

## Inhalt Pivot-Tabellen

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### 1. Working with pivot tables

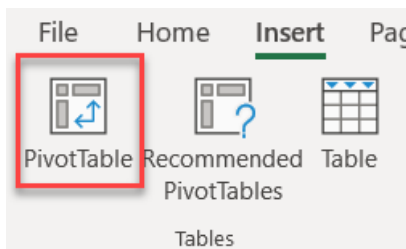
Pivot tables allow you to quickly summarize large amounts of data in order to analyze them. With pivot tables, you can:

- Group large amounts of data into categories and subcategories.
- Expand and collapse data levels.
- Calculate partial results as well as create individual calculations.
- show different summaries; Move rows in columns or move columns in rows ("pivot")
- Concentrate on essential information by filtering, sorting and grouping.

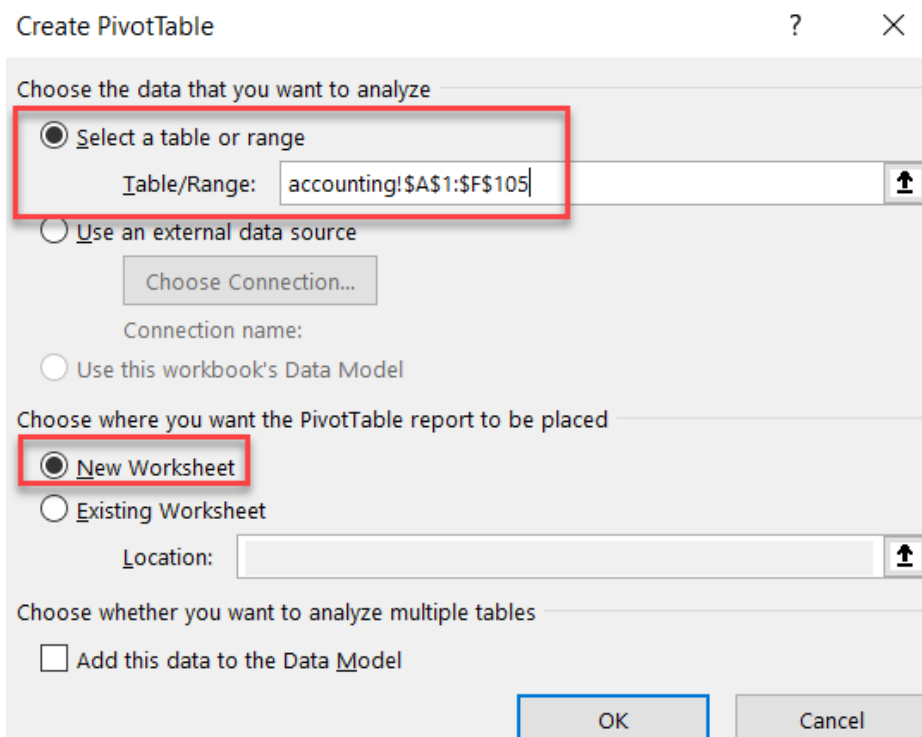
#### Create a pivot table

The data from an Excel worksheet is used as basis for a pivot table. They must be in list format with column labels on the first row. Position the cursor in the list, then switch to the Insert tab and select the command of the same name from the PivotTable list box in the Tables group.

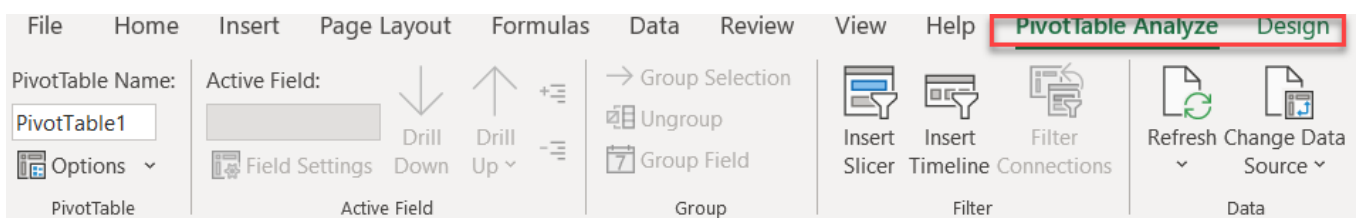
Start with **INSERT – PivotTable**:



Click on PivotTable you see this Dialogbox:

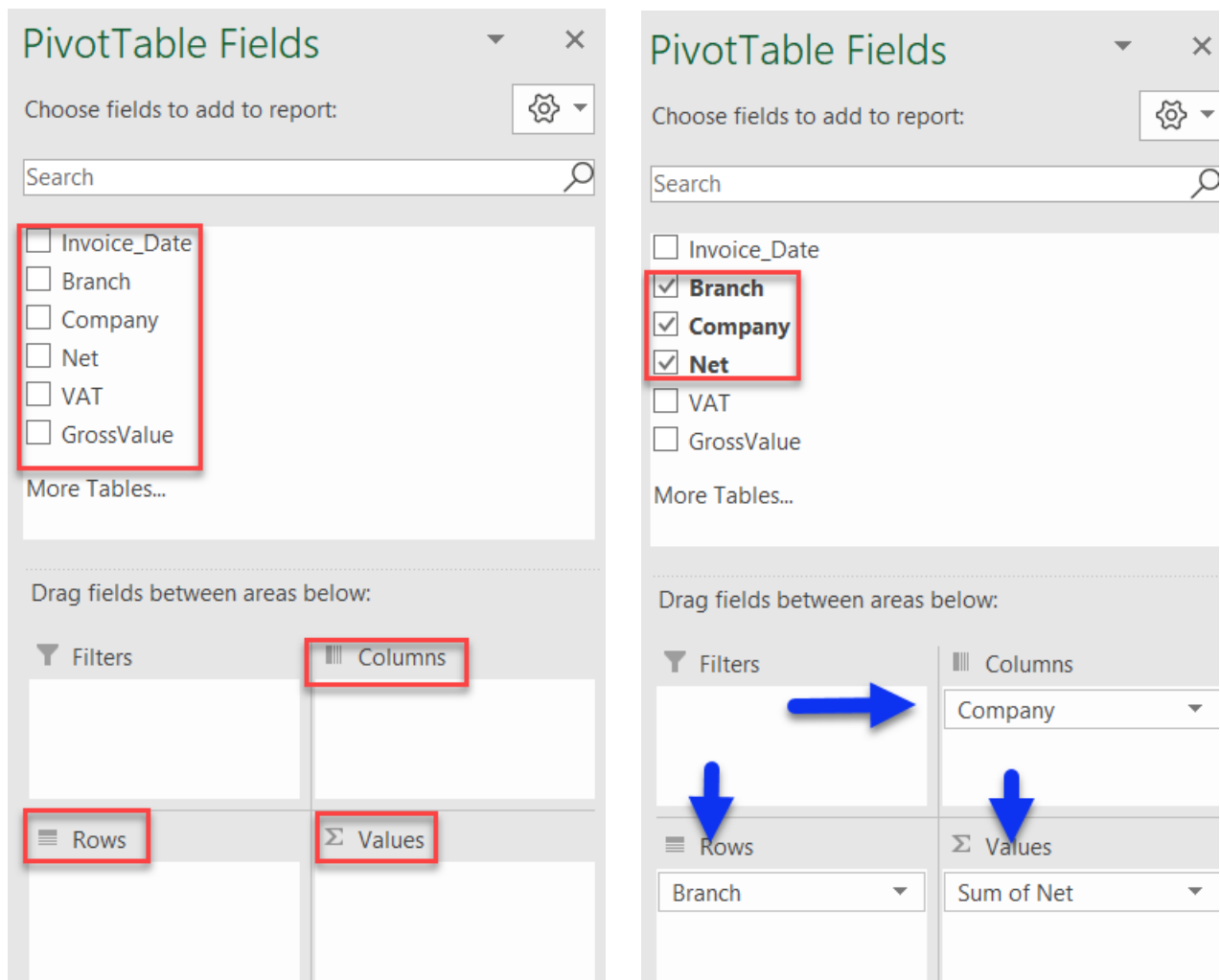


Determine where to create the pivot table. By default, the New Worksheet option is selected. Confirm your choice with OK. A new worksheet appears with the **PivotTable Analyze** and **Design** contextual tabs.



## 2. Set up the pivot table

In the **PivotTable Analyze** tab you first define the fields according to which you want to summarize your data. The field names of your Excel list appear automatically in the PivotTable field list. Here you select the fields you want for your pivot table. Fields that contain numbers are summarized in the  $\Sigma$  Values area. Fields that contain text information, on the other hand, appear automatically in the Line Labeling area. This automatism does not always lead to the desired result. For example, years are recognized as numerical values and summarized with the sum function. If you want a different division, simply drag the field names into the desired area.



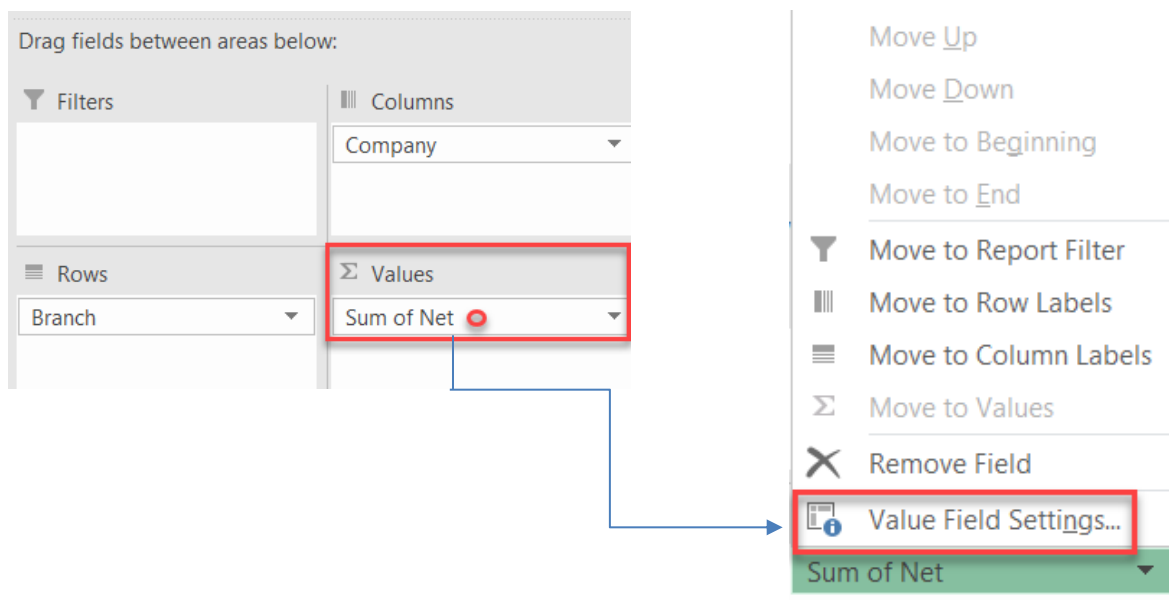
This creates the first Pivot-Table

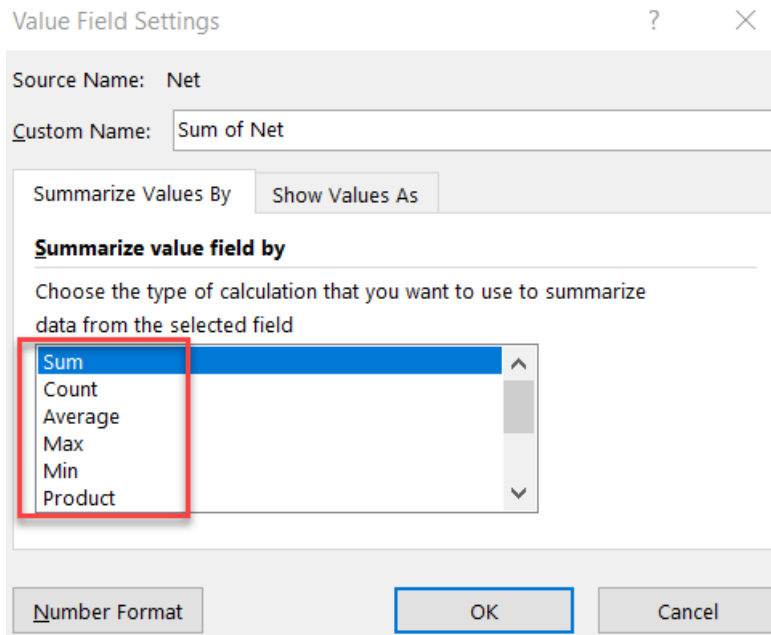
	A	B	C	D	E	F	G
1							
2							
3	<b>Sum of Net</b>	<b>Column Labels</b> ▾					
4	<b>Row Labels</b> ▾	<b>Electronic AG</b>	<b>Kurz AG</b>	<b>Neumann KG</b>	<b>PCA GmbH</b>	<b>Versand AG</b>	<b>Grand Total</b>
5	East	\$ 68.825	\$ 20.733	\$ 42.397	\$ 13.310	\$ 40.802	\$ 186.066
6	North	\$ 32.431	\$ 50.715	\$ 6.017	\$ 31.172	\$ 36.690	\$ 157.025
7	South	\$ 69.966	\$ 70.845	\$ 60.043	\$ 4.733	\$ 59.362	\$ 264.948
8	West	\$ 130.948	\$ 18.855	\$ 87.095	\$ 21.448	\$ 100.147	\$ 358.493
9	<b>Grand Total</b>	<b>\$ 302.170</b>	<b>\$ 161.147</b>	<b>\$ 195.552</b>	<b>\$ 70.664</b>	<b>\$ 237.000</b>	<b>\$ 966.533</b>

Depending on how you position your fields, the corresponding pivot report appears in the worksheet. If you want a higher-level criterion for the data display, drag a field into the Filter area. The superordinate filter appears in the worksheet in cell A1. All fields can be easily positioned by "drag and drop" and removed from the areas again.

### Select the kind of calculations

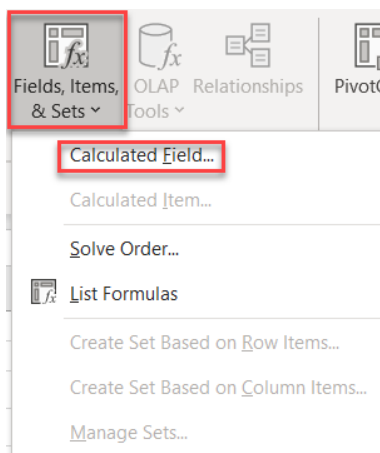
In a pivot table, numerical values are summarized with the **SUM** function, whereas texts are summarized with the **COUNT** function. If you want your data to be calculated differently, open the list field in the Values area at the bottom right of the display. Use the Value field settings command to select the type of calculation you want.

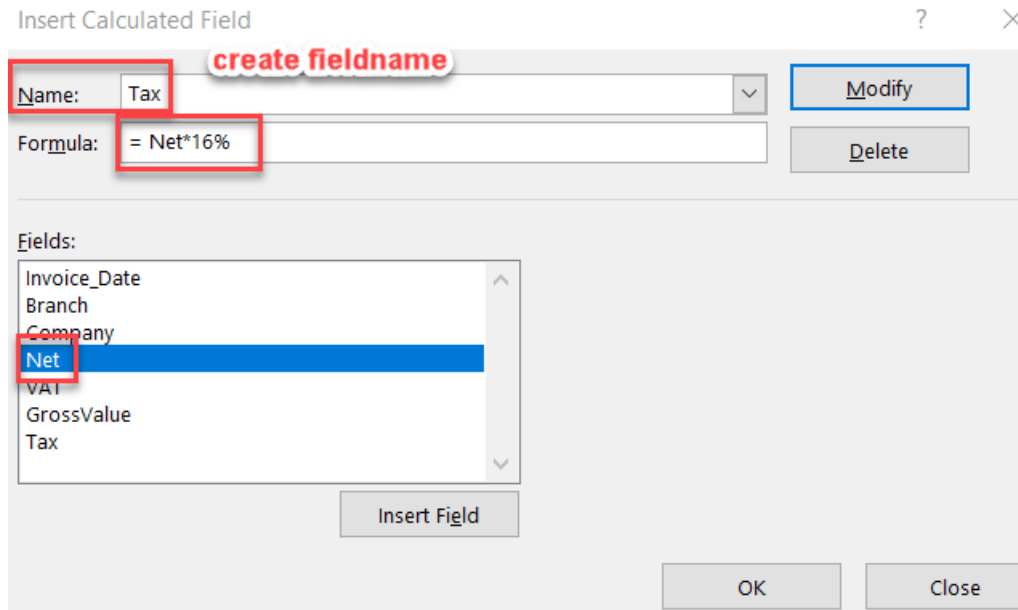




In addition to the predefined calculation options, you can insert individual calculations in the pivot table. For example, to calculate the VAT from the Net amount choose from **Table Analyze** tab, in the Calculations group, select Fields, Members and Groups - Calculated Field.

3	Row Labels		Sum of Net
4	Electronic AG	\$	302.170
5	Kurz AG	\$	161.147
6	Neumann KG	\$	195.552
7	PCA GmbH	\$	70.664
8	Versand AG	\$	237.000
9	<b>Grand Total</b>	<b>\$</b>	<b>966.533</b>



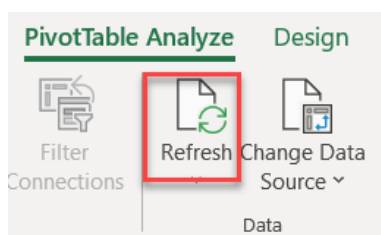


First assign a field name and then specify the type of calculation in the Formula field. The formula is entered in the list of fields using the Add button. With the OK button, the new field is transferred to the  $\Sigma$  Values area and additional columns appear in the pivot table in which the calculated values are displayed.

3	Row Labels	Sum of Net	Sum of Tax
4	Electronic AG	\$ 302.170	\$ 48.347
5	Kurz AG	\$ 161.147	\$ 25.784
6	Neumann KG	\$ 195.552	\$ 31.288
7	PCA GmbH	\$ 70.664	\$ 11.306
8	Versand AG	\$ 237.000	\$ 37.920
9	<b>Grand Total</b>	<b>\$ 966.533</b>	<b>\$ 154.645</b>

### Update the data

If the figures in your original table change, update the pivot table in the **PivotTable Analyze** tab in the Data group using the Refresh button.



### Change the labels

The texts row labels and column labels appear in the pivot table. You can remove these from the table using the Field Headers command in the Show / Hide group.

You can change the labeling of the calculation used (sum of Tax) by positioning the cursor directly on the cell and changing the text there. Please note that the text must not appear as a field name.

## 3. Formatting the PivotTable

In addition to individual formatting, you can choose from a variety of table designs in the **Design** tab in the PivotTableStyles catalog.

### Drill down

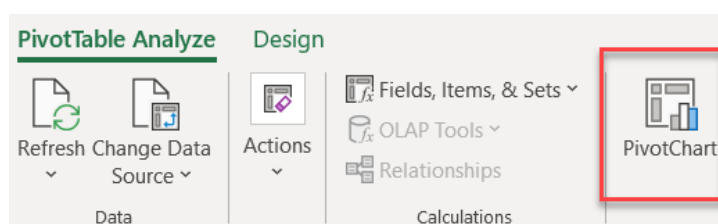
As soon as you double-click on a combined field, Excel automatically creates a new worksheet. This functionality is called "drill-down". The data displayed have no connection to the original data material, but are displayed as a new table.

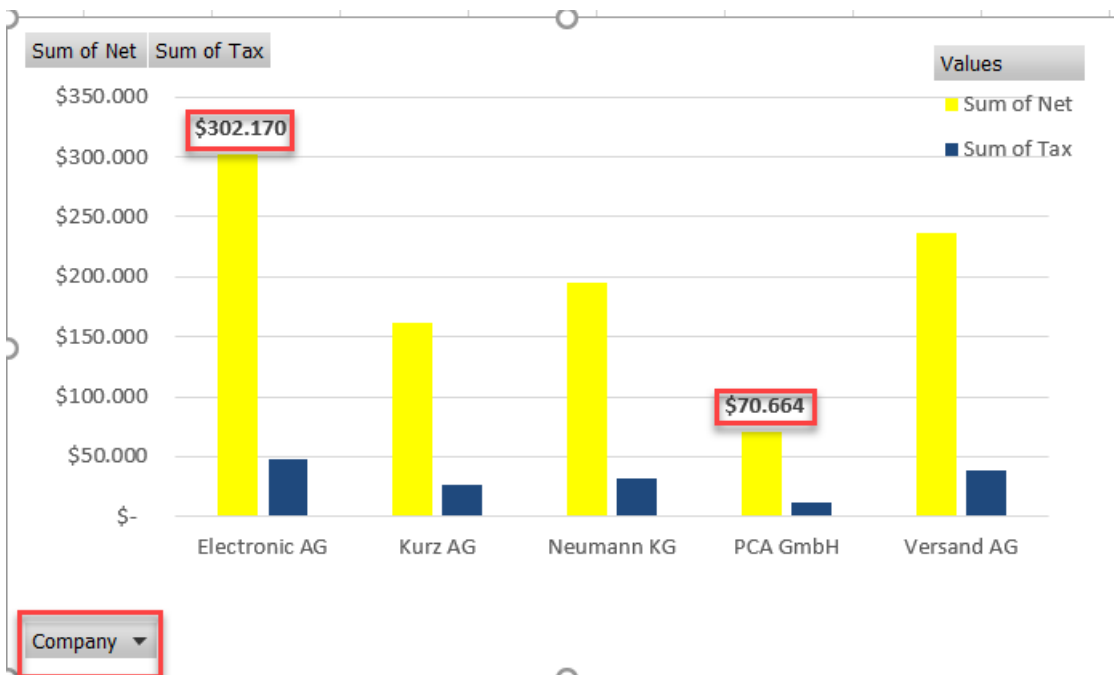
**drill down table**

	A	B	C	D	E	F
1	Invoice_Date ▾	Branch ▾	Company ▾	Net ▾	VAT ▾	GrossValue ▾
2	24.02.2020	East	PCA GmbH	\$ 1.190	\$ 190	\$ 1.380
3	30.06.2020	North	PCA GmbH	\$ 8.534	\$ 1.366	\$ 9.900
4	05.10.2020	North	PCA GmbH	\$ 12.276	\$ 1.964	\$ 14.240
5	15.07.2020	South	PCA GmbH	\$ 4.733	\$ 757	\$ 5.490
6	05.10.2020	West	PCA GmbH	\$ 12.259	\$ 1.961	\$ 14.220
7	24.04.2020	West	PCA GmbH	\$ 9.190	\$ 1.470	\$ 10.660
8	24.04.2020	North	PCA GmbH	\$ 10.362	\$ 1.658	\$ 12.020
9	24.04.2020	East	PCA GmbH	\$ 12.121	\$ 1.939	\$ 14.060

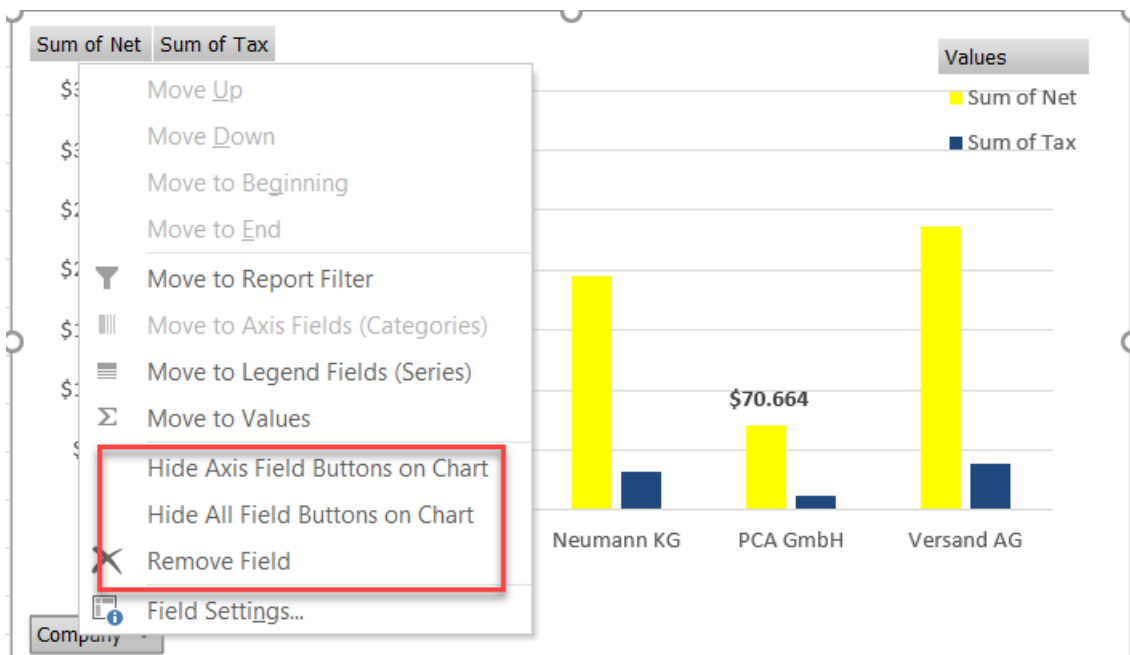
## 4. Create pivot PivotCharts

Position the cursor in an existing pivot table. Then, on the **PivotTable Analyze** tab click the **PivotChart** command. Excel presents you a PivotChart in the current worksheet based on your chosen pivot table. In addition to the usual range of functions for PivotChart editing, the PivotChart offers you further dropdown fields with which you can select the data for the PivotChart according to various criteria.





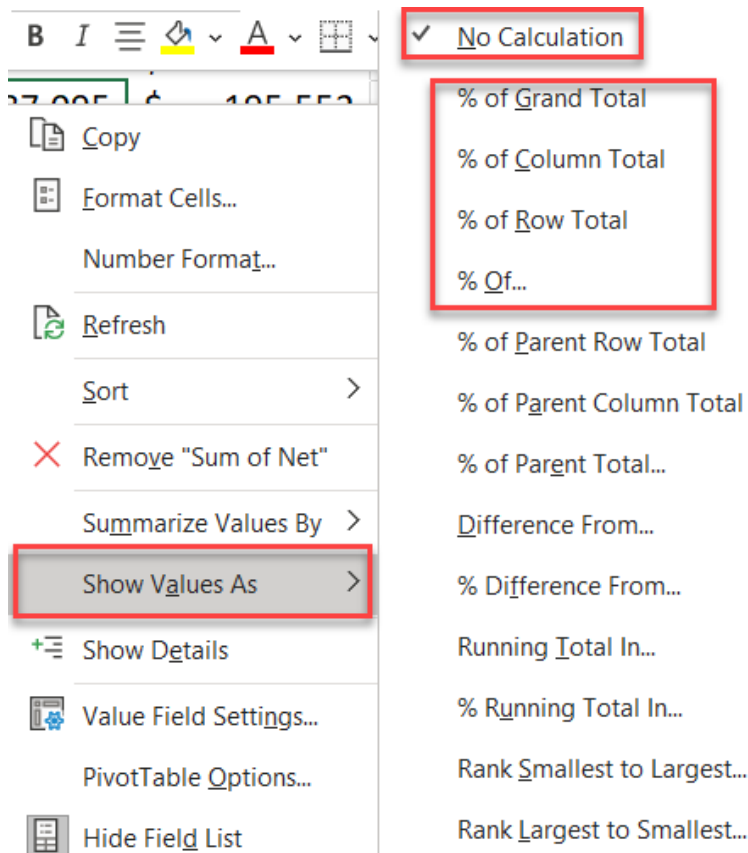
The context-menu for the field Company allows you different actions:





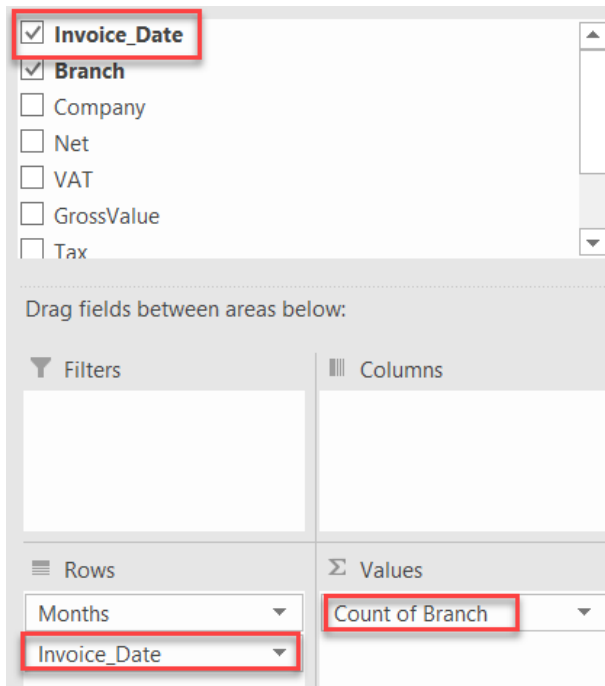
## 5. Arithmetic operations

Sum of Net	Column Labels			
Row Labels	East	North	South	West
Electronic AG	\$ 68.825	\$ 32.431	\$ 69.966	\$ 130.222
Kurz AG	\$ 20.733	\$ 50.715	\$ 70.845	\$ 142.293
Neumann KG	\$ 42.397	\$ 6.017	\$ 60.043	\$ 108.457
PCA GmbH	\$ 13.310	\$ 31.172	\$ 4.733	\$ 49.215
Versand AG	\$ 40.802	\$ 36.690	\$ 59.362	\$ 137.854
<b>Grand Total</b>	<b>\$ 186.066</b>	<b>\$ 157.025</b>	<b>\$ 264.948</b>	<b>\$ 608.039</b>



- No Calculation
- % of Grand Total
- % of Column Total
- % of Row Total
- % of...
- % of Parent Row Total
- % of Parent Column Total
- % of Parent Total...
- Difference From...
- % Difference From...
- Running Total In...
- % Running Total In...
- Rank Smallest to Largest...
- Rank Largest to Smallest...

## 6. Using Date-Columns



This results in the following PivotTable:

3	Row Labels	Count of Branch
4	Feb	12
5	Mrz	1
6	Apr	20
7	Mai	8
8	Jun	13
9	Jul	4
10	Aug	7
11	Sep	16
12	Okt	23
13	<b>Grand Total</b>	<b>104</b>

The Row Labels are grouped by month. You can change this layout with the command **Group** from the context menu.

