

Summarizing your spreadsheet with Pivot Tables

“There are few things I love more about data than the pivot table. It truly lends power to numbers.” - Charlie Ornstein

“I do need to add a note of caution about pivot tables. Some folks—quite similar to toy train hobbyists—grow to like them too much, turning pivot table into a verb in an, I have to say, off-putting fashion.” – Tracy Weber

Let’s pivot!

If you need to aggregate your data in Excel and you don’t want to move it to your database manager, Excel has a tool to let you do that. It’s called the Pivot Table.

Consider this spreadsheet of baseball salaries:

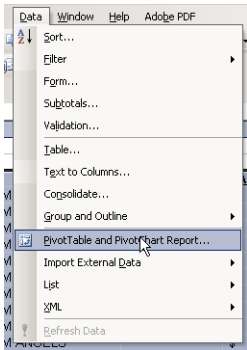
	A	B	C	D	E	F
1	Major League Baseball salaries					
2						
3	FNAME	LNAME	TEAM	DISABLED LIST	SALARY	LEAGUE
4	Kevin	Appier	ANAHEIM ANGELS		\$ 11,500,000	AL
5	Tim	Salmon	ANAHEIM ANGELS		\$ 9,900,000	AL
6	Aaron	Sele	ANAHEIM ANGELS	yes	\$ 8,166,667	AL
7	Troy	Percival	ANAHEIM ANGELS		\$ 7,833,333	AL
8	Darin	Erstad	ANAHEIM ANGELS		\$ 7,250,000	AL
9	Troy	Glaus	ANAHEIM ANGELS		\$ 7,250,000	AL
10	Garret	Anderson	ANAHEIM ANGELS		\$ 5,350,000	AL
11	Scott	Spiezio	ANAHEIM ANGELS		\$ 4,250,000	AL
12	Jarrod	Washburn	ANAHEIM ANGELS		\$ 3,875,000	AL
13	Adam	Kennedy	ANAHEIM ANGELS		\$ 2,270,000	AL
14	Ramon	Ortiz	ANAHEIM ANGELS		\$ 2,266,667	AL
15	Bengie	Molina	ANAHEIM ANGELS		\$ 1,425,000	AL
16	Scott	Schoeneweis	ANAHEIM ANGELS		\$ 1,425,000	AL
17	Brad	Fullmer	ANAHEIM ANGELS		\$ 1,000,000	AL
18	Eric	Owens	ANAHEIM ANGELS		\$ 925,000	AL
19	Benji	Gil	ANAHEIM ANGELS		\$ 725,000	AL
20	David	Eckstein	ANAHEIM ANGELS		\$ 425,000	AL
21	Ben	Weber	ANAHEIM ANGELS		\$ 375,000	AL
22	Shawn	Wooten	ANAHEIM ANGELS		\$ 337,500	AL
23	Brendan	Donnelly	ANAHEIM ANGELS		\$ 325,000	AL
24	Jose	Molina	ANAHEIM ANGELS		\$ 320,000	AL
25	John	Lackey	ANAHEIM ANGELS		\$ 315,000	AL
26	Francisco	Rodriguez	ANAHEIM ANGELS		\$ 312,500	AL

I might want to know which team has highest average salary.

To start a PIVOT TABLE, highlight the header and data in the spreadsheet:

	A	B	C	D	E	F
1	Major League Baseball salaries					
2						
3	FNAME	LNAME	TEAM	DISABLED LIST	SALARY	LEAGUE
4	Kevin	Appier	ANAHEIM ANGELS		\$ 11,500,000	AL
5	Tim	Salmon	ANAHEIM ANGELS		\$ 9,900,000	AL
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9	Troy	Glaus	ANAHEIM ANGELS		\$ 7,250,000	AL
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11	Scott	Spiezio	ANAHEIM ANGELS		\$ 4,250,000	AL
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24	Jose	Molina	ANAHEIM ANGELS		\$ 320,000	AL
25	John	Lackey	ANAHEIM ANGELS		\$ 315,000	AL
26	Francisco	Rodriguez	ANAHEIM ANGELS		\$ 312,500	AL
27	Scott	Shields	ANAHEIM ANGELS		\$ 305,000	AL

Then go to DATA | PIVOT TABLE AND PIVOT CHART REPORT



The wizard will ask you some questions:



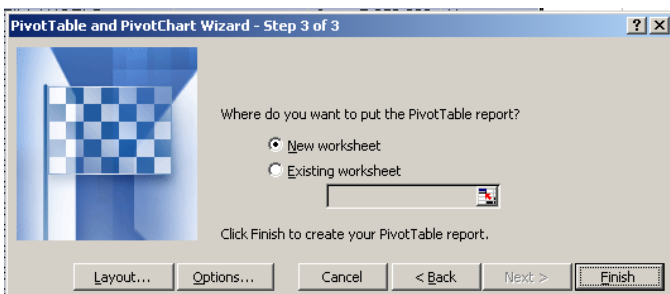
Under the first question, make sure “Microsoft Office Excel or database” is selected and that “Pivot Table” is selected. Then click NEXT.

The next window will ask you what range of cells you want to use. If you highlighted the data in your spreadsheet, it should say that range here.



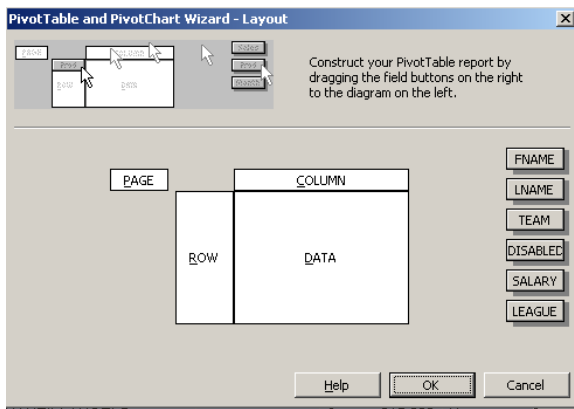
Click NEXT.

The next step will ask you where to put the report. I usually choose “New Worksheet” so it doesn’t clutter my original sheet.

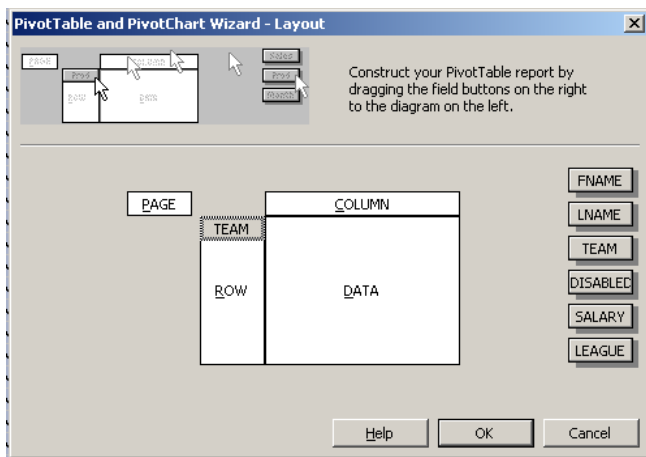


Then click LAYOUT.

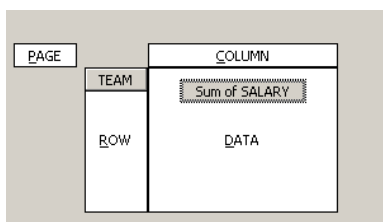
This is where you tell Excel what pieces to put in your PIVOT TABLE.



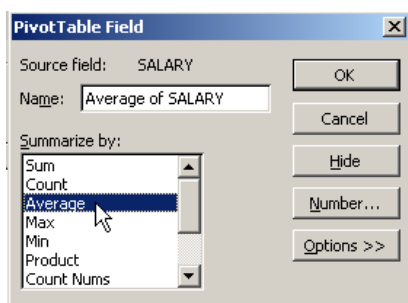
In this case, we want to see a list of teams. So drag TEAM to the ROW box.



We also want to know how much money they are making. So drag salary into the DATA box. Excel will default to SUM, which means it will add up all the money.



But we want the AVERAGE. So double-click on the box that says SUM OF SALARY. Choose AVERAGE from the list of calculations.



Click OK, then click OK again to finish your table.

In the final box click FINISH.

You'll get a spreadsheet that looks like this:

	A	B	C
1	Drop Page Fields Here		
2			
3	Average of SALARY		
4	TEAM	Total	
5	ANAHEIM ANGELS	2927098.778	
6	ARIZONA DIAMONDBACKS	3226300	
7	ATLANTA BRAVES	3874896.667	
8	BALTIMORE ORIOLES	2394906.034	
9	BOSTON RED SOX	3578951	
10	CHICAGO CUBS	2883690.464	
11	CHICAGO WHITE SOX	1961923.077	
12	CINCINNATI REDS	2034992.036	
13	CLEVELAND INDIANS	1575317.226	
14	COLORADO ROCKIES	2232722.233	
15	DETROIT TIGERS	1890884.615	
16	FLORIDA MARLINS	1727439.214	
17	HOUSTON ASTROS	2711147.692	
18	KANSAS CITY ROYALS	1558384.615	
19	LOS ANGELES DODGERS	4072985.385	
20	MILWAUKEE BREWERS	1400931.034	
21	MINNESOTA TWINS	2138653.846	
22	MONTREAL EXPOS	1998038.462	
23	NEW YORK METS	4029952.172	
24	NEW YORK YANKEES	5346821.25	
25	OAKLAND ATHLETICS	1936955.154	

Excel will, by default, put your table in alphabetical order. If you want to sort it by the Average Salary, you need to double-click on the box that says TEAM. (I know -- not very intuitive.)

You'll get this box:

Double-click on ADVANCED.

Here, you can indicate that you want to sort descending by AVERAGE SALARY. Then click OK.

PivotTable Field Advanced Options

Page field options

☒ Retrieve external data for all page field items (faster performance)

☐ Query external data source as you select each page field item (requires less memory)

☐ Disable pivoting of this field (recommended)

AutoSort options

☐ Manual (you can drag items to rearrange them)

☐ Ascending

☒ Descending

☐ Data source order

Top 10 AutoShow

☒ Off

☐ On

Show: Top 10

Using field:

TEAM

TEAM

Average of SALARY

OK Cancel