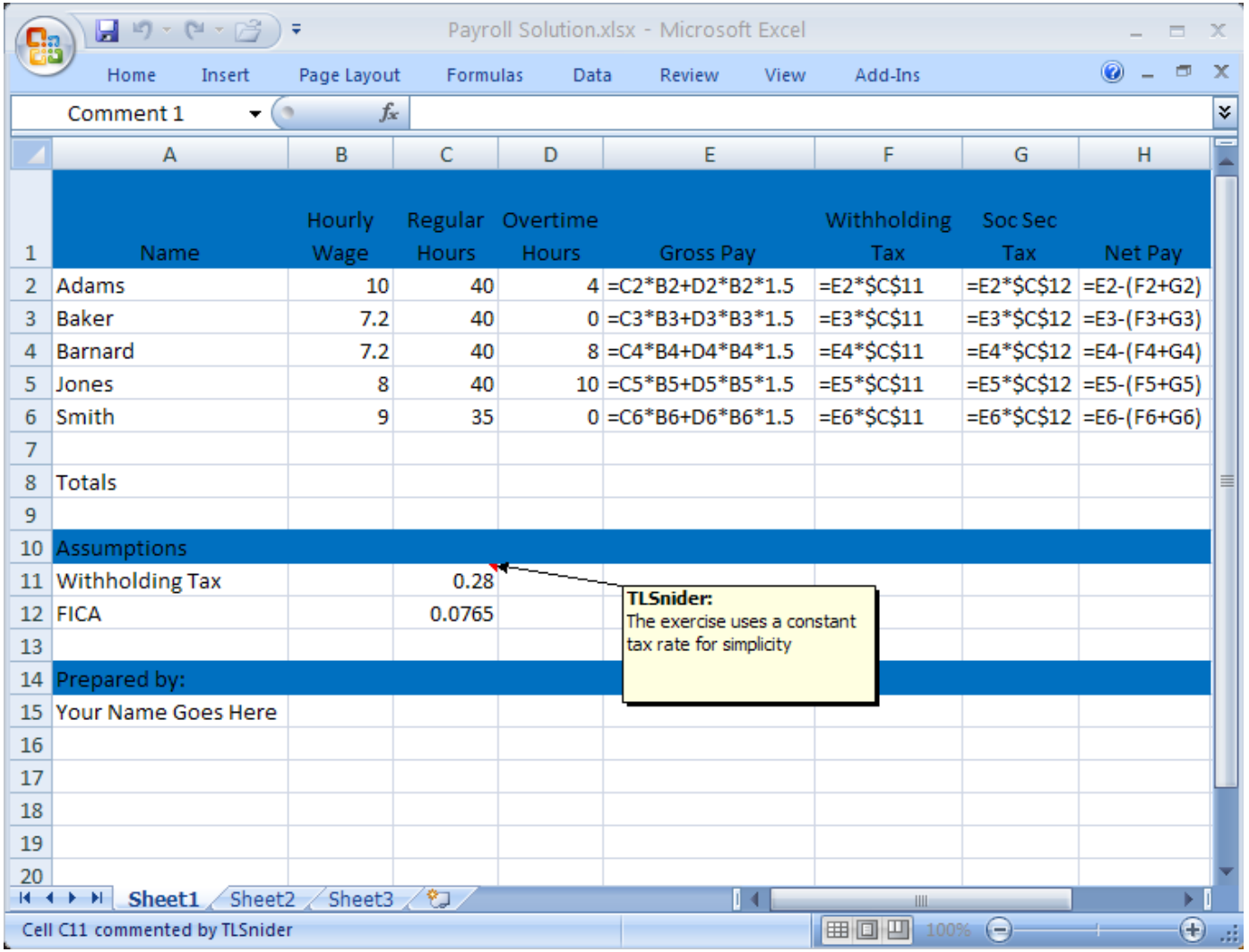
Microsoft Office Excel 2007

Gaining Proficiency:
Web & Business Applications

Isolate Assumptions

- Base your formulas on *cell references*, not values.
- Use of *values* means use of constants.
  - If a withholding tax is 28%, define and label a cell with the value of 0.28 and then reference that cell in your calculations
- Change the value in the worksheet and see the effects instantly (updated on the fly).
- Assumptions – as listed in the book – is an area in your spreadsheet to define constants.

Cell References



	A	B	C	D	E	F	G	H
1	Name	Hourly Wage	Regular Hours	Overtime Hours	Gross Pay	Withholding Tax	Soc Sec Tax	Net Pay
2	Adams	10	40	4	=C2*B2+D2*B2*1.5	=E2*C11	=E2*C12	=E2-(F2+G2)
3	Baker	7.2	40	0	=C3*B3+D3*B3*1.5	=E3*C11	=E3*C12	=E3-(F3+G3)
4	Barnard	7.2	40	8	=C4*B4+D4*B4*1.5	=E4*C11	=E4*C12	=E4-(F4+G4)
5	Jones	8	40	10	=C5*B5+D5*B5*1.5	=E5*C11	=E5*C12	=E5-(F5+G5)
6	Smith	9	35	0	=C6*B6+D6*B6*1.5	=E6*C11	=E6*C12	=E6-(F6+G6)
7								
8	Totals							
9								
10	Assumptions							
11	Withholding Tax		0.28					
12	FICA		0.0765					
13								
14	Prepared by:							
15	Your Name Goes Here							
16								
17								
18								
19								
20								

Cell References (cont)

- Do You Remember……
- What is Relative Cell Referencing?
- What is Absolute Cell Referencing?
- What happens when you copy a formula from one cell to another?

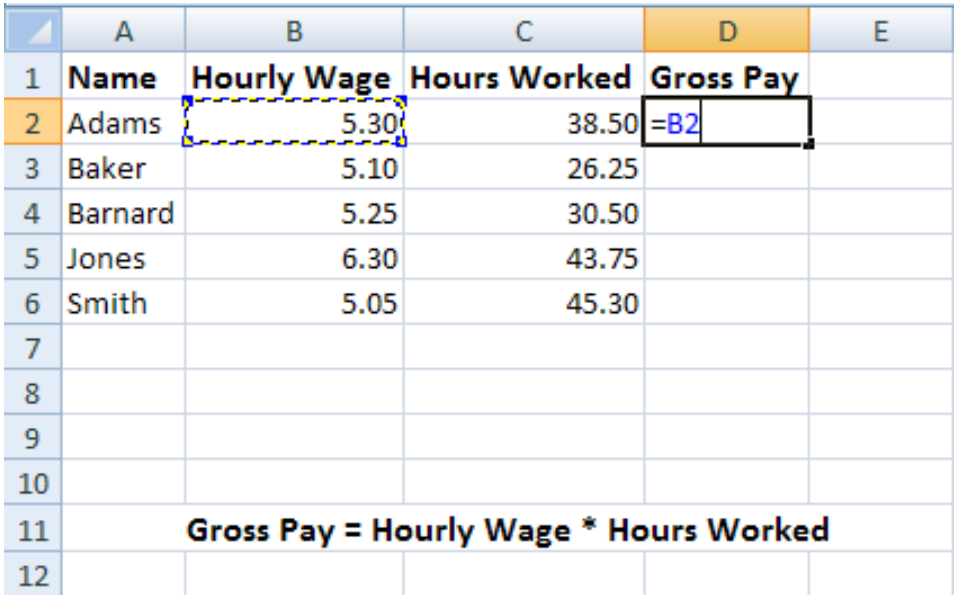
Pointing

- Any cell reference maybe entered into a formula by typing the address manually … such as typing in “D32”.
- Pointing is a more accurate method since you use the mouse to select the cell directly when you build the formula.
- To do this, click on the cell to be used in the formula *after* the operation symbol has been inserted.

Pointing (cont)

- In this example, you would click on the cell “B2” once you have entered the “=“ symbol.

- While pointing may prevent typos in your formula, it can be tedious and confusing when you have a large spreadsheet!

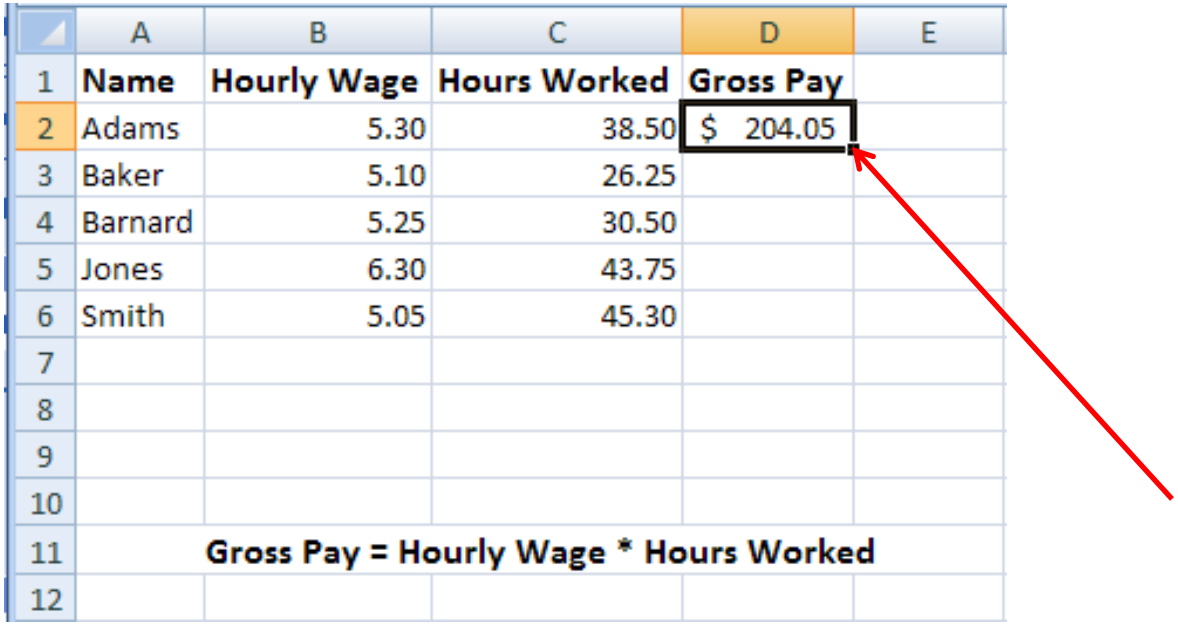


	A	B	C	D	E
1	**Name**	**Hourly Wage**	**Hours Worked**	**Gross Pay**	
2	Adams	5.30	38.50	=B2	
3	Baker	5.10	26.25		
4	Barnard	5.25	30.50		
5	Jones	6.30	43.75		
6	Smith	5.05	45.30		
7					
8					
9					
10					
11	**Gross Pay = Hourly Wage * Hours Worked**				
12					

The Fill Handle

- There are several ways to copy the contents of a cell … remember the cut/copy and paste methods?
- A quicker method of copying the contents of a cell to several cells is by using the *Fill Handle*.
- Once you select the cell to copy, notice at the bottom right edge there will be a solid square appear … just click and drag to copy the contents!

The Fill Handle (cont)



	A	B	C	D	E
1	**Name**	**Hourly Wage**	**Hours Worked**	**Gross Pay**	
2	Adams	5.30	38.50	$ 204.05	
3	Baker	5.10	26.25		
4	Barnard	5.25	30.50		
5	Jones	6.30	43.75		
6	Smith	5.05	45.30		
7					
8					
9					
10					
11	**Gross Pay = Hourly Wage * Hours Worked**				
12					

Select cell with a formula … see the solid square *handle*?

(this example is posted below the lecture material – Wages.xlsx)

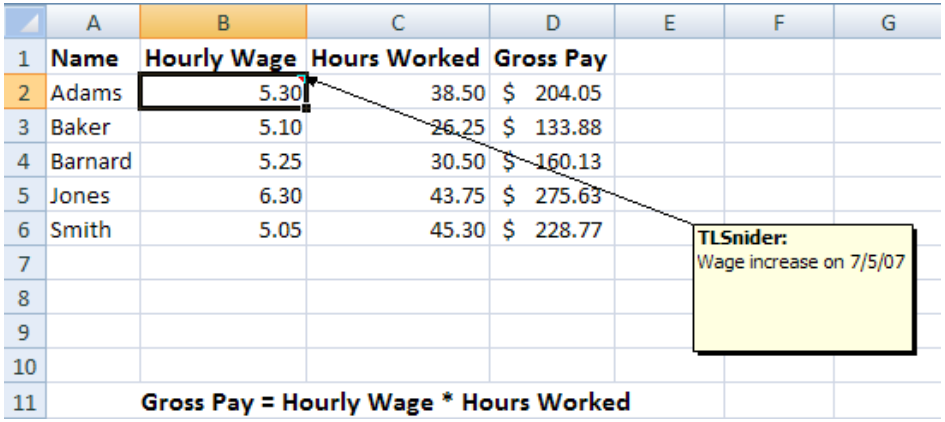
The Fill Handle (cont)

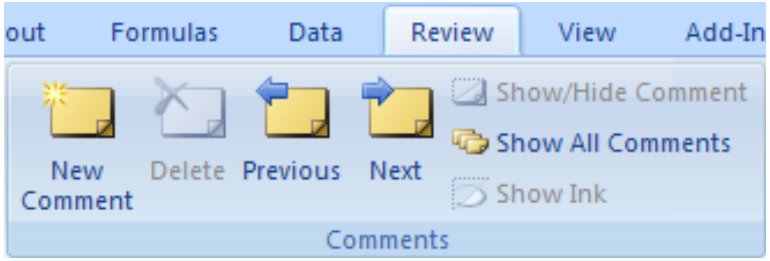
	A	B	C	D	E
1	**Name**	**Hourly Wage**	**Hours Worked**	**Gross Pay**	
2	Adams	5.30	38.50	$ 204.05	
3	Baker	5.10	26.25	$ 133.88	
4	Barnard	5.25	30.50	$ 160.13	
5	Jones	6.30	43.75	$ 275.63	
6	Smith	5.05	45.30	$ 228.77	
7					
8					
9					
10					
11	**Gross Pay = Hourly Wage * Hours Worked**				
12					

This is the result of *dragging* with the Fill Handle … now do you see why cell referencing is so important?

Comments

- Cell commenting is an effective way of describing specific properties of formulas, constants, or notes about the data or the spreadsheet itself.
- Select the cell you want to insert a comment for and select: Review-> New Comment.



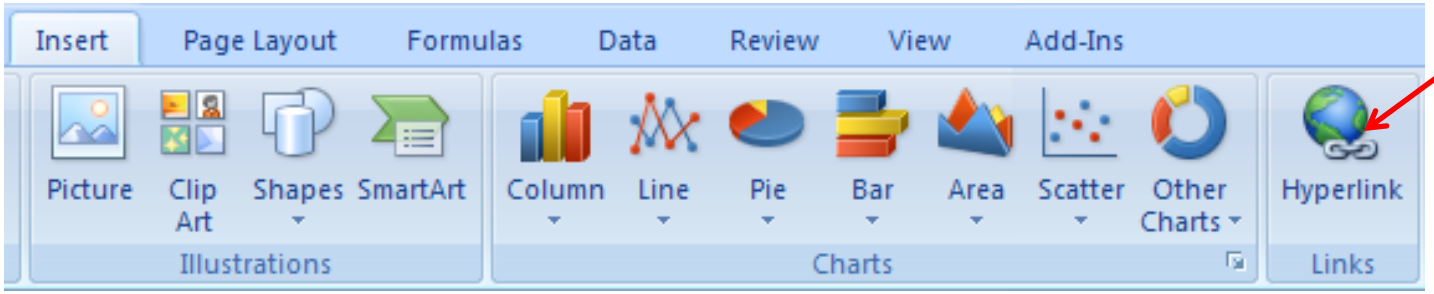


Excel and the Internet

- Excel has three basic capabilities in relation to the Internet:
  - Use of Hyperlinks
  - Saving as a Web page (HTML document)
  - Applying a Web query
- These have the same functionality in Excel as in MS Word … with the exception of the Web query (Word can “import” external data via an Excel OLE’ or Access ODBC).

Create and edit Hyperlinks

- Hyperlinks are clickable text that cause another workbook to be opened or a web page to be opened in the Web browser.



- You can easily add a hyperlink to a Web page by selecting “Hyperlink” from within the Insert ribbon.

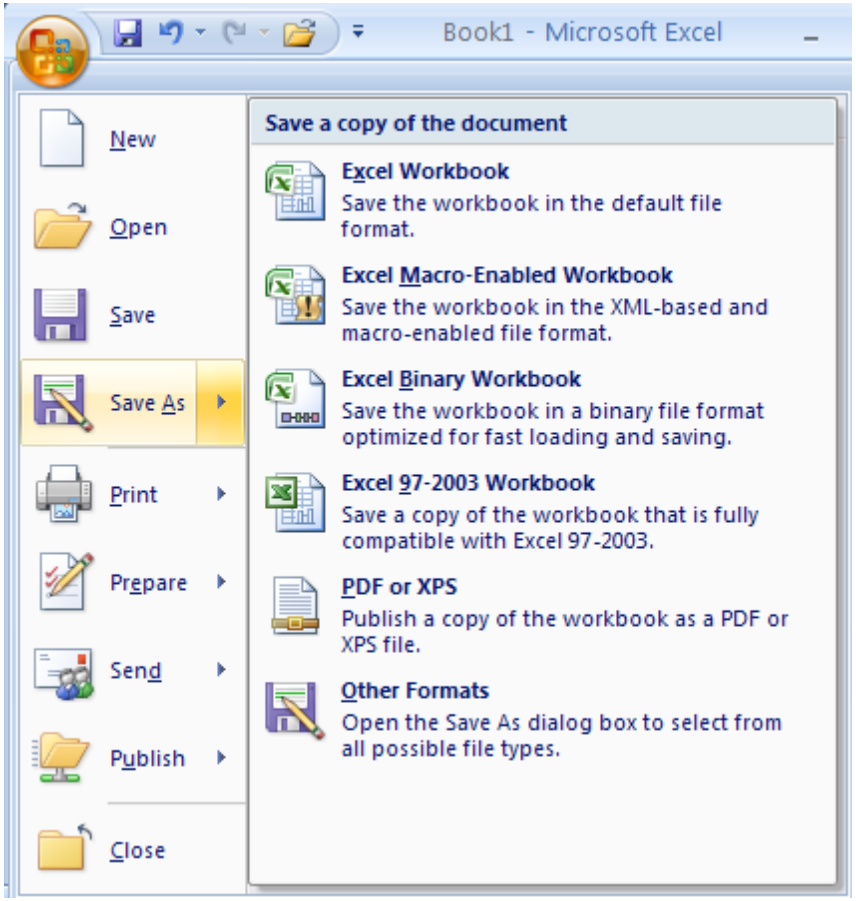
A worksheet with a Hyperlink

- Remember, hyperlinks in Excel operate just like hyperlinks in Word … you must have an Internet connection to fully utilize web functionality!

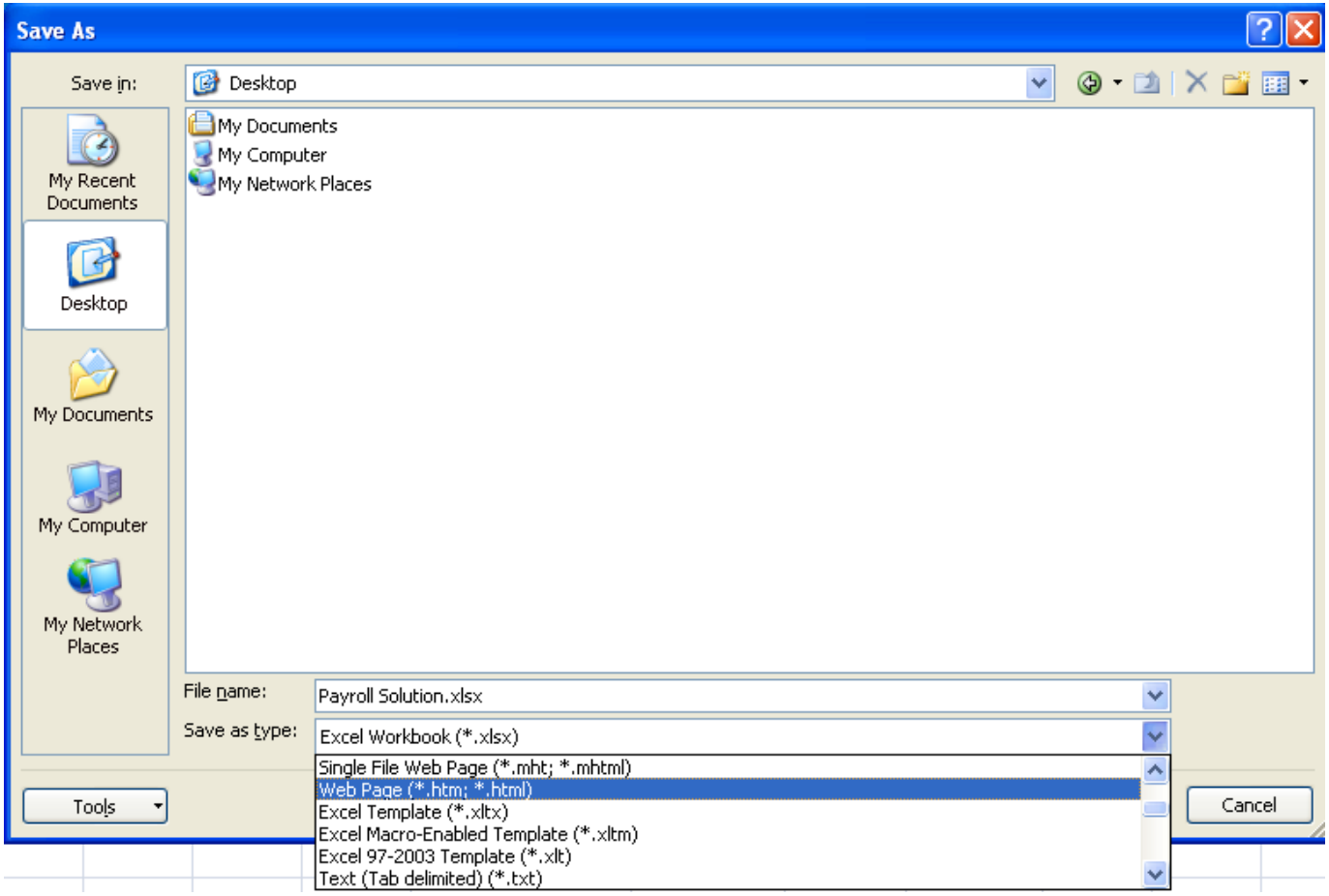
Hyperlink (one of my favorites!)

Save the workbook as a Web Page

- You can easily convert a workbook or a single worksheet into a Web page.
- When you create a Web page, Excel creates an HTML version of the workbook that can be viewed in a Web browser.
- Options can be made by clicking the *Save As* option and then on "Other Formats."



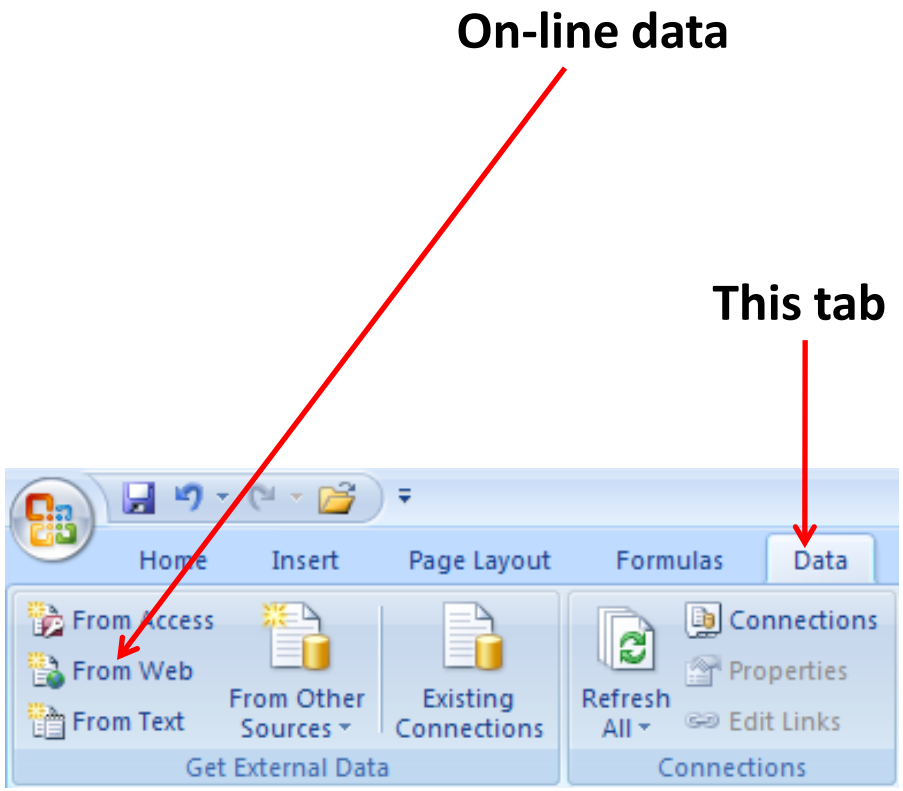
Save the workbook as a Web Page



Remember, you must use *Save As*!

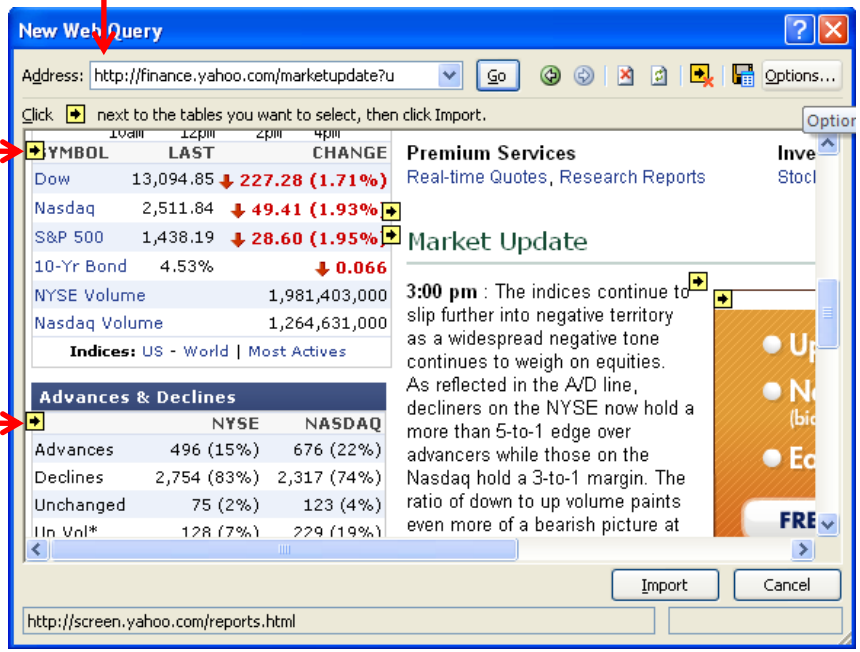
Creating a Web Query

- Web queries enables Excel to go to a specific site on the Web to retrieve information.
- This makes the worksheet time sensitive and thus the values you see could possibly change from one moment to the next.

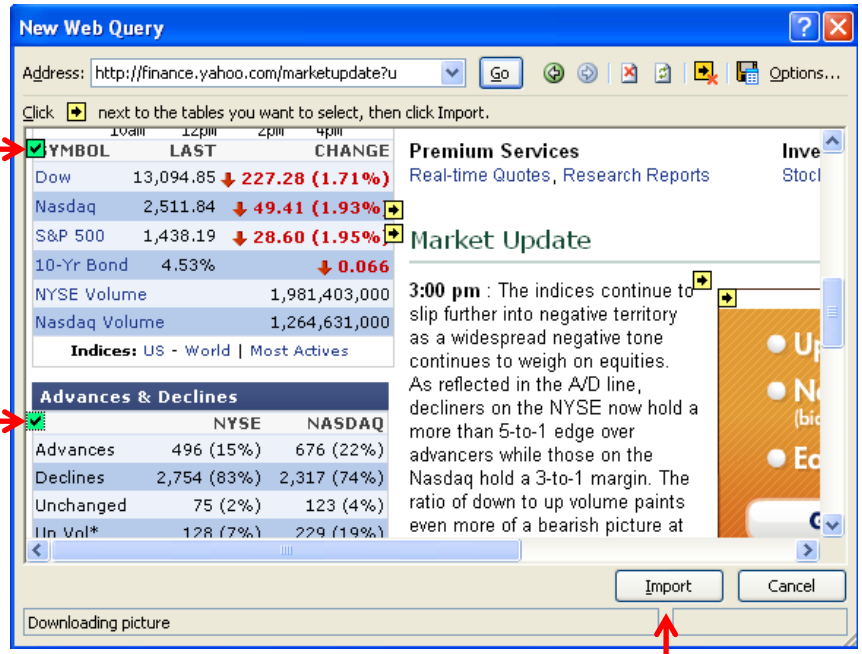


Web Queries in Excel

Enter the URL for the query. Remember, you must be connected to the web!



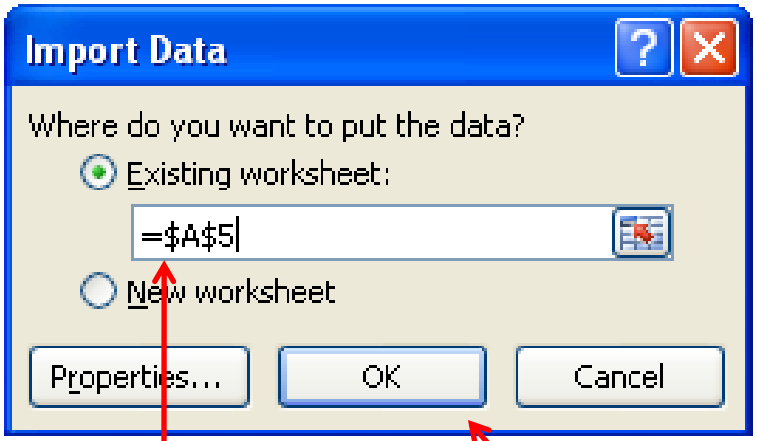
Select the areas to import by "clicking" on the yellow boxes!



The import areas will become "green check" boxes.

To get the data, press Import!

Creating a Web Query (cont)



Where do you want the data?
The cell reference MUST BE ….
(do you remember?) Then press OK!

DATA! This saves typing time.

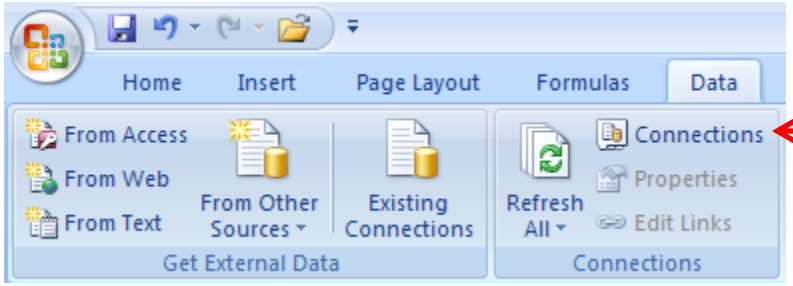
5	Symbol	Last	Change
6	Dow	13,041.44	Down280.69 (2.11%)
7	Nasdaq	2,500.64	Down60.61 (2.37%)
8	S&P 500	1,432.38	Down34.41 (2.35%)
9	10-Yr Bond	4.53%	Down0.066
10	NYSE Volume		2,407,457,000
11	Nasdaq Volume		1,523,851,000
12			
13		NYSE	NASDAQ
14	Advances	452 (14%)	620 (20%)
15	Declines	2,817 (84%)	2,405 (77%)
16	Unchanged	67 (2%)	110 (4%)
17	Up Vol*	143 (7%)	160 (12%)
18	Down Vol*	1,935 (93%)	1,208 (88%)
19	Unch. Vol*	4 (0%)	11 (1%)
20	New Hi's	17	41
21	New Lo's	69	71

Check out Web_Query.xlsx on my lecture notes page.

Refreshing the Query

Queries may not be automatically updated every time you open the worksheet! Instead, they may display the last saved values. To update, you need to use the refresh the connection. This command will retrieve the latest data from the Web, using the criteria you have already provided. When in doubt, check the web connection properties.

Refreshing the Query (cont)

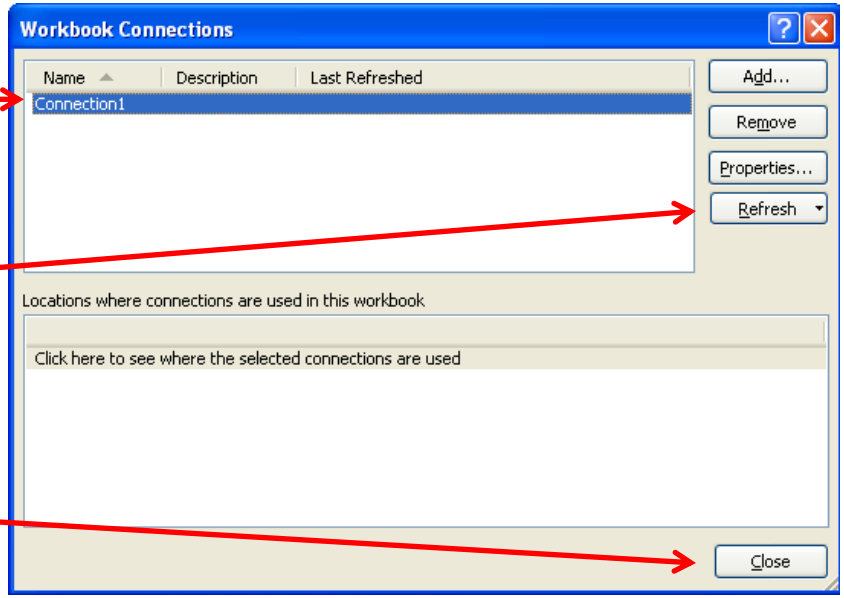


Select Connections from the DATA tab.

Then select the connection [name] you want to refresh.

Then press Refresh!

Then Close.



Web Queries …. Final thoughts

- Are just that … web dependant!
  - If the site disappears, you're sunk
  - If the site changes its format, you're sunk
  - If security measures change, you're sunk
  - If you do not have Internet access, you're sunk

- Morale => be careful with Web based queries!

The TODAY and NOW functions

- Functions … begin with the word FUN!
- The TODAY and NOW functions display the current date and time.
- If you use the TODAY or NOW function in a cell, the date in the cell is updated to reflect the current date and time of your computer each time you open the workbook.

Questions?