text.

Example

When entered as an array:

FREQUENCY({79;85;78;85;83;81;95;88;97},{70;79;89}) = {0;2;5;2}

See Also

Help

<u>COUNT</u>   Counts numbers.

<u>DCOUNT</u>   Counts cells containing numbers from a specified database.

List of <u>Statistical Functions</u>

AVEDEV(number1,number2,...)

Returns the average of the absolute deviations of data points from their mean.   AVEDEV is a measure of the variability in a data set.

▪   **Number1, number2, ...** are 1 to 30 arguments for which you want the average of the absolute deviations.   You can also use a single array or a reference to an array instead of arguments separated by commas.

▪   The arguments should be number, or names, arrays, or references that contain numbers.

▪   If an array or reference argument contains text, logical values, or empty cells, those values are ignored; however, cells with the value zero are included.

Example

AVEDEV(4,5,6,7,5,4,3) = 1.020408

See Also

Help

DEVSQ   Returns the sum of squares of deviations.

STDEV   Estimates standard deviation based on a sample.

STDEVP   Calculates standard deviation based on the entire population.

VAR   Estimates variance based on a sample.

VARP   Calculates variance based on the entire population.

List of Statistical Functions

BETADIST(x,alpha,beta,A,B)

Returns the cumulative beta probability density function.   The cumulative beta probability density function is commonly used to study variation in the percentage of something across samples, such as the fraction of the day people spend watching television.

- **X** is the value at which to evaluate the function over the interval **A$\leq$x$\leq$B**.
- **Alpha** is a parameter to the distribution.
- **Beta** is a parameter to the distribution.
- **A** is an optional lower bound to the interval of **x**.
- **B** is an optional upper bound to the interval of **x**.
- If you omit **A** and **B**, a standard cumulative beta distribution is used, so that **A**=0 and **B**=1.

Example

BETADIST(2,8,10,1,3) = 0.685471

See Also

Help

BETAINV   Returns the inverse of the cumulative beta probability density.

List of Statistical Functions

BETAINV(probability,alpha,beta,A,B)

Returns the inverse of the cumulative beta probability density function.   That is, if **probability** = BETADIST(**x,...**), then BETAINV(**probability,...**) = **x**.   The cumulative beta distribution can be used in project planning to model probable completion times given an expected completion time and variability.   For example, a project might take three days to complete, plus or minus a day, and you want to know the probability that it will take less than three days.

- **Probability** is a probability associated with the beta distribution.
- **Alpha** is a parameter to the distribution.
- **Beta** is a parameter to the distribution.
- **A** is an optional lower bound to the interval of **x**.
- **B** is an optional upper bound to the interval of **x**.
- If you omit **A** and **B**, a standard cumulative beta distribution is used, so that **A**=0 and **B**=1.

Example

   BETAINV(0.685471,8,10,1,3) = 2

See Also

Help

BETADIST   Returns the cumulative beta probability density.

List of Statistical Functions

BINOMDIST(number_s,trials,probability_s,cumulative)

Returns the individual term binomial distribution probability. Use BINOMDIST in problems with a fixed number of tests or trials, when the outcomes of any trial are only success or failure, when trials are independent, and when the probability of success is constant throughout the experiment.   BINOMDIST can calculate the probability that two of the next three babies born are male.

- **Number_s** is the number of successes in **trials**.
- **Trials** is the number of independent trials.
- **Probability_s** is the probability of success on each trial.
- **Cumulative** is a logical value that determines the form of the function.   If **cumulative** is TRUE, then BINOMDIST returns the cumulative distribution function, which is the probability that there are at most **number_s** successes; if FALSE, it returns the probability mass function, which is the probability that there are **number_s** successes.

Example

The flip of a coin can only result in heads or tails.   The probability that the first flip is heads is 0.5, and the probability that exactly 6 of 10 flips are heads is:

BINOMDIST(6,10,0.5,FALSE) = 0.205078

See Also

Help

COMBIN	Returns the number of combinations for a given number of objects.
CRITBINOM	Returns the smallest value for which the cumulative binomial distribution is less than or equal to a criterion value.
FACT	Returns the factorial of a number.
HYPGEOMDIST	Returns the hypergeometric distribution.
NEGBINOMDIST	Returns the negative binomial distribution.
PERMUT	Returns the number of permutations for a given number of objects.

List of Statistical Functions

CEILING(number,significance)

Returns **number** rounded up to the nearest multiple of **significance**.   For example, if you want to avoid using pennies in your prices and your product is priced at $4.42, use the formula =CEILING(4.42,0.05) to round prices up to the nearest nickel.

- **Number** is the value you want to round.
- **Significance** is the multiple to which you want to round.

Examples

CEILING(2.5,1) = 3
CEILING(-2.5,-2) = -4
CEILING(-2.5,2) = #NUM!
CEILING(1.5,0.1) = 1.5
CEILING(0.234,0.01) = 0.24

See Also

Help

EVEN	Rounds a number up to the nearest even integer.
FLOOR	Rounds a number down, towards zero.
INT	Rounds a number down to the nearest integer.
ODD	Rounds a number up to the nearest odd integer.
ROUND	Rounds a number to a specified number of digits.
TRUNC	Truncates a number to an integer.

List of Math & Trig Functions

CHIDIST(x,degrees_freedom)

Returns the one-tailed probability of the chi-squared ($\chi2$) distribution.   The chi-squared distribution is associated with a chi-squared test.   Use the chi-squared test to compare observed and expected values.   For example, a genetic experiment might hypothesize that the next generation of plants will exhibit a certain set of colors.   By comparing the observed results with the expected ones, you can decide if your original hypothesis is valid.

- **X** is the value at which you want to evaluate the distribution.
- **Degrees_freedom** is the number of degrees of freedom.

Example

CHIDIST(18.307,10) = 0.050001

See Also

Help

CHIINV   Returns the inverse of the chi-squared distribution.

CHITEST   Returns the test for independence.

List of Statistical Functions

CHIINV(probability,degrees_freedom)

Returns the inverse of the chi-squared (χ^2) distribution.   Use the chi-squared distribution to compare observed results with expected ones to decide if your original hypothesis is valid.

- **Probability** is a probability associated with the chi-squared distribution.
- **Degrees_freedom** is the number of degrees of freedom.

Example

CHIINV(0.05,10) = 18.30703

See Also

Help

CHIDIST   Returns the one-tailed probability of the chi-squared distribution.
CHITEST   Returns the test for independence.

List of Statistical Functions

CHITEST(actual_range,expected_range)

Returns the test for independence. CHITEST returns the value from the chi-squared (χ^2) distribution for the statistic and the appropriate degrees of freedom.   You can use chi-squared tests to determine if hypothesized results are verified by an experiment.

- **Actual_range** is the range of data that contains observations to test against expected values.
- **Expected_range** is the range of data that contains the ratio of the product of row totals and column totals to the grand total.

Example

For an example of this function, see CHITEST in the Microsoft Excel Function Reference.

See Also

Help

CHIDIST   Returns the one-tailed probability of the chi-squared distribution.

CHIINV   Returns the inverse of the chi-squared distribution function.

List of Statistical Functions

COMBIN(number,number_chosen)

Returns the number of ways that **number_chosen** objects can be selected from **number** objects, without regard for order.   Use COMBIN to determine the total possible number of groups for a given number of objects.

- **Number** is the number of objects.
- **Number_chosen** is the number of objects in each combination.

Example

Suppose you want to form a two-person team from 8 candidates and you want to know how many possible teams can be formed. COMBIN(8,2) = 28 teams.

See Also

Help

BINOMDIST   Returns the individual term binomial distribution.

CRITBINOM   Returns the smallest value for which the cumulative binomial distribution is less than or equal to a criterion value.

FACT   Returns the factorial of a number.

HYPGEOMDIST   Returns the hypergeometric distribution.

NEGBINOMDIST Returns the negative binomial distribution.

PERMUT   Returns the number of permutations for a given number of objects.

List of Math & Trig Functions

List of Statistical Functions

CONFIDENCE(alpha,standard_dev,size)

Returns the confidence interval for a population mean.   The confidence interval is a range on either side of a sample mean.   For example, if you order a product through the mail, you can determine, with a particular level of confidence, the earliest and latest dates the product should arrive.

- **Alpha** is the significance level used to compute the confidence level. The confidence level equals 100(1 - **alpha**)%.
- **Standard_dev** is the population standard deviation for the data range, and is assumed to be known.
- **Size** is the sample size.

Example

For an example of this function, see CONFIDENCE in the Microsoft Excel Function Reference.

See Also

Help

ZTEST   Returns the two-tailed P-value of a z test.

List of Statistical Functions

CORREL(array1,array2)

Returns the correlation coefficient of the given arrays.   Use the correlation coefficient to determine the relationship between two properties.   For example, you can examine the relationship between a location's average temperature and the use of air conditioners.

- **Array1** is an array or a cell range of values.
- **Array2** is a second array or cell range of values.

Example

CORREL({3,2,4,5,6},{9,7,12,15,17}) = 0.997054

See Also

Help

COVAR   Returns covariance, the average of the products of paired deviations.

FISHER   Returns the Fisher transformation.

FISHERINV   Returns the inverse of the Fisher transformation.

List of Statistical Functions

COVAR(array1,array2)

Returns covariance, the average of the products of deviations for each data point pair.   Use covariance to determine the relationship between two data sets.   For example, you can examine whether greater income accompanies higher levels of education.

- **Array1** is the first array or cell range of integers.
- **Array2** is a second array or cell range of integers.

Example

COVAR({3,2,4,5,6},{9,7,12,15,17}) = 5.2

See Also

Help

CORREL   Returns the correlation coefficient between two data sets.

FISHER   Returns the Fisher transformation.

FISHERINV   Returns the inverse of the Fisher transformation.

List of Statistical Functions

CRITBINOM(trials,probability_s,alpha)

Returns the smallest integer k for which the cumulative binomial distribution function is greater than or equal to the criterion value **alpha**. Use this function for quality assurance applications.

- **Trials** is the number of Bernoulli trials.
- **Probability_s** is the probability of a success on each trial.
- **Alpha** is the criterion value.

Example

  CRITBINOM(6,0.5,0.75) = 4

See Also

 Help

BINOMDIST	Returns the individual term binomial distribution.
COMBIN	Returns the number of combinations for a given number of objects.
FACT	Returns the factorial of a number.
HYPGEOMDIST	Returns the hypergeometric distribution.
NEGBINOMDIST	Returns the negative binomial distribution.
PERMUT	Returns the number of permutations for a given number of objects.
PROB	Returns the probability that values in a range are between two limits.

List of Statistical Functions

DEVSQ(number1,number2,...)

 Returns the sum of squares of deviations of data points from their sample mean.

- **Number1, number2, ...** are 1 to 30 arguments for which you want to calculate the sum of squared deviations.   You can also use a single array or a reference to an array instead of arguments separated by commas.
- The arguments should be number, or names, arrays, or references that contain numbers.
- If an array or reference argument contains text, logical values, or empty cells, those values are ignored; however, cells with the value zero are included.

Example

 DEVSQ(4,5,8,7,11,4,3) = 48

See Also

Help

AVEDEV   Returns the average of absolute deviations of data points from their mean.

STDEV   Estimates standard deviation based on a sample.

STDEVP   Calculates standard deviation based on the entire population.

VAR   Estimates variance based on a sample.

VARP   Calculates variance based on the entire population.

List of Statistical Functions

EVEN(number)

Returns **number** rounded up to the nearest even integer.

▪   **Number** is the value to round. Regardless of the sign of **number**, EVEN rounds **number** away from zero.

Examples

EVEN(1.5) = 2
EVEN(3) = 4
EVEN(2) = 2
EVEN(-1) = -2

See Also

Help

CEILING   Rounds a number up, away from zero.
FLOOR   Rounds a number down, towards zero.
INT   Rounds a number down to the nearest integer.
ODD   Rounds a number up to the nearest odd integer.
ROUND   Rounds a number to a specified number of digits.
TRUNC   Truncates a number to an integer.

List of Math & Trig Functions

EXPONDIST(x,lambda,cumulative)

Returns the exponential distribution function. Use EXPONDIST to model the time between events, such as how long an automated bank teller takes to deliver cash.   You can use EXPONDIST to determine the probability that the process takes at most one minute.

- **X** is the value of the function.
- **Lambda** is the parameter value.
- **Cumulative** is a logical value that indicates which form of the exponential function to provide.   If **cumulative** is TRUE, EXPONDIST returns the cumulative distribution function; if FALSE, it returns the probability density function.

Examples

EXPONDIST(0.2,10,TRUE) = 0.864665

EXPONDIST(0.2,10,FALSE) = 1.353353

See Also

Help

GAMMADIST   Returns the gamma distribution.

POISSON   Returns the Poisson probability distribution.

List of Statistical Functions

FDIST(x,degrees_freedom1,degrees_freedom2)

Returns the F probability distribution. You can use this function to determine whether two data sets have different degrees of diversity.   For example, you can examine test scores given to men and women entering high school and determine if the variability in the females is different from that found in the males.

- **X** is the value at which to evaluate the function.
- **Degrees_freedom1** is the numerator degrees of freedom.
- **Degrees_freedom2** is the denominator degrees of freedom.

Example

FDIST(15.20704,6,4) = 0.01

See Also

Help

FINV   Returns the inverse of the F probability distribution.

FTEST   Returns the results of an F-test.

List of Statistical Functions

FINV(probability,degrees_freedom1,degrees_freedom2)

Returns the inverse of the F probability distribution. The F distribution can be used in an F-test which compares the degree of variability in two data sets.

- **Probability** is a probability associated with the F cumulative distribution.
- **Degrees_freedom1** is the numerator degrees of freedom.
- **Degrees_freedom2** is the denominator degrees of freedom.

Example

FINV(0.01,6,4) = 15.207

See Also

Help

FDIST   Returns the F probability distribution.
FTEST   Returns the result of an F-test.

List of Statistical Functions

FISHER(x)

Returns the Fisher transformation at **x**.   This transformation produces a function that is approximately normally distributed rather than skewed.   Use this function to perform hypothesis testing on the correlation coefficient.

▪   **X** is a numeric value strictly between -1 and 1 for which you want the transformation.

Example

   FISHER(0.75) = 0.972955

See Also

   Help

   CORREL   Returns the correlation coefficient between two data sets.

   COVAR   Returns covariance, the average of the products of paired deviations.

   FISHERINV   Returns the inverse of the Fisher transformation.

   List of Statistical Functions

FISHERINV(y)

Returns the inverse of the Fisher transformation.   Use this transformation when analyzing correlations between ranges or arrays of data.

- **Y** is the value for which you want to perform the inverse of the transformation.

Example

   FISHERINV(0.972955) = 0.75

See Also

Help

CORREL   Returns the correlation coefficient between two data sets.

COVAR   Returns covariance, the average of the products of paired deviations.

FISHER   Returns the Fisher transformation.

List of Statistical Functions

FLOOR(number,significance)

Rounds **number** down to the nearest multiple of **significance**.

- **Number** is the numeric value you want to round. Regardless of the sign of **number**, FLOOR rounds **number** toward zero.
- **Significance** is the multiple to which you want to round.

Examples

FLOOR(2.5,1) = 2
FLOOR(-2.5,-2) = -2
FLOOR(-2.5,2) = #NUM!
FLOOR(1.5,0.1) = 1.5
FLOOR(0.234,0.01) = 0.23

See Also

Help

CEILING	Returns a number rounded up, away from zero.
EVEN	Rounds a number up to the nearest even integer.
INT	Rounds a number down to the nearest integer.
ODD	Rounds a number up to the nearest odd integer.
ROUND	Rounds a number to a specified number of digits.
TRUNC	Truncates a number to an integer.

List of Math & Trig Functions

FORECAST(x,known_y's,known_x's)

Returns a predicted value for **x** based on a linear regression of known x- and y-arrays or ranges of data.   You can use this function to predict future sales, inventory requirements, or consumer trends.

- **X** is the data point for which you want to predict a value.
- **Known_y's** is the dependent array or range of data.
- **Known_x's** is the independent array or range of data.

Example

FORECAST(30,{6,7,9,15,21},{20,28,31,38,40}) = 10.60725

See Also

Help

GROWTH	Returns values along an exponential trend.
LINEST	Returns parameters of a linear trend.
LOGEST	Returns parameters of an exponential trend.
TREND	Returns values along a linear trend.

List of Statistical Functions

FTEST(array1,array2)

Returns the results of an F-test.   An F-test returns the one-tailed probability that the variances in **array1** and **array2** are not significantly different.   Use this function to determine if two samples have different variances.

- **Array1** is the first array or range of data.
- **Array2** is the second array or range of data.

Example

FTEST({6,7,9,15,21},{20,28,31,38,40}) = 0.648318

See Also

Help

FDIST   Returns the F probability distribution.

FINV   Returns the inverse of the F probability distribution.

List of Statistical Functions

GAMMADIST(x,alpha,beta,cumulative)

Returns the gamma distribution function.   You can use this function to study variables that may have a skewed distribution.   The gamma distribution is commonly used in queuing analysis.

- **X** is the value at which you want to evaluate the distribution.
- **Alpha** is a parameter to the distribution.
- **Beta** is a parameter to the distribution. If **beta** = 1, GAMMADIST returns the standard gamma distribution.
- **Cumulative** is a logical value that determines the form of the function.   If **cumulative** is TRUE, GAMMADIST returns the cumulative distribution function; if FALSE, it returns the probability mass function.

Examples

GAMMADIST(10,9,2,FALSE) = 0.032639

GAMMADIST(10,9,2,TRUE) = 0.068094

See Also

Help

CHIDIST   Returns the chi-squared distribution function.

EXPONDIST   Returns the exponential distribution.

GAMMAINV   Returns the inverse of the gamma cumulative distribution.

List of Statistical Functions

GAMMAINV(probability,alpha,beta)

Returns the inverse of the gamma cumulative distribution function.   You can use this function to study a variable whose distribution may be skewed.

- **Probability** is the probability associated with the gamma distribution.
- **Alpha** is a parameter to the distribution.
- **Beta** is a parameter to the distribution. If **beta** = 1, GAMMAINV returns the standard gamma distribution.

Example

GAMMAINV(0.068094,9,2) = 10

See Also

Help

GAMMADIST   Returns the gamma distribution.

List of Statistical Functions

GAMMALN(x)

Returns the natural logarithm of the gamma function.

- **X** is the value for which you want to calculate GAMMALN.
- If e, the base of the natural logarithm, is raised to the GAMMALN(i) power, where i is an integer, the result is the same as FACT(i-1).

Examples

GAMMALN(4) = 1.791759
EXP(GAMMALN(4)) = 6 or FACT(4-1)

See Also

Help

FACT   Returns the factorial of a number.

List of Statistical Functions

GEOMEAN(number1,number2,...)

Returns the geometric mean of an array or range of positive data.   For example, you can use GEOMEAN to calculate average growth rate given compound interest with variable rates.

▪   **number1**,**number2,...** are 1 to 30 arguments for which you want to calculate the mean.   You can also use a single array or a reference to an array instead of arguments separated by commas.

Example

GEOMEAN(4,5,8,7,11,4,3) = 5.476987

See Also

Help

AVERAGE   Returns the arithmetic mean.

HARMEAN   Returns the harmonic mean.

MEDIAN   Returns the middle value in a data set.

MODE   Returns the most common value in a data set.

TRIMMEAN   Returns the mean of the interior of a data set.

List of Statistical Functions

HARMEAN(number1,number2,...)

Returns the harmonic mean of a data set. The harmonic mean is the reciprocal of the arithmetic mean of reciprocals.

▪ **number1,number2,...** are 1 to 30 arguments for which you want to calculate the mean. You can also use a single array or a reference to an array instead of arguments separated by commas.

Example

HARMEAN(4,5,8,7,11,4,3) = 5.028376

See Also

Help

AVERAGE   Returns the arithmetic mean.
GEOMEAN   Returns the geometric mean.
MEDIAN   Returns the middle value in a data set.
MODE   Returns the most common value in a data set.
TRIMMEAN   Returns the mean of the interior of a data set.

List of Statistical Functions

HYPGEOMDIST(sample_s,number_sample,population_s, number_population)

Returns the hypergeometric distribution. HYPGEOMDIST returns the probability of a given number of sample successes, given the sample size, population successes, and population size.   Use HYPGEOMDIST for problems with a finite population, where each observation is either a success or a failure, and where each subset of a given size is chosen with equal likelihood.

- **Sample_s** is the number of successes in the sample.
- **Number_sample** is the size of the sample.
- **Population_s** is the number of successes in the population.
- **Number_population** is the population size.

Example

A sampler of chocolates contains 20 pieces. Eight pieces are caramels and the remaining twelve are nuts.   If a person selects 4 chocolates at random, the following function returns the probability that exactly one piece is a caramel.

HYPGEOMDIST(1,4,8,20) = 0.363261

See Also

Help

BINOMDIST	Returns the binomial distribution.
COMBIN	Returns the number of combinations for a given number of objects.
FACT	Returns the factorial of a number.
NEGBINOMDIST	Returns the negative binomial distribution.
PERMUT	Returns the number of permutations for a given number of objects.

List of Statistical Functions

INTERCEPT(known_y's,known_x's)

Returns the intercept of the linear regression line through data points in **known_x's** and **known_y's**.   The intercept is the point at which the regression line through the values in **known_x's** and **known_y's** intersects the y-axis.   Use the intercept when you want to determine the value of the dependent variable when the independent variable is zero.

- **Known_y's** is the dependent set of observations or data.
- **Known_x's** is the independent set of observations or data.

Example

INTERCEPT({2,3,9,1,8},{6,5,11,7,5}) = 0.0483871

See Also

Help

FORECAST	Returns values along a regression line.
GROWTH	Returns values along an exponential trend.
LINEST	Returns parameters of a linear trend.
LOGEST	Returns parameters of an exponential trend.
PEARSON	Returns the Pearson product moment correlation coefficient.
RSQ	Returns the r^2 value of the linear regression line.
SLOPE	Returns the slope of the linear regression line.
STEYX	Returns the standard error of the predicted y value for each x in the regression.
TREND	Returns values along a linear trend.

List of Statistical Functions

KURT(Number1,number2,...)

Returns the kurtosis of a data set. Kurtosis characterizes the relative peakedness or flatness of a distribution compared to the normal distribution.   Positive kurtosis indicates a relatively peaked distribution. Negative kurtosis indicates a relatively flat distribution.

- **Number1,number2,...** are 1 to 30 arguments for which you want to calculate kurtosis.

Example

KURT(3,4,5,2,3,4,5,6,4,7) = -0.1518

See Also

Help

SKEW	Returns the skewedness of a distribution.
STDEV	Estimates standard deviation based on a sample.
STDEVP	Calculates standard deviation based on the entire population.
VAR	Estimates variance based on a sample.
VARP	Calculates variance based on the entire population.

List of Statistical Functions

LARGE(array,k)

Returns the k-th largest value in a data set. You can use this function to select a value based on its relative standing.   For example, you can use LARGE to return the highest, runner-up, or third-place score.

▪   **Array** is the array or range of data for which you want to determine the k-th largest value.
▪   **K** is the position (from the largest) in the array or cell range of data to return.

Examples

LARGE({3,4,5,2,3,4,5,6,4,7},3) = 5
LARGE({3,4,5,2,3,4,5,6,4,7},7) = 4

See Also

Help

PERCENTILE   Returns the k-th percentile of values in a range.
PERCENTRANK   Returns the percentage rank of a value in a data set.
QUARTILE   Returns the a quartile of a data set.
SMALL   Returns the k-th smallest value in a data set.

List of Statistical Functions

LOGINV(probability,mean,standard_dev)

Returns the inverse of the lognormal cumulative distribution function of x.   Use the lognormal distribution to analyze logarithmically transformed data.

- **Probability** is a probability associated with the lognormal distribution.
- **Mean** is the mean of x.
- **Standard_dev** is the standard deviation of x.

Example

LOGINV(0.039084,3.5,1.2) = 4.000014

See Also

Help

EXP   Returns e raised to a given number.
LN   Returns the natural logarithm of a number.
LOG   Returns the logarithm of a number to a specified base.
LOG10   Returns the base-10 logarithm of a number.
LOGNORMDIST   Returns the lognormal distribution.

List of Statistical Functions

LOGNORMDIST(x,mean,standard_dev)

Returns the lognormal cumulative distribution function of **x**, where ln(**x**) is normally distributed with parameters **mean** and **standard_dev**.   Use this function to analyze data that has been logarithmically transformed.

- **X** is the value at which to evaluate the function.
- **Mean** is the mean of **x**.
- **Standard_dev** is the standard deviation of **x**.

Example

LOGNORMDIST(4,3.5,1.2) = 0.039084

See Also

Help

EXP	Returns e raised to a given number.
LN	Returns the natural logarithm of a number.
LOG	Returns the logarithm of a number to a specified base.
LOG10	Returns the base-10 logarithm of a number.
LOGINV	Returns the inverse of the lognormal distribution.

List of Statistical Functions

MODE(Number1,number2,...)

Returns the most frequently occurring value in an array or range of data.   Like MEAN and MEDIAN, MODE is a location measure.

▪   **Number1,number2,...** are 1 to 30 arguments for which you want to calculate the mode.   You can also use a single array or a reference to an array instead of arguments separated by commas.

Example

MODE({5.6,4,4,3,2,4}) = 4

See Also

Help

AVERAGE   Returns the arithmetic mean.
GEOMEAN   Returns the geometric mean.
HARMEAN   Returns the harmonic mean.
MEDIAN   Returns the middle value in a data set.
TRIMMEAN   Returns the mean of the interior of a data set.

List of Statistical Functions

NEGBINOMDIST(number_f,number_s,probability_s)

Returns the negative binomial distribution. NEGBINOMDIST returns the probability that there will be **number_f** failures before the success numbered **number_s**, when the constant probability of a success is **probability_s**.   This function is similar to the binomial distribution, except that the number of successes is fixed and the number of trials is variable.   Like the binomial, trials are assumed to be independent.

- **Number_f** is the number of failures.
- **Number_s** is the threshold number of successes.
- **Probability_s** is the probability of a success.

Example

NEGBINOMDIST(10,5,0.25) = 0.055049

See Also

Help

BINOMDIST   Returns the individual term binomial distribution.
COMBIN   Returns the number of combinations for a given number of objects.
FACT   Returns the factorial of a number.
HYPGEOMDIST   Returns the hypergeometric distribution.
PERMUT   Returns the number of permutations for a given number of objects.

List of Statistical Functions

NORMDIST(x,mean,standard_dev,cumulative)

Returns the normal cumulative distribution function for the specified mean and standard deviation.   This function has a very wide range of applications in statistics, including hypothesis testing.

- **X** is the value for which you want the distribution.
- **Mean** is the arithmetic mean of the distribution.
- **Standard_dev** is the standard deviation of the distribution.
- **Cumulative** is a logical value that determines the form of the function.   If cumulative is TRUE, NORMDIST returns the cumulative distribution function; if FALSE, it returns the probability mass function.

Example

NORMDIST(42,40,1.5) = 0.908789

See Also

Help

NORMINV   Returns the inverse of the normal cumulative distribution.
NORMSDIST   Returns the standard normal cumulative distribution.
NORMSINV   Returns the inverse of the standard normal cumulative distribution.
STANDARDIZE Returns a normalized value.
ZTEST   Returns the P-value of a z test.

List of Statistical Functions

NORMSDIST(z)

Returns the standard normal cumulative distribution function.   The distribution has a mean of zero and a standard deviation of one.   Use this function in place of a table of standard normal curve areas.

- **Z** is the value for which you want the distribution.

Example

NORMSDIST(1.333333) = 0.908789

See Also

Help

NORMDIST   Returns the normal cumulative distribution.
NORMINV   Returns the inverse of the normal cumulative distribution.
STANDARDIZE Returns a normalized value.
NORMSINV   Returns the inverse of the standard normal cumulative distribution function.
ZTEST   Returns the P-value of a z test.

List of Statistical Functions

NORMINV(probability,mean,standard_dev)

Returns the inverse of the normal cumulative distribution for the specified mean and standard deviation.

- **Probability** is a probability corresponding to the normal distribution.
- **Mean** is the arithmetic mean of the distribution.
- **Standard_dev** is the standard deviation of the distribution.

Example

NORMINV(0.908789,40,1.5) = 42

See Also

Help

NORMDIST   Returns the normal cumulative distribution.
NORMSDIST   Returns the standard normal cumulative distribution.
NORMSINV   Returns the inverse of the standard normal cumulative distribution.
STANDARDIZE   Returns a normalized value.
ZTEST   Returns the P-value of a z-test.

List of Statistical Functions

NORMSINV(probability)

Returns the inverse of the standard normal cumulative distribution.   The distribution has a mean of zero and a standard deviation of one.

▪   **Probability** is a probability corresponding to the normal distribution.

Example

NORMSINV(0.908789) = 1.333333

See Also

Help

NORMDIST   Returns the normal cumulative distribution.
NORMINV   Returns the inverse of the normal cumulative distribution.
NORMSDIST   Returns the standard normal cumulative distribution.
STANDARDIZE Returns a normalized value.
ZTEST   Returns the P-value of a z-test.

List of Statistical Functions

ODD(number)

Returns **number** rounded up to the nearest odd integer.

▪   **Number** is the value to round. Regardless of the sign of **number**, ODD rounds **number** away from zero.

Examples

ODD(1.5) = 3
ODD(3) = 3
ODD(2) = 3
ODD(-1) = -1
ODD(-2) = -3

See Also

Help

CEILING   Rounds a number up, away from zero.
EVEN   Rounds a number up to the nearest even integer.
FLOOR   Rounds a number down, towards zero.
INT   Rounds a number down to the nearest integer.
ROUND   Rounds a number to a specified number of digits.
TRUNC   Truncates a number to an integer.

List of Math & Trig Functions

PEARSON(array1,array2)

Returns the Pearson product moment correlation coefficient, r, a dimensionless index that ranges from -1.0 to 1.0 inclusive, and reflects the extent of a linear relationship between two data sets.

- **Array1** is an array or range of independent values.
- **Array2** is an array or range of dependent values.

Example

PEARSON({9,7,5,3,1},{10,6,1,5,3}) = 0.699379

See Also

Help

INTERCEPT	Returns the intercept of the linear regression line.
LINEST	Returns parameters of a linear trend.
RSQ	Returns the r^2 value of the linear regression line.
SLOPE	Returns the slope of the linear regression line.
STEYX	Returns the standard error of the predicted y-value for each x in the regression.

List of Statistical Functions

PERCENTILE(array,k)

Returns the value from **array** at the **k**-th percentile.   You can use this function to establish a threshold of acceptance.   For example, you can decide to examine candidates that score above the 90th percentile.

- **Array** is the array or range of data which defines relative standing.
- **K** is the percentile value in the range 0...1, inclusive.

Example

PERCENTILE({1,2,3,4},0.3) = 1.2

See Also

Help

LARGE	Returns the k-th largest value from a data set.
MAX	Returns the maximum value in a data set.
MEDIAN	Returns the middle value in a data set.
MIN	Returns the minimum value in a data set.
PERCENTRANK	Returns the percentage rank of a value in a data set.
QUARTILE	Returns a quartile of a data set.
SMALL	Returns the k-th smallest value from a data set.

List of Statistical Functions

PERCENTRANK(array,x,significance)

Returns the percentage rank of **x** among the values in **array**.   This function can be used to evaluate the relative standing of an observation in a data set.

- **Array** is the array or range of data with numeric values that defines relative standing.
- **X** is the value for which you want to know the rank.
- **Significance** is an optional value that identifies the number of significant digits for the returned percentage value.   If omitted, PERCENTRANK uses three digits (0.xxx%).

Example

For an example of this function, see PERCENTRANK in the Microsoft Excel Function Reference.

See Also

Help

LARGE   Returns the k-th largest value from a data set.

MAX   Returns the maximum value in a data set.

MEDIAN   Returns the middle value in a data set.

MIN   Returns the minimum value in a data set.

PERCENTILE   Returns the k-th percentile of values in a range.

QUARTILE   Returns the quartile of a data set.

SMALL   Returns the k-th smallest value from a data set.

List of Statistical Functions

PERMUT(number,number_chosen)

Returns the number of permutations of groups of **number_chosen** objects that can be selected from **number** objects.   A permutation is any set or subset of objects or events where internal order is significant.   Permutations are different than combinations, for which the internal order is not significant. Use this function for lottery-style probability calculations.

▪   **Number** is an integer that describes the number of objects.
▪   **Number_chosen** is an integer that describes the number of objects in each permutation.

Example

Suppose you want to calculate the odds of selecting a winning lottery number.   Each lottery number contains three numbers, each of which can be between 0 and 99, inclusive.   The following function calculates the number of possible permutations.

PERMUT(100,3) = 970,200

See Also

Help

BINOMDIST	Returns the binomial distribution.
COMBIN	Returns the number of combinations for a given number of objects.
CRITBINOM	Returns the smallest value for which the cumulative binomial distribution is less than or equal to a criterion value.
FACT	Returns the factorial of a number.
HYPGEOMDIST	Returns the hypergeometric distribution.
NEGBINOMDIST	Returns the negative binomial distribution.

List of Statistical Functions

POISSON(x,mean,cumulative)

Returns the Poisson probability distribution.   A common application of the Poisson distribution is predicting the number of events over a specific time, such as the number of cars arriving at a toll plaza in one minute.

- **X** is the number of events.
- **Mean** is the expected numeric value.
- **Cumulative** is a logical value that determines the form of the probability distribution returned.   If **cumulative** is TRUE, POISSON returns the cumulative Poisson probability that the number of random events occurring will be between 0 and **x** inclusive; if FALSE, it returns the Poisson probability mass function that the number of events occurring will be exactly **x**.

Examples

POISSON(2,5,FALSE) = 0.084224

POISSON(2,5,TRUE) = 0.124652

Related Functions

EXPONDIST   Returns the exponential distribution.

List of Statistical Functions

PROB(x_range,prob_range,lower_limit,upper_limit)

Returns the probability that values in **x_range** are between the **lower_limit** and **upper_limit**.   If **upper_limit** is not supplied, returns the probability that values in **x_range** are equal to **lower_limit**.

- **X_range** is the range of numeric values of x with which there are associated probabilities.
- **Prob_range** is a set of probabilities associated with values in **x_range**.
- **Lower_limit** is the lower bound on the value for which you want a probability.
- **Upper_limit**   is the optional upper bound on the value for which you want a probability.

Examples

PROB({0,1,2,3},{0.2,0.3,0.1,0.4},2) = 0.1

PROB({0,1,2,3},{0.2,0.3,0.1,0.4},1,3) = 0.8

See Also

Help

BINOMDIST   Returns the individual term binomial distribution.

CRITBINOM   Returns the smallest value for which the cumulative binomial distribution is less than or equal to a criterion value.

List of Statistical Functions

QUARTILE (array,quart)

Returns a quartile from the data points in **array**. Quartiles often are used in sales and survey data to divide populations into groups.   For example, you can use QUARTILE to find the top 25% of incomes in a population.

- **Array** is the array or cell range of numeric values for which you want the quartile value.
- **Quart** indicates which value to return.

If quart equals	QUARTILE returns
0	Minimum value
1	First quartile (25th percentile)
2	Median value (50th percentile)
3	Third quartile (75th percentile)
4	Maximum value

Example

QUARTILE({1,2,4,7,8,9,10,12},1) = 3.5

See Also

Help

LARGE	Returns the k-th largest value from a data set.
MAX	Returns the maximum value in a data set.
MEDIAN	Returns the middle value in a data set.
MIN	Returns the minimum value in a data set.
PERCENTRANK	Returns the percentage rank of a value in a data set.
PERCENTILE	Returns the k-th percentile of values in a range.
SMALL	Returns the k-th smallest value from a data set.

List of Statistical Functions

RSQ(known_y's,known_x's)

Returns the r2 value of the linear regression line through data points in **known_y's** and **known_x's**.   The r2 value is the square of the Pearson product moment correlation coefficient.   The r2 value can be interpreted as the proportion of the variance in y attributable to the variance in x.

- **Known_y's** is an array or range of data points.
- **Known_x's** is an array or range of data points.

Example

RSQ({2,3,9,1,8,7,5},{6,5,11,7,5,4,4}) = 0.05795

See Also

Help

CORREL	Returns the correlation coefficient of two data sets.
COVAR	Returns covariance, the average of the products of paired deviations.
INTERCEPT	Returns the intercept of the linear regression line.
LINEST	Returns parameters of a linear trend.
LOGEST	Returns parameters of an exponential trend.
PEARSON	Returns the Pearson product moment correlation coefficient.
SLOPE	Returns the slope of the linear regression line.
STEYX	Returns the standard error of the predicted y value for each x in the regression.
TREND	Returns values along a linear trend.

List of Statistical Functions

SKEW(number1,number2,...)

Returns the skewness of a distribution.   Skewness characterizes the degree of asymmetry of a distribution around its mean.   Positive skewness indicates a distribution with an asymmetric tail extending towards more positive values.   Negative skewness indicates a distribution with an asymmetric tail extending towards more negative values.

▪   **Number1**,**number2,...** are 1 to 30 arguments for which you want to calculate skewness.

Example

SKEW(3,4,5,2,3,4,5,6,4,7) = 0.359543

See Also

Help

KURT   Returns the kurtosis of a data set.
STDEV   Estimates standard deviation based on a sample.
STDEVP   Calculates standard deviation based on the entire population.
VAR   Estimates variance based on a sample.
VARP   Calculates variance based on the entire population.

List of Statistical Functions

SLOPE(known_y's,known_x's)

Returns the slope of the linear regression line through data points in **known_y's** and **known_x's**.   The slope is the vertical distance divided by the horizontal distance between any two points on the line, which is the rate of change along the regression line.

- **Known_y's** is an array or cell range of numeric dependent data points.
- **Known_x's** is the set of independent data points.

Example

SLOPE({2,3,9,1,8,7,5},{6,5,11,7,5,4,4}) = 0.305556

See Also

Help

INTERCEPT	Returns the intercept of the linear regression line.
LINEST	Returns parameters of a linear trend.
LOGEST	Returns parameters of an exponential trend.
PEARSON	Returns the Pearson product moment correlation coefficient.
RSQ	Returns the r2 value of the linear regression line.
STEYX	Returns the standard error of the predicted y value for each x in the regression.
TREND	Returns values along a linear trend.

List of Statistical Functions

SMALL(array,k)

Returns the k-th smallest value in a data set.   Use this function to return values with a particular relative standing in a data set.

- **Array** is an array or range of numerical data for which you want to determine the k-th smallest value.
- **K** is the position (from the smallest) in array or range of data to return.

Examples

SMALL({3,4,5,2,3,4,5,6,4,7},4) = 4
SMALL({1,4,8,3,7,12,54,8,23},2) = 3

See Also

Help

LARGE   Returns the k-th largest value from a data set.
MAX   Returns the maximum value in a data set.
MEDIAN   Returns the middle value in a data set.
MIN   Returns the minimum value in a data set.
PERCENTILE   Returns the k-th percentile of values in a range.
PERCENTRANK   Returns the percentage rank of a value in a data set.
QUARTILE   Returns the quartile of a data set.

List of Statistical Functions

STEYX(known_y's,known_x's)

Returns the standard error of the regression.   The standard error is a measure of the amount of error in the prediction of y for an individual x.

- **Known_y's** is an array or range of dependent data points.
- **Known_x's** is an array or range of independent data points.

Example

STEYX({2,3,9,1,8,7,5},{6,5,11,7,5,4,4}) = 3.305719

See Also

Help

INTERCEPT   Returns the intercept of the linear regression line.

LINEST   Returns parameters of a linear trend.

LOGEST   Returns parameters of an exponential trend.

PEARSON   Returns the Pearson product moment correlation coefficient.

RSQ   Returns the r^2 value of the linear regression line.

SLOPE   Returns the slope of the linear regression line.

List of Statistical Functions

SUMX2MY2(array_x,array_y)

Returns the sum of the difference of squares of corresponding values in two arrays.

- **Array_x** is the first array or range of values.
- **Array_y** is the second array or range of values.

Example

SUMX2MY2({2,3,9,1,8,7,5},{6,5,11,7,5,4,4}) = -55

See Also

Help

SUMPRODUCT   Returns the sum of the product of corresponding values in two arrays.

SUMX2PY2   Returns the sum of the sum of squares of corresponding values in two arrays.

SUMXMY2   Returns the sum of squares of differences of corresponding values in two arrays.

List of Math & Trig Functions

SUMX2PY2(array_x,array_y)

Returns the sum of the sum of squares of corresponding values in two arrays.   The sum of the sum of squares is a common term in many statistical calculations.

- **Array_x** is the first array or range of values.
- **Array_y** is the second array or range of values.

Example

   SUMX2PY2({2,3,9,1,8,7,5},{6,5,11,7,5,4,4}) = 521

See Also

Help

SUMPRODUCT   Returns the sum of the product of corresponding values in two arrays.

SUMX2MY2   Returns the sum of the difference of squares of corresponding values in two arrays.

SUMXMY2   Returns the sum of squares of differences of corresponding values in two arrays.

List of Math & Trig Functions

SUMXMY2(array_x,array_y)

Returns the sum of squares of differences of corresponding values in two arrays.

- **Array_x** is the first array or range of values.
- **Array_y** is the second array or range of values.

Example

SUMXMY2({2,3,9,1,8,7,5},{6,5,11,7,5,4,4}) = 79

See Also

Help

SUMPRODUCT	Returns the sum of the product of corresponding values in two array.
SUMX2MY2	Returns the sum of the difference of squares of corresponding values in two arrays.
SUMX2PY2	Returns the sum of the sum of squares of corresponding values in two arrays.

List of Math & Trig Functions

TDIST(x,degrees_freedom,tails)

Returns the Student's t-distribution.   The t-distribution is used in the hypothesis testing of small sample data sets.   Use this function in place of a table of critical values for the t-distribution.

- **X** is the numeric value at which to evaluate the distribution.
- **Degrees_freedom** is an integer indicating the number of degrees of freedom.
- **Tails** specifies the number of distribution tails to return.   If **tails** = 1, TDIST returns the one-tailed distribution.   If **tails** = 2, TDIST returns the two-tailed distribution.

Example

TDIST(1.96,60,2) = 0.054645

See Also

Help

TINV   Returns the inverse of the Student's t distribution.

TTEST   Returns the probability associated with a Student's t-Test.

List of Statistical Functions

TRIMMEAN(array,percent)

Returns the mean taken by excluding a percentage of data points from the top and bottom tails of a data set.   You can use this function when you wish to exclude outlying data from your analysis.

- **Array** is the array or range of values to trim and average.
- **Percent** is the fractional number of data points to exclude from the calculation. For example, if a data set has 20 points and **percent** = 0.2, 4 points are trimmed from the data set (20 x 0.2), two from the top and two from the bottom.

Example

TRIMMEAN({4,5,6,7,2,3,4,5,1,2,3},0.2) = 3.777778

See Also

Help

AVERAGE	Returns the arithmetic mean.
HARMEAN	Returns the harmonic mean.
GEOMEAN	Returns the geometric mean.
MEDIAN	Returns the middle value in a data set.
MODE	Returns the most common value in a data set.

List of Statistical Functions

TTEST(array1,array2,tails,type)

Returns the probability associated with a Student's t-Test. Use TTEST to determine whether two samples are likely to have come from the same two underlying populations that have the same mean.

- **Array1** is an array or range containing the first data set.
- **Array2** is an array or range containing the second data set.
- **Tails** specifies the number of distribution tails. If **tails** = 1, TTEST uses the one-tailed distribution. If **tails** = 2, TTEST uses the two-tailed distribution.
- **Type** is the kind of t test to perform.

If type equals	This test is performed
1	Paired
2	Two-sample equal variance (homoscedastic)
3	Two-sample unequal variance (heteroscedastic)

Example

TTEST({3,4,5,8,9,1,2,4,5},{6,19,3,2,14,4,5,17,1},2,1) = 0.191996

See Also

Help

TDIST   Returns the Student's t-distribution.

TINV   Returns the inverse of the Student's t-distribution.

List of Statistical Functions

WEIBULL(x,alpha,beta,cumulative)

Returns the Weibull distribution. Use this distribution in reliability analysis, such as calculating a device's mean time to failure.

- **X** is the value at which to evaluate the function.
- **Alpha** is a parameter to the distribution.
- **Beta** is a parameter to the distribution.
- **Cumulative** determines the form of the function. If **cumulative** is TRUE, WEIBULL returns the cumulative distribution function; if FALSE, it returns the probability density function.

Examples

WEIBULL(105,20,100,TRUE) = 0.929581

WEIBULL(105,20,100,FALSE) = 0.035589

See Also

Help

EXPONDIST   Returns the exponential distribution.

List of Statistical Functions

ZTEST(array,x,sigma)

Returns the two-tailed P-value of a z-test.   The z-test generates a standard score for **x** with respect to the data set, **array**, and returns the two-tailed probability for the normal distribution.   You can use this function to assess the likelihood that a particular observation is drawn from a particular population.

- **Array** is the array or range of data against which to test **x**.
- **X** is the value to test.
- **Sigma** is the population (known) standard deviation. If omitted, the sample standard deviation is used.

Example

ZTEST({3,6,7,8,6,5,4,2,1,9},4) = 0.090574

See Also

Help

CONFIDENCE   Returns a confidence interval for a population.
NORMDIST   Returns the normal cumulative distribution.
NORMINV   Returns the inverse of the normal cumulative distribution.
NORMSDIST   Returns the standard normal cumulative distribution.
NORMSINV   Returns the inverse of the standard normal cumulative distribution.
STANDARDIZE Returns a normalized value.

List of Statistical Functions

STANDARDIZE(x,mean,standard_dev)

Returns a normalized value from a distribution characterized by **mean** and **standard_dev**.

- **X** is the value you want to normalize.
- **Mean** is the arithmetic mean of the distribution.
- **Standard_dev** is the standard deviation of the distribution.

Example

STANDARDIZE(42,40,1.5) = 1.333333

See Also

Help

NORMDIST   Returns the normal cumulative distribution.
NORMINV   Returns the inverse of the normal cumulative distribution.
NORMSDIST   Returns the standard normal cumulative distribution.
NORMSINV   Returns the inverse of the standard normal cumulative distribution.
ZTEST   Returns the P-value of a z-test.

List of Statistical Functions

TINV(probability,degrees_freedom)

Returns the inverse of the Student's t-distribution for the specified degrees of freedom.

- **Probability** is the probability associated with the Student's t-distribution.
- **Degrees_freedom** is the number of degrees of freedom to characterize the distribution.

Example

TINV(0.054645,60) = 1.96

See Also

Help

TDIST   Returns the Student's t-distribution.

TTEST   Returns the probability associated with a Student's t-Test.

List of Statistical Functions

SUMSQ(number1,number2,...)

Returns the sum of the squares of the arguments.

- **Number1**, **number2,...** are 1 to 30 arguments for which you want the sum of the squares.   You can also use a single array or a reference to an array instead of arguments separated by commas.

Example

SUMSQ(3,4) = 25

See Also

Help

SUM   Returns the sum of its arguments.

SUMPRODUCT   Returns the sum of the products of corresponding array elements.

List of Math & Trig Functions

RANK(**number,ref,**order)

Returns the rank of a number in a list of numbers.   The rank of a number is its size relative to other values in a list.   (If you were to sort the list, the rank of the number would be its position.)

- **Number** is the number whose rank you want to find.
- **Ref** is an array of, or a reference to, a list of numbers. Non-numeric values in **ref** are ignored.
- **Order** is a number specifying how to rank **number**.   If **order** is 0 or omitted, **number** is ranked as if **ref** were a list sorted in descending order; if any non-zero value, **number** is ranked as if **ref** were a list sorted in ascending order.
- Duplicate numbers receive the same rank**.**

Examples

If A1:A5 contain the numbers 7, 3.5, 3.5, 1, and 2, respectively, then:

RANK(A2,A1:A5,1) = 3

RANK(A1,A1:A5,1) = 5

See Also

Help

List of Statistical Functions

CHAR(number)

Returns the ANSI character corresponding to the code **number**.

Number can be any number between 1 and 255.

Examples

CHAR(65) = "A"
CHAR(33) = "!"

See Also

Help

CODE   Returns the ANSI code for a character.

List of Text Functions

CLEAN(text)

Removes all nonprintable characters from **text**.

Examples

CHAR(7) = a nonprintable character, therefore:

CLEAN(CHAR(7)&"text"&CHAR(7)) = "text"

See Also

Help

CODE   Returns the ANSI code for a character.

TRIM   Removes spaces from text.

List of Text Functions

CODE(text)

Returns the numeric ANSI code of the first character in **text**.

Example

CODE("Alphabet") = 97

See Also

Help

CHAR   Returns character corresponding to an ANSI code.

List of Text Functions

DOLLAR(**number,**decimals)

Rounds **number** to **decimals**, formats it in currency format, and returns the result as text. The format used is $#,##0.00_);($#,##0.00).

The DOLLAR function converts its result to text.   A number formatted with the Number command on the Format menu is not converted to text; it remains a number.

- **Decimals** is the number of digits to the right of the decimal point.
- If negative, **number** is rounded to the left of the decimal point.
- If omitted, **number** is assumed to be 2.

Examples

DOLLAR(1234.567,2) = $1,234.57
DOLLAR(1234.567,-2) = $1,200
DOLLAR(-1234.567,-2) = ($1,200)
DOLLAR(-0.123,4) = ($0.1230)
DOLLAR(99.888) = $99.89

See Also

Help

FIXED   Formats a number as text with a fixed number of decimals.
TEXT   Formats a number and converts it to text.
VALUE   Converts a text argument into a number.

List of Text Functions

EXACT(text1,text2)

Returns the logical value TRUE if **text1** and **text2** are exactly the same; otherwise, returns FALSE.   EXACT is case-sensitive but ignores formatting differences.

Examples

EXACT("word","word") = TRUE
EXACT("Word","word") = FALSE
EXACT("w ord","word") = FALSE

See Also

Help

LEN   Returns the number of characters in a text string.

SEARCH   Finds one text value within another (not case sensitive).

List of Text Functions

FIND(find_text,within_text,start_at_num)

Finds **find_text** within **within_text**, starting the search at character specified by **start_at_num**.   Returns the number of the character at which **find_text** first occurs.

▪   If **find_text** does not appear within **within_text**, if **start_at_num** is not greater than zero, or if **start_at_num** is greater than the length of **within_text**, FIND returns the error value #VALUE!.

▪   If **find_text** is "", FIND matches the first character in the search string (the character numbered **start_at_num** or 1).

▪   **Find_text** cannot contain wildcards.

▪   **Within_text** is the text or reference to the cell containing the text you want to find.

▪   **Start_at_num** is optional.   If omitted, it is assumed to be 1.

Examples

    FIND("A","Average VanGun") = 1
    FIND("a","Average VanGun") = 5
    FIND("V","Average VanGun") = 9
    FIND("v","Average VanGun") = 2

See Also

Help

EXACT   Checks two text values to see if they are identical.
LEN   Returns the number of characters in a text string.
SEARCH   Finds one text value within another (not case sensitive).

List of Text Functions

LEFT(text,num_chars)

Returns text consisting of the first **num_chars** characters in **text**.

- The first character in **text** has position 1.
- Letters, spaces, punctuation marks, and numbers are counted as characters.
- **Text** must be text enclosed in quotation marks or a reference to a cell containing text.
- **Num_chars** must be greater than zero.
- If **num_chars** is greater than length of text, returns entire text.
- If **num_chars** is omitted, it is assumed to be 1.

Examples

LEFT("two three four",3) = "two"

LEFT("abalone") = "a"

If cell C12 contains the text "Paul Irving", then LEFT(C12,4) = "Paul"

See Also

Help

MID   Returns a specific number of characters from a text string starting at the position you specify.

RIGHT   Returns the rightmost characters from a text value.

List of Text Functions

LEN(text)

Returns the number of characters in **text**.   Letters, spaces, punctuation marks, and numbers are counted as characters.

Examples

LEN("fox") = 3
LEN("Phoenix, AZ") = 11
LEN("") = 0
If cell A3 contains the text "Michigan":
LEN(A3) = 8

See Also

Help

EXACT   Checks to see if two text values are identical.
SEARCH   Finds one text value within another (not case sensitive).

List of Text Functions

LOWER(text)

Returns **text** in lowercase letters.   Characters in **text** that are not letters are unchanged.

Examples

LOWER("E.E. Cummings") = "e.e. cummings"
LOWER("Apt. 2B") = "apt. 2b"

See Also

Help

PROPER   Returns text with the first letter in each word capitalized.
UPPER   Returns text in capital letters.

List of Text Functions

MID(text,start_num,num_chars)

Returns text string from within **text**, starting with the character at **start_num** and having a length of **num_chars**.

- The first character in **text** has position 1, and so on.
- Letters, spaces, punctuation marks, and numbers are characters.
- If **start_num** is less than 1, returns #VALUE!.
- If **start_num** is greater than the length of text, returns "" (the empty text).
- If **num_chars** is negative, returns #VALUE!.
- If **num_chars** plus start_num exceeds the length of text, returns characters from **start_num** to the end of **text.**

Examples

MID("Hello there",1,5) = "Hello"
MID("Hello there",7,20) = "there"
MID("cat",4,4) = "" (empty text)

See Also

Help

<u>LEFT</u>	Returns the leftmost characters from a text value.
<u>RIGHT</u>	Returns the rightmost characters from a text value.
<u>TRIM</u>	Removes excess spaces from text.

List of <u>Text Functions</u>

PROPER(text)

Capitalizes the first letter of each word in **text** and any other letters in **text** that follow any character other than a letter.   Converts all other letters to lowercase.   Characters in **text** that are not letters are unchanged.

Examples

PROPER("this is a TITLE") ="This Is A Title"
PROPER("2-cent's worth") ="2-Cent'S Worth"
PROPER("76tromBones") ="76Trombones"

See Also

Help

LOWER   Converts uppercase text to lowercase.
UPPER   Converts lowercase text to uppercase.

List of Text Functions

REPLACE(old_text,start_num,num_chars,new_text)

Removes **num_chars** characters from **old_text** starting at **start_num**, and then replaces them with **new_text**.

- First character in the text is numbered 1.

Examples

REPLACE("abcde",1,1,"*") ="*bcde"

REPLACE("abcde",3,2,"*") ="ab*e"

REPLACE("1991",3,2,"92") = "1992"

See Also

Help

MID	Returns a specific number of characters from a text string starting at the position you specify.
SEARCH	Finds one text value within another (not case sensitive).
SUBSTITUTE	Substitutes new text for old text in a text string.
TRIM	Removes spaces from text.

List of Text Functions

REPT(text,number_times)

Repeats **text** a specified **number_times** to make a new text value.   The result cannot be longer than 255 characters.

- **Number_times** must be greater than or equal to 0.
- If 0, REPT returns "" (empty text).
- If **number_times** is not an integer, it is truncated.

Examples

REPT("*-",3) ="*-*-*-"

REPT("Louie ",2.9) ="Louie Louie "

See Also

Help

List of <u>Text Functions</u>

RIGHT(text,num_chars)

Returns the last **num_chars** characters in **text**.

- **Num_chars** must be greater than zero.
- If **num_chars** is greater than the length of **text**, returns entire **text**.
- If **num_chars** is omitted, it is assumed to be 1.

Examples

RIGHT("Paul Irving",6) ="Irving"

RIGHT("Hedgehog?") ="?"

See Also

Help

LEFT   Returns the leftmost characters from a text value.

MID   Returns a specific number of characters from a text string starting at the position you specify.

List of Text Functions

SEARCH(find_text,within_text,start_num)

Searches for **find_text** within **within_text**. Ignores case distinctions. Starts search at character specified by **start_num**. First character in **within_text** is character number 1. SEARCH returns the number of the character at which **find_text** first occurs.

- Returns the error value #VALUE! if:

  find_text does not appear within **within_text,**

  start_num is not greater than zero, or

  start_num is greater than the length of **within_text.**

- If you omit **start_num**, it is assumed to be 1.
- If **find_text** is "", it will match the first character that is searched (character numbered **start_num**).
- **Find_text** may contain the following wildcard characters:

  ? Indicates that any single character can occupy that position.

  * Indicates that any sequence of characters can occupy that position.

Examples

SEARCH("e","Beautiful Noise") = 2

SEARCH("e","Beautiful Noise",2) = 2

SEARCH("","Beautiful Noise",7) = 7

SEARCH("u*i","Beautiful Noise",1) = 4

SEARCH("u*i","Beautiful Noise",5) = 8

See Also

Help

EXACT   Checks to see if two text values are identical.

FIND   Finds one text value within another (case-sensitive).

LEN   Returns the number of characters in a text string.

List of Text Functions

SUBSTITUTE(text,old_text,new_text,instance_num)

Substitutes **new_text** for **old_text** in **text**.   If you specify **instance_num**, only that instance of **old_text** is replaced.   Otherwise, every **old_text** in **text** is changed to **new_text**.

Examples

   SUBSTITUTE("waffles","f","d") = "waddles"

   SUBSTITUTE("Ann And Nick","An","Da",1) = "Dan And Nick"

   SUBSTITUTE("Ann And Nick","An","Da",2) = "Ann Dad Nick"

   SUBSTITUTE("Ann And Nick","An","Da") = "Dan Dad Nick"

   SUBSTITUTE("hi de hi","hi","Ho",2) = "hi de Ho"

See Also

   Help

   REPLACE   Removes and replaces specified characters within text.

   TRIM   Removes spaces from text.

   List of Text Functions

TEXT(value,format_text)

Formats **value** as specified by **format_text**; returns result as text.

Format_text must be formatted as text, as described in Chapter 7 in Book 2 of the Microsoft Excel User's Guide, however, **format_text** cannot contain an asterisk (*) and the format cannot be "General".

Examples

TEXT(2.715, "$0.00") = "$2.72"
TEXT("4/15/1991","mmmm d, yyyy") = "April 15, 1991"

See Also

Help

DOLLAR   Converts a number to text, using currency format.
FIXED   Formats a number as text with a fixed number of decimals.
T   Converts its arguments to text.
VALUE   Converts a text argument to a number.

List of Text Functions

TRIM(text)

Removes all spaces from text, except for one space between words.

Examples

    TRIM("   the   final   frontier...   ") = "the final frontier..."
    TRIM("   4 score and 7 years ago ,") = "4 score and 7 years ago,"

See Also

Help

CLEAN   Removes all nonprintable characters from text.

REPLACE   Replaces characters within text.

SUBSTITUTE   Substitutes new text for old text in a text string.

List of Text Functions

UPPER(text)

Returns **text** in uppercase letters.   Characters in **text** that are not letters are unchanged.

Examples

UPPER("How are you?") = "HOW ARE YOU?"
UPPER("45 cats") = "45 CATS"

See Also

Help

LOWER   Returns text in lowercase letters.
PROPER   Returns text with the first letter of each word capitalized.

List of Text Functions

VALUE(text)

Converts **text** to a number.

Text can be in any of the constant number, date, or time formats recognized by Microsoft Excel.   If it is not in one of those formats, VALUE returns the error value #VALUE!.

It is not necessary to use the VALUE function in a formula; Microsoft Excel automatically converts text to numbers as necessary.   This function is provided for compatibility with other worksheet programs.

Examples

VALUE("$1,000") = 1000
VALUE("16:48:00")-VALUE("12:00:00") = 0.2 (the serial number equivalent to 4 hours and 48 minutes)

See Also

Help

DOLLAR   Converts a number to text, using currency format.
FIXED   Formats a number as text with a fixed number of decimals.
TEXT   Formats a number and converts it to text.

List of Text Functions

FIXED(**number,**decimals,no_commas**)**

Rounds **number** to **decimals** in decimal format using a period and commas, and returns the result as text.

FIXED converts its result to text.   A number formatted with the Number command on the Format menu, however, is not converted to text but remains a number.

- **Number** is the number you want to round and convert to text.
- **Decimals** is the number of digits to the right of the decimal point.
- **No_commas** is a logical value that, if TRUE, prevents **fixed** from including commas in the returned text.   If **no_commas** is FALSE or omitted, then the returned text includes commas as usual.
- If **decimals** is negative, **number** is rounded to the left of the decimal point.
- If **decimals** is omitted, it is assumed to be 2.
- **Decimals** can be as large as 127, but numbers in Microsoft Excel never have more than 15 significant digits.

Examples

FIXED(1234.567,1) = "1,234.6"

FIXED(1234.567,-1) = "1,230"

FIXED(-1234.567,-1) = "-1,230"

FIXED(44.332) = "44.33"

See Also

Help

DOLLAR   Converts a number to text, using currency format.

ROUND   Rounds a number to a specified number of digits.

TEXT   Formats a number and converts it to text.

VALUE   Converts a text argument to a number.

List of Text Functions

ACOS(number)

Returns the arccosine of **number** in radians from 0 to pi.   The arccosine is the angle whose cosine is **number**.

- **Number** must be in the range -1 to 1.
- To express the arccosine in degrees, multiply the result by 180/PI().

Examples

ACOS(-0.5) = 2.094 ((2*pi) /3 radians)

ACOS(-0.5)*180/PI() = 120 degrees

See Also

Help

COS   Returns the cosine of a number.

PI   Returns the value pi.

List of Math & Trig Functions

ACOSH(number)

Returns the inverse hyperbolic cosine of **number**.   **Number** must be greater than or equal to 1.

Examples

ACOSH(3) = 1.762747
ACOSH(3.25) = 1.847246

See Also

Help

ACOS   Returns the arccosine of a number.
COS   Returns the cosine of a number.
COSH   Returns the hyperbolic cosine of a number.

List of Math & Trig Functions

ASIN(number)

Returns the arcsine of number in radians from -pi/2 to pi/2.   The arcsine is the angle whose sine is **number**.

- **Number** must be in the range -1 to 1.
- To express the arcsine in degrees, multiply the result by 180/PI().

Examples

ASIN(-0.5) = -0.52 (-pi/6 radians)

ASIN(-0.5)*180/PI() = -30 degrees

See Also

Help

PI   Returns the value pi.

SIN   Returns the sine of a number.

List of Math & Trig Functions

ASINH(number)

Returns the inverse hyperbolic sine of **number**.

Examples

    ASINH(-2.5) = -1.64723
    ASINH(10) = 2.998223

See Also

Help

ACOSH   Returns the inverse hyperbolic cosine of a number.

ATANH   Returns the inverse hyperbolic tangent of a number.

SINH   Returns the hyperbolic sine of a number.

List of Math & Trig Functions

ATAN(number)

Returns the arctangent of **number** in radians from -pi/2 to pi/2.

- The arctangent is the angle whose tangent is **number**.
- To express the arctangent in degrees, multiply the result by 180/PI().

Examples

ATAN(1) = 0.785 (pi/4 radians)

ATAN(1)*180/PI() = 45 degrees

See Also

Help

ATAN2   Returns the arctangent from x and y coordinates.

PI   Returns the value pi.

TAN   Returns the tangent of a number.

List of Math & Trig Functions

ATAN2(x_num,y_num)

Returns the arctangent of the x and y coordinates represented by **x_num** and **y_num**.   The angle is given in radians from -pi to pi, excluding -pi.

- ▪   The arctangent is the angle from the x-axis to the coordinates **x_num**, **y_num**.
- ▪   A positive result represents a counterclockwise angle from the x-axis; a negative result represents a clockwise angle.
- ▪   To express the result in degrees, multiply it by 180/PI().
- ▪   If both **x_num** and **y_num** are 0, returns the error value #DIV/0!

Examples

ATAN2(1,1) = 0.785398 (pi /4 radians)

ATAN2(-1,-1) = -2.35619 (-3*pi/4 radians)

ATAN2(-1,-1)*180/PI() = -135 (degrees)

See Also

Help

ATAN	Returns the arctangent of a number.
ATANH	Returns the inverse hyperbolic tangent of a number.
PI	Returns the value pi.
TAN	Returns the tangent of a number.

List of Math & Trig Functions

ATANH(number)

Returns the inverse hyperbolic tangent of **number**.   **Number** must be greater than -1 and less than 1.

Examples

ATANH(0.25) = 0.255413
ATANH(0.50) = 0.549306

See Also

Help

ATAN   Returns the arctangent of a number.
ATAN2   Returns the arctangent from x and y coordinates.
TAN   Returns the tangent of a number.
TANH   Returns the hyperbolic tangent of a number.

List of Math & Trig Functions

COS(number)

Returns the cosine of the given angle.   **Number** is the angle in radians for which you want the cosine.

If argument is in degrees, multiply the argument by PI()/180 to convert to radians.

Examples

COS(PI()/2) = 0
COS(1.047) = 0.5
COS(60*PI()/180) = 0.5

See Also

Help

ACOS   Returns the arccosine of a number.
PI   Returns the value pi.

List of Math & Trig Functions

COSH(number)

Returns the hyperbolic cosine of **number**.

Example

  COSH(4) = 27.30823

See Also

  Help

  ACOSH   Returns the inverse hyperbolic cosine of a number.
  SINH   Returns the hyperbolic sine of a number.
  TANH   Returns the hyperbolic tangent of a number.

  List of Math & Trig Functions

SIN(number)

Returns the sine of **number**, where **number** is the angle given in radians.

If argument is in degrees instead of radians, multiply **number** by PI()/180.

Examples

SIN(PI()/2) = 1

SIN(30*PI() /180) = 0.5

See Also

Help

ASIN   Returns the arcsine of a number.

PI   Returns the value pi.

List of Math & Trig Functions

SINH(number)

Returns the hyperbolic sine of **number**.

Examples

SINH(3) = 10.01787
SINH(3.25) = 12.87578

See Also

Help

ASIN   Returns the arcsine of a number.
ASINH   Returns the inverse hyperbolic sine of a number.
SIN   Returns the sine of a number.

List of Math & Trig Functions

TAN(number)

Returns the tangent of a given angle.   **Number** is the angle in radians for which you want the tangent.

If argument is in degrees instead of radians, multiply the argument by PI()/180.

Examples

TAN(0.785) = 0.99204

TAN(45*PI()/180) = 1

See Also

Help

ATAN   Returns the arctangent of a number.

ATAN2   Returns the arctangent, given the x- and y-coordinates.

PI   Returns the value pi.

List of Math & Trig Functions

TANH(number)

Returns the hyperbolic tangent of number.

Examples

TANH(-2) = -0.96403
TANH(0) = 0
TANH(0.5) = 0.462117

See Also

Help

ATANH   Returns the inverse hyperbolic tangent of a number.
COSH   Returns the hyperbolic cosine of a number.
SINH   Returns the hyperbolic sine of a number.

List of Math & Trig Functions

Printing Dialog Box

You used the Print command on the File menu to print a document.   This dialog box indicates that the printing process has begun.

If you want to cancel printing, choose the Cancel button.

Change Links Dialog Box

Allows you to redirect links to the dependent worksheet.

File Name

Lists the files of the specified type in the current directory.

Select or type the name of the file you want.

Directories

Lists the available directories.

To change directories, double-click one of the directories on the list, or select a directory from the list and choose the OK button.

List Files Of Type

Lists the available file formats.

Drives

Lists the available drives.

To change drives, double-click one of the drives on the list, or select a drive from the list and choose the OK button.

See Also

Help

Links Command (File Menu)

Creating links between documents

Linking and Embedding

Recalculating linked worksheets

Redirecting links for source documents

DDE Dialog Box

More than one application has responded to your DDE request.

Select the application from which you want to receive data, and then choose the OK button.

Document Password Dialog Box

You are trying to do one of the following things:

- Open a document that was protected with a password.
- Remove protection from a document that was protected with a password.
- Hide a window that was protected with a password.
- Display a hidden window that was protected with a password.

To continue, type the correct password in this dialog box.

See Also

Help

Protecting a document

Protecting windows

Promote or Demote Dialog Box

You are trying to do one of the following things:

- Promote selected rows or columns to a higher level in an outline.
- Demote selected rows or columns to a lower level in an outline.

You can create an outline manually by demoting rows or columns.

Rows

Promotes or demotes rows to outline information horizontally.

Columns

Promotes or demotes columns to outline information vertically.

Macro Input Dialog Box

You are running a macro that contains the INPUT function.   Use this dialog box to enter a single value, an array, or a formula into the macro.

- Enter the type of data requested by the dialog box prompt.
- You can move the dialog box by dragging its title bar.
- Depending on how the macro was written, one or more of the following data types may be accepted:

    Formula

    Number

    Text

    Logical value

    Reference

    Array

    Error value

Macro Interrupt/Error Dialog Box

You have interrupted a macro while it was running, or an error has occurred in the macro. This dialog box allows you to step through the macro one function at a time, stop the macro, or continue running the macro.

Halt

   Stops the macro.

Step

   Starts the single-stepping process.

Continue

   Carries out the rest of the macro as if the error or interruption had not occurred.

Goto

   Goes to the cell where the error or interruption occurred.

See Also

   Help

   Cannot add another menu bar.   Macro error at cell: [reference]

   Cannot delete built-in or active menu bars.   Macro error at cell: [reference]

   Cannot enable built-in commands.   Macro error at cell: [reference]

   Command not available at cell [reference]

   Command or menu does not exist.   Macro error at cell: [reference]

   Illegal reference argument at: [reference]

   Missing an END.IF function.   Macro error at cell: [reference]

   Missing IF.   Macro error at cell: [reference]

   Missing loop.   Macro error at cell: [reference]

   Missing NEXT for loop.   Macro error at cell: [reference]

   Names cannot look like references.   Macro error at cell: [reference]

Custom Dialog Box

This is a custom dialog box.   A Help topic can be written to go with it, but none has been provided for this dialog box.   Please contact the provider of this Microsoft Excel custom application.

Custom Menu

This is a custom menu.   A Help topic can be written to go with it, but none has been provided for this menu.   Please contact the provider of this Microsoft Excel custom application.

New Chart Dialog Box

Appears when you are creating a new chart and:

- The selection contains more than one row or column of values.
- The selection does not contain text or dates as category labels.
- The preferred chart type is not xy (scatter).

First Data Series

Creates a preferred chart using the data in the first row or column as the first data series. The categories are numbered consecutively (1, 2, 3, and so on).

Category (X) Axis Labels

Creates a preferred chart using the data in the first row or column as labels for the categories rather than as a data series.

X-Values for XY Chart

Creates an xy (scatter) chart using the data in the first row or column as the x-coordinate for each point in the chart.

The preferred chart type is the first option in the Column gallery unless you changed it using the <u>Set Preferred</u> command on the Gallery menu.

Custom Alert Message

This is a custom alert message.   A Help topic can be written to go with it, but none has been provided for this alert message.   Please contact the provider of this Microsoft Excel custom application.

File Not Found Dialog Box

Allows you to find the file you want to link to the dependent worksheet.

File Name

Lists the files of the specified type in the current directory.

Select or type the name of the file you want.

Directories

Lists the available directories.

To change directories, double-click one of the directories in the list, or select a directory from the list and choose the OK button.

List Files Of Type

Lists the available file formats.

Drives

Lists the available drives.

To change drives, double-click one of the drives in the list, or select a drive from the list and choose the OK button.

See Also

Help

About Linking and Embedding

Creating links between documents

Workbook Contents Window

When you open a <u>workbook</u>, the documents in the workbook are listed in the Workbook Contents window.   From this window, you can add documents to or remove documents from your workbook, give a document a descriptive name, and specify whether you want the documents saved as part of the workbook or as separate files.

Document Icons

Documents that are part of the workbook are listed in the Workbook Contents window. The document name and a document icon (for worksheet, chart, or macro sheet) are listed on the left.   You can double-click the document name or icon to display that document.

The icon on the right side of the window indicates whether the workbook document is <u>bound</u> or <u>unbound</u>.   You can click this icon to change the document status from bound to unbound.

Add

Allows you to add, open, or create new documents in a workbook.

Shortcut: ALT+SHIFT+A

Options

Allows you to give a bound document an extended name or to bind or unbind a document to the workbook.

Shortcut: ALT+SHIFT+O

Remove

Removes the selected document from the workbook.

Shortcut: ALT+SHIFT+R

Paging Buttons

You can use the three buttons in the lower-right corner of the window to page through a workbook.   Clicking the left button displays the Workbook Contents window.   Clicking the middle button pages to the previous document in the workbook.   Clicking the right button pages to the next document in the workbook.

Clicking any of these buttons with the right mouse button displays a <u>shortcut menu</u> listing all workbook documents and the <u>Group Edit</u> and <u>New</u> commands.

See Also

Help

<u>Adding or removing a document from a workbook</u>

<u>Binding and unbinding workbook documents</u>

<u>Creating a workbook</u>

<u>Editing a group of worksheets in a workbook</u>

<u>Giving a bound workbook document an extended name</u>

<u>Group Edit Command (Options Menu)</u>

<u>Moving between workbook documents</u>

<u>Reordering documents in a workbook</u>

<u>Workbooks</u>

User's Guide (Book 1)

Chapter 4, "Managing Document Files"

Workbook Options Dialog Box

From this dialog box, you can give a document an extended name and specify whether you want the documents saved as part of the workbook or as separate files.

Document Name

Type a document name up to 31 characters long.   This name can include any combination of characters, including spaces.

Store Document In

Workbook File

Select this option button when you want a document <u>bound</u> to the workbook.   Bound documents can only be included in one workbook.

Separate File

Select this option button to include a document in a workbook, but have it saved as a separate file.   <u>Unbound</u> documents can be included in several workbooks.

See Also

Help

<u>Binding and unbinding workbook documents</u>

<u>Giving a bound workbook document an extended name</u>

<u>Workbooks</u>

Add to Workbook Dialog Box

From this dialog box, you can add open documents to a workbook.

Select Documents To Add

Lists all open documents that are not already part of the active workbook.

OK

Choosing the OK button adds the selected documents to the active workbook and closes the dialog box.

Close

Closes the dialog box.

Add

Adds any selected documents from the Select Documents To Add list to the active workbook.

New

Displays the <u>New dialog box</u> so that you can create a new worksheet, chart, or macro sheet.

Open

Displays the <u>File Open dialog box</u> so that you can open an existing document to add to your workbook.

See Also

Help

<u>Adding or removing a document from a workbook</u>

Confirm Password Dialog Box

Asks you to confirm the spelling of the password you just entered.   Type the password again and choose the OK button.   If the password you type does not match the first entry exactly, Microsoft Excel asks you to type the password again.   Choose the Cancel button to return to the dialog box.

Name Conflict Dialog Box

While changing from R1C1 to A1 reference style, Microsoft Excel encountered a name that looks like a reference.   Although names can resemble references when you're using the R1C1 reference style, they cannot do so when you're using the A1 reference style.

You must either cancel the command or type a valid name in place of the invalid one.

OK

Accepts the new name you type in the New Name box, if it's valid.   All formulas using the old name are changed to include the new name.

Cancel

Cancels both the dialog box and the command.

Bound File Dialog Box

You can only establish links between bound documents.   Choose the bound document you want to link to, or cancel the command.

Bound Save As Dialog Box

Type a name for the new version of the document and choose the OK button.

Messages

[Copy or cut] and paste areas are different shapes.

[Document] contains incomplete calculation.   Continue reporting each error?

[Document] contains incomplete calculation.

[Document] is being modified by [user].   Open as Read-Only?

[Document] is currently in use.   Open as Read-Only?

[Document] is Read-Only.

[Document] should be opened as Read-Only unless changes to it need to be saved. Open as Read-Only?

[Entry] is too long.

[External Copy or SYLK]: file format is not valid.

[Filename] was created in a previous version of Microsoft Excel.   Do you want to update it to Microsoft Excel 4.0 format?

[Incorrect number of] arguments.

[Name] is not a valid name.

[Name] on [document] is not defined or is too complex.

[Range] is not defined.

A document with that name is a supporting document. Charts cannot be supporting documents.

A document with that name is a supporting document. Workbook table of contents cannot be supporting documents.

A document with the name [name] is already open.

A group must contain two or more sheets.

A high-low-close stock chart must contain three series.

A surface chart must contain at least two series.

A volume-high-low-close stock chart must contain four series.

A volume-open-high-low-close stock chart must contain five series.

An open-high-low-close stock chart must contain four series.

AutoFormat could not detect a table around the active cell.

Bound filename is invalid.

Calculation is incomplete. Recalculate before saving?

Can't find that sheet in workbook file.

Cannot access [document].

Cannot access [document].

Cannot access directory.

Cannot access file.

Cannot access read-only document.

Cannot add another menu bar.

Cannot add any more custom formats.

Cannot add duplicate source reference.

Cannot bind a document with the same name as another bound document.

Cannot change linked data--[message].

Cannot change part of a table.

Cannot change part of an array.

Cannot change this cell while a macro is paused.

Cannot change to that name.

Cannot convert 3-D reference: [reference].

Cannot copy a document when the copy's name would result in a document name conflict.

Cannot create an outline.

Cannot create backup file.

Cannot create data form for a database in which all columns are hidden.

Cannot create Global Macro Sheet.

Cannot create links to consolidation sheet.

Cannot delete [document].

Cannot delete built-in format.

Cannot delete built-in or active menu bars.

Cannot demo with custom menus.

Cannot do that command on a multiple selection.

Cannot empty the Clipboard.

Cannot enable built-in commands.

Cannot end macro in a menu.

Cannot enter a formula in a Data Form.

Cannot enter an array formula into a range of cells which are not all locked or all unlocked.

Cannot enter an external reference to a chart.

Cannot enter an external reference to a workbook.

Cannot execute [program].   The program or one of its components is damaged or missing.

Cannot extend database.

Cannot extract to an open file.

Cannot find [document].

Cannot find [linked document].

Cannot find [macro] which has been assigned to run each time [document] is opened.   Continuing could lead to erroneous results.   Cancel Open?

Cannot find [macro] which has been assigned to run each time [document] is closed.   Continuing could lead to erroneous results.   Cancel Close?

Cannot find [name].

Cannot find data source.

Cannot find macro [name].

Cannot import from an open file.

Cannot include this type of document in a workbook.

Cannot insert object.

Cannot justify cells containing numbers or formulas.

Cannot link to a chart.

Cannot load the send mail service.

Cannot open a copy since the template [document] is already open.Cannot open a dependent document that contains references to different sheets with the same name.

Cannot open consolidation source file [filename].

Cannot open FM? files directly. Open the corresponding WK? file.

Cannot open Macintosh Excel 1.X chart.

Cannot open normal Macintosh Excel document.
Cannot open normal Multiplan document.
Cannot open or save any more documents.
Cannot open printer driver.
Cannot open protected file.
Cannot open the Clipboard.
Cannot open waveform input device.
Cannot open waveform output device.
Cannot paste a table onto a macro sheet.
Cannot paste data.
Cannot paste that macro formula onto a worksheet.
Cannot post instructions because a worksheet is not active.
Cannot post instructions because worksheet is protected.
Cannot post instructions because worksheet objects are currently hidden or protected.
Cannot print chart in draft quality.
Cannot print chart with the current scale and paper size; select a larger scale percentage or a smaller paper size.
Cannot promote. To start an outline, select the detail rows or columns and demote them.
Cannot quit Microsoft Excel.
Cannot read record [reference].   Continue reporting each error?
Cannot read this binary file. If the file was created in a version of Microsoft Excel greater than 4.0, use that version to save it as an Excel 4.0 file. Open file as text?
Cannot rename a document to the same name as another document.
Cannot resolve circular references.
Cannot revert to a saved WK3 file.   Close the file and then open it.
Cannot run tutorial. There may be another instance of tutorial active.
Cannot save [filename] because the volume is locked.
Cannot save a document that belongs to a workbook in that format.
Cannot save Global Macro Sheet in the startup directory. You may save it elsewhere now and move to the startup directory later.
Cannot save to an open document.
Cannot save to that name. Document was opened as Read-Only.
Cannot save to that name.
Cannot save workbook with macro sheets as a WK3 file.
Cannot save workbook with no worksheet as a WK3 file.
Cannot save workbook with unbound sheets as a WK3 file.
Cannot shift nonblank cells off sheet.
Cannot shift objects off sheet.
Cannot show outline symbols.
Cannot split when the document has more than one window.
Cannot split when windows are locked.
Cannot unbind a document that would result in an invalid file name.
Cannot unbind a document with the same name as another open document.
Cannot use a workbook reference to documents not in a workbook.
Cannot use name that is a reference to nonadjacent cells.

Cannot use that command on a protected document.
Cannot use that command while in Data Entry mode.
Cannot use this command with a workbook or WK3 file open.
Cannot write record [reference].   Continue reporting each error?
Category range contains nonnumeric data.
Cell in supporting worksheet contains nonnumeric data.
Cell in supporting worksheet is locked.
Cell must contain a formula.
Cell must contain a value.
Cell with block IF function should not contain anything else.
Cell with looping function should not contain anything else.
Change DDE link failed.
Chart is protected and cannot be changed.
Column width must be between 0 and 255.
Command not available at cell:
Command or menu does not exist.
Confirmation password is not identical.
Consolidate_Area reference is not valid.
Consolidation Reference is not valid.
Continue checking at beginning of sheet?
Could not create [dictionary name].
Could not find main dictionary.
Could not find matching data to delete.
Could not find matching data to replace.
Could not find matching data.
Could not initialize spell checker.
Could not open [dictionary name].
Could not read [dictionary name].
Could not share [dictionary name].
Could not write [dictionary name].
Create Graphs?
Create Works graphs?
Criteria range is not defined.
Criteria range is not valid.
Current printer is either missing or bad.
Custom dictionary [name] does not exist.   Create?
Custom dictionary is full.
Data may be lost saving to an old file format.
Data on the Clipboard is not the same size and shape as the selected area.
Data point corresponds to a formula on a hidden worksheet.
Data point corresponds to a formula on a macro sheet.
Data type is not valid.
Data will permanently lose accuracy.
Data_Form is not correct.
Database is hidden.

Database is not defined.
Database range is not defined.
Database range is not valid.
Delete file [filename]?
Delete the [name] toolbar?
Destination Reference is not valid.
Dialog box contains too many items.
Dictionary is too large.
Did not encounter RETURN() or HALT() on macro sheet.
Directory does not exist.
Disk is full.
Displayed record will be deleted permanently.
Document already open.
Document in more than one workbook.
Document is already protected.
Document is not completely saved.
Document not saved. Any previously saved copy has been deleted.
Document not saved.
Error in dialog box at [cell].   [Message]
Error in formula.
Error in Formula: Missing operand.
Error in parse line.
Error printing on [printer].
EXCELCBT directory not found.
EXCELCBT.CBT not found. Cannot run tutorial.
EXCELCBT.LIB not found. Cannot run tutorial.
Existing categories will be permanently deleted.
Existing remote links will be terminated.
External Reference is not valid.
Extract range is full.
Extract range is not defined.
Extract range is not valid.
File error: data may have been lost.
File error: some number formats may have been lost.
File format is not valid.
File is not a valid wave file.
File may contain nondisplayable text and formats from the Far East.
Filename is not valid.
Finished spell checking [document].
First document in the workbook must be a worksheet.
Fixed objects will move.
Font name is too long.
Font size must be between 1 and 409 points.
Formula in cell must result in a number.
Formula is not valid.

Formula is too complex to be assigned to object.
Formula is too long.
Formula must refer to a single cell or result in a text string.
Function is not valid.
Global Macro Sheet in the startup directory must stay open for recording.
Help for Lotus 1-2-3 Users is not available in workgroup mode.
Help reference is not valid.
Illegal reference argument at:
Incompatible version of spell checker.
Incorrect password.
Input and output ranges overlap.
Input cell reference is not valid.
Insert new page into printer.
Integer is not valid.
Invalid [dictionary name].
Invalid document for consolidation.
Invalid register id, or function not registered yet.
Lesson file(s) not found. Cannot run tutorial.
Linked or combination list box requires a preceding edit item.
Locked cells cannot be changed.
Lotus 1-2-3 Help demonstrations cannot be recorded.
Macro error at cell:
Macro error at cell:
Macro interrupted at cell:
Macro interrupted at cell:
Macro with name [name] already exists.   Overwrite?
Margins do not fit page size.
Matching records will be deleted permanently.
Matrices are incompatible for multiplication.
Matrix must be square.
Maximum axis value must be greater than minimum axis value.
Maximum number of data points in a data series is 4000.
Maximum number of data series per chart is 255.
Merge styles that have the same names?
Minor unit must be less than major unit.
Missing an END.IF function.
Missing IF.
Missing loop.
Missing NEXT for loop.
Modify existing outline?
Multiple selection usage is not valid.
Name already exists on destination sheet.
Name cannot be the same as built in name.
Name cannot resemble a reference.
Name conflict.

Name in formula is unclear.

Name is not defined.

Names cannot look like references.

Names in complex reference are not allowed.

Need to specify sheet to copy from workbook file.

Negative or zero values cannot be plotted correctly on log charts.

No cells found.

No data was consolidated.

No link to paste.

No match in current cell.

No match.

No objects found.

No point number is specified.

No references found.

No series number is specified.

No source references specified for consolidation.

Not a workbook file.

Not enough data for Graph demonstration.

Not enough memory. Continue without Undo?

Not enough system resources to display completely.

Note will be permanently deleted.

Number format is not valid.

Number Format is too long.

Number is not valid.

Number must be between [number] and [number].

Number must be greater than or equal to zero.

Operation failed. [Document] is reserved by [user].

Operation failed. [Document] is write reserved.

Option button group without option buttons.

Option buttons must belong to an option button group.

Output range extends beyond edge of worksheet.

Overwrite nonblank cells in destination?

Parentheses do not match.

Password contains accented characters or certain punctuation marks which will not transfer correctly to Microsoft Excel for the Macintosh or Microsoft Excel for OS/2.

Re-establish remote links?

Recorder is not defined.

Recorder is not valid.

Recorder range is full.

Recording failed.

Redefine [stylename] based on selected cells?

Reference cannot be to a closed sheet.

Reference is not valid.   Cannot enter a multiple cell reference for the Series Title.

Reference is not valid.   Reference for Categories and Values must be a row or column.

Reference is not valid.   Reference must be a simple external reference to a worksheet.

Reference is not valid.   Reference must be to an open worksheet.
Reference is not valid.
Reference is too complex.
Reference must be on the active sheet.
Reference must be to a macro sheet.
Reference must be to a single cell on the active sheet.
Reference must be to a single cell.
References in series formulas must be external references to worksheets.
Remote data not accessible. Start application [name]?
Remote data not accessible.
Remote links to document exist. Close anyway?
Replace existing [document]?
Replace existing definition of [name]?
Revert to saved [document]?
Revert to saved secondary sheets?
Row height must be between 0 and 409.
Save [document] with references to unsaved documents?
Save [workbook] and all bound sheets?
Save changes in [document]?
Save changes to current series?
Save changes to Global Macro Sheet?
Save large Clipboard from [filename]?
Select cells in one column only.
Select entire row and/or columns before choosing Options Set Print Titles.
Selection is not valid.
Selection too large. Continue without Undo?
Selection too large.
Series definition must include a [Y or Z] reference.
Series formula is too long.
Series must contain at least one value.
Series order must be an integer between 0 and 255.
Sheet is protected with password and formulas are displayed.
Sheet is protected with password.
Shortcut key must be a letter.
Some custom formats will not fit on the destination sheet.
Sort key is not valid.
Source reference overlaps destination area.
Stack overflow.   Note conditions and report to your DLL provider.
Stationery document is not saved in Normal Excel format.
Style [name] not found.
Style name is not valid.
Supporting worksheet is closed.
Text extends beyond worksheet.
Text in your macro may need to be translated by hand.
Text is too long.

Text will extend below range.

That gallery option does not exist.

That name already exists.

That name is not valid.

The [selected text] is spelled correctly.

The current selection already contains only visible cells.

The date and time separators specified by the system are identical.

The header or footer cannot be longer than 255 characters.   Please delete some text, or make the formatting less complex.

The list and decimal separators specified by the system are identical.

There are no printers installed.   Please use the Printers Control Panel to install a printer.

There is nothing to print in the specified pages.

This chart graphs constant data.

This chart graphs data from an unopen worksheet.

This chart graphs data from more than one worksheet.

This command controls default printer settings for all documents and all applications.

This document belongs to more than one open workbook.   Create a copy of it to bind in this workbook?

Tick mark intervals must be greater than 0.

Too complex to record.

Too many different cell formats.

Too many external references.

Too many fields in the data form.

Too many files to mail.

Total number of file errors: [number]

Unable to activate the source application for this embedded object.

Unable to combine file.

Unable to extract file.

Unable to import file.

Unable to locate the source application for this embedded object.

Unable to paste link.

Unable to read file.

Unable to save external link values.

Unit of log scale must be at least 10.

Update embedded objects?

Update object [name] in [document]?

Update references to unopened documents?

Use existing definition of [name]?

Useful only in Windows for Pen Computing environment.

Value is too large.

Value is too small.

Value must be a number.

Workbook has no bound sheets.

Workbook is protected and cannot be changed.

Definitions

Argument
Array
ASCII Character
Axes
Bound
Breakpoint
Chart
Chart Data Series
Clipboard
Command Macro
Comparison Operators
Consolidation by Category
Consolidation by Position
Constant
Criteria
Data Table
Database
Dependent Worksheet
Destination Macro Sheet
Embedding
External Absolute Reference
External Reference Formula
External Reference
Extract Range
Field Name Row
Field
File Format
Floating Toolbar
Formula Bar
Formula
Frequency Distribution
Function
Global Macro Sheet
Graphic Object
Group
Handles
Input Cell
International File Format
Legend
Linked Documents
Logarithm
Logical Value
Macro Sheet

Worksheet Keys

Accountant's Keypad

When you enter monetary figures on a worksheet, you usually have to type decimal points to indicate dollars and cents.   In Fix mode, Microsoft Excel automatically enters the decimal places for you.

For example, if you have specified two decimal places and you type 732 into the formula bar,   Microsoft Excel enters the number as 7.32.   You can override the automatic decimal by including a decimal point when you type a number.

To turn on Fix mode, choose the Workspace command from the options menu and select the Fixed Decimal check box.   The word "FIX" appears in the status bar.

Switching Windows

For applications

ALT+ESC	Next application
ALT+SHIFT+ESC	Previous application
ALT+TAB	Next Windows application
ALT+SHIFT+TAB	Previous Windows application
CTRL+ESC	Task List

For documents

CTRL+F4	Close command (Control menu)
CTRL+F5	Restore command (Control menu)
CTRL+F6	Next Window command (Control menu)
CTRL+SHIFT+F6	Previous window
CTRL+F7	Move command (Control menu)
CTRL+F8	Size command (Control menu)
CTRL+F9	Minimize command (Control menu)
CTRL+F10	Maximize command (Control menu)

Command Keys

Deleting, Copying, and Moving Data

DELETE	Clears formulas, formats, notes, or all three from selected cells. Cells remain in their locations.
CTRL+DEL	Clears formulas in cells.
CTRL+X or SHIFT+DEL	Cut command (Edit menu)
CTRL+SHIFT+DEL	Cuts text to the end of the line in the formula bar.
BACKSPACE	Activates and clears the formula bar when a cell is selected, or clears one character to the left when the formula bar is active.
CTRL+V or SHIFT+INS	Pastes the cut or copied data into the paste area.
CTRL+C or CTRL+INS	Copies data to the Clipboard.
CTRL+SHIFT+PLUS SIGN	Inserts a block of cells the same size as the current selection.
CTRL+MINUS SIGN	Deletes the selected cells and shifts remaining cells to fill the space.
CTRL+Z or ALT+BACKSPACE	Undo command (Edit menu)
ALT+SHIFT+A	Adds a document to a workbook.
ALT+SHIFT+R	Removes a document from a workbook.
ALT+SHIFT+O	Opens the Document Options dialog box so that you can set options for a document in a workbook.

Dialog Box Keys

TAB	Moves to the next list box, text box, check box, command button, or group of option buttons.
SHIFT+TAB	Moves to the previous list box, text box, check box, command button, or group of option buttons.
Arrow keys	Move and select within the active list box or group of option buttons.
SPACEBAR	Selects the active check box or chooses the active command button.
Letter key	Moves to the next item beginning with that letter in an active list box.
ALT+Letter key	Selects the item with that underlined letter.
ENTER	Chooses the default command button.
ESC	Cancels the command and closes the dialog box.

Formula Bar Keys

=	Starts a formula.
F2	Activates the formula bar; then switches between Edit mode and Enter mode.
ESC	Cancels an entry in the formula bar.
ENTER	Completes the cell entry.
ALT+ENTER	Inserts the carriage return
TAB	Completes the cell entry and moves to the next cell in the row or range.
SHIFT+TAB	Completes the cell entry and moves to the previous cell in the row or range.
CTRL+TAB	Inserts a tab.
Arrow keys	Complete the cell entry and move to the next cell corresponding to the direction of the arrow.

See Also

Edit Command Keys

Inserting Cell or Range References in a Formula

Moving and Selecting Within the Formula Bar

Function Keys

F1	Help
SHIFT+F1	Context-sensitive Help
F2	Activates the formula bar
SHIFT+F2	Note command (Formula menu)
CTRL+F2	Workspace command (Options menu); displays an Info window.
F3	Paste Name command (Formula menu)
SHIFT+F3	Paste Function command (Formula menu)
CTRL+F3	Define Name command (Formula menu)
CTRL+SHIFT+F3	Create Names command (Formula menu)
F4	Reference command (Formula menu)
CTRL+F4	Close command (Document Control menu)
ALT+F4	Exit command (File menu)
F5	Goto command (Formula menu)
SHIFT+F5	Find command (Formula menu)
CTRL+F5	Restore command (Document Control menu)
F6	Next pane
SHIFT+F6	Previous pane
CTRL+F6	Next Window command (Control menu)
CTRL+SHIFT+F6	Previous document window
F7	Find command (Formula menu); finds next occurrence.
SHIFT+F7	Find command (Formula menu); finds previous occurrence.
CTRL+F7	Move command (Document Control menu)
F8	Turns Extend mode on or off.
SHIFT+F8	Turns Add mode on or off.
CTRL+F8	Size command (Document Control menu)
F9	Calc Now button, Calculation command (Options menu)
SHIFT+F9	Calc Document button, Calculation command (Options menu)
CTRL+F9	Minimize command (Document Control menu)
F10*	Activates the menu bar.
SHIFT+F10	Activates the shortcut menu
CTRL+F10	Maximize command (Document Control menu)
F11	New command (File menu); Chart
SHIFT+F11	New command (File menu); Worksheet
CTRL+F11	New command (File menu); Macro sheet
F12	Save As command (File menu)
SHIFT+F12	Save command (File menu)
CTRL+F12	Open command (File menu)
CTRL+SHIFT+F12	Print command (File menu)

* Unavailable when you have selected the Alternate Navigation Keys check box in the Workspace Options dialog box, which you access by choosing the Workspace command from the Options menu.

Inserting Cell or Range References in a Formula

When you enter a formula on a worksheet, you can enter cell or range references by typing them in Enter mode or by selecting the cells in Point mode.   In Point mode, you can click cells or select ranges, or use the arrow keys and shifted arrow keys to select the cells.   The reference for the selection is displayed in the formula bar.   Press F2 to switch between Enter mode and Point mode.

For example, to insert a reference to cell A6 in a formula while editing in the formula bar, use the arrow keys to move to cell A6.   The reference for the active cell is displayed in the formula bar.

▪   To insert the reference for the active cell into the formula, type the next operator, comma, or parenthesis, or complete the formula by pressing ENTER.

See Also

Help

Entering text or numbers into a cell

Menu Keys

ALT or F10	Activates the menu bar.
SHIFT+F10	Activates the shortcut menu
ALT+BACKSPACE or CTRL+Z	Undoes the last command.
ALT+ENTER	Repeats the last command if applicable.

When menu bar is active

ESC	Cancels the menu.
SPACEBAR	Displays the Microsoft Excel Control menu.
HYPHEN	Displays the document Control menu.
Letter key	Displays the menu with that letter underlined.
LEFT or RIGHT ARROW	Selects the menu to the left or right.
DOWN or UP ARROW	Selects the next or previous command.

With menu displayed

Letter key	Chooses the command with that letter underlined.
ENTER	Chooses the selected command.
ESC	Cancels the menu.
UP ARROW	Selects the previous command.
DOWN ARROW	Selects the next command.
LEFT or RIGHT ARROW	Displays the menu to the left or right.

Moving and Selecting in a Worksheet

Arrow keys	Move by one cell in the direction of the arrow.
CTRL+UP ARROW or CTRL+DOWN ARROW	Moves by one block of data within a column.
CTRL+LEFT ARROW* or CTRL+RIGHT ARROW*	Moves by one block of data within a row.
CTRL+SHIFT+ARROW KEY	Extends the selection to the end of the block in the direction of the arrow.
SHIFT+ARROW KEY	Extends the selection by one cell.
HOME	Moves to the beginning of the row.
CTRL+HOME	Moves to the beginning of the worksheet.
CTRL+SHIFT+HOME	Extends the selection to the beginning of the worksheet.
SHIFT+HOME	Extends the selection to the beginning of the row.
CTRL+END	Moves to the lower-right corner of the worksheet.
CTRL+SHIFT+END	Extends the selection to the end of the data.
CTRL+SPACEBAR	Selects the entire column.
CTRL+SHIFT+SPACEBAR	Selects the entire worksheet.
SHIFT+SPACEBAR	Selects the entire row.
SHIFT+BACKSPACE	Collapses the selection to the active cell.
PAGE DOWN	Moves down one window.
CTRL+PAGE DOWN*	Moves right one window.
PAGE UP	Moves up one window.
CTRL+PAGE UP*	Moves left one window.
CTRL+SHIFT+PAGE DOWN*	Extends the selection right one window.
SHIFT+PAGE DOWN	Extends the selection down one window.
CTRL+SHIFT+PAGE UP*	Extends the selection left one window.
SHIFT+PAGE UP	Extends the selection up one window.
SCROLL LOCK	Turns Scroll Lock on or off.

* Unavailable when you have selected the Alternate Navigation Keys check box in the Workspace Options dialog box, which you access by choosing the Workspace command from the Options menu.

End Mode

END	Turns End mode on or off.
END, ARROW KEY	Moves by one block of data within a row or column.
END, SHIFT+ARROW KEY	Extends the selection to the end of the data block in the direction of the arrow.
END, HOME	Moves to the end of the worksheet.
END, SHIFT+HOME	Extends the selection to the end of the worksheet.
END, SHIFT+ENTER*	Extends the selection to the last cell in the current row.
END, ENTER*	Moves to the last cell in the current row.

* Unavailable when you have selected the Alternate Navigation Keys check box in the Workspace Options dialog box, which you access by choosing the Workspace command from the Options menu.

With Scroll Lock on

HOME	Moves to the upper-left cell in the window.

SHIFT+HOME	Extends the selection to the upper-left cell in the window.
END	Moves to the lower-right cell in the window.
SHIFT+END	Extends the selection to the right cell in the window.

Moving and Selecting Within the Formula Bar

HOME	Moves to the beginning of the line.
CTRL+HOME	Moves to the beginning of the data.
CTRL+SHIFT+HOME	Extends the selection to the beginning of the data.
SHIFT+HOME	Extends the selection to the beginning of the line.
END	Moves to the end of the line.
CTRL+END	Moves to the end of the data.
CTRL+SHIFT+END	Extends the selection to the end of the data.
SHIFT+END	Extends the selection to the end of the line.
Arrow keys	Move by a character or a line.
CTRL+ARROW KEY	Moves by a word or a line.
CTRL+SHIFT+ARROW KEY	Extends the selection by a word or a line.
SHIFT+ARROW KEY	Extends the selection by a character or a line.
CTRL+A	Pastes the arguments to the function that you have typed. Only works following an open left parenthesis.

Moving Within a Selection

ENTER*	Down one cell
SHIFT+ENTER*	Up one cell
TAB**	Right one cell
SHIFT+TAB**	Left one cell
CTRL+PERIOD	To the next corner of the selection (clockwise).
CTRL+TAB	To the next area in a nonadjacent selection.
CTRL+SHIFT+TAB	To the previous area in a nonadjacent selection.

*If the selection consists of a single row, then pressing ENTER or SHIFT+ENTER moves the active cell right one cell or left one cell, respectively.

**If the selection consists of a single column, then pressing TAB or SHIFT+TAB moves the active cell down one cell or up one cell, respectively.

Outlining Keys

ALT+SHIFT+LEFT ARROW	Promotes a row or a column.
ALT+SHIFT+RIGHT ARROW	Demotes a row or a column.
CTRL+8	Display command (Options menu); displays or hides outline symbols.

Scrolling in a Worksheet Window

SCROLL LOCK	Turns Scroll Lock on or off.

With Scroll Lock on

PAGE UP or PAGE DOWN	Moves up or down one window.
CTRL+PAGE UP	Moves left one window.
CTRL+PAGE DOWN	Moves right one window.
UP or DOWN ARROW	Moves up or down one row.
LEFT or RIGHT ARROW	Moves left or right one column.
CTRL+HOME	Moves to the beginning of the sheet.
CTRL+END	Moves to the end of the sheet.
HOME	Selects the cell in the upper-left corner of the window.
END	Selects the cell in the lower-right corner of the window.
CTRL+BACKSPACE	Scrolls to display the active cell indicated in the formula bar.

Selecting Chart Items

RIGHT ARROW	Selects the next item.
LEFT ARROW	Selects the previous item.
DOWN ARROW	Selects the previous class of items.
UP ARROW	Selects the next class of items.

See Also

User's Guide (Book 1)

Chapter 13, "Editing a Chart"

Edit Command Keys

LEFT ARROW	Moves left one cell.
RIGHT ARROW	Moves right one cell.
SHIFT+LEFT ARROW	Extends the selection one cell to the left.
SHIFT+RIGHT ARROW	Extends the selection one cell to the right.
HOME	Moves to the beginning of the line.
SHIFT+HOME	Extends the selection to the beginning of the line.
END	Turns End mode on or off.
CTRL+MINUS SIGN	Delete command (Edit menu)
CTRL+R or	Fill Right command (Edit menu)
CTRL+SHIFT+>	
CTRL+D or	Fill Down command (Edit menu)
CTRL+SHIFT+<	
CTRL+SHIFT+PLUS SIGN	Insert command (Edit menu)
CTRL+V or	Paste command (Edit menu)
SHIFT+INS	
ENTER	Paste command (Edit menu). Only works immediately after choosing the Cut or Copy command.
ALT+ENTER	Repeat command (Edit menu)
CTRL+Z	Undo command (Edit menu)

With no selection in the Formula bar

DEL	Deletes the character to the right of the insertion point.
CTRL+DEL	Deletes to the end of the line.
CTRL+SHIFT+DEL	Cuts to the end of the line.
BACKSPACE	Deletes the character to the left of the insertion point.
INS	Turns Overtype mode on or off.

With characters selected in the Formula bar

DEL	Deletes the selection.
CTRL+DEL	Deletes from the beginning of the selection to end of the line.
CTRL+SHIFT+DEL	Cuts from the beginning of the selection to the end of the line.
CTRL+X or	Cuts the selection to the Clipboard.
SHIFT+DEL	
BACKSPACE	Deletes the selection.
INS	Turns Overtype mode on or off.
CTRL+INS or	Copies the selection to the Clipboard.
CTRL+C	
SHIFT+INS or	Replaces the selection with Clipboard data.
CTRL+V	

Formula bar shortcuts

BACKSPACE	Activates and clears the formula bar.
ALT+=	AutoSum tool.
CTRL+;	Inserts the current date.
CTRL+SHIFT+:	Inserts the current time.
CTRL+'	Copies the formula from the cell above.
CTRL+SHIFT+"	Copies the value from the cell above.

Arrow keys	Switch from Edit mode to Point mode, allowing cell selection with the arrow keys when the last character is an operator such as + - * or /.
CTRL+A	Pastes the arguments to the function that you have typed. Only works following an open left parenthesis.

File Command Keys

Keys	Command
F11 or ALT+F1	New command (File menu); chart
CTRL+F11 or ALT+CTRL+F1	New command (File menu); macro sheet
SHIFT+F11 or ALT+SHIFT+F1	New command (File menu); worksheet
CTRL+F12 or ALT+CTRL+F2	Open command (File menu)
ALT+SHIFT+F2 or SHIFT+F12	Save command (File menu)
ALT+F2 or F12	Save As command (File menu)
ALT+CTRL+SHIFT+F2 or CTRL+SHIFT+F12	Print command (File menu)
ALT+F4	Exit command (File menu)

Format Command Keys

Number Command (Format Menu)

CTRL+SHIFT+~	Applies General number format.
CTRL+SHIFT+!	Applies #,##0.00 number format.
CTRL+SHIFT+$	Applies $#,##0.00_) number format.
CTRL+SHIFT+%	Applies 0% number format.
CTRL+SHIFT+^	Applies 0.00E+00 number format.
CTRL+SHIFT+#	Applies d-mmm-yy number format.
CTRL+SHIFT+@	Applies h:mm AM/PM number format.

Font Command (Format Menu)

CTRL+1	Applies Normal font.
CTRL+B	Applies or removes bold.
CTRL+I	Applies or removes italic.
CTRL+U	Applies or removes underline.
CTRL+5	Applies or removes strikeout.
CTRL+S	Displays the Style list.
CTRL+P	Displays the Font Size list.
CTRL+F	Displays the Font Name list.

Row Height Command (Format Menu)

CTRL+9	Hides the selected rows.
CTRL+SHIFT+(	Unhides the selected rows.

Column Width Command (Format Menu)

CTRL+0 (zero)	Hides the selected columns.
CTRL+SHIFT+)	Unhides selected columns.

Border Command (Format Menu)

CTRL+SHIFT+&	Adds an outline border.
CTRL+SHIFT+_	Removes all borders.

Formula Command Keys

CTRL+A	Pastes the arguments to the function that you have typed.
	Only works following an open left parenthesis in the formula bar.
CTRL+SHIFT+F3	Create Names command (Formula menu)
CTRL+F3	Define Name command (Formula menu)
SHIFT+F5	Find command (Formula menu)
F7	Find Next command (Formula menu)
SHIFT+F7	Find Previous command (Formula menu)
F5	Goto command (Formula menu)
SHIFT+F2	Note command (Formula menu)
SHIFT+F3	Paste Function command (Formula menu)
F3	Paste Name command (Formula menu)
F4	Reference command (Formula menu)
CTRL+SHIFT+|	Selects column differences.
CTRL+/	Selects the current array.
CTRL+SHIFT+*	Selects the current region.
CTRL+SHIFT+}	Selects all dependents.
CTRL+]	Selects direct dependents only.
CTRL+SHIFT+?	Selects notes.
CTRL+SHIFT+{	Selects all precedents.
CTRL+[	Selects direct precedents only.
CTRL+\	Selects row differences.
ALT+;	Selects visible cells.
CTRL+TAB	Inserts a tab in the formula bar.
ALT+ENTER	Inserts a carriage return in the formula bar.

Help Command Keys

F1	Help
SHIFT+F1	Context-sensitive Help

Options Command Keys

SHIFT+F9	Calculates the active document.
F9 or	Calculates all open documents.
CTRL+=	
CTRL+6	Switches between displaying all objects, displaying placeholders, and hiding all objects.
CTRL+8	Shows or hides outline symbols.
CTRL+`	Displays formulas or values.
CTRL+7	Hides or shows the Standard toolbar.
CTRL+F2	Displays the Info Window.

Toolbar Keys

ALT+=	AutoSum tool.
ALT+'	Displays the Style box.
CTRL+S	Displays the Style list.
CTRL+P	Displays the Font Size list.
CTRL+F	Displays the Font Name list.
CTRL+7	Hides or shows the Standard toolbar.

Window Command Keys

ALT+PAGE UP	In a workbook, switches to the previous document.
ALT+PAGE DOWN	In a workbook, switches to the next document.
SHIFT+F10	Opens the shortcut menu for the current selection.

Alternate Navigation Keys

When you choose the <u>Workspace</u> command from the Options menu and select the Alternate Navigation Keys check box, the following keyboard shortcuts are put into effect.

Navigation Keys

CTRL+LEFT ARROW	Left one page.
CTRL+RIGHT ARROW	Right one page.
CTRL+PAGE UP	In a workbook, next worksheet.
CTRL+PAGE DOWN	In a workbook, previous worksheet.
TAB	Right one page.
SHIFT+TAB	Left one page.
HOME	Upper-left corner of the sheet.

Function Keys

F5	Positions the entered cell or range in the upper-left corner of the window.
F6	Next window of the same document.
SHIFT+F6	Previous pane of the same window

In Data Find Mode

LEFT ARROW	Moves to the previous field of the current record.
RIGHT ARROW	Moves to the next field of the current record.
HOME	Moves to the first record.
END	Moves to the last record.

Text Alignment Prefix Characters

When the Alternate Navigation Keys check box is selected, you can use the following text-alignment prefix characters to assign alignment formats as you enter data into cells.

' (single quotation mark) Aligns data in the cell to the left.

" (double quotation mark)   Aligns data in the cell to the right.

^ (caret)   Centers data in the cell.

\ (backslash)   Repeats characters across the cell.

When in Point mode, hidden columns will unhide themselves temporarily.

Lotus 1-2-3 Access System Menu
1-2-3
Printgraph
Translate
Install

To start Microsoft Excel

For information about starting Microsoft Excel, see Chapter 1, "Getting Started with Microsoft Excel," in Book 1 of the Microsoft Excel User's Guide.

To print a chart

1 Switch to the chart you want to print.
2 From the File menu, choose Print.
3 Select the print options you want.
4 Choose the OK button.

See Also

Help

Open Command (File Menu)
Print Command (File Menu)

User's Guide (Book 1)

Chapter 16, "Printing"

To save files so they can be read by other programs

 Microsoft Excel can open documents created with Lotus 1-2-3 Releases 1, 1A, 2, 2.01, 2.2, 2.3, 3.0, 3.1, and 3.1+, as well as Lotus 1-2-3/W, Symphony, Microsoft Multiplan (SYLK), Microsoft Excel for the Macintosh, VisiCalc, and dBASE II, III, and IV.   Microsoft Excel can also read and write 2-D and 3-D sheets in the WK3 format.

1 From the File menu, choose Save As.

2 In the Save File As Type box, select the <u>file format</u> that you want.

3 Choose the OK button.

See Also

Help

<u>Save As Command (File Menu)</u>

User's Guide (Book 1)

Chapter 5 , "Creating a Worksheet"

Switching to Microsoft Excel from Lotus 1-2-3

Lotus 1-2-3 Commands

Worksheet
Range
Copy
Move
File
Print
Graph
Data
System
Quit

Lotus 1-2-3 Worksheet Commands

Global
Insert
Delete
Column
Erase
Titles
Window
Status
Page

Lotus 1-2-3 Worksheet Global Commands

Format

Label-Prefix

Column-Width

Recalculation

Protection

Default

Zero

To format cell contents

1 Select the cells you want to format.

   To select the entire worksheet, click the square on the worksheet directly above the row numbers, or press CTRL+SHIFT+SPACEBAR.

2 From the Format menu, choose Number.

3 Select a format.

   Refer to the table below for Microsoft Excel equivalents to Lotus 1-2-3 formats.

   You can create other fixed decimal number formats by editing the displayed format in the Code box or by typing an entirely new one.

4 Choose the OK button.

Lotus 1-2-3	Microsoft Excel
Fixed	0.00
Scientific	0.00E+00
Currency	$#,##0_);($#,##0)
Comma	#,##0.00 or #,##0
General	General
+/-	No equivalent
Percent	0.00%
Date	dd-mm-yy
Time	h:mm:ss AM/PM
Text	Microsoft Excel allows you to choose between displaying formulas or values in the entire worksheet, but not in selected ranges. To display formulas or values, choose Display from the Options menu.
Hidden	In the Code box, type ;;; to hide the contents of a cell or range. Use the Row Height and Column Width commands on the Format menu to hide entire rows or columns.
Reset	General

See Also

Help

Number Command (Format Menu)

Cell Protection Command (Format Menu)

Protect Document Command (Options Menu)

User's Guide (Book 1)

Chapter 7, "Formatting a Worksheet"

Switching to Microsoft Excel from Lotus 1-2-3

Lotus 1-2-3 Worksheet Global Default Commands

[Printer](#)
[Directory](#)
[Status](#)
[Update](#)
[Other](#)
[Quit](#)

Lotus 1-2-3 Worksheet Global Default Printer Commands

Lotus 1-2-3	Microsoft Excel
Interface	Setting up a printer and port
Auto-LF	Not necessary; handled by printer driver
Left	Page Setup command (File menu)
Right	Page Setup command (File menu)
Top	Page Setup command (File menu)
Bottom	Page Setup command (File menu)
Pg-Length	Page Setup command (File menu)
Wait	Page Setup command (File menu)
Setup	Not necessary; handled by printer driver
Name	Page Setup command (File menu)
Quit	ESC key

Lotus 1-2-3 Worksheet Global Default Directory Command

There is no direct equivalent in Microsoft Excel for the Lotus 1-2-3 Worksheet Global Default Directory command.

You can also create an autoexec macro that changes the current directory to a specified directory every time you open a macro sheet.   Name the macro sheet STARTDIR.XLM, for example, and save the macro in the XLSTART subdirectory, located in the same directory as the Microsoft Excel program.

See Also

   User's Guide (Book 2)

   Chapter 8, "Creating a Custom Application"

   Switching to Microsoft Excel from Lotus 1-2-3

Lotus 1-2-3 Worksheet Global Default Status Command

Microsoft Excel displays status information in the dialog boxes you use to carry out commands, not in one single display.

Printer

From the File menu, choose <u>Page Setup</u>.   The dialog box displays printer status information such as the current port, margins, and name.   Microsoft Excel does not display auto-linefeed and setup string status because they are handled automatically by the printer driver.

Add-In

You can view a list of the working set of add-in macros by using the <u>Add-ins command</u> on the Options menu.   The Add-ins command will appear on the Options menu only if the Add-in Manager option was selected when you installed Microsoft Excel.

File extensions and path

From the File menu, choose the <u>Open command</u>.   The dialog box displays filenames and extensions as well as current directory information.

International, Currency, Date, and Time Formats

1 From the Microsoft Excel <u>Control menu</u>, choose Run.

   Shortcut: ALT, SPACEBAR, U

2 Select the Control Panel option button.

3 Choose the OK button.

4 From the Settings menu, choose International, or double-click the International icon.

5 In the Country list box, select the country whose settings you want to view or change.

6 Change any settings you want.

7 Choose the OK button.

8 From the Settings menu, choose the Exit command to close the Control Panel window.

Help access method

Help remains in memory until you use the Close command from the Help window Control menu to close it.

Clock display

Not available in Microsoft Excel.

Undo

From the Edit menu, choose <u>Undo</u>.   If it is available, Undo will appear black.   If it is not available, Can't Undo will appear dimmed.

Warning Beep

1 From the Microsoft Excel Control menu, choose Run.

   Shortcut: ALT, SPACEBAR, U

2 Select the Control Panel option.

3 Choose the OK button.

4 From the Settings menu, choose Sound, or double-click the Sound icon.

5 To turn on the warning beep, select the Warning Beep check box.

6 Choose the OK button.

7 From the Settings menu, choose the Exit command to close the Control Panel.

See Also

Help

Add-ins Command (Options Menu)

Control Menu

Number Command (Format Menu)

Open Command (File Menu)

Page Setup Command (File Menu)

Undo Command (Edit Menu)

User's Guide (Book 1)

Chapter 16, "Printing"

User's Guide (Book 2)

Chapter 8, "Creating a Custom Application"

Switching to Microsoft Excel from Lotus 1-2-3

Lotus 1-2-3 Worksheet Global Default Update Command

There is no direct equivalent in Microsoft Excel for the Lotus 1-2-3 Worksheet Global Default Update command.

Settings affecting the document, such as margins, are stored with the document. The dialog box settings reflect the setting for the active document.

Settings affecting how Microsoft Excel is configured to work with the hardware and software environment, such as printer settings and preferences, are not specific to a document, and are retained as defaults until you change them.

See Also

Switching to Microsoft Excel from Lotus 1-2-3

Lotus 1-2-3 Worksheet Global Default Other Commands

International

Except for the argument separator in functions (comma), you can change punctuation, currency, date, and time formats, and other country-specific settings with the Control Panel.

To change country-specific settings

1 From the Microsoft Excel Control menu, choose Run.

Shortcut: ALT, SPACEBAR, U

2 Select the Control Panel option.

3 From the Settings menu, choose International, or double-click the International icon.

4 In the Country box, select the name of the country you want.

5 Make any other changes you want.

6 Choose the OK button.

These settings remain in effect for all Windows applications until you change them.

Help

Not applicable.

Clock

Not applicable.

See Also

Help

Control Menu

Switching to Microsoft Excel from Lotus 1-2-3

To erase the active worksheet and start a new one

In Microsoft Excel, you can have more than one worksheet open at once, allowing you to keep the active worksheet open while starting a new one. The following procedure corresponds to the Lotus 1-2-3 Worksheet Erase command, which removes the active worksheet from memory (but not from your disk), allowing you to start a new one.

1 From the File menu, choose Close.

   If you have made unsaved changes to the active worksheet, a dialog box will appear asking if you want to save your changes.

2 To erase the active worksheet, choose the No button.

3 From the File menu, choose New to open a new worksheet.

4 Choose the OK button.

See Also

Help

Close Command (File Menu)

New Command (File Menu)

Switching to Microsoft Excel from Lotus 1-2-3

Lotus 1-2-3 Worksheet Status Command

Lotus 1-2-3	Microsoft Excel
Memory used	From the Help menu, choose About Microsoft Excel.
Coprocessor	From the Help menu, choose About Microsoft Excel.
Recalculation	From the Options menu, choose <u>Calculation</u>.
Circular Reference	Microsoft Excel displays a message after each recalculation if any formulas contain circular references.
Cell Display	
Format	Select the cell and choose a command from the Format menu.
Label Prefix	From the Format menu, choose <u>Alignment</u>.
Column Width	From the Format menu, choose <u>Column Width</u>.
Zero Suppression	From the Options menu, choose <u>Display</u>.

See Also

Help

<u>Alignment Command (Format Menu)</u>
<u>Column Width Command (Format Menu)</u>
<u>Display Command (Options Menu)</u>
<u>Calculation Command (Options Menu)</u>

User's Guide (Book 1)

Chapter 5, "Creating a Worksheet"

Switching to Microsoft Excel from Lotus 1-2-3

Lotus 1-2-3 Range Commands

Format
Label-Prefix
Erase
Name
Justify
Protect
Unprotect
Input
Value
Transpose

Lotus 1-2-3 Range Name Commands

Create

Delete

Labels

Reset

Table

To delete one or more names in a worksheet

When you delete a name, any references to the name in formulas are replaced by the #NAME! error value.   If you want to avoid this, replace all occurrences of the name with its definition by using the Replace command on the Formula menu before deleting the name from the list.

1 From the Formula menu, choose Define Name.
2 Select a name from the list.
3 Choose the Delete button.
4 Repeat steps 2 and 3 for each name you want to delete.

See Also

Help

Define Name Command (Formula Menu)

User's Guide (Book 1)

Chapter 8, "Organizing and Documenting a Worksheet"

Switching to Microsoft Excel from Lotus 1-2-3

To paste a list of names in a worksheet into a range
  1 Select the upper-left cell of the range.
  2 From the Formula menu, choose Paste Name.
     Shortcuts: Paste Names tool (Utility toolbar)
                         F3
  3 Choose the Paste List button.

 See Also

   Help
▪   Paste Names Tool
   Paste Name Command (Formula Menu)
   Pasting names
   Toolbars Command (Options Menu)

   User's Guide (Book 1)
   Chapter 5, "Creating a Worksheet"

   Switching to Microsoft Excel from Lotus 1-2-3

Lotus 1-2-3 Range Input Command

There is no command in Microsoft Excel that is directly equivalent to the Lotus 1-2-3 Range Input command, but you can use the following features to achieve similar functionality.

The Cell Protection and Protect Document commands

Using the Cell Protection command on the Format menu, you can unlock the cells that you want to use as input cells so they can be altered when the worksheet is protected using the Protect Document command on the Options menu. By default, all cells on a sheet have the locked format, but they remain unlocked until you choose the Protect Document command on the Options menu. Then, when document protection is on, pressing the TAB key allows you to move among only unlocked cells.

The ENTER.DATA macro function

The ENTER.DATA macro function temporarily provides the same functionality as the Protect Document command. When the ENTER.DATA function is encountered in a macro, Enter Data mode is activated. Any cells that have been not been formatted as unlocked with the Cell Protection command become locked. You can then use the TAB key to move among only unlocked cells.

The ENTER.DATA function is a toggle and needs no arguments, although you can use TRUE or FALSE to turn Enter mode on and off. When Enter mode is turned on, the unlocked cell nearest the upper-left corner of the selection becomes the active cell. Pressing the TAB key selects the next unlocked cell. You can turn Enter mode off by running a macro containing the ENTER.DATA function again. This function can only be used on macro sheets.

See Also

Help

Cell Protection Command (Format Menu)

Protecting worksheet cells

Protect Document Command (Options Menu)

User's Guide (Book 1)

Chapter 4, "Managing Document Files"

Switching to Microsoft Excel from Lotus 1-2-3

Microsoft Excel Function Reference

ENTER.DATA

Lotus 1-2-3 File Commands

Retrieve
Save
Combine
Xtract
Erase
List
Import
Directory
Translate

Lotus 1-2-3 Print Commands

Printer

File

Lotus 1-2-3 Print Printer Commands

Lotus 1-2-3	Microsoft Excel
Range	From the Options menu, choose <u>Set Print Area</u>.
Line	Use the <u>LINE.PRINT macro function</u>.
Page	Not applicable in Microsoft Excel.
Options	
Header	From the File menu, choose <u>Page Setup</u>.
Footer	From the File menu, choose Page Setup.
Margins	From the File menu, choose Page Setup.
Borders	From the Options menu, choose <u>Set Print Titles</u>.
Setup	Select cells and choose the Font command from the Format menu.
Pg-Length	From the File menu, choose Page Setup.
Other	Worksheet is printed as displayed. To display values or formulas, choose <u>Display</u> from the Options menu. To add or remove headers and footers, choose Page Setup from the File menu. To add or remove page breaks, choose <u>Set Page Break or Remove Page Break</u> from the Options menu.
Quit	Press ESC.
Clear	
All	Reset individual settings.
Range	From the Formula menu, choose <u>Define Name</u> and delete Print_Area.
Borders	From the Formula menu, choose Define Name and delete Print_Titles.
Format	From the File menu, choose Page Setup to reset margins. Page Length and Setup String are handled by the printer driver.
Align	Not applicable in Microsoft Excel.
Go	From the File menu, choose Print.
Quit	Press ESC.

See Also

Help
<u>Define Name Command (Formula Menu)</u>
<u>Display Command (Options Menu)</u>
<u>Lotus 1-2-3 Line Print Command</u>
<u>Page Setup Command (File Menu)</u>
<u>Set Page Break and Remove Page Break Commands (Options Menu)</u>
<u>Set Print Area Command (Options Menu)</u>
<u>Set Print Titles Command (Options Menu)</u>

User's Guide (Book 1)
Chapter 5, "Creating a Worksheet"
Chapter 7, "Formatting a Worksheet"
Chapter 16, "Printing"

User's Guide (Book 2)
Chapter 4, "Customizing Microsoft Excel"

Switching to Microsoft Excel from Lotus 1-2-3

Lotus 1-2-3 Print File Command

There is no direct equivalent in Microsoft Excel to the Lotus 1-2-3 Print to File command.

See Also

Help

Lotus 1-2-3 Line Print Command

Lotus 1-2-3 Print Printer Commands

Switching to Microsoft Excel from Lotus 1-2-3

Lotus 1-2-3 File Combine Commands

[Copy](#)
[Add](#)
[Subtract](#)

Lotus 1-2-3 Graph Commands

Type

X A B C D E F

Reset

View

Save

Options

Name

Quit

See Also

User's Guide (Book 1)

Chapter 14, "Formatting a Chart"

Switching to Microsoft Excel from Lotus 1-2-3

Lotus 1-2-3 Graph Type Commands

In Microsoft Excel, you change the chart (graph) type after you have created the chart (graph).

Lotus 1-2-3	Microsoft Excel
Line	From the Gallery menu, choose Line.
Bar	From the Gallery menu, choose Column.
XY	From the Gallery menu, choose XY (Scatter).
Stacked bar	From the Gallery menu, choose Column and then select type 5.
Pie	From the Gallery menu, choose Pie.

The Gallery menu appears when a chart window is active.   The gallery also offers additional chart types such as 3-D charts.

See Also

User's Guide (Book 1)

Chapter 14, "Formatting a Chart"

Switching to Microsoft Excel from Lotus 1-2-3

Lotus 1-2-3 Graph View Command

When you create a chart (graph), it appears in a new, active window.   If at any time another window covers all or part of the chart and you want to see it, choose the name of the chart from the list at the bottom of the Window menu.

See Also

Help

Switching to or closing a document window

User's Guide (Book 1)

Chapter 14, "Formatting a Chart"

Switching to Microsoft Excel from Lotus 1-2-3

Lotus 1-2-3 Graph Options Commands

Legend

Format

Titles

Grid

Scale

Color

B&W

Data-Labels

Quit

See Also

   User's Guide (Book 1)

   Chapter 12, "Creating a Chart"

   Chapter 13, "Editing a Chart"

   Chapter 14, "Formatting a Chart"

   Switching to Microsoft Excel from Lotus 1-2-3

Lotus 1-2-3 Graph Options Format Commands

Microsoft Excel and Lotus 1-2-3 take different approaches to formatting charts.   The Lotus 1-2-3 Graph Options Format commands apply to line and xy (scatter) charts only.

To format a line or xy (scatter) chart

1 Select a data series.

2 From the Format menu, choose Patterns.

3 Under Line, select the line style, color, and weight you want.

   If you don't want any lines, select the None option button.

4 Under Marker, select the marker style, foreground color, and background color you want.

   If you don't want any markers, select the None option button.

   If you want to apply the same format to all data series in the chart, select the Apply To All check box.

5 Choose the OK button.

See Also

Help

Patterns Command (Format Menu for Charts)

User's Guide (Book 1)

Chapter 14, "Formatting a Chart"

Switching to Microsoft Excel from Lotus 1-2-3

Lotus 1-2-3 Graph Options Titles Commands

For a complete guide to using text in charts for titles, labels, and descriptions, see Chapter 14, "Formatting a Chart," in Book 1 of the Microsoft Excel User's Guide.

See Also

Help

Format Menu for Charts

Edit Series Command (Chart Menu)

User's Guide (Book 1)

Chapter 14, "Formatting a Chart"

Switching to Microsoft Excel from Lotus 1-2-3

Lotus 1-2-3 Graph Options Grid Commands

To add and delete gridlines in a chart

1 From the Chart menu, choose Gridlines.
2 Select the options for the types of gridlines you want.
3 Choose the OK button.

See Also

Help

Gridlines Command (Chart Menu)

User's Guide (Book 1)

Chapter 14, "Formatting a Chart"

Switching to Microsoft Excel from Lotus 1-2-3

Lotus 1-2-3 Graph Options Scale Commands
X-Scale
Y-Scale
Skip

Lotus 1-2-3 X Scale and Y Scale Commands

Automatic

Microsoft Excel creates the scale automatically.   If you have designated any aspect of the scale as manual, you can return it to automatic by doing the following procedure.

1 Select the x (category) or y (value) axis.

2 From the Format menu, choose Scale.

The options will be different for the x and y axes.

3 Select the Auto check box for any option you want to return to automatic.

4 Choose the OK button.

Manual, Lower, Upper

To control the scale manually:

1 Select the x (category) or y (value) axis.

2 From the Format menu, choose Scale.

The options will be different for the x and y axes.

3 Change any options you want.

4 Choose the OK button.

Format

To change the number format on the scale:

1 On the source worksheet, select the numbers you want to format.

2 From the Format menu, choose Number.

Select the number format you want to use in the chart.

3 Choose the OK button.

Indicator

To select or clear scale indicators:

1 Select the chart.

2 From the Chart menu, choose Axes.

3 Select the Category (X) Axis or Value (Y) Axis check box.

4 Choose the OK button.

Quit

▪   Press ESC.

See Also

Help

Axes Command (Chart Menu)

Number Command (Format Menu)

Scale Command (Format Menu)

User's Guide (Book 1)

Chapter 13, "Editing a Chart"

Chapter 14, "Formatting a Chart"

Switching to Microsoft Excel from Lotus 1-2-3

To change how Microsoft Excel displays labels on the x-axis

1 Select the x-axis.
2 From the Format menu, choose Scale.
3 Change the number in the Number Of Categories Between Tick Labels box.
4 Choose the OK button.

See Also

Help

Scale Command (Format Menu)

User's Guide (Book 1)

Chapter 14, "Formatting a Chart"

Switching to Microsoft Excel from Lotus 1-2-3

Lotus 1-2-3 Graph Options Color Command

There is no direct equivalent in Microsoft Excel for the Lotus 1-2-3 Graph Options Color command.   However, you can change the color of individual chart items using the Patterns command on the Format menu.

See Also

Help

Patterns Command (Format Menu for Charts)

User's Guide (Book 1)

Chapter 14, "Formatting a Chart"

Switching to Microsoft Excel from Lotus 1-2-3

To create data labels

1 From the Chart menu, choose Attach Text.

2 Select the Series And Data Point option button.

3 In the Series Number box, type the number of the series containing the point you want to label.

4 In the Point Number box, type the number of the point you want to label.

5 Choose the OK button.

Microsoft Excel suggests the value of that point for a data label in the formula bar and displays the value in the chart.

6 Type the label if you want to use something other than the suggested point value.

7 Click the enter box or press ENTER.

See Also

Help

Attach Text Command (Chart Menu)

User's Guide (Book 1)

Chapter 14, "Formatting a Chart"

Switching to Microsoft Excel from Lotus 1-2-3

To name a graph and save it on a disk

You can save Microsoft Excel charts (graphs) as separate files on disk. If you are working with a chart that is embedded in your worksheet, you must first open it as a chart document by double-clicking it. The chart is displayed in a window with a title bar at the top.

1 From the File menu, choose Save As.

2 Type a name for the file.

3 Choose the OK button.

To open a chart (graph)

1 From the File menu, choose Open.

2 Select the name of the chart (graph).

3 Choose the OK button.

To delete a chart (graph)

1 From the File menu, choose Delete.

2 Select the name of the chart (graph).

3 Choose the OK button.

   You cannot delete all charts at once.   You must repeat this procedure for each chart you want to delete.

See Also

Help

Delete Command (File Menu)

Open Command (File Menu)

Save As Command (File Menu)

User's Guide (Book 1)

Chapter 12, "Creating a Chart"

Chapter 13, "Editing a Chart"

Chapter 14, "Formatting a Chart"

Switching to Microsoft Excel from Lotus 1-2-3

Lotus 1-2-3 Data Commands

Fill

Table

Sort

Query

Distribution

Matrix

Regression

Parse

Lotus 1-2-3 Data Query Commands

Input

Criterion

Output

Find

Extract

Unique

Delete

Reset

Quit

Lotus 1-2-3 Data Distribution Command

There is no equivalent command in Microsoft Excel for the Lotus 1-2-3 Data Distribution command. Instead, Microsoft Excel provides the FREQUENCY function, which provides similar functionality.

See Also

Help
FREQUENCY function

Microsoft Excel Function Reference
FREQUENCY

Lotus 1-2-3 Data Matrix Commands

The Microsoft Excel equivalents to the Data Matrix commands are array functions, rather than commands.

Lotus 1-2-3	Microsoft Excel function
Invert	MINVERSE
Multiply	MMULT

See Also

Help

MINVERSE function

MMULT function

Switching to Microsoft Excel from Lotus 1-2-3

Microsoft Excel Function Reference

MINVERSE

MMULT

Lotus 1-2-3 Data Regression Commands

The Microsoft Excel equivalents to the Data Regression commands are array functions rather than commands and do not translate directly.

See Also

Help

Regression
GROWTH function
LINEST function
LOGEST function
TREND function

Switching to Microsoft Excel from Lotus 1-2-3

Microsoft Excel Function Reference

GROWTH
LINEST
LOGEST
TREND

Lotus 1-2-3 System Command

There is no direct equivalent for the Lotus 1-2-3 System command in Microsoft Excel, but you can switch to MS-DOS using the Microsoft Windows Program Manager.

To switch to MS-DOS

1 Press CTRL+ESC.
2 From the Task List, select Program Manager and press ENTER.
3 From the File menu, choose Run.
4 Type **command**
5 Choose the OK button.

To return to Microsoft Excel

1 At the MS-DOS prompt, type **exit**
2 Press CTRL+ESC to switch to the Task List.
3 From the Task List, select Microsoft Excel and press ENTER.

Lotus 1-2-3 Line Print Command

There is no command in Microsoft Excel that is equivalent to the Lotus 1-2-3 Line Print command. To add the same functionality, Microsoft Excel includes a LINE.PRINT macro function that provides compatibility with Lotus 1-2-3.

The LINE.PRINT macro function has three forms:

LINE.PRINT (command, file, append)

LINE.PRINT (command, setup_text, leftmarg, rightmarg, topmarg, botmarg, pglen, formatted)

LINE.PRINT (command, setup_text, leftmarg, rightmarg, topmarg, botmarg, pglen, wait, autolf, port, update)

Arguments	Defined
command	1=Go, 2=Line, 3=Page, 4=Align, 5=Document settings (form 2 only), 6=Global settings (form 3 only), 7=Clear (revert document settings to global settings)
file	Output file Default=currently defined port
append	TRUE to append the file, FALSE to rewrite the file Default=FALSE
setup_text	Setup string
leftmarg	Number of characters from the left side of page Default=4
rightmarg	Number of characters from the right side of page Deault=76
topmarg	Number of characters from the top of page Default=2
botmarg	Number of characters from the bottom of page Default=2
pglen	Number of lines per page Default=66
formatted	TRUE=formatted Default =TRUE
wait	TRUE=wait Default=FALSE
autolf	TRUE if printer auto-linefeeds Default=FALSE
port	1 through 8 only. See the Microsoft Excel Function Reference Default=1
update	TRUE to update global settings to Microsoft Excel Default=FALSE

See Also

Help

Lotus 1-2-3 Print Printer Commands

Switching to Microsoft Excel from Lotus 1-2-3

Microsoft Excel Function Reference

LINE.PRINT

Macro Interpreter for Lotus 1-2-3 Users

You can run the macros contained on your Lotus 1-2-3 worksheet by holding down CTRL and pressing the letter of the macro name.   While your macro is running, the status bar displays "MI" (macro interpreter).   If your macro contains a {?} command, the status bar displays "MI Pause" until you press ENTER.

Microsoft Excel recognizes all 1-2-3 file formats, but only fully runs macros that contain menu commands, @ functions, keywords, and advanced macro commands that are supported by Lotus 1-2-3 Release 2.01.   Lotus 1-2-3 add-ins are not supported; remove any keystrokes or command names that attach or start a Lotus 1-2-3 add-in.   Also, macros cannot end in a menu.

See Also

Switching to Microsoft Excel from Lotus 1-2-3

"Running Existing 1-2-3 Macros in Microsoft Excel"

Lotus 1-2-3 Prompt Dialog Box

The Lotus 1-2-3 macro you are running requires more information.

To continue

1 Type the information in the box or boxes.

2 Press ENTER.

If more than one box appears, you can move back through the boxes by pressing ESC. You cannot backtrack into the menu from which the prompt dialog box was displayed.

To stop the macro now

- Press CTRL+BREAK.

You can move the dialog box by dragging its title bar with the mouse.

Lotus 1-2-3 Menu Dialog Box

The Lotus 1-2-3 macro you are running requires you to choose a menu item.

To choose a menu item

- Double-click the item you want.

-or-

- Press the first letter of the item you want.

To stop the macro now

- Press CTRL+BREAK.

You can move the dialog box by dragging its title bar with the mouse.

Clicking the Cancel button has the same effect as pressing ESC.

Macro Translation Assistant--Lotus 1-2-3

For an introduction to the Macro Translation Assistant, select Overview.

Overview
Alert Messages
Translation Comments
Problematic Lotus 1-2-3 Macros
Translate Lotus 1-2-3 Command
Translating Lotus 1-2-3 Macros
Lotus 1-2-3 Commands That Require Editing to Translate

Overview of Macro Translation Assistant--Lotus 1-2-3

To translate a Lotus 1-2-3 macro, you start Microsoft Excel and open the Lotus 1-2-3 file containing the macros to translate.   Then, start the Macro Translation Assistant by choosing the Translate Lotus 1-2-3 command, and specifying which macros you want to translate.

The Macro Translation Assistant translates the Lotus 1-2-3 macro into a Microsoft Excel macro, and writes the translated macro on a new macro sheet.   The original Lotus 1-2-3 macros are displayed on the new macro sheet with the translated macro, unless you clear the Verbose check box.

See Also

Help

Differences Between Lotus 1-2-3 and Microsoft Excel Macros

Lotus 1-2-3 Commands

Lotus 1-2-3 Commands That Require Editing to Translate

Problematic Lotus 1-2-3 Macros

Translating Lotus 1-2-3 Macros

Lotus 1-2-3 Messages

These messages appear in boxes while your macro is being translated.   You must select a button in the box before translation can continue.

Comments that are displayed on the destination macro sheet after translation is complete are called translation comments.

The messages, listed alphabetically, include:

<Document> no longer open.

<Document> not translatable.

Can't communicate with Microsoft Excel.

Can't find Microsoft Excel.

Disk operation failed.

Formula in source cell <cell> too long.

Out of columns on target macro sheet.

Translation still in progress.

Translation Comments

These comments are displayed on the <u>destination macro sheet</u> after translation is complete. They give information about translations that may not be exact, warn you about adjustments you may want to make yourself, and so on.   Each comment is adjacent to the cell containing the macro instruction it describes.

<u>Messages</u> appear in alert boxes.

Following are the translation comments listed in alphabetical order, under headings corresponding to the part of the translation comment that precedes the colon (:).

For example, to find the comment "Not translated: All printing is formatted", look up "All printing is formatted" under the heading "Not Translated".

Errors

<u>BRANCH or subroutine call to undefined name.</u>
<u>Branch through undefined menu name.</u>
<u>Expected reference to be a reference.</u>
<u>Expected type to be an argument type.</u>
<u>Formula is too long to translate.</u>
<u>Return in multiple states.</u>
<u>String too long.</u>

Inexact translation

<u>Aligns all labels.</u>
<u>Always translated into data find.</u>
<u>Displays formulas on entire document.</u>
<u>Formats whole document.</u>
<u>International date format not available.</u>
<u>International time format not available.</u>
<u>Movement not limited to input range.</u>
<u>Names and global settings not saved.</u>
<u>Password ignored.</u>
<u>Recalculates whole document.</u>
<u>Sets all column widths.</u>
<u>Unhidden columns given default width.</u>

Not translated

<u>+/- format not available.</u>
<u>All printing is formatted.</u>
<u>All recalculation is natural.</u>
<u>Can't translate ABS key.</u>
<u>Can't translate complex self-modifying macros.</u>
<u>Charts are separate files.</u>
<u>Configuration file not available.</u>
<u>Default status not available.</u>
<u>{DISPATCH} destination could change.</u>
<u>File listing not available.</u>
<u>Formatting scale numbers not available.</u>
<u>Intercept is always computed.</u>
<u>International currency format not available.</u>

International date format not available.
International punctuation format not available.
International time format not available.
{LOOK} not available.
Lotus 1-2-3 clock not available.
Lotus 1-2-3 help type not available.
Lotus 1-2-3 worksheet status not available.
Microsoft Excel handles file replacement.
Printer connections are not numbered.
Printer driver handles auto-linefeed.
Printer driver handles page length selection.
Printer driver handles print wait.
Printer driver handles printer alignment.
Printer driver handles printer movement.
Printer driver handles printer setup.
Printer names are not numbered.
Range reset not available.
Skipping data points not available.
Split windows are always synchronized.
System call not available.

Warning

Assuming char is cancel/replace character.
Assuming interactive cancel/replace.
Assuming interactive password.
Assuming no cancel/replace character.
Assuming no password.
Assuming password to be password.
Assuming self-modified cell begins label.
Axis scaling not applied to empty charts.
Axis title not attached to pie charts.
Edited formula may be incorrect.
Edited name may be incorrect.
Edited range may be incorrect.
Gridlines not applied to pie charts or empty charts.
Line formatting not applied to empty charts.
Line formatting only applied if series exists.
Line formatting only applied to line and scatter charts.
No type given; assumed to be formula.
Selection depends on window size.
Shading, coloring, and exploded wedges not translated.
Title not attached to empty charts.
X axis scaling only applied to scatter charts.

Problematic Lotus 1-2-3 Macros

The following types of Lotus 1-2-3 macros may require editing to be correctly translated:

- Macros that <u>edit formulas</u> will not always translate correctly.
- <u>Self-modifying macros</u> can only be translated under certain conditions.
- Some Lotus 1-2-3 commands may not translate precisely into equivalent Microsoft Excel macro functions.   For a list, see <u>Lotus 1-2-3 Commands That Require Editing to Translate</u>.
- Some general differences between <u>Lotus 1-2-3 and Microsoft Excel macros</u> may cause problems when a macro is translated.
- Extremely large Lotus 1-2-3 macros may be difficult and time-consuming to translate. You may want to break them into smaller parts before translation.

Lotus 1-2-3 Commands That Require Editing to Translate

This is an alphabetical list of Lotus 1-2-3 commands that do not have direct equivalents in Microsoft Excel, or that require editing to translate.

{?}
{BIGLEFT}
{BIGRIGHT}
{DISPATCH}
/DRIC
/DRIZ
/FL
/FX
/GND
/GNR
/GOF
/GOFA
/GOFB
/GOFC
/GOFD
/GOFE
/GOFF
/GOFG
/GOG
/GOS
/GOSS
/GOSX
/GOSXF
/GOSYF
/GOTF
/GOTS
/GOTX
/GOTY
{LET}
{LOOK}
{MENUBRANCH}
{MENUCALL}
/PFA
/PFL
/PFOOF
/PFOOU
/PFOP
/PFOS
/PFP
{PGDN}
{PGUP}
/PPA

/WWU
/XM

Translate Lotus 1-2-3 Command

Translates Lotus 1-2-3 macros into Microsoft Excel macros.

Select Source Sheet

Lists open documents.   Select the document containing the macros you want to translate.

Select Macro(s) To Translate

Lists macros on the document you selected.   Select the macros you want to translate.

Verbose

Selecting the Verbose check box tells the Macro Translation Assistant to enter the Lotus 1-2-3 macro commands being translated above the Microsoft Excel result on the destination macro sheet.   The original Lotus 1-2-3 macro commands are printed in italic.

For more information about the Translate Lotus 1-2-3 Command, see Translating Lotus 1-2-3 Macros.

Translating Lotus 1-2-3 Macros

1 Start Microsoft Excel.

2 Open the Lotus 1-2-3 file containing the macros you want to translate.

By default, only files whose extensions begin with XL are listed in the dialog box which is displayed when you choose Open from the File menu.   Lotus 1-2-3 files typically have extensions that start with WK.   To list those files, type *.WK* in the File Name box.

3 From the Microsoft Excel Control menu, choose Run.

4 Select Macro Translator and choose the OK button.

5 In the Macro Translation Assistant window, choose the Translate Lotus 1-2-3 command.

6 In the dialog box, select the document containing the macros you want to translate and choose the OK button.

7 In the dialog box, select the macros to translate.

You can select multiple macros.

If you don't want to list the original Lotus 1-2-3 macros in the translated macro, clear the Verbose check box.

8 Choose the OK button.

The Macro Translation Assistant opens a new macro sheet (the destination macro sheet) and begins translating.   While it translates, it displays messages in the Macro Translation Assistant window.   If an error occurs, a message is displayed in a box.

To stop translation at any time

▪   Press ESC.

The destination macro sheet is hidden during translation.   After translation is complete, or if you stop translation by pressing ESC, the destination macro sheet is unhidden.

If the Macro Translation Assistant finds something that it cannot translate, or can only translate roughly, it enters a translation comment in bold characters directly above or below the problem on the destination macro sheet.

After the macro is translated, the Macro Translation Assistant tells you that translation is complete and asks if you want to close the Macro Translation Assistant.   Choose the Yes button if you have finished translating; choose the No button if you would like to translate more macros.   If you choose the Yes button, another message asks if you want to open TRANS123.XLM (unless TRANS123.XLM is already open).   If you plan to run the translated macro now, choose the Yes button to open TRANS123.XLM.

{?} as Command Argument

Translated by displaying a dialog box in which you can enter a specific argument.   If the argument is a range, you can either type it in or select the range on the document.

{?} during Data Find

Translated by displaying a dialog box.   The dialog box contains a text box in which you can edit the contents of the active cell, plus the following:

Enter Button

Enters the edited contents in the cell.

Previous and Next Buttons

Moves the active cell to the previous or next database entry that matches the criteria.

Left and Right Buttons

Moves one cell in the specified direction so you can edit other cells.

Done Button

Closes the dialog box and continues to execute the macro.

Differences Between Lotus 1-2-3 and Microsoft Excel Macros

Running a macro

Run command macros in Microsoft Excel by pressing CTRL and the shortcut key instead of ALT and the macro name.

Values of cells containing strings

Cells containing strings (text) are not equivalent to 0 in Microsoft Excel, as they are in Lotus 1-2-3.   However, for operations that expect ranges as arguments, such as SUM and AVERAGE, text is equivalent to 0.

Incomplete commands

Lotus 1-2-3 macros that begin a command but don't complete it (such as a single-cell macro containing /WGFF) can't be translated.   To allow for interactive input, use the {?} command.   For example, change a single-cell macro from:

'Name:

to:

'Name: {?}~

Formulas

Graphs

Names

Names in extracted ranges

When a range is extracted to a separate worksheet from within Lotus 1-2-3, the upper-left corner of the extracted range becomes cell A1 on the new worksheet.   Names within the extracted range are updated to reflect the new location of the range.

If, for example, the range C3:E5 is extracted, that range becomes A1:C3.   If the cell D4 within that range was named Profit, Profit now becomes cell B2.

When Microsoft Excel reads this worksheet, the name is not modified.   Profit, for example, would still refer to D4, not B2.   Macros that use the name may have unpredictable results.

{?} for Data Entry

Pauses for data entry are translated by displaying a dialog box.   The dialog box has a text box, containing the contents of the active cell, and the following buttons:

Enter Button

Enters the edited contents in the cell.

Up, Down, Left, and Right Buttons

Moves one cell in the specified direction, so you can edit other cells.

Done Button

Closes the dialog box and continues executing the macro.

Differences in Formulas

The differences in formulas are translated correctly by the Macro Translation Assistant for macros that enter formulas directly into a cell.   Macros that edit formulas may need to be edited before translation.

Range syntax

Corners of a range are separated by a colon (:) instead of by one or more periods.   R1C1-style references are often used instead of A1-style references.

Worksheet functions

Function names are not preceded by @ signs.   Some functions have different names and arguments in Microsoft Excel than in Lotus 1-2-3.

Logical operations

Worksheet functions are used (for example, AND(A,B)) instead of operators (for example, A#AND#B).

Names

The first character must be a letter.   Other characters can be letters, numbers, periods, and underscores.   Names can be up to 255 characters long.   The name can't be in the form of a reference (such as A1 or R[2]C[2]).

Differences in Graphs

Chart files

Charts are separate files, not just associated with a specific spreadsheet.   When you load a Lotus 1-2-3 spreadsheet, Microsoft Excel asks whether charts should be converted into Microsoft Excel charts.   If a translated macro acts on these charts, the charts must be converted, and must be in the current directory when the translated macro is run.

Since charts are separate files, saving a worksheet does not save related charts.   You must save charts independently.

Display

Charts are always displayed when they are being acted on, not just in Graph View.

Series order

Series are numbered in the order in which they are entered.   If Lotus 1-2-3 series are numbered in a different order than they are entered, they may be operated on incorrectly by a translated macro.

Self-modifying Macros

The <u>Macro Translation Assistant</u> can translate self-modifying macros that do the following:

- Enter a simple string or value into a cell using {LET}, {GETNUMBER} and /SN, or {GETLABEL} and /XL.
- Use that cell as part of a label, formula entry, or cell edit, or as an argument.

Not translatable are more involved self-modifying macros that perform the following tasks:

- Substituting one command for another (for example, changing {READ} to {READLN} or /WIC to /WIR).
- Changing a branch location (for example, changing {BRANCH E3 to BRANCH F3} or /XCsub1~ to /XCsub2~).
- Modifying a macro by entering a value or label into a cell, or by editing a cell.

To translate a macro that performs an untranslatable self-modification, edit it to eliminate the self-modifying instructions or to perform the simple self-modifications described here (using {LET}, {GETNUMBER}, or {GETLABEL}).   If you use Lotus 1-2-3 version 1A, you can use the {LET} command even though Lotus 1-2-3 version 1A will not understand it -- the Macro Translation Assistant understands the command and will translate it.

Translating Multiple Macros

You can translate as many macros as you like at one time, as long as all the macros are on the same source document.

    1 Choose Translate Lotus 1-2-3.

    2 Select the document containing the macros you want to translate and then choose the OK button.

    3 In the next dialog box, select all the macros you want to translate:

-     To select one macro, press an arrow key.
-     To select several macros that are together, press SHIFT+ARROW KEY.
-     To select several macros that are not together, press CTRL+ARROW KEY and SPACEBAR.
-     Mouse users can select macros by clicking the macro or holding down the SHIFT key and clicking several macros.

    4 Choose the OK button.

If you select a macro that calls a subroutine, the <u>Macro Translation Assistant</u> automatically translates that subroutine with the calling macro.   You don't need to select the subroutine macro.

Differences in Names

Macro Names

A named macro may be reached in more than one state.   Since a name can only be defined once, the Macro Translation Assistant chooses an instance of the macro that is in READY mode.   The first cell of the macro is defined as the name, and is labelled in the column to the left of the macro.   If a macro is not in READY mode, the name is not defined, but is shown in parentheses in the column to the left of the first cell of the macro.

Named Ranges

Names in Microsoft Excel are more powerful than in Lotus 1-2-3.   In Lotus 1-2-3, names are simply used as substitutes for ranges.   For example, when displaying the formula 1+B1, Lotus 1-2-3 checks to see if a name is defined as B1.   If a name is defined, for example,"top", the formula is displayed using that name (1+top).

In Microsoft Excel, names convey more meaning.   This can cause problems when translating.   For example, suppose you translated a macro that entered the formula 1+B1 in a cell, then copied it down into the row below.   The Lotus 1-2-3 macro would enter the formula 1+B2 in the next row.   The Microsoft Excel translation, however, uses the name and enters the formula 1+top in the row below.

Be careful when using macros with named ranges.   If you are confused about whether names are being translated correctly, you can edit your original Lotus 1-2-3 macro to remove questionable names.

TRANS123.XLM

A macro sheet that contains subroutines that the <u>Macro Translation Assistant</u> sometimes uses in translated macros.   All translated macros automatically open TRANS123.XLM when they are opened.

If you want to run a macro immediately after you translate it, make sure TRANS123.XLM is open.   Otherwise, the translated macro may try to call subroutines on TRANS123.XLM and won't be able to access them.   If this happens, Microsoft Excel tells you that there was a macro error in the cell containing the formula that tried to call the subroutine.

After a macro is translated, a dialog box asks if you want to close the Macro Translation Assistant.   If you choose the Yes button, another message asks if you want to open TRANS123.XLM.   If you choose Yes, make sure TRANS123.XLM is in the current working directory.   If it is not, the Microsoft Excel title bar blinks.   To continue:

1 Switch to the Microsoft Excel window.

   Microsoft Excel says that TRANS123.XLM is not available.

2 Choose the OK button.

   The Macro Translation Assistant then closes itself.   If you still want to run the macro, you can open TRANS123.XLM yourself by using the Open command from the File menu.

Out of columns on target macro sheet.

When the Macro Translation Assistant translates subroutines and branching macros, it enters sections of the translated macro in separate columns.   Lotus 1-2-3 macros that contain many subroutines and use extensive branching may use all the open columns on the destination macro sheet.

Break your macro into smaller pieces and try translating them separately.

Can't communicate with Microsoft Excel.

The Macro Translation Assistant may either be unable to open a destination macro sheet or be unable to read from or write to it.

This also occurs when Microsoft Excel runs out of memory.

Close unnecessary documents and applications and try translating again.

Can't find Microsoft Excel.

The Macro Translation Assistant can't establish a connection to Microsoft Excel.

Make sure that:

- Microsoft Excel is running before you choose the Translate Lotus 1-2-3 command.
- The Ignore Remote Requests check box in the Workspace Options dialog box has been cleared.

Document not translatable.

The document that you selected is not a valid worksheet.   Microsoft Excel charts, for example, cannot be translated.

Translation still in progress.

Microsoft Windows is being shut down before translation is complete.

Start Microsoft Excel and translate the macro again.

Document no longer open.

Either the original Lotus 1-2-3 worksheet or the <u>destination macro sheet</u> has been closed during translation.   If you did not close the document, it was probably closed by another application using dynamic data exchange (DDE).

Open the document and start translation again.

Disk operation failed.

Your disk may be full, or there may have been a hardware failure.

You can make room on your disk by deleting files you don't need any more.

Formula in source cell too long.

The cell contains a formula that is too long to be translated.

Edit the Lotus 1-2-3 macro to shorten the formula.

Not translated: Can't translate ABS key.

Pressing the ABS key changes a reference through a cycle of absolute, relative, and mixed references.   The Macro Translation Assistant does not support this.

Not translated: Printer driver handles auto-linefeed.

/WGDPA is not translated.

You don't need to specify whether linefeeds are sent after carriage returns.

Warning: Assuming char is cancel/replace character.

This command is writing to a file.   If the file already exists, the macro needs to specify whether to cancel the save or replace the existing file.   The <u>Macro Translation Assistant</u> assumes that char specifies Cancel or Replace.

If char is not specifying Cancel or Replace, add a tilde (~) before it in the Lotus 1-2-3 macro.

Not translated: Lotus 1-2-3 clock not available.

/Worksheet Global Default Other Clock affects the on-screen clock in Lotus 1-2-3.   Microsoft Excel has no on-screen clock, so there is no equivalent command.

Not translated: Configuration file not available.

/Worksheet Global Default Update saves Lotus 1-2-3 default settings in a configuration file. This has no equivalent in Microsoft Excel.

Not translated: Default status not available.

/WGDS is not translated.

Most of the default status information provided by the /WGDS command (such as clock display, printer setup strings, and help access method) does not apply in Microsoft Excel.

You can get pertinent status information by using macro functions:

- The formula =DIRECTORY() returns the name of the current directory, as text.
- Margins are defined on the <u>destination macro sheet</u> using the names _LeftMrgn, _RightMrgn, _TopMrgn, and _BottomMrgn.   Within a macro, you can use the GET.NAME function to learn the definition of a specific name.   For example, =GET.NAME("_LeftMrgn") returns the left margin.

Not translated: {DISPATCH} destination could change.

{DISPATCH} is not translated.

Since the contents of the dispatch cell could be changed before the {DISPATCH} command is executed, the Macro Translation Assistant does not know where the macro should continue executing.   Therefore, the translator does not know what cells to translate after the {DISPATCH} command.

To correct this problem, edit the Lotus 1-2-3 macro so that the dispatch is performed explicitly.   For example:

    {IF DISPATCH = 1}{BRANCH branch1}
    {IF DISPATCH = 2}{BRANCH branch2}
    {IF DISPATCH = 3}{BRANCH branch3}
    etc....

Error: BRANCH or subroutine call to undefined name.

There is a BRANCH command or subroutine call to a name that was not defined on the Lotus 1-2-3 spreadsheet.

Error: Expected reference to be a reference.
The reference is not a cell or range reference.

Error: Expected type to be an argument type.

The type is not one of the Lotus 1-2-3 argument types "value" or "label."

Inexact translation: Names and global settings not saved.

/File Xtract copies names, charts (graphs), defaults, and references in labels from the original spreadsheet to the new spreadsheet.

In Microsoft Excel, charts are available to the new document, since charts are separate files. Names, defaults, and references in labels, however, are not copied from the original document to the new document.

Not translated: File listing not available.

/File List lists all files of a certain type on a separate screen.

To get a list of files in a specific directory, use the FILES macro function.

Not translated: Intercept is always computed.

/DRIC and /DRIZ determine whether an intercept should be calculated or forced to zero during regression.

Not translated: Formatting scale numbers not available.

/GOSXF and /GOSYF are not translated.

To format scale values in Microsoft Excel, format the values on the worksheet used to create the chart.

Not translated: Lotus 1-2-3 help type not available.

/Worksheet Global Default Other Help determines whether the current help file remains open after use.   This has no equivalent in Microsoft Excel.

Warning: Assuming interactive cancel/replace.

This command is writing to a file.   If the file already exists, the macro needs to specify whether to cancel the save or replace the existing file.   The <u>Macro Translation Assistant</u> assumes that the {?} command is provided to let the user specify Cancel or Replace.

If the {?} command is not provided for that purpose, add a tilde (~) before it in the Lotus 1-2-3 macro and it will be interpreted correctly.

Inexact translation: Always translated into data find.

{QUERY} from READY mode repeats the last /Data Query command executed.   The <u>Macro Translation Assistant</u> can't predict what command will be executed last, so it always translates {QUERY} into the DATA.FIND(TRUE) macro function.

Not translated: Printer connections are not numbered.

/WGDPI is not translated.

To choose a printer, use the PRINTER.SETUP macro function.

Inexact translation: Displays formulas on entire document.

/Range Format Text displays formulas in a given range.

In Microsoft Excel, values or formulas are displayed for the entire document.

Inexact translation: Sets all column widths.

/Worksheet Global Column-Width changes only the default width of columns.

To avoid changing column widths that have already been set, position this command in the Lotus 1-2-3 macro before all commands that explicitly change column width.

Not translated: International currency format not available.

/WGDOIC changes the currency symbol.   This has no equivalent in Microsoft Excel.

Inexact translation: International date format not available.

/WGFD4, /WGFD5, /RFD4, and /RFD5 use the international date format set with the /WGDOID command.   Microsoft Excel has no equivalent to the /WGDOID command, so the <u>Macro Translation Assistant</u> translates /WGFD4 and /RFD4 into formatting with the format MM/DD/YY and translates /WGFD5 and /RFD5 into formatting with the format MM/DD.

Inexact translation: Formats whole document.

/Worksheet Global Format changes only the default format of cells.

To avoid reformatting ranges, position this command in the Lotus 1-2-3 macro before all commands that explicitly format ranges.

Inexact translation: Aligns all labels.

/Worksheet Global Label-Prefix changes only the default alignment of labels.   The translated macro will change the alignment of all cells in the worksheet.

To avoid realigning labels, position this command in your Lotus 1-2-3 macro before all commands that explicitly align labels.

Not translated: International punctuation format not available.

/WGDOIP changes the punctuation used for decimal points, thousands separators, and argument separators.   This has no equivalent in Microsoft Excel.

Inexact translation: International time format not available.

/WGFDT3, /WGFDT4, /RFDT3, and /RFDT4 use the international time format set with the /WGDOIT command.   Microsoft Excel has no equivalent to the /WGDOIT command, so the Macro Translation Assistant translates /WGFDT3 and /RFDT3 into formatting with the format hh:mm:ss and translates /WGFDT4 and /RFDT4 into formatting with the format hh:mm.

Error: Formula is too long to translate.

A Lotus 1-2-3 or Multiplan formula was translated into a Microsoft Excel formula that is too long for the <u>Macro Translation Assistant</u> to translate (more than 255 characters).   The formula will be truncated.

Not translated: {LOOK} not available.

{LOOK} puts the next character typed into a cell.   This has no equivalent in Microsoft Excel.

Not translated: Can't predict arguments chosen from a menu.

The Macro Translation Assistant does not know what names will be defined when the macro is run, so it cannot guess what arguments would be selected from the menu.

To correct the problem, edit your Lotus 1-2-3 macro so the command uses an explicit argument (for example, a filename) instead of choosing that argument from a menu.

Error: Branch through undefined menu name.

/XM, {MENUBRANCH}, or {MENUCALL} referred to a location that is undefined.

Not translated: Can't translate complex self-modifying macros.

The Macro Translation Assistant can translate self-modifying macros only under certain conditions.

Not translated: All recalculation is natural.

/WGRC and /WGRR are not translated.

Microsoft Excel always recalculates in natural order.   This means that a cell is recalculated after cells on which it is dependent have been changed.

Warning: Assuming no cancel/replace character.

This command is writing to a file.   If the file already exists, the macro needs to specify whether to cancel the save or replace the existing file.   The <u>Macro Translation Assistant</u> did not find a C or R to specify Cancel or Replace.   It also did not find a {?} to allow you to specify a Cancel or Replace character.

To specify a Cancel or Replace character, enter C or R in the same cell as the filename.

Warning: No type given; assumed to be formula.

{LET} or {PUT} entered an expression into a cell without specifying whether the expression should be treated as a value or a label.   The Macro Translation Assistant treats the expression as a formula.

If the expression was supposed to be a label, it is generally easiest to add the :label suffix in your original Lotus 1-2-3 macro and translate it again.   Or, you can add double quotation marks around the expression in the FORMULA macro function, remove the equal sign, and correct any changes the Macro Translation Assistant made when translating the label into a formula.

Not translated: International date format not available.

/WGDOID changes the date formats D4 and D5.   This has no equivalent in Microsoft Excel.

Not translated: International time format not available.

/WGDOIT changes the time formats D8 and D9.   This has no equivalent in Microsoft Excel.

Not translated: Printer driver handles printer alignment.

/PPA and /PFA tell Lotus 1-2-3 that the printer has been aligned at the top of a page.

The {?} Command

The Macro Translation Assistant translates most pauses by displaying a dialog box to accept input from the user.   Microsoft Excel accepts pauses that have the following purposes:

- Entering data.
- Entering an argument.
- Editing during Data Find.
- Entering passwords.
- Specifying cancellation or replacement characters.

When you are writing to a file and that file already exists, you may have a pause to allow the user to specify whether the file should be replaced or whether the operation should be canceled.

If your macro uses a pause for another purpose, you must edit the macro.

Not translated: Printer driver handles page length selection.

/WGDPP, /PFOP and /PPOP are not translated.

With some printer drivers you can select an approximate page length (such as letter size or legal size) by choosing the Printer Setup command from the File menu.   To control this from a macro, use the PRINTER.SETUP? and SEND.KEYS macro functions.

Not translated: /- format not available.

/WGF+ and /RF+ are not translated.

You can duplicate the appearance of the +/- format in another range on your worksheet:

1   Select a range the same size as the range containing the data.   The active cell should be the upper-left cell in that range.

2   Type the following formula, where ref is the reference of the upper-left cell in the range containing the data:

=REPT(IF(ref>=0,"+","-"),ABS(ref))

3   Press CTRL+ENTER to fill the formula into the selected range.

Not translated: Printer driver handles printer movement.

/PFL, /PFP, /PPL and /PPP are not translated.

To indicate where to start a new page, use the SET.PAGE.BREAK macro function.

Not translated: Printer names are not numbered.

/WGDPN is not translated.

To choose a printer, use the PRINTER.SETUP macro function.

Warning: Assuming password to be password.

The string password is in the same cell as a filename and is followed by a tilde (~).   The Macro Translation Assistant assumes that password is the password to be used in opening the file.

If password is supposed to be a label instead of a password, insert a tilde (~) between the filename and the password in the Lotus 1-2-3 macro.

Inexact translation: Password ignored.

Passwords must be entered when a password-protected file is opened -- they cannot be included in a macro.   You can, however, change the OPEN macro function to the OPEN? macro function.   OPEN? displays a dialog box so that you can enter a password.

If a {?} command is provided in your Lotus 1-2-3 macro for entering a password, that command is automatically translated into the OPEN? macro function.

Warning: Assuming interactive password.

A {?} was found in the same cell as the name of a file being opened.   The Macro Translation Assistant assumes that the pause was provided to allow a password to be entered.   It translates the action of opening the file using the OPEN? macro function.

Warning: Assuming no password.

If the file being opened is protected by a password, edit the Lotus 1-2-3 macro so that the password is in the same cell as the filename and is immediately followed by a tilde (~).

Not translated: Printer driver handles printer setup.

/WGDPS, /PPOS, and /PFOS send setup strings or control codes to a printer.

Not translated: Printer driver handles print wait.

/WGDPW is not translated.

If single-sheet printing is available, it is controlled by the driver for your printer.   To control this from a macro, use the PRINTER.SETUP? and SEND.KEYS macro functions.

Inexact translation: Movement not limited to input range.

/Range Input limits movement of the highlight to a specific range.   This has no equivalent in Microsoft Excel.   The translated macro selects the upper-left cell of the range.

Movement within the input range may not translate correctly.   For example, {HOME} after /RI selects the upper-left cell of the input range, but upon translation selects the upper-left cell of the worksheet.

Inexact translation: Recalculates whole document.

{RECALC} and {RECALCOL} recalculate a specified range.   Microsoft Excel always recalculates an entire document (with the possible exception of tables).   Also, recalculation is always in natural order, not by row or by column as in these commands.   The optional condition and iteration arguments to these commands are ignored.

Not translated: Microsoft Excel handles file replacement.

This command is writing to a file.   If the file already exists, the Lotus 1-2-3 or Multiplan macro needs to specify whether to cancel the save or replace the existing file.   In Microsoft Excel, a message is displayed asking if you want to replace the existing file.

You can use the formula =SAVE.AS(,0) to mark the active file as saved without writing it to your disk.   This can be useful if you want to close a document without saving changes, and don't want the replace/save message to be displayed.

If the existing file should always be replaced, you can disable all messages by using the ERROR macro function.   If you use ERROR, make sure that you don't need any other error handling.

Not translated: Range reset not available.

/Range Name Reset deletes all defined names.   In Microsoft Excel, names must be deleted individually with the DELETE.NAME macro function.

Not translated: System call not available.

/S accesses the operating system.

Not translated: Charts are separate files.

/Graph Name Delete and /Graph Name Reset clear graphs from a Lotus 1-2-3 spreadsheet. In Microsoft Excel, charts are separate documents.

To delete a chart, you use the FILE.DELETE macro function.

Not translated: Skipping data points not available.

/Graph Options Scale Skip skips data points in a series.   This has no equivalent in Microsoft Excel.

You can use a macro to enter every nth point of the series in another range on the worksheet.

Error: Return in multiple states.

There is more than one possible return from a subroutine or from branches of a {MENUCALL} command, and the different returns occur in different states.

A state consists of:

- Location in the Lotus 1-2-3 menu tree, and menu item currently highlighted.
- Current stage of processing, if an argument to a command is being processed.
- Other global settings (for example, whether the END key is activated).

Before the Macro Translation Assistant can translate this macro, you need to edit the subroutine or {MENUCALL} branches so that returns occur in the same state, such as READY mode.

Error: String too long.

A string being used by the Macro Translation Assistant was too long.   Check for cells containing very long strings, or ranges with very long names.

This problem can also occur when arguments are being substituted into the argument list of a macro function.   You can try editing the original macro to shorten any values or names that will be used as arguments in the translated macro.

Not translated: All printing is formatted.

/PPOOU, /PFOOU, /PPOOF, and /PFOOF enable and disable headers, footers, and page breaks.   This has no equivalent in Microsoft Excel.

Inexact Translation: Unhidden columns given default width.

/Worksheet Column Display restores an unhidden column to the width it had when it was hidden.   The <u>Macro Translation Assistant</u> displays unhidden columns using the default column width (8 characters).

Not translated: Split windows are always synchronized.

/WWU is not translated.

To scroll through windows on a document independently, open a new window using the NEW.WINDOW macro function.

Warning: Axis title not attached to pie charts.

/Graph Options Titles X-Axis and /Graph Options Titles Y-Axis add titles by the X or Y axis. This does not apply to pie charts.   If the chart is a pie chart /GOTX and /GOTY are not translated.

Warning: Shading, coloring, and exploded wedges not translated.

Pie charts in Microsoft Excel have no equivalent to the second graph series range in Lotus 1-2-3.

To shade or change the color of a pie slice

1 Select the slice with the SELECT macro function.
2 Change the shading or color with the PATTERNS macro function.

To explode a pie slice

1 Select it with SELECT.
2 Get its current position with GET.CHART.ITEM.
3 Move it with FORMAT.MOVE.
   You can record these actions with the macro recorder.

Warning: Edited formula may be incorrect.

The <u>Macro Translation Assistant</u> translates Lotus 1-2-3 and Multiplan formulas into Microsoft Excel formulas.   When a formula is edited during macro execution, the equivalent Microsoft Excel formula is being edited.   You should check the resulting formula.

Warning: Gridlines not applied to pie charts or empty charts.

/Graph Options Grid adds gridlines to a graph.   This does not apply to pie charts, so if the chart is a pie chart /GOG is not translated.

Also, series in Microsoft Excel must be defined before they can be formatted.   If the translated macro does not add gridlines, edit the original Lotus 1-2-3 macro so that a series is defined before gridlines are added.

Not translated: Lotus 1-2-3 worksheet status not available.

/WS is not translated.

Microsoft Excel has no command equivalent to the /Worksheet Status command.   However, most of the same information is available through the Microsoft Excel macro functions GET.CELL, GET.DOCUMENT, GET.WINDOW, and GET.WORKSPACE.

Warning: Line formatting not applied to empty charts.

/Graph Options Format Graph specifies whether data points in all ranges of a graph are shown as symbols and/or connected by lines.   Series in Microsoft Excel must be defined before they can be formatted.   If the translated macro does not format your series, edit the original Lotus 1-2-3 macro so that the series is defined before it is formatted.

Warning: Line formatting only applied to line and scatter charts.

/Graph Options Format specifies whether data points are shown as symbols and/or connected with a line.   This only applies to line and xy (scatter) charts, so if the chart is not a line or xy (scatter) chart /GOF is not translated.

Warning: Line formatting only applied if series exists.

/GOFA, /GOFB, /GOFC, /GOFD, /GOFE, and /GOFF specify whether data points in the data range specified (A through F) are shown as symbols and/or connected by lines.   Series in Microsoft Excel must be defined before they can be formatted.   If the translated macro does not format your series, edit the original Lotus 1-2-3 macro so that the series is defined before it is formatted.

Warning: Assuming self-modified cell begins label.

The <u>Macro Translation Assistant</u> can't determine whether a self-modified cell will contain a label or a formula and so uses label as a default.

If the cell begins a formula, add an equal sign in the FORMULA function.   For example, change =FORMULA("A+B") to =FORMULA("=A+B").

Warning: Edited name may be incorrect.

A range name entered interactively or by using self-modification may be incorrect.   The Macro Translation Assistant checks names for characters that are illegal in Microsoft Excel names and replaces them with underscores.   However, it cannot check a name that is entered interactively.

Warning: Edited range may be incorrect.

A named range entered interactively or by using self-modification may be incorrect:

- The <u>Macro Translation Assistant</u> checks names for characters that are illegal in Microsoft Excel names and replaces then with underscores.   However, it cannot check the name of a range that is entered interactively.

- If a Lotus 1-2-3 range name contains one or more periods, these are interpreted incorrectly as defining a range, and the periods will be converted to colons.

Warning: Axis scaling not applied to empty charts.

/Graph Options Scale lets you adjust the scale and formatting of axes.   Series in Microsoft Excel must be defined before they can be formatted.   If the translated macro does not format your axes, edit the original Lotus 1-2-3 macro so that a series is defined before the axes are adjusted.

Warning: Title not attached to empty charts.

/Graph Options Titles First and /Graph Options Titles Second add titles to a graph.   Series in Microsoft Excel must be defined before they can be formatted.   If the translated macro does not add titles, edit the original Lotus 1-2-3 macro so that a series is defined before titles are added.

Warning: Selection depends on window size.

{BIGLEFT}, {BIGRIGHT}, {PGUP}, and {PGDN} scroll by window. The range selected by these commands in the translated macro depends on the number of columns or rows displayed in the Microsoft Excel window when the command is executed. The number of columns or rows in a window depends on the size of the window as well as the width of columns and height of rows.

If, for example, your Microsoft Excel window is displaying 16 columns, the {BIGLEFT} command that would have scrolled through a Lotus 1-2-3 spreadsheet (using the default column width) 8 columns to the left, scrolls through your Microsoft Excel worksheet 16 columns to the left.

If you adjust your Microsoft Excel window and Lotus 1-2-3 screen to display the same number of rows and columns, the translated macro selects the same range as the original Lotus 1-2-3 macro.

Warning: X axis scaling only applied to scatter charts.

/Graph Options Scale X-Scale adjusts the formatting and scale of the x-axis.   This only applies to xy (scatter) charts (XY graphs), so if the chart is not an xy (scatter) chart /GOSX is not translated.

File Formats for Lotus 1-2-3

You can open Lotus 1-2-3 files in Microsoft Excel, and you can save Microsoft Excel files as Lotus 1-2-3 files.   Microsoft Excel can read files in the following Lotus 1-2-3 file formats: WKS (releases 1 and 1A), WK1 and associated FMT files (release 2.0 or later), and WK3 with associated FMT files (releases 3.0,   3.1+, and 1-2-3/W).   In WK3 format, Microsoft Excel can read and write both 2-D and 3-D worksheets. Lotus 1-2-3 3-D worksheets are converted to Microsoft Excel workbook files and formulas are converted to their Microsoft Excel linked equivalents.

See Also

Help

Switching to Microsoft Excel from Lotus 1-2-3

Switching to Microsoft Excel from Lotus 1-2-3

Microsoft Excel Equivalents for Frequently Used Lotus 1-2-3 Commands

Lotus 1-2-3 command	Microsoft Excel command
/c	Copy and Paste (Edit menu)
/fd	Open (File menu)
/few	Delete (File menu)
/fr	Open (File menu)
/fs	Save As (File menu)
/gv	Open (File menu) Used when chart is in a separate file.
/m	Cut and Paste (Edit menu)
/ppg	Print (File menu)
/ppr	Set Print Area (Options menu)
/qy	Exit (File menu)
/re	Clear (Edit menu)
/rf,	Number (Format menu)
/rfc	Number (Format menu)
/rfp	Number (Format menu)
/rnl	Create Names (Formula menu)
/rnc	Define Name (Formula menu)
/wcs	Column Width (Format menu)
/wdr	Delete (Edit menu)
/wey	Close and New (File menu)
/wic	Insert (Edit menu)
/wir	Insert (Edit menu)
/wtc	Unfreeze Panes (Options menu)
/wth	Freeze Panes (Options menu)
/wtv	Freeze Panes (Options menu)

See Also

Switching to Microsoft Excel from Lotus 1-2-3

Lotus 1-2-3 Functions

This is an alphabetic list of Lotus 1-2-3 functions that have Microsoft Excel equivalents. There are also a number of Microsoft Excel functions without 1-2-3 equivalents.

When Alternate Formula Entry is activated, you can type most of these functions directly into the formula bar, and they are automatically converted into their Microsoft Excel equivalents. To activate Alternate Formula Entry, choose the Calculation command from the Options menu. The functions that you cannot enter in this way are specific to Lotus 1-2-3 Release 3 and later.

Microsoft Excel uses different rules than Lotus 1-2-3 does when evaluating text in formulas, certain database criteria, and the value of certain logical operators.   When Alternate Expression Evaluation is activated, some of the following functions will be interpreted as they would be in Lotus 1-2-3. To activate Alternate Expression Evaluation, choose the Calculation command from the Options menu. The affected functions are noted in the following list.   See also Entering Lotus 1-2-3 Formulas.

Lotus function	Microsoft Excel equivalent	
@@	INDIRECT	
@ABS	ABS	
@ACOS	ACOS	
@ASIN	ASIN	
@ATAN	ATAN	
@ATAN2	ATAN2	
@AVG	AVERAGE	
@CELL	CELL	
@CELLPOINTER	CELL	When used without a second argument, returns information about the current selection.
@CHAR	CHAR	
@CHOOSE	CHOOSE	
@CLEAN	CLEAN	
@CODE	CODE	
@COLS	COLUMNS	
@COS	COS	
@COUNT	COUNTA	
@CTERM	NPER	Requires periodic payment instead of future value.
@DATE	DATE	
@DATEVALUE	DATEVALUE	
@DAVG	DAVERAGE	
@DAY	DAY	
@D360	DAYS360	Lotus 1-2-3 Release 3 and later.
@DCOUNT	DCOUNTA	
@DDB	DDB	
@DGET	DGET	
@DMAX	DMAX	
@DMIN	DMIN	
@DSTD	DSTDEVP	
@DSTDS	DSTDEV	Lotus 1-2-3 Release 3 and later.
@DSUM	DSUM	
@DVAR	DVARP	

@DVARS	DVAR	Lotus 1-2-3 release 3 and later.
@ERR		No equivalent is necessary, because Microsoft Excel lets you type error values directly into cells and formulas.
@EXACT	EXACT	
@EXP	EXP	
@FALSE	FALSE	
@FIND	FIND	
@FV	FV	
@HLOOKUP	HLOOKUP	Activate Alternate Expression Evaluation to use Lotus 1-2-3's evaluation rules.
@HOUR	HOUR	
@IF	IF	Last two arguments can be any value, not just numbers or strings, as in @IF.
@INDEX	INDEX	Also has form for selecting values from an array.
@INT	TRUNC	
@IRR	IRR	Arguments are given in reverse order.
@ISERR	ISERR	Detects any of six Microsoft Excel error values.
@ISNA	ISNA	
@ISNUMBER	ISNONTEXT	
@ISRANGE	ISREF	Lotus 1-2-3 Release 3 and later.
@ISSTRING	ISTEXT	
@LEFT	LEFT	
@LENGTH	LEN	
@LN	LN	
@LOWER	LOWER	
@LOG	LOG	
@MAX	MAX	
@MID	MID	
@MIN	MIN	
@MINUTE	MINUTE	
@MOD	MOD	Activate Alternate Expression Evaluation to use Lotus 1-2-3's evaluation rules.
@MONTH	MONTH	
@N	N	
@NA	NA	
@NOW	NOW	
@NPV	NPV	
@PI	PI	
@PMT	PMT	Arguments are in different order than in @PMT.
@PROPER	PROPER	
@PV	PV	Arguments are in different order than in @PV.
@RAND	RAND	Calculates values randomly each time it is recalculated (@RAND calculates the same values in each work session).
@RATE	RATE	Arguments are in different order than in @RATE.
@REPEAT	REPT	

@REPLACE	REPLACE	
@RIGHT	RIGHT	
@ROUND	ROUND	
@ROWS	ROWS	
@S	T	
@SECOND	SECOND	
@SIN	SIN	
@SLN	SLN	
@SQRT	SQRT	
@STD	STDEVP	
@STDS	STDEV	Lotus 1-2-3 Release 3 and later.
@STRING	FIXED	
@SUM	SUM	
@SYD	SYD	
@TAN	TAN	
@TERM	NPER	Arguments are in different order than in @TERM.
@TIME	TIME	
@TIMEVALUE	TIMEVALUE	
@TODAY	TODAY	
@TRIM	TRIM	
@TRUE	TRUE	
@UPPER	UPPER	
@VALUE	VALUE	
@VAR	VARP	
@VARS	VAR	Lotus 1-2-3 Release 3 and later.
@VDB	VDB	
@VLOOKUP	VLOOKUP	Activate Alternate Expression Evaluation to use Lotus 1-2-3's evaluation rules.
@YEAR	YEAR	

Functions Without Lotus 1-2-3 Equivalents

Many Microsoft Excel functions have equivalents to Lotus 1-2-3 functions.   The following Microsoft Excel functions, however, have no equivalents in Lotus 1-2-3 Release 3.1 or earlier, or Lotus 1-2-3/W Release 1.0.   Microsoft Excel also provides many   add-in functions and statistical functions that do not have Lotus 1-2-3 equivalents; these are   not included in this list.

AREAS
DOLLAR
DPRODUCT
FACT
FREQUENCY
GROWTH
INT
IPMT
ISBLANK
ISERROR
ISLOGICAL
LINEST
LOGEST
LOOKUP
MATCH
MDETERM
MINVERSE
MIRR
MMULT
PPMT
PRODUCT
SEARCH
SUBSTITUTE
TEXT
TRANSPOSE
TREND
TYPE
WEEKDAY

See Also

Help
Add-in Functions
Statistical Functions

Microsoft Excel Function Reference

Switching to Microsoft Excel from Lotus 1-2-3

Help for Lotus 1-2-3 Users

With Help for Lotus 1-2-3 Users, you can type Lotus 1-2-3 compatible keystrokes and then choose to display instructions for completing the same task in Microsoft Excel, or watch as Microsoft Excel demonstrates equivalents to familiar Lotus 1-2-3 commands.   There are two ways to open the Help For Lotus 1-2-3 Users dialog box:

▪   From the Help menu, choose Lotus 1-2-3.
▪   From the Options menu, choose <u>Workspace</u>. In the Alternate Menu Or Help Key box, type / (slash), and select the Lotus 1-2-3 Help option button.   With these settings, pressing / displays the Help For Lotus 1-2-3 Users dialog box.

Help for Lotus 1-2-3 Users dialog box options

Menu

Displays a list of Lotus 1-2-3 menu items.   Type the Lotus 1-2-3 keystrokes you would use to choose a command.   The result depends on the type of help you select in Help Options, as described below.

For multilevel Lotus 1-2-3 menus, Microsoft Excel displays the next submenu on a status line at the bottom of the dialog box.   To move down to a lower menu level, select the menu item and press ENTER or type the first letter of the menu item.

Using 1-2-3 Help/To perform command in Microsoft Excel

Initially displays instructions for using Help for Lotus 1-2-3 Users.   If you select a Lotus 1-2-3 command, this box displays instructions for performing the equivalent command in Microsoft Excel.   The title of this box changes depending on the menu item currently selected.

If you select the Instructions option under Help Options and then press ENTER when the command is selected and the procedure is visible, the dialog box disappears but the procedure remains posted on your sheet for reference as you carry out the command.   To remove the text box, press ESC.

Help Options

Allows you to choose to display the Microsoft Excel equivalent procedure for carrying out a Lotus 1-2-3 command or to watch Microsoft Excel demonstrate the equivalent steps.

If you select Instructions, Microsoft Excel displays the procedure that is equivalent to the selected Lotus 1-2-3 command.   To select this option with the mouse, click the Instructions option button.   To select this option with the keyboard, press ALT+I.

If you select Demo, Microsoft Excel demonstrates how to carry out the equivalent Microsoft Excel command step by step.   To select this option with the mouse, click the Demo button.   To select this option with the keyboard, press ALT+D.

For <u>commands requiring additional information</u>, such as cell references, you will be prompted for the necessary information at the top of your Microsoft Excel window before the demonstration starts.

The Faster and Slower buttons allow you to choose from among five demonstration speeds, with 5 being the fastest and 1 being the slowest.   The current speed is displayed in the box to the right of the two buttons.   To select faster speeds, press ALT+F.   To select slower speeds, press ALT+S.

More Help

Displays a Help topic for the Lotus 1-2-3 command selected under Menu.

OK

Carries out the selected options. If the Demo option is selected, begins performing the equivalent Microsoft Excel actions on the screen. If the Instructions option is selected, places a text box on the worksheet containing the equivalent Microsoft Excel procedure.

Close

Closes the dialog box without applying the selected options.

See Also

Switching to Microsoft Excel from Lotus 1-2-3

Help for Lotus 1-2-3 Users

When a Help for Lotus 1-2-3 Users demonstration requires additional information, such as ranges, number of decimal places, or filenames, a new dialog box is displayed at the top of the window.   The dialog box prompts you for the necessary information.

▪   In most cases, you enter data into one or more text boxes, depending on the type of data required to carry out the command.   A default value may be displayed in the text box.
▪   After making an entry, press ENTER to move to the next entry field.   On the last field, pressing ENTER causes the demonstration to proceed.
▪   To back up to a previous entry field, press ESC.   From the first field, pressing ESC displays the main Help For Lotus 1-2-3 Users dialog box.
▪   You can use the arrow keys to highlight and select a range.   You can use the PERIOD key to anchor a range to be selected.
▪   A text box may include a list box that displays one or more alternatives.   You can enter the required data or select from the list.

Esc

Displays the previous Help for Lotus 1-2-3 Users dialog box or step.

Cancel

Closes Help for Lotus 1-2-3 Users.

OK

Applies selected options and performs the demonstration.

See Also

Switching to Microsoft Excel from Lotus 1-2-3

Lotus 1-2-3 Keyboard Equivalents

Microsoft Excel default keyboard equivalents to Lotus 1-2-3 keys are listed in the following tables.   If you have not activated the <u>alternate navigation keys</u> option, these equivalents will be in effect.

Function Keys

Lotus 1-2-3	Microsoft Excel	Meaning
F1	F1	Help
F2	F2	Edit
F3	F3	Name
F4	F4	Absolute/Relative
F5	F5	Goto
F6	F6	Next window
F7	ALT, D, F	Query (first time)
	DOWN ARROW	Query (thereafter)
F8	Automatic	Table
F9	F9	Calculate
F10	F11 or ALT+F1	Graph

Navigation Keys

The default Microsoft Excel navigation keys are listed below. You can also activate Microsoft Excel's alternate navigation keys, which are equivalent to many of the Lotus 1-2-3 navigation keys.

Lotus 1-2-3	Microsoft Excel
Up, Down	UP ARROW , DOWN ARROW
Left, Right	LEFT ARROW, RIGHT ARROW
End, Up	CTRL+UP or END+UP
End, Down	CTRL+DOWN or END+DOWN
End, Left	CTRL+LEFT or END+LEFT
End, Right	CTRL+RIGHT or END+RIGHT
Home	CTRL+HOME
Tab	CTRL+PAGE DOWN
Shift+Tab	CTRL+PAGE UP
PgUp, PgDn	PAGE UP, PAGE DOWN

See Also

Help

<u>Alternate Navigation Keys</u>

<u>Keyboard Guide</u>

Switching to Microsoft Excel from Lotus 1-2-3

Lotus 1-2-3

Displays a dialog box in which you type Lotus 1-2-3 keystrokes to display instructions for completing the same operation in Microsoft Excel.

See Also

Help

Help for Lotus 1-2-3 Users

Switching to Microsoft Excel from Lotus 1-2-3

What you typed was not a Lotus 1-2-3 command sequence.

Choose the topic below or choose the Lotus 123 command from the Microsoft Excel Help menu and try again.

See Also

Help

Switching to Microsoft Excel from Lotus 1-2-3

Switching to Microsoft Excel from Lotus 1-2-3

To enter Lotus 1-2-3 formulas

You can enter any formula or function exactly as you would in Lotus 1-2-3 by selecting the Alternate Formula Entry option.

   1 From the Options menu, choose Calculation.

   2 In the Sheet Options box, select the Alternate Formula Entry check box.

For example, you might use the following formula in Lotus 1-2-3:

     @AVG(A1..A5)

With the Alternate Formula Entry option selected, the preceding formula is translated into the equivalent Microsoft Excel formula:

     =AVERAGE(A1:A5)

See Also

Help

Lotus 1-2-3 Functions

Help for Lotus 1-2-3 Users

Alternate Navigation Keys

Keyboard Guide

Switching to Microsoft Excel from Lotus 1-2-3

Multiplan Commands

[Alpha](#)
[Blank](#)
[Copy](#)
[Delete](#)
[Edit](#)
[Format](#)
[Goto](#)
[Help](#)
[Insert](#)
[Lock](#)
[Move](#)
[Name](#)
[Options](#)
[Print](#)
[Quit](#)
[Run](#)
[Sort](#)
[Transfer](#)
[Value](#)
[Window](#)
[Xternal](#)

See Also

Help
[Help Multiplan](#).

Multiplan Copy Commands

Right

Down

From

Transpose

Multiplan Delete Commands

Row

Column

Multiplan Format Commands

Cells
Default Cells
Default Width
Default Height
Options
Width
Units Currency*
Time-Date Cells*
Time-Date Replace*
Replace**
Style**
Font**

*These commands appear only in Multiplan version 3.04 and earlier.
**These commands appear only in Multiplan version 4.0 and later.

Multiplan Format Options Command

Multiplan Option	Microsoft Excel Equivalent
Commas*	Number (Format menu)
Decimal separator**	Changing the decimal separator
Error messages**	No equivalent
Formulas	Display (Options menu)

*This command appears only in Multiplan version 3.04 and earlier.

**These commands appear only in Multiplan version 4.0 and later.

Multiplan Format Time-Date Replace Command

There is no direct equivalent to the Multiplan Format Time-Date Replace command in Microsoft Excel.   You can use one of the 23 built-in time or date formats or create your own custom formats.

Multiplan Goto Commands

Macro
Name
Row-col
Window

Multiplan Insert Commands

Row
Column

Multiplan Lock Commands

Cells

Formula

Multiplan Move Commands

Row

Column

Multiplan Options Command

Multiplan Option	Microsoft Excel Command or Action
Recalc	<u>Calculation</u> (Options menu)
Iteration	<u>Calculation</u> (Options menu)
Test at	<u>Calculation</u> (Options menu)
Alpha/value	You don't need to specify alpha or value; Microsoft Excel will accept any type of valid data in the selected cell.
Learn	<u>Select</u> all the cells in which you want to enter data. The ENTER, TAB, and arrow keys move the active cell within the selection.
Mute	1 From the Excel Control menu, choose <u>Run</u> (ALT+SPACEBAR+U).
	2 Select Control Panel.
	3 Choose the OK button.
	4 Choose the Options button.
	If the warning beep is selected, a check mark is displayed next to Warning beep on the Options menu. To turn off the warning beep, choose Warning beep.
	5 From the Options menu, choose Exit to close the Control Panel.
Old menus*	No equivalent
Hold Alpha*	You don't need to hold the Alpha command; Microsoft Excel is always ready to accept data in the selected cell.

*These commands appear only in Multiplan version 4.0 and later.

Multiplan Print Commands

Printer
File
Margins
Options
Heading*

*This command appears only in Multiplan version 3.0 and later.

Multiplan Print File Command

There is no procedure in Microsoft Excel Help for the Multiplan Print File command.   For information about printing to a text file, see your Windows documentation.

Multiplan Print Options Command

Multiplan Option	Microsoft Excel Command
Area	<u>Set Print Area</u> (Options menu)
Setup*	<u>Page Setup</u> (File menu)
Formulas	<u>Display</u> (Options menu)
Row-col numbers	<u>Page Setup</u> (File menu)
Printer**	<u>Page Setup</u> (File menu)
Model**	<u>Page Setup</u> (File menu)
Draft**	<u>Print</u> (File menu)
Number of copies***	<u>Print</u> (File menu)

*This command appears only in Multiplan version 3.04 and earlier.

**These commands appear only in Multiplan version 4.0 and earlier.

***This command appears only in Multiplan version 4.2.

Multiplan Run Commands

Command
Audit Formulas
Audit Cells
Report Print
Report File
Database Forward-Search**
Database Backward-Search**
Database Extract**
Database Delete**
DOS*

*This command appears only in Multiplan version 3.04 and earlier.
**These commands appear only in Multiplan version 4.0 and later.

Multiplan Run Command Command

There is no direct equivalent to the Multiplan Run Command command in Microsoft Excel, but you can switch to DOS by using the Microsoft Windows Program Manager.

To switch to DOS

1 Press CTRL+ESC to switch to the Task List.
2 From the Task List, select Program Manager and press ENTER.
3 From the File menu, choose Run.
4 Type **command**, and choose the OK button.

To return to Microsoft Excel

1 Type **exit**.
2 Press CTRL+ESC to switch to the Task List.
3 From the Task List, select Microsoft Excel and press ENTER.

Multiplan Run Report Print Command

Option	Microsoft Excel Equivalent
Cross-ref	No direct equivalent. This command prints a report of all the cells that refer to another cell. Use the <u>Worksheet Auditor macro</u> in the Macro Library.

To track cell dependencies

1 From the Options menu, choose <u>Workspace</u>.
2 Under Display, select the Info Window box.
3 Choose the OK button.
4 From the Info menu, choose Precedents or Dependents.
5 In the Precedents or Dependents dialog box, select Direct Only or All Levels.
6 Choose the OK button.

You can also use the <u>Select Special</u> command on the Formula menu to track cell precedents and dependents.

Option	Microsoft Excel Equivalent
Names	No direct equivalent. This command prints a report of all the names in a worksheet.

To get a list of the names in a worksheet

1 Find an area in the worksheet that has a lot of empty cells.
2 Select the upper-left cell of the area.
3 From the Formula menu, choose <u>Paste Name</u>.
4 Choose Paste List.

Option	Microsoft Excel Equivalent
Summary	No direct equivalent. This command prints a report of the conditions in a worksheet that are likely to cause errors. Use the Worksheet Auditor Macro in the Macro Library to generate a report of the potential errors of your worksheet.

Multiplan Run Report File Command

Option	Microsoft Excel Equivalent
Cross-ref	No direct equivalent. Use the <u>Worksheet Auditor Macro</u> in the Macro Library. This command prints a report of all the cells that refer to another cell.

To track cell dependencies

1 From the Options menu, choose <u>Workspace</u>.
2 Under Display, select Info Window.
3 Choose the OK button.
4 From the Info menu, choose Precedents or Dependents.
5 In the Precedents or Dependents dialog box, select Direct Only or All Levels.
6 Choose the OK button.

You can also use the <u>Select Special</u> command on the Formula menu to track cell precedents and dependents.

Names	No direct equivalent. This command prints a report of all the names in a worksheet.

To get a list of the names in a worksheet

1 Find an area in the worksheet that has a lot of empty cells.
2 Select the upper-left cell of the area.
3 From the Formula menu, choose <u>Paste Name</u>.
4 Choose Paste List.

Summary	No direct equivalent. This command prints a report on the conditions in a worksheet that are likely to cause errors. Use the Worksheet Auditor Macro in the Macro Library to generate a report of the potential errors of your worksheet.

Multiplan Sort Commands

Rows

Columns

Multiplan Transfer Commands

Load
Save
Clear All
Clear Window
Delete
Options Mode
Options Setup
Rename
Import*

*This command appears only in Multiplan version 4.0 and earlier.

To clear your work and start a new document

   1 From the File menu, choose Close or Close All to close the active documents and their windows.

   2 From the File menu, choose New to start a new document.

Multiplan Transfer Clear Window Command

There is no direct equivalent to the Multiplan Transfer Clear Window command in Microsoft Excel.

- To create a new document, choose New from the File menu.
- To close the active document, choose Close from the File menu.
- To clear the contents of cells from a document, see <u>Clearing data from cells</u>.

Multiplan Window Commands

Split Horizontal

Split Vertical

Split Titles

Border

Close

Link

Multiplan Xternal Commands

Copy

List

Total

[Use](Use)

Renew

Macro Translation Assistant--Multiplan

For an introduction to the Macro Translation Assistant, select Overview.

Overview
Alert Messages
Problematic Multiplan Macros
Translate Multiplan Command
Translating Multiplan Macros
Translation Comments

Overview of Macro Translation Assistant--Multiplan

To translate a Multiplan macro, you start Microsoft Excel and open the Multiplan file containing the macros you want to translate.   Then, you start the Macro Translation Assistant by choosing the Translate Multiplan command, and specifying which macros you want to translate.

The Macro Translation Assistant translates the Multiplan macro into a Microsoft Excel macro, and writes the translated macro on a new macro sheet.   The original Multiplan commands are displayed on the new macro sheet with the translated macro, unless you clear the Verbose check box.

See Also

Alert Messages

Multiplan Commands

Problematic Multiplan Macros

Translating Multiplan Macros

Translating Multiple Macros

Translation Comments

Multiplan Alert Messages

These messages appear in alert boxes while your macro is being translated.   You must select a button in the alert box before translation can continue.

Comments that are displayed on the target macro sheet after translation is complete are called translation comments.

The alert messages, listed alphabetically, include:

Can't find Microsoft Excel.

Document no longer open.

Error: Subroutine call to undefined name.

Formula in source cell too long.

Not translated: Alpha/Value Mode not available.

Not translated: Branch through undefined menu name.

Not translated: Change in window link status not available.

Not translated: Multiplan Auditing/Reports not available.

Not translated: Multiplan Help not available.

Out of columns on target macro sheet.

Problematic Multiplan Macros

The following Multiplan macros may require editing to be correctly translated:

- Macros that <u>edit formulas</u>.
- Macros containing Multiplan commands that do not have equivalent macro functions in Microsoft Excel.
- Macros that are <u>extremely large</u>.
- Macros that contain <u>locked cells</u>.
- Macros that have been assigned <u>names or accelerator keys</u>.
- Macros that <u>save files for Multiplan use</u>.
- Macros that enter formulas containing <u>R1C1-style cell references</u>.
- Macros that contain <u>arrow key movements</u>.
- Macros that contain <u>edited range references</u>.
- Macros that contain <u>unsupported worksheet functions</u>.
- Macros that use <u>multiple windows</u>.
- Macros that contain <u>Multiplan Help</u> commands.
- Macros that contain <u>Multiplan Run Audit and Run Report Commands</u>.
- Macros that run in <u>Alpha/Value mode</u>.
- Macros that run in <u>Learn mode</u>.
- Macros that use <u>Multiplan Time and Date Formats</u>.

Translate Multiplan Command

Translates Multiplan macros into Microsoft Excel macros.

Select Source Sheet:

Lists open documents.   Select the document containing the macros you want to translate.

Select Macro(s) To Translate:

Lists macros on the document you selected.   Select the macros you want to translate.

Verbose

Selecting the Verbose check box tells the Macro Translation Assistant to enter the Multiplan macro commands being translated above the Microsoft Excel result on the target macro sheet.   The original Multiplan macro commands are printed in italic.

See Also

Help

Translating Multiplan Macros.

Translating Multiplan Macros

To translate Multiplan macros

1 Start Microsoft Excel.

2 Open the Multiplan file containing the macros you want to translate.

   To open Multiplan worksheets in Microsoft Excel, you must save those worksheets in the SYLK format.   To list those files, type ***.SLK** in the File Name box.

3 From the Microsoft Excel Control menu, choose Run (ALT+SPACEBAR+U).

4 Select Macro Translator and choose the OK button.

5 In the Macro Translation Assistant window, choose Translate Multiplan.

6 In the dialog box, select the document containing the macros you want to translate and choose the OK button.

7 In the dialog box, select the macros to translate.

   You can select multiple macros.

   If you don't want to list the original Multiplan commands in the translated macro, clear the Verbose check box.

8 Choose the OK button.

   The Macro Translation Assistant opens a new macro sheet (the target macro sheet) and begins translating.   While it translates, it displays messages in the Macro Translation Assistant window.   If an error occurs, an alert message is displayed in an alert box.

To stop translation at any time

▪   Press ESC.

   The target macro sheet is hidden during translation.   After translation is complete, or if you stop translation by pressing ESC, the target macro sheet is unhidden.

   If the Macro Translation Assistant finds something that it cannot translate, or can only translate roughly, it enters a translation comment in bold characters directly above or below the problem on the target macro sheet.

   After the macro is translated, the Macro Translation Assistant tells you that translation is complete and asks if you want to close the Macro Translation Assistant.   Choose the Yes button if you have finished translating; choose the No button if you would like to translate more macros.   If you choose Yes, another message asks if you want to open TRANSMP.XLM (unless TRANSMP.XLM is already open).   If you plan to run the translated macro now, choose Yes to open TRANSMP.XLM.

Self-modifying Macros

The <u>Macro Translation Assistant</u> translates self-modifying macros that do the following:

    1 Enter a simple string or value into a cell.
    2 Use that cell as part of a label, formula entry, or cell edit, or as an argument.

Self-modifying macros that perform the following tasks are not translatable:

- Substitute one command for another.
- Change a branch location.
- Modify a macro by entering a value or label into a cell, or by editing a cell.

To translate a macro that performs an untranslatable self-modification, edit the macro to eliminate the self-modifying instructions or so it performs the simple self-modification described here.

Translating Multiple Macros

You can translate as many macros as you like at one time, as long as all the macros are on the same source document.

1 Choose Translate Multiplan.

2 Select the document containing the macros to translate and choose the OK button.

3 In the next dialog box, select all the macros to translate:

To select one macro, use an arrow key.

To select several macros that are together, use SHIFT+ARROW key.

To select several macros that are not together, use CONTROL+ARROW key+SPACEBAR. Using the mouse, click the macro or hold down SHIFT and select several macros.

4 Choose the OK button.

If you select a macro that calls a subroutine, the <u>Macro Translation Assistant</u> automatically translates that subroutine with the calling macro.   You don't need to select the subroutine macro.

TRANSMP.XLM

A macro sheet that contains subroutines that the <u>Macro Translation Assistant</u> sometimes uses in translated macros.   All translated macros automatically open TRANSMP.XLM when they are opened.

If you want to run a macro immediately after you translate it, make sure TRANSMP.XLM is open.   Otherwise, the translated macro may try to call subroutines on TRANSMP.XLM and won't be able to access them.   If this happens, Microsoft Excel tells you that there was a macro error in the cell containing the formula that tried to call the subroutine.

After a macro is translated, a dialog box asks if you want to close the Macro Translation Assistant.   If you choose the Yes button, another message asks if you want to open TRANSMP.XLM.   If you choose Yes, make sure TRANSMP.XLM is in the current working directory.   If it is not, the Microsoft Excel title bar blinks.   To continue:

1 Switch to the Microsoft Excel window.

   Microsoft Excel says that TRANSMP.XLM is not available.

2 Choose the OK button.

   The Macro Translation Assistant then closes itself.   If you still want to run the macro, you can open TRANSMP.XLM yourself by using the Open command on the File menu.

Translation Comments

These comments are displayed on the <u>target macro sheet</u> after translation is complete. They give information about translations that may not be exact, warn you about adjustments you may want to make yourself, and so on.   Each comment is adjacent to the cell containing the macro instruction it describes.

Messages that appear in alert boxes while your macro is being translated are called <u>alert messages</u>.

The translation comments are listed alphabetically below, under headings corresponding to the part of the translation comment that precedes the colon (:).   For example, to find the comment "Not translated: All printing is formatted." look up "All printing is formatted." under the heading "Not Translated:".

Error:

<u>Can't define macro names</u>
<u>Expected reference to be a reference</u>
<u>Formula is too long to translate</u>
<u>Return in multiple states</u>
<u>String too long</u>
<u>Subroutine call to undefined name</u>

Inexact translation:

<u>Complex reference in command truncated</u>
<u>Formats whole document</u>
<u>Headers are text constants</u>
<u>Only totals numbers</u>
<u>Password ignored</u>
<u>Sets all column widths</u>

Not translated:

<u>Alpha/Value mode not available</u>
<u>Branch through undefined menu name</u>
<u>Can't translate complex self-modifying macros</u>
<u>Change in window link status not available</u>
<u>Command arguments chosen by menu are untranslatable</u>
<u>Completion test cell not available</u>
<u>Delimiters can't be specified</u>
<u>Display driver handles screen height.</u>
<u>File import query mode not available</u>
<u>Follow Mouse not available</u>
<u>International currency format not available</u>
<u>Learn mode not available</u>
<u>Links automatically updated</u>
<u>Microsoft Excel handles file replacement</u>
<u>Mouse button not available</u>
<u>Multiplan auditing/reports not available</u>
<u>Multiplan Help not available</u>
<u>Mute not available</u>
<u>Next/Previous unlocked cell not available</u>

Numeric data always interpreted to be values
Page number adjustment ignored
Printer driver handles currency symbol
Printer driver handles page length selection
Printer driver handles printer setup
Printer name needed for printer selection
Region Recalc not available
Time-Date format replacement not available

Warning:
Assuming char is cancel/replace character.
Assuming interactive cancel/replace.
Assuming interactive password.
Assuming no cancel/replace character.
Assuming no password.
Assuming password to be password.
Edited formula may be incorrect.
Edited name may be incorrect.
Edited range may be incorrect.

Not translated: Alpha/Value Mode not available.

Multiplan uses an alpha/value option, returning to data entry mode after every command instead of returning to the main menu.   Macros that rely on running in Alpha/Value mode may not translate correctly.

Not translated: Multiplan Auditing/Reports not available.

Multiplan's Run Audit and Run Report commands are not emulated in Microsoft Excel.

Use the SELECT.SPECIAL() command to examine a cell's precedents and dependents and to find error values.

Use the NAMES() macro function to retrieve all names defined on the worksheet or macro sheet.

Not translated: Branch through undefined menu name.

An undefined menu has been referenced by an 'MC or 'MN command.

Not translated: Change in window link status not available.

Multiplan allows adjacent windows to be linked to and unlinked from each other at any time. Translated macros do not support this.

Out of columns on target macro sheet.

When the Macro Translation Assistant translates subroutines and branching macros, it enters sections of the translated macro in separate columns.   Macros that contain many subroutines and use extensive branching may use all the open columns on the target macro sheet.

Break your macro into smaller pieces and try translating them separately.

Can't find Microsoft Excel.

The Macro Translation Assistant can't establish a connection to Microsoft Excel.

Make sure that:

▪ Microsoft Excel is running before you choose the Translate Lotus 1-2-3 or the Translate Multiplan command.

▪ The Ignore Remote Requests check box, which appears when you choose the Workspace command on the Options menu, has been cleared.

Document no longer open.

Either the original Lotus 1-2-3 or Multiplan worksheet or the <u>target macro sheet</u> has been closed during translation.   If you did not close the document, it was probably closed by another application using dynamic data exchange (DDE).

Open the document and start translation again.

Not translated: Multiplan Help not available.

Multiplan Help commands are not translated.

Formula in source cell too long.

The cell contains a formula that is too long to be translated.

Edit the Lotus 1-2-3 or Multiplan macro to shorten the formula.

Error: Subroutine call to undefined name.

The translator encountered a subroutine call to a name that was not defined on the source worksheet.

Alpha/Value Mode

Multiplan uses an alpha/value option, returning to data entry mode after every command instead of returning to the main menu.   Macros that rely on running in Alpha/Value mode may not translate correctly.

Arrow Key Movements

The translator translates arrow key movements into relative selections. For example, 'DK -> =SELECT(R[1]C).   Multiplan arrow keys move the highlight only to the edge of the worksheet.   Translated macros do not check this, so they can erroneously cause the highlight to wrap around to the far side of the spreadsheet.

Multiplan Run Audit and Run Report Commands

The Multiplan Run Audit and Run Report commands are not emulated in Microsoft Excel. Use the SELECT.SPECIAL() command to examine a cell's precedents and dependents and to find error values.   Use the NAMES() macro function to retrieve all names defined on the worksheet or macro sheet.

Warning: Assuming char is cancel/replace character.

This command is writing to a file.   If the file already exists, the macro needs to specify whether to cancel the save or replace the existing file.   The <u>Macro Translation Assistant</u> assumes that char specifies Cancel or Replace.

Not translated: Command arguments chosen by menu are untranslatable.

The translator is unable to translate macros that select arguments, such as filenames and range names, from a menu.   The translator doesn't know what names will be defined when the macro is run, so it cannot guess what names are being selected by moving through a menu.

Change the instruction to use regular arguments (for example, if reading a file name, type the name).

Not translated: Completion test cell not available.

Multiplan allows you to specify a cell containing a complex completion test used to determine when to terminate iteration.   Microsoft Excel iteration does not allow the user to do this;   you need to use Microsoft Excel's system of iteration.

See Also

User's Guide (Book 2)

Chapter 1,   "Analyzing and Calculating Data"

Not translated: International currency format not available.

Multiplan allows you to set the international currency symbol and the decimal separator. The Macro Translation Assistant does not support this.

Not translated: Delimiters can't be specified.

The Multiplan text file import command lets you specify which characters are to delimit data fields.   Microsoft Excel does not support this.

Not translated: Display driver handles screen height.

This command adjusts the standard screen height of the Multiplan display.   In Microsoft Windows screen height is automatically set by the display driver.

Not translated: Follow Mouse not available.

The Multiplan special mouse tracking command codes have no direct translation in Microsoft Excel.

Inexact translation: Formats whole document.

In Multiplan, a default format can be set without affecting previously formatted cells.   The translated command resets the format for the whole worksheet, including previously formatted cells.   If you don't want cells to lose previous formats, use this command before formatting any cells.

Inexact translation: Headers are text constants.

Multiplan takes a cell address for printing headers and footers, and uses the cell contents when printing.   Microsoft Excel takes string constants.   Macros that change the contents of these header cells after you specify them using the Print Heading command will not translate correctly; the contents of the cells at the time that the Print Heading command is chosen will be used instead of the new contents.

Multiplan Help

Multiplan Help commands are not translated.

Warning: Assuming interactive cancel/replace.

This command is writing to a file.   If the file already exists, the macro needs to specify whether to cancel the save or replace the existing file.   The Macro Translation Assistant assumes that the '? command is provided to let you specify Cancel or Replace.

Not translated: File import query mode not available.

The Multiplan Text File Import command has a query option that prompts the user before a cell is overwritten.   Translated macros do not support this.

Interactive Macros

The Translation of Multiplan pause macro command suffers the same limitations as the Lotus 1-2-3 pause command.   For more information about the {?} command, see the {?} command in Problematic Lotus 1-2-3 Macros.

When the Multiplan pause macro is encountered while processing a command field, only the currently selected field may be interactively edited.   Since Multiplan allows you to "tab" between fields until the pause command is terminated by a return, Multiplan allows several fields to be interactively edited.   The translator allows editing of the current field only. Modify the Multiplan macro to explicitly tab to and pause at each field to be edited.

Not translated: Links automatically updated.

Multiplan links to source worksheets must be explicitly renewed using the External Renew command.   In Microsoft Excel, these links become external references and are renewed automatically.   The Multiplan External Renew command does not require translation.

Not translated: Learn mode not available.

The Multiplan "Learn" option moves the selection in a learned direction after each data entry.   The translator does not support this option.   Macros relying on learn mode may be translated incorrectly.

Learn Mode

The Multiplan"Learn" option, which automatically moves the selection in a learned direction after each data entry, is not supported by the translator.   Macros relying on learn mode may translate incorrectly.

Not translated: Can't translate complex self-modifying macros.

The Macro Translation Assistant can translate only certain self-modifying macros.

Not translated: Mouse button not available.

Multiplan's special mouse tracking command codes have no direct translation in Microsoft Excel.

Multiple Windows

The Multiplan linked and unlinked window splits are not directly supported by Microsoft Excel.   Linked window splits are implemented with multiple panes, and unlinked window splits are implemented with separate windows.

Please note the following limitations:

1 The translator uses the Arrange All command to simulate the appearance of Multiplan's split windows.   Windows split by Multiplan, however, might not appear in the same positions on the screen when you use Microsoft Excel .   Also, if other documents are loaded, they appear within the arrangement.   Use the HIDE, SIZE, and MOVE Microsoft Excel macro functions to create the window arrangements you want.

2 The active cell in the current window may not be visible in scrolling macro commands.

3 Microsoft Excel supports only a single split in each direction.   Multiple linked window splits in the same direction will not translate.

Not translated: Mute not available.

Multiplan supports a mute option, which turns off the sound.   This option is not available in Microsoft Excel.

You can turn off the sound manually using the Control Panel.

Macro Names and Accelerator keys

Macro names and accelerator key sequences can be assigned to Multiplan macros.   Macro name and accelerator key information is lost when Multiplan SYLK files are loaded into Microsoft Excel.

To assign accelerator keys to Multiplan macros in Microsoft Excel, name the macros using the <u>Define Name</u> command on the Formula menu.

Warning: Assuming no cancel/replace character.

This command is writing to a file.   If the file already exists, the macro needs to specify whether to cancel the save or replace the existing file.   The Macro Translation Assistant did not find a Y or N to specify Replace or Cancel.   It also did not find a '? to allow you to specify a Cancel or Replace character.

To specify a Cancel or Replace, type **Y** or **N** in the same cell as the filename.

Error: Can't define macro names.

Multiplan defines macro names on worksheets.   Microsoft Excel defines macro names only on macro sheets.   If you translate a Multiplan macro that attempts to define a macro name on a worksheet, that function will return an error.

Not translated: Numeric data always interpreted to be values.

The Multiplan Text File Import command allows you to specify whether numbers are interpreted as values or as text.   In Microsoft Excel, numbers are always interpreted as values.

Not translated: Next/Previous unlocked cell not available.

Microsoft Excel does not support Multiplan commands that select the next and previous unlocked cell.

Inexact translation: Only totals numbers.

The Multiplan Xternal Transfer command translates into the Microsoft Excel PASTE.SPECIAL() command macro, with the appropriate arguments.   The resulting PASTE.SPECIAL() command ignores cells containing text.   The Xternal Transfer command copies them.

Inexact Translation: Password ignored.

The Macro Translation Assistant does not automatically translate a password.   Multiplan macros that open password-protected files cannot automatically provide the passwords.   Interactive passwords (using the pause command), however, cause the Microsoft Excel Open command on the File menu to become interactive.   You can then manually edit the translated macro command to include the password or supply the password in the Open dialog box.

Not translated: Page number adjustment ignored.

The Macro Translation Assistant does not automatically translate a page number adjustment.   Multiplan allows you to specify the first page number to be used in numbering pages to be printed and the format of the page numbers (for example, 1, i), or to manually edit the header and footer codes.

Not translated: Printer driver handles currency symbol.

Multiplan allows you to specify the character sequence used to print a currency symbol.   In Microsoft Excel, the printer driver generates the currency symbol.

Not Translated: Print to file not available.

Multiplan allows printing to a print file instead of directly to the printer.   Microsoft Excel does not allow this.

Not translated: Printer driver handles page length selection.

Multiplan allows the user to set the page length.   In Microsoft Excel, the selected printer driver controls page length.   The printer setup for the selected printer may allow you to select an approximate page length (for example, letter size), depending on the printer driver.

Not translated: Printer driver handles printer setup.

This Multiplan command specifies setup information to be sent to the printer.   In Microsoft Excel this is done for you by the selected printer driver.

Worksheet Protection

Translated Multiplan macros run only on unprotected worksheets.   Multiplan SYLK sheets containing locked cells are loaded into Microsoft Excel with protection enabled.   Protection must be disabled for translated macros to run correctly.

For translated Multiplan Lock commands to have effect, enable protection on your Microsoft Excel worksheet or macro sheet.   Multiplan Lock commands are translated into the Microsoft Excel Cell Protection command, which does not lock cells until worksheet protection is enabled.

Not translated: Printer name needed for printer selection.

The "adaptor" Multiplan print option selects a printer for a specified device name (for example, LPT1).   The Microsoft Excel PRINTER.SETUP() macro function can select a printer, but you must specify the name of the printer, as well as the device name (for example, PRINTER.SETUP("HP Laserjet+ on COM1")).   You must add this specification to the translated macro.

Warning: Assuming password to be password.

The string password is in the same cell as a filename and is followed by an 'RT.   The <u>Macro Translation Assistant</u> assumes that password is the password to be used in opening the file.

Warning: Assuming interactive password.

A '? was found in the same cell as the name of a file being opened.   The <u>Macro Translation Assistant</u> assumes that the pause was provided to allow a password to be entered.   It translates the action of opening the file using the OPEN? macro function.

Warning: Assuming no password.

If the file being opened is protected by a password, edit the Multiplan macro so that the password is in the same cell as the filename, and it is immediately followed by an 'RT.

Edited Range References

Multiplan supports range references consisting of a range of row numbers followed by a range of column numbers.   Simple references of this type are translated.   Edited references of this type, however, are not converted by the Macro Translation Assistant, and macros containing them may fail.

R1C1-Style Cell References

Translated Multiplan macros are meant to run with Microsoft Excel in the R1C1 mode.
Attempts to enter a formula containing the R1C1 reference style while Microsoft Excel is in
A1 mode will cause an error.

Not translated: Region recalc not available in Microsoft Excel.

This macro command code recalculates a specified region.   Microsoft Excel does not support this feature.

Not translated: Microsoft Excel handles file replacement.

If a Multiplan file cancel/replace character is detected, it is not translated. The Microsoft Excel macro language offers no control over whether or not a file is replaced; the "Replace existing file..." message box always appears. If the existing version of a file should always be replaced, you can disable this box by disabling error messages with the ERROR() command.

Error: Return in multiple states.

If there is more than one return from a subroutine, or if there is an 'MC (with each branch returning after the call), the different returns must all be in the same state for the Macro Translation Assistant to continue properly.   "State" consists of the menu tree location and the argument being processed, the status of processing this argument (for example, is it a string constant or is there editing, self-modification, or interactive input; is the range anchored or not), and other global settings.

Change the subroutine or 'MC branches so that returns are all in the same state.

Saving Microsoft Excel files for use with Multiplan

Microsoft Excel macros normally save files in the Normal Microsoft Excel file format.   To save files for use with Microsoft Excel using macros in Multiplan, your macros must use the SYLK format.

To create a Multiplan macro that saves files in the SYLK format, add a Transfer Options command that switches to symbolic mode (SYLK) before saving the file for the first time.

To save files when working in Microsoft Excel for use with Multiplan, edit the Microsoft Excel SAVE.AS() command to specify SYLK in the type_num field.

Inexact translation: Sets all column widths.

In Multiplan, a default column width can be set without affecting columns whose widths have previously been set.   The translated command resets the column width for all columns in the document.   If you don't want to lose previously set column widths, use this command before setting any column widths.

Not translated: Time-Date format replacement not available.

This command globally substitutes one time-date format for another.   Microsoft Excel does not support this substitution.

Time and Date Formats

In Multiplan, a cell's time-date format is maintained independent of its number format; time values are displayed in the time-date format, nontime values in the number format. Microsoft Excel makes no such distinction; choosing a time-date format replaces a cell's number format.

Multiplan allows time and date formats to be chosen from a list.   The Macro Translation Assistant supports only formats entered as text.

Multiplan allows global replacement of one time-date with another.   Microsoft Excel does not support this substitution.

Translating Large Multiplan Macros

Extremely large Multiplan macros may be difficult and time-consuming to translate.   You may want to break them into smaller parts before translation.

Inexact translation: Complex reference in command truncated.

Multiplan allows complex reference expressions within commands.   For example, with a macro Multiplan can clear a noncontiguous selection such as R1C1:R3C3,R5C1:R5C3. Microsoft Excel's macro commands cannot operate on complex references such as this. The translator displays the above message, and then shortens the reference, keeping only everything up to the first ',' or ' '(intersection).

Unsupported Worksheet Functions

The Multiplan worksheet functions NAME(), DELTA(), and ITERCNT() have no equivalents in Microsoft Excel.

Not translated: Window borders automatic under Windows.

Multiplan allows you to specify whether windows are to have borders.   This is not an option with Windows.

Not translated: Windows controls window color.

Multiplan allows each window to have its own foreground, background, and border color. Microsoft Windows does not support this; all windows receive the same colors, which are selected in the Control Panel.

Multiplan Files and Microsoft Excel

Multiplan version 4.0 and later can open and save files in a Microsoft Excel file format.

To open a worksheet in Microsoft Excel that was created with Multiplan version 3.04 and earlier

1 From the File menu, choose Open.
2 In the File Name box, type *.*
3 Choose the OK button.
4 In the list box, select the Multiplan worksheet.
5 Choose the OK button.

To save a Microsoft Excel worksheet so you can open it in Multiplan version 3.04 and earlier

1 From the File menu, choose Save As.
2 Choose the Options button.
3 In the File Format box, select SYLK.
4 Choose the OK button.
5 In the Save Worksheet As box, type a name for the Multiplan worksheet.
6 Choose the OK button.

To save a Microsoft Excel worksheet so you can open it in Multiplan version 4.0 and later

1 From the File menu, choose Save As.
2 Choose the Options button.
3 In the File Format box, select Excel 2.2.
4 Choose the OK button.
5 In the Save Worksheet As box, type a name for the Multiplan worksheet.
6 Choose the OK button.

Multiplan Function and Special Keys

Selecting and Carrying Out Commands

Multiplan key	Microsoft Excel command or action
F1 or SEMICOLON (;) or CTRL+W	1,2,3,...9 (Window menu)
F2 or CTRL+F	Find next unlocked cell
SHIFT+F2 or CTRL+R, CTRL+F	Find previous unlocked cell
F4 or EXCLAMATION MARK (!)	F9 or Calc Now button in the Calculation (Options menu) dialog box
F6 or COLON (:)	Extend the selection
ALT+H or QUESTION MARK (?)	Help

Editing Cells and Commands

Multiplan key	Microsoft Excel command or action
F3 or AT SIGN (@)	Reference (Formula menu)
F5 or CTRL+V	Edit cells on macro sheet
SHIFT+F1, SHIFT+F6	1,2,3,...9 (Windows menu)
SHIFT+F3, arrow key or AT SIGN (@), AT SIGN (@), arrow key	Paste Function (Formula menu)
F3, arrow key or @, arrow key	Paste Name (Formula menu)
SHIFT+F5 or CTRL+T	Step through macro
SHIFT+F6 or CTRL+R, CTRL+U	Recalculate links
SHIFT+F8 or CTRL+R, CTRL+O	Edit home
SHIFT+F9 or SHIFT+F7 or CTRL+R, CTRL+R	Record and Stop Recorder (Macro menu)
SHIFT+F10 or CTRL+R, CTRL+P	Edit end
F7 or CTRL+O	Word left
F8 or CTRL+P	Word right
F9 or CTRL+K	Character left
F10 or CTRL+L	Character right

Locked cells cannot be changed.

When a document is protected (with the <u>Protect Document</u> command on the Options menu), you cannot change a locked cell.   You generally cannot modify the document if it has been protected.

If you want to edit designated cells of a protected document while still protecting other parts of the document:

   1 From the Options menu, choose Unprotect Document.
   2 Type the password and choose the OK button.
   3 Select the cells you want to change.
   4 From the Format menu, choose Cell Protection.
   5 Clear the Locked check box.
   6 Choose the OK button.
   7 From the Options menu, choose Protect Document.

You may now change the contents of the cells you unlocked.

See Also

Help
<u>Cell Protection Command (Format Menu)</u>

Data type is not valid.

Either the data you entered in the dialog box could not be converted to the data type specified by the type argument of the INPUT macro function, or the data type specified for the INPUT macro function is not valid.

The type-num argument of the INPUT macro function must be one of the following numbers or the sum of a combination of two or more of the following numbers:

Type-num	Data Type
0	Formula
1	Number
2	Text
4	Logical
8	Reference
16	Error
64	Array

When you specify the type as a sum of data types, the input box accepts data of more than one type. For example, =INPUT("Enter text or a number.",3) allows input of text or numbers.

[Entry] is too long.

Formula is too long.

The formula you are entering is too long or complex.   Try breaking the formula into two or more parts and entering each into a different cell.

Text is too long.

The text you are entering is too long. You can enter a maximum of 255 characters in the formula bar or in a dialog box.   Reduce the number of characters used in the text string or cancel the entry.

Formula is not valid.

Entering a formula

The formula you have entered is not a valid Microsoft Excel formula.   For information on the correct syntax for the formula you've entered, see the Microsoft Excel Function Reference.

Either enter a valid formula or press ESC to cancel the current invalid formula.

Choosing a user-defined command

The formula associated with the command does not result in a valid macro sheet reference. Either the macro sheet associated with that command is not open, or you specified an invalid menu descriptor in an ADD.COMMAND or ADD.MENU function.

Make sure the macro references in the menu descriptor are external references entered as text.

Name in formula is unclear.

Microsoft Excel could not understand the text in the formula bar.   One of the following has happened:

▪   You want text to appear on the chart as the name of a series, but you forgot to put quotation marks around the series' title argument in the SERIES function. For example, =SERIES("Total Income",Budget!B13:G13,Budget!B14:G14,1)

▪   You want to link a text label or data series to a name on a worksheet, but you forgot to specify the worksheet in the formula. For example, for the SERIES function: =SERIES(,,Revenue!Sales,1), for a linked text formula: =Revenue!ChartTitle

▪   You want a text label on your chart to begin with an equal sign (=), but you did not enter the formula correctly. For example, ="=Total"

Determine the problem in the formula, correct it, and try again.

Error in formula.

The formula you tried to enter contains an error.   Microsoft Excel attempts to highlight the error.

If you are entering a mathematical formula, correct the formula or cancel it.   If you cannot correct the formula now and don't want to cancel it, delete the equal sign from the formula.   Microsoft Excel will enter the data as text.   Remember to fix the error and reinsert the equal sign later.

To correct the formula
1 Choose the OK button to close the message.
2 Edit the formula in the formula bar.
3 Press ENTER.

To cancel the formula
1 Choose the OK button to close the message.
2 Press ESC.

Some common formula issues include:

- Unmatched parenthesis.
- Too few or too many arguments in a function.
- Invalid character where an operator was expected.   For example: =5@7
- Worksheet name enclosed in quotation marks but not followed by an exclamation point.   For example: ='budget.xls'5
- External reference without a worksheet name (on a worksheet other than a macro sheet).   For example: =!$A$5
- Incorrectly constructed number.   For example: =5c3
- External reference referring to something other than a name or a reference.   For example: =budget.xls!5
- Missing operand.   For example: =5+
- Missing closing bracket for array constants.   For example: ={1, 2, 3,
- Nonrectangular array constant.   For example: ={1, 2, 3; 4, 5}
- Reference number out of range.   For example: A16385, R5C258   (a worksheet is 16384 rows by 256 columns).
- Nested external references.
- Alternate Formula Entry is on.   Clear the Alternate Formula Entry check box in the Calculation Options dialog box and try again.

Function is not valid.

The function you are using is either not valid in Microsoft Excel or is not valid in this type of document.   For example, the SERIES function is valid in a chart but invalid in a worksheet or macro sheet.

If you are creating a macro and using a function with a ? (question mark) attached, make sure the function corresponds to a command that has a dialog box.

Check the function, and then try again.

That name is not valid.

The name you entered to define a name for a formula or an area of the worksheet is not valid.

To enter a valid name

1 Choose the OK button to close the message box.
2 In the Name box, type a valid name.
3 Choose the OK button to define the name.

Cannot enter an external reference to a chart.

You tried to enter an external reference in a chart.

If you want to use an external reference to the data presented in a chart, you must use a reference to the worksheet cells included in the chart series formula; otherwise, you cannot enter an external reference to a chart.

Name is not defined.

The name you typed is not defined on this worksheet.

Choose the <u>Define Name</u> command from the Formula menu to see a list of the names defined on this worksheet and their correct spelling.

Number format is not valid.

Microsoft Excel cannot accept the number format you typed.
Correct the format or choose one of the built-in formats.

See Also

Help
Number Command (Format Menu)

Selection too large.

Too many cells are selected for the operation you are performing.   A selection may be too large because:

- You have nonadjacent selections comprising more than 2048 separate cell ranges.
- You are creating an array formula and the selection exceeds 1636 cells.   If possible, enter two or more separate array formulas.
- Choosing the <u>Select Special</u> command from the Formula menu starts to build a selection that is too complex.

Reduce the number of cells selected and try the operation again.   To complete the operation on the entire area, you may need to perform the operation on two or more smaller areas.

Cannot paste that macro formula onto a worksheet.

You're attempting to paste onto a worksheet a formula that is allowed only on a macro sheet.

Either paste the formula onto a macro sheet or choose a valid worksheet formula to paste onto the worksheet.

Cannot resolve circular references.

There is a circular reference and the Iteration option is not selected in the Options menu's Calculation dialog box.   Circular references can be resolved only when Iteration is selected.

▪   If you want to use iteration to resolve a circular reference, choose Calculation from the Options menu and select Iteration.

▪   If you did not intend to create a circular reference, locate the cells involved and correct the formulas.

To locate circular references

1 Look at the status bar at the bottom of the Microsoft Excel window. There will be a reference to one of the cells in the circular reference after the word "Circular."

2 Select the referenced cell.

3 From the Formula menu, choose Select Special.

4 Select Precedents or Dependents, and All Levels.   This selects all cells involved in the circular reference.   If just one cell is selected, that cell contains a formula that refers to itself.

5 Edit the formulas to resolve the circular reference.

See Also

Help

Select Special Command (Formula Menu)

Series order must be an integer between 0 and 255.

In the series formula, the series order is the order in which the series will be plotted in the chart.   Series order 1 indicates the series that will be plotted first, series order 2, the series that will be plotted second, and so on.

You must either specify an integer for the series order or leave it blank. If you leave the series order blank, Microsoft Excel plots the series last and enters the series order for you.

Series must contain at least one value.

A series formula requires at least one value to display on the chart.

Enter at least one value for the series formula and try the operation again.   If you are creating a template, either specify a dummy value in the series formula or do not enter a series formula at all.

Formula must refer to a single cell or result in a text string.

In the series formula, the argument used to generate the title of the series must result in text.   You must use one of the following:

- Text enclosed in quotation marks.
- A reference to a cell containing text.
- A reference to a name that results in text.

A formula that results in an array cannot be converted to text even if each component of the array contains text.

You cannot enter an array constant.   If you use a name in the argument that refers to an array or multiple cells, this message will appear whenever the chart is updated.

External Reference is not valid.

An external reference to a worksheet in a chart formula can be invalid for several reasons:

Entering a formula on a chart

- The worksheet containing the cells you're referring to is not open.   Open the worksheet and then enter the reference.

Updating a chart

- A text label formula, or a formula for a series title, refers to a name on a worksheet that doesn't result in text.   Check the name and make sure the name is defined as text or that it refers to a cell or formula that returns text.
- An external reference in the SERIES formula for the chart's categories or values refers to a name on the worksheet and that name defines something other than a rectangular reference or array.   Check the name and make sure it refers to a rectangular range of cells or to an array.

Cannot do that command on nonadjacent selections.

The current task cannot be performed when there are nonadjacent selections.
To complete your task, select only one area at a time and repeat the action.

Cannot access [document].

You are trying to save, open, or link to a document that currently cannot be accessed. Some possible reasons for this include:

- The document name or path you specified in a dialog box does not exist.
  Check the spelling of the name or path, and try to access the document again.

- The document you are trying to open is being used by another application.
  When the document is no longer being used, try to open it again.

- The name of the document you are trying to save is the same as the name of another document that is read-only or that is being used by another application.
  Save your document with a different name.   If you want your document to have the same name, save the read-only document as a normal read/write document, or wait until the in-use document is no longer being used.

- You are trying to save a document to a read-only network directory or disk or a network drive that has run out of disk space.
  Save the document to a different network directory or disk.

- You are trying to reopen the last-saved version of an open document, but the saved version has been deleted.
  Save the open document with another name, and then open the backup version of the deleted document if one exists.

The buttons that appear in the message box vary depending on the cause of the error.   To continue:

OK
  Closes the message box.

Retry
  Tries to access the document again.

Cancel
  Cancels the command.

Cannot open or save any more documents.

There is not enough memory to open or save any more documents.

To open more documents or save a currently open document with read and write access:

- Close documents you no longer need.
- Close and then reopen some of your documents as read-only.   Read-only documents require less memory than documents with read and write access.

Disk is full.

The disk to which you are saving your document is full, or you are trying to save your document on a write-protected floppy disk.

Either delete some files from the disk and try again, or save your document on another disk. If you are trying to save your document on a floppy disk, make sure the disk is not write-protected.

If you have saved the document on the disk before, don't assume the previous copy of your document is still on the disk.   Microsoft Excel may have erased it to make room for the new version of the document.

Unable to read file.

Microsoft Excel cannot read the file due to an unrecoverable error.   The file is probably corrupted.

Try using the backup copy of the file.

Filename is not valid.

Microsoft Excel tried to save a file and failed. The filename is not valid, the specified directory does not exist, or the directory is read-only.

If you are trying to save a <u>global macro sheet</u>, Microsoft Excel could not find the <u>XLSTART directory</u>.

A valid filename is

▪   Made up of two parts separated by a period.   The first part, called a name, can be up to eight characters long.   The second part, called an extension, can be up to three characters long.   For example: SALES.XLS

▪   A valid filename is made up of the following characters:

a-z	A-Z	0-9	period
$	%	'	-
@	{	}	~
!	#	&	_

Cannot access read-only document.

You are trying save, open, or link to a document that currently cannot be accessed.   Some possible reasons for this include:

▪   The document you are trying to open is being used by another application. When the document is no longer being used, try to open it again.

▪   The name of the document you are trying to save is the same as the name of another document that is read-only or that is being used by another application. Save your document with a different name.   If you want your document to have the same name, change the read-only document's attributes to read/write, or wait until the in-use document is no longer being used.

▪   You are trying to save a document to a read-only network directory or disk. Save the document to a different network directory or disk.

▪   You are trying to revert to the saved version of an open document, but the saved version has been deleted. Save the open document with another name, and then open the backup version of the deleted document if one exists.

The buttons that appear in the message box vary depending on the cause of the error.

OK

Closes the message box.

Retry

Tries to access the document again.

Cancel

Cancels the command.

[External Copy or SYLK]: file format is not valid.

External Copy

The file to which you are trying to establish an external reference is not a valid Microsoft Excel worksheet.   Three reasons may be:

- You did not save the document in Normal format.   Load and save it now; then try entering the external reference again.
- You misspelled the name of the worksheet to which you are trying to establish a link. Correct the spelling; then try entering the external reference again.
- You may be attempting to open a Lotus 1-2-3 file which has a damaged or invalid .FMT or .FM3 file.

SYLK

The file you are trying to open appears to be in SYLK (Symbolic Link) file format, but the format is not correct.

If the file was created with Multiplan or with Microsoft Excel for the Apple Macintosh and you saved the original file in Normal format, try opening the document with the original application and saving it again in SYLK.

Replace existing [document]?

There is already a document on the disk with the specified name.

OK

Saves the active document and replaces the document on the disk.

Cancel

Cancels the command.

Cannot save to an open document.

There is already an open document with the name you specified.

Choose a different name for your document or close the open document before saving.

Revert to saved [document]?

You have made changes to a document and have tried to open it again.

OK

Opens the document as it was before you made the changes.

Cancel

Cancels the command.

Revert to saved secondary sheets?

You have made changes to one or more of the worksheets in a 3-D Lotus 1-2-3 WK3 file. Microsoft Excel converted the 3-D file into separate documents, and you are trying to open it again.

OK

Opens the main and secondary sheets as they were before you made the changes.

Cancel

Cancels the command.

Document is not completely saved.

The save process was terminated.   There is probably not enough room on your disk for your entire document; however, some of the document may have been saved.

Make some room on your disk and save the document again, or save the document on another disk.

Delete file [filename]?

Microsoft Excel is asking if you really want to delete this file from the disk.

Yes

Permanently deletes the file from the disk.

No

The file is not deleted from the disk.

Maximum number of data series per chart is 255.

Microsoft Excel allows you to use up to 255 data series in a chart (the main chart and its overlay). If you want to plot more than 255 data series, you have to create two or more charts.

Maximum number of data points in a data series is 4000.

Microsoft Excel allows you to use up to 4000 data points per series.

If you want to plot more than 4000 data points, you have to create two or more series.

Negative or zero values cannot be plotted correctly on log charts.

Only positive values can be interpreted on a logarithmic scale.   Therefore, only values greater than zero can be plotted correctly on a log chart.

Select only positive values for the chart or choose another chart type.

Did not encounter RETURN() or HALT() on macro sheet.

While running a macro, Microsoft Excel reached the end of a column without encountering the RETURN or HALT function.

To stop a macro, you need to enter either a RETURN or HALT function.   If it appears that you have entered RETURN or HALT correctly, try using the STEP function to step through the macro and determine why Microsoft Excel did not encounter the RETURN or HALT function.

Reference must be to a macro sheet.

In the Macro menu's <u>Run Macro</u> dialog box, you can run a macro by choosing one listed in the Run box or by typing a reference to the first cell of a macro in the Reference box.

If the macro you want to run is on the active macro sheet, the reference you type in the Reference box should be either a single cell reference or a name defined on the macro sheet that refers to the first cell in a macro.   If the macro you want to run is on another macro sheet, you must include the name of the macro sheet as part of the reference.

Examples

A1	Runs the macro starting in cell A1 on the active macro sheet.
Macros!A1	Runs the macro starting in cell A1 on the Macros macro sheet.
Macros!Sort	Runs the macro starting in the cell with the name Sort on the Macros macro sheet.

Note that the Run command cannot be used to run a Lotus 1-2-3 macro. Instead, use the CTRL+[letter] key combination.

Error printing on [printer].

Microsoft Excel is unable to print. There are several possible reasons for this:

- Not enough memory.   Try closing other documents and applications (such as Help), and then try printing again.
- If you use a network for printing, the network connection may have been cancelled or your computer or printer may not be connected to the network.
- There may be loose cables or bad connections between your computer and printer.
- There may be a problem with the printer driver.   Try installing it again.

No point number is specified.

For all chart types except area charts, you must specify both series number and data point number to attach text (the value of the data point) to a data point marker.   In area charts, you only need to specify the series number; the text you type is then attached to the center of the series area.

If you do not know the series and data point numbers, select the point before you choose the Attach Text command from the Chart menu.   Microsoft Excel will provide the number of the series and data point you have selected.

No series number is specified.

For all chart types except area charts, you must specify both series number and data point number to attach text (the value of the data point) to a data point marker.   In area charts, you only need to specify the series number; the text you type is then attached to the center of the series area.

If you do not know the series and point numbers, select the point before you choose the Attach Text command from the Chart menu.   Microsoft Excel will provide the numbers of the series and data point you have selected.

If you are reformatting an overlay chart, you must specify which series is first in the overlay chart.   You can delete the overlay chart by choosing Delete Overlay from the Chart menu.

Tick mark intervals must be greater than 0.

In the Format menu's <u>Scale</u> dialog box, Major Unit and Minor Unit refer to subdivisions of the axis.   The length of a subdivision must be a positive number.

Either select the Auto check boxes for the Major Unit and Minor Unit options, or specify a number greater than zero for both.

That gallery option does not exist.

One of the Gallery macro functions calls for a chart type that is not available from that Gallery command.

Change the number to correspond to an existing type of chart.

Cannot print chart in draft quality.

Draft quality does not work for graphics.   You must print charts in standard graphics mode or better.

To print the chart

  1 From the File menu, choose Print.

  2 Clear the Draft Quality check box.

  3 Choose the OK button.

See Also

  Help

Print Command (File Menu)

To print a chart

Cannot add any more custom formats.

You can only have a total of 256 built-in and custom formats.

Before creating another format, you must delete one of the custom formats.

To delete a custom format

1 From the Format menu, choose Number.
2 Select the custom format to delete.
3 Choose the Delete button.
4 Choose the OK button.

See Also

Help

Number Command (Format Menu)

[Document] is Read-Only.

You are either trying to open a read-only document or trying to save changes to a read-only document using the current filename. To save changes to this document, choose the <u>Save As</u> command from the File menu and specify a new filename.

[Document] is currently in use.   Open as Read-Only?

The document you want to open is being used by another application. You can open the document, but you cannot change it.

OK

Opens the document as read-only.

Cancel

Does not open the document.

If you need to open and change the document, wait until it is no longer being used and try to open it again, or open it now as read-only and save it with a new name.

Sort key is not valid.

The sort key you specified cannot be used.   The sort key specifies the row or column by which Microsoft Excel sorts.

If sorting by rows, you must specify which column Microsoft Excel should look at when determining how to sort the rows.   A sort key must refer to a cell in one of the selected columns.   The cell referred to doesn't need to be within the selected area.   For example, suppose you are sorting $A$1:$D$10 by rows.   The sort key can refer to any cell in columns A, B, C, or D.

If sorting by columns, you must specify which row Microsoft Excel should look at.   For example, suppose you are sorting $A$1:$D$10 by columns.   The sort key can refer to any cell in rows 1 through 10.

Cannot change part of an array.

Microsoft Excel treats an array as a single unit; therefore, you cannot change part of an array and you cannot sort it using the <u>Sort</u> command on the Data menu.

To continue

1 Choose the OK button.
2 If necessary, press ESC to cancel the current action.

To change the individual values in an array, you must replace the array with its values.

To replace an array with its values

1 Select the entire array by pressing CTRL+/ (slash).
2 From the Edit menu, choose Copy.
3 From the Edit menu, choose Paste Special.
4 In the Paste box, select the Values option.

The array no longer exists; only its values remain.   You can change these values if you want.

See Also

Help

<u>Copy Command (Edit Menu)</u>
<u>Paste Special Command (Edit Menu)</u>

Cannot change part of a table.

Microsoft Excel treats a data table as a single unit; therefore, you cannot change part of a table and you cannot sort it using the <u>Sort</u> command on the Data menu.

To continue

1 Choose the OK button.
2 If necessary, press ESC to cancel the current action.

To change the individual values in a table, you must replace the table with its values.

To replace a table with its values

1 Select the entire table by pressing CTRL+/ (slash).
2 From the Edit menu, choose Copy.
3 From the Edit menu, choose Paste Special.
4 In the Paste box, select the Values option.

The table no longer exists; only its values remain.   You can change these values if you want.

See Also

Help

<u>Copy Command (Edit Menu)</u>
<u>Paste Special Command (Edit Menu)</u>

Cannot delete built-in format.

You cannot delete the selected format because it is a built-in format; you can delete only custom formats.

See Also

Help

Number Command (Format Menu)

Cannot save to that name.   Another document is linked to a document with that name.

An open document has links to both the file you are trying to rename and a file that has the name you typed.

Type a unique name for the file you want to rename.   Or, open the file with the name you want to use and resave it with a different name.   You can then rename the first file as you intended.

Value must be a number.

When you chose the Scale command on the Format menu, you cleared one or more Auto check boxes in the dialog box, but forgot to specify a number in the edit box associated with it.

Either enter a number or select the Auto check box you want.

Minor unit must be less than major unit.

Major and minor units are subdivisions of the axis.   Major units specify major subdivisions; minor units specify more refined or minor subdivisions of the axis.   In the Format menu's <u>Scale</u> dialog box, the number you specify for the minor unit increment must be less than the number you specify for the major unit increment.

If you don't know what values to specify, select the Auto check box next to Major Unit and Minor Unit in the Scale dialog box. Microsoft Excel will determine a correct set of values. Specify major unit and minor unit increments only if you want to customize your chart.

Maximum axis value must be greater than minimum axis value.

The minimum value is the smallest number on the axis and the maximum value is the largest number on the axis.   Numbers labeled on the axis are scaled between the minimum and the maximum.   In the Format menu's <u>Scale</u> dialog box, the number you specify for the minimum value must be less than the number you specify for the maximum value.

If you don't know what values to specify, select the Auto check box next to Minimum and Maximum in the Scale dialog box. Microsoft Excel will determine a correct set of values. Specify numbers only if you want to customize your chart.   Make sure that the maximum axis value you have specified is greater than the minimum axis value. Use the Values in Reverse Order check box to plot data from the largest to the smallest number.

Unit of log scale must be at least 10.

A log scale axis is based on powers of 10.

When specifying major and minor unit increments, you must specify a value of at least 10, and the value must be a multiple of 10.

[Name] is not a valid name.

One of the names in the selected range is not valid.

OK

   Skips the invalid name and continues to create all remaining valid names.

Cancel

   Cancels the Create Names command so it creates no more names.

To create a valid name to replace the invalid name

   1 Choose the Cancel button.

   2 Correct the invalid name.

   3 Select the range again.

   4 From the Formula menu, choose <u>Create Names</u> again.

Replace existing definition of [name]?

Using the Create Names command on the Formula menu, you tried to create a name that already exists on this worksheet.   Microsoft Excel needs to know if you want the existing definition of the name to be replaced with the new definition you're giving it.

Yes

Replaces the existing definition of the name with the new definition.

No

Leaves the existing definition of the name as it is and continues creating names.

Cancel

Cancels the command.   No additional names are created.   Names created up to the point of canceling remain in effect.

Number is not valid.

Depending on the command you've chosen, you must enter either an integer or a decimal number in the box.

If it appears you have entered a valid number, try deleting the number completely and then reentering it.

Integer is not valid.

You typed a noninteger value in a dialog box that accepts only integers.

Type an integer in the dialog box.

That name already exists.

In the last dialog box, you typed a new name for the formula to use.   However, the name you typed exists on this worksheet.

Choose OK, and then type another name for the formula to use.

No match.

Microsoft Excel could not find what you are searching for.

If you used the <u>Find</u> or <u>Replace</u> command on the Formula menu, no cell in the selection contains what you typed.

If you used the <u>Form</u>, <u>Find</u>, or <u>Delete</u> command on the Data menu, no more records match the criteria.   This means that all records matching the criteria have been found, or that there are no other records that match the criteria.

If you think there should be a match, check your typing and then try the search operation again.

Shortcut key must be a letter.

A number, punctuation mark, or other symbol, instead of a letter, was typed as a shortcut key.

Type any letter of the alphabet as the shortcut key.

Column width must be between 0 and 255.

Microsoft Excel sets column width based on the width of unformatted numeric characters. A column with a width of zero is hidden; negative values are not valid.   The maximum column width is 255 unformatted numeric characters.   The number of characters actually displayed in a cell may vary depending on the font and format.

In the Format menu's <u>Column Width</u> dialog box, change the column width to a value between 0 and 255.

Row height must be between 0 and 409.

Row height is measured in points. A row with a height of 0 points is hidden. Type a number between 0 and 409.

[Range] is not defined.

Criteria range is not defined.

Before you choose the <u>Find</u>, <u>Extract</u>, or <u>Delete</u> command from the Data menu, you must define a criteria range using the <u>Set Criteria</u> command.

To define a criteria range

1 Select the criteria range.
2 From the Data menu, choose Set Criteria.

Database range is not defined.

Before you choose the Find, Delete, Extract, or <u>Form</u> command from the Data menu, you must define a database range using the <u>Set Database</u> command.   Also, when you save a document in dBASE II, dBASE III, or dBASE IV format, Microsoft Excel saves only the database portion of a document, so you must define a database range for this operation as well.

To define a database range

1 Select the database range.
2 From the Data menu, choose Set Database.

Recorder range is not defined.

Before you can record a macro in the recorder range, an area named Recorder must be defined on your macro sheet.   You can designate the recorder range yourself with the <u>Set Recorder</u> command on the Macro menu or have Microsoft Excel determine the recorder range automatically when you choose the <u>Record</u> command from the Macro menu.   Once the recorder range has been defined, do not delete or alter the name Recorder until you have recorded the macro.   Otherwise, you will have to choose the Set Recorder or Record command to define the recorder range again before you begin recording.

Recording failed.

The recording of your macro failed due to some interference with the recorder area -- the area named Recorder on the macro sheet that is defined when you choose the <u>Set Recorder</u> command from the Macro menu.   It's also possible that Microsoft Excel ran out of memory while recording.

You cannot redefine the recorder area while you are recording a macro.   To continue with your work, the macro must be recorded again starting at the point the recording failed.

To resume recording

1 Select the area on the macro sheet where you want to record.

2 From the Macro menu, choose Set Recorder.

3 From the Macro menu, choose Start Recorder.

4 Resume recording.

Recorder range is full.

There are no more cells available in the selected area of the macro sheet for recording actions.

If you do not want to limit the area in which you can record actions, select a single cell before you choose the <u>Record</u> or <u>Set Recorder</u> command from the Macro menu.

Cannot open the Clipboard.

You are trying to do a procedure that requires the Clipboard, but Microsoft Excel is unable to open the Clipboard. Some possible reasons for this:

- Another application may be using the Clipboard for copying or pasting.   Wait for the operation to finish and try again.
- There may not be enough memory to use the Clipboard.   After closing other documents and applications (such as Help), try again.

Cannot empty the Clipboard.

You are doing a procedure that requires using the Clipboard, but the Clipboard is full and Microsoft Excel is unable to empty it. There are several possible reasons for this:

- Another application is using the Clipboard while Microsoft Excel is trying to cut or copy data onto the Clipboard.   Try performing the current operation again.
- Another application used the Clipboard but did not close it properly, preventing other applications from using it.   Quit Microsoft Excel, restart Microsoft Excel, and then try again.
- There is not enough memory to use the Clipboard.   After closing other documents and applications (such as Help), try again.

Too complex to record.

The action you are attempting to record is too complex or long.

Reduce the complex or long formulas, names, or text to two or more simpler or shorter formulas, names, or text, and then try recording again.

Cannot shift nonblank cells off sheet.

To prevent possible loss of data, Microsoft Excel will not allow you to use the <u>Insert</u> command on the Edit menu to shift cells containing data or borders beyond the edges of the worksheet.

Delete or clear the cells, or move the data to a new location and try again.

Cannot shift objects off sheet.

To prevent possible loss of data, Microsoft Excel will not allow you to use the <u>Insert</u> command on the Edit menu to shift objects beyond the edges of the worksheet.

To shift an object on your worksheet, move the object to a new location, and try again.

Fixed objects will move.

You changed the dimensions of your worksheet.   Microsoft Excel moves the fixed objects you placed near the boundaries of your worksheet so that the objects remain visible.

Cannot link to a chart.

You chose the <u>Links</u> command from the File menu and attempted to create or change links to a chart.   Microsoft Excel cannot establish or change a link from a chart to another document.   You can create links from either a worksheet or a macro sheet.

If you want to create a link to the information in a chart, you must open the worksheet containing the chart's source data.

Change DDE/OLE link failed.

You are changing a dynamic data exchange (DDE) link, or an object linking and embedding (OLE) link, and you typed a name that does not match the required syntax or a name that conflicts with one already being used in another context.

The correct DDE/OLE syntax is: application|topic!item

Check the syntax of the name you typed, and correct it if necessary.   If the syntax is correct, type a unique name.

Number must be greater than or equal to zero.

If the Iteration check box in the Calculation dialog box is selected, calculation stops when all cells change by less than the number specified in the Maximum Change box.   This number is used to limit the number of iterations and can't be less than zero. Change the number to be greater than or equal to zero.

See Also

Help
Calculation Command (Options Menu)

Cannot paste data.

This error is usually caused by conditions beyond the control of Microsoft Excel.   The Clipboard may not contain information suitable for pasting into a Microsoft Excel document, or another application may be using the Clipboard.

Cannot insert object.

You attempted to insert an object and either memory was insufficient to complete the operation, or the object specified by a macro containing an INSERT.OBJECT macro function was not a supported object type. Close any unneeded open documents and applications, or check the argument in the INSERT.OBJECT macro function and try again.

See Also

Help

Insert Object Command (Edit Menu)

Microsoft Excel Function Reference

Cannot open printer driver.

The printer driver that is needed to print your document cannot be opened. Some possible reasons for this:

- Not enough memory.   After closing other documents and applications (such as Help), try again.
- There may be some problem with the printer driver.   Try installing it again with the Control Panel.

File error: data may have been lost.

An error occurred while opening a Microsoft Excel binary file.   Some of the data in the file may not be in memory.   The problem may have been caused by another application creating a Microsoft Excel binary file incorrectly.

Resave the file and try opening it again.

A document with the name [name] is already open.

You cannot open two documents with the same name.   Even if you have documents with the same name in different directories, they must have different names if you want to open both of them at once.

To open the second document, either close the document that is now open or rename one of the documents.

Update references to unopened documents?

The document you are opening has references to cells on a worksheet or macro sheet not currently open.

Yes

Checks the unopened documents and updates simple references to them.   This will update the document you are opening with the latest values from the unopened documents.

No

Does not check unopened documents for changes in data.

In either case, the error value #REF! appears in all cells containing complex external references to unopened documents.   To recalculate these formulas, you must open the referenced documents.

[Copy or cut] and paste areas are different shapes.

The paste area you selected is either too large, too small, or the wrong shape.   If you chose Copy before choosing Paste or Insert Paste from the Edit menu, the paste area must be one of the following:

- A single cell.
- A rectangle the exact size and shape of the copied area.
- A rectangle able to contain two or more rectangles the exact shape of the copied area.

If you chose Cut from the Edit menu before Paste, the paste area must be one of the following:

- A single cell.
- A rectangle the exact size and shape of the cut area.

Check the paste area and try again.

Cannot paste a table onto a macro sheet.

The area you cut includes a table created with the <u>Table</u> command on the Data menu. Microsoft Excel does not allow this type of table on a macro sheet.

To copy data from the table to a macro sheet, use the <u>Copy</u> command on the Edit menu.

Some custom formats will not fit on the destination sheet.

When you're cutting and pasting between worksheets or extracting database records to a different worksheet, all custom number formats used in the database are copied to the destination sheet.   The total number of formats on the destination sheet plus the number of custom formats needed for extracted records cannot be more than 64.   Extracted records using the custom formats that will not fit revert to General format.

To regain formatting, you must use the <u>Number</u> command on the Format menu to delete some custom formats from the destination sheet.   This makes room for the new formats. Then, do one of the following:

- Add the custom formats you want to use and reformat the transferred data.
- From the Data menu, choose the <u>Extract</u> command again.

Cannot find [document].

Microsoft Excel cannot find the document you are trying to open.   Either the document does not exist, you specified the wrong directory or disk, or you made a spelling error.

Choose OK, and then choose the <u>Open command</u> again.   In the Open dialog box, find the correct name and location of the file you want to open, and try again.   If you are using a macro to open a document, you will probably need to include the path name as part of the document name.

Cannot access [document].

You are trying save, open, or link to a document that currently cannot be accessed.   Some possible reasons for this include:

▪   The document name or path you specified in a dialog box does not exist. Check the spelling of the name or path, and try to access the document again.

▪   The document you are trying to open is being used by another application. When the document is no longer being used, try to open it again.

▪   The name of the document you are trying to save is the same as the name of another document that is read-only or that is being used by another application. Save your document with a different name.   If you want your document to have the same name, change the read-only document's attributes to read/write, or wait until the other document is no longer being used.

▪   You are trying to save a document to a read-only network directory or disk or a network drive that has run out of disk space. Save the document to a different network directory or disk.

▪   You are trying to revert to the saved version of an open document, but the saved version has been deleted. Save the open document with another name, and then open the backup version of the deleted document if one exists.

The buttons that appear in the message box vary depending on the cause of the error.

OK
Closes the message box.

Retry
Tries to access the document again.

Cancel
Cancels the command.

Not enough system resources to display completely.

The percentage of system resources available is not sufficient for Microsoft Excel to update what is displayed on the screen.   Any command you've just chosen was completed successfully, but the screen does not completely reflect the update.

To check system resources, switch to the Microsoft Windows Program Manager and choose the About Program Manager command from the Help menu.   The percentage of free system resources is displayed in the dialog box.

To free more system resources, try closing other applications or worksheet windows.   Then, to have the data on the screen updated, move the window off the screen and back again, minimize and restore the window, or close and reopen the window.

Matching records will be permanently deleted.

You are about to permanently delete all records that match the criteria from the database.

The only way to retrieve deleted records is to reopen the original document.   When you reopen the document, you discard any changes you have made since the last time you saved it.

Incorrect password.

You attempted to turn off document protection or open a protected document without the correct password.   The document was protected and the password assigned using either the <u>Protect Document</u> command on the Options menu or <u>Save As</u> command on the File menu. You cannot turn off document protection or open a protected document without typing the correct password.

Check the password you typed and try again.

Cannot open a dependent document that contains references to different sheets with the same name.

Formulas in the dependent document contain external references to sheets with the same name in different directories.   Some of the formulas were entered without a pathname, and some were entered with a full pathname.

Example

Formula A: =SHEET1.XLS!A1

(no pathname)

Formula B: =C:\BUDGET\SHEET1.XLS!A1

(full pathname)

Microsoft Excel assumes that Formulas A and B were entered this way to differentiate between two sheets named SHEET1.XLS located in different directories.   It looks for SHEET1.XLS in Formula A in the same directory as the dependent document and uses the specified pathname to look in the BUDGET directory on Drive C to find the SHEET1.XLS in Formula B.

You are now trying to open the dependent document from the directory you specified in Formula B, but Microsoft Excel cannot distinguish between the two documents named SHEET1.XLS.

To open the document, switch to the directory in which it was created or include the entire pathname in the formula.

Use existing definition of [name]?

The formula you are pasting contains a name that already exists on the destination worksheet.   Microsoft Excel needs to know whether to use the existing definition of the name, or redefine the name to refer to the same area on the destination worksheet as it does on the original.

Yes

The name in the formula you are pasting will refer to the existing definition of the name on the destination sheet.

No

The name in the formula you are pasting will refer to the same area on the destination sheet it does on the original sheet.   You will be asked to type a new name for these cells. The name you type will be defined on the destination worksheet and the name in the formula will change to the new name.

Cancel

Cancels the Paste command.

Name cannot resemble a reference.

While changing from R1C1 to A1 reference style, Microsoft Excel encountered a name that looks like a reference.   Although names can resemble references when you're using the R1C1 reference style, they cannot do so when you're using the A1 reference style.

You must either cancel this command or type a valid name in place of the invalid one.

OK

Accepts the new name you type, if it's valid.   All formulas using the old name are changed to include the new name.

Cancel

Cancels the command.

Name cannot be the same as built-in name.

You are opening a spreadsheet saved by a Microsoft Excel version that was produced for another country, and a defined name on the spreadsheet matches a name that is reserved as a special name for your version of Microsoft Excel.

Type a different defined name.

Name already exists on destination sheet.

The formula you are pasting contains a name that already exists on the destination worksheet.   You chose No in the preceding message box to indicate that the name in the formula should not refer to the destination worksheet's existing definition of the name.

You now need to specify a new name for the formula to use.   The name you type will be defined on the destination worksheet and the name in the formula will change to the new name.   Choose OK and then type the name you want to use.

Data on the Clipboard is not the same size and shape as the selected area. Paste anyway?

The size and shape of the area selected do not match the size and shape of the data on the Clipboard.

OK

Pastes the data from the Clipboard, starting at the upper-left corner of the selected area until it fills the selected area.

Cancel

Cancels the command, leaving the data on the Clipboard.

If you choose Cancel, you can reselect the area and try again.

No link to paste.

The information necessary to create a link is not available.

If you are trying to create a link between two Microsoft Excel worksheets:

The worksheet you copied from is no longer open. Reopen the worksheet and repeat the copy and paste sequence.

If you are trying to create a link between a Microsoft Excel worksheet and a document created with another application:

The document is no longer open, the application is no longer running, or the application does not support links with other applications.

Make certain that the other application is running, the document is open, and the application supports links to other applications.   Then repeat the copy and paste sequence.

Unable to paste link.

This error is generally caused by conditions beyond the control of Microsoft Excel.   Microsoft Excel was not able to create the link because the Clipboard does not contain information suitable for pasting into a Microsoft Excel document.

Try the complete operation again.

No match in current cell.

The text you are looking for with the Formula menu's <u>Replace</u> command is not in the current cell.

If you think the text should be there, check the spelling and try again.

Cell with looping function should not contain anything else.

The FOR, FOR.CELL, WHILE, and NEXT functions are used to control loops in a macro. Because these functions control how other macro functions are carried out, you cannot enter anything else in a cell containing one of these functions.

Examples

=FOR("I",1,10) is legal.

=NEXT()5 is not legal.

Remove the extraneous information from the cell and enter the function again.

Save changes in [document]?

You have made changes to a document since the last time you saved it and you chose the Close or Exit command from the File menu, or the Close command from the Windows Control menu.

Yes

Saves the changes you've made in the document before closing it or quitting.

No

Does not save the changes you've made since the last time you saved the document.

Cancel

Cancels the command.

Reference must be to a single cell.

The reference in the Cell box of the Note dialog box refers to more than one cell.

From the Formula menu, choose the <u>Note</u> command and type a reference to a single cell in the Cell box.

Select cells in one column only.

The range you want to parse can have any number of rows; however, it can only be one column wide. Select cells in one column.

See Also

Help
Parse Command (Data Menu)

Error in parse line.

The parse line contains an error.   A right bracket ( ]) may be missing following a left bracket.

Check to see that every left bracket has a matching right bracket.   Also check that there are no nested brackets.

See Also

Help

Parse Command (Data Menu)

Cannot find data source.

You entered a reference to a document created with another application, but you did not include either the application name or the document name.   No document matching the description you provided is available.

If your reference specifies:

- The application but not the document, make sure the application is running, has open documents, and supports DDE (Dynamic Data Exchange).
- The document but not the application, make sure at least one application is running with the specified document open, and supports DDE (Dynamic Data Exchange).
- Neither the document nor the application, make sure at least one application is running, has open documents, and supports DDE (Dynamic Data Exchange).
- If you cannot remedy the problem by opening the document with the application that created it, remove the reference from your formula.

You can enter a reference to a document created with another application even if the document or the application is not available.   To do this, you must specify both the application and the document name, for example, =WinWord|'C:\SALES\NEWSALES.DOC'! DDE_LINK.

Reference is not valid.

The <u>reference</u> you specified is not a valid reference or is not valid for the particular command you chose; or, you did not enter a reference where one was required.

Microsoft Excel could not recognize what you typed as a reference.   To enter references with the keyboard, first make sure that the status bar displays "Enter," click the cell, or drag through the cell range you want to select. Using the arrow keys, first select a cell, and then press SHIFT+ARROW to extend the selection.

These techniques work when referring to cells on the same worksheet and when referring to cells on different worksheets. A reference to another Microsoft Excel worksheet is an external reference; to create <u>external references</u>, both worksheets must be open.

Data will permanently lose accuracy.

When you use the <u>Number command</u> on the Format menu to select a number format, data is normally stored as entered and displayed according to the selected format.

When you choose the <u>Calculation command</u> from the Options menu, and select the Precision as Displayed check box, all stored values are replaced.

For example, if you format a cell containing the number 1.11601 to be displayed with two decimal places, it appears as 1.12 on your worksheet.   If you select the Precision as Displayed check box, the stored value changes to 1.12; the displayed number remains the same.

OK
   Stores values with the precision as displayed.

Cancel
   Cancels the action.

Document is already protected.

The active document is already protected.   You cannot protect a document a second time without first removing the original protection.

If you are using a macro to change how a document is protected, you must first unprotect the document using the Unprotect Document command on the Options menu, and then protect it again.

Data_Form is not correct.

The name Data_Form is defined on the worksheet, but does not refer to a properly defined custom data form. A custom data form description follows the same description rules as a custom dialog box description.

Some common custom data form issues include:

- Numbers in cells for item numbers, field coordinates, height, or width are invalid.
- The custom data form description has more than 32 fields.
- The data form area is less than seven columns wide.
- The cell range containing the custom dialog box description in the Refers To box is incorrect.

Check the areas mentioned above and try the operation again.

Cannot justify cells containing numbers or formulas.
Only empty cells or cells containing text can be justified.
Change the selection to include only empty cells or cells containing text, and then try again.

Text will extend below range.

There is more text to justify than will fit in the area you selected.

OK

Justifies text into cells below the area you selected, overwriting existing data, if necessary.

Cancel

Cancels the action.

Error in dialog box at [cell].   [Message]

The custom dialog box you created contains an error at the cell indicated.

Some common custom dialog box issues include:

- Invalid numbers in any of the cells for item numbers, field coordinates, height, or width.
- More than 64 rows used in the description.
- Too much text.
- More than 32 items that accept and return values.
- Dialog box area less than seven columns wide.
- Cell reference containing the custom dialog box description in the Refers To box is incorrect.

See Also

Help

Linked or combination list box requires a preceding edit item.

Option buttons must belong to an option button group.

Option button group without option buttons.

Existing categories will be permanently deleted.

You are using the Paste Special command to paste a new data series onto a chart, and you chose to replace the existing categories.

OK

Permanently replaces existing categories with the new categories.

Cancel

Adds the new series to the chart and retains the existing categories for the chart's original series.

Displayed record will be deleted permanently.

The single record displayed in the data form will be removed from the database permanently.   Once the record is removed, the only way to retrieve it is to reopen the last saved version of the document without saving the changes in the current document, or save the current document under another name.

OK
  Deletes the record.

Cancel
  Cancels the action.

Cannot extend database.

Either extending the database would overwrite cells containing information, or there are no more rows available at the bottom of the worksheet.

Close the data form and insert rows or move information to make room at the bottom of the database.

Chart is protected and cannot be changed.

You cannot change a protected chart.

To change the chart, choose the <u>Unprotect Document command</u> from the Chart menu when the chart window is active, and then clear the Chart check box.

No cells found.

While carrying out the Select Special command, Microsoft Excel found no cells of the type you were looking for.

Try selecting a larger or different area of the worksheet and then, from the Formula menu, choose the Select Special command again.

Cannot open normal Multiplan document.

This is a normal Multiplan document.

To open it in Microsoft Excel:

1 Open the file in Multiplan.
2 Choose the Transfer Options command.
3 Choose Symbolic.
4 Save the file.
5 In Microsoft Excel, open the file using the <u>Open command</u> on the File menu.

Total number of file errors: [number]

When opening or saving a WKS, WK1, WK3, or SYLK file, or while saving a document in a file format for a previous version of Microsoft Excel, Microsoft Excel could not translate some of the cells.   This message indicates the total number of errors found.

Cannot read record [reference]. Continue reporting each error?

While opening a WKS, WK1, WK3, or SYLK document, Microsoft Excel found an error in the cell or name indicated. Microsoft Excel is asking if you want additional errors to be reported as they occur, or if you want the total number displayed once the file is completely opened.

▪   An error occurs while loading a WKS, WK1, or WK3 file if Microsoft Excel interprets two names as the same name. For example, Microsoft Excel interprets TOTAL$ and TOTAL# as the same name (TOTAL_). In this instance, change one of the names and try the procedure again.

Yes

   Reports each error as it occurs.

No

   Does not report each error as it occurs.

Cancel

   Cancels the Open command.

Whether you choose Yes or No, the total number of errors will be displayed once the file is completely opened. It's usually best to have each reported as it occurs so you can determine where problems are.

Cannot write record [reference].   Continue reporting each error?

While saving a WKS, WK1, WK3, or SYLK document, or while saving a document in a file format for a previous version of Microsoft Excel, Microsoft Excel found an error in the cell or name indicated.   Microsoft Excel is asking if you want additional errors to be reported as they occur, or if you want the total number displayed once the file is saved.

Yes

Reports each error as it occurs.

No

Does not report each error as it occurs.

Cancel

Cancels the <u>Save command</u>.

Whether you choose Yes or No, the total number of errors will be displayed once the file is completely saved.   It's usually best to have each reported as it occurs so you can determine where problems are.

Cannot convert 3-D reference: [reference].

Microsoft Excel cannot convert some Lotus 1-2-3   3-D references. In a multiple worksheet file, a Lotus 1-2-3 function might use an argument that does not refer to the same worksheet in which the function appears.   (This limitation applies only to a few functions with specific worksheet arguments, such as @COORD.)

A high-low-close stock chart must contain three series.

This type of chart is intended to compare a stock's high price, low price, and closing price for each day.   The chart must contain exactly three series in this order:

High prices
Low prices
Closing prices

The chart categories should be the days that the various prices occurred.

A volume-high-low-close stock chart must contain four series.

This type of chart is intended to show the daily volumes of stock traded and to compare a stock's high price, low price, and closing price for each day.   The chart must contain exactly four series in this order:

Volume traded

High prices

Low prices

Closing prices

The first series is plotted on the main chart; the remaining series are plotted on the overlay chart. The chart categories should be the days the various prices occurred.

An open-high-low-close stock chart must contain four series.

This type of chart is intended to compare a stock's opening price, high price, low price, and closing price for each day.   The chart must contain exactly four series in this order:

    Opening prices
    High prices
    Low prices
    Closing prices

The first series is plotted on the main chart; the remaining series are plotted on the overlay chart. The chart categories should be the days the various prices occurred.

A volume-open-high-low-close stock chart must contain five series.

This type of chart is intended to show the daily volumes of stock traded and to compare a stock's opening price, high price, low price, and closing price for each day.   The chart must contain exactly five series in this order:

- Volume traded
- Opening prices
- High prices
- Low prices
- Closing prices

The first series is plotted on the main chart; the remaining series are plotted on the overlay chart. The chart categories should be the days the various prices occurred.

References in series formulas must be external references to worksheets.

The references you entered for your chart in either the Edit Series dialog box or the series formula are not external references to the worksheet containing the data for your chart.

External references take the following form:

worksheet name!cell or range reference. Example: Sheet1!A1:B2

Change the references to external references either using the Edit Series command on the Chart menu, or editing the series formula in the formula bar.   You can type the changes to the references or select the cells on the underlying worksheet, and Microsoft Excel will enter them as external references automatically.

Redefine [stylename] based on selected cells?

The style you just selected is already applied to the selected cell.   Since then, additional formatting has been added to the cell using the toolbar or the Format menu commands.

Yes

   Redefines the current style name to include the new formatting.

No

   Reapplies the original style name and removes any new formatting.

Cancel

   Cancels the command.   The cell retains all existing formatting.

Macro with name [name] already exists.   Overwrite?

You attempted to name a macro using a name that already is defined on the current macro sheet.

Yes

The name will be assigned to the new macro, replacing the definition of the existing macro name.

No

You must provide a unique name for the macro.

Cancel

Cancels the command.

Cannot create Global Macro Sheet.

You have tried to create a global macro sheet but either there is not enough memory available, or there is already a nonmacro sheet open that has been named GLOBAL.XLM.

If not enough memory was available to create the global macro sheet, close windows, save unsaved documents, or quit other open applications as necessary to make more memory available.

If a nonmacro sheet with the name GLOBAL.XLM is open, close it or rename it using the Save As command on the File menu.

Save changes to Global Macro Sheet?

You have made changes to the <u>global macro sheet</u> during this Microsoft Excel session. The global macro sheet is hidden, and must be saved now to preserve the changes made to it.

Yes

Saves the hidden global macro sheet, and then quits Microsoft Excel.

No

Does not save the hidden global macro sheet, and then quits Microsoft Excel.

Cancel

Cancels the command.

Cannot change this cell while a macro is paused.

You attempted to make a change to a cell that is necessary for running the currently paused macro. If you need to make changes to the paused macro or one of its subroutines, you must first stop the macro and then edit the cell.

Stack overflow. Note conditions and report to your DLL provider.

This message indicates an unrecoverable error condition that exists between a Dynamic Link Library (DLL) and Microsoft Excel. Make note of the conditions that led to this error and forward this information to the developer of the DLL.

Too many fields in the data form.

You have entered too many fields in your default or custom data form.   Either type of data form can display a maximum of 32 fields.   If you are using the default data form, you can work around this limitation by using one of these options:

- Define a smaller database.
- Hide columns in your database so that your data form displays 32 or fewer fields.
- Define a custom data form that uses 32 or fewer of the fields in your database.

See Also

Help

Form Command (Data Menu)

Cannot create data form for a database in which all columns are hidden.

You are trying to create a data form for a database, but all of the columns in the database are hidden (have a width of zero). The widths of the fields in the data form correspond to the widths of the columns in the database. If all field widths are zero, nothing will appear in the data form.

To create the data form, you must unhide one or more columns in the database.

See Also

Help

Form Command (Data Menu)

Extract range is full.

There is no more room available in the selected area of the worksheet to put extracted records.

If you want to extract all records that match the criteria, select only the data field names before you choose the Extract command from the Data menu.   Existing data below the field names will be overwritten by the extracted records, if necessary.

Too many different cell formats.

For any cell, you can apply any combination of number formatting, font, alignment, borders, patterns, and protection, but Microsoft Excel can store only 4050 unique combinations of these attributes.   It's possible that you have applied the maximum number of cell formats, and no more can be added.

First, try saving the sheet, closing it, and reopening it to make more memory available, and then try to format the selection again.   If the message reappears, you must either format the selection with the same combination of attributes as another cell on the worksheet, or apply a cell style to it.

See Also

Help

Creating or deleting a style

Note will be permanently deleted.

You are about to permanently delete a note.   Once the note is deleted, there is no way to retrieve it.

OK

   Permanently deletes the selected note.

Cancel

   Cancels the command.

Create Works graphs?

Choose the OK button to tell Microsoft Excel to create accompanying graphs for the Microsoft Works worksheet you want to open.

Save large Clipboard from [filename]?

You chose the <u>Close</u> or <u>Exit</u> command on the File menu after performing a large (greater than 50 cells) copy operation.   When you're copying a large amount of data, it is placed on the Clipboard and uses a significant amount of memory.   Microsoft Excel asks if you want to save the data on the Clipboard.

Yes
   Saves the data on the Clipboard.

No
   Does not save the data on the Clipboard.

Cancel
   Cancels the Close command.

Save [document] with references to unsaved documents?

The document you are saving contains external references to documents that have never been saved.   If you choose the OK button to save the worksheet and then close it before saving the source documents, the external references to those documents may not be valid because the names of unsaved documents usually change when you save them.

To save source documents

   1 Choose the Cancel button.

   2 Save the unsaved source documents.

   3 Save the dependent document.

Choose the OK button only if you are sure you will save the unsaved source documents before closing the dependent document.

Remote data not accessible.   Start application [application]?

You initiated a dynamic data exchange (DDE) link to an application that is not running.

Yes

Microsoft Excel starts the application to access the data.

No

Microsoft Excel does not start the application. The procedure is canceled, and the data is not accessed.

Cannot quit Microsoft Excel.

You tried to quit Microsoft Excel before it was ready to quit.

To return to Microsoft Excel, choose the OK button to close the message box, and then:

- If a dialog box is still displayed, close it.
- If a macro is still running or a long calculation is in progress, wait until Microsoft Excel is finished with the task, or press ESC to cancel the task.
- If the formula bar is active, press ENTER or ESC to deactivate it.

Try to quit Microsoft Excel again.

Too many external references.

On one worksheet, you have defined external references to more than 255 other worksheets.   On any given worksheet, Microsoft Excel lets you define references to a maximum of 255 other worksheets.

Remove some of the external references on the worksheet.

Help reference is not valid.

One of the following actions occurred:

- Online Help was requested for a custom menu, custom dialog box, or custom database form that does not have a custom Help topic.
- A macro containing the HELP macro function was run. The Help reference is not in the form FILE.HLP!N, where FILE.HLP is the name of the custom Help file, and N is an integer specifying a topic in the custom Help file. Correct the Help reference so it is in the proper form.

Cannot delete [document].

Microsoft Excel cannot find the document you are trying to delete.   The document does not exist, you specified the wrong directory or disk, or you made a typing error.

Choose the OK button, and then choose the <u>Open</u> command from the File menu.   Use the Open dialog box to find the correct name and location of the file you want to delete, and try again.

If you are using a macro to delete a document, you will probably need to include the path as part of the document name.

Margins do not fit page size.

The margins you specified don't leave any room for printing on this paper size; for example, a left margin of 4 inches and a right margin of 6 inches on paper that is 8.5 inches wide.

Choose the <u>Page Setup</u> command from the File menu and adjust the margins.

Number must be between [number] and [number].

Numbers outside of the range given in the message are not valid.
Enter a number within the specified range and try again.

[Name] on [document] is not defined or is too complex.

The name you specified is either not defined on the specified document, or it is defined as something other than a rectangular cell reference; for example, another name or intersection of named ranges, a formula or a constant, or an array.

Check the name and then try again.

Merge styles that have the same names?

When you merge styles from one document to another and two or more styles have the same name, Microsoft Excel warns you that the document you are copying to contains styles with the same names.

You receive this message only once, regardless of the number of conflicting style names.

Yes

Changes the existing styles in the active document.

No

Keeps the existing styles in the active document.

Cancel

Cancels the procedure.   No styles are merged.

Database is hidden.

The database you are using is on another worksheet and all of its windows are hidden.   You cannot use the Find, Form, and Delete commands on the Data menu in this situation.

Use the Unhide command on the Window menu to make one or more of the hidden windows visible.   Then choose the Find, Form, or Delete command again.

Cannot enter a formula in a Data Form.

You tried to enter a formula in the data form.   Only numbers or text are allowed.
Change the formula to a number or text.

Cannot save to that name. Document was opened as Read-Only.

The document you are trying to save was named and opened in a read-only format.   In a read-only format, you cannot make changes to a document or save it.   To save the document now, you must give it a new name.

Save changes to current series?

You changed a series in the <u>Edit Series</u> dialog box and selected another series without choosing the OK or Define button.

Yes

Saves the changes you made to the selected series and selects the other series.

No

Removes the changes you made to the selected series and selects the other series.

Cancel

Saves the changes you made to the selected series and cancels the new selection.

Name conflict.   Rename the document you want to open.

This document has been given two different external references.

Rename the document and try again.

Dialog box contains too many items.

There are too many items in the custom dialog box.

A custom dialog box can contain no more than 64 items, 32 of which can be items that take or return arguments, and 4 of which can be list boxes. You can add no more than 1024 characters of text to a custom dialog box.

Remove some items from the custom dialog box and try again.

Cannot open protected file.

You are trying to open a file that is password-protected. Remove the password before opening the file in Microsoft Excel.

Font name is too long.

The font name you typed in the Font dialog box is too long.   The maximum number of characters you can enter is 32.

Check the length of the font name you typed and try again.

Text extends beyond worksheet.   Some text will be lost.

There is not enough room on the worksheet to justify the text you have selected.   If you choose the OK button some text will be lost.

To prevent the text from being lost, choose the Cancel button and select an area on the worksheet that is large enough to accommodate your selection.

Command not available at cell [reference].

The macro you are running has a function that corresponds to a command that is not supported in this version of Microsoft Excel.

Edit the cell by replacing the unsupported function with one that is supported.

There is nothing to print in the specified pages.

There is no data on the pages that you have specified to print.   Check to see if you have specified an incorrect range of page numbers or selected Notes in the Print dialog box when there are no notes.

Cannot create backup file.   Save [file] without backup?

Microsoft Excel cannot create a current backup file.   You may have locked or protected the previous backup file.

In order to create a current backup file, the previous backup file must be unlocked or unprotected.   Check the file and try again.

OK

Continues to save without creating a backup.

Cancel

Cancels the action.

See Also

Help

Protect Document and Unprotect Document Commands (Options Menu)

File format is not valid.

External Copy

You are trying to establish an external reference to a file that is not a valid Microsoft Excel worksheet.   Three reasons may be:

- You did not save the document in Normal format.   Open and save it now; then try to enter the external reference again.
- You misspelled the name of the worksheet to which you are trying to link.   Correct the spelling and then try to enter the external reference again.
- You may be attempting to open a Lotus 1-2-3 file which has a damaged or invalid .FMT or .FM3 file.

SYLK

The file you are trying to open appears to be in SYLK (Symbolic Link) file format, but the format is not correct.

If the file was created with Multiplan or with Microsoft Excel for the Apple Macintosh and you have the original, Normal format file, try opening the document with the original application and saving it again in SYLK format.

Cell must contain a value.

To use goal seeking, you must enter in the By Changing Cell box a reference to a cell that contains a number.

Make sure that the referenced cell contains a number, and try again.

Reference must be on the active sheet.

You entered a reference to a sheet that is not the active sheet.

If you are using Goal Seek, switch to the sheet on which you want to use goal seeking and repeat the procedure.

Cell must contain a formula.

To use goal seeking, you must enter in the Set Cell box a reference to a cell that contains a formula.

Make sure the referenced cell contains a formula and try again.

Formula in cell must result in a number.

To use goal seeking, you must enter in the Set Cell box a reference to a cell that contains a formula that results in a number.

Check the formula you are using and try again.

Calculation is incomplete. Recalculate before saving?

The document you are trying to save is set to recalculate before saving, but you pressed Esc before Microsoft Excel finished recalculating.

Yes

Recalculates the document and then saves it.

No

Saves the document without recalculating it first.

Cancel

Cancels the Save command.

See Also

Help

Calculation Command (Options Menu)

[Document] contains incomplete calculation.

Microsoft Excel is unable to complete the calculation operation for several possible reasons:

- The document you are trying to open is linked to one or more documents that were not recalculated before they were last saved.
- The formula you typed in the formula bar contains a reference to an external document that was not recalculated before it was last saved.

OK

Opens the document or enters the formula but does not recalculate the source data.

Cancel

Does not open the document or cancels the formula.

Before continuing, you may want to cancel the current operation, open the documents that were not recalculated, and recalculate them.

[Document] contains incomplete calculation.   Continue reporting each error?

One of the documents you are consolidating was not recalculated before it was saved.

Before continuing, you may want to cancel the <u>Consolidate</u> command, open the documents that were not recalculated, and recalculate them.

Yes

Continues to display this message for each occurrence of a document that was not recalculated.

No

Does not display the message if other documents were not recalculated.

Cancel

Cancels the Consolidate command.

Operation failed. [Document] is reserved by [user].

You entered the name of a document that was saved with a write-reservation password. You cannot save changes to this document name.

You can save the document with a different name, or open the document with permission to save changes by providing the write-reservation password.

See Also

Help

Save As Command (File Menu)

Operation failed. [Document] is write reserved.

You entered the name of a document that was saved as a write-reserved document in an application other than Microsoft Excel. You cannot save changes to this document name.

Save the document with a different name.

See Also

Help
Save As Command (File Menu)

Confirmation password is not identical.

The text you typed in the Reenter [password type] Password box does not match your password.

Type the password and the confirmation password and try again.

Password contains accented characters or certain punctuation marks which will not transfer correctly to Microsoft Excel for the Macintosh or Microsoft Excel for OS/2.

The password you typed in the <u>Save As</u> options dialog box or the <u>Protect Document</u> dialog box can be interpreted only by Microsoft Excel for Windows.   If you want to export this document to Microsoft Excel for the Macintosh or Microsoft Excel for OS/2, your password should not contain accented characters or punctuation marks not used in English.

OK

Accepts the password you typed and carries out the command.

Cancel

Returns you to the dialog box so you can type another password.

[Document] is being modified by [user].   Open as Read-Only?

The document you want to open is being used by another user on the network. You can open the document, but you cannot change it.

OK

Opens the document as read-only.

Cancel

Does not open the document.

If you need to open and change the document, wait until it is no longer being used and open it again, or open it now as read-only and save it with a new name.

[Document] should be opened as Read-Only unless changes to it need to be saved. Open as Read-Only?

The document you want to open was saved as read-only recommended. This is useful if the document is intended for several users on a network, because only one user at a time can open the file and change it; other users must open the file as read-only. If you do not intend to change the file, open it as read-only.

Yes

Opens the document as read-only.

No

Opens the document with write access.

Cancel

Does not open the document.

Cell with block IF function should not contain anything else.

The cell containing the block IF function can only contain the IF function.   Any nested or combined information in the cell will not be accepted.

Remove the extraneous information from the cell and enter the function again.

Reference is too complex.

You created nonadjacent selections on a worksheet and did one or both of the following:

- You started with a selection on a sheet and then selected Visible Cells in the Select Special dialog box, which created nonadjacent selections too complex for Microsoft Excel to handle.
- You exceeded the maximum number of references allowed for nonadjacent selections.   The maximum number of references is 2048.

Choose the OK button and create nonadjacent selections with fewer references.

Cannot use that command on a protected document.

The outlining tools, Bold and Italic tools, text alignment tools, and drawing tools cannot be used on a locked or read-only document.

To use these tools, remove the protection from the document by choosing <u>Unprotect Document</u> from the Options menu, and then try again.

Reference must be to a single cell on the active sheet.

The reference in the Cell box in the <u>Note</u> dialog box refers to more than one cell or to a cell on a different sheet.

Change the reference in the Cell box to refer to a single cell on the active sheet.

Cannot find macro [name].

Microsoft Excel cannot find the macro you assigned to a custom command or object, or the macro named in an ON function.

Make sure the path you specified is correct and that the name of the macro sheet and the reference to the macro are correct.   Then try the operation again.

Series definition must include a [Y or Z] reference.

After you entered a name for the series, you chose the OK or Define button before supplying the external reference for the y axis for 2-D charts or the z axis for 3-D charts. Before Microsoft Excel can create the series, you must enter the y or z values you want to plot.

Type the external reference containing the values you want to plot, or select the reference on the worksheet, and then choose the OK or Define button again.

Data may be lost saving to an old file format.

The document you saved contains features that are not supported by the old Microsoft Excel file format that you selected.

To avoid losing data and formatting, save the document in the Normal file format for Microsoft Excel version 4.0.

Cannot find [macro] which has been assigned to run each time [document] is opened.   Continuing could lead to erroneous results. Cancel Open?

Microsoft Excel cannot find the macro that is assigned to run each time this document is opened.

Make sure the path you have specified is correct and that the name of the macro sheet and the reference to the macro are correct, and try again.

Yes

Cancels opening the document.

No

Opens the document.

Cannot find [macro] which has been assigned to run each time [document] is closed.   Continuing could lead to erroneous results. Cancel Close?

Microsoft Excel cannot find the macro that is assigned to run each time this document is closed.

Make sure the path you specified is correct and that the name of the macro sheet and the reference to the macro are correct, and then try again.

Yes

   Cancels closing the document.

No

   Closes the document.

Cannot find [name].

You tried to activate or deactivate a sheet containing a macro assigned to run whenever the sheet is activated or deactivated. However, the macro could not be found.

If you used an Auto_activate or Auto_deactivate name that runs a macro that is on a sheet in a different location, be sure to include the full pathname in the name definition, and verify that the pathname is still correct.

Unable to activate the source application for this embedded object.

Microsoft Excel is unable to activate the source application for the embedded object you are trying to edit.   There may not be enough memory, or the application may have stopped due to an unrecoverable error.

Quit all unneeded applications, close all unneeded windows, and then try to edit the embedded object again.

Unable to locate the source application for this embedded object.

Microsoft Excel cannot find the source application for the embedded object you are trying to edit.   There are several possible reasons for this:

- The application may not be installed on your computer.
- If the source application is installed on a network, you may not be connected to the correct network disk.

Make sure the source application is installed or that you are connected to the correct network disk, and then try to edit the embedded object again.

Database is not defined.   File format cannot be used.

You tried to save your file in a DBF 2, DBF 3, or DBF 4 file format.   To use these file formats, you must have a database defined on your worksheet.

To continue, define a database on your worksheet or select another file format.

Sheet is protected with password.   File format cannot be used.

This document has been protected with the <u>Protect Document</u> command on the Options menu and cannot be saved in any spreadsheet file format, including Excel 2.x, SYLK, WKS, WK1, WK3, or DBx.

If you want to save the file, you can do one of the following:

- Remove the document protection using the Unprotect Document command.
- Save the file in the Normal file format or as a template.

Sheet is protected with password and formulas are displayed.   File format cannot be used.

This document has been protected with the <u>Protect Document</u> command on the Options menu and cannot be saved in the Text, CSV, or DIF file format while formulas are displayed.

If you want to save the file, you can do one of the following:

- Display values and save in a Text, CSV, or DIF file format.
- Remove the document protection using the Unprotect Document command.
- Save the file in the Normal file format or as a template.

Value is too large.

The value you specified while running a demonstration in Help for Lotus 1-2-3 Users is too large. The valid range varies depending on the specific action.

Run the command again and enter a smaller value.

Value is too small.

The value you specified while running a demonstration in Help for Lotus 1-2-3 Users is too small. The valid range varies depending on the specific action.

Run the demonstration again and enter a larger value.

Unable to import file

The Lotus 1-2-3 command /File Import was not able to import the specified file.   Check to make sure that the filename and pathname are accurate.

Unable to combine file

The Lotus 1-2-3 command /File Combine was not able to combine the specified file.   Check to make sure that the filename and pathname are accurate.

Unable to extract file

The Lotus 1-2-3 command /File Xtract was not able to extract the specified file.   This could be caused by insufficient disk space or insufficient memory to complete the operation. Try deleting unnecessary documents from your disk, using a different disk, or closing other open applications to make more memory available.

Cannot import from an open file

In Help for Lotus 1-2-3 Users, Microsoft Excel cannot run the File Import Text or File Import Numbers demonstration using a file that is already open.   Close the file containing the text or numbers you want to import, and run the demonstration again.

Cannot extract to an open file

The Lotus 1-2-3 command /File Xtract was not able to extract the specified file.   Check to make sure that the file to which you are extracting is not open. Close the file and try again.

Directory does not exist.

The directory you specified for the File Directory demonstration in Help for Lotus 1-2-3 Users does not exist.

Check the drive letter and the spelling of the path, and then run the demonstration again.

Matrix must be square.

Only square matrices can be inverted.

Make sure the range you want to invert is a square matrix containing values, and then try again.

Matrices are incompatible for multiplication.

You specified two incompatible matrices while running the Data Matrix Multiply command. When you multiply two matrices, the number of columns in the first matrix must be the same as the number of rows in the second.   The matrices can contain only values.

Check the contents, size, and shape of each matrix, and then run the demonstration again.

Output range extends beyond edge of worksheet.

The output cell or range you specified while running a demonstration in Help for Lotus 1-2-3 Users is too close to the edge of the worksheet to accommodate the result.

Specify a cell or range that is further from the edge of the worksheet, and then run the demonstration again.

Cannot split when the document has more than one window.

The Lotus 1-2-3 command /Worksheet Window Horizontal (or Vertical) was not able to split the active window because the window is already split into two panes.   In Microsoft Excel, you cannot split a window into more than two panes, but you can open multiple windows for the same document by choosing the New Window command from the Window menu.

Cannot split when windows are locked.

The Lotus 1-2-3 command /Worksheet Window Horizontal (or Vertical) was not able to split the active window because the worksheet is locked.   Unlock the worksheet using the Unprotect Document command on the Options menu, and try again.

Reference cannot be to a closed sheet.

The reference you specified while running a demonstration in Help for Lotus 1-2-3 Users does not refer to an open document.

Open the document and run the demonstration again.

Lotus 1-2-3 Help demonstrations cannot be recorded.   Stop recording and continue?

You tried to start Help for Lotus 1-2-3 Users while recording a macro, but Microsoft Excel does not record Lotus 1-2-3 Help demonstrations.

OK

Stops recording your macro and starts Help for Lotus 1-2-3 Users.

Cancel

Cancels Help for Lotus 1-2-3 Users and continues recording your macro.

Cannot post instructions because a worksheet is not active.

You opened Help for Lotus 1-2-3 Users with the Instructions option selected, but there is no worksheet on which to place the Instructions text box. Open a new or existing worksheet and try again.

Cannot post instructions because worksheet objects are currently hidden or protected.

In Help for Lotus 1-2-3 Users, Microsoft Excel cannot post instructions to a worksheet with hidden or protected objects.

To post the instructions, you must either unhide or unprotect worksheet objects. You can also post the instructions to another worksheet.

To unhide worksheet objects

1 From the Options menu, choose Display.
2 Under Objects, select the Show All option button.
3 Choose the OK button.

To unprotect worksheet objects

▪   From the Options menu, choose Unprotect Document.

Cannot post instructions because worksheet is protected.

You opened Help for Lotus 1-2-3 Users with the Instructions option selected, but the active worksheet is protected. Unprotect the worksheet using the Unprotect Document command on the Options menu, and try again.

Not enough data for Graph demonstration.

Microsoft Excel cannot run the Graph View demonstration in Help for Lotus 1-2-3 Users because you have not specified an x-axis range, one or more series ranges, or both.

To specify the x-axis and series ranges and to see the graph demonstration

1 In Help for Lotus 1-2-3 Users, run the Graph X demonstration.

2 Enter the x-axis range.

3 Run the Graph A demonstration.

4 Enter the first series range.

5 To continue entering ranges for other series, run the demonstrations for Graph B, Graph C, and so on.

6 Run the Graph View demonstration.

For a pie chart, you only need to specify one series range by running the Graph A demonstration.   No x-axis range is required.

Cannot demo with custom menus.

In Help for Lotus 1-2-3 Users, Microsoft Excel cannot complete the demonstration because you have modified one or more of the menus it needs.

You should avoid using custom menus when running demonstrations with Help for Lotus 1-2-3 Users.

Help for Lotus 1-2-3 Users is not available in group edit mode.

You cannot use Help for Lotus 1-2-3 Users when you are editing multiple worksheets as a group.

To continue

1 Choose the OK button to close the message box.
2 From the Options menu, choose Group Edit.
3 Select only one worksheet in the Select Group list.
4 Choose the OK button.
5 Start Help for Lotus 1-2-3 Users again.

Missing NEXT for loop. Macro error at cell [reference].

There is a FOR or WHILE statement in the macro without a NEXT statement to go with it.

Halt

Stops the macro.

Step

Starts the "single-step" process to step through the macro one function at a time.

Continue

Continues running the macro.

Goto

Switches to the macro sheet and selects the cell where the error occurred.

Missing loop. Macro error at cell:

There is a NEXT statement in the macro without a FOR or WHILE statement to go with it.

Halt

Stops the macro.

Step

Starts the "single-step" process to step through the macro one function at a time.

Continue

Continues running the macro.

Goto

Switches to the macro sheet and selects the cell where the error occurred.

Missing IF. Macro error at cell: [reference].

There is an ELSE, ELSE.IF, or END.IF statement in the macro without an IF statement to go with it.

Halt

Stops the macro.

Step

Starts the "single-step" process to step through the macro one function at a time.

Continue

Continues running the macro.

Goto

Switches to the macro sheet and selects the cell where the error occurred.

Missing an END.IF function. Macro error at cell: [reference].

For every block form of the IF function (IF-THEN-ELSE), there must be one END.IF function to complete the block. Check the number of block form IF functions.   Make sure you have an equal number of END.IF functions and that they are properly placed to complete each logical block of macro functions.

Cannot add another menu bar. Macro error at cell: [reference].

You have already added the maximum number of menu bars.   The maximum number of menu bars is 15. Use the DELETE.BAR macro function to delete any menu bars you are not using before adding the new menu bar.   Make sure you do not use the numbers of any deleted menu bars as arguments to other functions.

Command or menu does not exist. Macro error at cell: [reference].

You are attempting to display a command or menu that doesn't exist.

If you are displaying a built-in command or menu, make sure you are using the correct identifying name or number. If you are displaying a custom command or menu, make sure it is correctly defined on the macro sheet.

Cannot delete built-in or active menu bars. Macro error at cell: [reference].

You cannot delete built-in Microsoft Excel menu bars or the active custom menu bar.

To delete the displayed custom menu bar, use the SHOW.BAR macro function to display another menu bar, and then try the delete operation again.

Cannot enable built-in commands. Macro error at cell: [reference].

You can neither enable nor disable built-in Microsoft Excel commands using a macro. You can enable and disable custom menu commands only by using the ENABLE.COMMAND macro function.

Names cannot look like references. Macro error at cell: [reference].

A name in your macro resembles a reference. Names cannot resemble an A1-style reference when you are using that style. If you are using the R1C1 reference style, however, names can resemble the A1 reference style.

Type a <u>valid name</u> in place of the invalid one.

Option buttons must belong to an option button group.

In the area where you are defining your custom dialog box, Microsoft Excel does not know with what group to associate a particular option button.

In your custom dialog box, make sure an option button group box is defined (item type 11) before the individual buttons are defined (item type 12).

Option button group without option buttons.

In the area where you are defining an option button group (item type 11) for your custom dialog box, there are no option buttons (item type 12).

Make sure you define at least two option buttons for each option button group.

Linked or combination list box requires a preceding edit item.

You are trying to display a custom dialog box containing one of the following items:

- Linked list box (item type 16)
- Linked file list box (item type 18)
- Linked drive and directory list box (item type 19)
- Drop-down combination edit/list box (item type 22)

However, there is no preceding edit box (item types 6 through 10) in your dialog box definition table. Check the dialog box definition table and make sure an edit box is defined above the cell defining the list box.   Linked file and linked drive and directory list boxes require a preceding text edit box (item type 6).

Cannot use name that is a reference to nonadjacent cells.

The selected object or chart contains a formula that refers to a name that is a reference to nonadjacent cells.

Use the Define Name command on the Formula menu to redefine the name as a simple reference, or use another named reference.

Nonadjacent selections are not valid.

You are creating a complex reference for a series in the Edit Series dialog box or the formula bar that violates one or both of the following rules:

- All references in a complex reference must refer to the same sheet.
- All references in a complex reference must refer to rectangles of similar size.   For example, in a single complex reference, some of the references should not be to ranges of 1 by 8 cells while others are to ranges of 10 by 10 cells.

Cannot change linked data--[message].

Category range contains nonnumeric data.

You are trying to change a data point on an xy (scatter) chart by dragging it in the x-axis direction, but the category range for this chart contains nonnumeric data.   You cannot drag points in the x-axis direction in this situation.

To change a data point on an xy (scatter) chart, edit the cells in the category range so that they contain only numeric values, and then try making the change again.

Cell in source worksheet contains nonnumeric data.

The cell in the source worksheet that corresponds to the data point you are trying to change contains nonnumeric data.   Before you can change the data point, you must edit the cell so that it contains a number, a formula that returns a number, nothing, or the #N/A error value.

Cell in source worksheet is locked.

The cell in the source worksheet that corresponds to the data point you are trying to change is locked.

To unlock all cells, switch to the source worksheet and choose the Unprotect Document command from the Options menu.

Data point is linked to a formula on a macro sheet.

The cell in the source worksheet that corresponds to the data point you are trying to change is on a macro sheet.   To change the data in that cell, you must switch to the macro sheet and edit the cell directly.

Source worksheet is closed.

You cannot change a data point on a chart when the source worksheet is closed.

Open the source worksheet and try again.

Source worksheet is closed.

You cannot change a data point on a chart when the source worksheet is closed.

Open the source worksheet and try again.

Data point corresponds to a formula on a hidden worksheet.

You attempted to drag a chart data point to perform a graphical goal-seek operation, but the source worksheet is hidden. You cannot change data on a hidden worksheet. Unhide the worksheet using the <u>Unhide command</u> on the Window menu, and try again.

Data point corresponds to a formula on a macro sheet.

You attempted to drag a chart data point to perform a graphical goal-seek operation, but the source sheet is a macro sheet. You cannot perform goal-seeking on a macro sheet.

Cell in supporting worksheet is locked.

You tried to drag a point on a chart for which the corresponding cell in the linked worksheet is protected.

To drag the point, remove the protection from the supporting worksheet using the Unprotect Document command on the Options menu.

Category range contains nonnumeric data.

You manually entered a chart SERIES formula using constants for the category names argument, and these constants included nonnumeric data.   You are now trying to change a data point on an xy (scatter) chart by dragging it in the x-axis direction, but the data point uses the category argument that contains the nonnumeric data.   You cannot drag points in the x-axis direction in this situation.

Edit the SERIES formula, specifying numeric data for the category names argument, and then try to change the data point again.

Stationery document is not saved in Normal Excel format.   Opening as a nonstationery file.

You created a stationery document from the Apple desktop that was not saved in Microsoft Excel Normal file format. Microsoft Excel will open the file as a nonstationery file.

- You can save the document as a template in Microsoft Excel. The template will function in the same way as a stationery document.
- You can also save the document in Microsoft Excel Normal format, and then make it a stationery document from the Apple desktop.

Names in complex reference are not allowed.

You are creating a complex reference for a series in the Edit Series dialog box or the formula bar that contains a name.   Only cell or range references are allowed in complex references.

Use the Define Name command on the Formula menu to check the cell or range reference the name refers to and enter the reference into the complex reference for the series.

Series formula is too long.

You have entered too many references for a single series in the Edit Series dialog box or the series formula in the formula bar.

The maximum number of references in a series is 17. For example, in a single series you cannot have 1 name reference, 9 category or x references, and 9 value or y references (or z references for 3-D charts).

Use fewer references in your series or create more than one chart.

The list and decimal separators specified by the system are identical.   Substituting [punctuation mark] for the list separator.

The list and decimal separators specified in the International settings of the Control Panel are identical.   Microsoft Excel will substitute an appropriate punctuation mark for the list separator. To manually change the International settings, see your system documentation.

The date and time separators specified by the system are identical. Substituting ':' for the time separator.

The date and time separators specified in the Country settings of the Control Panel are identical.   Microsoft Excel will substitute a colon for the time separator.

To manually change the Country settings, see your system documentation.

Text in your macro may need to be translated by hand.

You are either saving a macro in the International format or saving a macro in a non-International format that was previously saved in the International format.   This may cause problems if your macro was written or recorded when United States was not the country selected in the Control Panel's International dialog box, or when other Control Panel settings were not standard for an International macro.

If you decide to save your macro in the specified format, run your macro later and make sure it works correctly.   You may have to modify the macro to run correctly under the current Control Panel settings.

OK
   Saves the macro in specified format.

Cancel
   Cancels the command.

No objects found.

You chose the <u>Select Special</u> command from the Formula menu and tried to select all objects in the document, but the document contains no objects, or all the objects are hidden.

To unhide objects

  1 From the Options menu, choose Display.

  2 Under Objects, select the Show All option button.

  3 Choose the OK button.

Unable to save external link values.

You are saving a document with external links, but there is not enough free memory to save the link values.   The document will be saved as if you had chosen the Calculation command from the Options menu and cleared the Save External Link Values check box.   Only the links to the external documents are saved, not the actual values. You can update the values the next time you open the document, provided that there is enough memory available.

Cannot print chart with the current scale and paper size; select a larger scale percentage or a smaller paper size.

You can print charts on most standard paper sizes, but Microsoft Excel cannot print on paper that is longer than approximately 22 inches on any side. Some plotter paper sizes may be too large.

If you are using a PostScript printer and have selected Size On Screen in the Page Setup dialog box, the number you entered in the Reduce/Enlarge To box, also in the Page Setup dialog box, is too small.   There are three ways to get the chart to print at the size you want:

- In the Page Setup dialog box, select a smaller Paper Size.
- Under Scaling in the Page Setup dialog box, enter a higher number.   Then, manually adjust the size of the chart window on the screen to the size you want.
- Embed the chart on a worksheet.

Cannot change to that name.   Another document is linked to a document with that name.

You tried to use the <u>Save As</u> command on the File menu to change the name of the active document to a name that is already used for a file that is saved on disk. In addition, another open document contains links to both the file you are trying to save and the file on disk.

Save the document with a different name, or redirect the links of one of the other documents.

See Also

Help

<u>Links Command (File Menu)</u>

<u>Redirecting links for source documents you rename or move.</u>

Not enough memory. Continue without Undo?

There is not enough memory for the operation you want to perform. You may be able to complete the operation, but you won't be able to choose the <u>Undo</u> command from the Edit menu after the operation has been performed.

OK

  Proceeds with the operation; you will not be able to undo it.

Cancel

  Cancels the operation, leaving the document as it was before the operation began.

Selection too large. Continue without Undo?

Microsoft Excel will not be able to undo changes made to that many cells.   You may be able to complete the operation, but you will not be able to undo it with the <u>Undo</u> command on the Edit menu.

OK

Proceeds with the operation; you will not be able to undo it.

Cancel

Cancels the operation, leaving the document as it was before the operation began.

Document not saved.

The save process was terminated.   Some possible reasons for this include:

- You pressed ESC to cancel the save operation.
- A disk read or write error occurred.
- The disk does not have enough space to hold the document.

Insert another disk, save on a disk in a different drive, or delete unnecessary files with the Delete command on the File menu, and then try saving again.

Document not saved. Any previously saved copy has been deleted.

The save process was terminated.   Microsoft Excel deleted the original document from the disk to save the version in memory but has not saved the new version successfully.

Insert another disk, save on a disk in a different drive, or delete unnecessary files with the Delete command on the File menu, and then try saving again.

No source references specified for consolidation.

The All References box in the Data menu's <u>Consolidate</u> dialog box is empty.   You must specify at least one reference as a source for data consolidation.

To specify a source reference

1 Choose the OK button.
2 From the Data menu, choose Consolidate again.
3 In the Reference box, specify a source reference.
4 Choose the Add button to add the reference to the list of source references.

Cannot open consolidation source file [filename].

Microsoft Excel is unable to open the consolidation source file and therefore cannot perform the consolidation. There are several possible reasons for this:

- Check to be sure that you have specified either Microsoft Excel or Lotus 1-2-3 files as the source files for your consolidation.
- The file doesn't exist in the current directory. Change to the correct directory or copy the file to the current directory.
- The spelling is incorrect.   Check it and try again.
- You have used an incomplete or incorrect pathname.   Type a full pathname and try again.
- The source refers to a protected file and you entered the wrong password.   Check the password and try again.

No data was consolidated.

Microsoft Excel was not able to consolidate any data. There are several possible reasons for this:

- The categories used in the destination don't match those found in the source references.
- All of the cells in the destination area contain formulas.   Microsoft Excel will not replace formulas with consolidated data.
- An error occurred during the opening of one or more of the source references.

Check the source references for missing data and the destination area for formulas, and then try again.

Cannot add duplicate source reference.

The source reference you are trying to add already exists in the All References list box in the Consolidate dialog box.

See Also

Help

Consolidate Command (Data Menu)

Consolidate_Area reference is not valid.

The Consolidate_Area must refer to a single rectangular reference on the current worksheet.

Check the Define Name command on the Formula menu to verify that the reference is correct.

Source reference overlaps destination area.

The source reference and the destination reference are overlapping.   Microsoft Excel will not consolidate data if these references overlap.

Check the references you have typed and try again.

See Also

Help

Consolidate Command (Data Menu)

Cannot create links to consolidation sheet.

In the Consolidate dialog box, the current worksheet is specified as a source reference, and the Create Links To Source Data check box is selected.   A consolidation worksheet cannot create a link to itself.

Either consolidate your data onto another worksheet, or delete any references to the current worksheet in the All References list.

See Also

Help

Consolidate Command (Data Menu)

Cannot show outline symbols.   No outline exists on the current worksheet.   Create one?

Outline symbols are displayed only when you have an outline on the active worksheet.   If a range is selected on your worksheet, Microsoft Excel creates an outline using that data.   If there is no selection, Microsoft Excel creates an outline using all the data below and to the right of the active cell.

OK

Creates an outline.

Cancel

Cancels the action.

See Also

Help

Outline Command (Formula Menu)

Cannot promote. To start an outline, select the detail rows or columns and demote them.

You tried to promote a row or column without first creating an outline on your worksheet. To create an outline, either select the detail rows or columns and demote them, or choose the Outline command from the Formula menu.

Modify existing outline?

You chose the Create button in the Outline dialog box on a worksheet that already contains an outline.

OK

Ignores the existing outline and creates a new one.

Cancel

Cancels the procedure.

See Also

Help

Outline Command (Formula Menu)

Cannot create an outline.

Microsoft Excel is unable to create an outline because it can't determine a relationship between any formulas on which to base the outline.   There are several possible reasons for this:

- ▪   The worksheet is blank or contains only constant values or text.
- ▪   None of the formulas in the worksheet depend on cells in the same row or column.
- ▪   The relationship between the formulas in the worksheet is ambiguous, and the resulting outline summaries point in conflicting directions.

Examples

Cell A5 contains =A3+A4+A6.   All references are in the same column (as required), but no outline direction is apparent, so the outline could not be created.

Cell A5 contains =A2+A3+A4.   In this example, an outline can be created in which row 5 is a summary row for the three preceding subordinate rows.

Make sure your formulas depend on cells in the same rows or columns and that their relationships are in one direction, and then try to create the outline again.

See Also

Help

Outline Command (Formula Menu)

Style name is not valid.

The style name you selected consists of only blank spaces or other invalid characters.

Check the style name you entered in the Style list box on the toolbar, and try the operation again.

See Also

Help
Creating or deleting a style

Style [name] not found.

You tried to apply a style that does not exist, using the APPLY.STYLE macro function. Check to see that the style name is spelled correctly in the macro, and that the desired style exists on the sheet on which you are applying it. You might need to first define the style on the sheet using the DEFINE.STYLE macro function.

See Also

Microsoft Excel Function Reference

A group must contain two or more sheets.

To edit several worksheets and macro sheets as a single group, you must specify at least two sheets in the Select Group box in the Group Edit dialog box.

To continue

1 Choose the OK button.
2 From the Options menu, choose Group Edit.
3 In the Select Group box, hold down CTRL and select the sheets you want to add to the group.
4 Choose the OK button.

Input and output ranges overlap.

The input range and output range you specified for the Data Matrix Multiply or Data Matrix Invert command contain one or more of the same cells.

Specify an output range that does not include any cells in the input range, and then run the command again.

The current selection already contains only visible cells.

You clicked the Select Visible Cells button on the tool bar, but there are no hidden cells in the current selection.

Choose the OK button to close the message box.

Cannot use that command while in Data Entry mode.

You tried to issue a command that is not allowed while in Data Entry mode, which was activated by the ENTER.DATA macro function. You can use the ENTER.DATA macro function again to exit Data Entry mode, or you can press the ESC key to exit Data Entry mode.

See Also

Help

Lotus 1-2-3 Range Input Command

Microsoft Excel Function Reference

Insert new page into printer

You are using the LINE.PRINT macro function with the **wait** argument set to TRUE or you are running a Lotus 1-2-3 macro that has the /wgdpw (Wait) feature on. Insert a new page into the printer.

See Also

   Help
   LINE.PRINT

AutoFormat could not detect a table around the active cell. Select the desired range and choose the command again.

You tried to perform an AutoFormat operation with only one cell selected that has no adjacent nonblank cells. If you select one cell in a range of adjacent nonblank cells, AutoFormat selects the entire range, called the current region, and applies the selected table format. If you select a cell with no adjacent nonblank cells, AutoFormat cannot determine which cells are part of a table.

Select the range you want to format; then choose the AutoFormat command again.

See Also

Help
AutoFormat Command (Format Menu for Worksheets)
Select Special Command (Formula Menu)

Continue checking at beginning of sheet?

Microsoft Excel has checked the worksheet from the active cell to the last cell. Spell checking continues from the active cell to the right and down the worksheet.

OK

Continue checking from the beginning of the worksheet to the active cell.

Cancel

Cancels the operation. Any corrections that have already been made will remain.

Could not find main dictionary.

Microsoft Excel could not find the main dictionary. If the main dictionary file does not exist on your hard drive, run the Microsoft Excel Setup program again to reinstall Microsoft Excel.

Finished spell checking [document].
Microsoft Excel has completed the spelling check.

Could not initialize spell checker.

Microsoft Excel could not run the spell checker. Make sure that the file named MSSPELL.DLL is in your WINDOWS\MSAPPS\PROOF directory.

If the spelling file does not exist on your hard drive, run the Microsoft Excel Setup program again to reinstall Microsoft Excel.

Incompatible version of spell checker.

Microsoft Excel cannot find a compatible version of the spell checker on your machine. Run the Microsoft Excel Setup program again to reinstall Microsoft Excel.

Custom dictionary [name] does not exist.   Create?

Microsoft Excel could not find the indicated custom dictionary. Make sure that the file is in your WINDOWS\MSAPPS\PROOF directory.

If the indicated file does not exist on your hard drive, choose Yes to create it.

Selection is not valid.

If you chose the <u>Copy</u> or <u>Paste</u> command from the Edit menu, the copy and paste areas cannot overlap unless they are exactly the same.

If you chose the <u>Cut</u> or Paste command from the Edit menu, and the paste area you select is a single cell, the pasted data must not extend beyond the edges of the worksheet.

If you chose the <u>Create Names</u> command from the Formula menu, the row or column containing the proposed names will not be included in the definitions of the names.

- If the names you are creating are listed in a row, you must select more than one row.
- If the names you are creating are listed in a column, you must select more than one column.

If you chose the <u>Table</u> command from the Data menu, you must select a single rectangle that is more than one row high and more than one column wide.

Recorder is not valid.

Before you can record a macro in the recorder range, you must define an area on your macro sheet with the name Recorder.   You can designate the recorder range yourself with the Set Recorder command on the Macro menu or have Microsoft Excel determine the recorder range automatically when you choose the Record command from the Macro menu. Once the recorder range has been defined, do not delete or alter the name Recorder until you have recorded the macro.   Otherwise, you will have to choose Set Recorder or Record to set the recorder range again before you begin recording.

To resume recording, choose Set Recorder, then choose Record from the Macro menu.

Recorder is not defined.

Before you can record a macro in the recorder range, you must define an area on your macro sheet with the name Recorder.   You can designate the recorder range yourself with the <u>Set Recorder</u> command on the Macro menu or have Microsoft Excel determine the recorder range automatically when you choose the <u>Record</u> command from the Macro menu. Once the recorder range has been defined, do not delete or alter the name Recorder until you have recorded the macro.   Otherwise, you will have to choose Set Recorder or Record to set the recorder range again before you begin recording.

To resume recording, choose Set Recorder, then choose Record from the Macro menu.

Formula is too long.

The formula you are entering is too long or complex.   Try breaking the formula into two or more parts and entering each into a different cell.

Text is too long.

The text you are entering is too long. You can enter a maximum of 255 characters in the formula bar or in a dialog box.   Reduce the number of characters used in the text string or cancel the entry.

If you are running a spell check, the maximum allowed length of a word is 40 characters. Please click the Ignore button to bypass words over 40 characters in length.

Number format is too long.

In the Number dialog box, you typed a custom format that is invalid. Check the type and number of placeholders and format codes, and try again.

See Also

Help

Number Command (Format Menu)

Parentheses do not match.

You have entered a formula in the formula bar with incorrect or missing parentheses. Although Microsoft Excel can add missing parentheses to simple formulas automatically, the formula you entered has more than one possible location for additional parentheses. Check the formula and add the parentheses in the appropriate place in the formula.

[Incorrect number of] arguments.

You have added either too few or too many arguments to the function you just entered. Check the proper syntax of the function, and reenter it.

See Also

Help

Functions

Paste Function Command (Formula Menu)

Microsoft Excel Function Reference

Error in Formula: Missing operand.

You have typed an incomplete formula. You must include an operand following each operator. For example, =A1+A2+ is an incomplete formula with a missing operand following the second plus sign. Add the missing operand to the formula or delete the extra operator.

Cannot access file.

You are trying to save, open, or link to a document that currently cannot be accessed. Some possible reasons for this include:

- The document name or path you specified in a dialog box does not exist.
  Check the spelling of the name or path, and try to access the document again.
- The document you are trying to open is being used by another application.
  When the document is no longer being used, try to open it again.
- The name of the document you are trying to save is the same as the name of another document that is read-only or that is being used by another application.
  Save your document with a different name.   If you want your document to have the same name, change the read-only document's attributes to read/write, or wait until the in-use document is no longer being used.
- You are trying to save a document to a read-only network directory or disk.
  Save the document to a different network directory or disk.
- You are trying to revert to the saved version of an open document, but the saved version has been deleted.
  Save the open document with another name, and then open the backup version of the deleted document if one exists.

The buttons that appear in the message box vary depending on the cause of the error.

OK
   Closes the message box.

Retry
   Tries to access the document again.

Cancel
   Cancels the command.

Invalid register id, or function not registered yet.

You have used a dynamic link library (DLL) function or command that has not been registered in the current session. DLL functions and commands that you want to use must be registered each time Microsoft Excel is started.

No references found.

You tried to use the Apply Names command to replace references in formulas with their equivalent names. Microsoft Excel could not find any references that match the definitions of the selected names.

Input cell reference is not valid.

When you are constructing a data table, references for the row and column input cells must refer to single cells.   The cell referenced for each cannot be within the table itself.

For a one-input table, you will have either a row input cell or a column input cell, but not both.

See Also

Help

Table Command (Data Menu)

First document in the workbook must be a worksheet.

You tried to save a <u>workbook</u> as a WK3 file without a worksheet as the first document. Move any other types of documents from the beginning of the list of documents in the Workbook Contents window.

See Also

Help

<u>Save Workbook Command (File Menu)</u>

<u>To add or remove a document from a workbook</u>

<u>To move between workbook documents</u>

<u>To reorder documents in a workbook</u>

<u>Workbooks</u>

Cannot save workbook with no worksheet as a WK3 file.

You have not designated a worksheet as the first document in a <u>workbook</u>, or no worksheet file was included in your list of workbook documents. Move any other types of documents from the beginning of the list of documents in the Workbook Contents window, or add a worksheet to your workbook.

See Also

Help

<u>Save Workbook Command (File Menu)</u>

<u>To add or remove a document from a workbook</u>

<u>To move between workbook documents</u>

<u>To reorder documents in a workbook</u>

<u>Workbooks</u>

Cannot save unbound workbook as a WK3 file.

You have designated one or more worksheets in the <u>workbook</u> to be saved as separate files. To save your workbook as a WK3 file, all documents must be <u>bound</u> as a workbook file.

See Also

Help

<u>Save Workbook Command (File Menu)</u>

<u>To add or remove a document from a workbook</u>

<u>To move between workbook documents</u>

<u>To reorder documents in a workbook</u>

<u>Workbooks</u>

Cannot save workbook with macro sheets as a WK3 file.

You have included one or more macro sheets in a workbook that you want to save as a WK3 file. Macro sheets have no equivalent in WK3 files, so you must remove any documents that are not macro sheets from the list of documents in the Workbook Contents window.

See Also

Help

Save Workbook Command (File Menu)

To add or remove a document from a workbook

To move between workbook documents

To reorder documents in a workbook

Workbooks

Update embedded objects?

You chose the Save or Save As command from the Edit menu while a worksheet containing open embedded objects was active. You can choose to save or discard the newly edited versions of the embedded objects.

Yes

Updates the embedded objects and saves the worksheet.

No

Does not update the embedded objects and saves the worksheet.

Cancel

Cancels the command.

Cannot bind a document with the same name as another bound document.

Microsoft Excel cannot bind two documents with the same name into the same workbook. Either save the <u>unbound</u> document with a new name, or change the name of the <u>bound</u> document by using the Options button in the Workbook Contents window.

See Also

Help

<u>Save Workbook Command (File Menu)</u>

<u>To add or remove a document from a workbook</u>

<u>To move between workbook documents</u>

<u>To reorder documents in a workbook</u>

<u>Workbooks</u>

Cannot unbind a document with the same name as another open document

You cannot have two documents with the same name open at the same time. Change the name of the bound document so that it does not conflict with the name of another open document, then unbind it.

See Also

Help

Save Workbook Command (File Menu)

To add or remove a document from a workbook

To move between workbook documents

To reorder documents in a workbook

Workbooks

Workbook is protected and cannot be changed.

You cannot make changes to protected workbooks. You must go to the contents page of the workbook and use the Unprotect Document command on the Options menu before you can make changes.

See Also

Help

Protect and Unprotect Document Commands (Options Menu)

Save Workbook Command (File Menu)

To add or remove a document from a workbook

To move between workbook documents

To reorder documents in a workbook

Workbooks

Cannot use this command with a workbook or WK3 file open.

You must close all open workbooks and WK3 files before you can choose the <u>Introducing Microsoft Excel</u> or <u>Learning Microsoft Excel</u> command from the Help menu.

Document in more than one workbook. Activate workbook contents and try again.

You have chosen the Save Workbook command from the File menu while an <u>unbound</u> document is active that is included in more than one open <u>workbook</u>.

If you want to save the document itself, choose the Save command from the File menu. The updated version of the document will be opened when you open any workbooks with which it is associated.

If you want to save a new version of one of the workbooks associated with the active document , save the workbook while the Workbook Contents window is active.

See Also

Help

<u>Save Workbook Command (File Menu)</u>

<u>To add or remove a document from a workbook</u>

<u>To move between workbook documents</u>

<u>To reorder documents in a workbook</u>

<u>Workbooks</u>

This chart graphs data from more than one worksheet.   Use the Chart Edit Series command to change its plot data.

You have chosen the ChartWizard tool while a chart that uses data from multiple worksheets is active. The ChartWizard can only be used to adjust the data series of a chart that has a single source worksheet. The active chart has references to more than one worksheet in its data series formulas. You must use the Edit Series command on the Chart menu to make changes to this chart.

See Also

Help

ChartWizard tool
Edit Series Command (Chart Menu)

This chart graphs constant data.   Use the Chart Edit Series command to change its plot data.

You have chosen the ChartWizard tool while an unlinked chart is active. The ChartWizard uses external references to another worksheet to adjust the data series of a selected chart. The active chart has no external references in its data series formulas. You must use the Edit Series command on the Chart menu to make changes to this chart.

See Also

Help

ChartWizard tool
Edit Series Command (Chart Menu)

This chart graphs data from an unopen worksheet.   Use the File Links command to open the supporting document.

You have chosen the ChartWizard tool while a chart whose source worksheet is not open is active. The ChartWizard uses references to the source worksheet to adjust the data series of a selected chart. Use the Links command on the File menu to open the source worksheet.

See Also

Help

ChartWizard tool
Links Command (File Menu)

Update object [name] in [document]?

You chose the <u>Exit command</u> from the File menu while editing an Excel document that will become an embedded object in another document. You can choose to send the Microsoft Excel object to the destination document, or discard it.

Yes

Sends the embedded object to the destination document and quits Microsoft Excel.

No

Does not send the embedded object to the destination document and quits Microsoft Excel.

Cancel

Cancels the command.

Cannot execute [program].   The program or one of its components is damaged or missing.

You ran a macro that includes the EXEC macro function, but the EXEC function could not open the indicated program. Check to make sure that all the files necessary for the program to run are available, and that the syntax of the EXEC function is correct. You may need to include the path along with the name of the program you need to run. The EXEC function uses the form:

=EXEC(**program_text**, window_num)

Make sure that the name of the program matches the argument program_text exactly, and that it is surrounded by quotation marks in the formula.

For example:

=EXEC("C:\WINWORD.EXE", 1)

See Also

Microsoft Excel Function Reference

A surface chart must contain at least two series.

You attempted to create a surface chart with only one data series selected on the worksheet. Either select two or more data series before creating the surface chart, or select another chart type.

Criteria range is not valid.

The criteria range must be a single rectangle more than one row high.

- For comparison criteria, the first row of the criteria range must contain one or more field names from the database.
- For computed criteria, the first row of the criteria range must either be blank or contain a criteria name different from any database field name.

Redefine the criteria range using the Set Criteria command on the Data menu.

See Also

Help

Set Criteria Command (Data Menu)

Database range is not valid.

The database range must be a single rectangle more than one row high.   The first row of the database range must contain the database field names.

When defining a database range, make sure you include in the selection the field names and an extra blank row below the last record of your database. A worksheet can have only one database defined at a time.

Redefine the database range using the Set Database command on the Data menu.

See Also

Help

Set Database Command (Data Menu)

Extract range is not valid.

The extract range must be a single rectangle containing either field names or field names with empty cells beneath them that will contain the extracted data.   The field names must match field names in the database.   Either one or more field names in the extract range is not from the database, or the extract range contains a blank cell in the field name row.

Try copying the field names from the first row of the database and pasting them into the first row of the extract range.   Select the extract range and choose the Extract command again.   Or, redefine the extract range using the Set Extract command, and then choose Extract.

See Also

Help

Extract Command (Data Menu)

Set Extract Command (Data Menu)

Global Macro Sheet in the startup directory must stay open for recording.

You attempted to record a global macro while a <u>global macro sheet</u> exists in the startup directory but is not currently open. Either the global macro sheet was closed and it must be reopened, or the file is corrupted or empty.

To open the global macro sheet
1 From the File menu, choose Open.
2 Select GLOBAL.XLM in the XLSTART directory.
3 Choose the OK button.

If you cannot open the global macro sheet
1 From the File menu, choose Delete.
2 Select GLOBAL.XLM in the XLSTART directory.
3 Choose the OK button.
4 Try recording your global macro again.

Any global macros previously recorded will be lost if you delete the global macro sheet. Now you can record your new global macros. Remember that when you open the global macro sheet, it will probably not appear in a window because it is normally a hidden sheet. If it is visible when you open it, choose the <u>Hide command</u> from the Window menu.

Cannot save Global Macro Sheet in the startup directory. You may save it elsewhere now and move it to the startup directory later.

You tried to save a global macro sheet, but the XLSTART directory does not exist, the disk on which the XLSTART directory resides is full, or you do not have write privileges for the GLOBAL.XLM macro sheet.

See Also

Help

Alternate Startup Directory

Invalid [dictionary name].

You attempted to check spelling, but Microsoft Excel could not open the specified dictionary. If the main dictionary was specified, you must rerun the Microsoft Excel Setup program. If a custom dictionary was specified, you will need to first delete the existing custom dictionary file on disk and then re-create it.

See Also

Help

Spelling Command (Options Menu)

Could not read [dictionary name].

You attempted to check spelling, but Microsoft Excel could not read the specified dictionary. If the main dictionary was specified, rerun the Microsoft Excel Setup program. If a custom dictionary was specified, either specify another dictionary, or delete the existing custom dictionary file on disk and then re-create it.

See Also

Help

Spelling Command (Options Menu)

Could not write [dictionary name].

You attempted to check spelling, but Microsoft Excel could not write to the specified dictionary file. Check to make sure that the specified dictionary file is not read-only. Otherwise, if the main dictionary was specified, you must rerun the Microsoft Excel Setup program. If a custom dictionary was specified, you will need to first delete the existing custom dictionary file on disk and then re-create it.

See Also

Help
Spelling Command (Options Menu)

Could not create [dictionary name].

You attempted to create a new custom dictionary, but Microsoft Excel could not create the file. Possible causes are:

- The filename you used for the custom dictionary is invalid.
- There is not enough room on your disk for the custom dictionary file.
- You tried to save the custom dictionary to a read-only disk.

See Also

Help

Spelling Command (Options Menu)

Could not share [dictionary name].

You attempted to check spelling, but the specified dictionary file was in use by another application. If you are running another application that is using the dictionary file, quit the other application and try running the spelling checker again. If you are using Microsoft Excel on a network, another person may be using the dictionary file. Wait and try to check spelling again later.

Custom dictionary is full.

The specified custom dictionary is full. Create a new custom dictionary with a different name, or delete some entries in the current custom dictionary to make room for the new entries you want to include.

See Also

Help

Spelling Command (Options Menu)

Could not open [dictionary name].

You attempted to check spelling, but Microsoft Excel could not open the specified dictionary. If the main dictionary was specified, you must rerun the Microsoft Excel Setup program. If a custom dictionary was specified, make sure the filename refers to an actual dictionary file.

See Also

Help

Spelling Command (Options Menu)

Dictionary is too large.

The specified custom dictionary is too large. Create a new custom dictionary with a different name, or delete some entries in the current custom dictionary to make room for the new entries you want to include.

See Also

Help

Spelling Command (Options Menu)

The [selected text] is spelled correctly.

You selected text in the formula bar, on the worksheet, or in a text box and then chose the Spelling Command from the Options menu. Microsoft Excel determined that the selected text is spelled correctly.

See Also

Help

Spelling Command (Options Menu)

Font size must be between 1 and 409 points.

Font size is measured in points.   Negative values and decimal values are not valid.   The maximum size you can enter is 409 points.   The <u>Font</u> command on the Format menu displays a dialog box that lists sizes available for display or for printing.   If you type a size that differs from one of those in the box, Microsoft Excel attempts to produce that size as closely as possible.   Depending on your screen display and your printer driver, the results may appear ragged.

Check the font size you specified and try the operation again.

Cannot find [linked document].

The document to which you have established a link has been moved, renamed, or deleted, or was never created.

You can copy the linked values from a different document, or from the same document if it was moved or renamed.

OK

Copies values from the alternate document you have selected.   Select documents the same way you select them using the Open command on the File menu.

Cancel

Cancels the dialog box and does not update the linked values.

Selecting a document in this dialog box and choosing the OK button is only a temporary solution.

To redirect links permanently

1 From the File menu, choose Links.
2 Select the correct source file in the Links list.
3 Choose the Change button.

See Also

Help

Links Command (File Menu)

Cannot open Macintosh Excel 1.X chart.

This chart, created in Microsoft Excel for the Macintosh version 1.5 or earlier, cannot be opened.

You must open the Macintosh worksheet from which you got the data for the chart and then recreate the chart using a newer version of Microsoft Excel.

Cannot open normal Macintosh Excel document.

This is a normal document created in Microsoft Excel for the Macintosh version 1.5 or earlier.

To open the document with Microsoft Excel for Windows

1 Open the file in Microsoft Excel for the Macintosh.
2 Save it in SYLK format.
3 Transfer the file to an IBM PC or compatible computer.
4 Open the file in Microsoft Excel for Windows by choosing the <u>Open</u> command from the File menu.

Remote data not accessible. Start application [name]?

You initiated a dynamic data exchange (DDE) link to an application that is not running.

Yes

Microsoft Excel starts the application to access the data.

No

Microsoft Excel does not start the application. The procedure is canceled, and the data is not accessed.

Re-establish remote links?

When you open a document that contains a remote external reference (a DDE formula), Microsoft Excel asks if you want to reestablish the link to the remote data.

Yes

Microsoft Excel attempts to reestablish the remote link.

No

The remote link is not established.   Microsoft Excel will use the existing values.

Existing remote links will be terminated.

You chose the <u>Workspace</u> command from the Options menu and instructed Microsoft Excel to ignore all remote requests from other applications.   This terminates existing remote links.

OK

Remote requests will be ignored and existing remote links will be terminated.

Cancel

Cancels the command.

Remote links to document exist. Close anyway?

Another application is linked to some data on the document you are trying to close.   If you close the document, the remote link to the document you are closing will be terminated, and the application using the data on the worksheet will no longer be able to access the data.

OK

   Closes the document and terminates the remote link.

Cancel

   Cancels the command.

This command controls default printer settings for all documents and all applications.   Use Page Setup to set Orientation, Paper Size, and Scaling for individual documents.

Your printer driver supports document-specific settings for orientation, paper size, and scaling.   Document-specific settings override system-wide default settings--the settings Microsoft Excel uses unless you specify otherwise--and do not affect other documents.   If you continue, you will change the default value for the printer settings, but you may not change the settings for this document.

Choose the Page Setup command from the File menu to change settings for a specific document.

Choose the Printer Setup button in the Page Setup dialog box to display the Printer Setup dialog box, which allows you to change the default settings for all documents and applications.   This default value will be used for any new documents that you create.

OK

Continues the Printer Setup command.

Cancel

Cancels the operation.

EXCELCBT.LIB not found. Cannot run tutorial.

Microsoft Excel cannot find the file EXCELCBT.LIB, which is required to run the tutorial.

Locate the file and copy it to the EXCELCBT subdirectory in the directory in which you installed Microsoft Excel, or run the Microsoft Excel Setup program to install all of the tutorial (CBT) files.

EXCELCBT.CBT not found. Cannot run tutorial.

Microsoft Excel cannot find the file EXCELCBT.CBT, which is required to run the tutorial.

Locate the file and copy it to the EXCELCBT subdirectory in the directory in which you installed Microsoft Excel, or run the Microsoft Excel Setup program to install all of the tutorial (CBT) files.

Lesson file(s) not found. Cannot run tutorial.

Microsoft Excel cannot find the file or files corresponding to the tutorial lesson you are trying to run.

Locate the files and copy them to the EXCELCBT subdirectory in the directory in which you installed Microsoft Excel, or run the Microsoft Excel Setup program to install all of the tutorial (CBT) files.

EXCELCBT directory not found.

Microsoft Excel cannot find the EXCELCBT subdirectory, which is normally in the directory in which you installed Microsoft Excel.   The subdirectory was either deleted or was never installed.

Run the Microsoft Excel Setup program to create the directory and install all of the tutorial (CBT) files.

Macro interrupted at cell:

You pressed CTRL+BREAK while running a Lotus 1-2-3 macro.
Click the OK button or press ENTER to return to Ready mode.

Macro error at cell:

This cell contains one of the following:

- A misspelled or invalid command, keyword, or argument.
- A macro statement that is not compatible with Lotus 1-2-3 Release 2.01.   You can open any 1-2-3 file in Microsoft Excel, but you can run only macros that are compatible with Lotus 1-2-3 Release 2.01.   The Macro Interpreter for Lotus 1-2-3 Users does provide some 1-2-3 Release 2.2 macro compatibility.   See Switching to Microsoft Excel from Lotus 1-2-3 for details.
- A command that attaches or starts a Lotus 1-2-3 add-in.   Lotus 1-2-3 add-ins are not supported.
- The macro code **/a** was used to attach or invoke an add-in.
  Remove all occurrences of this keystroke, as well as any add-in commands such as {app1}.
- The macro was invoked from a frozen pane.
  You must start a macro from an unfrozen pane.
- The {let} command was used to insert a file linking formula.
  You can use the syntax **'+<<file.wk1>>A1~** instead.
- The macro code /fr or /fs was used on a worksheet located in a workbook.
  To retrieve or save files in a macro, the worksheet must not be in a workbook.
- The code {getlabel} or {getnumber} was called from Edit mode.
- A macro statement that leaves the macro in menu mode.
- A macro statement that calls a subroutine on another sheet.
  This is Lotus 1-2-3 3.0 or greater functionality and is not supported.

Cannot end macro in a menu.

When you run a Lotus 1-2-3 macro in Microsoft Excel, the macro cannot end with a menu activated.   Edit the macro so that it does not end with keystrokes that leave the macro with a menu activated.

Click the OK button or press ENTER to return to Ready mode.

Too many files to mail.

You attempted to mail too many files as a group. Either send smaller groups of files, or <u>bind</u> the files in a <u>workbook</u>, and try again.

See Also

Help

<u>Group Edit Command (Options Menu)</u>
<u>Save Workbook Command (File Menu)</u>

Cannot start the Send Mail service. Please check your Microsoft Mail installation.

You attempted to send mail, but a necessary mail resource was missing or damaged. Reinstall Microsoft Mail and try again.

Cannot open FM? files directly. Open the corresponding WK? file.

You tried to open a Lotus 1-2-3 FMT or FM3 format file created by the Impress add-in. Microsoft Excel uses these files for formatting information, but cannot open them directly. Instead, open the WK1 or WK3 file associated with the FMT or FM3 file you   want. The corresponding FMT or FM3 file information will be incorporated when the file is opened in Microsoft Excel.

Cannot use a workbook reference to documents not in a workbook.

You entered a reference to a <u>workbook</u> document, but the document you specified is not part of the specified workbook.

Regular Microsoft Excel references take the form:

file_name!range_reference

Workbook references take the form:

[workbook_name]file_name!range_reference

The name of the workbook, which is enclosed in square brackets, precedes the regular Microsoft Excel reference form only if the document specified by file_name is <u>bound</u> into the workbook. This reference form cannot be used unless the document to which you refer is a bound workbook file. <u>Unbound</u> documents use the regular Microsoft Excel reference form, even if they are used in the workbook.

Check the specified document, and try again.

See Also

Help

<u>Save Workbook Command (File Menu)</u>

Reference is not valid. Cannot enter a multiple cell reference for the Series Title.

The title of the selected series refers to more than one cell. The series title must refer to a single cell containing the title text. Enter the correct cell reference.

Reference is not valid. Reference for Categories and Values must be a row or column.

The reference for the selected category or value axis comprises an incorrect range of cells. Category or value references must be to a range of cells in either a single column or a single row. References that refer to cells in more than one row and column are not valid. Enter a reference that indicates a valid category or value range.

Reference is not valid. Reference must be a simple external reference to a worksheet.

The selected reference either refers to a document other than a worksheet, or is a complex external reference. A simple reference is an absolute reference to a cell, range, named cell, or named range. A complex reference is anything that is not a simple reference. For example, =Sheet1!$A$1 is a simple reference, while =Sheet1!$A$1+Sheet2!$A$1 is a complex reference.

Reference is not valid. Reference must be to an open worksheet.

You are trying to edit a reference to a worksheet that is not open. When you are editing a series, the source worksheet must be open. Open the source worksheet and try again.

Cannot run tutorial. There may be another tutorial active.

The tutorial cannot run for one of the following reasons:

- The tutorial may be already running.
- Your system may not have enough memory available.

Make sure the tutorial is not running, check the available memory, and try again.

Document is already open. Select it from the list box instead.

You tried to add a document to a workbook using the Open button in the Add To Workbook dialog box when the document was already open.   To add the document, select it from the Select Documents To Add list box instead.

Cannot enter an array formula into a range of cells which are not all locked or unlocked.

You tried to enter an array formula into a range of cells in which some of the cells are locked and others are unlocked.   To enter the array formula in this range of cells, use the Cell Protection command on the Format menu to either lock or unlock all of the cells in the range.

Cannot read this binary file...

...If the file was created in a version of Microsoft Excel later than 4.0, use that version to save it as a Microsoft Excel 4.0 file. Open file as text?

You tried to open a binary file that was in a format that Microsoft Excel could not read.   This file could be:

- A file from a version of Microsoft Excel that is later than the version you are running. In this case, quit this version of Microsoft Excel, run the later version of Microsoft Excel, open the file, and use the Save As command on the File menu to change the File Type to Excel 4.0.
- A file from another program in a format that Microsoft Excel does not read.   Try copying the data from the other application and pasting it into Microsoft Excel.
- A file, such as a program, that is not intended to be opened in a spreadsheet. Try opening another file.

Formula too complex to be assigned to object.

You tried to assign to a worksheet object an expression that cannot be used here. Try using a reference or a name. If you need to use a register_id number or a more complicated expression, assign it to a name, and then assign the name to the object.

File may contain nondisplayable text and formats from the Far East.

A Microsoft Excel document that was created by a Chinese, Japanese, or Korean version of Microsoft Excel has been loaded into a Western version of Microsoft Excel.   Only ASCII characters are transferred in a readable form.   The character sets are significantly different and have only ASCII characters in common. Kanji, Hiragana, Katakana, Chinese, Hangeul, and Hanja characters and number formats using these are not displayed properly in Western versions of   Microsoft Excel.

This message can be ignored if the file contains only ASCII text and uses no Far Eastern number formats.   To preserve and read the text properly, one must reload the file using the proper Far Eastern version of Microsoft Excel that was used to create the file originally. Resaving a Far Eastern file once from a Western version will not corrupt the Far Eastern text in the file.   But the text may be corrupted by Microsoft Excel's built-in code page conversion, if it is subjected to multiple open and save sequences in more than one environment (Macintosh, Windows, or OS/2).

Cannot save [filename] because the volume is locked.

You tried to save a file on a disk that is locked, or on a disk for which you do not have write privileges.   Try saving the document on a different disk.

Database range not defined.

You tried to perform an operation that requires a defined database range.

To define a database range

1 On the worksheet, select the range that you want to define as a database.

2 From the Data menu, choose Set Database.

See Also

Help

Set Database Command (Data Menu)

Defining a criteria range

Defining a database

Defining an extract range

Criteria range not defined.

You tried to perform an operation that requires a defined criteria range.

To define a criteria range

1 On the worksheet, select the range that you want to define as the criteria range.
2 From the Data menu, choose Set Criteria.

See Also

Help

Set Criteria Command (Data Menu)
Defining a criteria range
Defining a database
Defining an extract range

Extract range not defined.

You tried to perform an operation that requires a defined extract range.

To define a extract range

1 On the worksheet, select the range that you want to define as an extract range.
2 From the Data menu, choose Set Extract.

See Also

Help

Set Extract Command (Data Menu)

Defining a criteria range

Defining a database

Defining an extract range

Cannot revert to a saved WK3 file.   Close the file and then open it.

You have opened a WK3 file, made some changes, and then tried to open the file again.   If you want to revert to the previous version of the WK3 file, first close the file without saving changes, and then open the file again.

Cannot copy a document when the copy's name would result in a document name conflict.

You tried to make a copy of a document that belongs to a workbook when both the source and destination workbook are the same.   If you need to create another copy of the document in the same workbook, use the <u>Save As command</u> on the File menu to save it under a different name. You can then add the newly named document to the workbook.

A document with that name is a supporting document. Workbook tables of contents cannot be supporting documents.

You tried to open or save a workbook that is referred to by a formula on a worksheet. You cannot open or save a workbook with the specified name because:

- An open document contains an external reference to a document with that name.
- External references to workbooks are not permitted.
- A workbook might have been saved with the same name as an existing worksheet, thus overwriting the worksheet.   Any external references to this worksheet are now invalid. Save the workbook under a different name, or remove the illegal reference.

Save [workbook] and all bound sheets?

You tried to close a modified workbook or save a worksheet that is bound into a workbook that has been changed.

When you have modified the workbook table of contents window, and then you try to save one of its bound worksheets, you must save the entire workbook.

Choose Yes to save the workbook; chose No to continue the requested operation without saving or choose Cancel to cancel the operation.

Cannot enter an external reference to a workbook.

You entered a reference to a workbook document, rather than a document that is included in a workbook. You cannot refer directly to workbook table-of-contents documents in formulas.

The proper syntax for a workbook reference is

[workbook_name]sheet_name!cell_ref

Cannot include this type of document in a workbook.

You tried to add to a workbook a document that is not allowed, or you tried to load a Microsoft Excel 3.0 workspace that contains a document that is not allowed.

Document types that are not allowed in workbooks are:

- Add-in macro sheets
- Templates
- Other workbooks
- A Microsoft Excel toolbar file
- Lotus 1-2-3   WK3 worksheets.

This document belongs to more than one open workbook.   Create a copy of it to bind in this workbook?

You are trying to bind into a workbook a document that is currently in more than one workbook. While unbound documents can be in more than one workbook, bound documents can only be in one workbook at a time. If you want to make a copy of the document to include in the new workbook, choose OK; otherwise, choose Cancel.

Cannot unbind a document that would result in an invalid file name

You tried to unbind a document from a workbook, but doing so would result in an invalid file name. Possible reasons for this are:

- The document was renamed in the workbook with a name that exceeds the 8-character plus 3-character MS-DOS filename syntax.
- The bound document has the same name as another open document.
- The document was transferred from Microsoft Excel for the Macintosh and the filename contains a backslash (\).

Rename the bound document with a valid or unique filename and try again.

Need to specify sheet to copy from workbook file.

You tried to perform a consolidate operation, but a reference to a workbook was entered incorrectly. The proper syntax for a workbook reference is

[workbook_name]sheet_name!cell_ref

Be sure that you refer to worksheets or macro sheets, and include the workbook name as part of the reference. Do not refer to workbook documents directly.

Not a workbook file.

You entered an invalid reference to a workbook file.

The proper syntax for a workbook reference is:

[workbook_name]sheet_name!cell_ref

Be sure that you entered the name of a valid workbook document, and that you used the proper syntax.

Cannot save a document that belongs to a workbook in that format.

You tried to save a document that belongs to a workbook in a file format that is not allowed. Document types that are not allowed in workbooks are:

- Add-in macro sheets
- Templates
- Other workbooks

Cell in supporting worksheet contains nonnumeric data.

You created a chart whose category range contains nonnumeric data. You are now trying to change a data point on a chart by dragging it in the x-axis direction, but the data point uses the category argument that contains the nonnumeric data.   You cannot drag points in the x-axis direction in this situation.

Edit the SERIES formula, specifying numeric data for the category names argument, and then try to change the data point again.

Useful only in Windows for Pen Computing environment

You clicked the Constrain Numeric tool, but Microsoft Windows is the active environment. This tool can be used only with Microsoft Windows for Pen Computing.

Could not find matching data.

Microsoft Excel could not find what you are searching for.

If you used the Find command on the Formula menu, no cell in the selection contains what you typed.

If you used the Find command on the Data menu, no more records match the criteria.   This means that all records matching the criteria have been found, or that no records match the criteria.

If you think there should be a match, check your typing and try again.

Could not find matching data to delete.

Microsoft Excel could not delete what you are searching for; no more records match the criteria.   This means that all records matching the criteria have been deleted, or that no records match the criteria.

If you think there should be a match, check your typing and try again.

Could not find matching data to replace.

Microsoft Excel could not find what you are searching for; no cell in the selection contains what you typed. This means that all records matching the criteria have been found, or that no records match the criteria.

If you think there should be a match, check your typing and try again.

Consolidation reference is not valid.

You entered an invalid reference for a consolidation. To enter a valid reference, use the form
   sheet_name!cell_ref
Check the form of your references in the Consolidate dialog box, and try again.

Invalid document for consolidation.

You entered an invalid reference for a consolidation. You cannot use chart documents or workbook documents in a consolidation.

Check your references in the Consolidate dialog box, and try again.

A document with that name is a supporting document.   Charts cannot be supporting documents.

You cannot save a chart with the specified name because:

- An open document contains an external reference to a document with that name.
- External references to charts are not permitted.
- The chart might have been saved with the same name as an existing worksheet, thus overwriting the worksheet.   Any external references to this worksheet are now invalid.

 Save the chart under a different name.

Overwrite nonblank cells in destination?

You tried to move cells by selecting them and dragging them to a new location, but the destination area is not empty. Choosing OK replaces the existing cells with the cells you are moving; choosing Cancel cancels the operation.

Cannot access directory.

You are trying to save, open, or link to a document in a directory that currently cannot be accessed.   Possible reasons for this include:

- The path you specified in a dialog box does not exist.
  Check the spelling of the path, and try to access the directory again.
- You are trying to save a document to a read-only network directory or disk.
  Save the document to a different network directory or disk.

To continue:

OK	Closes the message box.
Retry	Tries to access the directory again.
Cancel	Cancels the operation.

Workbook has no bound sheets.

You tried to change links or enter an external reference formula to a workbook file that has no bound documents in it.   Try selecting another file or another workbook that does have bound documents in it.

Bound filename is invalid.

You tried to rename a bound document in a workbook, but doing so would result in an invalid filename. Possible reasons for this are:

- The name exceeds the 31-character limit for bound workbook documents.
- The bound document has the same name as another open document.
- The filename contains a colon (:).
- The filename contains a slash (/).
- The filename contains a backslash (\).
- The filename is 0 characters in length.
- The filename begins with an opening square bracket ([ ), followed by 0 or more characters and a closing square bracket ( ]).

Rename the bound document with a valid filename and try again.

Delete the [name] toolbar?

You chose the Delete button in the <u>Toolbars</u> dialog box with the name of a custom toolbar selected in the Show Toolbars list.

OK   Permanently deletes the indicated custom toolbar.

Cancel   Cancels the operation.

Can't find that sheet in workbook file.

You tried to open a bound workbook document using the <u>Links command</u> on the File menu, but the specified document does not exist in the workbook. Check to make sure that you're using the correct workbook and document names.

Destination reference is not valid.

The reference you have entered in the Destination box of the dialog box for the Parse command is not valid.   The Parse command cannot parse data into a nonadjacent selection or into cells on another worksheet.   Enter a reference to a single cell or to a rectangular range of cells and try again.

See Also

Help

Parse Command (Data Menu)

Current printer is either missing or bad. Please select a new printer.

The printer you specified to print your document cannot be found. Make sure the printer is properly connected and try again, or use the Control Menu to select a different printer using the Printers Control Panel.

See Also

Help

Control Menu

There are no printers installed. Please use the Printers Control Panel to install a printer.

There are no printers currently installed. Use the application Control Menu to select a printer using the Printers Control Panel.

See Also

Help

Control Menu

The header or footer cannot be longer than 255 characters.   Please delete some text, or make the formatting less complex.

The combination of text and formatting you entered in the   Header or Footer dialog box is longer than 255 characters.   If you have entered less than 255 characters, but this dialog box appears, it is probably due to the formatting.   For example, changing the font to MS Sans Serif takes sixteen characters, even though no new characters actually appear in the dialog box.

Either delete some text, simplify the formatting, or both to achieve a length of fewer than 255 characters.

[Filename] was created in a previous version of Microsoft Excel.   Do you want to update it to Microsoft Excel 4.0 format?

You tried to save a file from a previous version of Microsoft Excel. To replace the existing file format with the Microsoft Excel 4.0 format, choose the Yes button. To retain the existing file format, choose the No button.

Cannot rename a document to the same name as another document.

You tried to change the name of a document in a workbook to a name that is already being used by another workbook document. Specify a unique name for the document and try again.

Cannot run tutorial with Microsoft Windows for Pen Computing

You chose either the Introducing Microsoft Excel or the Learning Microsoft Excel command from the Help menu.   These tutorials do not run under Microsoft Windows for Pen Computing.   To view the tutorials, you must run Microsoft Excel on a machine with standard Microsoft Windows.

File is not a valid wave file.

You specified a file that does not contain sound data that Microsoft Excel accepts.   Try specifying another file instead.   Typically, sound files used with Microsoft Windows have a .wav file extension.

Recording buffer is full.

You tried recording a sound that was longer than two minutes, which is the maximum length that Microsoft Excel allows.   You can accept the first two minutes of recorded sound, or you can record a shorter sound.   To monitor the length of a recording, watch the recording status bar.

Cannot load wave file.

Microsoft Excel encountered an error while opening the specified sound file.   Your file may be corrupted, or it may be in use by another application.

Cannot open waveform output device.

Microsoft Excel could not play the requested sound because the output device was unavailable.   Make sure that no other applications you are running are currently trying to play sounds.   Then try again.

Cannot open waveform input device.

Microsoft Excel could not record any sounds because the input device was unavailable.
Make sure that no other applications you are running are currently trying to record sounds.
Then try again.

Cannot play Macintosh sounds under Windows.

While using Microsoft Excel for Windows, you tried to play a sound that was recorded using Microsoft Excel for Macintosh.   Microsoft Excel for Windows can only play sounds that were recorded using Windows applications.   Try playing another sound, or play the sound using Microsoft Excel for Macintosh.

Select entire rows and/or columns before choosing Options Set Print Titles.

The area named Print_Title must consist of entire rows that are adjacent, entire columns that are adjacent, or a combination of entire rows and columns that are adjacent.   Partial rows and/or columns are not accepted.

Define the print titles again using the Set Print Titles command from the Options menu.

File error: some number formats may have been lost.

The Microsoft Excel document you are loading contains some number format errors.   These number formats have been changed to General.   No data has been lost.

The word [] is not in the dictionary.   Change anyway?

The word that you typed in the Change To box is not in a dictionary.

    Yes   Changes the word and continues the spelling check.

    No   Continues the spelling check without replacing the word.

Using the Pen with Microsoft Excel

To use a pen with Microsoft Excel, you must be running Microsoft Windows for Pen Computing.   This topic contains information on some specific ways you can use the pen with Microsoft Excel.   For basic information on using the pen, see Microsoft Windows for Pen Computing Help.

If you are running Microsoft Windows for Pen Computing, the Microsoft Excel formula bar will be larger than normal to make entering text and numbers with the pen easier.

To display a shortcut menu
- Press the Barrel button and tap the item for which you want to see a shortcut menu.

To copy objects or cells
- Press the Barrel button; then tap and drag the object or the border of the selection.
  Without the Barrel button, this moves the objects or cells.

To copy data to a range of adjacent cells
- Press the Barrel button; then tap and drag the fill handle.
  Without the Barrel button, this extends a series of numbers or dates.

See Also

Help

Constrain Numeric Tool

Copying data

Copying to a range of adjacent cells

Creating a trend series

Extending a series of numbers or dates

Microsoft Excel Function Reference

CONSTRAIN.NUMERIC

To assign a macro to a graphic object

1 Open the macro sheet containing the macro you want to assign.   Skip this step if you are using a macro from the <u>global macro sheet</u>.

2 Select the graphic object.

To select a graphic object with a macro assigned to it, hold down the CTRL key while clicking the object.   This selects the object without running the macro.

3 From the Macro menu or the <u>shortcut menu</u>, choose Assign To Object.

4 In the Assign Macro box, select the macro you want to assign, or type the macro name (name of the macro sheet, exclamation point, macro name) in the Reference box; for example, Macro1!Record1.

5 Choose the OK button.

The mouse pointer changes to a hand when it is over a graphic object with a macro assigned to it.   The hand indicates that the macro will run when you click the object.

See Also

Help

  <u>Selection Tool</u>
<u>Assigning or recording a macro to a tool</u>
<u>Assign To Object Command (Macro Menu)</u>
<u>Assign To Tool Command (Macro Menu)</u>
<u>Toolbars Command (Options Menu)</u>

User's Guide (Book 2)

Chapter 6, "Automating Tasks with Command Macros"

To add or remove an add-in macro from the working set

To add an add-in macro to the working set

1 From the Options menu, choose Add-Ins.

The Add-in Manager displays a dialog box listing all the add-in macros in the working set.

2 Choose the Add button.

3 In the Files box, select the add-in macro you want to add.

4 Choose the OK button.

5 Repeat steps 2 through 4 to add another add-in macro.

6 Choose the Close button to save your changes and close the dialog box.

The add-in macros you add to the working set are opened every time you start Microsoft Excel.

To remove an add-in macro from the working set

1 From the Options menu, choose Add-Ins.

The Add-in Manager displays a dialog box listing all the add-in macros in the working set.

2 In the Add-ins Installed box, select the add-in macro you want to remove.

3 Choose the Remove button.

4 Choose the OK button.

5 Repeat steps 2 through 4 to remove another add-in macro.

6 Choose the Close button to save your changes and close the dialog box.

See Also

Help

Add-Ins Command (Options Menu)

Add-In Macros

Macro Library Overview

User's Guide (Book 2)

Chapter 4, "Customizing Microsoft Excel"

To add a text box or an arrow to a worksheet

To add a text box to a worksheet

Before you do this procedure, you must have the Text Box tool on the Utility toolbar available.   Use the Toolbars command on the Options menu to display toolbars.

    1 Click the Text Box tool.

       The mouse pointer becomes a cross hair.

    2 Position the cross hair where you want one corner of the text box.

    3 Drag until the box is the size and shape you want.

    4 Type the text you want in the box.

       The text will wrap inside the box. If you want to start a new line, press ENTER.

To draw an arrow from a text box to the cell or range of cells it describes

Before you do this procedure, you must have the Arrow tool on the Drawing toolbar displayed.   Use the Toolbars command on the Options menu to display toolbars.

    1 Click the Arrow tool.

       The mouse pointer becomes a cross hair when the Arrow tool is selected.

    2 Position the cross hair where you want one end of your arrow.

    3 Drag to where you want the other end of your arrow.

You can change the style, color, and weight of the arrow shaft and the arrowhead style, width, and length with the Patterns command on the Format menu.

See Also

Help

▪   Arrow Tool
▪   Text Box Tool

Displaying and hiding a toolbar
Patterns Command (Format Menu)
Toolbars Command (Options Menu)

To add borders

1 Select the cells you want to format.
2 From the Format menu or <u>shortcut menu</u>, choose the Border command.
    Shortcuts: Border tools
3 Select the border options you want and then choose the OK button.

See Also

Help

- <u>Outline Border Tool</u>
- <u>Bottom Border Tool</u>
- <u>Left Border Tool</u>
- <u>Right Border Tool</u>
- <u>Top Border Tool</u>

 <u>Bottom Double Border Tool</u>
<u>Adding and deleting a tool from a toolbar</u>
<u>Border Command (Format Menu)</u>

To add shading to cells

1 Select the cells you want to format.
2 From the Format menu or the <u>shortcut menu</u>, choose Patterns.

    Shortcuts: Dark Shading tool
                          Light Shading tool (Formatting toolbar)

3 If you chose the Patterns command, select the pattern and colors you want.

   If you do not want a pattern, select the None option.

4 Choose the OK button.

See Also

  Help

▪   <u>Dark Shading Tool</u>
▪   <u>Light Shading Tool</u>
<u>Adding and deleting a tool from a toolbar</u>
<u>Displaying and hiding a toolbar</u>
<u>Patterns Command (Format Menu)</u>
<u>Toolbars Command (Options Menu)</u>

To apply a style

To apply a style using the menu

    1 Select the cells you want to format.

    2 From the Format menu, choose Style.

    3 Select or type the name of the style you want.

    4 Choose the OK button.

To apply a style using the Style box

    1 Select the cells you want to format.

    2 In the Style box, select or type the name of the style.

To apply a style using tools

To do this procedure, you must have the Formatting toolbar displayed.   Use the Toolbars command on the Options menu to display toolbars.

    1 Select the cells you want to format.

    2 Click the Comma Style, Currency Style, or Percent Style tool, to apply the currently defined style.

See Also

    Help

- <u>Comma Style Tool</u>
- <u>Currency Style Tool</u>
- <u>Percent Style Tool</u>
- <u>Style Box</u>

<u>Creating or deleting a style</u>

<u>Formatting Toolbar</u>

<u>Style Command (Format Menu)</u>

<u>Toolbars Command (Options Menu)</u>

To assign an outline level to a row or column

1 Select the entire row or column you want to assign.

If you don't select an entire row or column, Microsoft Excel displays a dialog box asking whether you want to assign a level to rows or columns.

2 If the selection is not currently part of the outline, press ALT+SHIFT+RIGHT ARROW to demote it to detail.

3 To promote the selection one level, press ALT+SHIFT+LEFT ARROW.

4 To demote the selection one level, press ALT+SHIFT+RIGHT ARROW.

Shortcuts: Promote tool (Utility toolbar)
              Demote tool (Utility toolbar)

See Also

Help

- Demote Tool
- Promote Tool
- Show Outline Symbols Tool

Clearing an outline from a worksheet

Collapsing an outline level

Creating an outline from a existing worksheet

Displaying an outline level

Displaying or hiding outline symbols

Expanding an outline level

Toolbars Command (Options Menu)

User's Guide (Book 1)

Chapter 8, "Organizing and Documenting a Worksheet"

To adjust row height

Microsoft Excel worksheets are initially set to the Standard row height, which changes automatically to accommodate the largest font in each row.

1 Select the row or rows you want to change by clicking the row heading.   If you are adjusting row height from the Format menu, you only need to select one cell in the row.

   You can add adjacent or nonadjacent rows to the selection by pressing CTRL and clicking the row heading.

2 To adjust the row height, use one of the following procedures:

   Drag the line below the row heading to adjust row height.   If more than one row is selected, dragging the row heading line for one row changes all the selected rows.

   To quickly adjust the row height to accommodate the largest font in the row, or to adjust row height for cells containing wrapped text, double-click the line below the row heading.

   From the Format menu or the row <u>shortcut menu</u>, choose Row Height and type a number in the Row Height box.   Selecting the Standard Height check box changes the row height automatically to accommodate the largest font.

See Also

Help

<u>Row Height Command (Format Menu for Worksheets)</u>

To align text and numbers within cells

1 Select the cells you want to format.

2 From the Format menu or the <u>shortcut menu</u>, choose Alignment.

3 Select the alignment options you want.

   If you have a long cell entry that you want displayed on multiple lines in a single cell, select the Wrap Text check box.   Microsoft Excel automatically increases the row height to accommodate all of the text in your cell entry.

4 Choose the OK button.

You can also align cell contents by clicking one of the alignment tools on the toolbar.

See Also

Help

- <u>Center Across Columns Tool</u>
- <u>Center Align Tool</u>
- <u>Justify Align Tool</u>
- <u>Left Align Tool</u>
- <u>Right Align Tool</u>

<u>Alignment Command (Format Menu)</u>

<u>Formatting Toolbar</u>

<u>Standard Toolbar</u>

<u>Toolbars Command (Options Menu)</u>

User's Guide (Book 1)

Chapter 7, "Formatting a Worksheet"

To align text box or button text

1 Select the text box or button.

   To select a graphic object with a macro assigned to it, hold down CTRL while clicking the object.

2 From the Format menu or the shortcut menu, choose Text.

3 Select the text alignment options you want.

   The Automatic Size check box sizes the border to fit exactly around the text.   If the text is changed, the border will adjust automatically.

4 Choose the OK button to apply your changes.

See Also

   Help

▪   Rotate Text Down Tool
▪   Rotate Text Up Tool
▪   Vertical Text Tool
   Text Command (Format Menu for Worksheets)

To add data and formats to a chart from a worksheet or another chart

To add data series to a chart with the ChartWizard
1 Switch to the chart window or select the embedded chart.
2 Click the ChartWizard tool.
3 Select the data you want to include in the chart.   Include both the data now in the chart and the data you want to add.
4 Choose the button labeled **>>**.

To add data series to a chart by copying and pasting
1 Open the chart and the worksheet containing the data you want to add.
2 Select the worksheet data.
3 From the Edit menu or the <u>shortcut menu</u>, choose Copy.
4 Switch to the chart window.

   If the chart is embedded in a worksheet, double-click the chart to display it in a chart window.
5 If you want Microsoft Excel to control plotting, choose Paste from the Edit menu.

   If you want to control plotting, choose Paste Special from the Edit menu, select the options you want, and then choose the OK button.

To add data series and formats to a chart from another chart
1 Open both charts.
2 Switch to the chart that contains the data series you want to add.

   If the chart is embedded in a worksheet, double-click the chart to display it in a chart window.
3 Choose Select Chart from the Chart menu.
4 From the Edit menu or the <u>shortcut menu</u>, choose Copy.
5 Switch to the chart that you want to change.
6 If you want to add all data series and their formats, choose Paste from the Edit menu.

   If you want to selectively add data series or their formats, choose Paste Special from the Edit menu, select the options you want, and then choose the OK button.

See Also

Help
▪   <u>ChartWizard Tool</u>
<u>Adding or editing series</u>
<u>Copy Command (Edit Menu)</u>
<u>Paste Command (Edit Menu)</u>
<u>Paste Special Command (Edit Menu)</u>
<u>Select Chart Command (Chart Menu)</u>

User's Guide (Book 1)
Chapter 13, "Editing a Chart"

To add or delete a legend

Once you add a legend, the Add Legend command on the Chart menu changes to Delete Legend.

To add a legend

1 Switch to the chart window if it is not already active.

If the chart is embedded in a worksheet, double-click the chart to display it in a chart window.

2 From the Chart menu, choose Add Legend.

Shortcut: Legend tool (Chart toolbar)

Microsoft Excel inserts a legend at the right of the plot area and resizes the plot area to accommodate the legend.   Microsoft Excel automatically selects the legend so you can format it.

To delete a legend

1 Switch to the chart window containing the legend, if it is not already active.

If the chart is embedded in a worksheet, double-click the chart to display it in a chart window.

2 From the Chart menu, choose Delete Legend.

Shortcut: Legend tool (Chart toolbar)

You can also select the legend and choose Clear from the Edit menu or the shortcut menu.

See Also

Help

- Legend Tool
Add Legend and Delete Legend Commands (Chart Menu)
Clear Command (Edit Menu)
Moving a legend

User's Guide (Book 1)

Chapter 14, "Formatting a Chart"

To add or delete a chart arrow

To add a chart arrow

1 Switch to the chart window.

If the chart is embedded in a worksheet, double-click the chart to display it in a chart window.

2 From the Chart menu, choose Add Arrow.

Shortcut: Arrow tool (Chart toolbar)

If the Add Arrow command is not on the Chart menu, but the Delete Arrow command is, this means an arrow is selected.   To add another arrow, select any item in the chart other than a chart arrow and then choose Add Arrow from the Chart menu.

To delete a chart arrow

1 Select the arrow you want to delete.

2 From the Chart menu, choose Delete Arrow.

You can also select the arrow and choose Clear from the Edit menu or the shortcut menu.

See Also

Help

▪   Arrow Tool
Add Arrow and Delete Arrow Commands (Chart Menu)
Clear Command (Edit Menu)
Moving or sizing a chart arrow

User's Guide (Book 1)

Chapter 14, "Formatting a Chart"

To add or delete a chart title, an axis title, or a data marker label

To add a chart title or axis title

1 Switch to the chart window.

   If the chart is embedded in a worksheet, double-click the chart to display it in a chart window.

2 From the Chart menu, or the axis, chart, or plot area <u>shortcut menu</u>, choose Attach Text.

3 Select the item to which you want to attach text.

4 Choose the OK button.

   Microsoft Excel adds default text in the appropriate chart location and surrounds the text with white selection squares.

5 Type the text you want.   The text appears in the formula bar.   You can edit the text in the formula bar, just as you would for a worksheet cell.

   To insert a line break in the text, press CTRL+ENTER.

6 Click the enter box or press ENTER.

To add a data marker label

1 Switch to the chart window.

2 Select the data marker by holding down CTRL and clicking the marker.

3 From the Chart menu or the <u>shortcut menu</u>, choose Attach Text.

   Microsoft Excel automatically selects the Series And Data Point option button and displays the numbers for the selected data marker in the Series Number and Point Number boxes.   For an area chart, enter only the data series number to label the entire series.

4 Choose the OK button.

   Microsoft Excel adds default text in the appropriate chart location and surrounds the text with white selection squares.

5 Type the text you want.   The text appears in the formula bar.   You can edit the text in the formula bar, just as you would for a worksheet cell.

   To insert a line break in the text, press CTRL+ENTER.

6 Click the enter box or press ENTER.

To delete chart text

1 Select the text.

2 From the Edit menu or the <u>shortcut menu</u>, choose Clear.

   Shortcut: DEL or DELETE

See Also

Help

<u>Attach Text Command (Chart Menu)</u>
<u>Clear Command (Edit Menu)</u>
<u>Adding or deleting unattached chart text</u>

User's Guide (Book 1)

Chapter 14, "Formatting a Chart"

To add or delete unattached chart text

To add unattached chart text

1 With no other text selected, type the text you want.   The text appears in the formula bar.   You can edit the text in the formula bar, just as you would for a worksheet cell.

   Shortcut: Text Box tool (Chart toolbar)

   To insert a line break in the text, press CTRL+ENTER.

2 Click the enter box or press ENTER.

Microsoft Excel places the text on the chart and surrounds the text with black selection handles indicating that you can move and size the text.

To delete chart text

1 Select the text.

2 From the Edit menu or the shortcut menu, choose Clear.

   Shortcut: DEL or DELETE

See Also

Help

▪   Text Box Tool
Clear Command (Edit Menu)
Formatting chart text alignment and orientation

User's Guide (Book 1)

Chapter 14, "Formatting a Chart"

To add or delete gridlines

1 Switch to the chart window.

If the chart is embedded in a worksheet, double-click the chart to display it in a chart window.

2 From the Chart menu, or the axis or plot area <u>shortcut menu</u>, choose Gridlines.

3 For each axis, select the check boxes for the gridlines you want displayed.   Clear the check boxes for the gridlines you don't want displayed.

Shortcut: Horizontal Gridlines tool (Chart toolbar)
                      Vertical Gridlines tool

4 Choose the OK button.

You can also delete gridlines by selecting a gridline and choosing Clear from the Edit menu or the shortcut menu.   If you select a major gridline, you clear all major gridlines for that axis.   If you select a minor gridline, you clear all minor gridlines for that axis.

See Also

Help

▪   <u>Horizontal Gridlines Tool</u>
▪   <u>Vertical Gridlines Tool</u>
<u>Adding and deleting a tool from a toolbar</u>
<u>Clear Command (Edit Menu for Charts)</u>
<u>Formatting gridlines</u>
<u>Gridlines Command (Chart Menu)</u>
<u>Toolbars Command (Options Menu)</u>

User's Guide (Book 1)

Chapter 14, "Formatting a Chart"

To add or edit series

To add or edit series with the ChartWizard tool

1. Switch to or select the chart you want to edit.

    You can select an embedded chart in a worksheet, double-click the embedded chart to open it in its own window, or open an existing chart document.   Make sure the worksheet that contains the source data for the chart is open.

2. Click the ChartWizard tool.

    Microsoft Excel selects the data on the worksheet that is plotted in the chart and displays the ChartWizard.

3. Follow the instructions on the screen.

    The chart is updated to reflect the new data.

To add or edit series or data points with the Edit Series command

1. Switch to the chart to which you want to add the series, or edit the existing series.

    If you want to start with a new blank chart, select a blank cell on the worksheet, choose New from the File menu, select Chart from the list, and choose the OK button.

2. If you want to edit an existing data series, select the series.

3. From the Chart menu or the chart or series <u>shortcut menu</u>, choose Edit Series.

4. If you are creating a new data series, select New Series in the Series box.

    If you are editing an existing data series, the name of the series is selected in the Series box.   Microsoft Excel lists unnamed series as "Series n," where n is the same as the series' plot order number.

5. Type the name of the data series in the Name box, select the cell on the worksheet that contains the name you want used for the data series, or type an <u>external absolute reference</u> to the cell containing the data series name in the Name box.

6. In the X Labels box, type an external absolute reference for the cells containing the labels for the x-axis tick labels, or select the labels on the worksheet.

    If the chart is an xy (scatter) chart, this option appears as the X Values box.   Type an external absolute reference for the x-coordinates, or select the x-coordinates on the worksheet.

7. In the Y Values box, type an external absolute reference for the values of the data series, or select the values on the worksheet.

    If the chart is a two-dimensional xy (scatter) chart, type the reference for the y-coordinates of the series, or select the y-coordinates on the worksheet.

    This option is not available for 3-D charts.   Instead, the text "Series Name" is displayed.

8. If the chart is a 3-D chart, type an external absolute reference for the data series values in the Z Values box, or select the values on the worksheet.

9. In the Plot Order box, type the order in which you want the series to be plotted.

    You can plot up to 255 series.

10. To complete the series formula and close the dialog box, choose the OK button.

    To complete the series formula and keep the dialog box open so you can add or edit another series, choose the Define button.

If your worksheet contains hidden rows or columns that you don't want included in the data series, you can select only the data you want using the procedure for copying visible cells.

You can also add and edit series by typing and editing series formulas in the formula bar.

See Also

Help

-

User's Guide (Book 1)

Chapter 13, "Editing a Chart"

To adjust a data value by dragging a data marker

You can drag the data markers on two-dimensional line charts, bar charts, column charts and xy (scatter) charts.   When you drag a data marker, the data value on the worksheet changes to match the new value on the chart.

1 Switch to the chart window.

   If the chart is embedded in a worksheet, double-click the chart to display it in a chart window.

2 Hold down CTRL and click the data point on the chart.

3 Drag the black selection square in the direction you want to adjust the value.

   While you drag, a line appears on the y-axis to show the adjusted value of the data marker and the changing value is displayed at the left of the formula bar.   You can drag only within the scale on the value axis.

   If the chart is an xy (scatter) chart, lines appear on both axes.   You can drag with the scales on both axes.

If the value of a data point you move is generated by a formula, Microsoft Excel switches to the worksheet (which must be open) and displays the Goal Seek dialog box.   Use the dialog box to have Microsoft Excel change the variables in the formula until it returns the value designated by the data point's new position.

See Also

Help

Goal Seek Command (Formula Menu)

User's Guide (Book 1)

Chapter 13, "Editing a Chart"

User's Guide (Book 2)

Chapter 2, "Performing What-if Analysis on a Worksheet Model"

To adjust the 3-D chart view

To adjust the 3-D chart view by dragging

1 Switch to the chart window.

If the chart is embedded in a worksheet, double-click the chart to display it in a chart window.

2 Click the intersection of any two axes to select the corners of the chart.

Black selection handles will appear at all the corners.

3 Drag any of the corners to adjust the elevation and rotation of the chart.

To see an outline of the data plotted in the chart while you drag, hold down the CTRL key as you drag.

This procedure adjusts only the elevation and rotation of the chart.   To adjust other aspects of the 3-D view, use the following procedure.

To adjust the 3-D chart view with the 3-D View command

1 Switch to the chart window.

If the chart is embedded in a worksheet, double-click the chart to display it in a chart window.

2 From the Format menu, choose 3-D View.

3 Type the values you want in the Elevation and Rotation boxes.   You can also click the arrow buttons to increase or decrease these values.

4 To show axes at right angles to each other, select the Right Angle Axes check box.

To show the axes in perspective, clear the Right Angle Axes check box.

5 If you selected the Right Angle Axes check box, select the Auto Scaling check box to fill the chart window with the chart.   However, you must clear the Auto Scaling check box if you want to specify a height in the Height box.

If you cleared the Right Angle Axes check box, enter a value from 0 to 100 in the Perspective box.   The perspective value specifies the ratio of the width of the front of the chart to the back of the chart: the higher the number, the greater the perspective.

6 In the Height box, type the height of the chart.

The height is measured as a percentage of the length of the x-axis.

The Height box does not appear if both the Auto Scaling and the Right Angle Axes check boxes are selected.   If you want to specify the height of a chart with Right Angle Axes selected, clear the Auto Scaling check box.

7 To apply your changes and close the dialog box, choose the OK button.

To apply your changes to the chart but leave the dialog box open so you can continue to adjust the chart, choose the Apply button.

If you close the dialog box after applying the changes, the changes will replace the formats in the chart.

To reset the view options to the defaults, choose the Default button.

If you change the chart type using a Gallery menu command, the 3-D view formats are not reset to their original values.   You can retrieve the original settings by choosing the Default button in the 3-D View dialog box.

Note   The Perspective option is not available for 3-D bar charts; 3-D bar charts always have the Right Angle Axes check box selected.

See Also

Help
Gallery Menu

3-D View Command (Format Menu)

User's Guide (Book 1)
Chapter 14, "Formatting a Chart"

To add or remove a document from a workbook

To add a new document to a workbook

1 Switch to the Workbook Contents window of the workbook to which you want to add the document.
2 Choose the Add button.

   Shortcut: ALT+SHIFT+A

3 In the Add to Workbook dialog box, choose the New button.
4 Select the type of document you want to create.

   Microsoft Excel creates a document and adds it to the workbook.   Documents are initially added as <u>bound</u> to the workbook.

   To change a document to an <u>unbound</u> document, click the icon to the right of the document name in the Workbook Contents window.

To add an unopened document to a workbook

1 Switch to the Workbook Contents window.
2 Choose the Add button.

   Shortcut: ALT+SHIFT+A

3 In the Add to Workbook dialog box, choose the Open button.

   Microsoft Excel displays a list of all documents in the current directory.

4 Select the document you want to add to the workbook.

   Microsoft Excel adds the document to the workbook.   Documents are initially added as <u>bound</u> to the workbook.

   To change a document to an <u>unbound</u> document, click the icon to the right of the document name in the Workbook Contents window.

To add an opened document to a workbook

1 Switch to the Workbook Contents window.
2 Choose the Add button.

   Shortcut: ALT+SHIFT+A

   Microsoft Excel displays a list of all open, <u>unbound</u> documents.

3 Select the document you want to add to the workbook.
4 Choose the OK button.

   Microsoft Excel adds the document to the workbook.   Documents are initially added as <u>bound</u> to the workbook.

   To change a document to an <u>unbound</u> document, click the icon to the right of the document name in the Workbook Contents window.

To remove a document from a workbook by dragging

1 In the Workbook Contents window, select the document you want to remove.
2 Drag the document out of the workbook window and release the mouse button.

   The document is removed from the workbook.

To remove a document from a workbook

1 In the Workbook Contents window, select the document you want to remove.

   To select multiple documents, press CTRL while clicking the document names.

2 Choose the Remove button.

   Shortcut: ALT+SHIFT+R

   The document is removed from the workbook.

See Also

Help

Workbooks

Creating a workbook

User's Guide (Book 1)

Chapter 4, "Managing Document Files"

To bind or unbind workbook documents

Workbook documents can be either <u>bound</u> or <u>unbound</u>.   You should bind your documents to a workbook when:

- ▪   You want to keep related documents in one file.
- ▪   You want others to have access to a group of documents.   For example, you may want to distribute a template with a worksheet.
- ▪   You want to give your documents extended names.

You should keep a workbook document unbound when:

- ▪   You want to include a document in two or more workbooks.
- ▪   You want some people to use the document as a single document.   For example, you want sales sheets to be completed by salespersons, but viewed in a workbook by managers.

To bind a document in a workbook

1 In the Workbook Contents window, select the document you want to bind to the workbook.

2 Choose the Options button.

   Shortcut: ALT+SHIFT+O

3 Select the Workbook File option button.

4 Choose the OK button.

   Shortcut: Click the icon to the right to change the document status from unbound to bound.

To unbind a document in a workbook

1 In the Workbook Contents window, select the document you want to unbind in the workbook.

2 Choose the Options button.

   Shortcut: ALT+SHIFT+O

3 Select the Separate File option button.

4 Choose the OK button.

   Shortcut: Click the icon to the right to change the document status from bound to unbound.

See Also

Help

<u>Creating a workbook</u>

<u>Giving a bound workbook document an extended name</u>

<u>Workbooks</u>

User's Guide (Book 1)

Chapter 4, "Managing Document Files"

To add or remove open documents from a group

1 From the Options menu, choose Group Edit.

The Group Edit dialog box lists all open, unhidden worksheets and macro sheets.   The sheets that are part of the current group are selected.

2 To add or delete a sheet, hold down CTRL and click the sheet name.

--or--

Hold down CTRL while using the arrow keys to select the sheet name, and then press CTRL+SPACEBAR.

Only sheets that remain selected will be included in the group.

3 Choose the OK button.

See Also

Help

Editing worksheets as a group

Starting or ending a group editing session

User's Guide (Book 1)

Chapter 11, "Working with Multiple Microsoft Excel Documents"

To create or delete a button on a worksheet or macro sheet

Before you do this procedure, you must have the Utility toolbar displayed.   Use the Toolbars command on the Options menu to display toolbars.

To create a button

1 Click the Button tool on the toolbar.

   The mouse pointer changes to a cross hair.

2 Drag the mouse to create a button on the worksheet or macro sheet.

   Microsoft Excel displays the Assign To Object dialog box.

3 If you don't want to assign a macro to the button, choose the Cancel button to close the dialog box.

   If you want to assign a macro to the new button, select a macro from the Assign Macro box or type a reference in the Reference box.   Choose the OK button.

   To record your subsequent actions as a macro assigned to the new button, choose the Record button.   To stop recording, click the Stop Recording Macro tool, which pops up when you begin recording, or choose Stop Recorder from the Macro menu.

To assign a macro to a button

1 Select the button.

   If a macro is already assigned to the button, hold down CTRL while clicking the button. This prevents the macro from running.

    Shortcut: Selection tool (Drawing toolbar)

2 From the Macro menu, choose Assign To Object or from the shortcut menu, choose Assign Macro to Button.

3 If you want to assign a macro to the button, select a macro from the Assign Macro box or type a reference in the Reference box.   Choose the OK button.

   If you want to record your subsequent actions as a macro assigned to the button, choose the Record button.   To stop recording, click the Stop Recording Macro tool, which appears when you begin recording, or choose Stop Recorder from the Macro menu.

   The mouse pointer changes to a hand when it is over a button with a macro assigned to it.   The hand indicates that the macro will run when you click the button.

   You can also assign a macro to graphic objects, including objects on charts, and toolbar tools.

To delete a button on a worksheet or macro sheet

1 Select the button you want to delete.

   If a macro is already assigned to the button, hold down CTRL while clicking the button. This prevents the macro from running.

    Shortcut: Selection tool (Drawing toolbar)

2 Press DELETE or choose Clear from the Edit menu.

See Also

Help

Button Tool

Selection Tool

Stop Recording Macro Tool
Assign To Object (Macro Menu)

To create a new macro sheet

1 From the File menu, choose New.

   Shortcuts: New Macro Sheet tool (Macro toolbar)
                 CTRL+F11
                 ALT+CTRL+F1

2 Select Macro Sheet.

3 Choose the OK button.

See Also

Help

▪   New Macro Sheet Tool
Macro Toolbar
New Command (File Menu)
Toolbars Command (Options Menu)

To cancel the database, criteria, or extract range

1 From the Formula menu, choose Define Name.
2 In the Names In Sheet box, select Database, Criteria, or Extract.
   --or--
   In the Name box, type the name of the range you want to cancel.
3 Choose the Delete button.
4 Choose the OK button.

See Also

User's Guide (Book 1)

Chapter 10, "Analyzing and Reporting Database Information"

To consolidate data

1. Select the destination area you want to contain the consolidated data.
2. From the Data menu, choose Consolidate.
3. In the Reference box, enter a <u>reference</u> to the source area you want to consolidate.

   You can also select the source area with the mouse on open worksheets to enter the reference.   Alternatively, you can use the Window menu to activate any open worksheets you need.   If you need to move the dialog box out of the way, click and drag the title bar.

   You can also include references to any unopened worksheets using the Browse button. Choosing Browse will display a dialog box from which you can locate the file you want. Its full path and filename will then be entered into the Reference box. You must then add a cell or range reference, or a name, to complete the consolidation reference.
4. Choose the Add button.
5. Repeat steps 3 and 4 for all the source areas you want to consolidate.
6. Select the function you want to use to consolidate the source areas.

   The SUM function is the default.
7. Under Use Labels In, select one or both check boxes if you want to <u>consolidate by categories using labels</u>.   Microsoft Excel <u>consolidates by position using references</u> for the cleared check boxes.
8. Select the Create Links To Source Data check box if you want to create links to the source data used in the consolidation.

   If you create links to source data, the Undo command on the Edit menu will not be available.
9. Choose the OK button.

To undo consolidation

- From the Edit menu, choose Undo immediately after you consolidate data.
  This option is not available if you have selected the Create Links To Source Data check box.

To remove a source area from a consolidation

1. From the Data menu, choose Consolidate.
2. In the All References box, select the source area reference you want to remove.
3. Choose the Delete button.
4. Choose the OK button.

To create links to source data used in consolidation

1. Set up your source and destination areas for consolidation using labels or by position.
2. From the Data menu, choose Consolidate.
3. Select the Create Links To Source Data check box.
4. Choose the OK button.

   Microsoft Excel consolidates data from the source areas and adds outline rows and columns as necessary to accommodate the linking formulas for the source data for each position or category.   Be sure the rows and columns added to your destination areas will not disrupt other parts of your worksheet.

See Also

Help

<u>Consolidate Command (Data Menu)</u>

User's Guide (Book 1)

Chapter 11, "Working with Data from Multiple Documents"

To create a trend series

The Series command on the Data menu includes a Trend option. With it you can create a linear or exponential growth trend based on existing selected values.   A trend created using the Series command will replace the values in your original selection.

To create a trend series using the Series command

  1 Select the cell range containing the values on which you want to base your trend.
  2 From the Data menu, choose Series.
  3 Under Series In, select the Rows option button or the Columns option button, depending on your selection.
  4 Under Type, select the Linear option button to produce a linear growth trend, or select the Growth option button to create an exponential growth trend.
  5 Select the Trend check box.
  6 Choose the OK button.

With the AutoFill feature, you can also create a linear trend by using the fill handle.   The fill handle is the small black square at the lower right of the selection.   A trend created using the AutoFill feature does not alter the values in your original selection. AutoFill creates a trend if you select three or more cells containing values that do not fall in a straight line.

To create a trend series using the AutoFill feature

  1 Select three or more cells containing your starting values.
  2 Drag the fill handle in the direction you want to fill.

See Also

Help

Extending a series of numbers or dates

Series Command (Data Menu)

Turning AutoFill on or off

Using AutoFill

User's Guide (Book 1)

Chapter 5, "Creating a Worksheet"

To change screen colors

1 From the Microsoft Excel Control menu, choose Run.

2 Select the Control Panel option button.

3 Choose the OK button.

4 With the mouse, double-click the Color icon, or choose Color from the Control Panel Settings menu.

5 In the Color Schemes list, select the color combination you want.

6 If you want to change a color in the color scheme you selected, choose Color Palette.

   In the Screen Element list, select the screen element whose color you want to change, and choose one of the colors from the Basic Colors selection.

7 If you want to create a custom color, choose the Define Custom Colors button.

   Use the Custom Color Selector to find the color you want.   Choose the Add Color button to add that color to the Custom Colors palette.   Repeat to add additional colors to the Custom Colors palette.   Choose the Close button when you are finished adding colors.

8 Choose the OK button to apply the changes.

9 From the Control menu, choose Close to close the Control Panel.

To change the decimal separator

1. From the Microsoft Excel Control menu, choose Run.
2. Select the Control Panel option button.
3. Choose the OK button.
4. Double-click the International icon or choose International from the Control Panel Settings menu.
5. In the Number Format box, choose the Change button.
6. In the Decimal Separator box, type the decimal separator you want.
7. Choose the OK button.
8. Choose the OK button to close the International dialog box.
9. From the Control menu, choose Close to close the Control Panel.

To clear data from cells

To clear data from cells by dragging

    1 Select the cells you want to clear.

    2 To clear only data, drag the fill handle (black square in lower-right corner of selection) up until the entire selection is gray, and then release the mouse button.

       To clear both data and formats, press CTRL and drag the fill handle (black square in lower-right corner of selection) up until the entire selection is gray, and then release the mouse button.

To clear data from cells using the Clear command

    1 Select the cells you want to clear.

    2 From the Edit menu or the <u>shortcut menu</u>, choose Clear.

       Shortcut: Clear Formats tool
                    Clear Formulas tool
                    DEL

    3 Select the option for the cell attributes you want to clear.

    4 Choose the OK button.

See Also

  Help

- <u>Clear Formats Tool</u>
- <u>Clear Formulas Tool</u>

<u>Adding and deleting a tool from a toolbar</u>
<u>Clear Command (Edit Menu)</u>
<u>Displaying and hiding a toolbar</u>
<u>Toolbars Command (Options Menu)</u>

To close panes in a window

    1 Switch to the worksheet window from which you want to remove the panes.

    2 Double-click the split bar, or choose Remove Split from the Window menu.

To combine copied formulas or values with those in the paste area

1 Select the cells you want to copy.

2 From the Edit menu or the shortcut menu, choose Copy.

   Shortcuts: Copy tool (Utility toolbar)

                       CTRL+C

3 Select the paste area.

4 From the Edit menu, choose Paste Special.

5 Under Paste, select the Formulas option to combine formulas from the copied cells with formulas from the paste area cells, or select the Values option to combine values from the copied cells with formulas from the paste area cells.

6 Under Operation, select the operation you want used to combine each copied cell and its corresponding paste area cell.

The arithmetic operator you select specifies whether the copied formula or value is added to, subtracted from, multiplied by, or divided into the contents of the destination cells.

7 Choose the OK button.

8 To cancel the moving border, press ESC or choose another command.

See Also

Help

- Copy Tool

    Paste Values Tool

    Paste Formats Tool

Adding and deleting a tool from a toolbar
Copy Command (Edit Menu)
Displaying and hiding a toolbar
Paste Special Command (Edit Menu)
Toolbars Command (Options Menu)

To combine values on different worksheets

1 On the source worksheet, select the cell or range of cells you want to copy.

2 From the Edit menu or the <u>shortcut menu</u>, choose Copy.

    Shortcuts: Copy tool (Utility toolbar)

                    CTRL+C

3 On the destination worksheet, select the <u>paste area</u>.

4 From the Edit menu, choose Paste Special.

5 Under Paste, select the Values option.

6 Under Operation, select the operation you want used to combine each copied cell and its corresponding paste area cell.

   The arithmetic operator you select specifies whether the copied formula or value is added to, subtracted from, multiplied by, or divided into the contents of the destination cell.

7 Choose the OK button.

8 To cancel the moving border, press ESC or choose another command.

   You do not have to switch to the source worksheet to cancel the moving border.

See Also

Help

▪   <u>Copy Tool</u>

<u>Adding and deleting a tool from a toolbar</u>
<u>Copy Command (Edit Menu)</u>
<u>Displaying and hiding a toolbar</u>
<u>Paste Special Command (Edit Menu)</u>
<u>Toolbars Command (Options Menu)</u>

To convert a formula or a portion of a formula to its displayed values

To convert a formula to its displayed values

1 Select the cells you want to convert.
2 From the Edit menu or the <u>shortcut menu</u>, choose Copy.

   Shortcuts: Copy tool (Utility toolbar)
   CTRL+C
3 From the Edit menu, choose Paste Special.

   Shortcut: Paste Values tool (Utility toolbar)
4 Under Paste, select the Values option button.
5 Choose the OK button.

   The cells now contain the results of the formulas as constant values, not the formulas.
6 To cancel the moving border, press ESC or choose another command.

To convert a portion of a formula to its displayed value

   Use this procedure if you want to change only part of a formula to a value.
1 Select the cell containing the formula you want to change.
2 In the formula bar, select the part of the formula you want to change.
3 Press F9 or click the Calculate Now tool on the Utility toolbar.
4 Click the enter box or press ENTER.

See Also

   Help
▪   <u>Calculate Now Tool</u>
▪   <u>Copy Tool</u>
   <u>Paste Values Tool</u>
<u>Adding and deleting a tool from a toolbar</u>
<u>Calculate Now Command (Options Menu)</u>
<u>Copy Command (Edit Menu)</u>
<u>Displaying and hiding a toolbar</u>
<u>Paste Special Command (Edit Menu)</u>
<u>Toolbars Command (Options Menu)</u>

To copy data

To copy data by dragging

   1 Select the cell or cells you want to copy.

   2 Position the mouse pointer over the border of the selection.

   3 Press CTRL while dragging the selection to where you want to paste it.

     While you drag, a border appears to indicate the size and position of the selection.

     If the paste area is located beyond the visible portion of the worksheet, drag the selection to the edge of the window to scroll the worksheet.

   4 To copy the data to existing cells, position the border so that it surrounds the paste area, and then release the mouse button.   Any existing data in the paste area is replaced.

     To insert the copied data between existing cells, press CTRL+SHIFT while dragging the selection to where you want to insert it.   Existing cells and data shift to make room for the new data.

To copy data with the Copy command

   1 Select the cells containing the data you want to copy.

   2 From the Edit menu or the <u>shortcut menu</u>, choose Copy.

     Shortcuts: Copy tool (Utility toolbar)
                   CTRL+C

   3 Select the <u>paste area</u>.

     Any values or formulas in the paste area will be replaced.

   4 To copy the data to existing cells, choose Paste from the Edit menu or the <u>shortcut menu</u>.

     Shortcuts: Paste tool
                   ENTER
                   CTRL+V

     If you choose Paste from the Edit menu instead of pressing ENTER, you can then repeat steps 3 and 4 to paste the data in additional locations.

     To insert the copied cells and shift the existing cells to accommodate the inserted cells, choose Insert Paste from the Edit menu.

   5 If the moving border is still visible, cancel it by pressing ESC or choosing another command.

You can also copy a picture of the data and paste it on a macro sheet or worksheet using the Camera tool or the Copy Picture command on the Edit menu.   This command appears only when you hold down SHIFT and select the Edit menu.

See Also

Help

- <u>Camera Tool</u>
- <u>Copy Tool</u>
- <u>Paste Tool</u>

<u>Adding and deleting a tool from a toolbar</u>
<u>Copy Command (Edit Menu)</u>
<u>Copy Picture Command (Edit Menu)</u>
<u>Displaying and hiding a toolbar</u>
<u>Insert Paste Command (Edit Menu)</u>
<u>Paste Command (Edit Menu)</u>
<u>Toolbars Command (Options Menu)</u>
<u>Turning drag and drop on or off</u>

Using Drag and DropUsing the pen with Microsoft Excel

User's Guide (Book 1)

To copy data and save it in a separate file

1 Switch to the document from which you want to copy data.

2 Select the data you want to copy.

3 From the Edit menu or the <u>shortcut menu</u>, choose Copy.

   Shortcuts: Copy tool (Utility toolbar)
                 CTRL+C

4 Switch to the document to which you want to copy the data or choose New   from the File menu to create a new document.

5 Select the upper-left cell of the area to which you want to copy the data.

6 Choose Paste from the Edit menu or the <u>shortcut menu</u>.

   Shortcuts: Paste tool
                 CTRL+V

7 Choose the OK button.

   You can now save the new document.

See Also

Help

- <u>Copy Tool</u>
- <u>Paste Tool</u>

<u>Adding and deleting a tool from a toolbar</u>
<u>Copy Command (Edit Menu)</u>
<u>Displaying and hiding a toolbar</u>
<u>New Command (File Menu)</u>
<u>Paste Command (Edit Menu)</u>
<u>Saving a document for the first time</u>
<u>Toolbars Command (Options Menu)</u>

To copy cells to multiple locations

1 Select the cells you want to copy.

2 From the Edit menu or the <u>shortcut menu</u>, choose Copy.

   Shortcuts: Copy tool (Utility toolbar)

                   CTRL+C

3 Select multiple nonadjacent <u>paste areas</u> the same size and shape as the copied cells, or select the upper-left cell of each paste area.

4 From the Edit menu, choose Paste.

   Shortcuts: Paste tool

                   ENTER

                   CTRL+V

   The data in the copied cells replaces any existing data already in the paste areas.

5 To paste the same copy area again, leave the moving border active and repeat steps 3 and 4.

6 To cancel the moving border, press ESC or choose another command.

You can also copy a picture of the data and paste it on a worksheet or macro sheet using the Camera tool or the Copy Picture command on the Edit menu.   This command appears only when you hold down SHIFT and select the Edit menu.

See Also

Help

- <u>Camera Tool</u>
- <u>Copy Tool</u>
- <u>Paste Tool</u>

<u>Adding and deleting a tool from a toolbar</u>
<u>Copy Command (Edit Menu)</u>
<u>Copy Picture Command (Edit Menu)</u>
<u>Displaying and hiding a toolbar</u>
<u>Paste Command (Edit Menu)</u>
<u>Selecting nonadjacent cells</u>
<u>Toolbars Command (Options Menu)</u>

User's Guide (Book 1)

Chapter 6, "Editing a Worksheet"

Chapter 15, "Working with Graphic Objects"

To copy a cell's value, formula, formatting, or note

1 Select the cells you want to copy.
2 From the Edit menu or from the <u>shortcut menu</u>, choose Copy.
   Shortcuts: Copy tool (Utility toolbar)
                 CTRL+C
3 Select the <u>paste area</u>.
4 From the Edit menu, choose Paste Special.
5 Under Paste, select the option for the attributes of the cells that you want to paste.
6 Choose the OK button.
7 Cancel the moving border by pressing ESC, choosing another command, or activating the formula bar.

See Also

Help

▪   <u>Copy Tool</u>

            <u>Paste Values Tool</u>

            <u>Paste Formats Tool</u>

<u>Copy Command (Edit Menu)</u>
<u>Displaying and hiding a toolbar</u>
<u>Paste Special (Edit Menu, Worksheet)</u>
<u>Toolbars Command (Options Menu)</u>

User's Guide (Book 1)

Chapter 6, "Editing a Worksheet"

To copy a chart's series or formats

1 From the Chart menu, choose Select Chart.
2 From the Edit menu or the shortcut menu, choose Copy.

   Shortcuts: Copy tool (Utility toolbar)
   CTRL+C

3 Select the chart you want to copy to, or choose New from the File menu to create a new chart.

   If the chart you want to copy to is embedded in a worksheet, double-click it to open it.

4 From the Edit menu, choose Paste Special.
5 Under Paste, select the option for the attributes of the chart that you want to paste.
6 Choose the OK button.
7 Cancel the moving border by pressing ESC, choosing another command, or activating the formula bar.

See Also

Help

▪   Copy Tool
Copy Command (Edit Menu)
Displaying and hiding a toolbar
Paste Special (Edit Menu, Chart)
Toolbars Command (Options Menu)

User's Guide (Book 1)

Chapter 13, "Editing a Chart"

To copy to a range of adjacent cells

To copy using the AutoFill feature

1 Select the cells containing the data you want to copy.

2 Press CTRL and drag the fill handle (black square in lower-right corner of selection) to extend the selection across the cells you want to fill, and then release the mouse button.

Any existing values or formulas in the cells you fill will be replaced.

Note   If you drag a fill handle up or to the left of a selection and stop in the selected cells without going past the first column or the top row, you will erase your data within the selection.

To copy using the Fill Right and Fill Down commands

1 Select the cell or cells you want to copy and the adjacent cells you want to fill.

You can make a nonadjacent selection; in this case, each range in the selection is filled from the cells in the same range.

2 To copy the selection's first column into the adjacent cells to the right, choose Fill Right from the Edit menu.

Shortcuts: Fill Right tool
                        CTRL+R

To copy the selection's first row into the adjacent cells below, choose Fill Down from the Edit menu.

Shortcuts: Fill Down tool
                        CTRL+D

To copy the selection's last column into the adjacent cells to the left, hold down SHIFT and choose Fill Left from the Edit menu.

Shortcut: SHIFT+Fill Right tool.

To copy the selection's last row into the adjacent cells above, hold down SHIFT and choose Fill Up from the Edit menu.

Shortcut: SHIFT+Fill Down tool.

Any existing values or formulas in the cells you fill will be replaced.

See Also

Help

▪   Fill Down Tool
▪   Fill Right Tool
Fill Commands (Edit Menu)
Turning AutoFill on or off
Using AutoFill
Using the pen with Microsoft Excel

User's Guide (Book 1)

Chapter 6, "Editing a Worksheet"

To copy visible cells

1 Select the cells you want to copy.

2 Choose Select Special from the Formula menu, select the Visible Cells option, and choose the OK button.

    Shortcut: Select Visible Cells tool (Utility toolbar)

3 From the Edit menu or the <u>shortcut menu</u>, choose Copy.

    Shortcuts: Copy tool (Utility toolbar)
                     CTRL+C

4 Select the <u>paste area.</u>

5 From the Edit menu, choose Paste.

    Shortcut: Paste tool
                     CTRL+V

The data in the copied cells replaces any existing data in the paste area.

To create a link to the copied cells, choose Paste Link instead of Paste from the Edit menu.

6 To cancel the moving border after you finish copying, press ESC or choose another command.

Note If the paste area contains hidden rows or columns, Microsoft Excel pastes the copy area in consecutive rows or columns even if they are not visible. You may need to expand the paste area to see all of the copied cells.

See Also

Help

- <u>Copy Tool</u>
- <u>Paste Tool</u>
- <u>Select Visible Cells Tool</u>

<u>Adding and deleting a tool from a toolbar</u>
<u>Copy Command (Edit Menu)</u>
<u>Displaying and hiding a toolbar</u>
<u>Paste Command (Edit Menu)</u>
<u>Paste Link Command (Edit Menu)</u>
<u>Select Special Command (Formula Menu)</u>
<u>Toolbars Command (Options Menu)</u>

User's Guide (Book 1)

Chapter 6, "Editing a Worksheet"

Chapter 11, "Working with Multiple Microsoft Excel Documents"

To copy within the formula bar

1 In the formula bar, select the characters you want to copy.

2 From the Edit menu, choose Copy.

Shortcut: CTRL+C

3 Move the insertion point in the formula bar where you want to paste the copied characters.

4 From the Edit menu, choose Paste.

Shortcut: CTRL+V

To copy all or part of a cell entry into the formula bar of another cell

1 Select the cell containing the data you want to copy.

2 In the formula bar, select the characters you want to copy.

3 From the Edit menu, choose Copy.

Shortcut: CTRL+C

4 Press ESC or ENTER to deactivate the formula bar.

5 Select the cell that you want to copy to.

6 In the formula bar, select the characters you want to replace, or position the insertion point where you want to paste the data.

7 From the Edit menu, choose Paste.

Shortcut: CTRL+V

See Also

Help

Copy Command (Edit Menu)

Paste Command (Edit Menu)

User's Guide (Book 1)

Chapter 5, "Creating a Worksheet"

To copy to another worksheet or application

1 Select the cells you want to copy.
2 From the Edit menu or the <u>shortcut menu</u>, choose Copy.

   Shortcuts: Copy tool (Utility toolbar)
   CTRL+C

3 To copy the cells to another worksheet, switch to the other worksheet.
4 Select the <u>paste area</u>.
5 From the Edit menu, choose Paste.

   Shortcut: Paste tool
   CTRL+V

   The data in the copied cells replaces any existing data in the paste area.

   To insert the copied cells and shift the other cells to accommodate the inserted cells instead of replacing existing data, choose Insert Paste from the Edit menu.

6 To copy cells again, repeat steps 4 and 5.
7 To cancel the moving border after you finish copying, press ESC or choose another command.

   To paste the copied cells and cancel the moving border in one step, press ENTER instead of choosing the Paste command.

You can also copy a picture of the data and paste it to a worksheet or macro sheet by using the Camera tool or by choosing Copy Picture from the Edit menu.   This command appears only when you hold down SHIFT and select the Edit menu.

To copy data to another application

1 Select the cells you want to copy.
2 From the Edit menu or the <u>shortcut menu</u>, choose Copy.

   Shortcuts: Copy tool (Utility toolbar)
   CTRL+C

3 Switch to the application for the document you want to paste the data into, and then open the document.
4 Select the <u>paste area</u>.
5 Paste the information, using the procedure for pasting data in the active application.
6 Return to Microsoft Excel and cancel the moving border by pressing ESC or choosing another command.

To copy a picture of a range of cells to another application

1 Select the range of cells you want to copy.
2 Hold down SHIFT and choose Copy Picture from the Edit menu.

   Copy Picture appears on the Edit menu in place of Copy when you hold down SHIFT while selecting the Edit menu.

3 Select the As Shown On Screen option button or the As Shown When Printed option button.
4 Choose the OK button.
5 Switch to the application containing the document you want to paste the picture into, and then open the document.
6 Select the paste area.
7 Paste the information, using the procedure for pasting data in the application you are copying to.
8 Return to Microsoft Excel and cancel the moving border by pressing ESC or choosing

another command.

See Also

Help

- [Copy Tool](#)
- [Paste Tool](#)

[Adding and deleting a tool from a toolbar](#)
[Copy Command (Edit Menu)](#)
[Copy Picture Command (Edit Menu)](#)
[Displaying and hiding a toolbar](#)
[Insert Paste Command (Edit Menu)](#)
[Paste Command (Edit Menu)](#)
[Toolbars Command (Options Menu)](#)

User's Guide (Book 1)

Chapter 6, "Editing a Worksheet"

Chapter 15, "Working with Graphic Objects"

To create links between documents

You can create a link between Microsoft Excel documents, between a Microsoft Excel worksheet and a document from another application, or between a Microsoft Excel chart and another application.

To create a link between Microsoft Excel documents

1 Open the two documents you want to link.

To make it easy to move between documents, choose Arrange from the Window menu to display both windows in the workspace at the same time.

2 Switch to the source document window.   This is the document that contains the information to be linked.

3 Select the cell or cell range containing the information to be linked.

4 From the Edit menu or the shortcut menu, choose Copy.

Shortcuts: Copy tool (Utility toolbar)
                    CTRL+C

A moving border appears around the selected cell or range.

5 Switch to the dependent worksheet window.   This is the document that will contain the linked data.

6 Select the cell or the upper-left corner of the range that will contain the link.

7 From the Edit menu, choose Paste Link.

Microsoft Excel creates the external reference formula that links the worksheets.

To create a link between a source Microsoft Excel worksheet and a dependent document from another application

To do this procedure, both applications must be Microsoft Windows applications.

1 Open the source worksheet in Microsoft Excel and the dependent document in the other application.

2 Switch to the source worksheet in Microsoft Excel.

3 Select the worksheet data or embedded chart you want to copy into the dependent document in the other application.

4 From the Edit menu or the shortcut menu, choose Copy.

Shortcuts: Copy tool (Utility toolbar)
                    CTRL+C

5 Switch to the dependent document window in the other application.

6 Place the insertion point where you want to insert the worksheet data or chart.

7 Follow the procedure for pasting linked data in the other application.

To create a link between a dependent Microsoft Excel worksheet and a source document from another application

To do this procedure, both applications must be Microsoft Windows applications.

1 Open the dependent worksheet in Microsoft Excel document and the source document in the other application.

2 Switch to the source document window in the other application.

3 Follow the other application's procedure for selecting and copying data.

4 Switch to the dependent Microsoft Excel worksheet.

5 Select the cell or the upper-left corner of the range that will contain the linked data.

6 From the Edit menu, choose Paste Link.

Microsoft Excel creates the remote reference formula that links the documents.

If the Paste Link command is unavailable when you select the Edit menu, the other

application does not support linking or cannot supply the data in a format that Microsoft Excel can use.

To create a link between a source Microsoft Excel chart and a dependent document in another application

To do this procedure, both applications must be Microsoft Windows applications.

1 If you want to create a link from an embedded chart, select the chart.

   If you want to create a link to a separate chart document, switch to the chart and then choose Select Chart from the Chart menu.

2 From the Chart menu, choose Select Chart.

3 From the Edit menu or the <u>shortcut menu</u>, choose Copy.

   Shortcuts: Copy tool (Utility toolbar)
                        CTRL+C

   A moving border appears around the selected chart.

4 Switch to the document in the other application.

5 Position the insertion point where you want to insert the chart.

6 Follow the procedure for linking data in the other application.

See Also

Help

<u>Arrange Command (Window Menu)</u>
<u>Copy Command (Edit Menu)</u>
<u>Displaying and hiding a toolbar</u>
<u>Paste Link Command (Edit Menu)</u>
<u>Select Chart Command (Chart Menu)</u>
<u>Toolbars Command (Options Menu)</u>

User's Guide (Book 1)

Chapter 11, "Working with Data from Multiple Documents"

User's Guide (Book 2)

 Chapter 3, "Exchanging Data with Other Applications"

To create a view of a worksheet

    1 From the Window menu, choose View.

    2 In the View dialog box, choose the Add button.

    3 In the Name box, type a name for the view.

    4 Under View Includes, select the options you want to include in the view.

    5 Choose the OK button.

To display a view of a worksheet

    1 From the Window menu, choose View.

    2 Select the name of the view you want to see.

    3 Choose the Show button.

To delete a view of a worksheet

    1 From the Window menu, choose View.

    2 Select the name of the view you want to delete.

    3 Choose the Delete button.

    4 If you want to delete other views you no longer need, repeat steps 2 and 3.

    5 Choose the Close button.

See Also

Help

View Command (Window Menu)

User's Guide (Book 1)

Chapter 7, "Formatting a Worksheet"

To create an additional window for the active document

- From the Window menu, choose New Window.
  Microsoft Excel opens a new window that contains the same information as the active window.   The new window scrolls separately.

See Also

Help

New Window Command (Window Menu)

To collapse an outline level

This procedure requires a mouse.

▪   Click the collapse button.

▪   Click the outline level button.

A minus sign button next to a row or column indicates that outline levels subordinate to that row or column are currently displayed.   You can collapse any outline level that has a minus sign next to it. Click the numbered outline level button in the upper-left corner of the window to display only up to that outline level.

See Also

Help

▪   Show Outline Symbols Tool

Assigning an outline level to a row or column

Creating an outline from a existing worksheet

Clearing an outline from a worksheet

Displaying an outline level

Displaying or hiding outline symbols

Expanding an outline level

Toolbars Command (Options Menu)

User's Guide (Book 1)

Chapter 8, "Organizing and Documenting a Worksheet"

To create or edit a note

1 Select the cell you want to annotate.

2 From the Formula menu, choose Note, or if the cell already has a note, double-click the cell.

3 In the Text Note box, type the text of the new note or edit the text of the existing note.

   The text you type automatically wraps to the next line.   To insert a line or paragraph break, press CTRL+ENTER.

4 Choose the OK button.

   Microsoft Excel attaches the note to the cell.

To create multiple notes quickly

1 Select the first cell you want to annotate.

2 From the Formula menu, choose Note, or if the cell already has a note, double-click the cell.

3 In the Text Note box, type the text of the new note or edit the text of the existing note.

   The text you type automatically wraps to the next line.   To insert a line or paragraph break, press CTRL+ENTER.

4 Choose the Add button.

5 Select the next cell you want to annotate, or type the reference in the Cell box.

6 In the Text Note box, delete the text from the previous note and type the text of the next note.

7 Choose the Add button.

8 Repeat steps 5 through 7 for each additional note you want to create.

9 Choose the OK button when you are finished adding notes.

See Also

Help

Copying a text or sound note to another cell

Creating a sound note

Deleting a note

Displaying or hiding note indicators

Note Command (Formula Menu)

Playing a sound note

Removing a sound note

User's Guide (Book 1)

Chapter 8, "Organizing and Documenting a Worksheet"

To create an outline from an existing worksheet

You can create a new outline on a worksheet using the Outline dialog box. You can use the Create button to automatically determine the location of the summary rows and columns relative to the detail data in your worksheet.

1 Select the range you want to outline.

   If you select a single cell, the entire worksheet will be outlined.

2 From the Formula menu, choose Outline.

3 Select the Automatic Styles check box if you want Microsoft Excel to apply built-in cell styles to summary rows and columns.

4 Specify the direction you want the levels to flow in the outline.

   Both the Summary Rows Below Detail check box and the Summary Columns To The Right Of Detail check box are normally selected.   If your worksheet is not set up in this fashion, as is normally the case, clear one or both check boxes.

   Your worksheet must be consistent in the way summary rows and columns are positioned relative to source data.

5 Choose the Create button.

See Also

   Help

-      Demote Tool
-      Promote Tool

   Assigning an outline level to a row or column

   Clearing a outline from a worksheet

   Collapsing an outline level

   Displaying or hiding outline symbols

   Expanding an outline level

   Toolbars Command (Options Menu)

   User's Guide (Book 1)

   Chapter 8, "Organizing and Documenting a Worksheet"

To create names

1 Select the range of cells with which you want to create names.

The selected range should include text labels at the top, bottom, left, or right of the selection. These labels will become the range names.   Date labels will automatically be converted to text values.

2 From the Formula menu, choose Create Names.

Shortcut: SHIFT+CTRL+F3

3 Under Create Names In, select Top Row, Left Column, Bottom Row, or Right Column, depending on the location of the labels from which you want to create names.

4 Choose the OK button.

See Also

Help

Apply Names Command (Formula Menu)

Create Names Command (Formula Menu)

Define Name Command (Formula Menu)

Defining a name

Replacing references in formulas with names

User's Guide (Book 1)

Chapter 8, "Organizing and Documenting a Worksheet"

To clear an outline from a worksheet

1 Select the entire outline.

2 Press ALT+SHIFT+LEFT ARROW until all rows and columns are at level 1.

   When the Promote dialog box appears, choose the Rows or Columns option and click the OK button.

   --or--

   With the mouse, click the Promote tool on the Utility toolbar until all rows and columns are at level 1.

   When the Promote dialog box appears, choose the Rows or Columns option and click the OK button.

   The outline symbols disappear and your worksheet no longer contains an outline.

See Also

Help

▪ _____ Demote Tool

▪ _____ Promote Tool

Assigning an outline level to a row or column

Collapsing an outline level

Creating an outline from a existing worksheet

Displaying or hiding outline symbols

Expanding an outline level

Toolbars Command (Options Menu)

User's Guide (Book 1)

Chapter 8, "Organizing and Documenting a Worksheet"

To create a sound note

You must have the proper hardware and software installed to use the Sound Note features. See Chapter 8, "Organizing and Documenting a Worksheet," in Book 1 of the Microsoft Excel User's Guide.

To record a new sound note

1 Select the cell you want to annotate.
2 From the Formula menu, choose Note, or if the cell already has a note attached, double-click the cell.
3 Under Sound Note, choose the Record button.
   If the cell already has a sound note attached, the Record button is not available.
4 In the Record/Play dialog box, choose the Record button and begin recording your note.
   The time scale below the Record, Stop, Pause, and Play buttons shows elapsed recording time relative to the total amount available.
5 Choose the Stop button when you are finished recording.
   Choose the Pause button to suspend and then resume recording.
6 Choose the Play button to review your recording.
7 To rerecord your sound note, repeat steps 4 and 5.
8 When you are satisfied with your recording, choose the OK button.
9 In the Cell Note dialog box, choose the Add button if you want to add more notes, and repeat steps 1 through 8.
   --or--
   Choose the OK button to add your note and close the dialog box.

To import a prerecorded sound file

1 Select the cell you want to annotate.
2 From the Formula menu, choose Note, or if the cell already has a note attached, double-click the cell.
3 Under Sound Note, choose the Import button to select a previously recorded sound file to attach to the cell.
4 From the list, select the sound file you want to import.
5 Choose the OK button.
6 In the Cell Note dialog box, choose the Add button if you want to add more notes, and repeat steps 1 through 4.
   --or--
   Choose the OK button to add your note and close the dialog box.

See Also

Help

Creating or editing a note

Deleting a note

Note Command (Formula Menu)

Removing a sound note

User's Guide (Book 1)

Chapter 8, "Organizing and Documenting a Worksheet"

To copy a text or sound note to another cell

1 Select the cell containing the note you want to copy.

   If the selected cell contains a text note as well as a sound note, both will be copied.

2 From the Edit menu, choose Copy.

   Shortcuts: Copy tool (Utility toolbar)

                 CTRL＋INSERT

                 CTRL＋C

3 Select the cell to which you want to copy the note.

4 From the Edit menu, choose Paste Special.

5 Under Paste, select the Notes option button.

6 Choose the OK button.

   The copied note replaces any existing notes in the destination cell.

See Also

Help

▪   Copy Tool (Utility Toolbar)

Creating a note

Creating a sound note

Deleting a note

Displaying or hiding cell note indicators

Playing a sound note

Removing a sound note

Toolbars Command (Options Menu)

User's Guide (Book 1)

Chapter 8, "Organizing and Documenting a Worksheet"

To change the thickness of window borders

1 From the Control menu, choose Run.

   Shortcut: ALT+SPACEBAR+U

2 Select the Control Panel option button.

3 Choose the OK button.

4 Double-click the Desktop icon.

5 Adjust the Border Width by clicking the up or down arrow or by typing a number in the Border Width box.

6 Choose the OK button.

7 From the Control menu in the Windows Control Panel, choose Close.

   Shortcut: ALT+SPACEBAR+C

To change worksheet dimensions on the screen

▪ Change the size of the window, the height of the individual rows, or both.   You can also zoom in or out of your worksheet.

See Also

Help

Zoom In Tool

Zoom Out Tool

Utility Toolbar

Toolbars Command (Options Menu)

To change the width of columns

To change a column's width

▪   Drag the line to the right of the column heading until the column is the desired width.

--Or--

1 Select the column or any cell in the column.
2 From the Format menu or the column <u>shortcut menu</u>, choose Column Width.
3 Change the number in the Column Width box.   This number represents the number of characters that can be displayed in a cell for the current font and size.

To adjust a column's width for the best fit

▪   Double-click the line to the right of the column heading.

--Or--

1 Select the column or any cell in the column.
2 From the Format menu or the column <u>shortcut menu</u>, choose Column Width.
3 Choose the Best Fit button.
   The column width adjusts to accommodate the longest cell entry in the column.

To change the standard column width

1 Select a range of cells or the entire worksheet.
2 From the Format menu, choose Column Width.
3 In the Standard Width box, type a new number.
   Only columns within the selection that have not been manually set will change to the standard width.
4 If you want all columns within the selection to have the standard width, choose the Use Standard Width check box.
5 Choose the OK button.

To change column widths on more than one worksheet

1 Start a group editing session.
2 Use any of the above procedures.

See Also

Help

<u>Column Width Command (Format Menu for Worksheets)</u>
<u>Copying data and formats to all sheets in a group</u>
<u>Starting or ending a group editing session</u>

User's Guide (Book 1)

Chapter 7, "Formatting a Worksheet"

To create or delete a custom number format

To create a custom number format

1 Select the cells you want to format.
2 From the Format menu or the <u>shortcut menu</u>, choose Number.
   To create a custom format, you can edit a built-in format or type a new format.
3 To edit a built-in format, select the format from the list.
4 In the Code box, edit the built-in format or type a new format.
5 Choose the OK button.
   Your custom format now appears at the end of the Format Codes list and is available every time you open the worksheet.

To delete a custom number format

1 From the Format menu or the <u>shortcut menu</u>, choose Number.
2 Select the number format you want to delete.
   You cannot delete built-in formats.
3 Choose the Delete button.
4 Choose the OK button.

See Also

Help

<u>Creating international currency formats</u>
<u>Number Command (Format Menu for Worksheets)</u>

User's Guide (Book 1)

Chapter 7 "Formatting a Worksheet"

To center text over columns

1 Select a range of cells, including the cell that contains your text entry.
2 From the Format menu or the shortcut menu, choose Alignment.
3 Select the Center Across Selection option button.
4 Choose the OK button.

The text is centered across all the selected blank columns to the right and will change with any column width adjustments.

Shortcut: Center Across Columns tool

See Also

Help

▪   Center Across Columns Tool
Alignment Command (Format Menu for Worksheets)
Standard Toolbar

To create or delete a style

You can create a style by example by using either the Style command on the Format menu or the Style box on the toolbar.

To create a style by example using the Style box
1 Select a cell that has the combination of formats you want.
2 In the Style box on the toolbar, type a name for the new style.
3 Press ENTER.

To create a style by example using the Style command
1 Select a cell that has the combination of formats you want to include in your style.
2 From the Format menu, choose Style.
3 In the Style Name box, type a name for the new style.
   A description of the new style appears in the Description box.
4 Choose the OK button.

To create a style by definition
1 From the Format menu, choose Style.
2 In the Style Name box, type a name for the style.
3 Choose the Define button.
   The Style dialog box expands.
4 In the Style Includes box, select the check boxes for the attributes you want the style to have.   Clear the check boxes for the attributes you do not want affected.
   When you clear the check box for an attribute, the corresponding button for that attribute becomes unavailable and the description for this attribute is omitted.
5 Choose the button in the Change box for the attribute you want to add or change.
   The appropriate dialog box is displayed.
6 Select the formats you want for the attribute.
7 Choose the OK button to confirm your selections and return to the Style dialog box.
8 Repeat steps 5 through 7 until you have selected all the formats you want for your style.
9 To define and apply the style, choose the OK button.
   To define the style without applying it, choose the Add button and then choose the Close button.

To delete a style
1 From the Format menu, choose Style.
2 In the Style Name box, select the style you want to delete.
   You cannot delete the Normal style.
3 Choose the Define button.
4 Choose the Delete button.
5 Choose the OK button.

See Also

Help
- Comma Style Tool
- Currency Style Tool
- Percent Style Tool
- Style Box

To copy styles from another document

To do this procedure, you must have both documents open: the document you are copying to and the document you are copying from.

1 Switch to the document you want to copy the styles to.
2 From the Format menu, choose Style.
3 Choose the Define button.
4 Choose the Merge button.

   Microsoft Excel displays a list of the documents that are open.

5 In the Merge Styles From box, select the name of the document that contains the styles you want to copy.
6 Choose the OK button to copy the styles and style names from the document you selected to the active document.
7 Choose the Close button to close the Style dialog box.

See Also

Help

Applying a style

Creating or deleting a style

Redefining a style

Redefining the Normal style

Style Command (Format Menu for Worksheets)

To create international currency formats

 1 Select the cells you want to format.
 2 From the Format menu or the <u>shortcut menu</u>, choose Number.
 3 In the Format Codes list, select any format.

 The format you select is displayed in the Code box.

 4 In the Code box, edit the existing format or type a new one.

 Enter special characters to display currency symbols by pressing NUM LOCK and holding down ALT while typing the ANSI character for the currency symbol on the numeric keypad.

 For example, if you want to insert a yen symbol, hold down ALT while typing 0165 on the numeric keypad.

 5 Choose the OK button.

 The new format is applied to the selected cells, and appears at the end of the Format Codes list.   Your custom currency format is available every time you open the worksheet.

For more information, see ANSI character set in your Microsoft Windows documentation.

See Also

 User's Guide (Book 1)

 Chapter 7, "Formatting a Worksheet"

To cancel print titles

1 Select the entire worksheet.

2 From the Options menu, choose Remove Print Titles.

    Remove Print Titles is available on the Options menu only when you have selected the entire worksheet.

See Also

Help

Selecting a cell, row, column, or worksheet

Set Print Titles and Remove Print Titles Commands (Options Menu)

Setting print titles for rows and columns

User's Guide (Book 1)

Chapter 16, "Printing"

To add or delete an overlay chart

You can add an overlay chart by changing the chart type with the Combination command on the Gallery menu.   You can delete an overlay chart by changing the chart type with any other command on the Gallery menu.   These commands completely replace any custom formatting you have applied to the chart.   The following procedure adds an overlay chart while retaining any custom formatting you have applied.

To add an overlay chart to a customized chart

1 Switch to the chart window.

If the chart is embedded in a worksheet, double-click the chart to display it in a chart window.

2 From the Chart menu, choose Add Overlay.

Microsoft Excel overlays a line chart.

3 To change the overlay chart type, choose Overlay from the Format menu.

4 In the Overlay Chart Type box, select the overlay chart type you want.

If more than one format is available for the chart type you want, select a format under Data View.

5 Choose the OK button.

To delete an overlay chart

▪   From the Chart menu, choose Delete Overlay.

See Also

Help

Add Overlay and Delete Overlay Commands (Chart Menu)

Combination Command (Gallery Menu)

Gallery Menu

Overlay Command (Format Menu for Charts)

User's Guide (Book 1)

Chapter 12, "Creating a Chart"

To change the chart type and format

To change the chart type and format with the Chart toolbar

This procedure overrides some custom formatting applied to the chart.

1 If the chart is embedded on a worksheet, select it.

If the chart is a separate document, switch to the chart window.

2 Click the tool for the chart type you want.

To change the chart type and format with commands

This procedure overrides some custom formatting applied to the chart.

1 Switch to the chart window.

If the chart is embedded in a worksheet, double-click the chart to display it in a chart window.

2 From the Gallery menu, choose the chart type you want.

3 In the Chart Gallery dialog box, select the chart format you want.

Click the Next or Previous button to display the Chart Gallery dialog box for the next or previous chart type.

4 Choose the OK button.

To change the chart type of a customized chart without changing other formatting

1 Switch to the chart window.

If the chart is embedded in a worksheet, double-click the chart to display it in a chart window.

2 From the Format menu, choose Main Chart.

To change the overlay chart type, choose Overlay from the Format menu.

3 In the Main Chart Type box or the Overly Chart Type box, select the chart type you want.

If more than one format is available for the type of chart you want, select a format under Data View.

4 Choose the OK button.

The chart retains any custom formatting that is appropriate for the new chart type.

To change the chart back to the preferred chart type

▪ From the Gallery menu, choose Preferred.
   Shortcut: Preferred Chart tool (Chart toolbar)

See Also

Help

▪ Preferred Chart Tool
Chart Toolbar
Gallery Menu
Main Chart Command (Format Menu for Charts)
Overlay Command (Format Menu for Charts)
Preferred Command (Gallery Menu)
3-D View Command (Format Menu for Charts)

User's Guide (Book 1)

Chapter 12, "Creating a Chart"

To set calculation options for open documents

1 From the Options menu, choose Calculation.
2 Select the options you want.
3 Choose the OK button.
   You cannot change the calculation order.

See Also

Help

▪   Calculate Now Tool
Calculation Command (Options Menu)
Calculate Now Command (Chart menu)

User's Guide (Book 1)
Chapter 5, "Creating a Worksheet"

User's Guide (Book 2)
Chapter 1, "Analyzing and Calculating Data"

To control remote requests

When Microsoft Excel is running, it responds to dynamic data exchange (DDE) requests, and object linking and embedding (OLE) requests from any other application unless you have disabled remote requests.

1 From the Options menu, choose Workspace.
2 To disable remote requests, select the Ignore Remote Requests check box.

   To enable remote requests, clear the Ignore Remote Requests check box.
3 Choose the OK button.

See Also

Help

Updating linked information

Workspace Command (Options Menu)

User's Guide (Book 2)

Chapter 3, "Exchanging Data with Other Applications"

To copy a chart to a worksheet or another application

To copy a chart to a worksheet

1 Switch to the chart window.

   If the chart is embedded in a worksheet, click the chart to select it.

2 From the Chart menu, choose Select Chart.

3 From the Edit menu or the <u>shortcut menu</u>, choose Copy.

   Shortcuts: Copy tool
                 CTRL+C

4 Switch to the worksheet you want to paste the chart onto.

5 Select the cell in the upper-left corner of the <u>paste area</u>.

6 From the Edit menu or the <u>shortcut menu</u>, choose Paste.

   Shortcuts: Paste tool
                 ENTER
                 CTRL+V

To copy a chart to another application

1 Switch to the chart window.

   If the chart is embedded in a worksheet, click the chart to select it.

2 From the Chart menu, choose Select Chart.

3 From the Edit menu or the <u>shortcut menu</u>, choose Copy.

   Shortcuts: Copy tool
                 CTRL+C

4 Switch to the application you want to paste the chart into.

5 Paste the chart, using the procedure for pasting in the application you are copying to.

If you want to control the size and appearance of the copied chart and treat it as a graphic object rather than as an <u>embedded</u> chart, use the Copy Picture command on the Edit menu instead of the Copy command.   Copy Picture appears on the Edit menu in place of Copy when you hold down SHIFT and select the Edit menu.

See Also

Help

- <u>Copy Tool</u>
- <u>Paste Tool</u>

<u>Copy Command (Edit Menu)</u>
<u>Copy Picture (Edit Menu)</u>
<u>Paste Command (Edit Menu)</u>
<u>Select Chart Command (Chart Menu)</u>

User's Guide (Book 1)

Chapter 15, "Working with Graphic Objects"

To copy color palettes between documents

1 Open the document that has the color palette you want to copy.
2 Switch to the document to which you want to copy the color palette.
3 From the Options menu, choose Color Palette.

   If you are working with a chart, choose Color Palette from the Chart menu.
4 In the Copy Colors From box, select the document that has the color palette you want
   to copy.
5 Choose the OK button.

See Also

Help

Color Palette Command (Chart Menu)

Color Palette Command (Options Menu)

Customizing colors in the color palette

User's Guide (Book 2)

Chapter 4, "Customizing Microsoft Excel"

To create or clear a picture chart

You can replace data markers with a picture created in another application or a picture created using the drawing tools on the Drawing toolbar.   You can use picture markers in line, bar, and column charts.   You cannot use picture markers in 3-D charts.

To create a picture chart

1 Switch to the application and the document containing the picture.
2 Copy the picture using that application's procedure for copying.

   If you are copying a picture from a Microsoft Excel document, choose Copy from the Edit menu.

3 Switch to the window containing the Microsoft Excel chart in which you want to use the picture.

   If the chart is embedded in a worksheet, double-click the chart to display it in a chart window.

4 Select the data series whose markers you want to replace with the picture.

   If the chart has only one data series, select the single data marker you want to replace with the picture.   To select a single data marker, press CTRL and click the marker.

5 From the Edit menu, choose Paste.

To clear a data marker picture

1 Select the data series whose markers you want to clear.

   If the chart has only one data series, select the single data marker you want to replace with the picture.   To select a single data marker, press CTRL and click the marker.

2 From the Edit menu or the shortcut menu, choose Clear.

    Shortcut: DEL

3 Select the Formats option button.
4 Choose the OK button.

See Also

Help

Changing whether a picture marker is stacked or stretched

Clear Command (Edit Menu for Charts)

Clearing a data marker picture

Drawing Toolbar

Replacing a data marker with a picture

User's Guide (Book 1)

Chapter 14, "Formatting a Chart"

To create a chart

To create a chart embedded in a worksheet with the ChartWizard

1 Select the data you want to plot.   Include cells containing labels for rows or columns that you want used in the chart.
2 Click the ChartWizard tool.
3 Position the cross-hair pointer where you want one corner of the chart.
4 Drag until the outline is the size you want the chart to be.
5 Follow the instructions on the screen.

To create a chart embedded in a worksheet with the Preferred Chart tool

1 Select the data you want to plot.   Include cells containing labels for rows or columns that you want used in the chart.
2 Click the Preferred Chart tool.
3 Position the cross-hair pointer where you want one corner of the chart.
4 Drag until the outline is the size you want the chart.

   If the selection contains more than one row or column and does not contain text labels or dates in both the first row and first column, the New Chart dialog box appears. Select the option you want, and then choose the OK button.

To create a chart embedded in a worksheet with the chart tools

To do this procedure, the Charting toolbar must be displayed.   Use the Toolbars command on the Options menu to display toolbars.

1 Select the data you want to plot.   Include cells containing labels for rows or columns that you want used in the chart.
2 Click the tool you want.

   There are tools for some of the more common chart types.
3 Position the cross-hair pointer where you want one corner of the chart.
4 Drag until the outline is the size you want the chart.

   If the selection contains more than one row or column and does not contain text labels or dates in both the first row and first column, the New Chart dialog box appears. Select the option you want, and then choose the OK button.

To create a chart as a separate document

1 Select the data you want to plot.   Include cells containing labels for rows or columns that you want used in the chart.
2 From the File menu, choose New.

   Shortcut: F11
3 In the New box, select Chart.
4 Choose the OK button.

   If the selection contains more than one row or column and does not contain text labels or dates in both the first row and first column, the New Chart dialog box appears. Select the option you want, and then choose the OK button.

See Also

Help

- ChartWizard Tool
- Preferred Chart Tool
- Area Chart Tool
- Bar Chart Tool

- ▪ [Column Chart Tool](#)
- ▪ [Line Chart Tool](#)
- ▪ [Pie Chart Tool](#)
- ▪ [Radar Chart Tool](#)
- ▪ [Line/Column Chart Tool](#)
- ▪ [Stacked Column Chart Tool](#)
- ▪ [Volume/Hi-Lo-Close Chart Tool](#)
- ▪ [XY (Scatter) Chart Tool](#)
- ▪ [3-D Area Chart Tool](#)
- ▪ [3-D Bar Chart Tool](#)
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[Protecting chart data](#)

[Toolbars Command (Options Menu)](#)

User's Guide (Book 1)

Chapter 12, "Creating a Chart"

To customize colors in the color palette

Each document you create with Microsoft Excel has a palette, or set, of 16 colors that you can use to format cells, fonts, gridlines, graphic objects, and items in a chart. If you have a color monitor, you can customize any or all of the colors.

To customize colors

1 Switch to the window of the document for which you want to change the color palette.

   Charts that are embedded in a worksheet use the worksheet's color palette; charts that are separate documents have their own color palette.

2 If the active document is a worksheet, choose Color Palette from the Options menu.

   If the active document is a chart, choose Color Palette from the Chart menu.

3 Double-click the color you want to customize, or select the color and then choose the Edit button.

   The Color Picker dialog box appears.

4 Change the color by clicking in the color box and by adjusting the brightness bar.

   -- or --

   Change the color by changing the numbers in the Red, Green, and Blue boxes, or in the Hue, Sat (saturation), and Lum (luminosity) boxes.

   The customized color appears in the left side of the Color|Solid box. If you want to use the solid color nearest the color you have created, double-click the right side of the box.

5 Choose the OK button.

   The Color Picker dialog box closes and the custom color appears in the palette.

6 Repeat steps 3 through 5 to customize additional colors.

7 When you are finished customizing colors, click the OK button or press Enter.

To restore the default palette

1 Switch to the window of the document for which you want to change the color palette.

   Charts that are embedded in a worksheet use the worksheet's color palette; charts that are separate documents have their own color palette.

2 If the active document is a worksheet, choose Color Palette from the Options menu.

   If the active document is a chart, choose Color Palette from the Chart menu.

3 Choose the Default button.

4 Choose the OK button.

See Also

Help

Color Palette Command (Chart Menu)
Color Palette Command (Options Menu)
Copying color palettes between documents

User's Guide (Book 2)

Chapter 4, "Customizing Microsoft Excel"

To check spelling

1 Select the items for which you want to check spelling.

   If you are checking spelling in a worksheet or a macro sheet, and you select only a single cell, the entire sheet including headers, footers, embedded charts, text boxes, cell notes, and buttons will be checked for spelling errors.

2 To check spelling in a worksheet or a macro sheet, choose Spelling from the Options menu.

   To check spelling in a chart, choose Spelling from the Chart menu.

    Shortcut: Check Spelling tool (Utility toolbar)

3 When Microsoft Excel selects an unknown word, select the options you want in the Spelling dialog box to make or ignore the suggested corrections.

   If no correction is suggested, you can add the currently selected word to the dictionary by choosing the Add button.

4 When Microsoft Excel displays a message stating that it has checked all of the items you have selected, choose the OK button to close the dialog box.

See Also

Help

▪   Check Spelling Tool
Spelling Command (Chart Menu)
Spelling Command (Options Menu)

User's Guide (Book 1)

Chapter 7, "Formatting a Worksheet"

To change the layout of a printed page

1 From the File menu, choose Page Setup.

You can also choose the Setup button in the Print dialog box.

2 Under Orientation, select the Portrait option button to print the image vertically on the page, or the Landscape option button to print the image horizontally on the page.

3 Under Paper, select a paper size in the Size box.

4 Under Margins, type the margin sizes you want in the Left, Right, Top, and Bottom boxes.

5 If you want to center the document, select the Horizontally or Vertically check box, or both.

You can also choose the Margins button in the Print Preview window to display margins and column widths, and then drag them to the size you want.

6 Select any other options you want.

7 To change headers or footers, choose the Header button or the Footer button.

8 To print the document, choose the Print button.

9 To select another printer or to change printer settings, choose the Printer Setup button.

10 Choose the OK button.

11 To preview the page layout before printing, choose Print Preview from the File menu.

Shortcut: Print Preview tool

See Also

Help

- Print Preview Tool
Changing headers and footers
Page Setup Command (File Menu)
Print Preview Command (File Menu)
Printing a document without previewing
Setting up a printer

User's Guide (Book 1)

Chapter 16, "Printing"

To change the default directory for opening files

1 From the File menu, choose Open.
2 In the Directories box, select a directory, or in the File Name box, type the directory path.
3 Choose the OK button.

   Microsoft Excel displays the files in the current directory that match the criteria entered in the File Name box.   To see all the files in a directory, type ***.***
4 In the File Name box, type the name of the file you want to open or select it from the list.
5 Choose the OK button to open the file.

See Also

Help

Open Command (File Menu)

To change the drive or directory

1 From the File menu, choose Open.
2 In the Drives box, select the drive from the list, or in the File Name box, type the name of the drive, directory, or both, followed by **.***
3 Choose the OK button.
4 To close the dialog box, choose the Cancel button.

To change to a subdirectory of the current directory

1 From the File menu, choose Open.
2 In the Directories box, select a subdirectory.
3 Choose the OK button.
4 To close the dialog box, choose the Cancel button.

To change to the parent directory of the current directory

1 From the File menu, choose Open.
2 In the Directories box, select the parent directory of the current directory.
3 Choose the OK button.
4 To close the dialog box, choose the Cancel button.

See Also

Help

Open Command (File Menu)

To close the active document

1 From the File menu, choose Close.

  If there are no changes, the document is closed immediately.

  If there are unsaved changes, Microsoft Excel asks if you want to save changes.

2 Choose the Yes button to save changes, the No button to discard changes, or the Cancel button to cancel the command.

  If the document hasn't been saved in Normal format before, the Save As dialog box is displayed.

3 In the File Name box, type a name for the file or accept the proposed name.

4 Choose the OK button.

  If you selected the Recalculate Before Save check box in the Calculation Options dialog box, Microsoft Excel recalculates your worksheet if necessary.

  Press ESC to interrupt recalculation.

  When you press ESC, you will be asked if you want to continue with recalculating before saving.

  Choose Yes to continue, No to save without recalculating, or Cancel to cancel the command and return to the document.

See Also

Help

Calculation Command (Options Menu)

Setting calculation options for open documents

To create a new template

1 Create a worksheet, chart, or macro sheet with all the styles, formats, text, formulas, and macros you want in your template.   You can also open a document that you want to use as a template.

2 From the File menu, choose Save As.

3 Type the name you want for the template.

4 In the Save File As Type box, select Template.

   Microsoft Excel adds the extension .XLT to the name.

5 Choose the OK button.

See Also

Help

Editing a template

Using a template

User's Guide (Book 1)

Chapter 4, "Managing Document Files"

To create a new worksheet

1 From the File menu, choose New.
2 Select Worksheet.
3 Choose the OK button.

    Shortcuts**:**   New Worksheet tool
               SHIFT+F11

See Also

Help

▪   New Worksheet Tool
New Command (File Menu)

To change headers and footers

   1 From the File menu, choose Page Setup.

   2 Choose the Header button or the Footer button.

   3 Move to the edit box you want (left, center, or right).   For example, text entered in the left text box will appear left-aligned on the printed page.

   4 In the box, enter the text you want as a header or footer.

      If you want to insert the page number, total number of pages, date, time, or filename in the header or footer, click the appropriate tool in the dialog box to enter the code. For example, if you want to include the page number in a footer, click the page number tool.   The code &P appears in the selected text box.

      For more information about header and footer tools and codes, see the <u>Header and footer codes</u> Help topic.

   5 If you want to format the text, select the text, click the Font tool in the dialog box, select the formatting you want, and choose the OK button.

   6 Choose the OK button.

   7 Choose the OK button to close the Page Setup dialog box.

   8 To preview the header or footer before printing, choose Print Preview from the File menu.

      Shortcut: Print Preview tool

See Also

Help

-    <u>Print Preview Tool</u>
<u>Changing the layout of a printed page</u>
<u>Header and Footer Codes</u>
<u>Page Setup Command (File Menu)</u>
<u>Print Preview Command (File Menu)</u>
<u>Standard Toolbar</u>
<u>Formatting Toolbar</u>

User's Guide (Book 1)

Chapter 16, "Printing"

To copy data and formats to all sheets in a group

1 Start a group editing session.
2 In the active sheet, select the cells you want to copy.
3 From the Edit menu, choose Fill Group.
4 To copy cell contents, formulas, and formatting, select the All option button.

   To copy only the formulas, select the Formulas option button.

   To copy only the formatting, select the Formats option button.
5 Choose the OK button.

   Microsoft Excel copies the specified attributes of the selected cells to the same location in all the sheets in the group.

See Also

Help

Editing worksheets as a group

Starting or ending a group editing session

User's Guide (Book 1)

Chapter 11, "Working with Multiple Microsoft Excel Documents"

To create a workbook

1 From the File menu, choose New.

   Shortcut: New Workbook tool (File Tools category)

2 Select Workbook.

3 Choose the OK button.

   Microsoft Excel displays a blank Workbook Contents window.

See Also

Help

- New Workbook Tool

Adding or removing a document from a workbook

Toolbars Command (Options Menu)

Workbooks

User's Guide (Book 1)

Chapter 4, "Managing Document Files"

To copy a document from one workbook to another workbook

To copy a document by dragging

1 In the Workbook Contents window, select the document you want to copy.

2 Hold down CTRL and drag the document to another Workbook Contents window or icon.

   If the destination workbook is a Workbook Contents window, drag the document to the position you want in the list of documents.   If the destination workbook is minimized to an icon, the document is added to the end of the list of documents in the workbook.

To copy a document using the Copy and Paste commands

1 In the Workbook Contents window, select the document you want to copy.

2 From the Edit menu, choose Copy.

   Shortcuts: Copy tool (Utility toolbar)
                     CTRL + C

   Microsoft Excel surrounds the selected document name with a moving border.

3 Select the workbook where you want to place a copy of the document.

4 From the Edit menu, choose Paste.

   Shortcut: CTRL + V

   Microsoft Excel makes a copy of the document and places it in the selected workbook. The new document appears directly above the currently selected document in the workbook.

See Also

   Help

▪   Copy Tool
   Toolbars Command (Options Menu)

   User's Guide (Book 1)

   Chapter 4, "Managing Document Files"

To cancel a command

- Press ESC.

To choose a command

To choose a command using the mouse

1 In the menu bar, click the menu name to display the menu.
2 Click the command you want to choose.

To choose a command using the keyboard

1 Press ALT to select the menu bar.
2 Press the key for the underlined letter in the name of the menu you want to display.

Use the RIGHT ARROW and LEFT ARROW keys to browse through the menus.   When you have selected the menu you want, press ENTER to display it.

3 Press the key for the underlined letter in the command name you want to choose.

If the command name ends with an ellipsis (...), a dialog box is displayed which contains options associated with this command.

To select a button, check box, list box, or text box in a dialog box

▪   Click the option you want.

--Or--

▪   Hold down ALT and press the underlined letter in the option name.

To select an item from a list box

▪   Click the item you want.

--Or--

1 Hold down ALT and press the key for the underlined letter in the list box name.
2 Press the key for the first letter of the list item you want to select.   If more than one item starts with the same letter, press the letter key until you reach the item you want.

To carry out the command after you have selected options

▪   Click the OK button or press ENTER.

To cancel a command

▪   Press ESC.

To create a report

1 From the File menu, choose Print Report.

If the Print Report command does not appear on the File menu, run the Setup program to install it.

2 Choose the Add button.

3 In the Report Name box, type a name for the report.

4 In the View box, select the view that you want in the section.

5 In the Scenario box, select the scenario, if any, that you want for the view in this section.

6 Choose the Add button to add the section to the Current Sections list.

7 Repeat steps 4 through 6 until all of the views and scenarios are selected.

8 If you want a section to appear in a different order in the list, select the section that you want to move, and choose the Move Up or Move Down button to move the section.

9 If you want to remove a section, select the section that you want to remove, and choose the Delete button to remove the section.

10 If you want the pages to be numbered consecutively, select the Continuous Page Numbers check box.

11 Choose the OK button to close the Add Report dialog box.

12 Choose the Print button to print the selected report.

--or--

Choose the Close button to close the dialog box without printing.

See Also

Help

Creating a view of a worksheet

Editing a report

Print Report Command (File Menu)

Printing a report

Scenario Manager Command (Formula Menu)

View Command (Window Menu)

User's Guide (Book 1)

Chapter 1, "Getting Started With Microsoft Excel"

Chapter 16, "Printing"

To edit add-in macro settings

1 From the Options menu, choose Add-Ins.

  The Add-in Manager displays a dialog box listing all the add-in macros that are automatically opened and ready to run when you open Microsoft Excel.

2 In the Add-ins Installed box, select the add-in macro you want to edit.

3 Choose the Edit button.

4 To open an add-in macro from a different directory, type the complete path in the Path box.

5 Choose the OK button.

To define a database

1 Enter the <u>field names</u> in the first row of the area that will become the <u>database</u> range.

2 Enter the data in the rows below the field names.

3 Select all the cells in the database range, including the field names, the records you want in the database, and an extra blank row below the last record for additional records.

4 From the Data menu, choose Set Database.

   Microsoft Excel names the selected range Database.

See Also

Help

<u>Databases</u>

<u>Defining a criteria range</u>

<u>Defining an extract range</u>

<u>Set Criteria Command (Data Menu)</u>

<u>Set Database Command (Data Menu)</u>

<u>Set Extract Command (Data Menu)</u>

<u>Setting up a criteria range with comparison criteria</u>

User's Guide (Book 1)

Chapter 9, "Creating and Using a Database on a Worksheet"

To delete records from a database

Be sure to save your worksheet before deleting records from a database. You cannot use the Undo command on the Edit menu to restore deleted database records.

1 Define a criteria range that contains the criteria for selecting the records you want to delete.

   Be sure not to include any blank rows in your criteria range; this will select all records in the database and all records will be deleted.

2 From the Data menu, choose Delete.

   A message warns you that matching records will be deleted permanently from the database.

3 Choose the OK button.

   Microsoft Excel deletes all records that match the criteria.

See Also

Help

Set Criteria Command (Data Menu)

Delete Command (Data Menu)

Defining a criteria range

Setting up a criteria range with comparison criteria

Editing records using a data form

User's Guide (Book 1)

Chapter 9, "Creating and Using a Database on a Worksheet"

Chapter 10, "Analyzing and Reporting Database Information"

To edit records using a data form
1 Switch to the worksheet containing the <u>database</u>.
2 From the Data menu, choose Form.
3 To move between records, use the scroll bar, press the UP ARROW or DOWN ARROW key, or choose the Find Prev or Find Next button.
4 Edit each record you want to change.

   Press TAB to move between fields.

   To cancel changes to a record, choose the Restore button.

   Changes to a record are permanently saved when you move to another record.
5 Choose the Close button when you finish working in the data form.

To add a record
1 Switch to the worksheet containing the <u>database</u>.
2 From the Data menu, choose Form.
3 Choose the New button.
4 Enter data in the new record's fields.

   Press TAB to move between fields.
5 Press ENTER.

   Microsoft Excel adds the new record to the database and displays another blank record.
6 Repeat steps 4 and 5 to add as many records as you want.
7 Choose the Close button when you finish adding records.

To delete a record
Deleted data cannot be restored with either the Restore button or the Undo command on the Edit menu.
1 Switch to the worksheet containing the <u>database</u>.
2 From the Data menu, choose Form.
3 Display the record you want to delete.
4 Choose the Delete button.

   A message asking for confirmation is displayed.
5 Choose the OK button to confirm the deletion.

See Also

Help
<u>Form Command (Data Menu)</u>
<u>Finding records using a data form</u>

User's Guide (Book 1)
Chapter 9, "Creating and Using a Database on a Worksheet"

To find records using a data form

1 Switch to the worksheet containing the <u>database</u>.

2 From the Data menu, choose Form.

3 Choose the Criteria button.

   The Criteria button changes to the Form button, which you can choose to return to the data form.

4 In the field name boxes, type the criteria you want to use for your search.

   Criteria can include text you want to match, a quantity you want to compare using a <u>comparison operator</u>, and <u>wildcard</u> characters.

5 Press ENTER.

   Microsoft Excel displays the first matching record.

6 Choose the Find Next button to display the next matching record.

   Choose the Find Prev button to display the previous matching record.

   The criteria you use in a data form do not replace the criteria you define with the Set Criteria command.

See Also

Help

<u>Editing records using a data form</u>

<u>Find and Exit Find Commands (Data Menu)</u>

<u>Finding records in a database</u>

<u>Form Command (Data Menu)</u>

User's Guide (Book 1)

Chapter 9, "Creating and Using a Database on a Worksheet"

To extract data from a database

1 Switch to the worksheet containing the <u>database</u>.

2 Make sure the <u>criteria</u> range is defined, and that it contains the criteria you need for the records you want to extract.

3 To set up the extract range, copy the <u>field names</u> for the <u>fields</u> you want to extract to another row on the worksheet.

When you extract data, only the fields you specify will be copied into the extract range. Be sure to locate your extract range away from other worksheet areas, because extracted data will erase data below the extract range.

4 Select the area that contains, or will contain, your extract field names and extracted records.

5 From the Data menu, choose Set Extract.

If the extract range contains only field names, all cells between the field names and the bottom of the worksheet are cleared whether or not information is extracted into them. If the extract range contains additional rows under the field names, records are extracted only until the selected range is full.   If there are more records than will fit in the selected range, a message is displayed.

6 From the Data menu, choose Extract.

7 To extract only one copy of duplicate records, select the Unique Records Only check box.

8 Choose the OK button.

Microsoft Excel copies the matching database records into the extract range.

You cannot reverse the Extract command with the Undo command on the Edit menu.

See Also

Help

<u>Set Database Command (Data Menu)</u>
<u>Set Criteria Command (Data Menu)</u>
<u>Set Extract Command (Data Menu)</u>
<u>Extract Command (Data Menu)</u>
<u>Defining a database</u>
<u>Defining a criteria range</u>
<u>Defining an extract range</u>
<u>Setting up a criteria range with comparison criteria</u>

User's Guide (Book 1)

Chapter 10, "Analyzing and Reporting Database Information"

To fill in a one-input data table

This procedure produces a <u>data table</u> that displays results produced by substituting different values for one variable in a <u>formula</u>.   You can use either a column-oriented table or a row-oriented table.

To fill in a column-oriented table

1 In a single column, enter a list of values you want Microsoft Excel to substitute into the input cell.   The input cell can be any single cell in your worksheet.

2 In the row above the first value and one cell to the right of the column of values, enter the formula that refers to the input cell.

Enter additional formulas to the right of the first formula in the same row.

3 Select the rectangular range containing the formula or formulas and the list of values to substitute.

4 From the Data menu, choose Table.

5 In the Column Input Cell box, enter the cell reference of the input cell.

You can click the input cell to enter the reference into the Column Input Cell box.   If the Data Table dialog box obscures the input cell, click on the title bar and drag it out of the way.

6 Choose the OK button.

Microsoft Excel substitutes each value in the input cell and displays the result to the right of each input value.

To fill in a row-oriented table

1 In a single row, enter a list of values you want Microsoft Excel to substitute into the input cell.

The input cell can be any single cell in your worksheet.

2 In the column to the left of the first value and one cell below the row of values, enter the formula that refers to the input cell.

Enter additional formulas below the first formula in the same column.

3 Select the rectangular range containing the formula or formulas and the values to substitute.

4 From the Data menu, choose Table.

5 In the Row Input Cell box, enter the cell reference of the input cell.

You can click the input cell to enter the reference into the Row Input Cell box.   If the Data Table dialog box obscures the input cell, click on the title bar and drag it out of the way.

6 Choose the OK button.

Microsoft Excel substitutes each value in the input cell and displays the result beneath each input value.

To reset values

▪   Substitute new values for those you originally entered in a row or column on the worksheet.   The table will recalculate using the new values.

See Also

Help

<u>Table Command (Data Menu)</u>

User's Guide (Book 2)

Chapter 1, "Analyzing and Calculating Data"

To fill in a two-input data table

This procedure produces a <u>data table</u> that displays results produced by substituting different values for two variables in a <u>formula</u>.

1 In a cell, enter the formula that will refer to the substituted values.

   The formula should refer to two input cells, either directly or by referring to other cells that refer to the input cells.   The input cells are the cells for which values will be substituted.

2 Starting in the cell below the formula, enter the values that you want substituted into one input cell.   Enter these values in the same column as the formula.

3 Starting in the cell to the right of the formula, enter the values that you want substituted into the other input cell.   Enter these values in the same row as the formula.

4 Select the range of cells containing the formula and the row and column of values.

5 From the Data menu, choose Table.

6 In the Row Input Cell box, enter the reference to the input cell for which you want the row of values to be substituted.

7 In the Column Input Cell box, enter the reference to the input cell for which you want the column of values to be substituted.

   You can click the input cell to enter the reference in either box.   If the Data Table dialog box obscures the input cell, click on the title bar and drag it out of the way.

8 Choose the OK button.

   Microsoft Excel substitutes the values and displays the results in the corresponding row/column intersections.

To reset values

▪   Substitute new values for those you originally entered in a row and column on the worksheet.   The table will recalculate using the new values.

See Also

Help

<u>Table Command (Data Menu)</u>

User's Guide (Book 2)

Chapter 1, "Analyzing and Calculating Data"

To find records in a database
   1 Switch to the worksheet containing the <u>database</u>.
   2 Enter the criteria you want to match in the <u>criteria</u> range.
   3 From the Data menu, choose Find.
      Microsoft Excel selects the first database record that matches the criteria.

To scroll in Find mode
The scroll bars change from a solid color to a striped pattern when Find mode is active.

Using the mouse
▪   Click the down scroll arrow or the up scroll arrow to find the next or previous record matching your criteria in the database.
▪   Click below or above the scroll box to find the next or previous matching record at least one window away.
▪   Drag the scroll box to find a matching record in a particular area of the database.

Using the keyboard
▪   Press the UP ARROW key to find the previous record, or the DOWN ARROW key to find the next record matching your criteria in the database.
▪   Press the PAGE DOWN key to find the next matching record at least one window down from the selection.
▪   Press the PAGE UP key to find the previous matching record at least one window up from the selection.

To exit Find mode
▪   Press ESC or choose Exit Find from the Data menu.

See Also

Help
<u>Databases</u>
<u>Defining a criteria range</u>
<u>Defining a database</u>
<u>Finding records using a data form</u>
<u>Setting up a criteria range with comparison criteria</u>
<u>The Find Command (Data Menu)</u>
<u>The Set Criteria Command (Data Menu)</u>
<u>The Set Database Command (Data Menu)</u>

User's Guide (Book 1)
Chapter 9, "Creating and Using a Database on a Worksheet"
Chapter 10, "Analyzing and Reporting Database Information"

To define a criteria range

1 Switch to the worksheet containing the <u>database</u>.

2 Type or copy to another area of the worksheet the <u>field names</u> from your database that you want to include in the criteria range.

3 Select the entire cell range that will contain your criteria names and comparison criteria.

   The criteria range must be at least two rows deep and one column wide, but it can be as large as you want. Typically this range will be two rows deep by as many columns as the number of field names you want to include. If you include blank rows in your criteria range, all records will be matched.

4 From the Data menu, choose Set Criteria.

See Also

Help

<u>Copy Command (Edit Menu)</u>

<u>Defining a database</u>

<u>Set Criteria Command (Data Menu)</u>

<u>Setting up a criteria range with comparison criteria</u>

<u>Using comparison criteria</u>

<u>Using computed criteria</u>

User's Guide (Book 1)

Chapter 10, "Analyzing and Reporting Database Information."

To define an extract range

   1 Switch to the worksheet containing the <u>database</u>.

   2 Type or copy to another area of the worksheet the <u>field names</u> from your database that you want to include in the extract range.

     When you extract data, only the fields you specify will be copied into the extract range. You can specify any number of database fields as your extract range.   Be sure to locate your extract range away from other worksheet areas, because extracted <u>records</u> will erase data below the extract range.

   3 Select the extract range.

     If the extract range contains only field names, all cells between the field names and the bottom of the worksheet are cleared whether or not information is extracted into them. If the extract range contains additional rows under the field names, records are extracted only until the selected range is full.   If there are more records than will fit in the selected range, a message is displayed.

   4 From the Data menu, choose the Set Extract command.

See Also

Help

<u>Defining a database</u>

<u>Set Extract Command (Data Menu)</u>

<u>Extracting data from a database</u>

User's Guide (Book 1)

Chapter 10, "Analyzing and Reporting Database Information"

To extend a series of numbers or dates

You can extend a series by using the Series command on the Data menu, or by dragging the fill handle. The fill handle is the small black square at the bottom right of the selection.

Using the Series command on the Data menu

1 Select the first cell you want in your series.
2 Enter the starting value of the series.
3 Starting with the cell containing the starting value, select the cells in the row or column that you want to fill.
4 From the Data menu, choose Series.
5 Under Series In, select the option you want.
6 Under Type, select the type of series.
7 If you selected the Date option under Type, select a unit under Date Unit.
   If you choose the AutoFill option, the Date Unit will be ignored.
8 In the Step Value box, enter a value by which you want to increment the series.
   If you choose the AutoFill option, the Step Value will be ignored.
9 To stop the series at a specific value or date, enter the value or date in the Stop Value box.
10 Choose the OK button.

Using the AutoFill feature

1 Select the first cell you want in your series and enter the starting value, or select two cells and enter the first two starting values.
2 With the cell or cells selected, drag the fill handle in the direction you want to fill.
   Microsoft Excel guesses at the type of series you want to create by the data type and incremental changes between cells, and fills in the rest of the selection accordingly.

See Also

Help

Creating a trend series
Series Command (Data Menu)
Turning AutoFill on or off
Using AutoFill
Using the pen with Microsoft Excel

User's Guide (Book 1)

Chapter 5, "Creating a Worksheet"

To delete a graphic object

1 Select the graphic object you want to delete.

   If a macro is assigned to the object you want to delete, use the Selection tool or hold down CTRL while clicking the object to prevent the macro from running.

2 To delete the object and place it on the Clipboard, choose Cut from the Edit menu or the <u>shortcut menu</u>.

   Shortcut: CTRL+X

   To delete the object without placing it on the Clipboard, choose Clear from the Edit menu or the shortcut menu, or press BACKSPACE or DEL.

To undo a deletion

▪   From the Edit menu, choose Undo immediately after deleting.

See Also

Help

[icon]   <u>Selection Tool</u>
<u>Clear Command (Edit Menu)</u>
<u>Cut Command (Edit Menu)</u>
<u>Undo Command (Edit Menu)</u>
<u>Displaying and hiding a toolbar</u>
<u>Toolbars Command (Options Menu)</u>

To delete cells, rows, or columns

To delete cells, rows, or columns by dragging

1 Select the range of cells you want to delete.

2 Press SHIFT and drag the fill handle (the small black square at the lower right of the selection) up or to the left.

To delete cells, rows, or columns with the Delete command

1 Select the cells, rows, or columns you want to delete.

2 From the Edit menu or the <u>shortcut menu</u>, choose Delete.

    Shortcuts: Delete tool
                    Delete Column tool
                    Delete Row tool

3 If you did not select entire rows or columns, a dialog box appears allowing you to shift cells left or up to fill the space occupied by the deleted cells, or to delete entire rows or columns.   Select the option you want and choose the OK button.

See Also

Help

 <u>Delete Column Tool</u>

 <u>Delete Row Tool</u>

▪ <u>Delete Tool</u>

<u>Adding and deleting a tool from a toolbar</u>
<u>Delete Command</u>
<u>Displaying and hiding a toolbar</u>
<u>Inserting a column or row</u>
<u>Selecting cells, rows, or columns</u>
<u>Toolbars Command (Options Menu)</u>
<u>Turning drag and drop on or off</u>
<u>Using drag and drop</u>

To edit cell contents

1 Click the cell containing the data you want to edit.

You can also use the arrow keys to select the cell.

2 Click to position the insertion point in the formula bar.

You can also press F2 to activate the formula bar, and then use the arrow keys to position the insertion point in the formula bar.

3 Edit the cell contents.

4 To enter your changes into the cell, click the enter box or press ENTER.

5 To cancel edits, click the cancel box or press ESC.

To edit in the formula bar

To delete	Press
The character to the right	DEL
To the end of the line	CTRL+DEL
The character to the left	BACKSPACE

To enter and edit an array formula

Array formulas can take the place of several single-value formulas, reducing the amount of time you spend entering repetitive formulas.   You can use array formulas to perform an operation that produces multiple results or to operate on a group of arguments arranged in rows and columns.

To enter an array formula

1 Select the cell or range of cells in which you want to enter the formula.

2 Enter the formula.

   Make sure that each argument or operand includes the entire cell, range, or set of values you want used for the operation or function.   Microsoft Excel adds the braces when you enter the formula as an array formula; do not type the braces around the formula.   If you type the braces, Microsoft Excel interprets the entry as text.

3 Press CTRL+SHIFT+RETURN.

   You must hold down both CTRL and SHIFT when you press ENTER.   If you hold down only SHIFT, the formula is entered as an ordinary formula in the active cell.   If you hold down only CTRL, the formula is entered as an ordinary formula in all the selected cells.

To edit an array formula

1 Select any cell in the array range.

2 Activate the formula bar.

   The array formula braces disappear when the formula bar is active.

3 Edit the formula.

4 Press CTRL+SHIFT+RETURN.

See Also

Help

Selecting a range of cells

User's Guide (Book 1)

Chapter 5, "Creating a Worksheet"

To freeze and unfreeze panes

1 Switch to the window on which you want to freeze the panes.
2 If the window is not split, select a cell where you want to split the window.
3 From the Window menu, choose Freeze Panes.
   Shortcut: Freeze Panes tool

To unfreeze panes

1 Switch to the window in which you want to unfreeze the frozen panes.
2 From the Window menu, choose Unfreeze Panes.
   Shortcut: Freeze Panes tool

See Also

Help

   Freeze Panes Tool
Freeze Panes and Unfreeze Panes Commands (Window Menu)
Freezing and unfreezing worksheet titles

User's Guide (Book 1)

Chapter 7, "Formatting a Worksheet"

To freeze and unfreeze worksheet titles

You do not have to split the window into panes before freezing worksheet titles.

To freeze both column and row titles and automatically split the window

1 Switch to the window on which you want to freeze the titles.
2 Select a cell where you want to split the window.
3 From the Window menu, choose Freeze Panes.

   The window is automatically split above and to the left of the active cell, and the titles are frozen.

   If you split the window before freezing panes, the panes are frozen at their current location, not at the active cell.

   Shortcut: Freeze Panes tool

To freeze horizontal or vertical titles only

1 Select a row (to freeze the horizontal pane) or column (to freeze the vertical pane).
2 From the Window menu, choose Freeze Panes.

   Shortcut: Freeze Panes tool

To unfreeze titles

When a worksheet window that has frozen titles is active, the Freeze Panes command changes to the Unfreeze Panes command.

1 Switch to the window with frozen titles or frozen panes.
2 From the Window menu, choose Unfreeze Panes.

   Shortcut: Freeze Panes tool

   If you split the window before choosing the Freeze Panes command, the split panes remain.

   If you split the window with the Freeze Panes command, all panes are removed.

See Also

Help

     Freeze Panes Tool

Freeze Panes and Unfreeze Panes Commands (Window Menu)
Freezing and unfreezing panes

User's Guide (Book 1)

Chapter 7, "Formatting a Worksheet"

To define a name

1 Select the cell, <u>range</u>, or <u>nonadjacent selection</u> for which you want to define a <u>name</u>.

2 From the Formula menu, choose Define Name.

   Shortcut: CTRL+F3

3 In the Name box, type a name or accept the proposed name.

   If the active cell, or a cell immediately above or to the left of the active cell contains text, Microsoft Excel proposes that text as the name.

4 In the Refers To box, type the cell <u>reference</u> or accept the proposed reference.

   Microsoft Excel proposes the selected cell or range as the cell reference.   If you type a reference, it must begin with an equal sign (=), just like a <u>formula</u>.

5 If you want to define more names, choose the Add button to add the name and repeat steps 3 through 4.

   --or--

   Choose the OK button to add the name and close the dialog box.

See Also

Help

<u>Creating names</u>

<u>Define Name Command (Formula Menu)</u>

<u>Defining a macro name</u>

<u>Deleting a name</u>

User's Guide (Book 1)

Chapter 8, "Organizing and Documenting a Worksheet"

To delete a note

  1 Select the cell containing the note you want to delete.

  2 From the Edit or <u>shortcut menu</u>, choose Clear.

     Shortcut: DELETE

  3 Select the Notes option.

  4 Choose the OK button.

--Or--

  1 From the Formula menu, choose Note.

  2 In the Notes In Sheet box, select the note you want to delete.

  3 Choose the Delete button.

     Microsoft Excel displays a message warning you that the note will be permanently deleted.

  4 To confirm the deletion, choose the OK button.

     To cancel the deletion and return to the Cell Note dialog box, choose the Cancel button.

  5 Repeat steps 2 through 4 for each note you want to delete.

  6 When you are finished deleting notes, choose the Close button to close the dialog box.

See Also

Help

<u>Creating or editing a note</u>

<u>Creating a sound note</u>

<u>Note Command (Formula Menu)</u>

<u>Removing a sound note</u>

User's Guide (Book 1)

Chapter 8, "Organizing and Documenting a Worksheet"

To display an outline level

This procedure requires a mouse.

▪ To display up to a specific level of rows or columns, click the row or column level button representing that level.

▪ To display all levels, click the button for the outline's lowest level (the highest number).

▪ Outline level 1

▫ Outline level 2

▫ Outline level 3

▫ Outline level 4

▫ Outline level 5

▫ Outline level 6

▫ Outline level 7

▫ Outline level 8

See Also

Help

▪ Show Outline Symbols Tool

Assigning an outline level to a row or column

Clearing an outline from a worksheet

Collapsing an outline level

Creating an outline from a existing worksheet

Displaying or hiding outline symbols

Expanding an outline level

Toolbars Command (Options Menu)

User's Guide (Book 1)

Chapter 8, "Organizing and Documenting a Worksheet"

To display or hide outline symbols

Outline symbols are displayed by default when your worksheet contains an outline.

1 From the Options menu, choose Display.
2 To display outline symbols, select the Outline Symbols check box.
   To hide outline symbols, clear the Outline Symbols check box.
3 Choose the OK button.

  Shortcuts: CTRL+8
                Show Outline Symbols tool (Utility toolbar)

See Also

  Help

▪ ____ Show Outline Symbols Tool
   Assigning an outline level to a row or column
   Clearing an outline from a worksheet
   Collapsing an outline level
   Creating an outline from a existing worksheet
   Displaying an outline level
   Expanding an outline level
   Toolbars Command (Options Menu)

  User's Guide (Book 1)

  Chapter 8, "Organizing and Documenting a Worksheet"

To expand an outline level

This procedure requires a mouse.

-       Click the expand button.

⊞

-       Click the outline level button.

A plus sign next to a row or column indicates that there are hidden outline levels subordinate to that row or column.   You can display the hidden levels by expanding any outline level that has a plus sign next to it. Click the numbered outline level button in the upper-right corner of the window to display only up to that outline level.

See Also

Help

-       Show Outline Symbols Tool
  Assigning an outline level to a row or column
  Collapsing an outline level
  Creating an outline from an existing worksheet
  Displaying an outline level
  Displaying or hiding outline symbols
  Toolbars Command (Options Menu)

User's Guide (Book 1)

Chapter 8, "Organizing and Documenting a Worksheet"

To find cells referred to by formulas in selected cells (precedents)

1 Select the cell or cells containing formulas whose precedents you want to find.

   If you select more than one cell, Microsoft Excel selects all cells in the worksheet that are precedents for any of the selected cells.

2 From the Formula menu, choose Select Special.

   Shortcuts: CTRL+[(direct precedents)
                       CTRL+SHIFT+{   (all levels of precedents)

3 Select the Precedents option button.

4 Select the Direct Only option button to find only cells that are specifically referred to by formulas in the selected cells.

   Select the All Levels option button to find all cells that are either directly or indirectly referred to by formulas in the selected cells, including precedents of precedents.

5 Choose the OK button.

See Also

Help

Select Special Command (Formula Menu)

Finding cells with formulas that refer to selected cells (dependents)

User's Guide (Book 1)

Chapter 5, "Creating a Worksheet"

Chapter 8, "Organizing and Documenting a Worksheet"

To find cells with formulas that refer to selected cells (dependents)

1 Select the cell or cells whose dependents you want to find.

   If you select more than one cell, Microsoft Excel selects all cells in the worksheet that are dependents of any of the selected cells.

2 From the Formula menu, choose Select Special.

   Shortcuts: CTRL+]   (direct dependents)
                 CTRL+SHIFT+}   (all levels of dependents)

3 Select the Dependents option button.

4 Select the Direct Only option button to find only cells containing formulas that specifically refer to the selected cells.

   Select the All Levels option button to find all cells containing formulas that either directly or indirectly refer to selected cells, including dependents of dependents.

5 Choose the OK button.

See Also

Help

Select Special Command (Formula Menu)

Finding cells referred to by formulas in selected cells (precedents)

User's Guide (Book 1)

Chapter 5, "Creating a Worksheet"

Chapter 8, "Organizing and Documenting a Worksheet"

To delete a name

You cannot undo deleting a name.

1 From the Formula menu, choose Define Name.

   Shortcut: CTRL+F3

2 In the Names In Sheet box, select the name you want to delete.

3 Choose the Delete button.

   Repeat steps 2 and 3 for each name you want to delete.

4 Choose the Close button.

See Also

Help

Define Name Command (Formula Menu)

Defining a name

Defining a macro name

User's Guide (Book 1)

Chapter 8, "Organizing and Documenting a Worksheet"

To define a macro name

1 Select the cells in the <u>macro sheet</u> containing the macro you want to name.

2 From the Formula menu, choose Define Name.

   Shortcut: CTRL+F3

3 In the Name box, type the macro name or accept the proposed name.

   If the active cell, or a cell immediately above or to the left of the active cell contains text, Microsoft Excel proposes that text as the name.

4 In the Refers To box, type the cell <u>reference</u> or accept the proposed reference.

   Microsoft Excel proposes the selected cell or range as the cell reference.   If you type a reference, it must begin with an equal sign (=), just like a <u>formula</u>.

5 In the Macro box, select the Command option button, the Function option button, or accept the default None option button.

6 If you want to specify a shortcut key for running the macro, type a letter or a number in the Key: Ctrl+ box.

   If you chose the Function or None option, shortcut keys are not available.

7 In the Category box, select a category appropriate for the macro you are defining, or accept the default category, User Defined.

   Your macro must be defined as either a <u>command macro</u> or a custom function to assign it a category.   After you assign a category, your macro appears in the Paste Function dialog box under that category when a macro sheet is active. If you defined a custom function, it also appears in the Paste Function dialog box while a worksheet is active.

8 If you want to define more names, choose the Add button and repeat steps 1 through 7.

   --or--

   Choose the OK button to add the macro name and close the dialog box.

See Also

Help

<u>Define Name Command (Formula Menu)</u>

<u>Defining a name</u>

<u>Deleting a name</u>

<u>Running a macro</u>

<u>Macros</u>

User's Guide (Book 1)

Chapter 8, "Organizing and Documenting a Worksheet"

To find characters

1 Select the area of the worksheet or <u>macro sheet</u> you want to search.

   If only one cell is selected, Microsoft Excel searches the entire worksheet.

2 From the Formula menu, choose Find.

   Shortcut: SHIFT+F5

3 In the Find What box, type the characters you want to search for.

   You can include any letter, number, punctuation mark, or <u>wildcard character</u> in your search. To search for an actual wildcard character (* or ?), precede it with a tilde (~).

4 Under Look In, select Formulas, Values, or Notes.

   Microsoft Excel searches for the characters you type in only the location you specify.

5 Under Look At, select Whole or Part.

   If you select the Whole option, Microsoft Excel finds only exact and complete matches of the specified characters. If you select the Part option, Microsoft Excel finds any occurrences of the specified characters, including partial occurrences within other strings of characters.

6 Under Look By, select the direction in which you want Microsoft Excel to search, either across rows or down columns.

   If you hold down SHIFT while choosing the OK button, Microsoft Excel reverses the direction, searching right to left across rows or up columns.

7 Select the Match Case check box if you want Microsoft Excel to use the exact combination of uppercase and lowercase characters you entered in the Find What box.

8 Choose the OK button.

9 To find the next occurrence of the characters, choose the Find command again, or choose Repeat Find from the Edit menu.

   Shortcuts: F7 (next occurrence)
                   SHIFT+F7 (previous occurrence)

See Also

Help

<u>Find Command (Formula Menu)</u>

<u>Replacing characters</u>

User's Guide (Book 1)

Chapter 5,   "Creating a Worksheet"

Chapter 6,   "Editing a Worksheet"

To display or hide note indicators

Note indicators appear in the upper-right corner of cells with attached notes.

1 From the Options menu, choose Workspace.

2 Under Display, select the Note Indicator check box to display note indicators.

   To hide note indicators, clear the Note Indicator check box.

3 Choose the OK button.

See Also

Help

Copying a text or sound note to another cell

Creating or editing a note

Creating a sound note

Deleting a note

Note Command (Formula Menu)

Playing a sound note

Removing a sound note

User's Guide (Book 1)

Chapter 8, "Organizing and Documenting a Worksheet"

To format cells

Using menu commands

1 Select the cells you want to format.
2 From the Format menu or the <u>shortcut menu</u>, choose the appropriate command.
3 Select the options you want.
4 Choose the OK button.

Using AutoFormat

Use AutoFormat when you want to format cells that make up a table.

1 Select the cells you want to format.
2 From the Format menu, choose AutoFormat.

   Shortcut: AutoFormat tool (Standard or Formatting toolbar).   Applies the last
                AutoFormat used.
3 Select the type of format you want from the Table Format box.
   The Sample box displays an example of what the selected format looks like.
4 Choose the OK button.

Using a tool

To do this procedure, you must have a toolbar that contains the formatting tool displayed.

1 Select the cells you want to format.
2 Click the appropriate tool for the formatting change you want to make.

See Also

Help

▪   <u>AutoFormat Tool</u>
   <u>Format Menu for Worksheets</u>
   <u>Formatting Toolbar</u>
   <u>Toolbars Command (Options Menu)</u>

User's Guide (Book 1)
Chapter 7, "Formatting a Worksheet"

To format text box borders and fill patterns

1 Select the text box.

   To select a graphic object with a macro assigned to it, hold down CTRL while clicking the object.

2 From the Format menu or the <u>shortcut menu</u>, choose Patterns.

3 Select the border and fill pattern options you want.

   If you want Microsoft Excel to select the options for you, select the Automatic option button.

4 Choose the OK button to apply your changes.

   To apply your changes and specify additional formatting, choose the Font or Text button.

To format a table using AutoFormat

1 Select the range on the worksheet you want to format.

   If you select a single cell, Microsoft Excel will guess the range for you.   You cannot automatically format a nonadjacent selection.

2 From the Format menu, choose AutoFormat.

3 In the Table Format box, select the type of format you want.

   The Sample box displays an example of what the selected format looks like.

4 Choose the OK button.

   Shortcut: AutoFormat tool (Standard or Formatting toolbar).   Applies the last AutoFormat used.

See Also

Help

▪   AutoFormat Tool
AutoFormat Command (Format Menu for Worksheets)
Toolbars Command (Options Menu)

User's Guide (Book 1)

Chapter 7, "Formatting a Worksheet"

To delete a chart document or an embedded chart

To delete a chart document
1 From the File menu, choose Delete.
2 In the Files box, select the chart you want to delete.

   To list only charts in the Files box, type ***.xlc** in the File Name box and choose the OK button.

   If the chart you want to delete is not listed in the Files box, switch to the drive or directory containing the chart by selecting the drive or directory in the Directories box and choosing the OK button.   For more information about working with directories, see "Opening an Existing Chart" in Chapter 13 of Book 1 of the Microsoft Excel User's Guide.
3 Choose the OK button.

   Microsoft Excel asks for confirmation before deleting the chart.   After you delete a chart, the Delete dialog box remains on the screen so you can select and delete other charts.
4 To close the dialog box, choose the Close button.

To delete an embedded chart from a worksheet
1 Open the worksheet containing the embedded chart.
2 Select the embedded chart.
3 From the Edit menu or the <u>shortcut menu</u>, choose Clear.
   Microsoft Excel removes the embedded chart from the worksheet.
    Shortcut: DEL

To clear chart data or formats
1 Switch to the chart window.

   If the chart is embedded on a worksheet, double-click the chart to display it in a chart window.
2 Select the entire chart.
3 From the Edit menu or the <u>shortcut menu</u>, choose Clear.
    Shortcuts: DEL
4 To clear both the chart data and its formats, select the All option button.
   To clear the formats and keep the chart data, select the Formats option button.
   To clear the chart data and keep the formats, select the Formulas option button.
5 Choose the OK button.

See Also

   Help
   <u>Delete Command (File Menu)</u>
   <u>Clear Command (Edit Menu)</u>

   User's Guide (Book 1)
   Chapter 13, "Editing a Chart"

To delete a data series

Deleting a data series from a chart does not delete the source data from the worksheet.

To delete a data series using the Clear command on the Edit menu

1 Select the data series you want to delete.
2 From the Edit menu or the <u>shortcut menu</u>, choose Clear.

   Shortcuts: DELETE
                 DEL

3 Select the Series option button.
4 Choose the OK button.

   Microsoft Excel deletes the data series and redraws the chart.

To delete a data series using the Edit Series command on the Chart menu

1 Select the data series you want to delete.
2 From the Chart menu or the <u>shortcut menu</u>, choose Edit series.
3 Choose the Delete button.

   Microsoft Excel deletes the data series and redraws the chart.

4 To delete additional data series, select the series you want to delete in the Series box and choose the Delete button.

   To close the dialog box, choose the Close button.

See Also

Help

<u>Clear Command (Edit Menu)</u>
<u>Edit Series Command (Chart Menu)</u>

User's Guide (Book 1)

Chapter 13, "Editing a Chart"

To disable updating of all links to other applications on a worksheet

This procedure affects the active <u>dependent worksheet</u> only.

1 Switch to the dependent worksheet containing the <u>remote references</u>.
2 From the Options menu, choose Calculation.
3 Clear the Update Remote References check box.
4 Choose the OK button.
   When the Update Remote References check box is cleared, Microsoft Excel uses the last value from the <u>source documents</u> for the remote references.

To disable updating on a single link

This procedure affects the active <u>dependent worksheet</u> only.

1 Switch to the dependent worksheet containing the <u>remote reference</u>.
2 From the File menu, choose Links.
3 In the Link Type box, select DDE Links.
4 In the Links box, select the link you want to disable.
5 Choose the Options button.
6 Clear the Automatic check box.
7 Choose the OK button.

See Also

Help

<u>Controlling remote requests</u>
<u>Creating links between documents</u>
<u>Opening source documents for the active worksheet</u>
<u>Recalculating linked worksheets</u>
<u>Redirecting links for source documents</u>
<u>Updating linked information</u>
<u>Viewing a list of source documents for a dependent worksheet</u>

User's Guide (Book 1)

Chapter 11, "Working with Multiple Microsoft Excel Documents"

User's Guide (Book 2)

Chapter 3, "Exchanging Data with Other Applications"

To display or hide chart axes

1 From the Chart menu, or the axis or plot area <u>shortcut menu</u>, choose Axes.

If the chart is embedded in a worksheet, double-click the chart to display it in a chart window.

2 Under Main Chart, select the check boxes for the axes you want to display.   Clear the check boxes for the axes you don't want to display.

If there is an overlay chart, select or clear the check boxes under Overlay.

3 Choose the OK button.

You can also delete an axis by selecting it and choosing Clear from the Edit menu or the shortcut menu.

See Also

Help

<u>Axes Command (Chart Menu)</u>

<u>Clear Command (Edit Menu for Charts)</u>

To draw lines, ovals, arcs, or rectangles

To do these procedures, you must have the Line tool, the Oval tool, the Arc tool or the Rectangle tool displayed.   These tools are on the Drawing toolbar, or you can add them to a toolbar of your choice.

To draw a line, oval, arc, or rectangle

 1 Click the drawing tool you want.

    The mouse pointer changes to a cross hair.

 2 Position the cross-hair pointer where you want to start drawing.

 3 To restrict lines to horizontal, vertical, or 45-degree angles; the ovals and arcs to circles; or   the rectangles to squares, hold down SHIFT while you draw.

 4 Drag until the object is the size and shape you want.

    When you release the mouse button, the graphic object is displayed and automatically selected.

    If you want the graphic object that you are drawing to adjust automatically to fit the nearest row and column, hold down the ALT key while dragging.

To draw multiple lines, ovals, arcs, or rectangles

 1 Double-click the drawing tool you want.

 2 Draw the first graphic object.

    When you release the mouse button, the drawing tool stays selected and the pointer remains a cross hair.

 3 Repeat step 2 to draw additional objects of the same kind.

 4 When you finish drawing the last object, cancel the drawing tool selection by clicking the same tool again, clicking another tool, pressing ESC, or clicking another part of the worksheet without dragging.

    The drawing tool is no longer selected.   The last object you drew is selected and the regular mouse pointer reappears.

See Also

 Help

 Line Tool

 Oval Tool

 Arc Tool

 Rectangle Tool

 Adding and deleting a tool from a toolbar

 Displaying and hiding a toolbar

 Drawing Toolbar

 Toolbars Command (Options Menu)

 Tools

 User's Guide (Book 1)

 Chapter 15, "Working with Graphic Objects"

 User's Guide (Book 2)

 Chapter 4, "Customizing Microsoft Excel"

To edit chart text

1 Select the text you want to edit.

   If the text is linked to a worksheet cell, switch to the worksheet and then select the cell the text is linked to.

2 Click the formula bar or press F2 to activate it.

   If you don't activate the formula bar, all the existing text is replaced with the new text you type.

3 Edit the text in the formula bar, using the same techniques you use for editing worksheet cell contents.

4 Click the enter box or press ENTER.

See Also

Help

Editing cell contents

User's Guide (Book 1)

Chapter 13, "Editing a Chart"

To format a chart embedded in a worksheet

1 Double-click the embedded chart.

   Microsoft Excel opens a window for the embedded chart.

2 Change the chart type or format the chart using the commands on the Chart and Format menus or the tools on the Chart toolbar.

   In the chart window, you can also save the embedded chart as a separate document. If you close the chart window without saving, the embedded chart remains in the worksheet and changes you made to the chart will be saved when you save the worksheet.   If you delete the embedded chart from the worksheet, the chart window is closed automatically.

See Also

Help

Chart Menu

Format Menu for Charts

Chart Toolbar

User's Guide (Book 1)

Chapter 14, "Formatting a Chart"

To format a legend

1 Switch to the chart window.

   If the chart is embedded on a worksheet, double-click the chart to display it in a chart window.

2 Double-click the legend to display the Patterns dialog box.

   You can also click the legend to select it, and then choose Patterns from the Format menu or the shortcut menu.

3 Select the border and area options you want.

   If you want Microsoft Excel to select the options for you, select the Automatic option button under Border or Area.

4 Choose the OK button.

   You can also choose the Font button to apply your changes and open the Font dialog box to format the font of the legend, or you can choose the Legend button to apply your changes and open the Legend dialog box to reposition the legend.

See Also

Help

Adding or deleting a legend

Font Command (Format Menu for Charts)

Legend Command (Format Menu for Charts)

Patterns Command (Format Menu for Charts)

User's Guide (Book 1)

Chapter 14, "Formatting a Chart"

To format axis patterns and tick mark and label location

1 Switch to the chart window.

   If the chart is embedded in a worksheet, double-click the chart to display it in a chart window.

2 Double-click the axis to display the Patterns dialog box.

   You can also select the axis and then choose the Patterns command from the Format menu or the <u>shortcut menu</u>.

3 Under Axis, select the style, color, and weight you want for the axis line.

   If you want Microsoft Excel to select the options for you, select the Automatic option button.

4 Under Tick Mark Type, select the alignment (relative to the axis line) you want for major and minor tick marks.

5 Under Tick Labels, select the position on the chart where you want the tick-mark labels to appear.

6 Choose the OK button.

   You can control the number and position of tick marks with the Scale command from the Format menu.

See Also

Help

<u>Formatting an axis scale</u>

<u>Formatting the chart text font</u>

<u>Patterns Command (Format Menu for Charts)</u>

<u>Scale Command (Format Menu for Charts)</u>

User's Guide (Book 1)

Chapter 14, "Formatting a Chart"

To format a chart arrow

1 Switch to the chart window.

   If the chart is embedded in a worksheet, double-click the chart to display it in a chart window.

2 Double-click the arrow to display the Patterns dialog box.

   You can also click the arrow to select it, and then choose Patterns from the Format menu or the shortcut menu.

3 Under Line, select the style, color, and weight options you want for the arrow shaft.

   If you want Microsoft Excel to select the options for you, select the Automatic option button.

4 Under Arrow Head, select the style, width, and length options you want for the arrowhead.

5 Choose the OK button.

See Also

Help

Patterns Command (Format Menu for Charts)

Adding or deleting a chart arrow

User's Guide (Book 1)

Chapter 14, "Formatting a Chart"

To format data markers in a chart

To format data markers

1 Double-click any marker in the data series to display the Patterns dialog box.

   You can also click a marker to select it and then choose Patterns from the Format menu.

   To format a single marker, hold down CTRL and double-click the marker.

2 Select the options you want.

   If you want Microsoft Excel to select the options for you, select the Automatic option button.

3 To apply your selected formats to all markers in the chart, select the Apply To All check box.

4 Choose the OK button.

To clear the data marker formats

1 Select the marker or data series you want to clear.

2 From the Edit menu or the shortcut menu, choose Clear.

   Shortcut: DEL

3 Select the Formats option button.

4 Choose the OK button.

   If you selected a data series, the formatting for the series returns to the original formatting.

   If you selected a single data marker with formatting different from the other markers in its series, Microsoft Excel formats that marker the same as the other markers in the series.

See Also

Help

Clear Command (Edit Menu)

Patterns Command (Format Menu for Charts)

User's Guide (Book 1)

Chapter 14, "Formatting a Chart"

To format chart text alignment and orientation

1　Click the text to select it.
2　From the Format menu or the <u>shortcut menu</u>, choose Text.
3　Select the Text Alignment options and the Orientation option you want.
　　Shortcuts:　Center Align tool
　　　　　　　Left Align tool
　　　　　　　Right Align tool
4　Choose the OK button.

See Also

Help
- <u>Center Align Tool</u>
- <u>Left Align Tool</u>
- <u>Right Align Tool</u>
<u>Text Command (Format Menu for Charts)</u>

User's Guide (Book 1)

Chapter 14, "Formatting a Chart"

To format tick-mark label orientation

1 Double-click the axis you want to format.   In the Patterns dialog box, choose the Text button.

   You can also select the axis and then choose Text from the Format menu or the <u>shortcut menu</u>.

2 Choose the Text button.

3 Under Orientation, select the text orientation you want.

   If you want Microsoft Excel to select the orientation for you based on the current size and orientation of the plot area, leave the Automatic option button selected.

4 Choose the OK button.

See Also

Help

<u>Formatting an axis scale</u>

<u>Formatting axis patterns and tick mark and label location</u>

<u>Text Command (Format Menu)</u>

User's Guide (Book 1)

Chapter 14, "Formatting a Chart"

To format the chart text font

1 To format all text in the chart, choose Select Chart from the Chart menu.

   To format a single piece of attached or unattached text, select the text.

   To format tick-mark labels for an axis, select the axis.

   To format text that appears in a legend, select the legend.

2 From the Format menu or the shortcut menu, choose Font.

3 Under Font, select the font you want.

   Printer fonts are indicated by a printer graphic next to the font name.   TrueType fonts are indicated by a TrueType logo next to the font name.

   If the font you want is not listed, type the font name in the Font box.

4 Under Size, select the font size you want.

   If the font size you want is not listed, type the size in the Size box.   If the size you want is not available on the printer, another size may be substituted when you print the document.

5 Select the other style or color effects you want.

6 Choose the OK button.

Note   You can also use the Bold, Italic, Increase Font, and Decrease Font tools to change the size and style of the selected text.

See Also

Help

B Bold Tool

A Decrease Font Size Tool

A Increase Font Size Tool

I Italic Tool

Font Command (Format Menu for Charts)

Select Chart Command (Chart Menu)

User's Guide (Book 1)

Chapter 14, "Formatting a Chart"

To format the data marker layout

1 To format the data markers on the main chart, choose Main Chart from the Format menu.

   To format the data markers on the overlay chart, choose Overlay from the Format menu.

2 Select the options you want.   Only those options that apply to the selected chart type are available in the dialog box.

3 Choose the OK button.

Some of the more common options are included in this table.   See the Main Chart and Overlay Chart topics for more information.

Option	Effect
Overlap	Amount that columns overlap
Gap Width	Thickness of columns (the larger the gap, the thinner the columns)
Gap Depth	Spacing between 3-D columns
Chart Depth	Shape of the base of a 3-D chart
Drop Lines	Add droplines to a line or area chart
Hi-Lo Lines	Add hi-lo lines to a line chart

See Also

Help

Main Chart Command (Format Menu)

Overlay Chart Command (Format Menu)

User's Guide (Book 1)

Chapter 14, "Formatting a Chart"

To format gridlines

1 Switch to the chart window.

   If the chart is embedded in a worksheet, double-click the chart to display it in a chart window.

2 To format all major gridlines for an axis, double-click one of the major gridlines for the axis to display the Patterns dialog box. To format all minor gridlines, double-click a minor gridline.   You can also select the gridline and choose Patterns from the Format menu or the shortcut menu.

3 Under Custom, select the style, color, and weight options you want.

   If you want Microsoft Excel to select the options for you, select the Automatic option button.

4 Choose the OK button.

See Also

Help

Adding or deleting gridlines

Patterns Command (Format Menu for Charts)

User's Guide (Book 1)

Chapter 14, "Formatting a Chart"

To format an axis scale

1 Switch to the chart window.

   If the chart is embedded in a worksheet, double-click the chart to display it in a chart window.

2 Double-click the axis you want to format to display the Patterns dialog box.   In the Patterns dialog box, click the Scale button.

   You can also select the axis and then choose Scale from the Format menu or the shortcut menu.

   The options available in the dialog box vary depending on the type of axis you have selected.

3 Type values, or select or clear check boxes, to achieve the format you want.

4 Choose the OK button.

See Also

Help

Scale Command (Format Menu)

Formatting axis patterns and tick mark and label location

User's Guide (Book 1)

Chapter 14, "Formatting a Chart"

To format the plot area, 3-D walls, or 3-D floor

1 Double-click the plot area, walls, or floor to display the Patterns dialog box.

You can also select the plot area, 3-D walls, or 3-D floor and then choose Patterns from the Format menu or the <u>shortcut menu</u>.

2 Select the border and area options you want.

If you want Microsoft Excel to select the options for you, select the Automatic option button under Border or Area.

3 Choose the OK button.

See Also

Help

<u>Patterns Command (Format Menu for Charts)</u>

User's Guide (Book 1)

Chapter 14, "Formatting a Chart"

To delete a file from a disk

1 From the File menu, choose Delete.
2 In the File Name box, type the name of the file you want to delete or select it from the list.
3 Choose the OK button.
4 To confirm the deletion, choose the Yes button.
5 To close the dialog box, choose the Close button.

See Also

Help

Delete Command (File Menu)

To edit a template

1 From the File menu, choose Open.
2 Select the template you want to change.
3 Hold down SHIFT and choose the OK button.
   Microsoft Excel opens the original template for editing.
4 Edit the template.
5 From the File menu, choose Save.
   Microsoft Excel saves the changes to the template.

See Also

Help

Creating a new template
Saving a document as a template
Using a template

User's Guide (Book 1)

Chapter 4, "Managing Document Files"

To edit worksheets as a group

When you edit worksheets and macro sheets as a group, you can use many of the Microsoft Excel editing, file management, and formatting commands to complete your work more quickly.   All your changes in the active sheet are duplicated in the rest of the sheets in the group.

For a complete list of commands that you can use in a group editing session, see Chapter 11, "Working with Multiple Microsoft Excel Documents," in Book 1 of the Microsoft Excel User's Guide.

To edit worksheets or macro sheets as a group

1 Start a group editing session.

2 In the active worksheet, select the cells in which you want to enter, change, delete, or format data.

   Microsoft Excel selects the cells in the same location on all sheets in the group, though you only see the selection in the active sheet.

3 Enter, change, delete, or format data in the active worksheet or macro sheet.

   The changes you make in the active sheet are made in the same location in all sheets in group.

See Also

Help

Copying data and formats to all sheets in a group

Starting or ending a group editing session

User's Guide (Book 1)

Chapter 11, "Working with Multiple Microsoft Excel Documents"

To export a document to another application

1 From the File menu, choose Save As.
2 In the File Name box, type a name for the document or accept the proposed name.
3 In the Save File As Type box, select the <u>file format</u> of the other application.
4 Choose the OK button to save the document in the format you specified.
  You can now open the Microsoft Excel document in the other application.

To export data from Microsoft Excel to other applications using the Clipboard

1 Switch to the Microsoft Excel window that contains the information you want to export.
2 Select the data, chart, or object you want to copy.
3 From the Edit menu, choose Cut or Copy.
  To copy a picture of data, hold down SHIFT and choose Copy Picture from the Edit menu.
4 Switch to the document or application to which you want to export.
5 Paste the information using the procedure for pasting in the application you are pasting to.

See Also

Help

<u>Clipboard</u>
<u>Copy Picture Command (Edit Menu)</u>
<u>Importing and Exporting</u>
<u>Linking and Embedding</u>
<u>Save As Command (File Menu)</u>
<u>Saving a file for use by another application</u>

User's Guide (Book 1)

Chapter 4, "Managing Document Files"

To edit a group of worksheets in a workbook

1 In the lower-right corner of the workbook document window or Workbook Contents window, click any of the buttons with the right mouse button.   A menu appears.

2 From this menu, choose Group Edit.

   Instead of doing steps 1 and 2, you can also choose the Group Edit command from the Options menu while a workbook is active.

   The Group Edit dialog box appears.   All worksheets in the workbook are selected.

3 To add or delete a worksheet from the selection, hold down CTRL and click the worksheet name.

4 Choose the OK button.

5 Edit the active worksheet.

   Any changes you make will also be made in the other selected worksheets.

6 To end group editing, move to another document in the workbook by clicking one of the paging buttons in the lower-right corner of the window.

See Also

Help

Workbooks
Group Edit Command (Options Menu)
Moving between workbook documents

To embed a Microsoft Excel object in another document

1 Open the document in which you want the object embedded, and the Microsoft Excel document containing the object you want to embed.

   If you are embedding a Microsoft Excel object in another application, you must be running that application with Windows and the application must support embedding.

2 Switch to the Microsoft Excel document containing the object you want to embed.

3 Select the cell, cell range, chart, or entire worksheet you want to embed.

4 From the Edit menu or the shortcut menu, choose Copy.

   Shortcuts: Copy tool (Utility toolbar)
                       CTRL+C

   A moving border appears around the selection.

5 Switch to the document in which you want the object embedded.

6 Position the insertion point where you want to embed the Microsoft Excel object.

7 Follow the application's procedure for embedding an object.

See Also

Help

▪   Copy Tool

Copy Command (Edit Menu)

Editing a Microsoft Excel object embedded in another document

Linking and Embedding

User's Guide (Book 2)

Chapter 3, "Exchanging Data with Other Applications"

To enter a formula

1 Select the cell in which you want to enter the formula.

2 Type an equal sign (=) to activate the formula bar.

   If you begin a formula by pasting a name or function, Microsoft Excel automatically inserts the equal sign.

3 Type the formula or use any of the following pasting techniques to enter a formula into the formula bar:

   Insert references into your formula by selecting cells on your worksheet.   When you select cells, Microsoft Excel inserts relative references in your formula.

   From the Edit menu, choose Paste to paste characters that you previously copied from another formula or application.

   From the Formula menu, choose Paste Function.   In the Paste Function list box, select the worksheet function you want, and then choose OK.

   From the Formula menu, choose Paste Name.   In the Paste Name list box, select the name you want to paste, and then choose OK.

4 After you have completed the formula, press ENTER.

Note   If you type the name of the function up to the left parenthesis, you can then press CTRL+A and Microsoft Excel will paste the names of the arguments for that function into the formula bar.

Note   To enter a formula as text, type a single quotation mark before the entry.

See Also

Help

Editing cell contents

User's Guide (Book 1)

Chapter 5, "Creating a Worksheet"

To enter text or numbers into a cell

1 Select the cell in which you want to enter text or numbers.

2 Type the text or numbers.

   The data you type appears in the formula bar and in the active cell.

3 Click the enter box or press ENTER.

   Click the cancel box or press ESC to clear the data from the formula bar and the cell.

Note   To enter a number, string, or formula as text, type a single quotation mark before the entry.

See Also

Help

Editing cell contents

User's Guide (Book 1)

Chapter 5, "Creating a Worksheet"

To edit a report

1 From the File menu, choose Print Report.

If the Print Report command does not appear on the File menu, run the Setup program to install it.

2 In the Reports box, select the report you want to edit.

3 Choose the Edit button.

4 In the Current Sections box, select the section you want to edit.

5 Under Report Section, edit the report by selecting the views and the scenarios that you want.

6 Choose the Add button to add the edited section to the Current Sections list.

7 Repeat steps 4 through 6 to edit any additional sections.

8 If you want a section to appear in a different order in the list, select the section that you want to move and use the Move Up or Move Down button to move the section.

You can also choose the Delete button to delete a section.

9 If you want pages to be numbered consecutively, select the Continuous Page Numbers check box.

10 Choose the OK button to close the Edit Report dialog box.

11 Choose the Print button to print the selected report.

--or--

Choose the Close button to close the dialog box without printing.

See Also

Help

Creating a report

Creating a view of a worksheet

Print Report Command (File Menu)

Printing a report

Scenario Manager Command (Formula Menu)

View Command (Window Menu)

User's Guide (Book 1)

Chapter 1, "Getting Started With Microsoft Excel"

Chapter 16, "Printing"

To embed an object in a Microsoft Excel document

To embed a new object

1 In Microsoft Excel, choose Insert Object from the Edit menu.

Microsoft Excel displays a list of objects you can embed. This list depends on the applications you have installed.

2 Select the type of object you want to embed.

3 Choose the OK button.

Microsoft Excel starts the other application and opens a blank object.

4 Format the object to look the way you want.

5 In the application in which you are editing the object, choose Close or Exit from the File menu.

Embedding and updating commands may vary between applications.   Check the application's documentation for additional information about embedding.

To embed an existing object

1 Open the document containing the object you want to embed.

If you are embedding an object from another application, you must be running that application with Windows and the application must support embedding.

2 Follow the application's procedure for selecting and copying the object.

3 Switch to the Microsoft Excel document in which you want to embed the object.

4 Select a cell or a graphic object that is located where you want to embed the object.

5 From the Edit menu, choose Paste Special.

6 In the Data Type box, select the object data type.

7 Choose the Paste button.

See Also

Help

Editing an object embedded in a Microsoft Excel document

Insert Object Command (Edit Menu)

Linking and Embedding

Links Command (File Menu)

Paste Special Command (Edit Menu)

User's Guide (Book 2)

Chapter 3, "Exchanging Data with Other Applications"

To edit a Microsoft Excel object embedded in another document

1 Follow the application's procedure for opening an embedded object for editing.

For example, in Microsoft Word, double-click the object, or select the object and choose Microsoft Excel Object from the Edit menu.

Microsoft Excel starts and displays the data in a Microsoft Excel document.

2 Edit the document using Microsoft Excel commands.

To edit chart data or update it from the source worksheet, choose Links from the File menu and choose the Open button or the Update button.   The chart data is automatically updated from the source worksheet as long as the source worksheet is open.

3 If you want to close the Microsoft Excel document and update the object in the other application, choose Close from the File menu.

If you want to quit Microsoft Excel, choose Exit from the File menu.   Microsoft Excel asks if you want to update the object in the other application.

If you want to update the object in the other application, but leave the Microsoft Excel document on the screen, choose Update from the File menu.

See Also

Help

Close Command (File Menu)

Editing an object embedded in Microsoft Excel

Embedding a Microsoft Excel object in another document

Exit Command (File Menu)

Linking and Embedding

Links Command (File Menu)

Update Command (File Menu)

User's Guide (Book 2)

Chapter 3, "Exchanging Data with Other Applications"

To edit an object embedded in a Microsoft Excel document

1 Double-click the embedded object, or choose Edit Object from the <u>shortcut menu</u>.

   Microsoft Excel starts the application used to create the object and the object is displayed in that application.

2 Use the commands in the other application to edit or format the object.

3 Follow the procedure in the other application for updating the object in Microsoft Excel.

   For example, in Microsoft Word, choose Close or Exit from the File menu.

To delete an object embedded in Microsoft Excel

1 Select the embedded object.

2 From the Edit menu or the <u>shortcut menu</u>, choose Clear or press the DEL key.

See Also

Help

<u>Clear Command (Edit Menu)</u>

<u>Embedding an object in a Microsoft Excel document</u>

<u>Linking and Embedding</u>

User's Guide (Book 2)

Chapter 3, "Exchanging Data with Other Applications"

To open an add-in macro as a regular macro sheet

1 From the File menu, choose Open.

   Add-in macros have .XLA, .XLL, or .DLL extensions.   Only add-in macros with .XLA extensions can be opened as regular macro sheets.

2 Select   the name of the add-in macro.

3 Hold down SHIFT and choose the OK button.

   Open an add-in macro as a regular macro sheet when you need to read or edit the macro in the macro sheet.   When you open an add-in macro as a regular macro sheet, it may be hidden.   To display a hidden macro sheet, choose the Unhide command from the Window menu.

   When you open an add-in macro as a regular macro sheet, any macro that normally runs automatically when the add-in macro opens will not run.

See Also

Help

Add-In Macros

Open Command (File Menu)

User's Guide (Book 2)

Chapter 8, "Creating a Custom Application"

To hide a column

▪ Drag the right border of the column heading beyond the left border of the column heading.

--Or--

1 Select the column you want to hide.
2 From the Format menu or the <u>shortcut menu</u>, choose Column Width.
3 Choose the Hide button.

To unhide a hidden column

A thick column heading border indicates that there are hidden columns.

1 Position the mouse pointer just to the right of a thick column heading border.
2 Drag to the right.

--Or--

1 Select the columns on both sides of the hidden column.
2 From the Format menu or the shortcut menu, choose Column Width.
3 Choose the Unhide button.

See Also

Help

<u>Column Width Command (Format Menu)</u>

To hide a row

▪ 　　Drag the bottom border of the row heading above the top border of the row heading.
--Or--

1 Select the row you want to hide.
2 From the Format menu or the <u>shortcut menu</u>, choose Row Height.
3 Choose the Hide button.

To unhide a hidden row

A thick row heading border indicates that there are hidden rows.

1 Position the mouse pointer just below a thick row heading border.
2 Drag down.
--Or--

1 Select the rows on either side of the hidden row.
2 From the Format menu or the shortcut menu, choose Row Height.
3 Choose the Unhide button.

See Also

Help

<u>Row Height Command (Format Menu)</u>

To insert cells, rows, or columns

To insert cells, rows, or columns by dragging

1 Select a range of cells above or to the left of where you want to insert the new cells, rows, or columns.
2 Press SHIFT and drag the fill handle (the small black square at the lower right of the selection) down or to the right.

To insert cells, rows, or columns with the Insert command

1 Select a range of cells below or to the right of where you want to insert the new cells, rows, or columns.
2 From the Edit menu or the <u>shortcut menu</u>, choose Insert.

    Shortcuts: Insert tool
                      Insert Column tool
                      Insert Row tool

3 If you did not select entire rows or columns, a dialog box appears allowing you to shift cells right or down to make space for the inserted cells, or to insert entire rows or columns.   Select the option you want and choose the OK button.

See Also

Help

- <u>Insert Tool</u>
- <u>Insert Column Tool</u>
- <u>Insert Row Tool</u>

<u>Deleting cells, rows, or columns</u>
<u>Insert Command (Edit Menu)</u>
<u>Selecting cells, rows, or columns</u>

To make corrections while typing

When you select a cell and begin typing, the entry is displayed in both the cell and the formula bar.

- Press BACKSPACE to delete the character to the left, or select the text in the formula bar that you want to delete, and then press DEL or BACKSPACE.

   You can also select the text you want to change and type the correct data.

To move cells and data

To move cells and data by dragging

1 Select the cell or cells you want to move.
2 Position the mouse pointer over the border of the selection.
   The mouse pointer changes to an arrow.
3 Drag the selection to the <u>paste area</u> where you want to move the data.
   While you drag, a border appears to indicate the size and position of the selection.
   If the paste area is located beyond the visible portion of the worksheet, drag the selection to the edge of the window to scroll the worksheet.
4 To move the data to existing cells, position the border so that it surrounds the paste area, and then release the mouse button.   Any existing data in the paste area is replaced.
   To insert cells containing the moved data between existing cells, hold down SHIFT as you position the mouse pointer over a gridline.   When the border collapses, release the mouse button.   Existing cells and data are shifted to make room for the new cells.

To move cells and data by cutting and pasting

1 Select the cell or cells you want to move.
2 From the Edit menu or the <u>shortcut menu</u>, choose Cut.
   Shortcuts: Cut tool
                    CTRL+X
   If you want to move the cells to another worksheet, switch to the other worksheet.
3 Select the upper-left cell of the <u>paste area</u> or select the entire paste area.
   The cut area and paste area can overlap.
4 To move the data to existing cells, choose Paste from the Edit menu or the shortcut menu.   Any existing data in the paste area is replaced.
   Shortcuts: Paste tool
                    ENTER
                    CTRL+V

   To insert cells containing the moved data between existing cells, choose Insert Paste from the Edit menu.   Existing cells and data are shifted to make room for the new cells.

See Also

Help

- <u>Cut Tool</u>
- <u>Paste Tool</u>

<u>Adding and deleting a tool from a toolbar</u>
<u>Copying data</u>
<u>Cut Command (Edit Menu)</u>
<u>Displaying and hiding a toolbar</u>
<u>Insert Paste Command (Edit Menu)</u>
<u>Paste Command (Edit Menu)</u>
<u>Selecting cells, rows, or columns</u>
<u>Toolbars Command (Options Menu)</u>
<u>Turning drag and drop on or off</u>
<u>Using drag and drop</u>
Using the pen with Microsoft Excel

User's Guide (Book 1)

Chapter 6, "Editing a Worksheet"

To move and size a graphic object along with cells

1 Select the graphic object you want to reposition.

2 From the Format menu or the <u>shortcut menu</u>, choose Object Properties.

3 Select Move And Size With Cells to format the object so it moves and changes size along with the cells under its upper-left and lower-right corners.

   Select Move But Don't Size With Cells to format the object so it moves with the cell under its upper-left corner, but doesn't change size.

   Select Don't Move Or Size With Cells to detach the object from the cell grid.

4 Choose the OK button.

See Also

Help

<u>Object Properties Command (Format Menu)</u>

User's Guide (Book 1)

Chapter 15, "Working with Graphic Objects"

To group or ungroup graphic objects

To group graphic objects

1 Select the graphic objects you want to group together.

To select multiple graphic objects, hold down SHIFT while clicking the objects.

Shortcut: Selection tool (Drawing toolbar)

2 From the Format menu or the shortcut menu, choose Group.

Shortcut: Group tool (Drawing toolbar)

To ungroup graphic objects

1 Select the graphic objects you want to separate.

2 From the Format menu or the shortcut menu, choose Ungroup.

Shortcut: Ungroup tool (Drawing toolbar)

See Also

Help

- Group Tool
- Selection Tool
- Ungroup Tool

Drawing Toolbar

Selecting multiple graphic objects

Toolbars Command (Options Menu)

User's Guide (Book 1)

Chapter 15, "Working with Graphic Objects"

To justify text to fill a selected range

1 Select the cells containing the text you want to justify.   Include the entire range in which you want the justified text to appear.

   The selected cells can contain only text.   If the cells contain numeric values, an error message is displayed.

2 From the Format menu, choose Justify.

   If the selected range is not large enough, Microsoft Excel displays a message telling you the text will extend below the range.   If you choose the OK button, justified text will replace the contents in cells extending beyond the selected range.

See Also

Help

Justify Command (Format Menu for Worksheets)

User's Guide (Book 1)

Chapter 7, "Formatting a Worksheet"

To justify text right and left within a cell

1 Select the cell or cells you want to justify.

2 From the Format menu or the shortcut menu, choose Alignment.

3 Select the Wrap Text check box.

4 Select the Justify option button.

5 Choose the OK button.

   If you adjust the column width, the text will always be aligned to the right and left.   To quickly adjust the row height after adjusting the column width, double-click the line below the row heading.

   Shortcut: Justify Align tool (Formatting toolbar)

See Also

Help

▪   Justify Align Tool
Adjusting row height
Changing the width of columns
Toolbars Command (Options Menu)

To link chart text to a worksheet cell

1 Select the text on the chart.

2 Type an equal sign (=).

   Microsoft Excel clears any existing text from the formula bar.

3 Switch to the worksheet window and select the cell that contains the data or text you want shown in your chart.

   You can also type a complete external reference to the worksheet cell.

4 Click the enter box or press ENTER.

See Also

Help

Adding or deleting a chart title, an axis title, or a data marker label

User's Guide (Book 1)

Chapter 14, "Formatting a Chart"

To move a legend

To move the legend to a standard position

▪ Drag the legend to one edge of the chart window.
When you drag the legend close enough to the edge, Microsoft Excel displays a vertical or horizontal bar along the edge of the window to show that the legend will be placed in a standard position.

- Or -

1 Select the legend.

2 From the Format menu or the shortcut menu, choose Legend.

3 Under Type, select the legend position you want.

4 Choose the OK button.

Microsoft Excel redraws the chart to make room for the legend.   Microsoft Excel also changes the horizontal or vertical arrangement of the elements in the legend, if needed, to make the legend fit better in the chart window.   For example, if you move the legend to the bottom of the chart, Microsoft Excel arranges the legend elements horizontally.

To move the legend wherever you want

▪ Drag the legend to the position you want.
When you drag the legend to a position other than the edge of the chart window, Microsoft Excel may not be able to move the rest of the chart out of the way, so the legend may overlap other parts of the chart.

See Also

Help

Legend Command (Format Menu)

User's Guide (Book 1)

Chapter 14, "Formatting a Chart"

To move or size an arrow

To move an arrow

- Drag the arrow shaft to the position you want.
  You can also choose the Move command from the Format menu and use the arrow keys to move the arrow.

To size an arrow and change its direction

1 Click the arrow to select it.
2 Drag the selection handles until the arrow is the size you want and pointing in the direction you want.

   You can also choose the Size command from the Format menu and use the arrow keys to size the arrow.

See Also

Help

Adding or deleting a chart arrow

Formatting a chart arrow

User's Guide (Book 1)

Chapter 14, "Formatting a Chart"

To import a document from another application

1 From the File menu, choose Open.

2 In the File Name box, type the name of the file you want to open or select it from the list.

   If you want to import a table from a text-based program, choose the Text button.   In the Text File Options dialog box, select the character that separates the data.

   Later, you can arrange the imported data into columns and rows using the Parse command on the Data menu.

   You can also specify the original source of the text file.   Under File Origins, select the source: Macintosh, Windows (ANSI), and DOS or OS/2 (PC-8).

3 Choose the OK button.

4 Choose the OK button.

To import data from another application using the Clipboard

1 Switch to the document or application that contains the information you want to import.

2 Cut or copy the data using the appropriate procedure in the application you are exporting from.

3 Switch to the Microsoft Excel document to which you want to import data.

4 Select the cells into which you want to paste the data.

5 From the Edit menu, choose Paste.

   To paste a picture of data, hold down SHIFT and choose Paste Picture from the Edit menu.

   To link the data, choose Paste Link from the Edit menu.

See Also

Help

Clipboard

Importing and Exporting

Linking and Embedding

Open Command (File Menu)

Opening a text file in Microsoft Excel worksheet format

Paste Link Command (Edit Menu)

Paste Picture Command (Edit Menu)

To open a file from a disk

1 From the File menu, choose Open.

   Shortcut: Open File tool

   The File Name box displays a list of the Microsoft Excel files in the current directory.

   To see a list of Microsoft Excel files in another directory, select the directory from the Directories box, or type the name of the directory in the File Name box.   Then select MS Excel Files (*.XL*) from the List Files Of Type box.

   To see a list of all the files in a directory, including Microsoft Excel files, select All Files (*.*) from the List Files Of Type box.

2 In the File Name box, type the name of the file you want to open, or select it from the list.

3 Choose the OK button.

See Also

Help

Open Command (File Menu)

Open File Tool

To open the Clipboard

    1 From the Microsoft Excel Control menu, choose Run.

    2 Select the Clipboard option button.

    3 Choose the OK button.

To close the Clipboard

- From the Clipboard Control menu, choose Close.

See Also

Help

Run Command (Control Menu)

Clipboard

To move between workbook documents

To page through workbook documents in sequence

1 Switch to any workbook document or the Workbook Contents window.
2 To display the document before the active window, click the left paging button in the lower-right corner of the window.
3 To display the document after the active window, click the right paging button.

   The Workbook Contents window is displayed after the last and before the first workbook document.   Documents are displayed in the same window size and location as the Workbook Contents window.

To move between workbook documents in any order

1 With the right mouse button, click any of the buttons in the lower-right corner of the document window.

   A menu appears that lists the documents in the workbook.
2 From this menu, choose the name of the document you want to display.

   The document is displayed in the same window size and location as the Workbook Contents window.

To give a bound workbook document an extended name

1 In the Workbook Contents window, select the <u>bound document</u> to which you want to give an extended name.

2 Choose the Options button.

   Shortcut: ALT+SHIFT+O

3 In the Document Name box, type a name up to 31 characters long.

   This name can include any combination of characters, including spaces.

4 Choose the OK button.

   If you later unbind the document, Microsoft Excel will prompt you to give the document an MS-DOS 11-character filename.

See Also

Help

<u>Binding and unbinding workbook documents</u>

<u>Workbooks</u>

To open a new window of a document in a workbook
1 In the Workbook Contents window, select the document for which you want to open a new window.
2 From the Window menu, choose New Window.

Microsoft Excel opens another window of the document.

Shortcut: Hold down CTRL while you double-click the document in the Workbook Contents window.

See Also

Help

New Window Command (Window Menu)

To view the source data for a link

▪ Double-click the cell containing the link reference.

If a cell contains multiple references, Microsoft Excel uses the one that appears first in the formula bar.

Microsoft Excel switches to the <u>source document</u> and displays the source data.   If the source document or application is not open, Microsoft Excel opens it.

When you finish viewing the source data, you can quickly return to where you were in the <u>dependent worksheet</u> by choosing the Goto command from the Formula menu. Your previous location is stored in the Reference box of the Goto dialog box.

If you double-click a cell that contains both a note and a reference, Microsoft Excel displays the Note dialog box, instead of the source data.

See Also

Help

<u>Goto Command (Formula Menu)</u>

<u>Linking and Embedding</u>

<u>Note Command (Formula Menu)</u>

<u>Opening source documents for the active worksheet</u>

<u>Replacing a source worksheet with another worksheet</u>

<u>Viewing a list of source documents for a dependent worksheet</u>

To open source documents for the active worksheet

1 Switch to the <u>dependent worksheet</u>.
2 From the File menu, choose Links.
3 In the Link Type box, select the type of link you want to display.

   In the Links box, Microsoft Excel displays a list of all the source documents for the dependent worksheet, with the link type you specified.
4 In the Links box, select the name of the source document you want to open.

   To select several documents at once, hold down CTRL and click each document you want to open.

   When using the keyboard, hold down CTRL as you press the UP or DOWN ARROW key to move to each document.   To add a document to the selection, press the SPACEBAR.
5 To open the documents, choose the Open button.

See Also

Help

<u>Links Command (File Menu)</u>

<u>Linking and Embedding</u>

<u>Replacing a source worksheet with another worksheet</u>

<u>Viewing a list of source documents for a dependent worksheet</u>

<u>Viewing the source data for a link</u>

To record a macro

To record a macro on a new or global macro sheet

1 From the Macro menu, choose Record.

   Shortcut: Record Macro tool (Macro toolbar)

2 In the Name box, type a name or accept the proposed name.

3 In the Key box, type a shortcut key or accept the proposed key.

4 Select <u>Global Macro Sheet</u> if you want Microsoft Excel to automatically manage your macros, or select New Macro Sheet to create a new macro sheet.

   If you have already recorded to a new macro sheet, your macro sheet name replaces the New Macro Sheet option button.

5 Choose the OK button.

6 Carry out the actions you want to record.

7 To stop recording, choose Stop Recorder from the Macro menu.

   Shortcut: Record Macro tool (Macro toolbar)

To record a macro on an existing macro sheet

1 Open a new or existing macro sheet.

2 Select the cell or <u>range</u> on the macro sheet where you want to begin recording.

3 From the Macro menu, choose Set Recorder.

4 Switch to the document on which you will carry out the actions.

5 From the Macro menu, choose Record.

6 In the Name box, type a name or accept the proposed name.

7 In the Key box, type a shortcut key or accept the proposed key.

8 The name of your macro sheet will appear as the chosen option under Store Macro In.

9 Choose the OK button.

10 Carry out the actions you want to record.

11 To stop recording, choose Stop Recorder from the Macro menu.

   Shortcut: Record Macro tool (Macro toolbar)

See Also

Help

▪   <u>Record Macro Tool</u>
<u>Macro Toolbar</u>
<u>Record and Stop Recorder Commands (Macro Menu)</u>
<u>Set Recorder Command (Macro Menu)</u>
<u>Start Recorder Command (Macro Menu)</u>
<u>Toolbars Command (Options Menu)</u>

User's Guide (Book 2)

Chapter 6, "Automating Tasks with Command Macros"

To run a macro

1 From the Macro menu, choose Run.

   Shortcut: CTRL+shortcut key

2 In the Run box, select the macro you want to run.

3 Choose the OK button.

You can also use the Run Macro tool on the Macro toolbar to run a macro.   Use the Toolbars command on the Options menu to display toolbars.   Before you click the Run Macro tool, a macro sheet must be active.   The macro runs from the active cell without displaying the Run dialog box.

See Also

Help

▪   Run Macro Tool
Macro Toolbar
Run Command (Macro Menu)

User's Guide (Book 2)

Chapter 6, "Automating Tasks with Command Macros"

To parse data from another application

If you copy data into Microsoft Excel from another application, several columns of data can be condensed into a single column.   You can use the Parse command to distribute the <u>fields</u> of each <u>record</u> into separate columns.   The range you <u>parse</u> can be any number of rows long, but only one column wide.

1   Select the range of cells you want to parse.

   The range you are parsing must be no more than one column wide.

2   From the Data menu, choose Parse.

   The Parse Line box displays the contents of the first cell in the range.   The settings you select for the first cell apply to all cells in the range.

   Microsoft Excel guesses at where to add brackets to the parse line.   Each set of brackets shows where a field will be separated into a different column.

3   If necessary, change the guess by adding or deleting brackets in the parse line.

4   In the Destination box, enter a reference to a single cell.

   The default reference displayed is the upper-left cell in the selected range; parsed data will overwrite existing data using the default destination.

5   Choose the OK button.

   The Parse command fills cells to the right of the column you are parsing.   If there is data in those cells, that data is lost when the parsed data overwrites it.   Make sure you have enough blank cells to the right of the range you are parsing to accommodate the data.

   If you need to parse dissimilar cells, refer to the PARSE function in the Microsoft Excel Function Reference for a macro that parses based on a delimiting character.

See Also

Help

<u>Parse Command (Data Menu)</u>

User's Guide (Book 2)

Chapter 3, "Exchanging Data with Other Applications"

To redefine a style

To redefine a style by example

1 Select a cell that has been assigned the style you want to change.
2 Format the cell with the new formatting that you want the style to have.
3 Click the Style box on the toolbar, and then press ENTER.
   Microsoft Excel asks if you want to redefine the style based on the current selection.
4 To redefine the existing style, choose the Yes button.
   To reapply the old style and eliminate any new formatting you added to the cell, choose the No button.
   To keep the old style along with the new formatting you added to the cell, choose the Cancel button.

To redefine a style by definition

1 From the Format menu, choose Style.
2 Choose the Define button.
   The Style dialog box expands.
3 In the Style Name box, select or type the name of the existing style you want to change.
   If you select the existing style name, the formats of the style are displayed as the description and serve as your starting point for making changes to the style.
   If you type an existing style name, the formats of the active cell are displayed as the description and serve as your starting point for the style.
4 Select any check boxes for any attributes you want added to the style.
   Clear the check boxes for any attributes you want removed from the style.
   When you clear a check box, the corresponding button becomes unavailable, and the description for this attribute is removed.
5 Choose the button that corresponds to the attribute you want to change.
6 Select the new format or formats you want for that attribute.
7 Choose the OK button to accept the formats and return to the Style dialog box.
8 Repeat steps 4 through 7 until you have selected all the formats you want for the style.
9 Choose the OK button to accept the changes, apply the new style to the selected cells, and close the dialog box.
   To accept the changes and keep the Style dialog box open so you can create or redefine other styles, choose the Add button.   When you are finished, choose the OK button to apply the currently selected style, or choose the Close button to close the dialog box without applying any of the styles.

See Also

Help
▪   Style Box
Style Command (Format Menu)

User's Guide (Book 1)
Chapter 7, "Formatting a Worksheet"

To redefine the Normal style

Redefine the Normal style when you want to change the default style for an entire worksheet; for example, when you change the default font.

1. From the Format menu, choose Style.
2. Choose the Define button.

   The Style dialog box expands.

3. In the Style Name box, select or type the style name Normal.

   If you select the name Normal, the current definition of the Normal style serves as the starting point for making changes to the style.

   If you type the style name Normal, the formats of the active cell are displayed as the description and serve as your starting point for making changes to the style.

4. Clear the check boxes for any attributes you want removed from the style.

   Select any check boxes for any attributes you want added to the style.

   When you clear a check box, the corresponding button becomes unavailable, and the description for this attribute is removed.

5. Choose the button that corresponds to the attribute you want to change.
6. Select a new format or formats you want for that attribute.
7. Choose the OK button to accept the formats and return to the Style dialog box.
8. Repeat steps 4 through 7 until you have selected the combination of formats you want in the Normal style.
9. Choose the OK button to accept the changes, apply the new standard style to the selected cells, and close the dialog box.

   To accept the changes and keep the Style dialog box open so you can create or redefine other styles, choose the Add button.   When you are finished, choose the OK button to apply the currently selected style, or choose the Close button to close the dialog box without applying any of the styles.

See Also

User's Guide (Book 1)

Chapter 7, "Formatting a Worksheet"

To rename a document

1 From the File menu, choose Save As.
2 In the File Name box, type a new name for the document.
3 Choose the OK button.
   The previous version of the document still remains under its earlier name.

To delete the previous version of the document

1 From the File menu, choose Delete.
2 In the File Name box, type the name of the document you want to delete, or select the name of the document you want to delete in the Files box.
3 Choose the OK button.
4 Choose the Yes button to confirm the deletion.

See Also

User's Guide (Book 1)

Chapter 4, "Managing Document Files"

To rename a stand-alone or a dependent worksheet

1 Switch to the worksheet to be renamed.
2 From the File menu, choose Save As.
3 In the File Name box, type the new filename.
4 Choose the OK button.
   The previous version of the worksheet still remains under its earlier name.

To delete the previous version of the worksheet

1 From the File menu, choose Delete.
2 In the File Name box, type the name of the worksheet you want to delete, or select the name of the worksheet you want to delete in the Files box.
3 Choose the OK button.
4 Choose the Yes button to confirm the deletion.

To rename a source worksheet

1 Open all the dependent documents.
2 Switch to the source worksheet.
3 From the File menu, choose Save As.
4 In the File Name box, type the new filename.
5 Choose the OK button.
   A version of the worksheet still remains under its earlier name.   To delete that version of the worksheet, follow the preceding procedure.

See Also

User's Guide (Book 1)

Chapter 4, "Managing Document Files"

To replace references in formulas with names

You should have defined names on your worksheet before following this procedure.

1   Select the range of cells to which you want to apply names.

    If a single cell is selected, Microsoft Excel will replace references in the entire worksheet.

2   From the Formula menu, choose Apply Names.

3   In the Apply Names box, select the name or names with which you want to replace references.

    To select more than one name, hold down CTRL while you press the UP ARROW or DOWN ARROW key to move the selection cursor.   Then press the SPACEBAR to add the item to the selection.

4   If you want to replace absolute or relative references with names whose definitions are identically absolute or relative, clear the Ignore Relative/Absolute check box.

5   If you do not want to replace references of cells located in named rows and columns with the names of those rows and columns, clear the Use Row And Column Names check box.

6   For more options regarding the replacement of row and column references, choose the Options button.

    If you cleared the Use Row And Column Names check box, the additional options displayed are unavailable.

7   If you do not want to omit the column name when the formula is in the same column as the referenced cell, clear the Omit Column Name If Same Column check box.

8   If you do not want to omit the row name when the formula is in the same row as the referenced cell, clear the Omit Row Name If Same Row check box.

9   Under Name Order, select the Row Column or Column Row option button to determine the order in which compound names will replace applicable references.

10 Choose the OK button.

See Also

Help

Apply Names Command (Formula Menu)

Define Name Command (Formula Menu)

Create Names Command (Formula Menu)

Defining a name

User's Guide (Book 1)

Chapter 8, "Organizing and Documenting a Worksheet"

To remove a sound note

1 Select the cell from which you want to remove an attached sound note.
2 From the Formula menu, choose Note.
3 In the Sound Note box, choose the Erase button to remove the sound note from the cell.
   After the sound note is erased, the Erase button changes to the Record button.
4 Choose the OK button.

See Also

Help

Creating or editing a note

Creating a sound note

Deleting a note

Note Command (Formula Menu)

User's Guide (Book 1)

Chapter 8, "Organizing and Documenting a Worksheet"

To paste names

You can paste <u>names</u> into cells or <u>formulas</u> using the Paste Name command on the Formula menu.   You can also paste a list of all names defined on the active worksheet or macro sheet into a range beginning at the active cell. You should have defined names on your worksheet before following this procedure.

1 Select the cell where you want to insert a name.

2 Place the insertion point where you want to insert the name.

   If the <u>formula bar</u> is not currently active, Paste Name will place the name, preceded by an equal sign, in the selected cell. Any existing cell contents will be replaced.

3 From the Formula menu, choose Paste Name.

    Shortcuts: Paste Names tool (Macro toolbar)
                        F3

4 In the Paste Name box, select the name you want to paste.

5 Choose the OK button.

To paste a list of all defined names

1 Select a cell that will become the upper-left corner of the list.

   Because the pasted list will overwrite any existing data, be sure to allow enough room for the list on your worksheet or macro sheet.

2 From the Formula menu, choose Paste Name.

3 Choose the Paste List button.

   All names defined on your worksheet or macro sheet are pasted, starting at the active cell.   On a worksheet, the list of names is two columns wide. The left column lists names; the right column lists cell references that the names refer to.   On a macro sheet, the list of names is five columns wide and includes columns for names and cell references, a column for the type of macro (0=none, 1=function, 2=command), a column for assigned shortcut keys, and a column for Category.

See Also

Help

▪   <u>Paste Names Tool</u>
<u>Apply Names Command (Formula Menu)</u>
<u>Create Names Command (Formula Menu)</u>
<u>Define Names Command (Formula Menu)</u>
<u>Defining a name</u>
<u>Displaying and hiding a toolbar</u>
<u>Paste Name Command (Formula Menu)</u>
<u>Toolbars Command (Options Menu)</u>

User's Guide (Book 1)

Chapter 8, "Organizing and Documenting a Worksheet"

To paste functions

  1 Select the cell where you want to insert a <u>function</u> in a <u>formula</u>.

  2 Place the insertion point where you want to insert the function.

     If the <u>formula bar</u> is not currently active, Paste Function will place the function, preceded by an equal sign, in the selected cell. Any existing cell contents will be replaced.

  3 From the Formula menu, choose Paste Function.

     Shortcuts: Paste Function tool (Macro toolbar)
                  SHIFT+F3

  4 In the Function Category box, select the category that describes the type of function you want to use. Select All to view all available functions.

  5 In the Paste Function box, select the function you want to paste.

  6 If you want to include the function's arguments along with the pasted function, select the Paste Arguments check box.

     If there is more than one form of the selected function, another dialog box will appear, allowing you to select the form you want to use.

  7 Choose the OK button.

     If you selected a function with more than one form, choose the OK button again to close the Paste Function dialog box and insert the selected function.

See Also

Help

▪   <u>Paste Function Tool</u>
<u>Displaying and hiding a toolbar</u>
<u>Paste Function Command (Formula Menu)</u>
<u>Toolbars Command (Options Menu)</u>
<u>Worksheet Functions</u>

User's Guide (Book 1)

Chapter 5, "Creating a Worksheet"

To replace characters

1 Select the area of the worksheet or macro sheet in which you want to replace characters.

   If only one cell is selected, Replace searches the entire worksheet.

2 From the Formula menu, choose Replace.

3 In the Find What box, type the characters you want to search for.

   You can include any letter, number, punctuation mark, or <u>wildcard character</u> in your search. To search for an actual wildcard character (* or ?), precede it with a tilde (~).

4 In the Replace With box, type the characters you want to use instead.

5 Under Look At, select Whole or Part.

   If you select the Whole option, Microsoft Excel finds only exact and complete matches of the specified characters. If you select the Part option, Microsoft Excel finds any occurrences of the specified characters, including partial occurrences within other strings of characters.

6 Under Look By, select the direction in which you want Microsoft Excel to search, either across rows or down columns.

7 Select the Match Case check box if you want Microsoft Excel to use the exact combination of uppercase and lowercase characters you entered in the Find What box.

8 Choose the Replace All button if you want Microsoft Excel to automatically find and replace all occurrences.

   --or--

   Choose the Find Next button if you want to find the next occurrence of the characters; then choose the Replace button to replace the specified characters.

   After you choose the Replace button, Microsoft Excel automatically finds the next occurrence.

9 When you are finished, choose the Close button.

See Also

Help

<u>Finding characters</u>

<u>Replace Command (Formula Menu)</u>

User's Guide (Book 1)

Chapter 5,   "Creating a Worksheet"

Chapter 6,   "Editing a Worksheet"

To play a sound note

1 Double-click the cell containing the sound note.

   If the selected cell contains a text note as well as a sound note, the Cell Note dialog box opens first, and then the sound note plays.

2 To play other sound notes on the same worksheet, select the note from the Notes In Sheet box, and choose the Play button.

   Cells with attached sound notes are marked with an asterisk (*) in the Notes In Sheet box.

See Also

Help

Copying a text or sound note to another cell

Creating or editing a note

Creating a sound note

Deleting a note

Displaying or hiding cell note indicators

Removing a sound note

Toolbars Command (Options Menu)

User's Guide (Book 1)

Chapter 8, "Organizing and Documenting a Worksheet"

To prevent the display of zero values

1 From the Options menu, choose Display.
2 Clear the Zero Values check box.
3 Choose the OK button.

See Also

Help

Number Command (Format Menu for Worksheets)

To protect worksheet cells

1 Select the cells you want to protect.
2 From the Format menu, choose Cell Protection.
3 Set the protection you want by selecting the Locked or Hidden check box or both.
   Locked cells cannot be edited if the document is protected.   Hidden cells display their values, but no formula appears in the formula bar.
4 Choose the OK button.
5 From the Options menu, choose Protect Document.
6 Select the Cells check box.
7 In the Password box, type a password if you want to prevent others from turning off document protection.
8 Choose the OK button.
9 In the Reenter Protection Password box, type your password to confirm it.
10 Choose the OK button.

To turn off worksheet cell protection

1 From the Options menu, choose Unprotect Document.
2 If the worksheet is protected with a password, type the password in the Password box.
3 Choose the OK button.

See Also

Help

▪   Lock Cell Tool
Cell Protection Command (Format Menu for Worksheets)
Protecting a chart
Protecting a document with a password
Protecting an object
Protecting windows
Protecting worksheet cells
Toolbars Command (Options Menu)

User's Guide (Book 1)

Chapter 4, "Managing Document Files"

To print a chart

The Print tool prints with the current settings.   If you want to change the settings, use the Print command.

1 Switch to the chart window.

   If the chart is embedded in a worksheet, double-click the chart to display it in a chart window.

2 From the File menu, choose Print.

    Shortcut**:**   Print tool

3 Select the print options you want.

4 Choose the OK button.

   Microsoft Excel displays a message that printing is in progress.

   To cancel printing, choose the Cancel button.

See Also

Help

▪   Print Tool
Print Command (File Menu)

User's Guide (Book 1)

Chapter 16, "Printing"

To protect a chart

To protect a chart saved as a separate document
1 Switch to the chart window.
2 From the Chart menu, choose Protect Document.
3 Select the Chart check box.
4 If you want to prevent others from turning off document protection, type a password in the Password box.
5 Choose the OK button.
6 If you typed a password, the Confirm Password dialog box appears.   Type the password again, and then choose the OK button.

To protect a chart embedded in a worksheet
1 From the Options menu, choose Protect Document.
2 To protect the chart formats, select the Objects check box.

   To protect the data on which the chart is based, select the Cells check box.
3 If you want to prevent others from turning off document protection, type a password in the Password box.
4 Choose the OK button.
5 If you typed a password, the Confirm Password dialog box appears.   Type the password again, and then choose the OK button.

To unprotect a chart
1 Switch to the chart document or to the worksheet in which the chart is embedded.
2 From the Chart menu or the Options menu, choose Unprotect Document.
3 If the chart is protected with a password, type the password in the Password box.
4 Choose the OK button.

See Also

Help
Protect Document Command (Chart Menu)
Protect Document Command (Options Menu)

User's Guide (Book 1)
Chapter 4, "Managing Document Files"

To protect a document with a password

Caution: If you forget the password of a document that was previously protected with a password, you cannot open or unprotect the document.

1 From the File menu, choose Save As.
2 In the File Name box, type a new name for the document or accept the default name.
3 Choose the Options button.
4 In the Protection Password box, type a password.
   The characters are displayed as asterisks (*).
5 Choose the OK button.
6 In the Reenter Protection Password box, type the same password again to confirm it.
7 Choose the OK button.
8 In the Save As dialog box, choose the OK button to save the protected document.

To remove password protection

1 Open the document.
2 Type the password you gave the document.
3 Choose the OK button.
4 From the File menu, choose Save As.
5 Choose the Options button.
6 In the Protection Password box, select the password, which is displayed as asterisks (*).
7 Press the DEL key to remove the password.
8 Choose the OK button.
9 In the Save As dialog box, choose the OK button to save the unprotected document.
10 Choose the OK button to confirm replacement of the protected version of the document with an unprotected version.

See Also

Help

Protect Document and Unprotect Document Commands (Options Menu)

Save As Command (File Menu)

User's Guide (Book 1)

Chapter 4, "Managing Document Files"

To protect windows

  1 Move and size the window or windows within your workspace the way you want them.

  2 If the active document is a worksheet, a macro sheet, or a workbook, choose Protect Document from the Options menu.

     If the active document is a chart, choose Protect Document from the Chart menu.

  3 Select the Windows check box.

     In the Password box, type a password if you want to protect the window with a password.

  4 Choose the OK button.

To turn off window protection

  1 If the active document is a worksheet, a macro sheet, or a workbook, choose Unprotect Document from the Options menu.

     If the active document is a chart, choose Unprotect Document from the Chart menu.

  2 If the document is protected with a password, type the password in the Password box and then choose the OK button.

See Also

Help

Protect Document and Unprotect Document Commands (Options Menu)

Protect Document and Unprotect Document Commands (Chart Menu)

User's Guide (Book 1)

Chapter 4, "Managing Document Files"

To recalculate linked worksheets

When the Manual calculation option is specified in the Calculation Options dialog box, use the following procedure to recalculate links.

1 Open the <u>source</u> and <u>dependent</u> worksheets.

2 From the Options menu, choose Calculation.

3 Choose the Calc Now button.

   Shortcuts**:**   Calculate Now tool (Utility toolbar)

                  CTRL+EQUAL SIGN (=)

                  F9

4 Choose the OK button.

See Also

Help

▪ <u>Calculate Now Tool</u>
<u>Calculation Command (Options Menu)</u>

User's Guide (Book 1)

Chapter 5, "Creating a Worksheet"

User's Guide (Book 2)

Chapter 1, "Analyzing and Calculating Data"

To reset the print area

If you have set a print area and later want to set another that is less than the entire worksheet, use the following procedure.

▪ Select the new area you want to print; then, from the Options menu, choose Set Print Area.

Shortcut**:** Set Print Area tool (Utility toolbar)

To reset the print area to the entire worksheet

If you have set a print area and later want to print the entire worksheet, you must first remove the previous print area.

1 Select the entire worksheet.

2 From the Options menu, choose Remove Print Area.

Remove Print Area is available on the Options menu only when you have selected the entire worksheet.

Shortcut**:** Set Print Area tool (Utility toolbar)

See Also

Help

▪ Set Print Area Tool

Set Print Area and Remove Print Area Commands (Options Menu)

User's Guide (Book 1)

Chapter 16, "Printing"

To replace a data marker with a picture

You can replace data markers with a picture created in another application or a picture created using the drawing tools on the Drawing toolbar.   You can use picture markers in line, bar, and column charts.   You cannot use picture markers in 3-D charts.

1 Switch to the application and the document containing the picture you want to use as a data series marker.

2 Copy the picture using the application's procedure for copying.

   If you are copying a graphic object from another Microsoft Excel document, select the object and choose Copy from the Edit menu or the <u>shortcut menu</u>.

3 Switch to the Microsoft Excel chart in which you want to use the picture.

4 Select the marker or data series you want to replace with the picture.

5 From the Edit menu, choose Paste.

See Also

Help

<u>Creating or clearing a picture chart</u>
<u>Copy Command (Edit Menu)</u>
<u>Paste Command (Edit Menu)</u>

User's Guide (Book 1)

Chapter 14, "Formatting a Chart"

To change whether a picture marker is stacked or stretched

When picture markers are stacked, all the pictures for the series are the same size.   As many pictures as are necessary to indicate the value are stacked on top of each other or side by side.   When picture markers are stretched, only one picture is used for each value. It is stretched or shrunk to indicate the value.

1 Double-click the picture marker or data series to display the Format Picture dialog box.

You can also click the marker or series to select it and then choose Patterns from the Format menu or the shortcut menu.

2 Select the option you want.

3 To apply the formatting to all data markers in the chart, select the Apply To All check box.

4 Choose the OK button.

See Also

Help

Patterns Command (Format Menu for Charts)

User's Guide (Book 1)

Chapter 14, "Formatting a Chart"

To clear a data marker picture

1 Select the marker or data series whose picture you want to clear.

2 From the Edit menu or the <u>shortcut menu</u>, choose Clear.

3 Select the Formats option button.

4 Choose the OK button.

If you selected a data series, Microsoft Excel removes the picture, and the formatting for the series returns to the automatic formatting it originally had.

If you selected a single data marker with a picture different from the other markers in the series, Microsoft Excel formats that marker like the other markers in the series.

See Also

Help

<u>Clear Command (Edit Menu)</u>

User's Guide (Book 1)

Chapter 14, "Formatting a Chart"

To preview a document before printing

▪   From the File menu, choose Print Preview.   Or, choose the Print command from the File menu, select the Preview check box, and then choose the OK button.

Shortcut: Print Preview tool (File Tools category)

Microsoft Excel displays a full page view of the active document in the Print Preview window.

▪   To display the active document in actual size in the Print Preview window (enlarged, with only a portion of the page showing), choose the Zoom button, or click the area of the document you want to see.

▪   To print from the Print Preview window, choose the Print button.

▪   To close the Print Preview window without printing, choose the Close button.

See Also

Help

▪   Print Preview Tool
Adding and deleting a tool from a toolbar

Print Preview Command (File Menu)

Print Preview Window

Print Command (File Menu)

Toolbars Command (Options Menu)

User's Guide (Book 1)

Chapter 16, "Printing"

To print a document without previewing

The Print tool prints the active document using the current settings.   If you want to change the print settings, use the Print command.

1 From the File menu, choose Print.

2 Select the options you want.

   To specify printers and printing settings, choose the Page Setup button.

3 If necessary, clear the Preview check box.

4 Choose the OK button.

   Microsoft Excel displays a message saying that printing is in progress.

   To cancel printing, choose the Cancel button.

See Also

Help

▪ Print Tool
Page Setup Command (File Menu)
Print Command (File Menu)

User's Guide (Book 1)

Chapter 16, "Printing"

To print a section of a worksheet

The Print tool prints the active document using the current settings.   If you want to change the print settings, use the Print command.

1 Select the range or ranges you want to print.   Make nonadjacent selections if you want non-contiguous areas of the worksheet to be printed.

2 From the Options menu, choose Set Print Area.

3 From the File menu, choose Print.

   Shortcut**:**   Print tool

4 Select the options you want.

5 Choose the OK button.

   Microsoft Excel displays a message saying that printing is in progress.

   To cancel printing, choose the Cancel button.

See Also

Help

▪   Print Tool

Print Command (File Menu)

Set Print Area Command (Options Menu)

User's Guide (Book 1)

Chapter 16, "Printing"

To quit Microsoft Excel

1   From the File menu, choose Exit.

If you have made changes to any open documents and not saved them, Microsoft Excel asks you if you want to save the changes before closing.

2   Choose the Yes button to save changes, the No button to discard changes, or the Cancel button to cancel the command.

If you selected the Recalculate Before Save check box in the Calculation Options dialog box, Microsoft Excel recalculates your worksheet if necessary.

Press ESC to interrupt recalculation.

When you press ESC, you will be asked if you want to continue recalculating and saving.

Choose Yes to continue, No to save without recalculating, or Cancel to cancel the command and return to the document.

See Also

Help

Calculation Command (Options Menu)

Exit Command (File Menu)

Setting calculation options for open documents

To open a text file in Microsoft Excel worksheet format

1 From the File menu, choose Open.
2 In the File Name box, type the name of the file you want to open or select it from the list.

   The File Name list displays only the files that have the same extension as the one shown in the File Name box.   To see all the files in a directory, select All Files (*.*) from the List Files Of Type box.
3 Choose the Text button.
4 Under Column Delimiter, select the character used to separate columns: Tab, Comma, Space, Semicolon, None, or Custom.
5 Under File Origin, select the original source of the text file: Macintosh, Windows (ANSI), or DOS or OS/2 (PC-8).
6 Choose the OK button to confirm your selections.
7 Choose the OK button to open the file.

See Also

Help

Open Command (File Menu)

User's Guide (Book 1)

Chapter 4, "Managing Document Files"

To reorder documents in a workbook

1 Switch to the Workbook Contents window.

2 Drag the document to a new location.

When you release the mouse button, Microsoft Excel moves the document to the new location.

--Or--

1 Switch to the Workbook Contents window.

2 From the Edit menu or <u>shortcut menu</u>, choose Cut.

The document name is surrounded by a moving border.

3 Select the document in the location you want the cut document moved to.

4 From the Edit menu or <u>shortcut menu</u>, choose Paste.

Microsoft Excel moves the document to the new location.

See Also

Help

<u>Moving between workbook documents</u>

To print a report

1 From the File menu, choose Print Report.

   If the Print Report command does not appear on the File menu, run the Setup program to install it.

2 In the Reports box, select the report you want to print.

3 Choose the Print button.

4 In the Copies box, type the number of copies you want to print.

5 Choose the OK button.

See Also

Help

Print Report Command (File Menu)

Creating a report

Editing a report

User's Guide (Book 1)

Chapter 1, "Getting Started With Microsoft Excel"

Chapter 16, "Printing"

To protect an object

Before you can do this procedure, the active document must be a worksheet or macro sheet.

To protect an object
1 Select the object you want to protect.
2 From the Format menu, choose Object Protection.
3 Select the Locked check box.

   If a text box is selected and you want to protect the text in the text box, select the Lock Text check box.
4 Choose the OK button.

   Once you have set protection status for the object, you must turn on document protection for those settings to take effect.
5 From the Options menu, choose Protect Document.
6 If you want to prevent others from turning off document protection, type a password in the Password box.
7 Select the Objects check box.
8 Choose the OK button.
9 If you typed a password in the Password box, the Confirm Password dialog box will appear.   Type the password again to confirm it.
  10 Choose the OK button.

To remove document protection
1 From the Options menu, choose Unprotect Document.
2 If the object is protected with a password, type the password in the Password box.
3 Choose the OK button.

See Also

Help

Object Protection Command (Format Menu for Worksheets)

Protect Document and Unprotect Document Commands (Options Menu)

Protecting a chart

Protecting worksheet cells

User's Guide (Book 1)

Chapter 4, "Managing Document Files"

Chapter 15, "Working with Graphic Objects"

To redirect links to source documents

If you change the name of a source document or move the source document to a different directory, you must redirect the links in the dependent document to include the new name or path of the source document.

1 Switch to the <u>dependent worksheet</u>.
2 From the File menu, choose Links.
3 In the Link Type box, select the type of link you want to display.

    In the Links box, Microsoft Excel displays a list of all the source documents for the dependent worksheet with the link type you specified.

4 In the Links box, select the name of the source document for which you want to redirect links.

    To select several documents at once, hold down CTRL and click each document you want to change. You can also hold down CTRL as you press the UP ARROW or DOWN ARROW key to move to each document, and then press the SPACEBAR to add a document to the selection.

5 Choose the Change button.

    Microsoft Excel displays a dialog box for each document you selected.

6 In the File Name box, type the complete new name of the source document, including its path, or select the name of the new source document from the list.

    The File Name box displays the documents in the current directory.   If the new source document is not in the current directory, select the appropriate directory in the Directories box.

7 Choose the OK button.
8 Repeat steps 6 and 7 for each document you selected.

See Also

Help

<u>Replacing a source worksheet with another worksheet</u>
<u>Linking and Embedding</u>
<u>Links Command (File Menu)</u>

User's Guide (Book 1)

Chapter 11, "Working with Multiple Microsoft Excel Documents"

User's Guide (Book 2)

Chapter 3, "Exchanging Data with Other Applications"

To print text notes

1 From the File menu, choose Page Setup.

2 Select the Row & Column Headings check box to print notes with the cell reference before each note.

   Clear the Row & Column Headings check box to print notes without the cell reference before each note.

3 Choose the OK button.

4 From the File menu, choose Print.

5 To print only the notes, select the Notes option button under Print.

   To print the worksheet and its notes, select the Both option button.

6 Choose the OK button.

See Also

Help

Note Command (Formula Menu)

User's Guide (Book 1)

Chapter 8, "Organizing and Documenting a Worksheet"

To save a macro sheet as an add-in macro

1 Switch to the macro sheet you want to save as an add-in macro.
2 From the File menu, choose Save As.
3 If you want, type a new name for the macro sheet.
   Microsoft Excel will automatically add the .XLA extension.
4 In the Save File As Type box, select the Add-In option.
5 Choose the OK button.

See Also

Help

Add-In Macros

Save As Command (File Menu)

User's Guide (Book 2)

Chapter 8, "Creating a Custom Application"

To step through a macro

1 From the Macro menu, choose Run.
2 In the Run box, select the macro you want to run or type the name or <u>reference</u> of the macro in the Reference box.
3 Choose the Step button.

The first formula in the macro appears in the Single Step dialog box.
4 Choose the Step Into or Step Over button to continue stepping through the macro. Step Into steps through user-defined functions.   Step Over carries out, but does not step through user-defined functions.
5 Choose the Evaluate button to see how Microsoft Excel calculates the formula.

The formula is calculated one expression at a time.
6 Choose the Halt button to close the dialog box and stop the macro.
7 Choose the Goto button to close the dialog box and stop the macro at the cell currently being evaluated.
8 Choose the Pause button to close the dialog box and pause the macro.   To return to the Single Step dialog box, click the Resume Macro tool on the Macro Paused toolbar, which automatically appears whenever you pause a macro, or choose Resume from the Macro menu.
9 Choose the Continue button to close the dialog box and continue running the macro without stepping.

You can use the Step Macro tool on the Macro toolbar to step through a macro.   Use the Toolbars command on the Options menu to display toolbars.   You must have a macro sheet active before clicking the Step Macro tool.   The macro begins stepping from the active cell on the macro sheet.

You can also step through a macro by pressing ESC while the macro is running or by using the STEP macro function.

See Also

Help

- <u>Resume Macro Tool</u>
- <u>Run Macro Tool</u>
- <u>Step Macro Tool</u>
<u>Macro Paused Toolbar</u>

<u>Macro Toolbar</u>

<u>Run Command (Macro Menu)</u>

<u>Single Step Dialog Box</u>

<u>Toolbars Command (Options Menu)</u>

Microsoft Excel Function Reference

PAUSE

RESUME

STEP

HALT

To set up a criteria range with comparison criteria

1 Copy the <u>field names</u> for the <u>database</u> fields you want to compare to a row outside the database range.
2 In the cells beneath the field names, enter the comparison values for each field.
   You can enter values or text as comparison <u>criteria</u>.
   You can also use <u>comparison operators</u> and <u>wildcard</u> characters.
3 Select the field names and the rows beneath them that contain the criteria.
4 From the Data menu, choose Set Criteria.

See Also

Help

<u>Defining a criteria range</u>
<u>Finding records in a database</u>
<u>Finding records using a data form</u>
<u>Set Criteria Command (Data Menu)</u>
<u>Using comparison criteria</u>
<u>Using computed criteria</u>

User's Guide (Book 1)

Chapter 9, "Creating and Using a Database on a Worksheet"
Chapter 10, "Analyzing and Reporting Database Information"

To sort a range of cells

In Microsoft Excel, you can sort a selected <u>range</u> of cells independently from unselected cells in rows or columns. Before you sort, make sure you have selected all the cells you want to include. Any adjacent unselected cells will not be sorted.

1 Select the range you want to sort.

 If you are sorting a database, exclude the field names.

2 From the Data menu, choose Sort.

   Shortcuts: Sort Ascending tool (Utility toolbar)
                 Sort Descending tool (Utility toolbar)

3 Under Sort By, select the Rows option button to sort by rows or the Columns option button to sort by columns.

4 In the 1st Key box, enter the reference of your first sort key.

 You can do this by typing the reference or using the arrow keys or the mouse to select the first key cell. You can move the dialog box out of the way by dragging the title bar.

5 To sort by more than one key, enter references in the 2nd Key and 3rd Key boxes.

6 Select the Ascending or Descending option button for each key you specify.

7 Choose the OK button.

 Microsoft Excel resets the settings in the Sort dialog box after each sort.

To undo a sort

▪   From the Edit menu, choose Undo Sort immediately after you sort.

See Also

Help

▪   <u>Sort Ascending Tool</u>
▪   <u>Sort Descending Tool</u>
<u>Sort Command (Data Menu)</u>
<u>Sorting with more than three keys</u>
   <u>Toolbars Command (Options Menu)</u>
   <u>Utility Toolbar</u>

User's Guide (Book 1)

Chapter 6, "Editing a Worksheet"

Chapter 9, "Creating and Using a Database on a Worksheet"

To sort with more than three keys

Although the Sort command on the Data menu allows only three sort keys, you can sort by more than three keys by using more than one sort operation.   First you sort by the least significant sort keys, ending with the three most significant keys in the final sort.

1 Select the range you want to sort.

   If you are sorting a database, exclude the field names.

2 From the Data menu, choose Sort.

3 Under Sort By, select the Rows option button to sort by rows or the Columns option button to sort by columns.

4 In the 3rd Key box, enter the reference of your least significant sort key.

5 In the 2nd Key box, enter the reference of the second-least significant sort key.

6 In the 1st Key box, enter the reference of the third-least significant sort key.

7 Select the Ascending or Descending option button for each key you specify.

8 Choose the OK button.

9 Repeat steps 2 through 7 for the rest of the keys on which you want to sort.   Always enter keys of greater significance into higher-numbered Key boxes.

   Microsoft Excel resets the settings in the Sort dialog box after each sort operation.

To undo a sort

▪   From the Edit menu, choose Undo Sort immediately after you sort.

See Also

Help

Sorting a range of cells

User's Guide (Book 1)

Chapter 9, "Creating and Using a Database on a Worksheet"

To split a window into panes

- Drag the horizontal or vertical split box to the desired position.
  To display the split box, choose Workspace from the Options menu and select the Scroll Bars check box.   When you position the mouse pointer on a split box, the pointer changes to a two-headed arrow.

To split a window into four panes

1 Switch to the worksheet window you want to split.
2 From the Window menu, choose Split.

   The window is split above and to the left of the active cell.

   To adjust the split panes, drag each split bar in the direction you want.

To split a window into vertical or horizontal panes

1 Switch to the worksheet window you want to split.
2 For vertical panes, select a column.

   For horizontal panes, select a row.

3 From the Window menu, choose Split.
4 To adjust the split panes, drag the split bar or the split box to the desired position.

To remove splits from a window

1 Switch to the worksheet window you want to remove the split from.
2 Double-click any part of the split bar, or choose Remove Split from the Window menu.

See Also

Help

Split and Remove Split Commands (Window Menu)

Split Bar

User's Guide (Book 1)

Chapter 7, "Formatting a Worksheet"

To switch to a different pane within a window

- Select a cell in the pane you want to switch to.
  Using the keyboard, press F6 to select the pane you want to switch to.

To switch to or close a document window

To switch to another open document window

▪ From the Window menu, choose the name of the document.
Shortcut: CTRL+F6

To close a document window

1 Switch to the window you want to close.
2 From the File menu, choose Close.
Shortcut: CTRL+F4

To size document and application windows

To size a window with the mouse

- Drag the <u>window sizing border</u> until the window is the size you want.

To size a window with the keyboard

1 From the Control menu, choose Size.
The mouse pointer changes to a four-headed arrow.

2 Use the arrow keys to move the border until the window is the size you want.

3 Press ENTER.

To scroll to and select specified cells or a named range

1 From the Formula menu, choose Goto.

2 In the Goto box, select a name.

   --or--

   In the Reference box, type a name or reference.

3 Choose the OK button.

4 To return to the location from which you last issued the Goto command, choose the Goto command again.   The previous location is already selected in the Reference box.

   The last four Goto destinations are listed at the top of the Goto box, with the latest one first.

See Also

Help

Goto Command (Formula Menu)

User's Guide (Book 1)

Chapter 5, "Creating a Worksheet"

To select a graphic object

- Point to the graphic object and click.
  Microsoft Excel displays selection handles around the graphic object.

To select a graphic object with a macro assigned to it

1 If any object is already selected, select any cell to cancel the selection.
2 Hold down the CTRL key and click the graphic object.

--or--

Use the Selection tool on the Drawing toolbar to select the object by drawing a selection rectangle around it.

Microsoft Excel selects the object without running the macro.

See Also

Help

- Selection Tool (Drawing Toolbar)

Graphic Objects
Selecting all graphic objects
Selecting multiple graphic objects and removing graphic objects from a multiple selection
Displaying and hiding toolbars
Toolbars Command (Options Menu)

User's Guide (Book 1)

Chapter 15, "Working with Graphic Objects"

To solve equations using goal seeking

1 Select the cell containing the formula for which you want to find a specific solution.
2 From the Formula menu, choose Goal Seek.
3 In the To Value box, enter the target value you want the formula to arrive at.
4 In the By Changing Cell box, enter the reference of the cell whose value you want Microsoft Excel to change to achieve the desired result.

   The cell you enter must be one that the formula referred to in the Set Cell box depends on, either directly or indirectly, and it must contain a value, not a formula.
5 Choose the OK button.

   You can interrupt or stop calculation during goal seeking by choosing either the Pause button or the Cancel button.
6 If Microsoft Excel reaches the solution you want for your formula, choose the OK button to replace the value used in goal seeking with the new value.

   Choose the Cancel button to keep the old value.

See Also

Help

Goal Seek Command (Formula Menu)

Adjusting a data value by dragging a data marker

User's Guide (Book 2)

Chapter 2,   "Performing What-if Analysis on a Worksheet Model"

To select multiple graphic objects and remove graphic objects from a multiple selection

1 Click the first graphic object.
2 Hold down SHIFT and click another object.
3 Repeat step 2 until you have selected all the objects you want.

   To remove an object from the selection, hold down SHIFT and click the object you want to remove.

To select multiple graphic objects with the Selection tool (Drawing toolbar)

1 Click the Selection tool on the Drawing toolbar.
2 Point to one corner of the area you want to select and drag until the selection rectangle fully encloses all the objects you want to select.

   When you release the mouse button, all objects that are entirely within the selection rectangle are selected.
3 To add more objects to the selection, hold down SHIFT and drag again.

To remove a group of graphic objects from a multiple selection

1 Click the Selection tool on the Drawing toolbar.
2 Hold down SHIFT and drag until the selection rectangle encloses the objects you want to remove from the selection.

See Also

Help

- Selection Tool

Graphic Objects
Selecting a graphic object
Selecting all graphic objects
Showing and hiding toolbars
Toolbars Command (Options Menu)

User's Guide (Book 1)

Chapter 15, "Working with Graphic Objects"

To select all graphic objects

1 From the Formula menu, choose Select Special.

2 Select the Objects option.

3 Choose the OK button.

All graphic objects on the worksheet are selected, including drawn objects, buttons, and text boxes.

See Also

Help

Graphic Objects

Select Special Command (Formula Menu)

Selecting a graphic object

Selecting multiple graphic objects and removing graphic objects from a multiple selection

User's Guide (Book 1)

Chapter 5, "Creating a Worksheet"

Chapter 8, "Organizing and Documenting a Worksheet"

Chapter 15, "Working with Graphic Objects"

To set a format for the entire worksheet

1 From the Format menu, choose Style.
2 In the Style Name box, select Normal.
3 Choose the Define button.
4 Under Change, choose the button for the attribute you want to change.   In the dialog box that appears, select the options you want.
5 Choose the OK button.
6 Repeat steps 4 and 5 for any attributes you want changed.
7 In the Style dialog box, choose the Add button.
8 Choose the Close button.

See Also

Help

Format Menu for Worksheets
Redefining the Normal style
Setting the default font for worksheets

To set the default font for worksheets

To set the default font for a worksheet

  1 From the Format menu, choose Style.
  2 In the Style Name box, select Normal.
  3 Choose the Define button.
  4 Under Change, choose the Font button.
     The Font dialog box is displayed.
  5 Select the font, font style, size, and effects you want.
     A sample of the font appears in the Sample box.
  6 Choose the OK button.
  7 In the Style dialog box, choose the Add button.
  8 Choose the Close button.

To set the default font for all new worksheets

  1 From the File menu, choose New.
      Shortcut: New Worksheet tool (Standard   toolbar)
  2 Select Worksheet and choose the OK button.
  3 Set the default font for the worksheet using the procedure above.
  4 From the File menu, choose Save As.
  5 In the Save File As Type box, select Template.
  6 In the File Name box, type **sheet.xlt**
  7 In the Directories box, select the XLSTART directory.
  8 Choose the OK button.
     The next time you start Microsoft Excel, the new font will be the default for all new worksheets.

See Also

Help

  ▪   New Worksheet Tool
   About Templates
   New Command (File Menu)
   Save As Command (File Menu)
   Style Command (Format Menu for Worksheets)

To set or remove a manual page break

1 Select the cell below and to the right of the gridline where you want the page to end.
2 From the Options menu, choose Set Page Break.

To set a horizontal page break only

1 Select the row below the gridline where you want the page to end.
2 From the Options menu, choose Set Page Break.

To set a vertical page break only

1 Select the column to the right of the gridline where you want the page to end.
2 From the Options menu, choose Set Page Break.

To remove a manual page break

1 Select any cell directly below or to the right of the manual page break.

   Set Page Break changes to Remove Page Break on the Options menu.
2 From the Options menu, choose Remove Page Break.

To remove all page breaks

1 Select the entire worksheet by clicking the Select All button (the rectangle above the row headings and to the left of the column headings).

   Shortcut: CTRL+SHIFT+SPACEBAR
2 From the Options menu, choose Remove Page Break.

To save a chart

1 Switch to the chart document or the worksheet containing the embedded chart.
2 From the File menu, choose Save As.
    Shortcut: Save File tool
3 In the File Name box, type a name for the chart or worksheet.
4 Choose the OK button.

See Also

Help

▪   Save File Tool
Save As Command (File Menu)
Saving an embedded Microsoft Excel document as a separate document

User's Guide (Book 1)

Chapter 4, "Managing Documents"

To select items in a chart

To select chart items with the mouse

To select	Do this
An item	Click the item.
A single data point	Hold down the CTRL key and click the data marker.
The plot area	Click part of the plot area not occupied by any other item, including gridlines. Or choose Select Plot Area from the Chart menu.
The entire chart	Click outside of the plot area where there is no other item. Or choose Select Chart from the Chart menu.

To select chart items with the keyboard

1 Use the UP ARROW and DOWN ARROW keys to select the class of items you want to select (chart, plot area, 3-D floor, 3-D walls, 3-D corners, legend, axes, text, arrows, gridlines, data series, drop lines, hi-lo lines, up/down bars, series lines, radar axis labels).

2 Use the RIGHT ARROW and LEFT ARROW keys to select the particular item within that class.

To change an item, you first select it and then choose an appropriate command. When an item is selected, it is surrounded with white or black selection squares. Black squares mean that you can drag to move and resize the item; white squares mean that you cannot change the size or position of the item directly because it is dependent on some other aspect of the chart.

If chart text is selected, it appears in the formula bar so you can edit it.   If series markers are selected, the series formula that Microsoft Excel uses to plot the data is displayed in the formula bar.   You can edit this formula to control how data is plotted.   For information about editing a series formula, see Adding or editing series.

When a chart is the active document, the reference area at the far left of the formula bar tells you what is selected.   If the legend is selected, for example, the area displays the word "Legend."   If this area displays the code "S1P3," it means the third point of the first series is selected.   For more information about what codes are used for the different parts of a chart, see the SELECT function in the Microsoft Excel Function Reference.

Note   If you are working with a chart that was embedded in a worksheet or macro sheet with one of the chart tools, you must open the chart before you can select an item within the chart.   To open an embedded chart, double-click it.

See Also

Help

Select Chart Command (Chart Menu)
Select Plot Area Command (Chart Menu)

User's Guide (Book 1)

Chapter 13, "Editing a Chart"

To set the preferred chart type

Microsoft Excel uses the preferred chart type when you create a new chart with the New command on the File menu, when you change the format of an existing chart using the Preferred command on the Gallery menu, or when you use the Preferred Chart tool.

1 Create a chart that is formatted with the chart type and formats you want used for all new charts.

2 From the Gallery menu, choose Set Preferred.

The preferred chart type and format you set remains in effect for the current work session only.

See Also

Help

▪ Preferred Chart Tool (Chart Toolbar)
New Command (File Menu)
Preferred Command (Gallery Menu)
Set Preferred Command (Gallery Menu)

User's Guide (Book 1)

Chapter 12, "Creating a Chart"

To set print titles for rows and columns

1 From the Options menu, choose Set Print Titles.

2 To set titles for columns, select the Titles For Columns box, and then select cells in the rows you want to use for column titles.

   If you leave the Titles For Columns box blank, Microsoft Excel will not set print titles for columns.

3 To set titles for rows, select the Titles For Rows box, and then select cells in the columns you want to use for row titles.

   If you leave the Titles For Rows box blank, Microsoft Excel will not set print titles for rows.

4 Choose the OK button.

To remove print titles

1 Select the entire worksheet.

2 From the Options menu, choose Remove Print Titles.

   Remove Print Titles is available on the Options menu only when you have selected the entire worksheet.

See Also

Help

Canceling print titles

Set Print Titles and Remove Print Titles Commands (Options Menu)

User's Guide (Book 1)

Chapter 16, "Printing"

To save a document for the first time

1 From the File menu, choose Save As.

   Shortcuts: Save File tool
                 F12

2 In the File Name box, type a name for the document or accept the proposed name.

   The Microsoft Excel Normal <u>file format</u> is automatically displayed in the Save File As Type box.   If you want to save the file in a format other than the Normal file format, select that format in the Save File As Type box.

3 Choose the OK button.

To save changes made to an existing document

▪   From the File menu, choose Save.

   If you selected the Recalculate Before Save check box in the Calculation Options dialog box, Microsoft Excel recalculates your worksheet if necessary.

   Press ESC to interrupt recalculation.

   When you press ESC, you will be asked if you want to continue recalculating and saving.

   Choose Yes to continue, No to save without recalculating, or Cancel to cancel the command and return to the document.

See Also

Help

▪   <u>Save File Tool</u>
<u>Calculation Command (Options Menu)</u>
<u>Save As Command (File Menu)</u>
<u>Setting calculation options for open documents</u>

User's Guide (Book 1)

Chapter 4, "Managing Document Files"

To save a file for use by another application

1 From the File menu, choose Save As.
2 In the File Name box, type a name for the document or accept the proposed name.
3 In the Save File As Type box, select the <u>file format</u> of the other application.
4 Choose the OK button to save the file.

See Also

Help

<u>Save As Command (File Menu)</u>

User's Guide (Book 1)

Chapter 4, "Managing Document Files"

To save a document as a template

1 From the File menu, choose Save As.
2 Type the name you want for the template.

   If you don't type an extension, Microsoft Excel adds the extension .XLT after you save the template.
3 In the Save File As Type box, select Template.
4 Choose the OK button.

See Also

Help

Creating a new template
Editing a template
Using a template

User's Guide (Book 1)

Chapter 4, "Managing Document Files"

To select a printer

1 From the File menu, choose Page Setup.
2 Choose the Printer Setup button.
3 In the Printer box, select the printer you want.

   If the printer you want is not listed, choose the Setup button and select it from the list in the Printer box.   Then choose the OK button.
4 Choose the OK button to save your selection and close the Page Setup dialog box.

See Also

Help

Page Setup Command (File Menu)
Setting up a printer

To set up a printer

This procedure controls default printer settings, which apply to all documents and applications until you change them.

1 From the File menu, choose Page Setup.
2 Choose the Printer Setup button.
3 In the Printer box, select the printer you want.
4 If you want to change printer settings or add a printer, choose the Setup button.
5 Select the printer you want to add or select the options you want to change for the current printer.
6 Choose the OK button until all the dialog boxes are closed.

For more information, see your Microsoft Windows documentation.

See Also

Help

Page Setup Command (File Menu)

User's Guide (Book 1)

Chapter 16, "Printing"

To replace a source worksheet with another worksheet

1 Switch to the <u>dependent worksheet</u>.
2 From the File menu, choose Links.
3 In the Link Type box, select the type of link you want to change.

   In the Links box, Microsoft Excel displays a list of all the source documents for the dependent worksheet with the link type you specified.
4 In the Links box, select the name of the source document you want to replace.

   To select several documents at once, hold down CTRL and click each document you want to replace.

   When using the keyboard, hold down CTRL as you press the UP or DOWN ARROW key to move to each document.   To add a document to the selection, press the SPACEBAR.
5 Choose the Change button.

   Microsoft Excel displays a dialog box for each document you selected.
6 In the File Name box, type the new source document name or select the new source document name from the list.

   The File Name box displays the documents in the current directory.   If the new source document is not in the current directory, you can use the Directories box to change to the appropriate directory.
7 Choose the OK button.
8 Repeat steps 6 and 7 for each document you selected.

See Also

Help

<u>Change Links Dialog Box</u>
<u>Linking and Embedding</u>
<u>Links Command (File Menu)</u>

User's Guide (Book 1)

Chapter 11, "Working with Multiple Microsoft Excel Documents"

User's Guide (Book 2)

Chapter 3, "Exchanging Data with Other Applications"

To save an embedded Microsoft Excel object as a separate document

1 Double-click the embedded object.

   Microsoft Excel starts and displays the data or chart in a worksheet or chart window.

2 From the File menu, choose Save As.

3 In the File Name box, type a name for the new document, or accept the proposed name.

4 Choose the OK button.

See Also

Help

Save As Command (File Menu)

Linking and Embedding

To save a workbook

 1 From the File menu, choose Save Workbook.

 2 In the File Name box, type a name for the workbook or accept the proposed name.

   The Microsoft Excel Normal <u>file format</u> is automatically displayed in the Save File As Type box.   If you want to save the file in a format other than the Normal file format, select that format in the Save File As Type box.

 3 Choose the OK button.

See Also

Help

<u>Save Workbook Command (File Menu)</u>

To start or end a group editing session

To start a group editing session

1 Open the worksheets and macro sheets you want to work with as a group.
2 Switch to the sheet in which you want to enter text and make changes.
3 From the Options menu, choose Group Edit.
   Microsoft Excel displays a list of all open, unhidden worksheets and macro sheets.
4 To add or delete a sheet, hold down CTRL and click the sheet name.
   --or--
   Hold down CTRL while using the arrow keys to select the sheet name, and then press CTRL+SPACEBAR.
   Only the sheets that remain selected will be included in the group.
5 Repeat step 4 until all the sheets you want to include in the group are selected.
6 Choose the OK button.

To end a group editing session and return to single sheet editing

▪   Switch to another sheet by clicking it or by choosing its name from the Window menu.

See Also

Help
Editing worksheets as a group

User's Guide (Book 1)
Chapter 11, "Working with Multiple Microsoft Excel Documents"

To save new unnamed linked documents

1 Switch to the <u>source document</u>.
2 From the File menu, choose Save As.
3 In the File Name box, type a name for the document or accept the proposed name.
4 Choose the OK button.
5 Repeat steps 1 through 4 for each additional source document.
6 Switch to the dependent document.
7 Repeat steps 2 through 4 for each dependent document.

To save changes in existing linked documents

1 Switch to the source document.
2 From the File menu, choose Save.
3 Repeat steps 1 and 2 for each additional source document.
4 Switch to the dependent document.
5 From the File menu, choose Save.
6 Repeat steps 4 and 5 for each dependent document.

If you save linked worksheets in different directories, make sure that you use the Save As command on the File menu to save all source documents before you save the dependent documents, so that the link references in the dependent documents are correct.

See Also

Help

<u>Save As Command (File Menu)</u>

To select a cell, row, column, or worksheet

To select a single cell

▪   Click the cell you want, or press the arrow keys to move to the cell you want.

To select an entire row or column

▪   Click the row or column heading.

--Or--

1 Select a cell in the row or column.

2 To select an entire row, press SHIFT+SPACEBAR.

   To select an entire column, press CTRL+SPACEBAR.

To select the entire worksheet

▪   Click the Select All button (the square on the worksheet directly above the row headings and to the left of the column headings), or press CTRL+SHIFT+SPACEBAR.

See Also

Help

Selecting a range of cells

Selecting nonadjacent cells

To select a range of cells

- Drag from the first cell of the range to the last.

--Or--

1 Select the first cell of the range.
2 Hold down SHIFT or press F8 to turn on Extend mode.
3 Press the arrow keys to extend the selection in the direction you want.
4 Release SHIFT or press F8 again to turn off Extend mode.

To select a named range

1 From the Formula menu, choose Goto.
   Shortcut: F5
2 In the Goto box, select the name you want or, in the Reference box, type a range name.
3 Choose the OK button.

To reduce a selection to the active cell

- Press SHIFT+BACKSPACE.

To select an array range

1 Select any cell in the array range.
2 From the Formula menu, choose Select Special.
3 Select the Current Array option button.
4 Choose the OK button.
   Shortcut: CTRL+SLASH

To select a rectangular block of data

1 Select any cell in the rectangular block of data you want to select.
2 Press CTRL+SHIFT+ASTERISK (*).

To move to the edge of a rectangular block of data

- Press CTRL+ARROW or END+ARROW.

See Also

Help
Copying visible cells
Selecting a cell, row, column, or worksheet
Selecting nonadjacent cells

To select nonadjacent cells

1 Select the first cell or range.
2 Hold down CTRL and select the next cell or range.
3 Repeat step 2 to continue adding selections.
--Or--
1 Select the first cell or range.
2 Press SHIFT+F8 to turn on Add mode.
3 Move to the first cell of the next selection.
4 Press F8 to turn on Extend mode and select the second cell or range.
5 Repeat steps 2 through 4 to continue adding selections.
6 Press F8 to turn off Extend mode.

See Also

Help

Selecting a range of cells
Selecting a cell, row, column, or worksheet

To delete a custom toolbar

1 From the Options menu or the toolbar <u>shortcut menu</u>, choose Toolbars.

2 In the Show Toolbars box, select the custom toolbar you want to delete.

You cannot delete built-in toolbars.

3 Choose the Delete button.

If the Delete button changes to the Reset button, you have selected a built-in toolbar, which you cannot delete.

4 Choose the Close button to close the dialog box.

See Also

Help

<u>Toolbars Command (Options Menu)</u>

User's Guide (Book 2)

Chapter 4, "Customizing Microsoft Excel"

To group and ungroup tools

You can add spaces between tools to organize them into groups and make them easier to find.

To group tools

   1 From the Options menu or the toolbar <u>shortcut menu</u>, choose Toolbars.

      You can also choose Customize from the toolbar shortcut menu.

      If the dialog box covers up the toolbar, you can move it out of the way by dragging the title bar of the dialog box.

   2 On the toolbar, drag the tool that you want to group with another tool toward that tool, but not past it.

   3 Release the mouse button and the tool will move with its border adjacent to the next tool.

      Microsoft Excel removes the space between the two tools.

To ungroup tools

   1 From the Options menu or the toolbar shortcut menu, choose Toolbars.

      You can also choose Customize from the toolbar shortcut menu.

      If the dialog box covers up the toolbar, you can move it out of the way by dragging the title bar of the dialog box.

   2 Drag the tool before which you want to insert the space to the right, or down on a vertical toolbar, but not past the next tool.

      Microsoft Excel inserts a space preceding, on the left or above, the tool you dragged.

To insert a space before a tool that is followed by a space

-    Drag the tool just past its original position, but not past the middle of the next tool.

See Also

Help

<u>Toolbars Command (Options Menu)</u>

User's Guide (Book 2)

Chapter 4, "Customizing Microsoft Excel"

To move and copy tools

To move a tool

1 From the Options menu or the toolbar <u>shortcut menu</u>, choose Toolbars.

   You can also choose Customize from the toolbar shortcut menu.

   If the dialog box covers up the toolbar, you can move it out of the way by dragging the title bar of the dialog box.

2 Drag the tool to a new location on the same toolbar or another displayed toolbar.

   Microsoft Excel closes up the space where the tool was and shifts tools to accommodate the new location of the tool.

To copy a tool

1 From the Options menu or the toolbar <u>shortcut menu</u>, choose Toolbars.

   You can also choose Customize from the toolbar shortcut menu.

   If the dialog box covers up the toolbar, you can move it out of the way by dragging the title bar of the dialog box.

2 Hold down CTRL and drag the tool to the new location on the same toolbar or another displayed toolbar.

   Microsoft Excel shifts tools to accommodate the copy of the tool.

See Also

Help

<u>Toolbars Command (Options Menu)</u>

User's Guide (Book 2)

Chapter 4, "Customizing Microsoft Excel"

To change the shape of a floating toolbar

You change the shape of a <u>floating toolbar</u> in the same way that you change the size of a document window.

- Drag any of the toolbar window borders.
  If you change the toolbar height and width, Microsoft Excel automatically wraps the tools to fit in the new toolbar shape.

  If you move the toolbar back to the <u>toolbar dock</u>, Microsoft Excel aligns the tools to fit in the horizontal or vertical toolbar dock.

  Toolbars with drop-down lists, such as the style box, cannot be docked in a vertical position.

See Also

User's Guide (Book 2)

Chapter 4, "Customizing Microsoft Excel"

To create a new toolbar

To create a new toolbar using menu commands

1 From the Options menu or the <u>toolbar shortcut menu</u>, choose Toolbars.

2 In the Toolbar Name box, type the name of the new toolbar.

   Once you have created a toolbar, you cannot rename it.

3 Choose the Add button or the Customize button.

   Microsoft Excel displays a new blank toolbar in its own toolbar window and displays the Customize dialog box so that you can add tools to the toolbar.

4 In the Categories box, select the category of tools from which you want to add tools to the new toolbar.

   Microsoft Excel displays the tools for that category in the Tools box.

   To display a description of the tool, click the tool in the Tools box.

5 Drag the tool from the Tools box to the position on the new toolbar where you want to add the tool.

   You can also drag tools from a displayed toolbar to the new toolbar.   This moves the tool from the original toolbar to the new toolbar.

   Hold down CTRL while you drag the tool to place a copy of the tool on the new toolbar without affecting the original toolbar.

6 Repeat steps 4 and 5 until you have added all the tools you want.

   Microsoft Excel resizes the toolbar to accommodate the added tools.

   If you change your mind, you can remove the tool from the toolbar by dragging it off the toolbar and placing it anywhere there is no toolbar.

7 Choose the Close button.

To create a new toolbar by dragging

1 From the Options menu or the <u>toolbar shortcut menu</u>, choose Toolbars.

   You can also choose Customize from the toolbar shortcut menu.

2 Choose the Customize button.

3 In the Categories box, select the category of tools from which you want to add tools to the new toolbar.

   Microsoft Excel displays the tools for that category in the Tools box.

   To display a description of the tool, click the tool in the Tools box.

4 Drag a tool from the Tools box out of the dialog box and place it where there is no toolbar, or hold down CTRL and drag a tool from a displayed toolbar.

   Microsoft Excel creates a toolbar for the tool and names it Toolbar 1.   If Toolbar 1 already exists, Microsoft Excel names it Toolbar 2, and so on.   You will not be able to rename this toolbar.

See Also

Help
<u>Moving and copying tools</u>
<u>Toolbars Command (Options Menu)</u>

User's Guide (Book 2)
Chapter 4, "Customizing Microsoft Excel"

To display and hide toolbars

To display a toolbar with the Toolbars command

   1 From the Options menu, choose Toolbars.

      Shortcut: CTRL+7 (Standard toolbar only)

   2 In the Show Toolbars box, select the toolbar you want to display.

   3 Choose the Show button.

      The Show button changes to the Hide button if the selected toolbar is already displayed.

To hide a toolbar

   1 From the Options menu, choose Toolbars.

      Shortcut: CTRL+7 (Standard toolbar only)

   2 In the Show Toolbars box, select the toolbar you want to hide.

   3 Choose the Hide button.

      The Hide button changes to the Show button if the selected toolbar is not already displayed.

      If the toolbar is displayed in a separate toolbar window with a window border, you can hide the toolbar by clicking the Control-menu box.

To display or hide a toolbar from the toolbar shortcut menu

▪   From the toolbar <u>shortcut menu</u>, choose the name of the toolbar you want to display or hide.

      Microsoft Excel places a check mark next to the name of each displayed toolbar.

      If you create additional toolbars and not all of the toolbar names can fit on the toolbar shortcut menu, choose the More Toolbars command on the toolbar shortcut menu to see the names of additional toolbars that you can display.

See Also

  Help

  <u>Control-Menu Box</u>

  <u>Toolbars Command (Options Menu)</u>

  User's Guide (Book 2)

  Chapter 4, "Customizing Microsoft Excel"

To add or delete a tool from a toolbar

To add a tool to a toolbar

1 From the Options menu or toolbar <u>shortcut menu</u>, choose Toolbars.

   You can also choose Customize from the toolbar shortcut menu.

2 Choose the Customize button.

3   In the Categories box, select the category of tools from which you want to add a tool.

   Microsoft Excel displays the tools for that category in the Tools box.

   To display a description of a tool, click the tool in the Tools box.

4 Drag the tool from the Tools box to the position on a displayed toolbar where you want to add the tool.

   Microsoft Excel resizes the toolbar to accommodate the added tool.

To delete a tool from a toolbar by dragging it

1 From the Options menu or the toolbar shortcut menu, choose Toolbars.

   You can also choose Customize from the toolbar shortcut menu.

   Built-in tools are not deleted from Microsoft Excel when you remove them from the toolbars.

   A tool that you customized is permanently deleted once you delete it from the toolbar.

   If you want to delete a custom tool from a toolbar but save it for later use, create a toolbar for storing unused tools, and then move the tool that you want to delete to this storage toolbar.

2 To delete a tool, drag the tool off the toolbar and place it anywhere where there is no toolbar, including on the dialog box.

To delete a tool from the toolbar using a menu command

1 From the Options menu or the toolbar shortcut menu, choose Toolbars.

   You can also choose Customize from the toolbar shortcut menu.

2 Select the tool that you want to delete.

3 From the toolbar shortcut menu, choose Delete Tool.

See Also

Help

<u>Delete Tool Command</u>

<u>Toolbars Command (Options Menu)</u>

User's Guide (Book 2)

Chapter 4, "Customizing Microsoft Excel"

To customize the appearance of a tool

To change the appearance of a tool

You can copy a picture from a graphics application and paste it onto a tool.   You should copy a picture that is the same size as the built-in tool images (16 by 15 pixels or bits) so that the picture will be clear when it appears in the tool. The best way to make sure that your tool picture is the correct size is to copy the image of any tool provided with Microsoft Excel into your graphics application and then draw the picture inside the boundaries of the tool.

1 Copy the picture that you want on the tool to the <u>Clipboard</u>.

   If the application you are copying from lets you select the format stored on the Clipboard, you can select either bitmap or picture format.

2 Switch to Microsoft Excel.

3 From the Options menu or the toolbar <u>shortcut menu</u>, choose Toolbars.

   You can also choose Customize from the toolbar shortcut menu.

4 Click the tool that you want to change.

5 From the Edit menu or the tool shortcut menu, choose Paste Tool Face.

   If the image is larger than the tool (16 x 15 pixels or bits), Microsoft Excel scales it to fit the tool.

To copy a tool face to another tool

Use this procedure if you want to use the image from a built-in tool or a custom tool as the picture on a new tool.

1 From the Options menu or toolbar shortcut menu, choose Toolbars.

   You can also choose Customize from the toolbar shortcut menu.

2 Select the tool whose image you want to copy to another tool by clicking the tool on the toolbar or in the Customize dialog box.

3 From the Edit menu, choose Copy Tool Face.

   If you selected a tool on a displayed toolbar, you can also choose Copy Tool Face from the tool shortcut menu.

4 On the toolbar, click the tool on which you want to paste the copied image.

5 From the Edit menu or the tool shortcut menu, choose Paste Tool Face.

To restore the original appearance of a tool

1 From the Options menu or the toolbar shortcut menu, choose Toolbars.

   You can also choose Customize from the toolbar shortcut menu.

2 Click the tool whose appearance you want to restore.

3 From the tool shortcut menu, choose Reset Tool Face.

See Also

Help

<u>Copy Tool Face Command (Edit Menu)</u>
<u>Paste Tool Face Command (Edit Menu)</u>
<u>Reset Tool Face Command</u>
<u>Toolbars Command (Options Menu)</u>

User's Guide (Book 2)

Chapter 4, "Customizing Microsoft Excel"

To assign or record a macro to a tool

To assign an existing macro to a custom tool

1 From the Options menu or the toolbar <u>shortcut menu</u>, choose Toolbars.

   You can also choose Customize from the toolbar shortcut menu.

2 Choose the Customize button.

3 In the Categories box, select Custom.

   Microsoft Excel provides custom tools with a variety of tool faces as well as a blank tool.

4 Drag the tool you want from the Tools box to the position on the toolbar where you want to add the tool.

   Microsoft Excel displays the Assign To Tool dialog box.

5 In the Assign Macro box, select the name of the command macro you want to assign to the tool, or type a macro name or cell reference in the Reference box.

   Only command macros on the <u>global macro sheet</u> or other open <u>macro sheets</u> are listed in the Assign Macro box.

   If the <u>command macro</u> you want to assign is not listed, type the full reference to the macro in the Reference box.

6 Choose the OK button.

7 Choose the Close button.

To record a new macro to a custom tool

1 From the Options menu or the toolbar shortcut menu, choose Toolbars.

   You can also choose Customize from the toolbar shortcut menu.

2 Choose the Customize button.

3 In the Categories box, select Custom.

   Microsoft Excel provides custom tools with a variety of tool faces as well as a blank tool.

4 Drag the tool you want from the Tools box to the position on the toolbar where you want to add the tool.

   Microsoft Excel displays the Assign To Tool dialog box.

5 Choose the Record button.

   Microsoft Excel displays the Record Macro dialog box.

6 Type the name for the macro and a shortcut key.

7 Choose the OK button.

   Microsoft Excel enters the macro name in the global macro sheet or in the new macro sheet, and then starts recording.

   The Stop Recording Macro tool appears.

8 Carry out the actions you want recorded in the command macro.

9 When you are finished, click the Stop Recording Macro tool or choose Stop Recorder from the Macro menu.

See Also

Help

- <u>Stop Recording Macro Tool</u>
  <u>Assign To Tool Command (Macro Menu)</u>
  <u>Creating a custom tool</u>
  <u>Customizing the appearance of a tool</u>

User's Guide (Book 2)
Chapter 4, "Customizing Microsoft Excel"

To change the action that a tool performs

You can assign a macro to a built-in tool to change what the tool does, or you can change the macro assigned to a custom tool.

1 From the Options menu or the toolbar <u>shortcut menu</u>, choose Toolbars.

   You can also choose Customize from the toolbar shortcut menu.

2 Choose the Customize button.

3 On the toolbar, click the tool that you want to change.

4 From the Macro menu, choose Assign To Tool.

   Microsoft Excel displays the Assign To Tool dialog box.

   Shortcut: From the tool shortcut menu, choose Assign Macro To Tool.

5 In the Assign Macro box, select the name of the command macro you want to assign to the tool, or type a macro name or cell reference in the Reference box.

   Only command macros on the <u>global macro sheet</u> or other open <u>macro sheets</u> are listed in the Assign Macro box.

   If the <u>command macro</u> you want to assign is not listed, type the full reference to the macro in the Reference box.

   You can also record a new macro by choosing the Record button.

6 Choose the OK button.

   If you are recording a macro and assigning it to the tool, stop here.

7 If you are assigning a previously recorded macro, choose the Close Button.

See Also

Help

<u>Assign To Tool Command (Macro Menu)</u>

<u>Creating a custom tool</u>

<u>Toolbars Command (Options Menu)</u>

User's Guide (Book 2)

Chapter 4, "Customizing Microsoft Excel"

To create a custom tool

You can create custom tools by:

[Assigning or recording a macro to a tool](#)
[Changing the action that a tool performs](#)
[Customizing the appearance of a tool](#)

See Also

User's Guide (Book 2)
Chapter 4, "Customizing Microsoft Excel"

To move a toolbar

To move a toolbar

  1 Position the mouse pointer in a blank area in the toolbar, or on the toolbar title bar if it is a <u>floating toolbar</u>.

  2 Drag the toolbar to a new location in the <u>toolbar dock</u>, or anywhere else in the workspace.

     If you place the toolbar in the toolbar dock, Microsoft Excel automatically shifts the other toolbars to accommodate the moved toolbar.

     If the   moved toolbar would shift an entire toolbar off the screen, Microsoft Excel wraps the shifted toolbar to the next row of a horizontal toolbar dock or to the next column of a vertical toolbar dock.

To move a toolbar to a new row or column in a toolbar dock

Use this procedure if you have two or more toolbars displayed in a toolbar dock and you want to move one of the toolbars into its own row or column.

  1 Position the mouse pointer in a blank area of the toolbar.

  2 Drag the toolbar toward the center of the screen but not completely beyond the toolbar dock.

     As you drag the toolbar, Microsoft Excel displays a dotted border the same size as the toolbar to show the new position of the toolbar.

     The toolbar border changes to a thick border if you drag the toolbar completely beyond the toolbar dock and release the mouse button.   This indicates a floating toolbar.

To quickly move toolbars on and off the toolbar dock

▪   Position the mouse pointer in a blank area of the toolbar or in the title bar of a floating toolbar, and double-click.

     If the toolbar is in a toolbar dock, Microsoft Excel moves the toolbar to its previous floating position outside of a toolbar dock.

     If the toolbar is a floating toolbar, Microsoft Excel moves the toolbar to the last toolbar dock on which it was placed.

See Also

  User's Guide (Book 2)

Chapter 4, "Customizing Microsoft Excel"

To reset a built-in toolbar

If you have customized a built-in toolbar, you can restore it to its original configuration.

1 From the Options menu or the toolbar shortcut menu, choose Toolbars.
2 In the Show Toolbars box, select the toolbar you want to restore.
3 Choose the Reset button.

   If the Reset button has changed to a Delete button, you have selected a custom toolbar and not a built-in toolbar.   You cannot reset a custom toolbar.
4 Choose the Close button.

See Also

Help

Toolbars Command (Options Menu)

User's Guide (Book 2)

Chapter 4, "Customizing Microsoft Excel"

To transpose ranges from columns to rows or from rows to columns

1 Select the cells you want to transpose.
2 From the Edit menu or the <u>shortcut menu</u>, choose Copy.

Shortcuts: Copy tool (Utility toolbar)
                        CTRL+C

3 Select the upper-left cell of the paste area.
4 From the Edit menu, choose Paste Special.
5 Select   the Transpose check box.
6 Choose the OK button.
7 Cancel the moving border by pressing ESC or choosing another command.

See Also

Help

<u>Copy Command (Edit Menu)</u>
<u>Displaying and hiding a toolbar</u>
<u>Paste Special Command (Edit Menu)</u>
<u>Toolbars Command (Options Menu)</u>

To zoom in or out on your worksheet

1 From the Window menu, choose Zoom.

   Shortcuts: Zoom In tool (Utility toolbar)
                 Zoom Out tool (Utility toolbar)

2 Under Magnification, select an option or type a size in the Custom box.
   For a description of the options, choose the Help button.

3 Choose the OK button.

To zoom an area of your worksheet to fit the current window size

1 Select the rows, columns, or range you want to fit in the window.
2 From the Window menu, choose Zoom
3 Under Magnification, select the Fit Selection option button.
4 Choose the OK button.

See Also

Help

Zoom Command (Window Menu)

Toolbars Command (Options Menu)

Utility Toolbar

- Zoom In Tool
- Zoom Out Tool

User's Guide (Book 1)

Chapter 7, "Formatting a Worksheet"

To update linked information

1 Switch to the <u>dependent worksheet</u>.
2 From the File menu, choose Links.
3 In the Link Type box, select the type of link you want to update.

   Microsoft Excel displays a list of all the source worksheets for the dependent worksheet with the link type you specified.
4 In the Links box, select the name of the document you want to update.

   To select several documents at once, hold down SHIFT and click the name of each document you want to update.

   When using the keyboard, hold down CTRL as you press the UP or DOWN ARROW key to move to each document.   To add a document to the selection, press the SPACEBAR.
5 Choose the Update button to update values in the selected documents.

To update information in a Microsoft Excel document linked to another application

When you open a worksheet containing links to other applications, Microsoft Excel displays a message asking if you want to reestablish those links.

▪   Choose the OK button to reestablish the links and update the references.
▪   Choose the Cancel button to freeze the linked references and use the worksheet's existing values.

See Also

Help

<u>Linking and Embedding</u>
<u>Links Command (File Menu)</u>

To use a template

When you create a new chart from a chart template, the   data series that were used to create the chart on the template are not used for the new chart.   Instead, the selection on the active worksheet is used to supply the data series for the new chart.   Only the formatting characteristics of the template chart are used to create the new chart.

1 To open a template in the startup directory, choose New from the File menu.

   To open a template in any other directory, choose Open from the File menu.

2 Select the template on which you want to base a new document.

   In the Open dialog box you can also select a different drive and directory.   You can list only templates by selecting Microsoft Excel Templates (*.XLT) in the List Files Of Type box.   You can also type the complete path and filename in the File Name box.

3 Choose the OK button.

   Microsoft Excel opens a copy of the template for you to use, and gives it a temporary name.

See Also

Help

Creating a new template

Editing a template

Saving a document as a template

User's Guide (Book 1)

Chapter 4, "Managing Document Files"

To view a list of files in a directory

1 From the File menu, choose Open.

2 In the File Name box, type a file specification and choose the OK button, or select a file specification from the List Files Of Type box.

The file specification can include the filename, the drive, and the directory.   It can also include the wildcard characters ? (question mark) to match a single character, and * (asterisk) to match any number of characters.

The Files box displays the names of all files matching the file specification you typed.

3 When you have finished viewing the list, choose the Cancel button to close the dialog box.

To view all Microsoft Excel files in a directory

1 From the File menu, choose Open.

2 In the List Files Of Type box, select MS Excel Files (*.XL*).

3 Choose the OK button.

4 When you have finished viewing the list, choose the Cancel button.

To view all files in a directory

1 From the File menu, choose Open.

2 In the List Files Of Type box, select All Files (*.*).

3 Choose the OK button.

4 When you have finished viewing the list, choose the Cancel button.

See Also

Help

Open Command (File Menu)

To view a list of source documents for a dependent worksheet

1 Switch to the dependent worksheet.

2 From the File menu, choose Links.

3 In the Link Type box, select the type of link you want to view.

   Microsoft Excel displays a list of all the source documents for the dependent worksheet with the link type you specified.

4 When you have finished viewing the list, choose the Cancel button.

See Also

Help

Linking and Embedding

Links Command (File Menu)

To view text notes

1 Select any cell in the worksheet.

2 From the Formula menu, choose Note.

A list of all notes in the worksheet appears in the Notes In Sheet box.   To scroll through the list, use the scroll bar.

3 Select the note you want to view.

4 The text of the note is displayed in the Text Note box.

5 When you are finished viewing the notes, choose the Close button.

See Also

Help

Note Command (Formula Menu)

User's Guide (Book 1)

Chapter 8, "Organizing and Documenting a Worksheet"

To turn drag and drop on or off

1 From the Options menu, choose Workspace.

2 Select the Cell Drag and Drop check box.

3 Choose the OK button.

Turning off the drag and drop option also turns off the AutoFill option.

You can still use the Cut and Paste commands on the Edit menu with this check box selected.

See Also

Help

Cut Command (Edit Menu)

Paste Command (Edit Menu)

Using Drag and Drop

Workspace Command (Options Menu)

To turn AutoFill on or off

1 From the Options menu, choose Workspace.

2 Select the Cell Drag And Drop check box.

3 Choose the OK button.

Turning off the AutoFill option also turns off the drag and drop option.

You can still use the Cut and Paste commands on the Edit menu with this check box selected.

See Also

Help

Cut Command (Edit Menu)

Paste Command (Edit Menu)

Using AutoFill

Workspace Command (Options Menu)

To arrange workbook documents in separate windows

1 Switch to the Workbook Contents window.
2 Select the name of a workbook document you want to display.
3 From the Window menu, choose New Window.

The workbook document now appears in its own window.

4 To display the Workbook Contents window again, choose the workbook name from the bottom of the Window menu.

Do not use the paging buttons to display the Workbook Contents window, or your document window will disappear.

5 Repeat steps 1 through 4 for each workbook document you want to display.
6 From the Window menu, choose Arrange.
7 Select the type of screen arrangement you want: Tiled, Horizontal, or Vertical.

The Documents Of Active Workbook check box will be selected.

8 Choose the OK button.

To save your workbook with this window arrangement, choose Save Workbook from the File menu.

See Also

Help

Arrange Command (Window Menu)
Moving between workbook documents
Opening a new window of a document in a workbook

Buttons

Created on worksheets or macro sheets with the <u>Button tool</u>.   You can assign a macro to a button, format the text in a button, and move or size a button.

▪   Clicking the Button tool on the toolbar and dragging across the active worksheet or macro sheet creates a button on the sheet and displays the Assign To Object dialog box.

▪   You can type the text you want on a button, and then format it with the <u>Text</u> and <u>Font</u> commands on the Format menu.

▪   Double-clicking a word in a button selects it.

▪   Point to the border of the button and drag to move it to another location on the worksheet or macro sheet.

▪   To resize a button, select the button, click one of the <u>handles</u>, and drag until it is the size you want.

▪   Once a macro is assigned to a button, you can hold down the CTRL key and click the button to select it.

See Also

Help

<u>Assigning a macro to a graphic object</u>

<u>Creating a button on a worksheet or macro sheet</u>

User's Guide (Book 1)

Chapter 15, "Working with Graphic Objects"

Chart

A chart is a graphic presentation of <u>worksheet</u> data.   Microsoft Excel offers 14 types of charts, in 88 built-in formats.

- Chart types are: area, bar, column, line, pie, radar, xy (scatter), combination, 3-D area, 3-D bar, 3-D column, 3-D line, 3-D pie, and 3-D surface.
- To change the chart type, you use the commands on the <u>Gallery menu</u>.
- To customize a chart, you use the commands on the <u>Chart menu</u> and the <u>Format menu</u>.

Embedded Charts

Created on worksheets with any chart tools on the <u>Chart toolbar</u>, or with the <u>ChartWizard</u> on the <u>Standard toolbar</u>.   <u>Embedded</u> charts are objects created on a worksheet, based on selected cells from that worksheet or another worksheet.   An embedded chart is linked to its source data, but unlike a chart document, an embedded chart is saved as part of the worksheet in which it was created.   You can format, move, and size an embedded chart, or open the embedded chart in a chart window and then edit, format, and save it as a chart document.

▪   Double-clicking an embedded chart opens the chart in its own window.   You can then edit and format the chart just as you do any Microsoft Excel chart.   Double-click the chart again to display the <u>Patterns</u> dialog box, which allows you to format the chart.   Once you have opened the chart in a chart window, you can save the chart as a separate document.

▪   To move an embedded chart, drag the chart to another location on the worksheet.

▪   To resize an embedded chart, select the chart, point to one of the <u>handles</u>, and drag until it is the size you want.

See Also

Help

▪   <u>ChartWizard Tool</u>
▪   <u>Preferred Chart Tool</u>
<u>Chart Toolbar</u>

<u>Chart Tools Category</u>

<u>Creating a new chart</u>

<u>Formatting a chart on a worksheet</u>

<u>Standard Toolbar</u>

User's Guide (Book 1)

Chapter 12, "Creating a Chart"

Clipboard

The Clipboard is a temporary holding area for the information you cut or copy with the Cut, Copy, or Copy Picture command.   If you cut or copy worksheet cells, the Clipboard shows the size of the area you cut or copied.   The information remains on the Clipboard until you cut or copy other information or quit Microsoft Excel.   From the Clipboard, you can paste cut or copied data to another location on a worksheet, to a different Microsoft Excel document, or to a document in another application.

Control-Menu Box

With the mouse, you can click the Control-menu box to display the Control menu, which contains commands that control the size and position of the Microsoft Excel window.

Controls document window

Controls Microsoft Excel window

The Control-menu box is located at the left end of the title bar.

Drawn Objects

Graphic objects such as lines, arcs, ovals, and rectangles that you draw on a worksheet or macro sheet using the tools on the <u>Drawing toolbar</u>.   You can format, move, and size drawn objects.

▪   To display the Patterns dialog box so you can change formatting, double-click an object.   You can also select an object and choose Patterns from the Format menu.
▪   To move a drawn object to another location on the worksheet or macro sheet, drag the object.
▪   To resize a drawn object, select the object, point to one of the <u>handles</u>, and drag until it is the size you want.

See Also

Help

<u>Drawing lines and shapes with the tool bar</u>
<u>Grouping and ungrouping graphic objects</u>
<u>Moving and sizing a graphic object along with cells</u>

User's Guide (Book 1)

Chapter 15, "Working with Graphic Objects"

Formula Bar

The formula bar is used to enter or edit data in worksheet cells or in charts.   The formula bar also displays the reference of the active cell, or selected objects and the size of a selection.

▪   To enter data, select a cell, type the data, and click the enter box on the formula bar
☑ or press ENTER.   The data appears in the formula bar as you type.

▪   To edit data, click the formula bar with the mouse or press F2.   Then type your changes and click the enter box or press ENTER.

▪   To cancel your changes, click the cancel box on the formula bar
☒ or press ESC.

Grouped Objects

You can select two or more objects (buttons, embedded charts, drawn objects, pictures, and text boxes), group them together, and format, move, or size them as you would an individual object.

▪ To group several objects, use the <u>Selection tool</u> on the Drawing tool bar to enclose the objects you want to include in the group.   You can also select the objects you want to group and click the Group tool on the Drawing toolbar or choose the Group command from the Format menu.

▪ You can format a selected group of objects using the <u>Patterns</u> command on the Format menu.   The options you choose in the Patterns dialog box affect all the objects in the group, if applicable.   For example, if you select an arrow, a button, a circle, and a text box, and you choose Patterns from the Format menu and select the Shadow check box, only the button, circle, and text box are formatted with a shadow.

▪ You can resize a selected group of objects.   When the mouse pointer is over one of the selection <u>handles</u>, it changes to a cross hair.   Drag the selection handle to resize the objects.

▪ To move a group of objects to a different location on a worksheet, select the group and drag it to the new location.   You can also use the <u>Cut</u> and <u>Paste</u> commands on the Edit menu.

See Also

Help

<u>Creating a button on a worksheet or macro sheet</u>

<u>Drawing lines and shapes with the toolbar</u>

<u>Grouping and ungrouping graphic objects</u>

<u>Selecting a graphic object</u>

User's Guide (Book 1)

Chapter 15, "Working with Graphic Objects"

Info Window

The Info window displays information about the active cell when you choose the Workspace command from the Options menu and select the Info Window check box.

- When the Info window is active, Info window menus are displayed.
- The first time you open the Info window, it automatically displays the active cell's reference, formula, and note.
- Each item currently displayed in the Info window is indicated by a check mark next to its corresponding command name on the Info menu.   To display additional information in the Info window, choose a command without a check mark.   To stop displaying an item of information, choose a command with a check mark.
- You can save the Info window's display settings with the Save Workbook command on the File menu.
- To close the Info window, double-click the Control-menu box or click the worksheet.

Shortcut: CTRL+F2

Macro Sheet

A document much like a <u>worksheet</u> except that it contains sets of instructions (macros) for accomplishing specific tasks.

- You can use the same functions in a macro sheet that you use in a worksheet.
- When a macro sheet is open, its macros are listed in the <u>Run</u> dialog box.
- When a macro sheet is the active document, macro functions are listed alphabetically in the <u>Paste Function</u> dialog box.
- Because macro sheets normally display formulas instead of values, the default column width is wider than it is for worksheets.

See Also

User's Guide (Book 2)

Chapter 6, "Automating Tasks with Command Macros"

Outlining Symbols

The outlining symbols are displayed on a worksheet that contains an outline.   They include the expand button, the collapse button, the outline level buttons, and the outline level bars.

▣   The expand button indicates a summary row or column with hidden detail.   Click the expand button to display collapsed levels.

▪ The collapse button indicates a summary row or column with detail rows or columns displayed.   Click the collapse button to hide the rows or columns indicated by the column or row level bar.

▪   Row and column level buttons indicate the number of row and column levels in an outline.   Click these buttons to display specific levels of data in an outline.

▪ Outline level 1

2   Outline level 2

3   Outline level 3

4   Outline level 4

5   Outline level 5

6   Outline level 6

7   Outline level 7

8   Outline level 8

▪   Row and column level bars indicate that all the detail rows and columns are displayed.   Click the collapse button or click anywhere on the level bar to hide the detail rows or columns.

See Also

Help

Clearing an outline from a worksheet

Collapsing an outline level

Creating an outline from an existing worksheet

Displaying an outline level

Expanding an outline level

Single Step Dialog Box

You can display the Single Step dialog box when you want to run a macro one step at a time.   This technique is often used for debugging a macro.

▪   This dialog box shows which cell in the macro is about to be calculated and what formula is in that cell.

Step Into

Carries out the next instruction in the macro, including user-defined function calls.

Step Over

Carries out the next instruction in the macro.   Carries out, but does not step through, user-defined function calls.

Evaluate

Evaluates each part of the formula in the active cell.   If chosen repeatedly, this button will Step Into the macro, not Step Over.

Pause

Closes the dialog box and suspends the macro, allowing you to perform other tasks. To return to the Single Step dialog box, click the Resume Macro tool on the Macro Paused toolbar, which appears whenever you pause a macro, or choose Resume from the Macro menu.

Halt

Stops the macro.

Continue

Runs the rest of the macro without single-stepping.

Goto

Stops the macro and selects the cell currently being evaluated on the macro sheet.

See Also

Help

▪   Resume Macro Tool
▪   Run Macro Tool
▪   Step Macro Tool
  Macro Paused Toolbar
  Macro Toolbar
  Stepping through a macro
  Toolbars Command (Options Menu)

Maximize Button

- Click the Maximize button with the mouse to enlarge a window to its maximum size.
- A maximized document window fills as much of the Microsoft Excel window as possible and has no borders.
- You can maximize the Microsoft Excel window only if it does not fill the screen, or if it has been minimized to an icon.
- Clicking the Maximize button has the same effect as choosing the <u>Maximize</u> command from the Control menu.
- To restore a maximized window to its former size, click the <u>Restore button</u> or choose <u>Restore</u> from the Control menu.

Minimize Button

- Click the Minimize button with the mouse to shrink the Microsoft Excel window to an icon.
- As an icon, Microsoft Excel remains in memory but does not take up room on your desktop.
- When you minimize the Microsoft Excel window, any open documents are minimized with it.
- Clicking the Minimize button has the same effect as choosing the <u>Minimize</u> command from the Control menu.
- To restore the Microsoft Excel window and any documents that were open when you minimized it, you can double-click the icon, or click the icon and choose <u>Restore</u> from the Control menu.

Pictures

Charts or cells that are copied as pictures and pasted to a different part of the worksheet or another worksheet or macro sheet.   Pictures can also be graphics copied into Excel from a graphics program, or created with Excel's drawing tools.   Pictures can be formatted, moved, or sized just as other graphic objects are.

▪   You can create pictures of charts and cells with the <u>Copy Picture</u> command on the Edit menu.   These pictures are not <u>linked</u> to their source data.
▪   You can link pictures of cells to their source data using the <u>Camera tool</u> on the Utility toolbar, but you cannot link pictures of charts to their source data.
▪   To switch to the source document, double-click a linked picture.   Linked pictures are updated automatically when you update the formats, data, or gridlines in the source document.

See Also

Help

<u>Creating links</u>

<u>Selecting graphic objects</u>

User's Guide (Book 1)

Chapter 15, "Working with Graphic Objects"

Print Preview Window

In the print preview window, you can preview pages and adjust margins and column widths on the screen before printing.

- To scroll through the document, choose the Next or Previous button.
- To switch between actual-size view and full-page view of the document, choose the Zoom button.
- To print the document, choose the Print button.
- To display the <u>Page Setup</u> dialog box, choose the Setup button.
- To adjust margins and column widths, choose the Margins button.

There are three ways to display the Print Preview window:

- Click the Print Preview tool on the Standard toolbar.
- From the File menu, choose <u>Print Preview</u>.
- From the File menu, choose <u>Print</u>.   Select the Preview check box, and then choose the OK button.

See Also

Help

<u>Print Preview tool</u>

User's Guide (Book 1)

Chapter 16, "Printing"

Restore Button

▪   Click the Restore button with the mouse to return a window to its previous size and location.

▪   Clicking the Restore button has the same effect as choosing the <u>Restore </u>command from the Control menu.

▪   The Restore button does not affect changes made to a window with the <u>Move</u> or <u>Size</u> command on the Control menu.

See Also

Help
<u>Control Menu</u>

Scroll Bars

The shaded bars along the right and bottom sides of a window.

- With the scroll bars, you can move through a long document or Help topic.
- The position of the scroll box in the scroll bar indicates the part of the document or topic currently displayed in the window.   To scroll quickly to another part of the document or topic, drag the box.
- To scroll one row or column in a given direction, click the arrow at that end of the bar.
- To scroll one window in a given direction, click the bar on that side of the scroll box.
- To quickly scroll to the last row used in your worksheet, hold down SHIFT while you drag the scroll box to the bottom of the scroll bar.

Split Bar

The split bar divides a window into separate panes.

- Panes on either side of a vertical split scroll together vertically.   Panes above and below a horizontal split scroll together horizontally.
- You can split a window by using the <u>Split</u> command on the Window menu.
- To remove a split, double-click the split bar or choose Remove Split from the Window menu.

See Also

Help

<u>Splitting a window into panes</u>

Status Bar

Displays information about the current activity or mode.

- When a command is selected, the left side of the status bar briefly describes the command.
- The left side of the status bar also indicates operations in progress, such as copying cells or recording a macro.
- The right side of the status bar shows whether keys such as CAPS LOCK or NUM LOCK are turned on.
- You can hide the status bar with the <u>Workspace</u> command on the Options menu.

Text Boxes

Created on worksheets and macro sheets with the <u>Text Box tool</u> on the Utility toolbar.   You can move and size the text box, or format the text, border and background pattern.

- Text typed in a text box wraps automatically.
- To select a word in a text box, double-click the word.
- To select the entire text box when text inside a text box is selected, click the border of the text box.
- To display the Patterns dialog box, double-click the border of the text box.
- To move a text box on the worksheet or macro sheet, point to the text box border and drag it to the location you want.
- To resize a text box, select the text box, point to one of the <u>handles</u>, and drag until it is the size you want.

See Also

Help

<u>Adding a text box to a worksheet</u>

<u>Formatting text box borders and fill patterns</u>

<u>Moving and sizing a graphic object along with cells</u>

User's Guide (Book 1)

Chapter 15, "Working with Graphic Objects"

Title Bar

The bar across the top of a window that contains the window's name.

- You can move the active window by dragging the title bar with the mouse.
- You can also move a window by choosing the <u>Move</u> command from the Control menu of the document window.
- A dialog box can also be moved by dragging its title bar.

Window Sizing Border

The border around a window.   You can drag a border with the mouse to change the window's shape and size.

- Drag the top, bottom, or side border to size in one direction only.
- Drag a corner of the border to size in two directions at once.
- You can also size a window by using the <u>Size</u> command on the Control menu.

Worksheet

The main document for storing and manipulating data.

- To enter data, select a cell, type the data, and click the enter box or press ENTER.
- To edit data, use commands on the <u>Edit menu</u>.
- To format the worksheet, use commands on the <u>Format menu</u>.

See Also

Help

<u>Worksheets</u>

<u>Entering text or numbers into a cell</u>

<u>Editing cell contents</u>

User's Guide (Book 1)

Chapter 5, "Creating a Worksheet"

Chapter 6, "Editing a Worksheet"

Chapter 7, "Formatting a Worksheet"

Bold Tool

B   Applies bold formatting to selected text in <u>text boxes</u> and <u>buttons</u>, or to the text in a selected cell.

- This tool is available when a chart window is active.
- This tool is unavailable when a drawn object or picture is selected.

Shortcut: CTRL+B

See Also

Help

<u>Font Command (Format Menu for Charts)</u>
<u>Font Command (Format Menu for Worksheets)</u>
<u>Formatting the chart text font</u>
<u>Formatting Toolbar</u>
<u>Standard Toolbar</u>
<u>Text Formatting Tools Category</u>
<u>Toolbar</u>
<u>Tools</u>

User's Guide (Book 1)

Chapter 7, "Formatting a Worksheet"
Chapter 14, "Formatting a Chart"

Italic Tool

 Applies italic formatting to selected text in <u>text boxes</u> and <u>buttons</u>, or to the text in a selected cell.

- ▪ This tool is available when a chart window is active.
- ▪ This tool is unavailable when a drawn object or picture is selected.

Shortcut: CTRL+I

See Also

Help

<u>Font Command (Format Menu for Charts)</u>
<u>Font Command (Format Menu for Worksheets)</u>
<u>Formatting the chart text font</u>
<u>Formatting Toolbar</u>
<u>Standard Toolbar</u>
<u>Text Formatting Tools Category</u>
<u>Toolbars</u>
<u>Tools</u>

User's Guide (Book 1)

Chapter 7, "Formatting a Worksheet"
Chapter 14, "Formatting a Chart"

Underline Tool

[U]   Underlines selected text in <u>text boxes</u> and <u>buttons</u>, or the text in a selected cell.

- This tool is available when a chart window is active.
- This tool is unavailable when a drawn object or picture is selected.

Shortcut: CTRL+U

See Also

Help

<u>Font Command (Format Menu for Charts)</u>

<u>Font Command (Format Menu for Worksheets)</u>

<u>Formatting Toolbar</u>

<u>Text Formatting Tools Category</u>

<u>Toolbars</u>

<u>Tools</u>

User's Guide (Book 1)

Chapter 7, "Formatting a Worksheet"

Chapter 14, "Formatting a Chart"

Strikeout Tool

K   Draws a line through the selected text in <u>text boxes</u> and <u>buttons</u>, or the text in a selected cell.

▪   This tool is available when a chart window is active.
▪   This tool is unavailable when a drawn object or picture is selected.

Shortcut: CTRL+5

See Also

Help

<u>Font Command (Format Menu for Charts)</u>
<u>Font Command (Format Menu for Worksheets)</u>
<u>Formatting Toolbar</u>
<u>Text Formatting Tools Category</u>
<u>Toolbars</u>
<u>Tools</u>

User's Guide (Book 1)

Chapter 7, "Formatting a Worksheet"
Chapter 14, "Formatting a Chart"

Left Align Tool

- Aligns the contents of a selected <u>text box</u>, <u>button</u>, or cell to the left.
- This tool is available when a chart window is active.
- This tool is unavailable when a drawn object or picture is selected.
- If no alignment tool is selected, General alignment is applied.

See Also

Help

<u>Aligning text and numbers within cells</u>

<u>Formatting chart text alignment and orientation</u>

<u>Standard Toolbar</u>

<u>Text Formatting Tools Category</u>

<u>Toolbars</u>

<u>Tools</u>

User's Guide (Book 1)

Chapter 7, "Formatting a Worksheet"

Chapter 14, "Formatting a Chart"

Right Align Tool

- Aligns the contents of a selected <u>text box, button</u>, or cell to the right.
- This tool is available when a chart window is active.
- This tool is unavailable when a drawn object or picture is selected.
- If no alignment tool is selected, General alignment is applied.

See Also

Help

<u>Aligning text and numbers within cells</u>

<u>Formatting chart text alignment and orientation</u>

<u>Standard Toolbar</u>

<u>Text Formatting Tools Category</u>

<u>Toolbars</u>

<u>Tools</u>

User's Guide (Book 1)

Chapter 7, "Formatting a Worksheet"

Chapter 14, "Formatting a Chart"

Center Align Tool

- Centers the contents of a selected <u>text box</u>, <u>button</u>, or cell.
- This tool is available when a chart window is active.
- This tool is unavailable when a drawn object or picture is selected.
- If no alignment tool is selected, General alignment is applied.

See Also

Help

<u>Aligning text and numbers within cells</u>

<u>Formatting chart text alignment and orientation</u>

<u>Standard Toolbar</u>

<u>Text Formatting Tools Category</u>

<u>Toolbars</u>

<u>Tools</u>

User's Guide (Book 1)

Chapter 7, "Formatting a Worksheet"

Chapter 14, "Formatting a Chart"

Line Tool

Draws a straight line.

- When you select the Line tool, the mouse pointer changes to a cross hair.
- To draw multiple lines, double-click the Line tool.   The Line tool remains selected until you click it again, click another tool, press ESC, or click another part of the worksheet without dragging.
- To draw horizontal, vertical, or 45-degree diagonal lines, hold down the SHIFT key while dragging.
- If you want the line that you are drawing to automatically line up with the nearest gridline, hold down the ALT key while drawing the line.

See Also

Help

Arrow Tool

Drawing lines, ovals, arcs, or rectangles

Drawing Toolbar

Drawing Tools Category

Drawn Objects

Toolbars

Tools

User's Guide (Book 1)

Chapter 15, "Working with Graphic Objects"

Rectangle Tool

   Draws a rectangle or square.

▪   When you select the Rectangle tool, the mouse pointer changes to a cross hair.

▪   To draw a square, hold down the SHIFT key while dragging.

▪   To draw multiple rectangles or squares, double-click the Rectangle tool.   The Rectangle tool remains selected until you click it again, click another tool, press ESC, or click another part of the worksheet without dragging.

▪   If you hold down SHIFT while clicking this tool, it functions like the Filled Rectangle tool.

▪   If you want the rectangle or square that you are drawing to adjust automatically to fit the nearest row and column, hold down the ALT key while drawing the rectangle or square.

See Also

Help

Drawing lines, ovals, arcs, or rectangles

Drawing Toolbar

Drawing Tools Category

Drawn Objects

Toolbars

User's Guide (Book 1)

Chapter 15, "Working with Graphic Objects"

Oval Tool

Draws an oval or circle.

- When you select the Oval tool, the mouse pointer changes to a cross hair.
- To draw a circle, hold down the SHIFT key while dragging.
- To draw multiple ovals or circles, double-click the Oval tool.   The Oval tool remains selected until you click it again, click another tool, press ESC, or click another part of the worksheet without dragging.
- If you hold down SHIFT while clicking this tool, it functions like the <u>Filled Oval tool</u>.
- If you want the oval or circle that you are drawing to adjust automatically to fit the nearest row and column, hold down the ALT key while drawing the oval or circle.

See Also

Help

<u>Drawing lines, ovals, arcs, or rectangles</u>

<u>Drawing Toolbar</u>

<u>Drawing Tools Category</u>

<u>Drawn Objects</u>

<u>Toolbars</u>

<u>Tools</u>

User's Guide (Book 1)

Chapter 15, "Working with Graphic Objects"

Arc Tool

Draws an arc or circle segment.

- The circle segment is one quarter of a full circle.
- When you click the Arc tool, the mouse pointer changes to a cross hair.
- To draw a circle segment, hold down the SHIFT key while dragging.
- To draw multiple arcs, double-click the Arc tool.   The Arc tool remains selected until you click it again, click another tool, press ESC, or click another part of the worksheet without dragging.
- If you hold down SHIFT while clicking this tool, it functions like the Filled Arc tool.
- If you want the arc that you are drawing to adjust automatically to fit the nearest row and column, hold down the ALT key while drawing the arc.

See Also

Help

Drawing lines, ovals, arcs, or rectangles

Drawing Toolbar

Drawing Tools Category

Drawn Objects

Toolbars

Tools

User's Guide (Book 1)

Chapter 15, "Working with Graphic Objects"

Selection Tool

- Selects one or more graphic objects.
- A selection rectangle with a dotted border appears.   Drag the mouse to expand the rectangle and enclose the objects you want to select.
  When you release the mouse button, Microsoft Excel selects all the objects completely enclosed by the selection rectangle and displays handles around each of the objects.
- To add another area to the selection, hold down CTRL while selecting the new area.
The Selection tool remains selected until you click it again.

See Also

Help

Assigning a macro to a graphic object

Creating or deleting a button on a worksheet or macro sheet

Deleting a graphic object

Drawing Toolbar

Drawing Tools Category

Grouping or ungrouping graphic objects

Selecting a graphic object

Selecting multiple graphic objects and removing graphic objects from a multiple selection

Toolbars

Tools

User's Guide (Book 1)

Chapter 15, "Working with Graphic Objects"

Group Tool

- Creates a single group of graphic objects from multiple objects.
- This tool is available when the active document is a worksheet or macro sheet.
- This tool is available when more than one object is selected.
- If you hold down SHIFT while clicking this tool, it functions like the Ungroup tool.
- If only one object is selected, clicking this tool causes a beep, indicating that the tool is not available.

See Also

Help

Drawing Toolbar

Drawing Tools Category

Group and Ungroup Commands (Format Menu)

Grouped Objects

Grouping or ungrouping graphic objects

Selecting graphic objects

Toolbars

Tools

User's Guide (Book 1)

Chapter 15, "Working with Graphic Objects"

Bring To Front Tool

- Places one or more selected objects in front of all other objects.
- This tool has no effect if the selected object is already in front.
- If you hold down SHIFT while clicking this tool, it functions like the <u>Send To Back tool</u>.

See Also

Help

<u>Bring To Front Command (Format Menu)</u>

<u>Drawing Toolbar</u>

<u>Drawing Tools Category</u>

<u>Selecting a graphic object</u>

<u>Toolbars</u>

<u>Tools</u>

User's Guide (Book 1)

Chapter 15, "Working with Graphic Objects"

Send To Back Tool

- Places one or more selected objects behind all other objects.
- This tool has no effect if the selected object is already in back.
- If you hold down SHIFT while clicking this tool, it functions like the Bring To Front tool.

See Also

Help

Drawing Toolbar

Drawing Tools Category

Selecting a graphic object

Send To Back Command (Format Menu)

Toolbars

Tools

User's Guide (Book 1)

Chapter 15, "Working with Graphic Objects"

Open File Tool

- Displays the <u>Open dialog box</u> so that you can open an existing document.
- This tool opens the same dialog box that you get when you choose the Open command from the File menu.
- You can also use this tool to change directories.

Shortcut: CTRL+F12

See Also

Help

<u>File Tools Category</u>

<u>Opening a file from a disk</u>

<u>Standard Toolbar</u>

<u>Toolbars</u>

<u>Tools</u>

User's Guide (Book 1)

Chapter 4, "Managing Document Files"

Print Preview Tool

- Displays each page as it will look when you print the document.
- If an <u>embedded chart</u> window is active, Print Preview previews the chart only.
- If you hold down SHIFT while clicking this tool, it functions like the <u>Print</u> tool.
- This tool is available when a chart window is active.

See Also

Help

<u>Changing the layout of a printed page</u>

<u>File Tools Category</u>

<u>Previewing a document before printing</u>

<u>Print Preview Command (File Menu)</u>

<u>Toolbars</u>

<u>Tools</u>

User's Guide (Book 1)

Chapter 16, "Printing"

Print Tool

▪   Prints the active document according to the options you previously specified in the Print dialog box.

▪   Before you print a chart that is embedded in a worksheet, you must display the chart in a chart window.

▪   If the Info window is active, information is printed about the selected cells in the worksheet.

▪   If you hold down SHIFT while clicking this tool, it functions like the Print Preview tool.

Shortcut: CTRL+SHIFT+F12

See Also

Help

File Tools Category

Print Command (File Menu)

Printing a chart

Printing a document without previewing

Printing a section of a worksheet

Standard Toolbar

Toolbars

Tools

User's Guide (Book 1)

Chapter 16, "Printing"

New Macro Sheet Tool

▪   Creates a new <u>macro sheet</u>.   Clicking this tool is the same as choosing the <u>New</u> command from the File menu and selecting Macro Sheet.

▪   This tool is available when a chart window is active.

Shortcut: CTRL+F11

See Also

Help

<u>Creating a new macro sheet</u>

<u>File Tools Category</u>

<u>Macro Toolbar</u>

<u>New Command (File Menu)</u>

<u>Toolbars</u>

<u>Tools</u>

User's Guide (Book 2)

Chapter 5, "Creating and Using Custom Worksheet Functions"

New Worship Tool

- Creates a new <u>worksheet</u>.   Clicking this tool is the same as choosing the <u>New</u> command from the File menu and selecting Worksheet.
- This tool is available when a chart window is active.

Shortcut: SHIFT+F11

See Also

Help

<u>Changing headers and footers</u>

<u>Creating a new worksheet</u>

<u>File Tools Category</u>

<u>New Command (File Menu)</u>

<u>Standard Toolbar</u>

<u>Toolbars</u>

<u>Tools</u>

User's Guide (Book 1)

Chapter 5, "Creating a Worksheet"

New Chart Tool

▪   Creates a new chart document in the default chart type or the chart type and format that are selected by the <u>Set Preferred</u> command on the Gallery menu.

▪   Clicking this tool is the same as choosing the <u>New</u> command from the File menu and selecting Chart.

Shortcut: F11

See Also

Help

<u>File Tools Category</u>

<u>New Command (File Menu)</u>

<u>Toolbars</u>

<u>Tools</u>

User's Guide (Book 1)

Chapter 12, "Creating a Chart"

AutoSum Tool

$\boxed{\Sigma}$ Inserts into the active cell a formula with the SUM function and a proposed sum range.   The proposed range is based on the data above or to the left of the active cell.

▪   To view the sum, click the AutoSum tool again, click the enter box, or press ENTER.

See Also

Help

Formula Tools Category

Standard Toolbar

SUM()

Toolbars

Tools

Utility Tools Category

Text Box Tool

- Draws a <u>text box</u> where you can type text on a worksheet; lets you add unattached text to an active chart.

Worksheets

- After you draw the text box to the size and shape you want, you can type text in the box.
- To start a new line, press ENTER.

Charts

- Type the text that you want.
  The text appears in the formula bar, where you can edit it in the same way you would edit text in a worksheet cell.
- To insert a line break in the text, press ALT+ENTER.
- When you finish typing, click the enter box or press ENTER.
- The text that appears on the chart will not have a border around it.

See Also

Help

<u>Adding a text box or an arrow to a worksheet</u>

<u>Adding or deleting unattached chart text</u>

<u>Chart Toolbar</u>

<u>Charting Tools Category</u>

<u>Drawing Toolbar</u>

<u>Drawing Tools Category</u>

<u>Text Boxes</u>

<u>Toolbars</u>

<u>Tools</u>

<u>Utility Toolbar</u>

<u>Utility Tools Category</u>

User's Guide (Book 1)

Chapter 8, "Organizing and Documenting a Worksheet"

Chapter 14, "Formatting a Chart"

Button Tool

▪   Draws a button to which you can assign a <u>macro</u>.   When you click the button, the macro runs.
▪   To draw multiple buttons, double-click the Button tool.   The Button tool remains selected until you click it again, click another tool, press ESC, or click another part of the worksheet without dragging.

See Also

Help

<u>Assign To Object Command (Macro Menu)</u>

<u>Assigning a macro to a graphic object</u>

<u>Buttons</u>

<u>Creating a button on a worksheet or macro sheet</u>

<u>Drawing Tools Category</u>

<u>Toolbars</u>

<u>Tools</u>

<u>Utility Toolbar</u>

<u>Utility Tools Category</u>

User's Guide (Book 2)

Chapter 6, "Automating Tasks with Command Macros"

Camera Tool

- Creates a picture of a selected range of cells and pastes the picture as an object onto a worksheet.
- The picture is linked to the source selection.   If the source selection changes, the picture is updated automatically.
- To create multiple pictures, double-click the Camera tool.   The Camera tool remains selected until you click it again, click another tool, press ESC, or click another part of the worksheet without dragging.

See Also

Help

Copying cells to multiple locations

Copying data

Copying to another worksheet or application

Paste Picture Link Command (Edit Menu)

Pictures

Toolbars

Tools

Utility Toolbar

Utility Tools Category

User's Guide (Book 1)

Chapter 11, "Working with Multiple Microsoft Excel Documents"

Zoom In Tool

- Allows you to see more detail by changing the scale of the document to the next higher magnification.
- When the document is displayed at the maximum magnification, clicking the Zoom In tool produces a beep.
- The available magnifications range from 400% to 10%.
- Actual page size is 100%.
- If you hold down SHIFT while clicking this tool, it functions like the <u>Zoom Out tool</u>.

See Also

Help

<u>Changing worksheet dimensions on the screen</u>

<u>Toolbars</u>

<u>Tools</u>

<u>Utility Toolbar</u>

<u>Utility Tools Category</u>

<u>Zoom Command (Window Menu)</u>

<u>Zooming in or out on your worksheet</u>

Zoom Out Tool

▪   Allows you to see more of the document by changing the scale to the next lower magnification.
▪   When the document is displayed at the minimum magnification, clicking the Zoom Out tool produces a beep.
▪   The available magnifications range from 400% to 10%.
▪   Actual page size is 100%.
▪   If you hold down SHIFT while clicking this tool, it functions like the Zoom In Tool.

See Also

Help

Changing worksheet dimensions on the screen

Toolbars

Tools

Utility Toolbar

Utility Tools Category

Zoom Command (Window Menu)

Zooming in or out on your worksheet

Paste Names Tool

▪ Displays the <u>Paste Name</u> dialog box so that you can insert a selected <u>name</u> into the formula bar.

▪ This tool opens the same dialog box that you get if you choose the Paste Name command from the Formula menu.

▪ If the formula bar is active, and you have begun a formula by typing an equal sign (=), the name is pasted at the insertion point.

▪ If the formula bar is not active, this tool activates it and pastes an equal sign followed by the name.

Shortcut: F3

See Also

Help

<u>Formula Tools Category</u>

<u>Macro Tools Category</u>

<u>Paste Name Command (Formula Menu)</u>

<u>Pasting names</u>

<u>Toolbars</u>

<u>Tools</u>

<u>Utility Tools Category</u>

User's Guide (Book 1)

Chapter 8, "Organizing and Documenting a Worksheet"

User's Guide (Book 2)

Chapter 7, "Designing and Writing a Command Macro"

Fill Right Tool

- Copies the values, formulas, and formats of cells in the left column of a selected range into the remaining selected cells to the right.
- Copied contents and formats replace existing contents and formats.
- If you hold down SHIFT while clicking this tool, it fills cells to the left instead of to the right.

Shortcut: CTRL+R

See Also

Help

Copying to a range of adjacent cells

Edit Tools Category

Fill Commands (Edit Menu)

Toolbar

Tools

User's Guide (Book 1)

Chapter 6, "Editing a Worksheet"

Fill Down Tool

- Copies the values, formulas, and formats of cells in the top row of a selected range into the remaining selected cells below.
- Copied contents and formats replace existing contents and formats.
- If you hold down SHIFT while clicking the tool, it fills up instead of down in the selection.

Shortcut: CTRL+D

See Also

Help

Copying to a range of adjacent cells

Edit Tools Category

Fill Commands (Edit Menu)

Toolbar

Tools

User's Guide (Book 1)

Chapter 6, "Editing a Worksheet"

Currency Style Tool

▪ Applies the currently defined dollar currency style to selected cells.

 May appear instead of the dollar sign symbol, depending on the country selected in the International dialog box, accessed from the Windows Control Panel prior to starting Microsoft Excel.

▪ This tool applies the default currency style unless you change it.

▪ To change the currency style to another built-in style, you can use the <u>Style</u> command on the Format menu.

▪ To <u>redefine</u> a style, click the <u>Style box</u> on the Standard toolbar.

For information about changing the International settings, see your Windows documentation.

See Also

Help

<u>Applying a style</u>

<u>Creating or deleting a style</u>

<u>Formatting Toolbar</u>

<u>Formatting Tools Category</u>

<u>Redefining a style by example or definition</u>

<u>Redefining the Normal style</u>

<u>Style Box</u>

<u>Style Command (Format Menu)</u>

<u>Toolbar</u>

<u>Tools</u>

User's Guide (Book 1)

Chapter 7, "Formatting a Worksheet"

Percent Style Tool

- Applies the currently defined percent style to selected cells.
- This tool applies the default percent style unless you change it.
- To change the percent style to another built-in style, you can use the <u>Style</u> command on the Format menu.
- To <u>redefine</u> a style, click the <u>Style box</u> on the Standard toolbar.

See Also

Help

<u>Applying a style</u>

<u>Creating or deleting a style</u>

<u>Formatting Toolbar</u>

<u>Formatting Tools Category</u>

<u>Redefining a style by example or definition</u>

<u>Redefining the Normal style</u>

<u>Style Box</u>

<u>Style Command (Format Menu)</u>

<u>Toolbar</u>

<u>Tools</u>

User's Guide (Book 1)

Chapter 7, "Formatting a Worksheet"

Comma Style Tool

- Applies the currently defined comma style to selected cells.
- This tool applies the default comma style unless you change it.
- To change the comma style to another built-in style, you can use the <u>Style</u> command on the Format menu.
- To <u>redefine</u> a style, click the <u>Style box</u> on the Standard toolbar.

See Also

Help

<u>Applying a style</u>

<u>Creating or deleting a style</u>

<u>Formatting Toolbar</u>

<u>Formatting Tools Category</u>

<u>Redefining a style</u>

<u>Redefining the Normal style</u>

<u>Style Box</u>

<u>Style Command (Format Menu)</u>

<u>Toolbar</u>

<u>Tools</u>

User's Guide (Book 1)

Chapter 7, "Formatting a Worksheet"

Style Box

▪   Applies a cell style to the selection, or lets you define a style based on the current selection.

▪   You can change the style by selecting the style you want from the list in the Style Name box.

▪   You can also use this tool to define a new style by typing a new name in the Style box.

Shortcuts: ALT+APOSTROPHE (')

                CTRL+S

See Also

Help

Applying a style

Creating or deleting a style

Formatting Toolbar

Formatting Tools Category

Redefining a style

Standard Toolbar

Text Formatting Tools Category

Toolbars

Tools

User's Guide (Book 1)

Chapter 7, "Formatting a Worksheet"

Promote Tool

- Raises selected rows or columns one level higher in an outline.
- This tool is available only when the active document is outlined.

Shortcut: ALT+SHIFT+LEFT ARROW

See Also

Help

Assigning an outline level to a row or column

Clearing an outline from a worksheet

Creating an outline from an existing worksheet

Outline Command (Formula Menu)

Toolbars

Tools

Utility Toolbar

Utility Tools Category

User's Guide (Book 1)

Chapter 8, "Organizing and Documenting a Worksheet"

Increase Font Size Tool

$\boxed{A}$ Increases the font size of the selected text to the next larger size in the Font Size list box each time you click the tool.

▪   When the largest available font size is applied to the text, clicking this tool causes a beep, indicating that the tool is no longer available.

▪   If you hold down SHIFT while clicking this tool, it functions like the Decrease Font Size tool.

See Also

Help

Font Command (Format Menu for Charts)

Font Command (Format Menu for Worksheets)

Formatting the chart text font

Standard Toolbar

Text Formatting Tools Category

Toolbars

Tools

User's Guide (Book 1)

Chapter 7, "Formatting a Worksheet"

Chapter 14, "Formatting a Chart"

Decrease Font Size Tool

![icon]   Decreases the font size of the selected text to the next smaller size in the Font Size list box each time you click the tool.

▪   When the smallest available font size is applied to the text, clicking this tool causes a beep, indicating that the tool is no longer available.

▪   If you hold down SHIFT while clicking this tool, it functions like the Increase Font Size tool.

See Also

Help

Font Command (Format Menu for Charts)

Font Command (Format Menu for Worksheets)

Formatting the chart text font

Standard Toolbar

Text Formatting Tools Category

Toolbars

Tools

User's Guide (Book 1)

Chapter 7, "Formatting a Worksheet"

Chapter 14, "Formatting a Chart"

Preferred Chart Tool

- Creates an <u>embedded chart</u> on a worksheet, based on the selected cells, in the area you defined by dragging the mouse, and in the format you set using the <u>Set Preferred</u> command on the Gallery menu.
- The chart:

  Is linked to its source data.

  Is saved as part of the worksheet on which it was created.

  Can be formatted, moved, and sized.

  Can be saved as a separate chart document.
- You can also use this tool to change an active chart or selected embedded chart to the preferred chart format.
- The default format is the simple column chart.

To create a chart using the Preferred Chart tool

1 Select the worksheet data that you want to plot.
2 On the Microsoft Excel 3.0 toolbar, click the Preferred Chart tool.
3 Point to a corner of the area where you want to create the chart, and drag.
4 When you release the mouse button, the chart is created.

See Also

Help

<u>Changing the chart type and format</u>
<u>Chart Toolbar</u>
<u>Charting Tools Category</u>
<u>Creating a chart</u>
<u>Embedded Charts</u>
<u>Microsoft Excel 3.0 Toolbar</u>
<u>Formatting a chart embedded in a worksheet</u>
<u>Set Preferred Command (Gallery Menu)</u>
<u>Setting the preferred chart type</u>
<u>Toolbars</u>
<u>Tools</u>

User's Guide (Book 1)

Chapter 12, "Creating a Chart"

Ungroup Tool

- Separates grouped objects into individual objects.
- This tool causes a beep or is unavailable when you select an object that is not part of a group.
- If you hold down SHIFT while clicking this tool, it functions like the Group tool.

See Also

Help

Drawing Toolbar

Drawing Tools Category

Group and Ungroup Commands (Format Menu)

Grouped Objects

Grouping or ungrouping graphic objects

Selecting graphic objects

Toolbars

Tools

User's Guide (Book 1)

Chapter 15, "Working with Graphic Objects"

Help Tool

Adds a question mark (?) to the mouse pointer. When you place the new pointer over a command name or screen region and click the mouse button, you get information about that command or screen region.

▪ As you drag the mouse pointer over the toolbar buttons, the function of each tool appears in the status bar.   Only the name of the chart appears for the charting tools.

▪ The Help tool remains selected until you choose a command, click a screen region, or press ESC.

▪ If you double-click the Help tool, the Search dialog box appears.

Shortcut: SHIFT+F1

See Also

Help

Standard Toolbar

Toolbars

Tools

Utility Tools Category

User's Guide (Book 1)

Chapter 2, "Learning Microsoft Excel"

Save File Tool

- Saves changes made to the active document.
- The newly saved document remains displayed.
- The previous version of the document is replaced with the current version.
- If the document has not been saved yet or if it was last saved in a file format other than Normal, clicking this tool displays the Save As dialog box instead of saving the file.
- This tool is available when a chart window is active.

Shortcut: SHIFT+F12

See Also

Help

File Tools Category

Save Command (File Menu)

Saving a document for the first time

Standard Toolbar

Toolbars

Tools

User's Guide (Book 1)

Chapter 4, "Managing Document Files"

Outline Border Tool

- Adds a border around the outermost edges of the selected cells.
- To remove the border, select the cells and choose the <u>Border command</u> from the Format menu.

Shortcuts: CTRL+AMPERSAND (&)   (Outlines cell)
CTRL+UNDERLINE (_)   (Removes cell outline)
CTRL+SHIFT+MINUS (-)   (Removes cell outline)

See Also

Help

<u>Adding borders</u>

<u>Border Command (Format Menu)</u>

<u>Formatting Tools Category</u>

<u>Standard Toolbar</u>

<u>Toolbars</u>

<u>Tools</u>

Font Name Box

- Lists available fonts.
- You can change the font name by selecting the name you want from the list or by typing the name of the font in the Font Name box.   This is equivalent to choosing the Font command from the Format menu and specifying a font in the Font box.
- You can have as many as 256 different fonts on one worksheet.

 Shortcut: CTRL+F

 See Also

Help

Font Command (Format Menu for Charts)

Font Command (Format Menu for Worksheets)

Formatting Toolbar

Text Formatting Tools Category

Toolbars

Tools

User's Guide (Book 1)

Chapter 7, "Formatting a Worksheet"

Font Size Box

- Lists available sizes for the font selected in the Font Name box.
- You can change the font size by selecting the size you want from the list or by typing it in the Font Size box.   This is equivalent to choosing the Font command from the Format menu and specifying a size in the Size box.

Shortcut: CTRL+P

See Also

Help

Font Command (Format Menu for Charts)

Font Command (Format Menu for Worksheets)

Formatting Toolbar

Text Formatting Tools Category

Toolbars

Tools

User's Guide (Book 1)

Chapter 7, "Formatting a Worksheet"

Center Across Columns Tool

- Centers the text from one cell horizontally across selected columns.
- This tool centers text only.
- This tool centers the text from one cell across all selected blank cells to the right. For example, if you have text in cell A1 and have selected columns A through E, the text in cell A1 will be centered across cells A1 through E1.   However, if you then add text to cell C1, the original text will be centered across cells A1 and B1 and the new text will be centered across cells C1 through E1.

See Also

Help

Aligning text and numbers within cells

Alignment Command (Format Menu)

Centering text over columns

Standard Toolbar

Text Formatting Tools Category

Toolbars

Tools

User's Guide (Book 1)

Chapter 7, "Formatting a Worksheet "

Filled Rectangle Tool

Draws a rectangle or square that is filled with the window background pattern and color.

▪ When you select the Filled Rectangle tool, the mouse pointer changes to a cross hair. Drag to draw a rectangle.

▪ To draw a square, hold down the SHIFT key while dragging.

▪ To draw multiple filled rectangles or squares, double-click the Filled Rectangle tool. The Filled Rectangle tool remains selected until you click it again, click another tool, press ESC, or click another part of the worksheet without dragging.

▪ If you hold down SHIFT while clicking this tool, it functions like the Rectangle Tool.

▪ If you want the filled rectangle or square that you are drawing to adjust automatically to fit the nearest row and column, hold down the ALT key while dragging.

See Also

Help

Drawing lines and shapes with the toolbar

Drawing Toolbar

Drawing Tools Category

Drawn Objects

Toolbars

Tools

User's Guide (Book 1)

Chapter 15, "Working with Graphic Objects"

Filled Oval Tool

 Draws an oval or circle that is filled with the window background pattern and color.
- The mouse pointer changes to a cross hair.   Drag to draw an oval.
- To draw a filled circle, hold down the SHIFT key while dragging.
- To draw multiple filled ovals or circles, double-click the Filled Oval tool.   The Filled Oval tool remains selected until you click it again, click another tool, press ESC, or click another part of the worksheet without dragging.
- If you hold down SHIFT while clicking this tool, it functions like the Oval tool.
- If you want the filled oval or circle that you are drawing to adjust automatically to fit the nearest row and column, hold down the ALT key while dragging.

See Also

Help

Drawing lines and shapes with the toolbar

Drawing Toolbar

Drawing Tools Category

Drawn Objects

Toolbars

Tools

User's Guide (Book 1)

Chapter 15, "Working with Graphic Objects"

Arrow Tool

▪ Creates an arrow on an active worksheet or macro sheet, or adds an arrow on an active chart.

Worksheets

▪ The mouse pointer changes to a cross hair.   Drag to create an arrow.

▪ To draw multiple arrows, double-click the Arrow tool.   The Arrow tool remains selected until you click it again, click another tool, press ESC, or click another part of the worksheet without dragging.

▪ To draw horizontal, vertical, or 45-degree diagonal arrows, hold down the SHIFT key while dragging.

▪ If you want the arrow that you are drawing to automatically line up with the nearest gridline, hold down the ALT key while dragging.

▪ When you release the mouse button, the arrow is automatically selected and an arrowhead is displayed.

Charts

▪ When you click the Arrow tool, an arrow is automatically added to your chart.

▪ You can add as many arrows to your chart as you want.

▪ You can resize an arrow using the keyboard or the mouse.

▪ If a chart on a worksheet is selected but not active, the Arrow tool functions as it does on a worksheet.

See Also

Help

Add and Delete Arrow Commands (Chart Menu)

Adding a text box or an arrow to a worksheet

Adding or deleting a chart arrow

Charting Toolbar

Charting Tools Category

Drawing Toolbar

Drawing Tools Category

Formatting a chart arrow

Moving and sizing an arrow

Tools

User's Guide (Book 1)

Chapter 8, "Organizing and Documenting a Worksheet"

Chapter 14, "Formatting a Chart"

Chapter 15, "Working with Graphic Objects"

Increase Decimal Tool

Adds one decimal place to a number each time you click the tool.

▪ You can add decimal places until the maximum number of 253 for Microsoft Excel is reached; then you will hear a beep and you will not be able to add any more.

▪ If you hold down SHIFT while clicking this tool, it functions like the Decrease Decimal tool.

See Also

Help

Formatting Toolbar

Formatting Tools Category

Toolbars

Tools

User's Guide (Book 1)

Chapter 7, "Formatting a Worksheet"

Decrease Decimal Tool

Removes one decimal place from the number each time you click the tool.
- You can continue to remove decimal places until the integer is reached.
- If you hold down SHIFT while clicking this tool, it functions like the Increase Decimal tool.

See Also

Help

Formatting Toolbar

Formatting Tools Category

Toolbars

Tools

User's Guide (Book 1)

Chapter 7, "Formatting a Worksheet"

Drop Shadow Tool

- Adds a shadowed rectangular object around a selected cell or cells.
- The Drop Shadow tool remains selected until you click it again, click another tool, press ESC, or click another part of the worksheet.
- The shadowed rectangular object remains selected until you press ESC, or click another part of the worksheet.
- To remove the rectangular object, select it by its border and press DEL or DELETE.
- This tool is available for both worksheets and macro sheets.

See Also

Help

Drawing Toolbar

Drawing Tools Category

Patterns Command (Format Menu for Worksheets)

Toolbars

Tools

User's Guide (Book 1)

Chapter 7, "Formatting a Worksheet"

Light Shading Tool

- Applies a light shading pattern to selected cells and graphic objects.
- This tool applies the pattern to cells and graphic objects, not to their borders.

See Also

Help

Adding shading to cells

Drawing Tools Category

Formatting Toolbar

Formatting Tools Category

Patterns Command (Format Menu for Worksheets)

Toolbars

Tools

User's Guide (Book 1)

Chapter 7, "Formatting a Worksheet"

Chapter 15, "Working with Graphic Objects"

AutoFormat Tool

▪ Automatically formats a range of cells by recognizing header rows and columns, summary rows and columns, and other elements of a table.

▪ The AutoFormat tool uses the last table format and any modifications that you made with the AutoFormat command on the Format menu.

▪ By holding down SHIFT while clicking the tool, you can apply the next table format until you return to your initial table format.

▪ If you have a single cell selected, Microsoft Excel automatically selects the range bounded by blank cells, and applies the formatting to that range.

See Also

Help

AutoFormat Command (Format Menu for Worksheets)

Formatting a table using AutoFormat

Formatting cells

Formatting Toolbar

Formatting Tools Category

Standard Toolbar

Toolbars

Tools

User's Guide (Book 1)

Chapter 7, "Formatting a Worksheet"

Reshape Tool

Allows you to change the shape of a polygon.

- The vertices remain selected until you click the Reshape tool again.
- Handles appear along the freehand line and at the beginning and end of each straight line.   You can add or move vertices by dragging the handles.
- The mouse pointer changes to a cross hair when you position it over a handle.
- To add a vertex, press SHIFT, position the mouse pointer on a line of the polygon, and drag the pointer to where you want the new vertex.
- To move a vertex, drag the handle to where you want the vertex to be placed.
- To delete a vertex, press SHIFT and click the handle of the selected object.

See Also

Help

Drawing Toolbar

Drawing Tools Category

Drawn Objects

Toolbars

Tools

User's Guide (Book 1)

Chapter 15, "Working with Graphic Objects"

Freehand Tool

 Draws freehand lines.

▪ The mouse pointer changes to a cross hair.   To draw freehand lines, hold down the mouse button and drag.

▪ When you release the mouse button, the graphic object is automatically selected. The Freehand tool remains selected until you click it again, click another tool, press ESC, or click another part of the worksheet without dragging.

See Also

Help

<u>Drawing lines and shapes with the toolbar</u>

<u>Drawing Toolbar</u>

<u>Drawing Tools Category</u>

<u>Drawn Objects</u>

<u>Toolbars</u>

<u>Tools</u>

User's Guide (Book 1)

Chapter 15, "Working with Graphic Objects"

Freehand Polygon Tool

Draws a shape that is a combination of freehand and straight lines.

- The mouse pointer changes to a cross hair.
- To draw a freehand line, drag the mouse.
- To draw a straight line, click the mouse button. Without pressing the mouse button, point to the place where you want the line to end. Then click the mouse button.
- The Freehand Polygon tool remains selected until you close the shape or double-click the end point of the line.
- If you hold down SHIFT while clicking this tool, it functions like the Filled Freehand Polygon tool.
- To draw multiple polygon shapes, double-click the Freehand Polygon tool. The Freehand Polygon tool remains selected until you click it again, click another tool, press ESC, or click another part of the worksheet without dragging.
- If you want the object that you are drawing to adjust automatically to fit the nearest row and column, hold down the ALT key while drawing it.

See Also

Help

Drawing lines and shapes with the toolbar

Drawing Toolbar

Drawing Tools Category

Drawn Objects

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Tools

User's Guide (Book 1)

Chapter 15, "Working with Graphic Objects"

Demote Tool

- Moves selected rows or columns one level lower in an outline.
- If you have not created an outline, this tool will create one.

Shortcut: ALT+SHIFT+RIGHT ARROW

See Also

Help

Assigning an outline level to a row or column

Clearing an outline from a worksheet

Creating an outline from an existing worksheet

Outline Command (Formula Menu)

Toolbars

Tools

Utility Toolbar

Utility Tools Category

User's Guide (Book 1)

Chapter 8, "Organizing and Documenting a Worksheet"

Color Tool

▪ Changes the foreground color of a selected cell or object.
▪ The foreground color of the cell or object changes each time you click the tool.
If you have chosen no pattern for cell shading or the object fill pattern, this tool assigns a solid pattern.
▪ By holding down SHIFT while clicking the tool, you can reverse the direction of the color changes.

See Also

Help

Drawing Toolbar

Drawing Tools Category

Formatting Tools Category

Patterns Command (Format Menu)

Toolbars

Tools

User's Guide (Book 1)

Chapter 15, "Working with Graphic Objects"

Filled Freehand Polygon Tool

Draws a freehand polygon shape that is filled with the window background pattern and color.

- The mouse pointer changes to a cross hair.
- To draw a freehand line, drag the mouse.
- To draw a straight line, click the mouse button.   Without pressing the mouse button, point to the place where you want the line to end.   Then click the mouse button.
- The Filled Freehand Polygon tool remains selected until you close the shape or double-click the end point of the line.
- If you hold down SHIFT while clicking this tool, it functions like the Freehand Polygon tool.
- To draw multiple polygon shapes, double-click the Filled Freehand Polygon   tool.   The tool remains selected until you click it again, click another tool, press ESC, or click another part of the worksheet without dragging.
- If you want the object that you are drawing to adjust automatically to fit the nearest row and column, hold down the ALT key while drawing it.

See Also

Help

Drawing lines and shapes with the toolbar

Drawing Tools Category

Drawing Toolbar

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User's Guide (Book 1)

Chapter 15, "Working with Graphic Objects"

Filled Arc Tool

Draws a circle segment that is one quarter of a full circle and is filled with the window background pattern and color.

- When you select the Filled Arc tool, the mouse pointer changes to a cross hair.   Drag to draw an arc.
- To draw multiple filled arcs, double-click the Filled Arc tool.   The Filled Arc tool remains selected until you click it again, click another tool, press ESC, or click another part of the worksheet without dragging.
- If you hold down SHIFT while clicking this tool, it functions like the Arc tool.
- If you want the filled arc that you are drawing to adjust automatically to fit the nearest row and column, hold down the ALT key while dragging.

See Also

Help

Drawing lines and shapes with the toolbar

Drawing Tool Category

Drawing Toolbar

Drawn Objects

Toolbars

Tools

User's Guide (Book 1)

Chapter 15, "Working with Graphic Objects"

Paste Function Tool

- Displays the <u>Paste Function</u> dialog box so that you can insert a selected <u>function</u> into the formula bar.
- If a worksheet is active, the Paste Function dialog box lists all worksheet and custom worksheet functions.   If a macro sheet is active, it lists all macro functions and custom macro functions.
- If the formula bar is active, and you have begun entering a formula by typing an equal sign (=), the function is pasted at the insertion point.
- If the formula bar is not active, this tool activates it and pastes an equal sign (=) followed by the function.

Shortcut: SHIFT+F3

See Also

Help

<u>Formula Tools Category</u>

<u>Macro Toolbar</u>

<u>Macro Tools Category</u>

<u>Paste Function (Formula Menu)</u>

<u>Pasting functions</u>

<u>Toolbars</u>

<u>Tools</u>

<u>Utility Tools Category</u>

User's Guide (Book 1)

Chapter 5, "Creating a Worksheet"

User's Guide (Book 2)

Chapter 7, "Designing and Writing a Command Macro"

Plus Sign Tool

Adds a plus sign (+) at the location of the insertion point in the formula bar.

▪ If the formula bar is not active, clicking this tool activates it and replaces the contents with a plus sign.

See Also

Help

Entering a formula

Formula Tools Category

Toolbars

Tools

User's Guide (Book 1)

Chapter 5, "Creating a Worksheet"

Minus Sign Tool

  Adds a minus sign (-) at the location of the insertion point in the formula bar.

▪ If the formula bar is not active, clicking this tool activates it and replaces the contents with a minus sign.

See Also

Help

Entering a formula

Formula Tools Category

Toolbars

Tools

User's Guide (Book 1)

Chapter 5, "Creating a Worksheet"

Multiplication Sign Tool

  Adds an asterisk (*) at the location of the insertion point in the formula bar.

▪   If the formula bar is not active, clicking this tool activates it and replaces the contents with an asterisk.

See Also

Help

Entering a formula

Formula Tools Category

Toolbars

Tools

User's Guide (Book 1)

Chapter 5, "Creating a Worksheet"

Division Sign Tool

Adds a division sign (/) at the location of the insertion point in the formula bar.

▪ If the formula bar is not active, clicking this tool activates it and replaces the contents with a division sign.

See Also

Help

Entering a formula

Formula Tools Category

Toolbars

Tools

User's Guide (Book 1)

Chapter 5, "Creating a Worksheet"

Left Parenthesis Tool

 Adds an opening parenthesis [( ] at the location of the insertion point in the formula bar.

▪ If the formula bar is not active, clicking this tool activates it and replaces the contents with an opening parenthesis.

See Also

Help

Entering a formula

Formula Tools Category

Toolbars

Tools

User's Guide (Book 1)

Chapter 5, "Creating a Worksheet"

Right Parenthesis Tool

"**)**"   Adds a closing parenthesis [ )] at the location of the insertion point in the formula bar.

▪   If the formula bar is not active, clicking this tool activates it and replaces the contents with a closing parenthesis.

See Also

Help

Entering a formula

Formula Tools Category

Toolbars

Tools

User's Guide (Book 1)

Chapter 5, "Creating a Worksheet"

Exponentiation Sign Tool

"^"   Adds a caret (^) at the location of the insertion point in the formula bar.
▪   If the formula bar is not active, clicking this tool activates it and replaces the contents with a caret.

See Also

Help

Entering a formula

Formula Tools Category

Toolbars

Tools

User's Guide (Book 1)

Chapter 5, "Creating a Worksheet"

Equal Sign Tool

 Adds an equal sign (=) at the location of the insertion point in the formula bar.

▪ If the formula bar is not active, clicking this tool activates it and replaces the contents with an equal sign.

See Also

Help

Entering a formula

Formula Tools Category

Toolbars

Tools

User's Guide (Book 1)

Chapter 5, "Creating a Worksheet"

Resume Macro Tool

▪ Resumes a macro operation after the macro has been paused.

▪ This tool is available only when a macro has been paused.

▪ When you are running a macro and Microsoft Excel encounters the PAUSE function, the Macro Paused toolbar with the Resume Macro tool is automatically displayed.

▪ This tool is also available on the Macro toolbar and from the Macro Tools category in the Customize dialog box.

See Also

Help

Macro Paused Toolbar

Macro Toolbar

Macro Tools Category

Resume Command (Macro Menu)

Stepping through a macro

Toolbars

Tools

User's Guide (Book 2)

Chapter 6, "Automating Tasks with Command Macros"

Microsoft Excel Function Reference

PAUSE

RESUME

Record Macro Tool

▪   Records your actions and commands to create a macro.

▪   The Record Macro dialog box is displayed unless you hold down SHIFT while clicking the tool.

▪   The Record Macro dialog box is displayed if no recorder range has been defined.

▪   Recording begins in the first cell of the recorder range, or if the first cell is occupied, in the first completely blank column of the macro sheet.

▪   Recording continues until you choose the Stop Record command from the Macro menu or click the Record Macro tool again.

▪   If you have stopped recording, holding down SHIFT while clicking this tool will resume recording where you stopped.

▪   If Microsoft Excel encounters a nonblank cell while recording or reaches the bottom of the recorder range, it stops recording and displays a message telling you that the recorder range is full.

▪   You can repeat the actions you've recorded later using the Run command on the Macro menu, or the Run tool if the macro toolbar is displayed.

See Also

Help

Macro Toolbar

Macro Tools Category

Record and Stop Recorder Commands (Macro Menu)

Recording a macro

Toolbars

Tools

User's Guide (Book 2)

Chapter 6, "Automating Tasks with Command Macros"

Justify Align Tool

- Evenly redistributes the contents of a selected <u>text box</u>, <u>button</u>, or cell.
- This tool is unavailable when a drawn object or picture is selected.
- If no alignment tool is selected, General alignment is applied.
- This tool is also available when a chart window is active.

See Also

Help

<u>Aligning text and numbers within cells</u>

<u>Formatting Toolbar</u>

<u>Justifying text right and left within a cell</u>

<u>Text Formatting Tools Category</u>

<u>Toolbars</u>

<u>Tools</u>

User's Guide (Book 1)

Chapter 7, "Formatting a Worksheet"

Chapter 14, "Formatting a Chart"

Dark Shading Tool

- Applies a dark shading pattern to selected cells and graphic objects.
- This tool applies the pattern to cells and graphic objects, not to their borders.

See Also

Help

Adding shading to cells

Drawing Tools Category

Formatting Tools Category

Patterns Command (Format Menu for Worksheets)

Toolbars

Tools

User's Guide (Book 1)

Chapter 7, "Formatting a Worksheet"

Chapter 15, "Working with Graphic Objects"

Percent Sign Tool

 Adds a percent sign (%) at the location of the insertion point in the formula bar.

▪ If the formula bar is not active, clicking this tool activates it and replaces the contents with a percent sign.

See Also

Help

Entering a formula

Formula Tools Category

Toolbars

Tools

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Chapter 5, "Creating a Worksheet"

Right Border Tool

- Adds or removes a border along the right edge of each selected cell.
- To remove the border, select the cells and choose the <u>Border command</u> from the Format menu or click the Right Border tool again.
- This tool is available only on worksheets and macro sheets.

See Also

Help

<u>Adding borders</u>

<u>Border Command (Format Menu)</u>

<u>Formatting Tools Category</u>

<u>Toolbars</u>

<u>Tools</u>

User's Guide (Book 1)

Chapter 7, "Formatting a Worksheet"

Run Macro Tool

- Runs the currently selected macro, starting at the active cell.
- If you hold down SHIFT while clicking this tool, it functions like the Step Macro tool.

See Also

Help

Macro Toolbar

Macro Tools Category

Run Command (Macro Menu)

Running a macro

Stepping through a macro

Toolbars

Tools

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Chapter 6, "Automating Tasks with Command Macros"

Chapter 7, "Designing and Writing a Command Macro"

Microsoft Excel Function Reference

RESUME

Stop Recording Macro Tool

▪   Stops recording of a macro.
▪   When you click the Record button in the <u>Assign To Object</u> or <u>Assign To Tool</u> dialog box, the <u>Stop Recording toolbar</u> with the Stop Recording Macro tool is automatically displayed.

See Also

Help

<u>Adding and deleting a tool from a toolbar</u>
<u>Assign To Object Command (Macro Menu)</u>
<u>Assign To Tool Command (Macro Menu)</u>
<u>Assigning or recording a macro to a tool</u>
<u>Assigning a macro to a graphic object</u>
<u>Creating or deleting a button on a worksheet or macro sheet</u>
<u>Stop Recording Toolbar</u>
<u>Macro Tools Category</u>
<u>Toolbars</u>
<u>Tools</u>

User's Guide (Book 2)

Chapter 4, "Customizing Microsoft Excel"
Chapter 6, "Automating Tasks with Command Macros"

Top Border Tool

- Adds or removes a border along the upper edge of each selected cell.
- To remove the border, select the cells and choose the Border command from the Format menu or click the Top Border tool again.
- This tool is available only on worksheets and macro sheets.

See Also

Help

Adding borders

Border Command (Format Menu)

Formatting Tools Category

Toolbars

Tools

User's Guide (Book 1)

Chapter 7, "Formatting a Worksheet"

Bottom Border Tool

- Adds or removes a border along the lower edge of each selected cell.
- To remove the border, select the cells and choose the Border command from the Format menu or click the Bottom Border tool again.
- This tool is available only on worksheets and macro sheets.

See Also

Help

Adding borders

Border Command (Format Menu)

Formatting Tools Category

Standard Toolbar

Toolbars

Tools

User's Guide (Book 1)

Chapter 7, "Formatting a Worksheet"

Colon Tool

 Adds a colon (:) at the location of the insertion point in the formula bar.

▪ If the formula bar is not active, clicking this tool activates it and replaces the contents with a colon.

See Also

Help

Entering a formula

Formula Tools Category

Toolbars

Tools

User's Guide (Book 1)

Chapter 5, "Creating a Worksheet"

Left Border Tool

▪ Adds or removes a border along the left edge of each selected cell.

▪ To remove the border, select the cells and choose the <u>Border command</u> from the Format menu or click the Left Border tool again.

▪ This tool is available only on worksheets and macro sheets.

See Also

Help

<u>Adding borders</u>

<u>Border Command (Format Menu)</u>

<u>Formatting Tools Category</u>

<u>Toolbars</u>

<u>Tools</u>

User's Guide (Book 1)

Chapter 7, "Formatting a Worksheet"

Step Macro Tool

▪ Displays the <u>Single Step dialog box</u> so that you can step through the currently selected <u>command macro</u> one cell at a time, starting at the active cell.

▪ If you hold down SHIFT while clicking this tool, it functions like the <u>Run Macro tool</u>.

See Also

Help

<u>Macro Toolbar</u>

<u>Macro Tools Category</u>

<u>Run Command (Macro Menu)</u>

<u>Stepping through a macro</u>

<u>Toolbars</u>

<u>Tools</u>

User's Guide (Book 2)

Chapter 6, "Automating Tasks with Command Macros"

Chapter 7, "Designing and Writing a Command Macro"

Lock Cell Tool

- Prevents selected cells and objects from being changed when the document is protected.
- All cells in a new worksheet are locked.
- If a cell or object is locked, this tool appears selected.   To unlock a cell or object, click the Lock Cell tool.
- This tool is also available on macro sheets.

See Also

Help

Cell Protection Command (Format Menu for Worksheets)

Protecting worksheet cells

Toolbars

Tools

Utility Toolbar

Utility Tools Category

User's Guide (Book 1)

Chapter 4, "Managing Document Files"

Sort Ascending Tool

- Rearranges the rows of a selection in sorted ascending order.
- The active cell identifies which column to sort by when sorting rows, or which row to sort by when sorting columns.
- This tool is available for worksheets and macro sheets only.
- If you hold down SHIFT while clicking this tool, it functions like the Sort Descending tool.

See Also

Help

Sort Command (Data Menu)

Sorting a range of cells

Toolbars

Tools

Utility Toolbar

Utility Tools Category

User's Guide (Book 1)

Chapter 6, "Editing a Worksheet"

Chapter 9, "Creating and Using a Database on a Worksheet"

Sort Descending Tool

- Rearranges the rows of a selection in sorted descending order.
- The active cell identifies which column to sort by when sorting rows, or which row to sort by when sorting columns.
- This tool is available for worksheets and macro sheets only.
- If you hold down SHIFT while clicking this tool, it functions like the Sort Ascending tool.

See Also

Help

Sort Command (Data Menu)

Sorting a range of cells

Toolbars

Tools

Utility Tools Category

Utility Toolbar

User's Guide (Book 1)

Chapter 6, "Editing a Worksheet"

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Copy Tool

▪   Copies the selected cells, characters, or objects onto the <u>Clipboard</u>.   Clicking this tool is the same as choosing the <u>Copy</u> command from the Edit menu.

▪   The selection can be a cell; cell range; nonadjacent section; characters in the formula bar, text box, or button; a chart; a document within a workbook (worksheet, macro sheet, or chart); a graphic object; or a series.

▪   Characters that are copied from the formula bar are placed on the Clipboard.   The characters can then be pasted into a new location in the same formula or into a formula in another cell.

▪   When you copy cells on a worksheet or macro sheet, Microsoft Excel outlines the selected cell or cell range with a moving border.

▪   To paste the copied selection to another location, you can use the
        <u>Paste command (Edit menu)</u> or the <u>Paste tool</u>.

▪   To insert and paste the copied selection to another location, you can use the <u>Insert Paste command (Edit menu)</u>.

▪   Within a workbook window, you can use the Copy tool and the Paste command or the Paste tool to rearrange the order of worksheets or to move a worksheet to another workbook.

▪   You can copy an individual object or several objects together.
        If you copy more than one object at a time, the objects maintain the same relative
        positions when pasted into a new location.

Shortcut: CTRL+C

See Also

Help

<u>Combining copied formulas or values with those in the paste area</u>

<u>Combining values on different worksheets</u>

<u>Converting a formula or a portion of a formula to its displayed values</u>

<u>Copy Command (Edit Menu)</u>

<u>Copying a cell's value, formula, formatting, or note</u>

<u>Copying a chart's series and formats</u>

<u>Copying a chart</u>

<u>Copying a document from one workbook to another workbook</u>

<u>Copying a text or sound note to another cell</u>

<u>Copying cells to multiple locations</u>

<u>Copying data and saving it in a separate file</u>

<u>Copying data</u>

<u>Copying to another worksheet or application</u>

<u>Copying visible cells</u>

<u>Copying within the formula bar</u>

<u>Creating links between documents</u>

<u>Edit Tools Category</u>

<u>Editing a Microsoft Excel object embedded in another document</u>

<u>Standard Toolbar</u>

<u>Toolbars</u>

<u>Transposing ranges from columns to rows or from rows to columns</u>

<u>Tools</u>

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Chapter 5, "Creating a Worksheet"

Chapter 6, "Editing a Worksheet"

Chapter 8, "Organizing and Documenting a Worksheet"

Chapter 11, "Working with Multiple Microsoft Excel Documents"

Chapter 15, "Working with Graphic Objects"

User's Guide (Book 2)

Chapter 3, "Exchanging Data with Other Applications"

Undo Tool

▪ Undoes certain commands or, if possible, deletes the last entry you typed into a blank cell.

Shortcut: CTRL+Z

See Also

Help

Edit Tools Category

Toolbars

Tools

Undo Command (Edit Menu)

Utility Toolbar

User's Guide (Book 1)

Chapter 2, "Learning Microsoft Excel"

Chapter 15, "Working with Graphic Objects"

Repeat Tool

▪   Repeats the last command you chose, if possible, including any dialog-box option settings.

▪   This tool is useful for applying the same formats to different groups of cells or different chart items.

Shortcut: ALT+ENTER

See Also

Help

Edit Tools Category

Repeat Command (Edit Menu)

Toolbars

Tools

Utility Toolbar

User's Guide (Book 1)

Chapter 2, "Learning Microsoft Excel"

Chapter 5, "Creating a Worksheet"

Check Spelling Tool

▪ Checks the spelling of the text in worksheets, macro sheets, charts, <u>graphic objects</u>, or the <u>formula bar</u>.

▪ Checking begins as soon you click the Check Spelling tool.   The spelling dialog box does not open until a misspelled word is found.

▪ If you have a <u>worksheet</u> or <u>macro sheet</u> active, this tool is the same as the <u>Spelling</u> command on the Options menu.

▪ If you have a <u>chart</u> active, this tool is the same as the <u>Spelling</u> command on the Chart menu.

Worksheets and Macro Sheets

▪ If the selection is a single cell, then all cells, objects, headers, footers, notes, and buttons in the entire document are checked for spelling errors.

Checking begins at the first object.   If there are no objects, headers, or footers, spelling begins at the active cell and continues across each row until the end of the document is reached.   If you do not start at the beginning of the document, Microsoft Excel asks if you want to continue checking at the beginning.

▪ If the selection is more than one cell, only the selected cells and their notes are checked.

▪ Hidden cells and cells in a <u>collapsed outline</u> are also checked.

▪ Cells with values and cell notes are checked but cells with <u>formulas</u> are not.

Graphic Objects

▪ Only the text in <u>text boxes</u> and <u>buttons</u> is checked for spelling.

▪ You can check the spelling of one or more <u>selected objects</u>.

Charts

▪ You can check the spelling of both chart documents and embedded charts.

▪ Headers, footers, the chart title, regular and overlay values, category <u>axis</u> labels, <u>series and data point text</u>, series names, and <u>unattached text</u> are checked for spelling, regardless of the selection.

▪ Text strings that are defined by references to the worksheet are treated like formulas and are not checked.

Formula Bar

▪ If you have selected one or more words in the formula bar, they are checked.   If the formula bar is active but you have no words selected, the entire formula bar is checked, beginning with the first word.

See Also

Help

<u>Checking spelling</u>

<u>Collapsing an outline level</u>

<u>Selecting a graphic object</u>

<u>Selecting a range of cells</u>

<u>Selecting cells, rows, or columns</u>

<u>Selecting items in a chart</u>

<u>Selecting nonadjacent cells</u>

<u>Spelling Command (Chart Menu)</u>

<u>Spelling Command (Options Menu)</u>

<u>Toolbars</u>

<u>Tools</u>

<u>Utility Toolbar</u>

Paste Values Tool

- Pastes only the values from the cells that you have copied onto the <u>Clipboard</u>.
- The paste area can be a cell, cell range, or nonadjacent selection.
  If the paste area is a single cell, the Paste Values tool uses this cell as the upper-left corner of the paste area and pastes the rest of the copied area down and to the right.

  If the paste area is a range or nonadjacent selection, it must be able to contain one or more rectangles the exact size and shape of the copied area.
- This tool is available only on worksheets and macro sheets.
- If you hold down SHIFT while clicking this tool, it functions like the <u>Paste Formats tool</u>.

See Also

Help

<u>Combining copied formulas or values with those in the paste area</u>

<u>Combining values on different worksheets</u>

<u>Converting a formula or a portion of a formula to its displayed values</u>

<u>Copying a cell's values, formula, formatting or note</u>

<u>Edit Tools Category</u>

<u>Paste Special Command (Edit Menu for Chart)</u>

<u>Paste Special Command (Edit Menu for Worksheet)</u>

<u>Toolbars</u>

<u>Tools</u>

<u>Utility Toolbar</u>

User's Guide (Book 1)

Chapter 6, "Editing a Worksheet"

Paste Formats Tool

▪   Pastes into the selection only the cell formats from the cells that you have copied onto the Clipboard.

▪   The paste area can be a cell, cell range, or nonadjacent selection.

   If the paste area is a single cell, the Paste Formats tool uses this cell as the upper-left corner of the paste area and pastes the rest of the copied area down and to the right.

   If the paste area is a range or nonadjacent selection, it must be able to contain one or more rectangles the exact size and shape of the copied area.

▪   This tool is useful when you want to paste the same format multiple times onto different areas of a spreadsheet.

▪   This tool is available for worksheets and macro sheets only.

▪   If you hold down SHIFT while clicking this tool, it functions like the Paste Values tool.

See Also

Help

Combining copied formulas or values with those in the paste area

Copying a cell's value, formula, formatting, or note

Edit Tools Category

Paste Special Command (Edit Menu for Worksheet)

Standard Toolbar

Toolbars

Tools

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Chapter 6, "Editing a Worksheet"

Select Visible Cells Tool

- Selects the visible cells within the current selection that crosses hidden rows or columns; changes you make affect only the visible cells and not the hidden rows or columns.
- This tool also allows you to copy and paste only the visible cells.
- You can use this tool with the following commands:

  Edit Series (Chart menu)

  Copy (Edit menu)

  Fill Down (Edit menu)

  Fill Right (Edit menu)

  All commands on the Format menu except AutoFormat and Justify.

- You can paste a single cell into nonadjacent cells but you cannot paste a range of cells into nonadjacent cells.
- This tool is useful when you have collapsed an outline and you want to copy only the collapsed version of it.   The hidden rows or columns will not be copied.

See Also

Help

Copying visible cells

Outline Command (Formula Menu)

Select Special Command (Formula Menu)

Toolbars

Tools

Utility Toolbar

Utility Tools Category

User's Guide (Book 1)

Chapter 6, "Editing a Worksheet"

Chapter 8, "Organizing and Documenting a Worksheet"

Show Outline Symbols Tool

▪   Creates an outline, if one does not exist, and displays or hides the outline symbols on your worksheet.
▪   If you do not have an outline created, the Show Outline Symbols tool offers to create one and then displays the outline symbols.
▪   If the outline symbols are displayed, the Show Outline Symbols tool hides them.

 Shortcut: CRTL+8

 See Also

Help

Assigning an outline level to a row or column

Collapsing an outline level

Displaying an outline level

Displaying or hiding outline symbols

Expanding an outline level

Outline Command (Formula Menu)

Toolbars

Tools

Utility Toolbar

Utility Tools Category

User's Guide (Book 1)

Chapter 8, "Organizing and Documenting a Worksheet"

Custom Tool

An unassigned tool to which you can assign a macro.

▪   By <u>assigning a macro</u> to this tool, you can use it to carry out commands that you use frequently.

You can either assign a previously recorded macro or record a new macro when you <u>create</u> the tool.

▪   Only built-in tools can be in the Tools box in the Customize dialog box.   After you customize a tool, you cannot save it to the Tools box in the Customize dialog box.

If you drag a customizable tool into the tools box in the Customize dialog box, you <u>delete</u> it.

▪   You can <u>customize the appearance</u> of the tool by adding or changing the bitmap.

See Also

Help

<u>Adding and deleting a tool from a toolbar</u>

<u>Assigning or recording a macro to a tool</u>

<u>Changing the action that a tool performs</u>

<u>Creating a custom tool</u>

<u>Custom Tools Category</u>

<u>Customizing the appearance of a tool</u>

<u>Toolbars</u>

<u>Toolbars Command (Options Menu)</u>

<u>Tools</u>

User's Guide (Book 2)

Chapter 4, "Customizing Microsoft Excel"

Comma Tool

- Adds a comma (,) at the location of the insertion point in the formula bar.
- If the formula bar is not active, clicking this tool activates it and replaces the contents with a comma.

See Also

Help

Entering a formula

Formula Tools Category

Toolbars

Tools

User's Guide (Book 1)

Chapter 5, "Creating a Worksheet"

Bottom Double Border Tool

- Adds or removes a double border along the lower edge of each of the selected cells.
- To remove the border, select the cells and click the Bottom Double Border tool again or choose the Border command from the Format menu.
- This tool is available only on worksheets and macro sheets.

See Also

Help

Adding borders

Border Command (Format Menu)

Formatting Tools Category

Toolbars

Tools

User's Guide (Book 1)

Chapter 7, "Formatting a Worksheet"

Dollar Sign Tool

 Adds a dollar sign ($) at the location of the insertion point in the formula bar.

▪ If the formula bar is not active, clicking this tool activates it and replaces the contents with a dollar sign.

See Also

Help

Entering a formula

Formula Tools Category

Toolbars

Tools

User's Guide (Book 1)

Chapter 5, "Creating a Worksheet"

Text Color Tool

- Changes the color of the selected text in a cell, <u>text box</u>, or <u>button</u>.
- The text color changes each time you click the tool.
- Holding down SHIFT while clicking the tool reverses the direction of the color changes.

See Also

Help

<u>Text Command (Format Menu for Worksheets)</u>

<u>Text Formatting Tools Category</u>

<u>Toolbars</u>

<u>Tools</u>

User's Guide (Book 1)

Chapter 16, "Printing"

Vertical Text Tool

- Aligns selected text in cells, chart text, <u>buttons</u>, and <u>text boxes</u> vertically, with each letter below the previous one so that you read from top to bottom.
- You must adjust the height of the row or the dimensions of the button or text box to accommodate the length of the vertical text.
- Clicking this tool again changes the text alignment to horizontal.
- Using the Vertical Text tool affects only the appearance of cells, not the actual values within them.

See Also

Help

<u>Aligning text box and button text</u>

<u>Alignment Command (Format Menu for Worksheets)</u>

<u>Text Command (Format Menu for Charts)</u>

<u>Text Formatting Tools Category</u>

<u>Toolbars</u>

<u>Tools</u>

User's Guide (Book 1)

Chapter 7, "Formatting a Worksheet"

Rotate Text Down Tool

▪ Rotates the alignment of selected text in cells, chart text, <u>buttons</u>, and <u>text boxes</u> so that you read it from top to bottom.

▪ You must adjust the height of the row or the dimensions of the button or text box to accommodate the length of the rotated text.

▪ Clicking this tool again changes the text alignment to horizontal.

Cells

▪ Using the Rotate Text Down tool affects only the appearance of cells, not the actual values within them.

▪ You can either rotate the text or wrap the text in a cell, but you cannot do both at the same time.

Text Boxes

▪ You can rotate and wrap text at the same time in a text box.

See Also

Help

<u>Aligning text box and button text</u>

<u>Alignment Command (Format Menu for Worksheets)</u>

<u>Text Command (Format Menu for Charts)</u>

<u>Text Formatting Tools Category</u>

<u>Toolbars</u>

<u>Tools</u>

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Chapter 7, "Formatting a Worksheet"

Rotate Text Up Tool

▪   Rotates the alignment of selected text in cells, chart text, <u>buttons</u>, and <u>text boxes</u> so that you read it from bottom to top.

▪   You must adjust the height of the row or the dimensions of the button or text box to accommodate the length of the rotated text.

▪   Clicking this tool again changes the text alignment to horizontal.

Cells

▪   Using the Rotate Text Up tool affects only the appearance of cells, not the actual values within them.

▪   You can either rotate the text or wrap the text in a cell, but you cannot do both at the same time.

Text Boxes

▪   You can rotate and wrap text at the same time in a text box.

See Also

Help

<u>Aligning text box and button text</u>

<u>Alignment Command (Format Menu for Worksheets)</u>

<u>Text Command (Format Menu for Charts)</u>

<u>Text Formatting Tools Category</u>

<u>Toolbars</u>

<u>Tools</u>

User's Guide (Book 1)

Chapter 7, "Formatting a Worksheet"

Freeze Panes Tool

- Freezes panes above and to the left of the active cell.
- This tool prevents panes to the left of a vertical split from scrolling horizontally and prevents panes above a horizontal split from scrolling vertically.
- To unfreeze the panes, click this tool again.

See Also

Help

Freeze and Unfreeze Panes Commands (Window Menu)

Freezing and unfreezing panes

Freezing and unfreezing worksheet titles

Toolbars

Tools

Utility Tools Category

User's Guide (Book 1)

Chapter 7, "Formatting a Worksheet"

Delete Tool

▪ Removes the selected cells from a worksheet or macro sheet and shifts the surrounding cells to fill the space.

▪ To remove the contents, formats, or both from selected cells, but not the cells themselves, use the <u>Clear</u> command, the <u>Clear Formats tool</u>, or the <u>Clear Formulas tool</u>.

▪ If you hold down SHIFT while clicking this tool, it functions like the <u>Insert tool</u>.

Shortcut: CTRL+MINUS SIGN (--)

See Also

Help

<u>Clear Formats Tool</u>

<u>Clear Formulas Tool</u>

<u>Delete Command (Edit Menu)</u>

<u>Deleting cells, rows, or columns</u>

<u>Edit Tools Category</u>

<u>Insert Tool</u>

<u>Toolbars</u>

<u>Tools</u>

User's Guide (Book 1)

Chapter 6, "Editing a Worksheet"

Insert Row Tool

- Inserts a row or rows equivalent in size and shape to the selected cell range and shifts the surrounding rows to accommodate the insertion.
- If you hold down SHIFT while clicking this tool, it functions like the Delete Row tool.

See Also

Help

Edit Tools Category

Inserting cells, rows, or columns

Toolbars

Tools

User's Guide (Book 1)

Chapter 6, "Editing a Worksheet"

Insert Column Tool

- Inserts a column or columns equivalent in size and shape to the selected cell range and shifts the surrounding columns to the right to accommodate the insertion.
- If you hold down SHIFT while clicking this tool, it functions like the Delete Column tool.

See Also

Help

Delete Column Tool

Edit Tools Category

Inserting cells, rows, or columns

Toolbars

Tools

User's Guide (Book 1)

Chapter 6, "Editing a Worksheet"

Delete Row Tool

- Removes the selected rows from a worksheet or macro sheet and shifts the surrounding rows up to fill in the space.
- Both contents and formats contained within the selection are deleted.
- If you hold down SHIFT while clicking this tool, it functions like the Insert Row tool.

See Also

Help

Deleting cells, rows, or columns

Edit Tools Category

Insert Row Tool

Toolbars

Tools

User's Guide (Book 1)

Chapter 6, "Editing a Worksheet"

Delete Column Tool

▪   Removes the selected columns from a worksheet or macro sheet and shifts the surrounding columns to the right or the left to fill in the space.

▪   Both contents and formats contained within the selection are deleted.

▪   If you hold down SHIFT while clicking this tool, it functions like the Insert Column tool.

See Also

Help

Deleting cells, rows, or columns

Edit Tools Category

Insert Column Tool

Toolbars

Tools

User's Guide (Book 1)

Chapter 6, "Editing a Worksheet"

Clear Formulas Tool

- Removes selected objects or data, or the formulas, from selected cells.
- If a chart is active, clicking this tool removes a selected data series or formats, or selected objects.
- Clicking this tool also removes a document from an active workbook without deleting it.
- Clicking this tool is the same as choosing the Clear command from the Edit menu for both worksheets and charts.

Shortcuts: CTRL+DEL

See Also

Help

Clear Command (Edit Menu for Charts)

Clear Command (Edit Menu for Worksheets)

Clearing data from cells

Edit Tools Category

Toolbars

Tools

User's Guide (Book 1)

Chapter 4, "Managing Document Files"

Chapter 6, "Editing a Worksheet"

Chapter 13, "Editing a Chart"

Cut Tool

▪   Removes the selection from the document and places it onto the <u>Clipboard</u>.   Clicking this tool is the same as choosing the <u>Cut</u> command from the Edit menu.

▪   The selection can be a cell, cell range, characters in the formula bar, a chart, a document within a workbook (worksheet, macro sheet, or chart), or a graphic object.

▪   Characters that are cut from the formula bar are deleted and placed on the Clipboard. The characters can then be pasted into a new location in the same formula or into a formula in another cell.

▪   When you cut cells on a worksheet or macro sheet, Microsoft Excel surrounds the selected cell or cell range with a moving border.

▪   To paste the cut selection to another location, you can use the <u>Paste command</u> on the Edit menu or the <u>Paste tool</u>.

▪   To paste the cut selection and insert new cells to contain the selection, you can use the <u>Insert Paste command</u> on the Edit menu.

▪   Within a workbook window, you can use the Cut tool and the Paste command or the Paste tool to rearrange the order of worksheets or to move a worksheet from one workbook to another.

▪   You can cut an individual object or several objects together.
        If you cut more than one object at a time, the objects maintain the same relative
        positions when pasted into a new location.

Shortcut: CTRL+X
                SHIFT+DEL

See Also

Help

<u>Cut Command (Edit Menu)</u>

<u>Deleting a graphic object</u>

<u>Edit Tools Category</u>

<u>Inserting cells, rows, or columns</u>

<u>Moving cells and data</u>

<u>Toolbars</u>

<u>Tools</u>

User's Guide (Book 1)

Chapter 6, "Editing a Worksheet"

Chapter 15, "Working with Graphic Objects"

Paste Tool

▪ Pastes the contents of the <u>Clipboard</u> onto a worksheet, chart, group, or into the formula bar. Clicking this tool is the same as choosing the <u>Paste</u> command from the Edit menu.

▪ The selection can be a cell, a cell range, a nonadjacent section, characters in the formula bar, a chart, a document within a workbook (worksheet, macro sheet, or chart), or a graphic object.

▪ Characters that are cut from the formula bar are available for pasting to a new location in the same formula or into a formula in another cell.

▪ Within a workbook window, you can use the Paste tool to rearrange the order of worksheets or to move a worksheet from one workbook to another.

▪ You can paste an individual object or several objects together. The objects maintain the same relative positions when pasted in a new location as they had when they were cut or copied.

Shortcuts: CTRL+V
SHIFT+INS

See Also

Help

<u>Copying a chart to a worksheet or another application</u>

<u>Copying cells to multiple locations</u>

<u>Copying data and saving it in a separate file</u>

<u>Copying data</u>

<u>Copying to another worksheet or application</u>

<u>Copying visible cells</u>

<u>Copying within the formula bar</u>

<u>Edit Tools Category</u>

<u>Moving cells and data</u>

<u>Paste Command (Edit Menu)</u>

<u>Toolbars</u>

<u>Tools</u>

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Chapter 5, "Creating a Worksheet"

Chapter 6, "Editing a Worksheet"

Chapter 8, "Organizing and Documenting a Worksheet"

Chapter 11, "Working with Multiple Microsoft Excel Documents"

Chapter 15, "Working with Graphic Objects"

Calculate Now Tool

▪ Calculates all open worksheets, macro sheets, and charts, or a formula in the formula bar.

▪ The calculations are made according to the settings in the Calculation Options dialog box.

▪ If the formula bar is active, the whole formula or the selected part is replaced with the results of the calculation.

Shortcut: F9

See Also

Help

Calculation Command (Options Menu)

Setting calculation options for open documents

Recalculating linked worksheets

Toolbars

Tools

Utility Toolbar

Utility Tools Category

User's Guide (Book 1)

Chapter 5, "Creating a Worksheet"

User's Guide (Book 2)

Chapter 1, "Analyzing and Calculating Data"

Clear Formats Tool

▪ Removes the formats from selected cells in worksheets and macro sheets and selected items in charts.

Worksheets and Macro Sheets

▪ Cell formulas and notes are unchanged.
▪ The cells return to General format.

Charts

▪ The data is not affected.

See Also

Help

Clear Command (Edit Menu for Charts)

Clear Command (Edit Menu for Worksheet)

Clearing data from cells

Edit Tools Category

Toolbars

Tools

User's Guide (Book 1)

Chapter 6, "Editing a Worksheet"

Chapter 14, "Formatting a Chart"

Insert Tool

▪   Inserts a cell or range of cells and shifts the surrounding cells to accommodate the insertion.

▪   If you hold down SHIFT while clicking this tool, it functions like the <u>Delete tool</u>.

Shortcut: CTRL+PLUS SIGN (+)

See Also

Help

<u>Delete Tool</u>

<u>Edit Tools Category</u>

<u>Inserting cells, rows, or columns</u>

<u>Toolbars</u>

<u>Tools</u>

User's Guide (Book 1)

Chapter 6, "Editing a Worksheet "

Microsoft Word Tool

- Switches to Microsoft Word.
- Before using this tool, you must open the add-in macro SWITCH.XLA, and specify which toolbar you want this tool added to.
- This tool will then function similarly to the <u>Switch To</u> command on the Microsoft Excel Control menu.

See Also

Help

<u>Assigning a macro to the application switching tools</u>

<u>Custom Tools Category</u>

<u>Toolbars</u>

<u>Tools</u>

User's Guide (Book 2)

Chapter 4, "Customizing Microsoft Excel"

Set Print Area Tool

- Defines the area of the active worksheet that you want to print.
- After setting the print area, you can print it by using the <u>Print tool</u> or the <u>Print</u> command on the File menu.

See Also

Help

<u>File Tools Category</u>

<u>Print Command (File Menu)</u>

<u>Print Tool</u>

<u>Resetting the print area</u>

<u>Set Print Area Command (Options Menu)</u>

<u>Toolbars</u>

<u>Tools</u>

<u>Utility Toolbar</u>

User's Guide (Book 1)

Chapter 16, "Printing"

Filled Polygon Tool

Draws a polygon that is filled with the window background pattern and color.

▪ When you click the Filled Polygon tool, the mouse pointer changes to a cross hair.

▪ To draw a polygon, click where you want to start drawing.   Without dragging, move to where you want the next line to begin.   Click to form a vertex.   Repeat these actions until you have drawn the polygon.

To end the drawing, double-click the mouse button or close the polygon by clicking on the same point where you began drawing.

▪ When you double-click the mouse button, the graphic object is automatically selected.

▪ To draw multiple filled polygons, double-click the Filled Polygon tool.   The Filled Polygon tool remains selected until you click it again, click another tool, press ESC, or click another part of the worksheet without dragging.

▪ If you hold down SHIFT while clicking this tool, it functions like the <u>Polygon tool</u>.

▪ If you want the filled polygon that you are drawing to adjust automatically to fit the nearest row and column, hold down ALT while clicking.

See Also

Help

<u>Drawing lines and shapes with the toolbar</u>

<u>Drawn Objects</u>

<u>Drawing Tools Category</u>

<u>Toolbars</u>

<u>Tools</u>

User's Guide (Book 1)

Chapter 15, "Working with Graphic Objects"

Polygon Tool

Draws a polygon.

- When you click the Polygon tool, the mouse pointer changes to a cross hair.
- To draw a polygon, click where you want to start drawing.   Without dragging, move to where you want the next line to begin.   Click to form a vertex.   Repeat these actions until you have drawn the polygon.
   To end the drawing, double-click the mouse button or close the polygon by clicking on the same point where you began drawing.
- When you double-click the mouse button, the graphic object is automatically selected.
- To draw multiple polygons, double-click the Polygon tool.   The Polygon tool remains selected until you click it again, click another tool, press ESC, or click another part of the worksheet without dragging.
- If you hold down SHIFT while clicking this tool, it functions like the Filled Polygon tool.
- If you want the polygon that you are drawing to adjust automatically to fit the nearest row and column, hold down ALT while drawing the polygon.

See Also

Help

Drawing lines and shapes with the toolbar

Drawing Tools Category

Drawn Objects

Toolbars

Tools

User's Guide (Book 1)

Chapter 15, "Working with Graphic Objects"

Vertical Gridlines Tool

▪   Adds or removes major category axis gridlines visible on the active chart.

▪   The gridlines extend vertically from the category axis through the plot area for most charts.

▪   On bar charts, the gridlines extend horizontally from the category axis across the plot area.

▪   The gridlines are aligned with the major tick marks.

▪   If the chart already has major category gridlines, clicking the Vertical Gridlines tool removes them.

See Also

Help

Adding or deleting gridlines

Charting Tools Category

Gridlines Command (Chart Menu)

Toolbars

Tools

User's Guide (Book 1)

Chapter 14, "Formatting a Chart"

3-D Surface Chart Tool

▪   Creates an <u>embedded chart</u>, or changes the format of an active or selected embedded chart to the 3-D surface chart format.

▪   Creating a surface chart is like stretching a rubber sheet over a regular 3-D column chart.

▪   Color is used in a surface chart not to mark data series, but to indicate areas that are at the same height, as in a topographic map.

▪   Colors cannot be edited directly.   To change colors in a surface chart, you must <u>change the colors in the color palette</u>.

> If the chart is a separate chart document, you can change the colors in the color palette for that document.

> If the chart is embedded on a worksheet, you can change the colors in the color palette for that worksheet.

▪   If the chart has an overlay, using the 3-D Surface Chart tool deletes the overlay.

▪   If you have a range of cells selected on a worksheet, this tool creates a new 3-D surface chart on the worksheet.

See Also

Help

<u>3-D Surface Command (Gallery Menu)</u>

<u>Chart Toolbar</u>

<u>Charting Tools Category</u>

<u>Creating a chart</u>

<u>Customizing colors in the color palette</u>

<u>Toolbars</u>

<u>Tools</u>

User's Guide (Book 1)

Chapter 12, "Creating a Chart"

Chapter 13, "Editing a Chart"

3-D Bar Chart Tool

▪   Creates an <u>embedded chart</u>, or changes the format of an active or selected embedded chart to a simple bar chart with 3-D markers.

▪   A 3-D bar chart emphasizes the values of individual figures at a specific time or draws comparisons among items.

▪   If the chart has an overlay, using the 3-D Bar Chart tool deletes the overlay.

▪   If you have a range of cells selected on a worksheet, this tool creates a new 3-D bar chart on the worksheet.

See Also

Help

<u>3-D Bar Command (Gallery Menu)</u>

<u>Chart Toolbar</u>

<u>Charting Tools Category</u>

<u>Creating a chart</u>

<u>Toolbars</u>

<u>Tools</u>

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Chapter 12, "Creating a Chart"

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3-D Column Chart Tool

▪   Creates an <u>embedded chart</u>, or changes the format of an active or selected embedded chart to a simple column chart with 3-D markers.

▪   A 3-D column chart emphasizes the comparison of data points along two axes--a category axis and a series axis--so you can compare data points within a series more easily, yet still view data by category.

▪   If the chart has an overlay, using the 3-D Column Chart tool deletes the overlay.

▪   If you have a range of cells selected on a worksheet, this tool creates a new 3-D column chart on the worksheet.

See Also

Help

<u>3-D Column Command (Gallery Menu)</u>

<u>Chart Toolbar</u>

<u>Charting Tools Category</u>

<u>Creating a chart</u>

<u>Toolbars</u>

<u>Tools</u>

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Chapter 12, "Creating a Chart"

Chapter 13, "Editing a Chart"

3-D Line Chart Tool

▪ Creates an <u>embedded chart</u>, or changes the format of an active or selected embedded chart to a line chart with the lines shown as 3-D ribbons.

▪ A 3-D line chart has individual lines that are easier to view, particularly when they cross, while still showing all series in one chart for comparison.

▪ If the chart has an overlay, using the 3-D Line Chart tool deletes the overlay.

▪ If you have a range of cells selected on a worksheet, this tool creates a new 3-D line chart on the worksheet.

See Also

Help

<u>3-D Line Command (Gallery Menu)</u>

<u>Chart Toolbar</u>

<u>Charting Tools Category</u>

<u>Creating a chart</u>

<u>Toolbars</u>

<u>Tools</u>

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Chapter 12, "Creating a Chart"

Chapter 13, "Editing a Chart"

3-D Pie Chart Tool

▪   Creates an <u>embedded chart</u>, or changes the format of an active or selected embedded chart to a 3-D pie chart with the value labels expressed as percentages.

▪   A 3-D pie chart shows a pie chart with 3-D slices.

▪   If the chart has an overlay, using the 3-D Pie Chart tool deletes the overlay.

▪   If you have a range of cells selected on a worksheet, this tool creates a new 3-D pie chart on the worksheet.

See Also

Help

<u>3-D Pie Command (Gallery Menu)</u>

<u>Chart Toolbar</u>

<u>Charting Tools Category</u>

<u>Creating a chart</u>

<u>Toolbars</u>

<u>Tools</u>

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Chapter 12, "Creating a Chart"

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3-D Perspective Column Chart Tool

▪   Creates an <u>embedded chart</u>, or changes the format of an active or selected embedded chart to a 3-D column chart with each series plotted separately.

▪   A 3-D perspective column chart emphasizes the comparison of data points along two axes--a category axis and a series axis--so you can compare data points within a series more easily, yet still view data by category.

▪   If the chart has an overlay, using the 3-D Perspective Column Chart tool deletes the overlay.

▪   If you have a range of cells selected on a worksheet, this tool creates a new 3-D perspective column chart on the worksheet.

See Also

Help

<u>3-D Column Command (Gallery Menu)</u>

<u>Chart Toolbar</u>

<u>Charting Tools Category</u>

<u>Creating a chart</u>

<u>Toolbars</u>

<u>Tools</u>

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Chapter 12, "Creating a Chart"

Chapter 13, "Editing a Chart"

Area Chart Tool

▪   Creates an <u>embedded chart</u>, or changes the format of an active or selected embedded chart to the simple area chart format.

▪   An area chart shows how values change in proportion to the total over a period of time.   It is similar to a line chart, but emphasizes the magnitude of values rather than the flow of time and the rate of change.

▪   If the chart has an overlay, using the Area Chart tool deletes the overlay.

▪   If you have a range of cells selected on a worksheet, this tool creates a new area chart on the worksheet.

See Also

Help

<u>Area Command (Gallery Menu)</u>

<u>Chart Toolbar</u>

<u>Charting Tools Category</u>

<u>Creating a chart</u>

<u>Toolbars</u>

<u>Tools</u>

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Bar Chart Tool

▪ Creates an <u>embedded chart</u>, or changes the format of an active or selected embedded chart to the simple bar chart format.

▪ A bar chart shows individual figures at a specific time or draws comparisons among items.   It is similar to a column chart, but places less emphasis on the flow of time and more on the comparisons.

▪ If the chart has an overlay, using the Bar Chart tool deletes the overlay.

▪ If you have a range of cells selected on a worksheet, this tool creates a new bar chart on the worksheet.

See Also

Help

<u>Bar Command (Gallery Menu)</u>

<u>Chart Toolbar</u>

<u>Charting Tools Category</u>

<u>Creating a chart</u>

<u>Toolbars</u>

<u>Tools</u>

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Chapter 12, "Creating a Chart"

Chapter 13, "Editing a Chart"

ChartWizard Tool

▪ Starts the ChartWizard so that you can edit an <u>embedded chart</u> or chart document or create a chart as an embedded object on a worksheet.

▪ The ChartWizard helps you to create or edit a chart by asking you questions and then creating or modifying the chart based on your answers.

Creating a chart

▪ After you click the ChartWizard tool, you must define the size and shape of your chart by dragging the mouse.

▪ When you release the mouse button, the ChartWizard appears. You can either answer the questions or click

▪ and let Microsoft Excel create the chart using the default settings.

Editing a chart

▪ If you want to edit an embedded chart, select it, click the ChartWizard tool, and answer the questions.

▪ If you want to edit a chart document, open it, click the ChartWizard tool, and answer the questions.

▪ You can make changes to the chart, but you cannot change the chart type.   To <u>change the chart type</u>, select the chart and then click the appropriate chart tool on the <u>Chart toolbar</u> or choose one of the chart commands from the <u>Gallery menu</u>.

See Also

Help

<u>Adding data and formats to a chart from a worksheet or another chart</u>

<u>Adding or editing series</u>

<u>Changing the chart type and format</u>

<u>Chart Toolbar</u>

<u>Charting Tools Category</u>

<u>Creating a chart</u>

<u>Displaying and hiding toolbars</u>

<u>Standard Toolbar</u>

<u>Toolbars Command (Options Menu)</u>

<u>Toolbars</u>

<u>Tools</u>

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Chapter 13, "Editing a Chart "

Column Chart Tool

▪   Creates an <u>embedded chart</u>, or changes the format of an active or selected embedded chart to the simple column chart format.

▪   A column chart shows variations over a period of time or draws comparisons among items.

▪   If the chart has an overlay, using the Column Chart tool deletes the overlay.

▪   If you have a range of cells selected on a worksheet, this tool creates a new column chart on the worksheet.

See Also

Help

<u>Chart Toolbar</u>

<u>Charting Tools Category</u>

<u>Column Command (Gallery Menu)</u>

<u>Creating a chart</u>

<u>Toolbars</u>

<u>Tools</u>

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Constrain Numeric Tool

  Constrains handwriting recognition to numbers and punctuation only.

- The Constrain Numeric tool is only available when using Microsoft Excel with Microsoft Windows for Pen Computing.

- You can use this tool to improve recognition when entering a series of numbers or numeric formulas.
- This tool is automatically activated in dialog box fields that only accept numbers.
- When the Constrain Numeric tool is active, only the following characters are recognized:

    0 1 2 3 4 5 6 7 8 9 $ # @ % ( ) - + = { } : < > . , ? / |

- You can still use all of the Microsoft Windows for Pen Computing gestures when this tool is active.
- To remove the numeric constraint, click the Constrain Numeric tool again.

See Also

Help

Formula Tools Category

Using the Pen with Microsoft Excel

Toolbars

Tools

Microsoft Excel Function Reference

CONSTRAIN.NUMERIC

Horizontal Gridlines Tool

▪   Adds or removes major value axis gridlines visible on an active chart or selected <u>embedded chart</u>.

▪   The gridlines extend horizontally from the value axis across the plot area for most charts.

▪   On bar charts, the gridlines extend vertically from the value axis across the plot area.

▪   The gridlines are aligned with the major <u>tick marks</u>.

▪   If the chart already has major value axis gridlines, clicking the Horizontal Gridlines tool removes them.

See Also

Help

<u>Adding or deleting gridlines</u>

<u>Chart Toolbar</u>

<u>Charting Tools Category</u>

<u>Gridlines Command (Chart Menu)</u>

<u>Toolbars</u>

<u>Tools</u>

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Chapter 14, "Formatting a Chart"

Legend Tool

▪   Adds or removes a <u>legend</u> along the right side of an active chart or selected <u>embedded chart</u>.

▪   Microsoft Excel inserts the legend to the right of the plot area and resizes the plot area to accommodate it.

▪   If the chart already has a legend, clicking the Legend tool removes it.

See Also

Help

<u>Add Legend and Delete Legend Commands (Chart Menu)</u>

<u>Adding or deleting a legend</u>

<u>Chart Toolbar</u>

<u>Charting Tools Category</u>

<u>Formatting a legend</u>

<u>Legend Command (Format Menu for Charts)</u>

<u>Moving a legend</u>

<u>Toolbars</u>

<u>Tools</u>

User's Guide (Book 1)

Chapter 14, "Formatting a Chart"

Line Chart Tool

▪   Creates an <u>embedded chart</u>, or changes the format of an active or selected embedded chart to the simple line chart format.

▪   A line chart shows trends or changes in data over a period of time. It is similar to an area chart, but emphasizes the flow of time and rate of change more than the magnitude of values.

▪   If the chart has an overlay, using the Line Chart tool deletes the overlay.

▪   If you have a range of cells selected on a worksheet, this tool creates a new line chart on the worksheet.

See Also

Help

<u>Chart Toolbar</u>

<u>Charting Tools Category</u>

<u>Creating a chart</u>

<u>Line Command (Gallery Menu)</u>

<u>Toolbars</u>

<u>Tools</u>

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Chapter 13, "Editing a Chart"

Line/Column Chart Tool

- Creates an <u>embedded chart</u>, or changes the format of an active or selected embedded chart to a combination chart with a column chart overlaid by a line chart.
- A line/column chart shows data that may be related but measured in different units. It is useful for comparing two different kinds of data or juxtaposing series to show correlations that otherwise might not be recognized.
- If there is an even number of data series, the first half appears on the main chart and the second half appears on the overlay chart.
- If there is an odd number of data series, the main chart has one series more than the overlay chart.   For example, in a chart with five data series, the first three appear on the main chart and the last two on the overlay chart.
- If the chart has an overlay, using the Line/Column Chart tool replaces the overlay with this line chart.
- If you have a range of cells selected on a worksheet, this tool creates a new line/column chart on the worksheet.

See Also

Help

<u>Chart Toolbar</u>

<u>Charting Tools Category</u>

<u>Combination Command (Gallery Menu)</u>

<u>Creating a chart</u>

<u>Toolbars</u>

<u>Tools</u>

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Chapter 13, "Editing a Chart"

Pie Chart Tool

▪   Creates an <u>embedded chart</u>, or changes the format of an active or selected embedded chart to a pie chart with the value labels expressed as percentages.

▪   A pie chart can contain only one series.

▪   A pie chart shows the relationship of the parts to the whole.

▪   If the chart has an overlay, using the Pie Chart tool deletes the overlay.

▪   If you have a range of cells selected on a worksheet, this tool creates a new pie chart on the worksheet.

See Also

Help

<u>Chart Toolbar</u>

<u>Charting Tools Category</u>

<u>Creating a chart</u>

<u>Pie Command (Gallery Menu)</u>

<u>Toolbars</u>

<u>Tools</u>

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Radar Chart Tool

▪ Creates an <u>embedded chart</u>, or changes the format of an active or selected embedded chart to a radar chart with lines and markers.

▪ Each category in a radar chart has its own axis radiating from the center point.   The data points belonging to the same series are connected by lines.

▪ If the chart has an overlay, using the Radar Chart tool deletes the overlay.

▪ If you have a range of cells selected on a worksheet, this tool creates a new radar chart on the worksheet.

See Also

Help

<u>Chart Toolbar</u>

<u>Charting Tools Category</u>

<u>Creating a chart</u>

<u>Radar Command (Gallery Menu)</u>

<u>Toolbars</u>

<u>Tools</u>

User's Guide (Book 1)

Chapter 12, "Creating a Chart"

Chapter 13, "Editing a Chart"

Stacked Column Chart Tool

▪   Creates an <u>embedded chart</u>, or changes the format of an active or selected embedded chart to a stacked column chart.

▪   A stacked column chart shows variations over a period of time or draws comparisons with the whole.

▪   If the chart has an overlay, using the Stacked Column Chart tool deletes the overlay.

▪   If you have a range of cells selected on a worksheet, this tool creates a new stacked column chart on the worksheet.

See Also

Help

<u>Chart Toolbar</u>

<u>Charting Tools Category</u>

<u>Column Command (Gallery Menu)</u>

<u>Creating a chart</u>

<u>Toolbars</u>

<u>Tools</u>

User's Guide (Book 1)

Chapter 12, "Creating a Chart"

Chapter 13, "Editing a Chart"

Volume/Hi-Lo-Close Chart Tool

▪   Creates an <u>embedded chart</u>, or changes the format of an active or selected embedded chart to a column chart overlaid by a line chart with high, low, and close markers.

▪   A volume/hi-lo-close chart is useful for showing stock volumes related to high, low, and closing prices.

▪   If the chart has an overlay, using the Volume/Hi-Lo-Close Chart tool deletes the overlay.

▪   If you have a range of cells selected on a worksheet, this tool creates a new volume/hi-lo-close chart on the worksheet.

See Also

Help

<u>Chart Toolbar</u>

<u>Charting Tools Category</u>

<u>Combination Command (Gallery Menu)</u>

<u>Creating a chart</u>

<u>Toolbars</u>

<u>Tools</u>

User's Guide (Book 1)

Chapter 12, "Creating a Chart"

Chapter 13, "Editing a Chart"

XY (Scatter) Chart Tool

▪   Creates an <u>embedded chart</u>, or changes the format of an active or selected embedded chart, to an xy (scatter) chart with data point markers only.

▪   An xy chart shows the relationship or degree of relationship between numeric values in different groups of data.   It is useful for finding patterns or trends and for determining whether variables depend on or affect one another.

▪   If the chart has an overlay, using the XY (Scatter) Chart tool deletes the overlay.

▪   If you have a range of cells selected on a worksheet, this tool creates a new xy chart on the worksheet.

See Also

Help

<u>Chart Toolbar</u>

<u>Charting Tools Category</u>

<u>Creating a chart</u>

<u>Toolbars</u>

<u>Tools</u>

<u>XY (Scatter) Command (Gallery Menu)</u>

User's Guide (Book 1)

Chapter 12, "Creating a Chart"

Chapter 13, "Editing a Chart"

Microsoft Project Tool

- Switches to Microsoft Project.
- Before using this tool, you must open the add-in macro SWITCH.XLA, and specify which toolbar you want this tool added to.
- This tool will then function similarly to the <u>Switch To</u> command on the Microsoft Excel Control menu.

See Also

Help

<u>Assigning a macro to the application switching tools</u>

<u>Custom Tools Category</u>

<u>Toolbars</u>

<u>Tools</u>

User's Guide (Book 2)

Chapter 4, "Customizing Microsoft Excel"

Microsoft PowerPoint Tool

- Switches to Microsoft PowerPoint.
- Before using this tool, you must open the add-in macro SWITCH.XLA, and specify which toolbar you want this tool added to.
- This tool will then function similarly to the <u>Switch To</u> command on the Microsoft Excel Control menu.

See Also

Help

<u>Assigning a macro to the application switching tools</u>

<u>Custom Tools Category</u>

<u>Toolbars</u>

<u>Tools</u>

User's Guide (Book 2)

Chapter 4, "Customizing Microsoft Excel"

Microsoft Mail Tool

 An unassigned tool to which you can assign a macro.

▪ By <u>assigning a macro</u> to this tool, you can use it to carry out commands that you use frequently.

You can either assign a previously recorded macro or record a new macro when you <u>create</u> the tool.

▪ Only built-in tools can be in the Tools box in the Customize dialog box.   After you customize a tool, you cannot save it to the Tools box in the Customize dialog box.

If you drag a customizable tool into the tools box in the Customize dialog box, you <u>delete</u> it.

▪ You can <u>customize the appearance</u> of the tool by adding or changing the bitmap.

See Also

Help

<u>Adding and deleting a tool from a toolbar</u>
<u>Assigning or recording a macro to a tool</u>
<u>Changing the action that a tool performs</u>
<u>Creating a custom tool</u>
<u>Custom Tools Category</u>
<u>Customizing the appearance of a tool</u>
<u>Toolbars Command (Options Menu)</u>
<u>Toolbars</u>
<u>Tools</u>

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Chapter 4, "Customizing Microsoft Excel"

New Workbook Tool

▪   Creates a new <u>workbook</u>.   Clicking this tool is the same as choosing the <u>New</u> command from the File menu and selecting Workbook.

See Also

Help

<u>Creating a workbook</u>

<u>File Tools Category</u>

<u>New Command (File Menu)</u>

<u>Toolbars</u>

<u>Tools</u>

User's Guide (Book 1)

Chapter 4, "Managing Document Files"

3-D Area Chart Tool

▪   Creates an <u>embedded chart</u>, or changes the format of an active or selected embedded chart to a stacked area chart with 3-D markers.

▪   A 3-D area chart emphasizes the sum of the plotted values and separates the series into distinct rows to show differences between them.

▪   If the chart has an overlay, using the 3-D Area Chart tool deletes the overlay.

▪   If you have a range of cells selected on a worksheet, this tool creates a new 3-D area chart on the worksheet.

See Also

Help

<u>3-D Area Command (Gallery Menu)</u>

<u>Chart Toolbar</u>

<u>Charting Tools Category</u>

<u>Creating a chart</u>

<u>Toolbars</u>

<u>Tools</u>

User's Guide (Book 1)

Chapter 12, "Creating a Chart"

Chapter 13, "Editing a Chart"

Select Current Region Tool

- Selects a rectangular range of cells around the active cell.
- The range selected is an area bounded by any combination of blank rows or blank columns.

Shortcut: CTRL+ASTERISK (*)

See Also

Help

Select Special Command (Formula Menu)

Toolbars

Tools

Utility Tools Category

Text Formatting Tools Category

- **Bold Tool**
Applies bold formatting to selected text in <u>text boxes</u> and <u>buttons</u>, or to the text in a selected cell.

- **Italic Tool**
Applies italic formatting to selected text in text boxes and buttons, or to the text in a selected cell.

- **Underline Tool**
Underlines selected text in text boxes and buttons, or the text in a selected cell.

- **Strikeout Tool**
Draws a line through the selected text in text boxes and buttons, or the text in a selected cell.

- **Text Color Tool**
Changes the color of the selected text in a cell, text box, or button.

- **Left Align Tool**
Aligns the contents of a selected text box, button, or cell to the left.

- **Center Align Tool**
Centers the contents of a selected text box, button, or cell.

- **Right Align Tool**
Aligns the contents of a selected text box, button, or cell to the right.

- **Justify Align Tool**
Evenly redistributes the contents of a selected text box, button, or cell.

- **Center Across Columns Tool**
Centers the text from one cell horizontally across selected columns.

- **Font Name Box**
Lists available fonts.

- **Font Size Box**
Lists available sizes for the font selected in the Font Name box.

- **Style Box**
Applies a cell style to the selection, or lets you define a style based on the current selection.

- **Increase Font Size Tool**
Increases the font size of the selected text to the next larger size in the Font Size list box each time you click the tool.

- **Decrease Font Size Tool**
Decreases the font size of the selected text to the next smaller size in the Font Size list box each time you click the tool.

- **Vertical Text Tool**
Aligns selected text in cells, chart text, buttons, and text boxes vertically, with each letter below the previous one so that you read from top to bottom.

- **Rotate Text Up Tool**
Rotates the alignment of selected text in cells, chart text, buttons, and text boxes so that you read it from bottom to top.

- **Rotate Text Down Tool**
Rotates the alignment of selected text in cells, chart text, buttons, and text boxes so that you read it from top to bottom.

See Also

Help
<u>Adding and deleting a tool from a toolbar</u>

User's Guide (Book 2)
Chapter 4, "Customizing Microsoft Excel"

Drawing Tools Category

- **Line Tool**
Draws a straight line.
- **Arrow Tool**
Creates an arrow on an active worksheet or macro sheet, or adds an arrow on an active chart.

Freehand Tool
Draws freehand lines.

- **Text Box Tool**
Draws a text box where you can type text on a worksheet; lets you add unattached text to an active chart.
- **Button Tool**
Draws a button to which you can assign a macro.   When you click the button, the macro runs.
- **Selection Tool**
Selects one or more graphic objects.

Reshape Tool
Allows you to change the shape of a polygon.

- **Rectangle Tool**
Draws a rectangle or square.
- **Oval Tool**
Draws an oval or circle.
- **Arc Tool**
Draws an arc or circle segment.

Polygon Tool
Draws a polygon.

Freehand Polygon Tool
Draws a shape that is a combination of freehand and straight lines.

Filled Rectangle Tool
Draws a rectangle or square that is filled with the window background pattern and color.

Filled Oval Tool
Draws an oval or circle that is filled with the window background pattern and color.

Filled Arc Tool
Draws a circle segment that is one quarter of a full circle and is filled with the window background pattern and color.

Filled Polygon Tool
Draws a polygon that is filled with the window background pattern and color.

Filled Freehand Polygon Tool
Draws a freehand polygon shape that is filled with the window background pattern and color.

- **Group Tool**
Creates a single group of graphic objects from multiple objects.
- **Ungroup Tool**
Separates grouped objects into individual objects.

- **Bring To Front Tool**
  Places one or more selected objects in front of all other objects.
- **Send To Back Tool**
  Places one or more selected objects behind all other objects.
- **Color Tool**
  Changes the foreground color of a selected cell or object.
- **Dark Shading Tool**
  Applies a dark shading pattern to selected cells and graphic objects.
- **Light Shading Tool**
  Applies a light shading pattern to selected cells and graphic objects.
- **Drop Shadow Tool**
  Adds a shadow to the bottom and the right side of a selected cell.

See Also

Help
Adding and deleting a tool from a toolbar
Creating a new toolbar
Moving and copying tools
Tools

User's Guide (Book 2)
Chapter 4, "Customizing Microsoft Excel"

File Tools Category

- **Open File Tool**
  Displays the Open dialog box so that you can open an existing document.

- **Save File Tool**
  Saves changes made to the active document.

- **Print Tool**
  Prints the active document according to the options you previously specified in the Print dialog box.

- **Print Preview Tool**
  Displays each page as it will look when you print the document.

- **Set Print Area Tool**
  Defines the area of the active worksheet that you want to print.

- **New Worksheet Tool**
  Creates a new worksheet.   Clicking this tool is the same as choosing the New command from the File menu and selecting Worksheet.

- **New Chart Tool**
  Creates a new chart document in the default chart type or the chart type and format that are selected by the Set Preferred command on the Gallery menu.

- **New Macro Sheet Tool**
  Creates a new macro sheet.   Clicking this tool is the same as choosing the New command from the File menu and selecting Macro Sheet.

- **New Workbook Tool**
  Creates a new workbook.   Clicking this tool is the same as choosing the New command from the File menu and selecting Workbook.

See Also

Help

Adding and deleting a tool from a toolbar

Creating a new toolbar

Moving and copying tools

Tools

User's Guide (Book 2)

Chapter 4, "Customizing Microsoft Excel"

Utility Tools Category

- **AutoSum Tool**
  Inserts into the active cell a formula with the SUM function and a proposed sum range. The proposed range is based on the data above or to the left of the active cell.

- **Text Box Tool**
  Draws a text box where you can type text on a worksheet; lets you add unattached text to an active chart.

- **Button Tool**
  Draws a button to which you can assign a macro.   When you click the button, the macro runs.

- **Camera Tool**
  Creates a picture of a selected range of cells and pastes the picture as an object onto a worksheet.

- **Calculate Now Tool**
  Calculates all open worksheets, macro sheets, and charts, or a formula in the formula bar.

- **Check Spelling Tool**
  Checks the spelling of the text in worksheets, macro sheets, charts, graphic objects, or the formula bar.

 Help Tool
  Adds a question mark (?) to the mouse pointer. When you place the new pointer over a command name or screen region and click the mouse button, you get information about that command or screen region.

- **Promote Tool**
  Raises selected rows or columns one level higher in an outline.

- **Demote Tool**
  Moves selected rows or columns one level lower in an outline.

- **Show Outline Symbols Tool**
  Creates an outline, if one does not exist, and displays or hides the outline symbols on your worksheet.

- **Select Visible Cells Tool**
  Selects the visible cells within the current selection that crosses hidden rows or columns so that changes you make affect only the visible cells and not the hidden rows or columns.

- **Select Current Region Tool**
  Selects a rectangular range of cells around the active cell.

- **Sort Ascending Tool**
  Rearranges the rows of a selection in sorted ascending order.

- **Sort Descending Tool**
  Rearranges the rows of a selection in sorted descending order.

- **Lock Cell Tool**
  Prevents selected cells and objects from being changed when the document is protected.

- **Freeze Panes Tool**
  Freezes panes above and to the left of the active cell.

- **Zoom In Tool**
  Allows you to see more detail by changing the scale of the document to the next higher magnification.

- **Zoom Out Tool**
  Allows you to see more of the documents by changing the scale to the next lower magnification.

- **Paste Names Tool**

  Displays the <u>Paste Names</u> dialog box so that you can insert a selected <u>name</u> into the formula bar.

- **Paste Function Tool**

  Displays the <u>Paste Function</u> dialog box so that you can insert a selected <u>function</u> into the formula bar.

See Also

Help

<u>Adding and deleting a tool from a toolbar</u>

<u>Creating a new toolbar</u>

<u>Moving and copying tools</u>

<u>Tools</u>

User's Guide (Book 2)

Chapter 4, "Customizing Microsoft Excel"

Edit Tools Category

- **Undo Tool**
  Undoes certain commands or, if possible, deletes the last entry you typed into a blank cell.

- **Repeat Tool**
  Repeats the last command you chose, if possible, including any dialog-box option settings.

- **Cut Tool**
  Removes the selection from the document and places it onto the <u>Clipboard</u>.   Clicking this tool is the same as choosing the <u>Cut</u> command from the Edit menu.

- **Copy Tool**
  Copies the selected cells, characters, or objects onto the Clipboard.   Clicking this tool is the same as choosing the <u>Copy</u> command from the Edit menu.

- **Paste Tool**
  Pastes the contents of the Clipboard onto a worksheet, chart, group, or into the formula bar.   Clicking this tool is the same as choosing the <u>Paste</u> command from the Edit menu.

- **Clear Formulas Tool**
  Removes selected objects or data, or the formulas, from selected cells.

- **Clear Formats Tool**
  Removes the formats from selected cells in worksheets and macro sheets and selected items in charts.

- **Paste Formats Tool**
  Pastes into the selection only the cell formats from the cells that you have copied onto the Clipboard.

- **Paste Values Tool**
  Pastes only the values from the cells that you have copied onto the Clipboard.

- **Delete Tool**
  Removes the selected cells from a worksheet or macro sheet and shifts the surrounding cells to fill the space.

- **Delete Row Tool**
  Removes the selected rows from a worksheet or macro sheet and shifts the rows up to fill in the space.

- **Delete Column Tool**
  Removes the selected columns from a worksheet or macro sheet and shifts the columns to the right or to the left to fill in the space.

- **Insert Tool**
  Inserts a cell or range of cells and shifts the surrounding cells to accommodate the insertion.

- **Insert Row Tool**
  Inserts a row or rows equivalent in size and shape to the selected cell range and shifts the surrounding rows to accommodate the insertion.

- **Insert Column Tool**
  Inserts a column or columns equivalent in size and shape to the selected cell range and shifts the surrounding columns to the right to accommodate the insertion.

- **Fill Right Tool**
  Copies the values, formulas, and formats of cells in the left column of a selected range into the remaining selected cells to the right.

- **Fill Down Tool**
  Copies the values, formulas, and formats of cells in the top row of a selected range into the remaining selected cells below.

See Also

Help

Adding and deleting a tool from a toolbar
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Tools

User's Guide (Book 2)

Chapter 4, "Customizing Microsoft Excel"

Formula Tools Category

 Equal Sign Tool
Adds an equal sign (=) at the location of the insertion point in the formula bar.

 Plus Sign Tool
Adds a plus sign (+) at the location of the insertion point in the formula bar.

 Minus Sign Tool
Adds a minus sign (-) at the location of the insertion point in the formula bar.

 Multiplication Sign Tool
Adds an asterisk (*) at the location of the insertion point in the formula bar.

 Division Sign Tool
Adds a division sign (/) at the location of the insertion point in the formula bar.

 Exponentiation Sign Tool
Adds a caret (^) at the location of the insertion point in the formula bar.

 Left Parenthesis Tool
Adds an opening parenthesis [( ] at the location of the insertion point in the formula bar.

 Right Parenthesis Tool
Adds a closing parenthesis [ )] at the location of the insertion point in the formula bar.

▪ **Colon Tool**
Adds a colon (:) at the location of the insertion point in the formula bar.

▪ **Comma Tool**
Adds a comma (,) at the location of the insertion point in the formula bar.

▪ **Percent Sign Tool**
Adds a percent sign (%) at the location of the insertion point in the formula bar.

▪ **Dollar Sign Tool**
Adds a dollar sign ($) at the location of the insertion point in the formula bar.

▪ **AutoSum Tool**
Inserts into the active cell a formula with the SUM function and a proposed sum range. The proposed range is based on the data above or to the left of the active cell.

▪ **Paste Function Tool**
Displays the Paste Function dialog box so that you can insert a selected function into the formula bar.

▪ **Paste Names Tool**
Displays the Paste Names dialog box so that you can insert a selected name into the formula bar.

▪ **Constrain Numeric Tool**
Constrains handwriting recognition to numbers and punctuation only.

See Also

Help
Adding and deleting a tool from a toolbar
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Tools

User's Guide (Book 2)
Chapter 4, "Customizing Microsoft Excel"

Macro Tools Category

- **Record Macro Tool**
  Records your actions and commands to create a macro.
- **Stop Recording Macro Tool**
  Stops recording of a macro.
- **Run Macro Tool**
  Runs the currently selected macro, starting at the active cell.
- **Step Macro Tool**
  Displays the Single Step dialog box so that you can step through the currently selected command macro one cell at a time, starting at the active cell.
- **Resume Macro Tool**
  Resumes a macro operation after the macro has been paused.
- **Paste Function Tool**
  Displays the Paste Function dialog box so that you can insert a selected function into the formula bar.
- **Paste Names Tool**
  Displays the Paste Names dialog box so that you can insert a selected name into the formula bar.

See Also

Help

Adding and deleting a tool from a toolbar

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Tools

User's Guide (Book 2)

Chapter 4, "Customizing Microsoft Excel"

Charting Tools Category

- **Area Chart Tool**
Creates an <u>embedded chart</u>, or changes the format of an active or selected embedded chart to the simple area chart format.
- **Bar Chart Tool**
Creates an embedded chart, or changes the format of an active or selected embedded chart to the simple bar chart format.
- **Column Chart Tool**
Creates an embedded chart, or changes the format of an active or selected embedded chart to the simple column chart format.
- **Stacked Column Chart Tool**
Creates an embedded chart, or changes the format of an active or selected embedded chart to a stacked column chart.
- **Line Chart Tool**
Creates an embedded chart, or changes the format of an active or selected embedded chart to the simple line chart format.
- **Pie Chart Tool**
Creates an embedded chart, or changes the format of an active or selected embedded chart to a pie chart with the value labels expressed as percentages.
- **3-D Area Chart Tool**
Creates an embedded chart, or changes the format of an active or selected embedded chart to a stacked area chart with 3-D markers.
- **3-D Bar Chart Tool**
Creates an embedded chart, or changes the format of an active or selected embedded chart to a simple bar chart with 3-D markers.
- **3-D Column Chart Tool**
Creates an embedded chart, or changes the format of an active or selected embedded chart to a simple column chart with 3-D markers.
- **3-D Perspective Column Chart Tool**
Creates an embedded chart, or changes the format of an active or selected embedded chart to a 3-D column chart with each series plotted separately.
- **3-D Line Chart Tool**
Creates an embedded chart, or changes the format of an active or selected embedded chart to a line chart with the lines shown as 3-D ribbons.
- **3-D Pie Chart Tool**
Creates an embedded chart, or changes the format of an active or selected embedded chart to a 3-D Pie chart with the value labels expressed as percentages.
- **XY (Scatter) Chart Tool**
Creates an embedded chart, or changes the format of an active or selected embedded chart, to an xy (scatter) chart with data point markers only.
- **3-D Surface Chart Tool**
Creates an embedded chart, or changes the format of an active or selected embedded chart to the 3-D surface chart format.
- **Radar Chart Tool**
Creates an embedded chart, or changes the format of an active or selected embedded chart to a radar chart with lines and markers.
- **Line/Column Chart Tool**
Creates an embedded chart, or changes the format of an active or selected embedded chart to a combination chart with a column chart overlaid by a line chart.
- **Volume/Hi-Lo-Close Chart Tool**
Creates an embedded chart, or changes the format of an active or selected embedded

chart to a column chart overlaid by a line chart with high, low, and close markers.

- **Preferred Chart Tool**
Creates an embedded chart on a worksheet, based on the selected cells, in the area you defined by dragging the mouse, and in the format you set using the <u>Set Preferred</u> command on the Gallery menu.

- **ChartWizard Tool**
Starts the ChartWizard so that you can edit an embedded chart or chart document or create a chart as an embedded object on a worksheet.

- **Horizontal Gridlines Tool**
Adds or removes major value axis gridlines visible on an active chart or selected embedded chart.

- **Vertical Gridlines Tool**
Adds or removes major category axis gridlines visible on the active chart.

- **Legend Tool**
Adds or removes a <u>legend</u> along the right side of an active chart or selected embedded chart.

- **Arrow Tool**
Creates an arrow on an active worksheet or macro sheet, or adds an arrow on an active chart.

- **Text Box Tool**
Draws a <u>text box</u> where you can type text on a worksheet; lets you add unattached text to an active chart.

See Also

Help

<u>Adding and deleting a tool from a toolbar</u>

<u>Creating a new toolbar</u>

<u>Moving and copying tools</u>

<u>Tools</u>

User's Guide (Book 2)

Chapter 4, "Customizing Microsoft Excel"

Formatting Tools Category

- **Outline Border Tool**
Adds a border around the outermost edges of the selected cells.
- **Left Border Tool**
Adds or removes a border along the left edge of each selected cell.
- **Right Border Tool**
Adds or removes a border along the right edge of each selected cell.
- **Top Border Tool**
Adds or removes a border along the upper edge of each selected cell.
- **Bottom Border Tool**
Adds or removes a border along the lower edge of the each selected cell.
- **Bottom Double Border Tool**
Adds or removes a double border along the lower edge of each of the selected cells.
- **Dark Shading Tool**
Applies a dark shading pattern to selected cells and graphic objects.
- **Light Shading Tool**
Applies a light shading pattern to selected cells and graphic objects.
- **AutoFormat Tool**
Automatically formats a range of cells by recognizing header rows and columns, summary rows and columns, and other elements of a table.
- **Currency Style Tool**
Applies the currently defined currency style to selected cells.
- **Percent Style Tool**
Applies the currently defined percent style to selected cells.
- **Comma Style Tool**
Applies the currently defined comma style to selected cells.
- **Increase Decimal Tool**
Adds one decimal place to a number each time you click the tool.
- **Decrease Decimal Tool**
Removes one decimal place from the number each time you click the tool.
- **Style Box**
Applies a cell style to the selection, or lets you define a style based on the current selection.

See Also

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Adding and deleting a tool from a toolbar

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User's Guide (Book 2)

Chapter 4, "Customizing Microsoft Excel"

Custom Tools Category

This category contains unassigned tools with a variety of tool faces.   You can use these tools to change the appearance of tools or to make custom tools.   To customize a tool, you assign a macro to it.

See Also

Help

Adding a macro to the Microsoft application switching tools

Assigning or recording a macro to a tool

Creating a custom tool

Custom Tool

Customizing the appearance of a tool

Tools

User's Guide (Book 2)

Chapter 4, "Customizing Microsoft Excel"

Microsoft Excel 3.0 Toolbar
Contains the same tools as the Microsoft Excel version 3.0 toolbar.

- **Style Box**
  Applies a cell style to the selection, or lets you define a style based on the current selection.
- **Promote Tool**
  Raises selected rows or columns one level higher in an outline.
- **Demote Tool**
  Moves selected rows or columns one level lower in an outline.
- **Show Outline Symbols Tool**
  Creates an outline, if one does not exist, and displays or hides the outline symbols on your worksheet.
- **Select Visible Cells Tool**
  Selects the visible cells on a worksheet so that changes you make affect only the visible cells and not the hidden rows or columns.
- **AutoSum Tool**
  Inserts into the active cell a formula with the SUM function and a proposed sum range. The proposed range is based on the data above or to the left of the active cell.
- **Bold Tool**
  Applies bold formatting to selected text in text boxes and buttons, or to the text in a selected cell.
- **Italic Tool**
  Applies italic formatting to selected text in text boxes and buttons, or to the text in a selected cell.
- **Left Align Tool**
  Aligns the contents of a selected text box, button, or cell to the left.
- **Center Align Tool**
  Centers the contents of a selected text box, button, or cell.
- **Right Align Tool**
  Aligns the contents of a selected text box, button, or cell to the right.
- **Selection Tool**
  Selects one or more graphic objects.
- **Line Tool**
  Draws a straight line.
- **Filled Rectangle Tool**
  Draws a rectangle or square that is filled with the window background pattern and color.
- **Filled Oval Tool**
  Draws an oval or circle that is filled with the window background pattern and color.
- **Arc Tool**
  Draws an arc or circle segment.
- **Preferred Chart Tool**
  Creates an embedded chart on a worksheet, based on the selected cells, in the area you defined by dragging the mouse, and in the format you set using the Set Preferred command on the Gallery menu.
- **Text Box Tool**
  Draws a text box where you can type text on a worksheet; lets you add unattached text to an active chart.
- **Button Tool**
  Draws a button to which you can assign a macro.   When you click the button, the macro runs.

▪ <u>**Camera Tool**</u>
Creates a picture of a selected range of cells on a chart and pastes the picture as an object on a worksheet or chart.   The picture is linked to the source selection.

See Also

Help

<u>Adding and deleting a tool from a toolbar</u>
<u>Changing the shape of a floating toolbar</u>
<u>Creating a new toolbar</u>
<u>Deleting a user defined toolbar</u>
<u>Displaying and hiding a toolbar</u>
<u>Moving a toolbar</u>
<u>Resetting a built-in toolbar</u>

User's Guide (Book 2)

Chapter 4, "Customizing Microsoft Excel"

Formatting Toolbar

- **Style Box**
  Applies a cell style to the selection, or lets you define a style based on the current selection.
- **Font Name Box**
  Lists available fonts.
- **Font Size Box**
  Lists available sizes for the font selected in the Font Name box.
- **Bold Tool**
  Applies bold formatting to selected text in <u>text boxes</u> and <u>buttons</u>, or to the text in a selected cell.
- **Italic Tool**
  Applies italic formatting to selected text in text boxes and buttons, or to the text in a selected cell.
- **Underline Tool**
  Underlines selected text in text boxes and buttons, or the text in a selected cell.
- **Strikeout Tool**
  Draws a line through the selected text in text boxes and buttons, or the text in a selected cell.
- **Justify Alignment Tool**
  Evenly redistributes the contents of a selected text box, button, or cell.
- **Currency Style Tool**
  Applies the currently defined currency style to selected cells.
- **Percent Style Tool**
  Applies the currently defined percent style to selected cells.
- **Comma Style Tool**
  Applies the currently defined comma style to selected cells.
- **Increase Decimal Tool**
  Adds one decimal place to a number format each time you click the tool.
- **Decrease Decimal Tool**
  Removes one decimal place from the number format each time you click the tool.
- **Light Shading Tool**
  Applies a light shading pattern to selected cells and graphic objects.
- **AutoFormat Tool**
  Automatically formats a range of cells by recognizing header rows and columns, summary rows and columns, and other elements of a table.

See Also

Help

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User's Guide (Book 2)

Chapter 4, "Customizing Microsoft Excel"

Drawing Toolbar

- **Line Tool**
  Draws a straight line.

- **Arrow Tool**
  Creates an arrow on an active worksheet or macro sheet, or adds an arrow on an active chart.

- **Freehand Tool**
  Draws freehand lines.

- **Rectangle Tool**
  Draws a rectangle or square.

- **Oval Tool**
  Draws an oval or circle.

- **Arc Tool**
  Draws an arc or circle segment.

- **Freehand Polygon Tool**
  Draws a shape that is a combination of freehand and straight lines.

- **Filled Rectangle Tool**
  Draws a rectangle or square that is filled with the window background pattern and color.

- **Filled Oval Tool**
  Draws an oval or circle that is filled with the window background pattern and color.

- **Filled Arc Tool**
  Draws a circle segment that is one quarter of a full circle and is filled with the window background pattern and color.

- **Filled Freehand Polygon Tool**
  Draws a freehand polygon shape that is filled with the window background pattern and color.

- **Text Box Tool**
  Draws a text box where you can type text on a worksheet; lets you add unattached text to an active chart.

- **Selection Tool**
  Selects one or more graphic objects.

- **Reshape Tool**
  Allows you to change the shape of a polygon.

- **Group Tool**
  Creates a single group of graphic objects from multiple objects.

- **Ungroup Tool**
  Separates grouped objects into individual objects.

- **Bring to Front Tool**
  Places one or more selected objects in front of all other objects.

- **Send to Back Tool**
  Places one or more selected objects behind all other objects.

- **Color Tool**
  Changes the foreground color of a selected cell or object.

- **Drop Shadow Tool**
  Adds a shadowed rectangular object around a selected cell or cells.

See Also

Help
Adding and deleting a tool from a toolbar

[Changing the shape of a floating toolbar](#)
[Creating a new toolbar](#)
[Deleting a user defined toolbar](#)
[Displaying and hiding a toolbar](#)
[Moving a toolbar](#)
[Resetting a built-in toolbar](#)

User's Guide (Book 2)
Chapter 4, "Customizing Microsoft Excel"

Macro Toolbar

- **New Macro Sheet Tool**
  Creates a new macro sheet.   Clicking this tool is the same as choosing the New command from the File menu and selecting Macro Sheet.

- **Paste Function Tool**
  Displays the Paste Function dialog box so that you can insert a selected function into the formula bar.

- **Paste Names Tool**
  Displays the Paste Names dialog box so that you can insert a selected name into the formula bar.

- **Run Macro Tool**
  Runs the currently selected macro, starting at the active cell.

- **Step Macro Tool**
  Displays the Single Step dialog box so that you can step through the currently selected command macro one cell at a time, starting at the active cell.

- **Record Macro Tool**
  Records your actions and commands to create a macro.

- **Resume Macro Tool**
  Resumes a macro operation after the macro has been paused.

See Also

Help

Adding and deleting a tool from a toolbar

Changing the shape of a floating toolbar

Creating a new toolbar

Deleting a custom toolbar

Displaying and hiding a toolbar

Moving a toolbar

Resetting a built-in toolbar

User's Guide (Book 2)

Chapter 4, "Customizing Microsoft Excel"

Stop Recording Toolbar

This toolbar is automatically displayed when you begin recording a macro by choosing the Record button in the <u>Assign To Object</u> or <u>Assign To Tool</u> dialog box.

- The Stop Recording toolbar contains the
- <u>Stop Recording tool</u>.
- When you click the Stop Recording tool, the tool and toolbar disappear; they will be displayed automatically the next time you record a macro.
- If you close the toolbar using the <u>Control-menu box</u>, the toolbar will not appear again, until you <u>display</u> it.

 You can show the Stop Recording toolbar by choosing the <u>Toolbars</u> command from the Options menu or the toolbar <u>shortcut menu</u>.

- You can <u>move</u> the Stop Recording toolbar to a more convenient location in your application window by dragging its title bar.

See Also

Help

<u>Adding and deleting a tool from a toolbar</u>
<u>Assign To Object Command (Macro Menu)</u>
<u>Assign To Tool Command (Macro Menu)</u>
<u>Changing the shape of a floating toolbar</u>
<u>Creating a new toolbar</u>
<u>Deleting a custom toolbar</u>
<u>Displaying and hiding a toolbar</u>
<u>Moving a toolbar</u>
<u>Resetting a built-in toolbar</u>

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Macro Paused Toolbar

This toolbar is automatically displayed when a running macro encounters the PAUSE function.

- The Macro Paused toolbar contains the
- <u>Resume tool</u>.
- When you click the Resume tool, the tool and toolbar disappear; they will be displayed automatically the next time you pause a macro.
- If you close the toolbar using the <u>Control-menu box</u>, the toolbar will not appear again, until you <u>display</u> it.
  You can show the Macro Paused toolbar by choosing the <u>Toolbars</u> command on the Options menu or the toolbar <u>shortcut menu</u>.
- You can <u>move</u> the Macro Paused toolbar to a more convenient location in your application window by dragging its title bar.

See Also

Help

<u>Adding and deleting a tool from a toolbar</u>

<u>Changing the shape of a floating toolbar</u>

<u>Creating a new toolbar</u>

<u>Deleting a custom toolbar</u>

<u>Displaying and hiding a toolbar</u>

<u>Moving a toolbar</u>

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Microsoft Excel Function Reference

PAUSE

RESUME

Standard Toolbar

Appears when Microsoft Excel starts.

- **New Worksheet Tool**
  Creates a new <u>worksheet</u>.   Clicking this tool is the same as choosing the <u>New</u> command from the File menu and selecting Worksheet.

- **Open File Tool**
  Displays the <u>Open dialog box</u> so that you can open an existing document.

- **Save File Tool**
  Saves changes made to the active document.

- **Print Tool**
  Prints the active document according to the options you previously specified in the Print dialog box.

- **Style Box**
  Applies a cell style to the selection, or lets you define a style based on the current selection.

- **AutoSum Tool**
  Inserts into the active cell a formula with the SUM function and a proposed sum range. The proposed range is based on the data above or to the left of the active cell.

- **Bold Tool**
  Applies bold formatting to selected text in <u>text boxes</u> and <u>buttons</u>, or to the text in a selected cell.

- **Italic Tool**
  Applies italic formatting to selected text in text boxes and buttons, or to the text in a selected cell.

- **Increase Font Size Tool**
  Increases the font size of the selected text to the next larger size in the Font Size list box each time you click the tool.

- **Decrease Font Size Tool**
  Decreases the font size of the selected text to the next smaller size in the Font Size list box each time you click the tool.

- **Left Align Tool**
  Aligns the contents of a selected text box, button, or cell to the left.

- **Center Align Tool**
  Centers the contents of a selected text box, button, or cell.

- **Right Align Tool**
  Aligns the contents of a selected text box, button, or cell to the right.

- **Center Across Columns Tool**
  Centers the text from one cell horizontally across selected columns.

- **AutoFormat Tool**
  Automatically formats a range of cells by recognizing header rows and columns, summary rows and columns, and other elements of a table.

- **Outline Border Tool**
  Adds a border around the outermost edges of the selected cells.

- **Bottom Border Tool**
  Adds a bottom border to the selected cell.

- **Paste Formats Tool**
  Pastes into the selection only the cell formats from the cells that you have copied onto the <u>Clipboard</u>.

- **Copy Tool**
  Copies the selected cells, characters, or objects onto the Clipboard.   Clicking this tool is

the same as choosing the Copy command from the Edit menu.

- **ChartWizard Tool**
Starts the ChartWizard so that you can edit an <u>embedded chart</u> or chart document or create a new chart as an embedded object on a worksheet.

- **Help Tool**
Adds a question mark (?) to the mouse pointer. When you place the new pointer over a command name or screen region and click the mouse button, you get information about that command or screen region.

See Also

Help

<u>Adding and deleting a tool from a toolbar</u>
<u>Changing the shape of a floating toolbar</u>
<u>Creating a new toolbar</u>
<u>Deleting a custom toolbar</u>
<u>Displaying and hiding a toolbar</u>
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Utility Toolbar

- **Undo Tool**
  Undoes certain commands, or deletes the last entry you typed.
- **Repeat Tool**
  Repeats the last command you chose, if possible, including any dialog-box option settings.
- **Copy Tool**
  Copies the selected cells, characters, or objects onto the Clipboard.
- **Paste Values Tool**
  Pastes into the current selection only the values from the cells that you have copied to the Clipboard.
- **Paste Formats Tool**
  Pastes into the current selection only the cell formats from the cells that you have copied to the Clipboard.
- **Zoom In Tool**
  Allows you to see more detail by changing the scale of the document to the next higher magnification.
- **Zoom Out Tool**
  Allows you to see more of the document by changing the scale to the next lower magnification.
- **Sort Ascending Tool**
  Rearranges the rows of a selection in sorted ascending order.
- **Sort Descending Tool**
  Rearranges the rows of a selection in sorted descending order.
- **Lock Cell Tool**
  Prevents selected cells and objects from being changed when the document is protected.
- **Promote Tool**
  Raises selected rows or columns one level higher in an outline.
- **Demote Tool**
  Moves selected rows or columns one level lower in an outline.
- **Show Outline Symbols Tool**
  Creates an outline, if one does not exist, and displays or hides the outline symbols on your worksheet.
- **Select Visible Cells Tool**
  Selects the visible cells within the current selection that crosses hidden rows or columns so that changes you make affect only the visible cells and not the hidden rows or columns.
- **Button Tool**
  Draws a button to which you can assign a macro.   When you click the button, the macro runs.
- **Text Box Tool**
  Draws a text box where you can type text on a worksheet; lets you add unattached text to an active chart.
- **Camera Tool**
  Creates a picture of a selected range of cells as an object on a worksheet. The picture is linked to the source selection.
- **Check Spelling Tool**
  Checks the spelling of the text in worksheets, macro sheets, charts, graphic objects, or the formula bar.
- **Set Print Area Tool**

Defines the area of the active worksheet that you want to print.

▪ **<u>Calculate Now Tool</u>**

Calculates all open worksheets, macro sheets, and charts, or a formula in the active formula bar.

See Also

Help

<u>Adding and deleting a tool from a toolbar</u>

<u>Changing the shape of a floating toolbar</u>

<u>Creating a new toolbar</u>

<u>Deleting a custom toolbar</u>

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Chart Toolbar

- **Area Chart Tool**
  Creates an <u>embedded</u> chart, or changes the format of an active or selected embedded chart to the simple area chart format.

- **Bar Chart Tool**
  Creates an embedded chart, or changes the format of an active or selected embedded chart to the simple bar chart format.

- **Column Chart Tool**
  Creates an embedded chart, or changes the format of an active or selected embedded chart to the simple column chart format.

- **Stacked Column Chart Tool**
  Creates an embedded chart, or changes the format of an active or selected embedded chart to a stacked column chart.

- **Line Chart Tool**
  Creates an embedded chart, or changes the format of an active or selected embedded chart to the simple line chart format.

- **Pie Chart Tool**
  Creates an embedded chart, or changes the format of an active or selected embedded chart to a pie chart with the value labels expressed as percentages.

- **XY (Scatter) Chart Tool**
  Creates an embedded chart, or changes the format of an active or selected embedded chart, to an xy (scatter) chart with data point makers only.

- **3-D Area Chart Tool**
  Creates an embedded chart, or changes the format of an active or selected embedded chart   to a stacked area chart with 3-D markers.

- **3-D Bar Chart Tool**
  Creates an embedded chart, or changes the format of an active or selected embedded chart to a simple bar chart with 3-D markers.

- **3-D Column Chart Tool**
  Creates an embedded chart, or changes the format of an active or selected embedded chart to a simple column chart with 3-D markers.

- **3-D Perspective Column Chart Tool**
  Creates an embedded chart, or changes the format of an active or selected embedded chart to a 3-D column chart with each series plotted separately.

- **3D Line Chart Tool**
  Creates an embedded chart, or changes the format of an active or selected embedded chart to a line chart with the lines shown as 3-D ribbons.

- **3-D Pie Chart Tool**
  Creates an <u>embedded</u> chart, or changes the format of an active or selected embedded chart to a 3-D Pie chart with the value labels expressed as percentages.

- **3-D Surface Chart Tool**
  Creates an embedded chart, or changes the format of an active or selected embedded chart to the 3-D surface chart format.

- **Radar Chart Tool**
  Creates an embedded chart, or changes the format of an active or selected embedded chart to a radar chart with lines and markers.

- **Line/Column Chart Tool**
  Creates an embedded chart, or changes the format of an active or selected embedded chart to a combination chart with a column chart overlaid by a line chart.

- **Volume/Hi-Lo-Close Chart Tool**
  Creates an embedded chart, or changes the format of an active or selected embedded

chart to a column chart overlaid by a line chart with high, low, and close markers.

- **Preferred Chart Tool**
  Creates an embedded chart on a worksheet, based on the selected cells, in the area you defined by dragging the mouse, and in the format you set using the Set Preferred command on the Gallery menu.
- **ChartWizard Tool**
  Starts the ChartWizard so that you can create a chart as an embedded object on a worksheet or edit either an embedded chart or chart document.
- **Horizontal Gridlines Tool**
  Adds or removes major value axis gridlines visible on an active chart or selected embedded chart.
- **Legend Tool**
  Adds or removes a legend along the right side of an active chart or selected embedded chart.
- **Arrow Tool**
  Creates an arrow on an active worksheet or macro sheet, or adds an arrow on an active chart.
- **Text Box Tool**
  Draws a text box where you can type text on a worksheet; lets you add unattached text to an active chart.

See Also

Help
Adding and deleting a tool from a toolbar
Changing the shape of a floating toolbar
Creating a chart
Creating a new toolbar
Deleting a custom toolbar
Displaying and hiding a toolbar
Moving a toolbar
Resetting a built-in toolbar

User's Guide (Book 1)
Chapter 12, "Creating a Chart"
Chapter 13, "Editing a Chart"

User's Guide (Book 2)
Chapter 4, "Customizing Microsoft Excel"

ChartWizard

Assists you in creating a chart from data on the worksheet.   The chart is not drawn on the worksheet until you complete the ChartWizard.

▪   If the ChartWizard hides a part of the worksheet you want to see, move the ChartWizard by dragging its title bar.

▪   If you are creating a new chart, the second step of the ChartWizard shows examples of all 14 chart types available.   Each of these corresponds to a command on the Gallery menu.

This button   Does this

Help   Displays information about the current step in the Help window.   Choosing this button is the same as pressing F1.

▪   Closes the ChartWizard without drawing a chart.

▪   Goes back to the beginning of the ChartWizard.

▪   Goes back to the previous step.

▪   Goes on to the next step.

▪   Completes the ChartWizard using the selections you have made so far.   If you choose this button on the first step, the ChartWizard creates a chart of the type determined by the Set Preferred command.

ChartWizard

The sample chart is based on the actual data you have selected.   As you select options in this dialog box, the sample chart is redrawn to reflect your selections.   You can experiment with various options--no changes are made in the actual chart until you complete the ChartWizard.

Data Series In

Rows   Each selected row of data on the worksheet will appear as a data series on the chart.

Columns   Each selected column of data on the worksheet will appear as a data series on the chart.

Use First Row/Column For

The options available depend on the chart type you selected.

Category (X) Axis Labels

The contents of the first row or column will appear as labels along the x-axis.

First Data Series

The contents of the first row or column will appear as a data series on the chart.   Any cell in the first row or column that contains text will be plotted as zero.

Pie Slice Labels

The contents of the cells in the first row or column will appear as labels for the pie slices.

First Data Series

The values of the cells in the first row or column will determine the size of the slices.

X Data

The values in the first column or row will be used to calculate the scale for the x-axis of an xy (scatter) chart.

First Data Series

The contents of the cells in the first row or column will appear as a data series on the chart.   Any cell in the first row or column that contains text will be plotted as zero.

Use First Column/Row For

The options available depend on the chart type you selected.

Legend Text

The contents in the first column or row will appear in the legend as labels for the data series.

First Data Point

The values in the first column or row will appear as the first category on the chart.
Any cell in the first column or row that contains text will be plotted as zero.

Chart Title

The value in the first column or row will appear as the title for the chart.

First Data Point

The value in the first column or row will be the value of the first pie slice.

Series (Y) Axis Labels

The values in the first column or row will be labels along the y-axis.

First Data Point

The values in the first column or row will be the first category on the chart.   Any cell in the first column or row that contains text will be plotted as zero.

ChartWizard

This step allows you to add or delete a legend and type chart and axis titles if you want.

The sample chart reflects the changes you make as you make them.   You can experiment with various options--no changes are made in the actual chart until you complete the ChartWizard by pressing ENTER or choosing the OK button.