



Free Training Transcript:
Where Tableau Filters

Welcome to this video on Where Tableau Filters. You can download the Exercises workbook to follow along in your own copy of Tableau.

An important question to ask is WHERE are we filtering? Are we filtering to limit what we bring into Tableau from the start, or are we filtering our view based on summarized or row level data?

Summary/Aggregate Filtering

Most views in Tableau are built at a summary level—here, the profit data is aggregated as a sum to the Sub-Category level. Note down in the bottom left corner that we have 17 marks. And based on the view, we can see 8 of them show negative profit. If we bring Profit to the filter shelf, because it's a measure we're asked how we want to filter – all values, or by aggregation. If we filter based on SUM (like our view is set up), and say at least 0, we wind up with 9 marks. Those Sub-Categories with negative profits have been filtered out entirely based on the sum of Profits at the Sub-Category level. If we change the granularity of the view by drilling down to Product ID, we're still filtering out any mark at that summary level with a negative profit.

Look down at that bottom left corner – note how many products have a positive sum of Profit. If we take off the filter, see how the number of marks jumps. Summary or aggregate filtering is essentially saying “filter out any marks in my view that are outside the constraints I set”. Stepping outside Superstore, this can be useful in scenarios such as doing an analysis of movies where the opening weekend grossed over a certain amount overall.

Record Level Filtering

Alternatively, we can filter at the record level. Keeping with our movie scenario, this might consist of filtering out all individual tickets sales at discounted prices and looking only at trends for full-price admission. When we bring a measure like Profit to the filter shelf, selecting “All Values” essentially will exclude any record that falls outside the filter we build. If we set the minimum to 0 like before, we're actually computing our view using only rows that have a profit of 0 or greater. In our current data set, each row represents a transaction, so we're only looking at profitable transactions. Remembering back when we filtered on SUM of Profits greater than 0, at the level of Sub-Category, we only had 9 marks. Here, when we filter on records with a profit greater than 0, we still have our original 17 marks, but those marks are only composed of data from profitable

transactions. Instead of filtering out unprofitable Sub-Categories, we're filtering out unprofitable records.

Record level filtering has very different implications and applications than summary filtering. Always consider where you actually want to filter when you're working with measures.

Data Source Filtering

Last, it's possible to filter from the data source level. What if we wanted to publish a dashboard for a manager to look ONLY at their Market's data? We could use permissioning or user calculations with Tableau Server or Tableau Online to do this, or we could filter to just that Market with a data source filter.

To create a Data Source Filter, right click on the data source itself and click Edit Data Source Filters. (This can also be done when we're originally creating the connection). We'll "Add" and a list of fields is brought up. We'll select the one we want to filter on, Market, and click ok. Now we can select the Market we want – we'll choose Europe. Note that we don't have anything on the filter shelf, but we only have countries here that are in the European Market. Data Source Filters apply to all sheets using the data connection, so be careful when using these.

Conclusion

Thank you for watching this video on the Where Tableau Filters. For additional information about filtering, please continue to the other videos in the Filtering series.