

Measure Values and Measure Names

Applies to: Tableau Cloud, Tableau Desktop, Tableau Server

The Data pane always contains a number of fields that do not come from your original data, two of which are **Measure Values** and **Measure Names**. Tableau automatically creates these fields so that you can build certain types of views that involve multiple measures.

- The **Measure Values** field contains all the measures in your data, collected into a single field with continuous values. Drag individual measure fields out of the Measure Values card to remove them from the view.
- The **Measure Names** field contains the names of all measures in your data, collected into a single field with discrete values.

How you can use Measure Names and Measure Values

Tableau automatically creates these fields so that you can build certain types of views that involve multiple measures.

Measure Values and **Measure Names** are in most respects like other fields in Tableau:

- You can display a filter for **Measure Names**.
- You can format **Measure Values**—the formatting is then inherited as the default formatting for all measures.

- You can drop **Measure Values** and **Measure Names** on shelves.
- You can assign aliases to the values for **Measure Names**.
- You can change the manual sort order for the values for **Measure Names**.

The Measure Values card

When **Measure Values** is in the view, Tableau creates a **Measure Values** card, outlined in red, below, that lists the measures in the data source with their default aggregations.

The screenshot shows the Tableau interface with the following components:

- Pages:** Empty.
- Columns:** Empty.
- Rows:** Contains a pill labeled **Measure Names**.
- Filters:** Contains a pill labeled **Measure Names**.
- Marks:**
 - Card type: **Automatic**.
 - Properties: Color, Size, Text.
 - Detail: Empty.
 - Tooltip: Empty.
 - Card type: **Measure Values**.
- Measure Values Card (highlighted with a red box):**
 - AVG(Discount)
 - SUM(Number of Rec..)
 - SUM(Profit)
 - AGG(Profit Ratio)
 - SUM(Quantity)
 - SUM(Sales)
- Sheet 3 View:** A table showing the results of the measures.

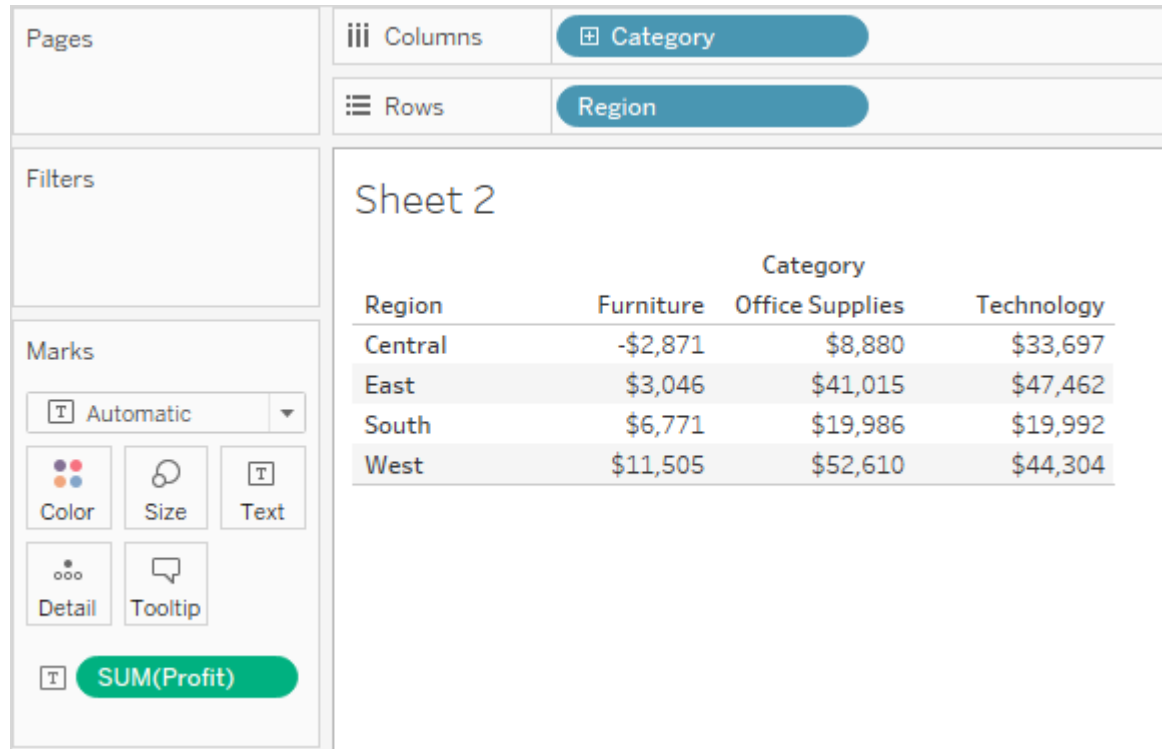
Discount	16%
Number of Records	9,994
Profit	\$286,397
Profit Ratio	12%
Quantity	37,873
Sales	\$2,297,201

You can remove individual measures from the view by dragging them out of the **Measure Values** card.

About Measure Names

When you want to show multiple measures in a view, you can use the **Measure Values** and the **Measure Names** fields. When you add **Measure Names** to a view, all of the measure names appear as row or column headers in the view. The headers include each measure name. This feature becomes

useful when you are working with a text table that shows multiple measures. For example, suppose you have a text table containing the aggregated profit of each product category by region.



Now suppose you want to show both the **Profit** and the **Sales** for each category and region. When you add **Sales** to the text table (by dragging it and dropping it in the view), the measures are combined and the **Measure Values** field is added to Text. The **Measure Names** field is automatically added to the **Rows** shelf.

Pages

Columns **Category**

Rows **Region** **Measure Names**

Filters

Measure Names

Marks

Automatic

Color Size Text

Detail Tooltip

Measure Values

Measure Values

SUM(Profit)

SUM(Sales)

Sheet 2

Region		Category		
		Furniture	Office Supplies	Technology
Central	Profit	-\$2,871	\$8,880	\$33,697
	Sales	\$163,797	\$167,026	\$170,416
East	Profit	\$3,046	\$41,015	\$47,462
	Sales	\$208,291	\$205,516	\$264,974
South	Profit	\$6,771	\$19,986	\$19,992
	Sales	\$117,299	\$125,651	\$148,772
West	Profit	\$11,505	\$52,610	\$44,304
	Sales	\$252,613	\$220,853	\$251,992

Notice how the header names removed the aggregation label by default. You may want to include the aggregations or call it "Total Profit" and "Total Sales." To change the measure names, right-click (control-click on Mac) the Measure Names field on the Rows shelf and select **Edit Aliases**. Make the changes and click **OK**.

Region		Category		
		Furniture	Office Supplies	Technology
Central	Total Profit	-\$2,871	\$8,880	\$33,697
	Total Sales	\$163,797	\$167,026	\$170,416
East	Total Profit	\$3,046	\$41,015	\$47,462
	Total Sales	\$208,291	\$205,516	\$264,974
South	Total Profit	\$6,771	\$19,986	\$19,992
	Total Sales	\$117,299	\$125,651	\$148,772
West	Total Profit	\$11,505	\$52,610	\$44,304
	Total Sales	\$252,613	\$220,853	\$251,992

Create a visualization using Measures Names and Measure Values

You can use **Measure Values** and **Measure Names** to display the values for all measures in your data source, using their default aggregations, simultaneously. The view below was created with the Sample - Superstore data source. It shows the values of all measures in the Data pane, using their default aggregations.

To create this view

Create a new worksheet using the Superstore example workbook.

Drag **Measure Values** to Rows

Click Text Table in Show Me.

Text Table from Show Me.

The screenshot shows the Tableau interface for 'Sheet 3'. The sidebar on the left contains the following sections:

- Pages:** Empty.
- Filters:** A button labeled 'Measure Names'.
- Marks:** A dropdown menu set to 'Automatic'. Below it are buttons for 'Color', 'Size', 'Text', 'Detail', and 'Tooltip'. At the bottom is a button labeled 'Measure Values'.
- Measure Values:** A list of measure names in green buttons: 'AVG(Discount)', 'SUM(Number of Rec..)', 'SUM(Profit)', 'AGG(Profit Ratio)', 'SUM(Quantity)', and 'SUM(Sales)'.

The main view displays a table with the following data:

Measure Name	Value
Discount	16%
Number of Records	9,994
Profit	\$286,397
Profit Ratio	12%
Quantity	37,873
Sales	\$2,297,201

Of course, this view is not well suited for any more than a quick survey of your data because you can't generate a great deal of insight by comparing numbers that aren't measuring the same thing—**Profit** and **Sales** are both in dollars, but **Discount** and **Profit** Ratio are percentages.

When Measure Names and Measure Values automatically get added to the view

Tableau will automatically add **Measure Names** and **Measure Values** fields to the view in response to certain actions on your part.

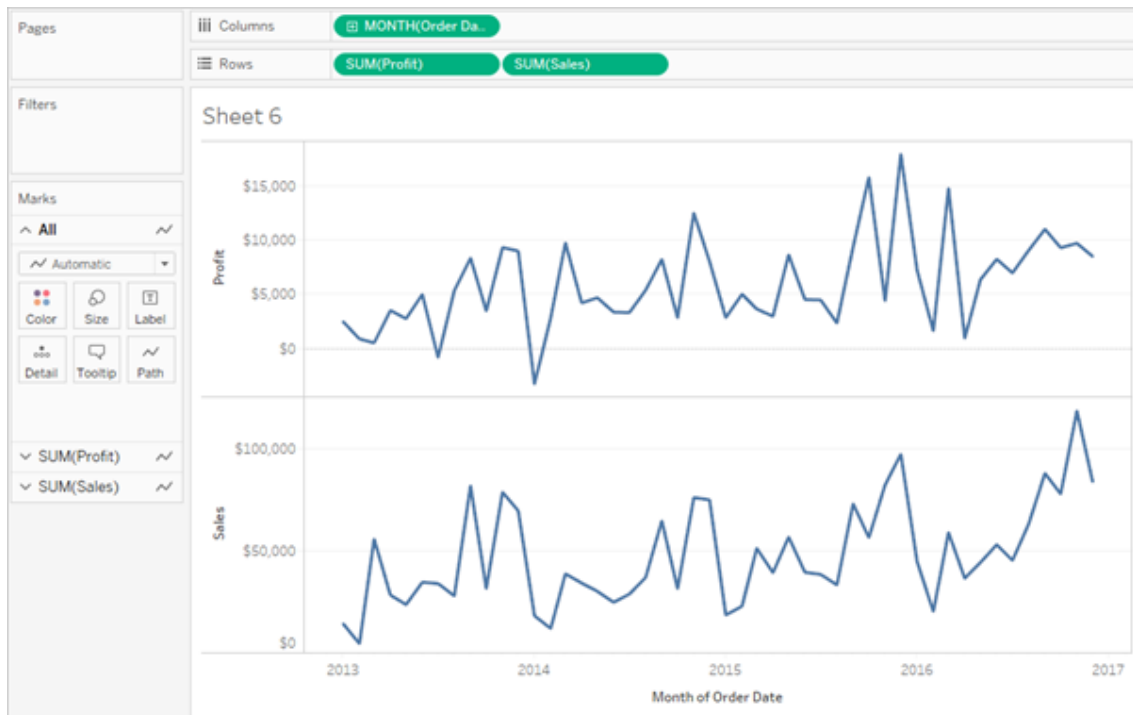
Blending Axes

You can show multiple measures on the same continuous axis by blending axes. For details, see [Blend axes for multiple measures into a single axis \(multiple_measures.htm#Blended\)](#). When you use this technique, Tableau automatically adds Measure Names and Measure Values to the view, allowing you add additional measures to the blended axis.

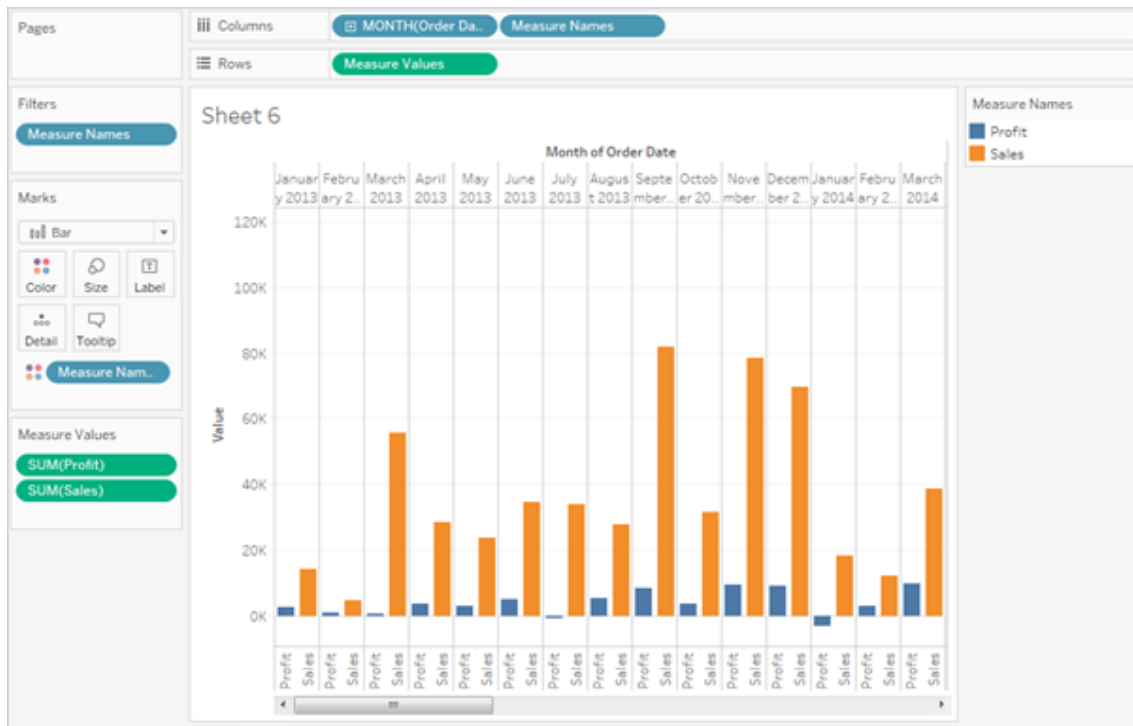
Using Show Me When Multiple Measures Are in the View

When there are multiple measures in the view, Tableau will automatically add **Measure Names** and **Measure Values**—or just **Measure Names**—when you choose certain visualization types from Show Me.

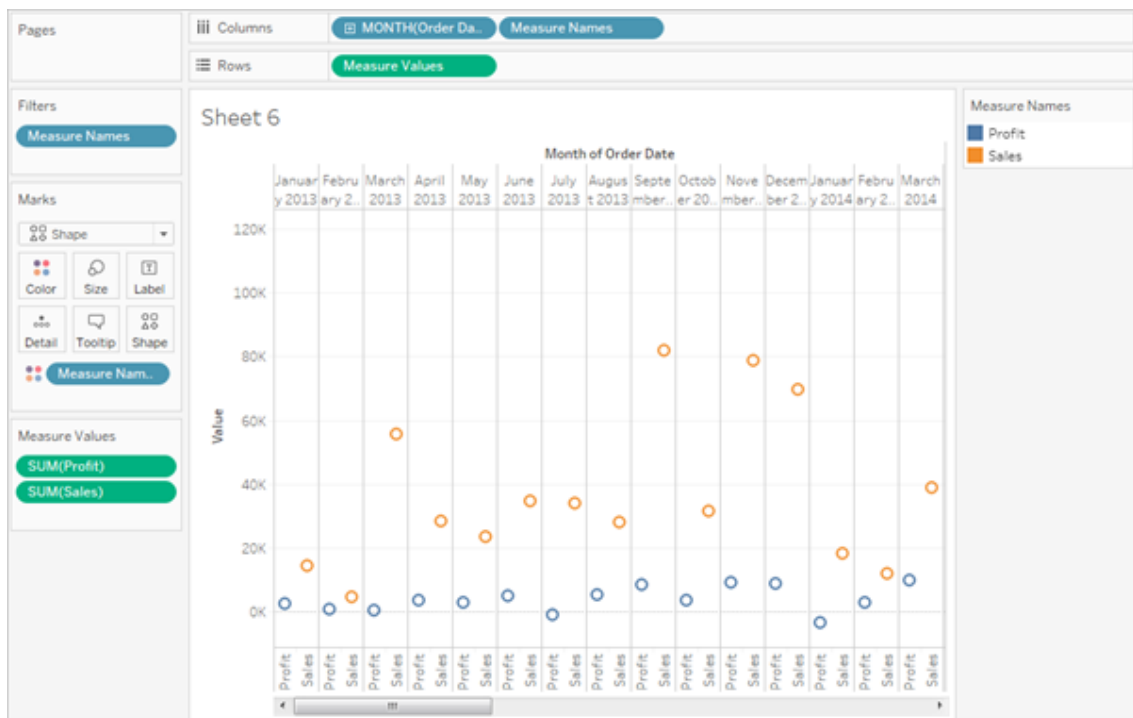
- When you choose side-by-side bars when there are multiple measures in the view, Tableau adds both **Measure Values** and **Measure Names**. For example, your original view might use lines to show **Sales** and **Profit** over time:



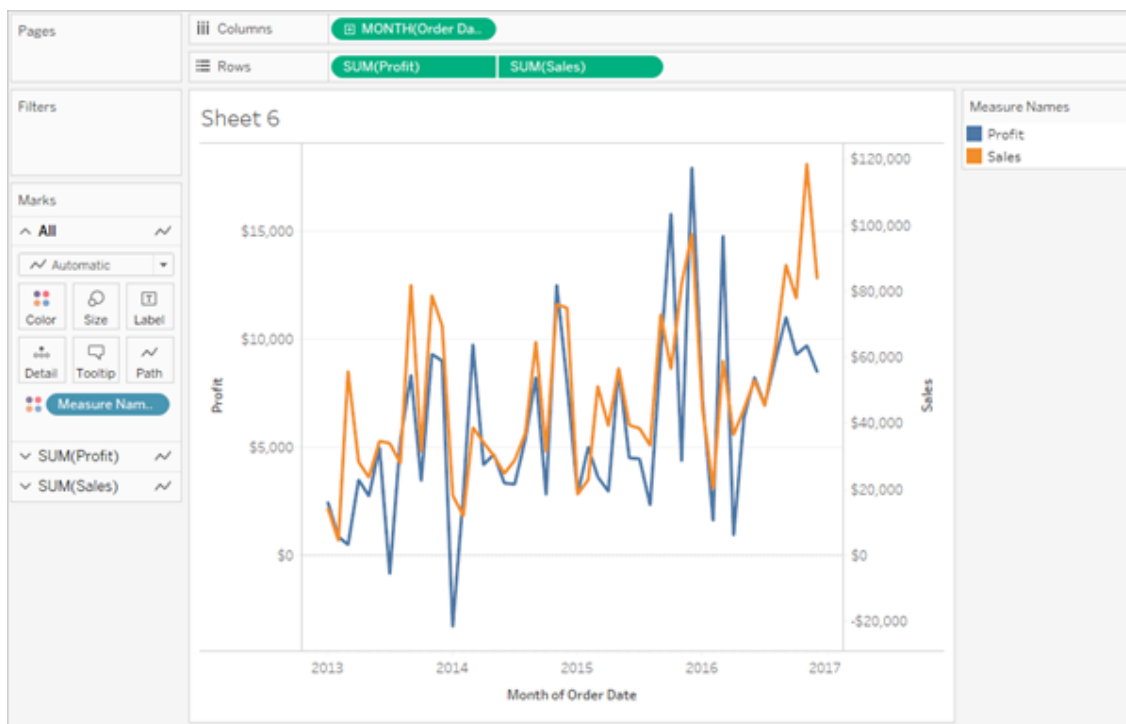
- If you choose side-by-side lines from Show Me, the view updates to include **Measure Names** and **Measure Values**:



- When you choose side-by-side circles from Show Me when there are multiple measures in the view, Tableau adds **Measure Values** and **Measure Names**:



- When you choose dual lines from Show Me when there are multiple measures in the view, Tableau adds **Measure Names** but not **Measure Values**:



This is similar to blending axes, except that Tableau uses separate value ranges (one on the left of the view and one on the right) to make the lines align as closely as possible. With blended axes, Tableau uses a single value range and the lines may or may not align well.

How Measure Names and Measure Values work with Legends Per Measure

When **Measure Values** and **Measure Names** are in the view, you can color code data for each individual measure. For details, see [Measure values and color legends \(view_parts.htm#LegendsPerMeasure\)](https://help.tableau.com/current/pro/desktop/en-us/datafields_understanddatawindow_meavalues.htm).