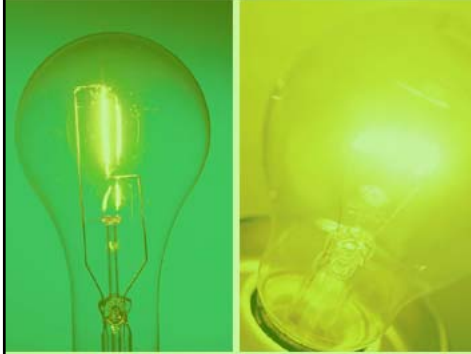


Intermediate Excel



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Objectives

At the end of this workshop, you will be able to

- Perform basic navigation and formatting functions (refresher)
- Apply formatting options to include
 - Customizing Toolbars
 - AutoFormat
 - Format painter
 - Conditional Formatting
 - Border toolbar
 - Cell comment

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Objectives

- Apply and define selected Function and Formula to include
 - Numbers as labels or values
 - Smart tags
 - Arithmetic operators
 - Reference operators
 - Absolute, relative and mixed cell references
 - Formula Auditing Toolbar

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Objectives

- Apply managing workbook skills to include
 - Freezing a window
 - Creating headers, footers, and page numbers
 - Linking worksheets and workbooks
 - Protecting a workbook
 - Saving as Workspace

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Customizing Toolbars

- Use Customize to readily display and access frequently used tools
- Tools>Customize>check box to allow selected toolbar to appear on your screen
- Locate Move handle, click and drag to desired location on your screen
- Click icons within the toolbar to activate tool function

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AutoFormat

- AutoFormat contains preformatted worksheets layout
- Select the range of cells
- Click Format>Autoformat
- Use scroll bar to view options
- Click on the selected option, and hit OK
- Click Options to further customize selection

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Autoformat

Select desired layout

Click here for additional customization options

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Format Painter

- The Format Painter tool allows you to copy a cell or a range formatted, and apply that formatting elsewhere on the spreadsheet
- To apply the formatting:
 - Select the cell or cells that contain(s) the formatting you want to copy
 - Click on the Format Painter button
 - Click (and drag) on the selected cell or cells that you want to format
 - Release mouse button and the selected cell or cells will be formatted like the original
 - Click on the Format Painter icon to quit Format Painter



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Conditional Formatting

- Conditional Formatting is an “alarm system” which calls attention to a cell by automatically changing the formatting for a cell if the value in the cell changes, based on criteria you selected
- Select area where conditional formatting is to be applied
- Go to Format>Conditional Formatting
- Choose the cell value conditions to trigger the conditional formatting by selecting the condition and typing in the value
- Click the **Format** button to format for any values that meet the criteria selected
- Excel will trigger the new formatting when any cell in the selected area contains a value that meets the criteria selected

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Conditional Formatting

All values greater or equals to 100 is now in red

25	14	20	60	90
100	39	20	59	30
104	304	383	83	4
30	50	10	50	

E.g. Cell Value is greater than or equal to 100. Conditional formatting is set in red font if cell value meets the condition

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Border Toolbar

- The Border Toolbar can be accessed via:
 - Tools>Customize>Border>click check box
 - View>Toolbars>Border>click check box



Draw borders

Click to select draw border or draw border grid

Eraser

Line Style.

Click drop down arrow for additional line styles

Line Color

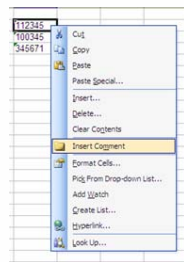
Click for color palette

- Click and drag across select area
- Release mouse button

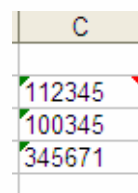
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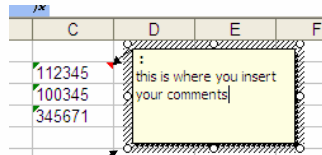
Inserting a Cell Comment



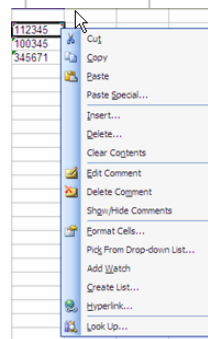
Step 1:
Right click and select Insert Comment



Step 2:
Cell Comment indicator appears





Step 3:
Type in comments in comment box



Step 4:
Right click to access edit/delete comment options

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Objectives

- Functions and Formulas
 - Numbers as labels or values
 - Smart tags
 - Arithmetic operators
 - Reference operators
 - Absolute, relative and mixed cell references
 - Formula Auditing Toolbar

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Labels vs. Values

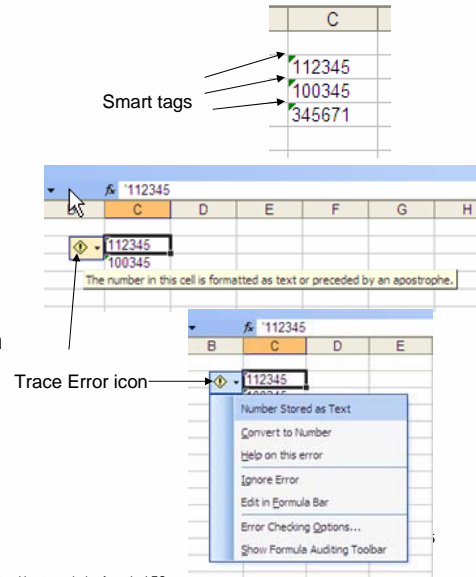
- **Labels** are alphabetic, alphanumeric, or numeric text on which you do not perform mathematical calculations. If you have a numeric entry on which you do not perform mathematical calculations (e.g. Empl ID), enter it as a label by typing a single quotation mark first ('112334)
- **Values** are numeric text on which you perform mathematical calculations

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Smart Tags

- When you make an entry that Microsoft Excel believes you may want to change, a smart tag appears
- Smart tags give you the opportunity to make changes easily
- Cells with smart tag in them appear with a green triangle in the upper left corner
- When you place your cursor in the cell, the Trace Error icon appears.
- Click on the Trace Error icon and options appear



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Arithmetic Operators

- These operators perform basic mathematical functions when combined with numeric values:
 - + addition
 - subtraction
 - * multiplication
 - / division
 - % percentage

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Reference Operators

- Reference operators refer to a cell or a group of cells. There are two types of reference operators, *range* and *union*.
- A range reference refers to all the cells between and including the reference. A range reference consists of two cell addresses separated by a colon. The reference A1:A3 includes cells A1, A2, and A3. The reference A1:C3 includes A1, A2, A3, B1, B2, B3, C1, C2, and C3.
- A union reference includes two or more references. A union reference consists of two or more cell addresses separated by a comma. The reference A7,B8,C9 refers to cells A7, B8, and C9.

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Relative Cell Reference

- With relative cell addressing, when you copy a formula from one area of the worksheet to another, Microsoft Excel records the position of the cell relative to the cell that originally contained the formula

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Absolute Cell Reference

- An *absolute* cell address refers to the same cell, no matter where you copy the formula. You make a cell address an absolute cell address by placing a dollar sign(\$) in front of both the column and row identifiers, e.g. \$A\$7
- Use the F4 key to automatically enter an absolute cell reference

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Mixed Cell Reference

- Combining a relative and an absolute cell reference
- E.g. =SUM(A3/\$A\$7)

NOTE:
This type of reference can be used to determine values where the cell containing the numerator changes, but the cell containing the denominator remains unchanged, e.g. calculating percentages

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Formula Auditing Toolbar

- The Auditing Toolbar is an easy way of checking if your formulas are correctly created
- Go to View>Toolbar>Formula Auditing (check this box) or Tools>Formula Auditing>Formula Auditing Toolbar
- Use Tracing Precedents to determine which cells are used in the calculation of a value in another cell by clicking on the cell with the calculated value
- Use Tracing Dependents to determine which cells rely on the value in the selected cell

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Formula Auditing Toolbar

The screenshot shows the Formula Auditing toolbar with the following icons and their corresponding labels:

- Trace Precedents** (Icon: blue square with arrows pointing to a cell)
- Trace Dependents** (Icon: blue square with arrows pointing from a cell)
- Remove All Arrows** (Icon: blue square with a diagonal slash)
- New Comments** (Icon: yellow speech bubble)
- Error Checking** (Icon: yellow diamond with a red exclamation mark)
- Remove Trace Precedents arrows** (Icon: blue square with arrows pointing to a cell and a red 'X')
- Remove Trace Dependents arrows** (Icon: blue square with arrows pointing from a cell and a red 'X')
- Trace Errors** (Icon: yellow diamond with a red exclamation mark and a magnifying glass)

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Objectives

- Managing Your Workbooks
 - Freezing a window
 - Creating headers, footers, and page numbers
 - Linking worksheets and workbooks
 - Protecting a workbook
 - Saving as Workspace

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Freeze Window

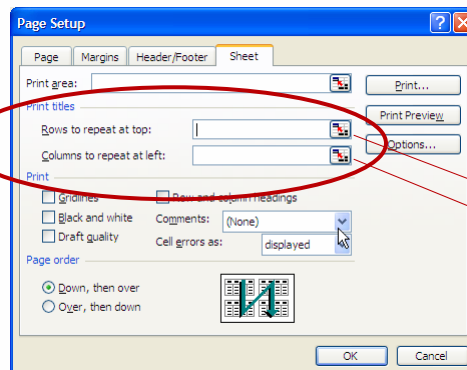
- To keep titles in sight, divide or split the worksheet by freezing the titles in their own pane. The title pane is then locked in place as you scroll through the rest of the worksheet
- Go to Windows>Freeze Pane
- Freeze column titles by selecting the row below
- Freeze row titles by selecting the column to the right
- Freeze both column and row titles by selecting the cell that is just below the column titles and to the right of the row titles.

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Freeze Window

- To keep titles on each printed page, go to:
File>Page SetUp>Print Titles



Click in the box and highlight rows or columns to be repeated on each printed page

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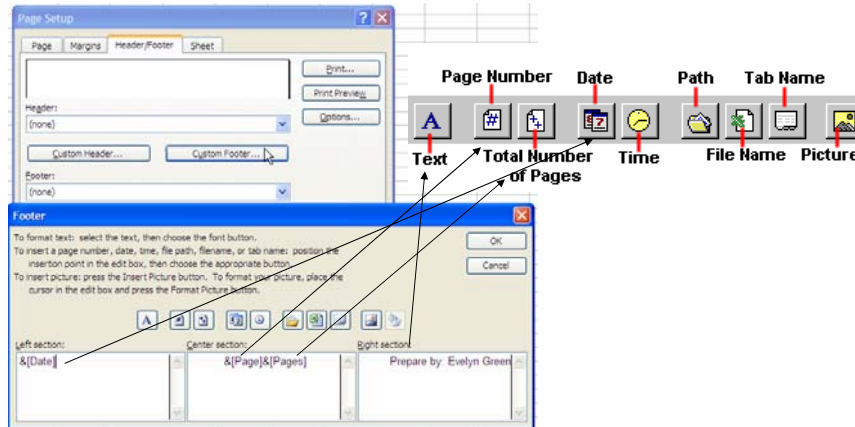
Header and Footer

- A header is text that appears at the top of every page
- A footer is text that appears at the bottom of every page
- You can use headers and footers to insert page numbers, dates, and other information
- **File>Page Set Up>Header/Footer tab>Customize Header or Customize Footer**

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Header and Footer



- Use the Left Section to place your options on the left side of the page, the Center Section to place your options in the center of the page, and the Right Section to place your options on the right side of the page

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Linking Worksheets

- To insert a cell value from one worksheet to another
 - Click on the destination cell
 - Go to the formula bar, type:
=worksheetname!cellname e.g. =Jan05!F3
- To calculate values based on cells on other worksheets
 - Click on the destination cell
 - Go to the formula bar, type:
=worksheetname!cellname+worksheetname!cellname
e.g. =Jan05!F3+Feb05!F3

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Linking Worksheets

Short Cut:

- To insert a cell value from one worksheet to another
 - Click on destination cell
 - Type “+” in the destination cell
 - Go to the cell from which you want to copy the value
 - Click on the cell
 - Hit Enter
 - The value of the original cell should now appear in the destination cell

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Linking Worksheets

Short Cut

- To calculate values based on cells on other worksheets
 - Click on destination cell
 - Type “+” in the destination cell
 - Go to the cell from which you want to copy the value
 - Click on the cell
 - Type in the desired arithmetic operator (+, -, *, /)
 - Click on the next cell to be included in the formula
 - Continue process until formula is completed
 - Hit Enter
 - Return to the destination cell
 - The calculated value should appear in the destination cell

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Linking Workbooks

- To calculate values based on cells in other workbooks:
 - Click on destination cell
 - Go to the formula bar and type
=[workbook1name]worksheetname!cellname+[workbook2name]worksheetname!cellname
e.g. =[Spring2005]Jan05!F3+[Summer05]Aug05!F3

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Linking Workbooks

- To use multiple workbooks in addition to multiple worksheets
- To insert a cell value:
 - Click on the destination cell
 - Go to the formula bar and type:
=[workbookname]worksheetname!cellname
e.g. [Spring2005]Jan05!F3

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Linking Workbooks

Short Cut:

- To insert a cell value from one workbook to another
 - Click on destination cell
 - Type “+” in the destination cell
 - Go to the cell in the other workbook from which you want to copy the value
 - Click on the cell
 - Hit Enter
 - The value of the original cell should now appear in the destination cell

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Linking Worksheets

Short Cut

- To calculate values based on cells on other workbooks
 - Click on destination cell
 - Type “+” in the destination cell
 - Go to the cell in the other workbooks from which you want to copy the value
 - Click on the cell
 - Type in the desired arithmetic operator (+, -, *, /)
 - Click on the next cell to be included in the formula
 - Continue process until formula is completed
 - Hit Enter
 - Return to the destination cell
 - The calculated value should appear in the destination cell

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Protecting a Workbook

- There are two password options:
- **Password to open:** the password you'll use to open the file
- **Password to modify:** Create this second password if you intend to give the **Password to open** to others, but you *don't* want them to be able to change the contents of the file

Note

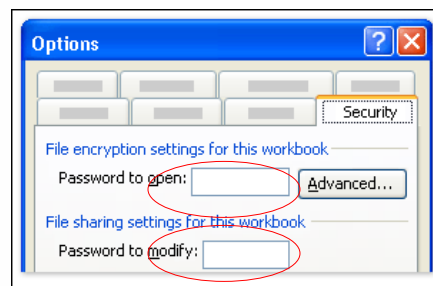
- A **Password to modify** helps prevent people without the password from saving their changes in your original document, but it does not stop them from making changes and then using the **Save As** command to save the document as a new file with a different name

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Protecting a Workbook

To create a password:
Tools>Options>Security tab



CAUTION

If you use this feature, you will *not* be able to access this workbook should you forget the password (s)

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Unprotecting a Workbook

To delete a password:

- Tools>Options>Security tab
- Delete the passwords by using backspace key in the dialog box
- Hit OK
- Resave the workbook


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Saving as Workspace

- If you are working with two workbooks, you can save the workbooks into one file to allow you to open up both workbooks at the same time

File>Save as Workspace>newfilename



Workspace icon

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