



Free Training Transcript: Introduction to Table Calculations

Welcome to this introductory video on Table Calculations. You can download the Exercise workbook to follow along in your own copy of Tableau.

Table Calculations

Table Calculations are performed on the returned results of a view. Here, we have Sum of Sales broken out by category. What if we wanted to see the Percent of Total instead of the actual sales values? Right click on the SUM(Sales) pill and select Quick Table Calc > Percent of Total. We can now see those values were converted into percentages, and Technology is about 37 and a half % of our overall sales. Table calculations are computed locally in Tableau, rather than being handled in the database. The calculations are based only on the information in the view. This is sometimes referred to as the field set.

Field Set

In a given view, the underlying data table (hence “table calculations”) contains the information that makes up the marks. If you’re working with a crosstab, this data is exactly what you see. For any other view, the underlying data is represented differently but the values are the same as the crosstab. This data table, which comprises all fields used to define the view, is called the Field Set. For this particular view, the Field Set consists of Category, Segment, and Quantity, all of which define the breakdown and length of the bars in the view. Altering the view by adding or removing fields changes the Field Set, which in turn alters the Table Calculation.

Quick Table Calculations

Many common calculations are treated as table calculations in Tableau. Quick table calculations are easy, one click options that can be applied to a given view. For example, what if we want to ask about our running total of profit over time? Here we have Month of order date and Profit in the view. We can add a quick table calculation by right clicking on Profit, selecting > quick table calculation > running total, and we see pretty steady growth in profit. Great! If we think we’ll want to use this regularly, we can drag the pill with the table calculation over to the data pane to save it as a calculated field for easy reuse later.

Manual Table Calculations

Table calculations can also be written in the calculation editor like any other calculation—usually, this would be done with table calcs not available as quick table calc, but to compare, let's recreate this Running total by hand. Right click in the data pane and select create calculated field. We'll name it `RUNNING_SUM`. If we change the function type to table calculation, we see the long list of options for table calculations—again, these functions are performed on the field set that makes up the view. We'll pick `RUNNING_SUM`. If we just type Profit, we'll get an error – we need an aggregation. Remember, in the view, we did our quick table calc on the SUM of Profit pill. We need to specify the aggregation when manually writing a table calc. Wrapping profit in SUM clears up the error, and if we bring this calc to the rows shelf, we see the same result as the quick table calculation.

Conclusion

Thank you for watching this Table Calculations training video. We invite you to continue with [Modifying Table Calculations](#) to learn more.