

Microsoft® Excel: Intermediate II

A Workshop for San Diego State University Faculty and Staff



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Where to Find Help When You Need It

Help from your Division/College's Computer Consultant

Some divisions and colleges have computer consultants assigned to them. You can contact these consultants when you need help. To determine if you have a consultant assigned to your division or college, look to: <http://rohan.sdsu.edu/~facstaff>

Help from the BATS Web Page

BATS (Baseline Access, Training and Support) is a California State University initiative to provide all students, faculty, and staff with "baseline" access to information resources via networks, training in the uses of baseline hardware and software systems, and ongoing professional and technical support for utilization of computer resources at San Diego State University. You can access the BATS Web Page by pointing your browser to: <http://rohan.sdsu.edu/~bats/>

Help in the San Diego State University, Faculty Room

The Faculty Room is staffed Monday through Friday with computing consultants who will try to answer your questions.

Location: Adams Humanities, 1109
Phone Number: x45727
Semester Hours: 7:30am – 6:00pm Monday - Thursday
7:30am – 4:30pm Friday
Semester Intersession: 7:30am – 4:30pm Monday – Friday

Help from the Faculty Computing Help Line

Phone Number: x41348 **E-mail:** helpline@mail.sdsu.edu
Semester Hours: 7:30am – 6:00pm Monday – Thursday
7:30am – 4:30pm Friday
Semester Intersession: 7:30am – 4:30pm Monday – Friday

Help from the Staff Computing Help Line

Phone Number: x40824 **E-mail:** staffhelp@sdsu.edu
Semester Hours: 7:30am – 6:00pm Monday – Thursday
7:30am – 4:30pm Friday
Semester Intersession: 7:30am – 4:30pm Monday – Friday

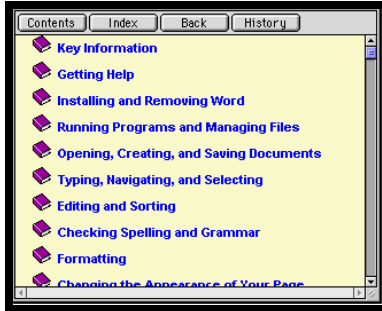
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ONSCREEN HELP

Onscreen Help

To view onscreen help, click on **Help**. The Help menu will pull down. Once the menu is displayed, select one of the following tabs:



Show the Office Assistant

An icon will appear. Click on icon and a menu will appear. Click on subject that you are interested in or type in your question in the blank box at the bottom of the menu. Then press the enter key. Hide the Office Assistant by clicking on the Assistant icon, the click on the right side of the mouse and select hide.

What's This?

Select this option and your cursor will include a Question Mark next to it. Click on anything on the screen and Word will provide an explanation of the item.

Help in the User's Manual

You can also use the User's manual that came with your software to help you answer questions and find solutions to problems.

Help on the Web

Additionally, Microsoft offers Help for "frequently asked questions" at their support website located at:

<http://www.microsoft.com/support/>

CUSTOMIZING EXCEL

One of the strengths of Excel is the ability for each individual user to customize the program so that it works the way the user wants it to work.

You can customize a variety of Excel settings and you can customize the toolbar(s) that appear on your screen.

Customizing Settings

To customize Excel's settings, click on **Tools** on the Menu Bar, and select **Options** (Windows) or **Preferences** (Macintosh). You will be presented with a dialog box that contains 8 tabs. You can change the settings for various functions on each of the tabs.

Many of the options should not be changed from the default. The following functions are most often customized to simplify the use of

Excel:

View Tab

If you have a slower computer, you should consider activating the **Show Placeholders** option. This will allow you to scroll quickly through a document since objects do not have to be displayed.

If you would always like to see your page breaks on your document, activate the **Page Breaks** option.

Calculation Tab

If you have a large spreadsheet with a lot of formulas in it, and if you notice a delay each time you modify one of the formulas, you should consider selecting the **Manual** option in the Calculation section.

With this option selected, Excel will only update your calculations when you ask it to do so, instead of recalculating all formulas each time an edit is made. When you are ready to recalculate, press the **F9** key.

Edit Tab

One handy option allows you to dictate which cell becomes active when you press the Enter key (Windows) or Return key (Macintosh).

By default, when you press the Enter/Return key, the cell below the current cell becomes the active cell. You can choose to make the active cell the cell above, below, to the right or to the left of the current cell.

If you deselect the option, the current cell will remain the active cell when you press the Enter/Return key.

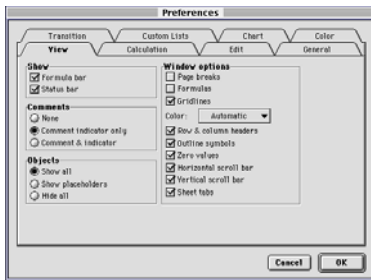
General Tab

The **Recently Used File List** setting determines how many files appear at the bottom of the File Menu. You can have up to nine files appear at the bottom of the File Menu. The default is four files.

The **Sheets in New Workbook** setting determines how many blank worksheets are available in a new workbook. By default, Excel opens three blank worksheets in each new workbook. You can change the setting so that up to 255 blank worksheets appear in a new workbook.

The **Standard Font** setting dictates the type and size of font that will default into each new workbook. You can change the standard font type and size to your preferred font.

The **Default file location** setting tells Excel where to look for files when you open an existing document. If you set this to the folder that holds all your data files, you will speed the opening of your documents.



Custom Lists Tab

Here you can create lists that Excel uses when you copy a cell into adjacent cells using the AutoFill handle. For example, if you commonly create a long list of headings specific to your department, you can create a custom list to make this job easier.

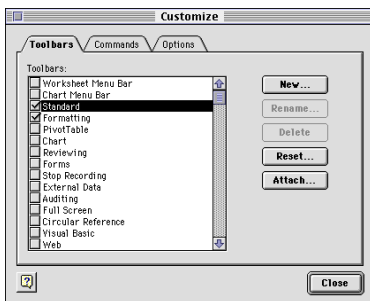
You can create custom lists two ways:

1. Click **NEW LIST** in the Custom Lists window. Then click in the List Entries window and type each list member, pressing the Enter key after each entry. Click the **Add** button when you are done.
2. Create a new list by selecting a range of cells in the **Import List from Cells** field. Once the range of cells that contains the list is entered, click the **Import** button to create the new list.

You can delete buttons that you never use from your toolbars, and you can add buttons to simplify your work.

CUSTOMIZING TOOLBARS

To begin the customization process, click on the **Tools** option on the Menu Bar and choose **Customize**. You will be presented with the Customize dialog box.



The **Toolbars** tab lists all the available toolbars. The toolbars with the “checked boxes” indicates the toolbars that are active. You can activate or deactivate a toolbar by selecting or deselecting the toolbar here.

Removing Buttons

While the **Toolbars** Tab is visible, you can remove any buttons from the active toolbars. To do this, click on the button that you want removed and drag the button down and off the toolbar. When you release your mouse button, the unwanted button will be gone.

Adding Buttons

To add buttons, select the **Commands** tab. This tab contains the Categories and the Commands windows. To add a button to a toolbar, first select your category. Within each category is a variety of commands. With the category selected, click on the desired command and drag it to the desired toolbar. When you release the mouse button, the new command will be inserted onto the toolbar.

AUDITING

Excel offers an easy way to check your worksheets to ensure that your formulas are created correctly. With Excel, you can display tracer lines to find **precedents** (cells that are referred to by a formula), **dependents** (cells that contain formulas that refer to other cells), and **errors** in any

cell.



The first step in the process is to activate the Auditing Toolbar. You do this by clicking on **Tools** on the Menu Bar, then selecting **Auditing** and finally selecting **Show Auditing Toolbar**.

Tracing Precedents

To determine which cells are used in the calculation of a value in another cell, select the cell with the calculated value. Click on the **Trace Precedents** button and Excel will graphically show you which cells are used in the calculation of the value in the selected cell. Click the button repeatedly, and Excel will take you deeper into the precedent relationship.

Budgeted	Actual	Difference
\$ 50.00	\$ 77.00	\$ (27.00)
\$ 75.00	\$ 67.00	\$ 8.00
\$ 112.00	\$ 456.00	\$ (344.00)
\$ 160.00	\$ 90.00	\$ 88.00
\$ 252.00	\$ 255.00	\$ (3.00)
\$ 370.00	\$ 444.00	\$ (66.00)
\$ 567.00	\$ 445.00	\$ 122.00
\$ 050.00	\$ 709.00	\$ 61.00
\$ 1,275.00	\$ 1,509.00	\$ (234.00)
\$ 3,727.00	\$ 4,202.00	\$ (475.00)



Tracing Dependents

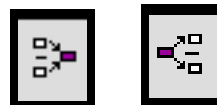
To determine which cells depend on the value in a specific cell, select the specific cell. Click on the **Trace Dependents** button and Excel will graphically show you which cells rely on the value in the selected cell. Click the button repeatedly, and Excel will take you deeper into the dependent relationship.

Budgeted	Actual	Difference
\$ 100.00	\$ 80.00	\$ (20.00)
\$ 200.00	\$ 240.00	\$ 40.00
\$ 300.00	\$ 224.00	\$ (76.00)
\$ 400.00	\$ 509.00	\$ 109.00
\$ 500.00	\$ 666.00	\$ 166.00
\$ 600.00	\$ 687.00	\$ 87.00
\$ 700.00	\$ 705.00	\$ 5.00
\$ 800.00	\$ 799.00	\$ (111.00)
\$ 900.00	\$ 1,200.00	\$ 300.00
\$ 4,500.00	\$ 5,190.00	\$ 580.00



Removing Precedent/Dependent Arrows

You can remove the arrows one level at a time by using the **Remove Precedent Arrows** button and the **Remove Dependent Arrows** button.



You can also click the **Remove All Arrows** button to remove every arrow in the worksheet with one click.



Tracing Errors

When cells return an error result, such as #VALUE!, select the cell with that result and click the **Trace Error** button. The normal trace arrows are drawn which enables you to track down the source of the error

	Budgeted	Actual	Difference
INCOME			
Source 1	\$ 100.00	\$ 100.00	\$ 0.00
Source 2	\$ 200.00	\$ 240.00	\$ 40.00
Source 3	\$ 300.00	\$ 224.00	\$ (76.00)
Source 4	\$ 400.00	\$ 589.00	\$ 189.00
Source 5	\$ 500.00	\$ 666.00	\$ 166.00
Source 6	\$ 600.00	\$ 687.00	\$ 87.00
Source 7	\$ 700.00	\$ 705.00	\$ 5.00
Source 8	\$ 800.00	\$ 799.00	\$ (11.00)
Source 9	\$ 900.00	\$ 1,200.00	\$ 300.00
TOTAL INCOME	\$ 4,500.00	\$ 5,190.00	\$ #VALUE!

message.

When you see the following symbol, this means that the trace extends to another worksheet or workbook. When you double click on the symbol you will be told which workbook or worksheet has cells involved in the trace.



VALIDATING USER INPUT

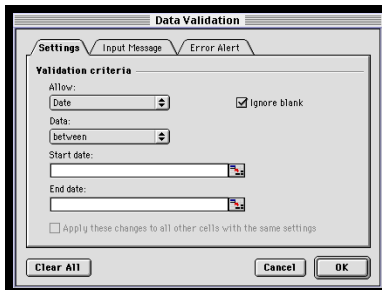
If you create worksheets that others will use to enter data, you can define rules for the data that is to be entered. If invalid data is entered, you can have automatic pop-up reminders and messages display.

Setting Validation Rules

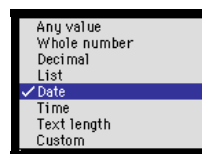
To set rules, you must first access the Data Validation dialog box. You do this by selecting the cells in the worksheet that are going to be subject to the rules. Once the cells are selected, choose **Data** from the Menu Bar and select the **Validation** option. The Data Validation dialog box will appear. The box has three tabs.

The Settings Tab

In the Settings tab, you set the actual rule for the selected cells. You first choose a type of data that can be entered in the Allow text box, and then you complete the remaining fields on the Settings tab to set the rules for that data type.



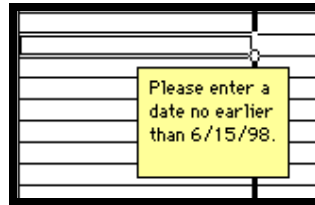
A variety of types of data can be selected, as seen below:



The remaining fields change based on the data type you choose in the Allow text box.

The Input Message Tab

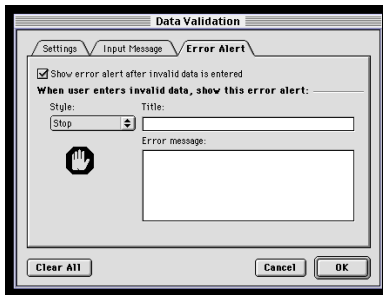
With this tab, you can create input messages that remind the people using the worksheet of what data is required. When a cell is selected that has an input message defined, a comment appears with the information you type in the dialog box. An example message follows:



The Error Alert Tab

Use this tab to set an error alert for those times when data entered into the cell violates the established rules.

Three types of error alerts can be defined:



Information – When displayed, the user can simply acknowledge and continue, leaving the invalid data intact.

Warning – When displayed, the user must acknowledge that they want to leave the invalid data intact.

Stop – When displayed, the user must correct or reverse the entry.

OUTLINING

With larger worksheets, it is sometimes hard to get the big picture represented by the data. Sometimes you want to hide some of the data and only see totals.

With Excel, you can create different outline levels in your worksheet. This way you can hide or reveal the data as needed.

Creating an Outline Level

To create an outline level:

1. Select the rows or columns to be outlined. Outlined areas cannot be immediately adjacent to other outline areas.
2. Choose **Data** from the Menu Bar, select **Group and Outline**, and then select **Group**.

The outline is automatically created.

Using Outlines

Once an outline is created, you can click on the Show/Hide Detail buttons (the plus and minus buttons) to display or hide the contents of the outlined region.

1	2	A	B	C
	1			
	2			Budgeted
	3	INCOME		
	4	Source 1	\$	100.00
	5	Source 2	\$	200.00
	6	Source 3	\$	300.00
	7	Source 4	\$	400.00
	8	Source 5	\$	500.00
	9	Source 6	\$	600.00
	10	Source 7	\$	700.00
	11	Source 8	\$	800.00
	12	Source 9	\$	900.00
	13	TOTAL INCOME	\$	4,500.00
	14			

1	2	A	B	C
	1			
	2			Budgeted
	3	INCOME		
	13	TOTAL INCOME	\$	4,500.00
	14			

Removing an Outline Level

To remove an outline level:

1. Select the rows or columns that make up the outline to be deleted.
2. Choose **Data** from the Menu Bar, select **Group and Outline**, and then select **Ungroup**.

The outline is automatically deleted.

LINKING TO MS WORD

You can take information from an Excel worksheet and place that information into a Word document. This information can be embedded in the Word document or linked to the Word document.

Embedded vs Linked Information

If you **embed** Excel information into a Word document, a duplicate of the Excel information is actually added to the Word document. This can dramatically increase the size of the Word file.

In addition, if the information in the Excel document is changed, that change will not be reflected in the Word document.

If you **link** Excel information to a Word document, a pointer is stored in the Word document. This pointer references the actual information that is in the Excel document. This method does not dramatically change the size of the Word document.

With a link, when the information in Excel is changed, the information displayed in the Word document will change to reflect the current Excel document.

Embedding Information

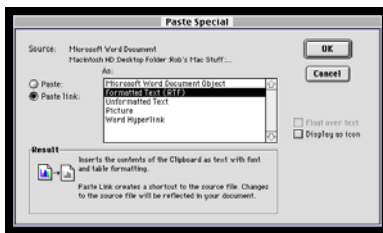
To embed Excel information into a Word document:

1. Select the desired cells in Excel.
2. Click on **Edit** on the Menu Bar and select the **Copy** option.
3. Open the Word document and place the cursor at the location where you want the Excel information inserted.
4. Click on **Edit** on the Menu Bar and select the **Paste** option.
5. The information is now embedded in the Word document.

Linking Information

To link Excel information to a Word document:

1. Select the desired cells in Excel.
2. Click on **Edit** on the Menu Bar and select the **Copy** option.
3. Open the Word document and place the cursor at the location where you want the Excel information linked.
4. Click on **Edit** on the Menu Bar and select the **Paste Special** option.
5. In the Paste Special dialog box click on the **Paste Link** button.
6. Select the **Formatted Text (RTF)** option
7. Click on **OK** and the information will be linked to the Word document.



CONCATENATION

You can join the values in two or more cells into a single cell. For instance, if you have a person's first name in one cell and their last name in a second cell, you can concatenate the cells which will result in the full name being displayed in a single cell.

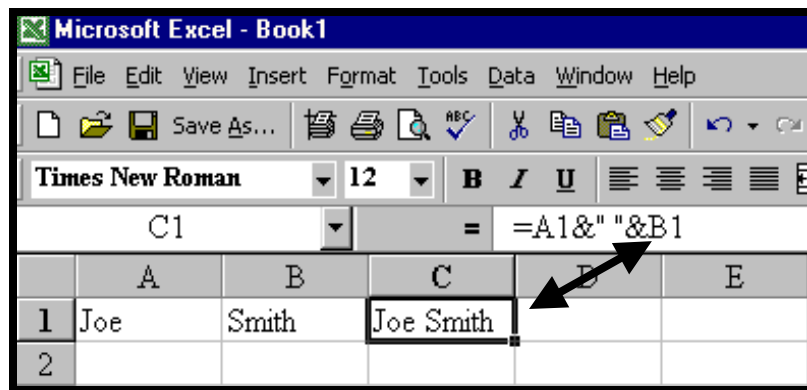
Join Multiple Cell Values into a Single Cell

To join multiple values into a single cell:

1. Enter the “=” sign to indicate a formula is being created.
2. Enter the **address** of the first cell.
3. Enter an **ampersand** character (&).

4. You can insert a space between the two cell values by typing **two quote marks with a space between them**. (“ “)
5. Enter a second **ampersand** character (&).
6. Enter the **address** of the second cell.
7. Press the <**Enter**> key to complete the formula.

NOTE: You can concatenate more than two cells by continuing to enter the cell names, separated by ampersand characters.



TEXT TO COLUMNS You can take text in a single cell and break it out into multiple cells. For instance, if you have a person’s name in a single cell (Firstname, Lastname) and you want to sort by Lastname, you can breakup the name into separate cells and then you can sort by Lastname.

To split single values into multiple cells:

NOTE: You must have enough empty cells to the right of the original cell to hold the data once it has been split.

1. Select the cell with the multiple values.
2. From the Menu Bar click on **Data**, then select **Text To Columns..**
3. A wizard will start. The data will either be **delimited** (characters such as commas or tabs separate each value) or **fixed width** (fields are aligned in columns with spaces between each field). Select the appropriate option. Click on **Next**.
4. If **delimited**, check the box that contains the appropriate delimiter. If **fixed width**, insert, delete or move the vertical line so that the window shows the breaks as you desire them. Click

on **Next**.

5. Click **Finish** and the data will be spread into the appropriate number of columns to the right of the original column.

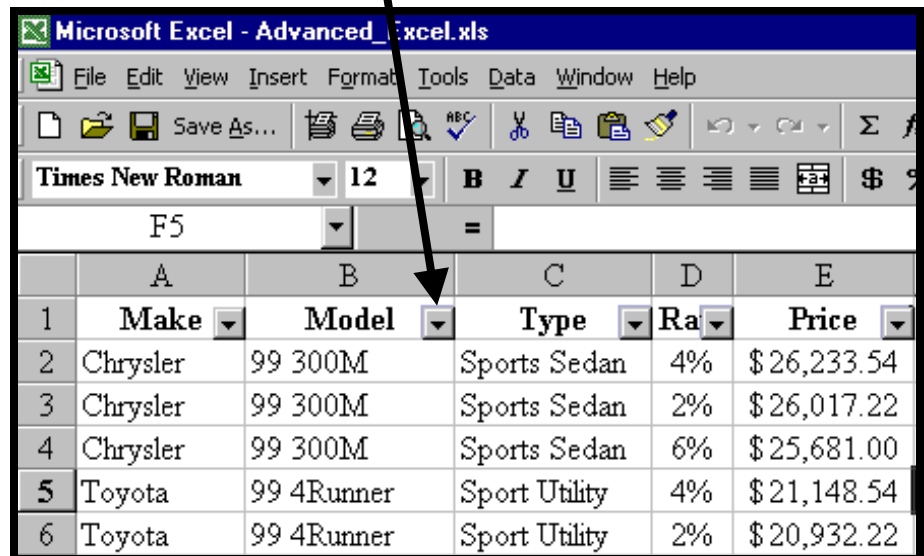
AUTO FILTER

If you are working with a list of items as you would if you had a database in Excel, you can use the AutoFilter tool to quickly search through your list for particular records.

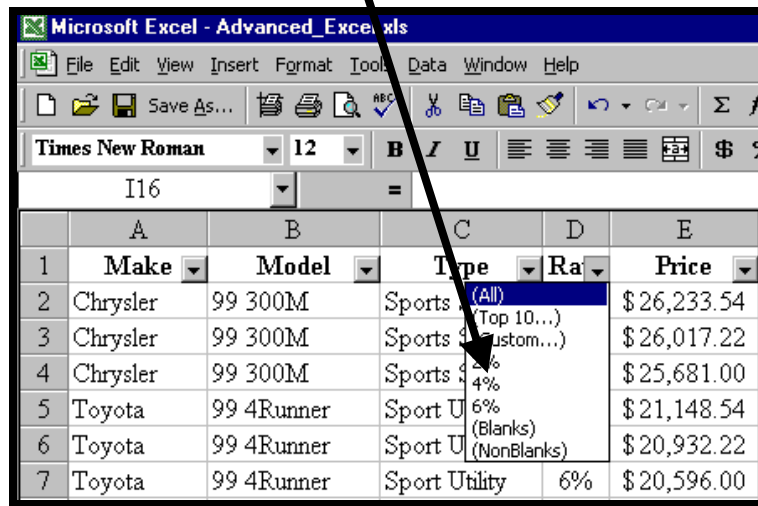
The AutoFilter tool lets you filter out all records that do not meet your criteria. The list itself is unchanged and you can change the filter at any time to display a different set of records.

Filter a List To apply an AutoFilter to a list:

1. Select a column (or multiple columns or cells in your database) and select **Data** from the Menu Bar, select **Filter** and then click on **AutoFilter**. Excel will display an arrow button for each selected column or group of cells. These buttons activate pull-down menus that allow you to show individual records meeting your selected criteria.



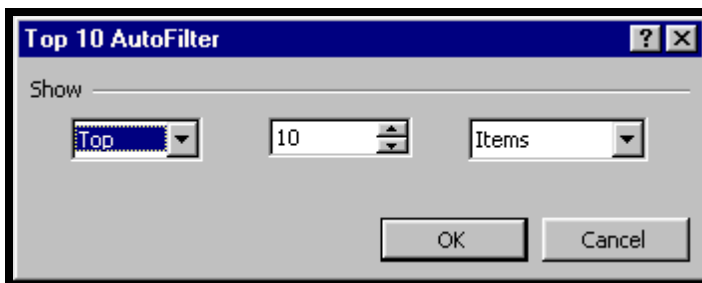
- To display a filtered list of records, click on one of the **buttons** and select your **desired criteria**.



- You can also select one of the following :special filtering options

ALL - Unfilters your list and shows all records.

TOP 10 – (Used for numbers and dates only) Displays the top or bottom 10 (or another number you select) of records in the list, or the top or bottom 10% (or another number you select) of the records in the list.



BLANKS – This selection allows you to display only the records with missing entries.

NONBLANKS – This selection allows you to display only records that have some type of entry in the cell.

CUSTOM – This option allows you to display criteria meeting your customized needs. State your comparison criteria by selecting the desired operator then enter the comparison value in the window on the right.

You can use multiple comparison criteria by selecting the AND or OR options and entering the desired criteria in the lower two windows.

