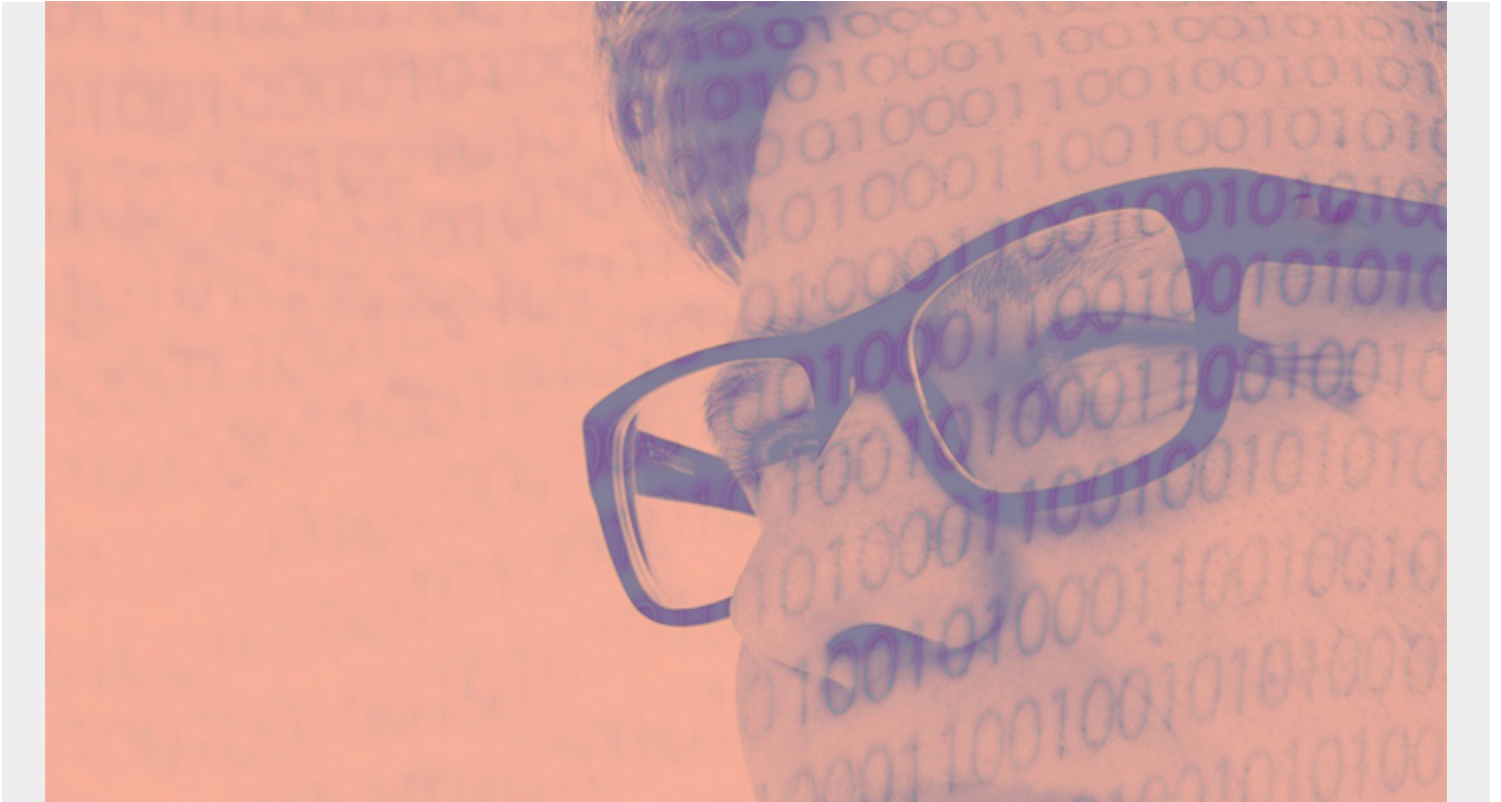


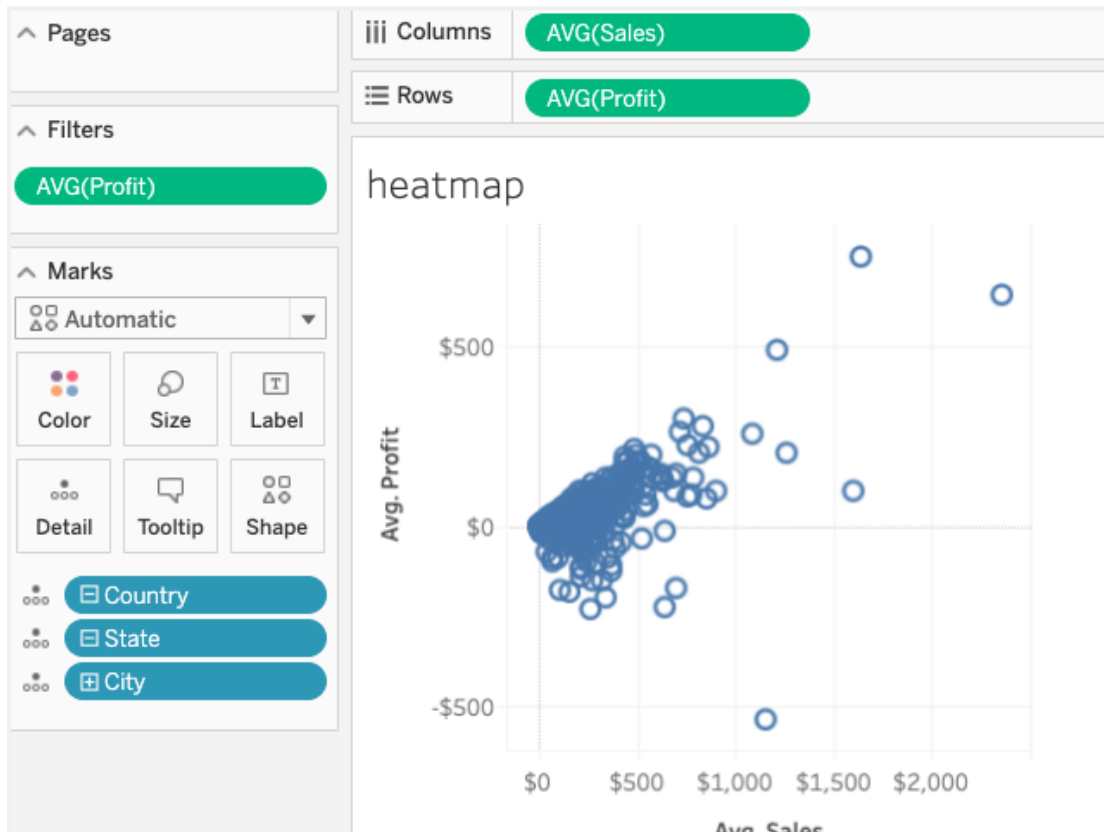
HOW TO CREATE A HEAT MAP CHART IN TABLEAU ONLINE



In the chart below, the data points are too close together—a common problem that prevents you from reading the chart and gaining any intelligent meaning.

A heat map solves this problem by adding color to illustrate where individual points overlap. The color changes or intensifies as the number of data points in a region increases. The heat map also lets us put an additional metric on the otherwise 2-dimensional chart.

So, let's look at how you can create a heat map in your Tableau Online chart.



(This article is part of our

Tableau Online Guide. Navigate to other topics, including a beginner's tutorial, using the menu on the right-hand side.)

Creating a heat map

To make a simple heat map, open Tableau Online and create a new worksheet. Choose the **Superstore Datasource**, which is included with Tableau.

Connect to Data

Create a new data source from scratch or choose an existing data source to start from. [Learn more.](#)

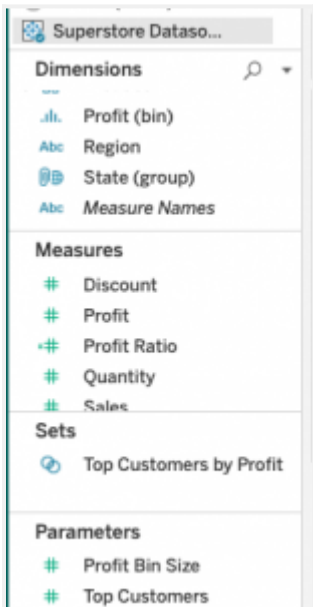
On This Site Files Connectors

Search for data

⌚	Type	Name	Workbooks	Live/Last Extract	Connects To	Project	Owner
		Superstore Datasource	1	Live	Sample - Superstore.xls	Samples	Walker Rowe

Now go to the worksheet

editor:



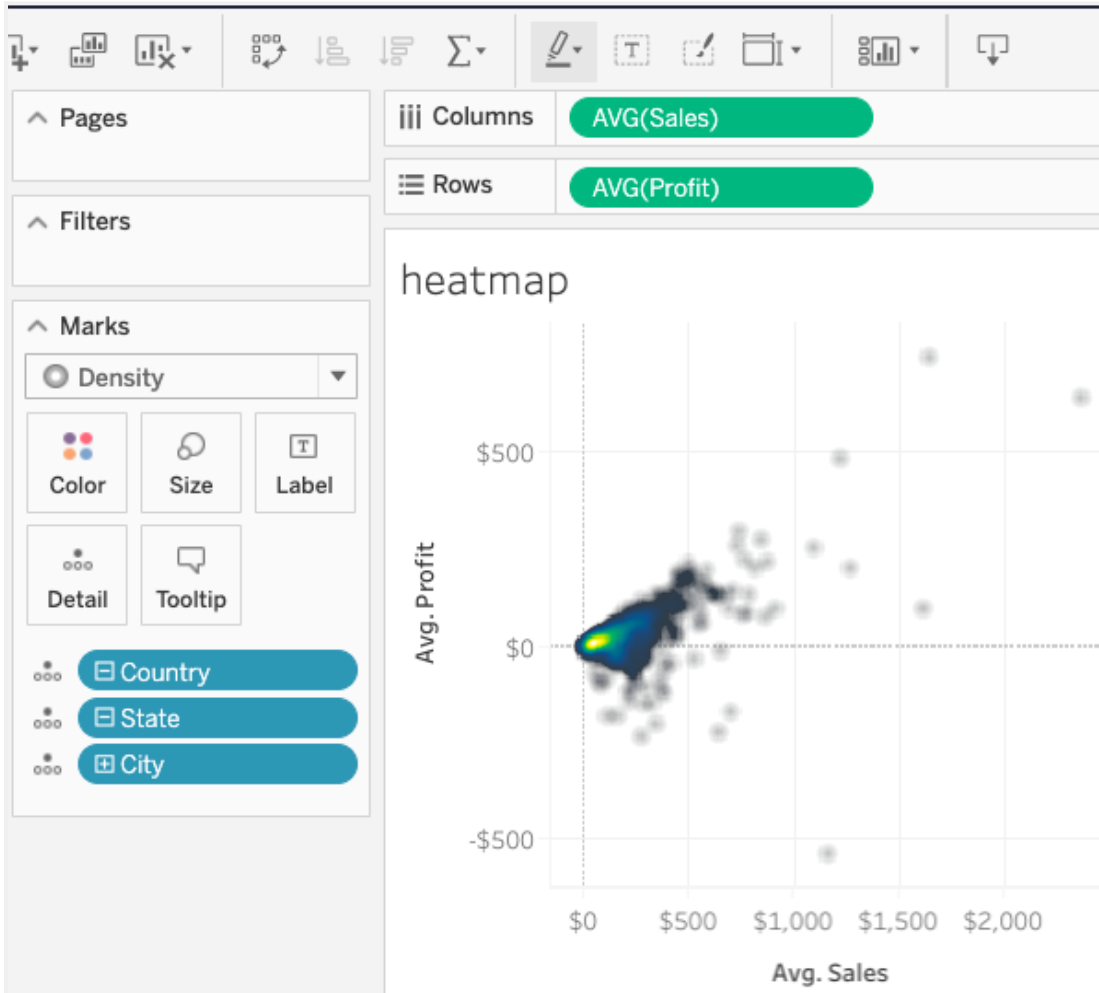
We want to figure out which sales offices are producing the highest sales and profits. We need to look at both sales and profits together. This is because, for examples, sales can be high while profits low, which may indicate that the sales office is giving too many discounts or operating at too high a cost.

So, we plot three metrics:

- Average sales
- Average profit
- Office location (city)

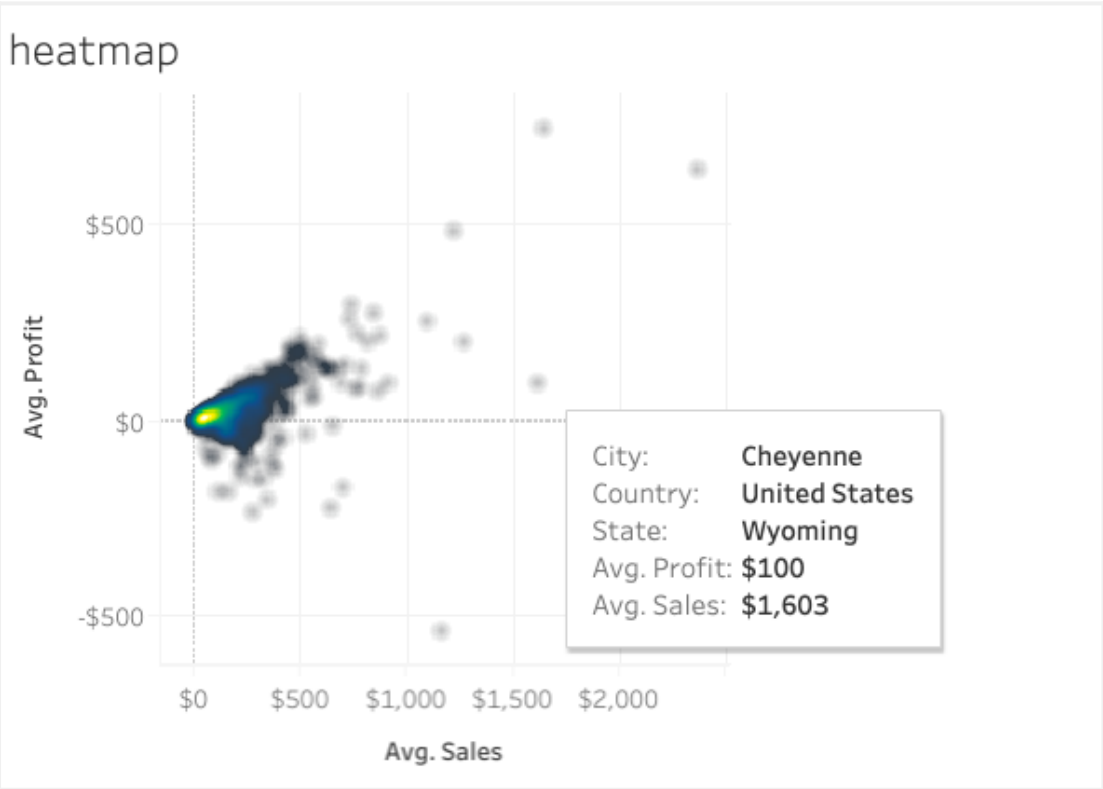
Drag **sales** to **columns** and **profit** to **rows**. Change **SUM()** to **AVE(Sales)** and **AVE(profit)**. Then drag **city** onto the detail mark. Then change the chart type to **density**.

We then get this heat map:



Of course, the data is still too close together to read all the data points. But that is not the point in this exercise: if we wanted to read individual metrics, we could have made a cross table with just text. Instead we use the heat map to identify both outliers as well as the profitability at which most offices are operating.

To drill in to read single office details, click on the chart to get the data point located there.



To zoom into an area, thus removing the outliers, we can adjust the axes by setting the axis **range** to **fixed** and entering a value there.

The image shows a configuration panel for a chart, divided into "General" and "Tick Marks" tabs. The "Range" section is active, showing the following options:

- Automatic Include zero
- Uniform axis range for all rows or columns
- Independent axis ranges for each row or column
- Fixed

Below these options, there are two dropdown menus for "Fixed start" and "Fixed end". The "Fixed start" dropdown is set to "-626.506637939" and the "Fixed end" dropdown is set to "838.648664455".

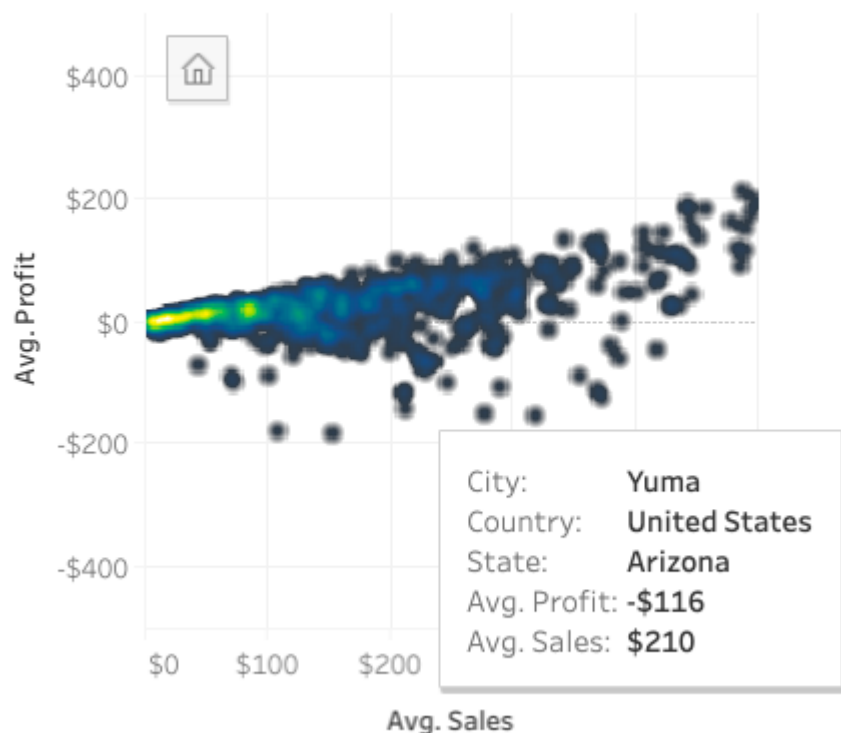
The "Scale" section has the following options:

- Reversed
- Logarithmic
- Positive Symmetric

The "Axis Titles" section shows the title "Avg. Profit" for the y-axis.

That results in a chart zoomed into a closer level like this. Now we can click on the data points in that zoomed-in region to more closely inspect that tightly packed region.

heatmap



We could also drop the cities, only look at the states, but then there is less need for a heat map—that chart would not be as dense.

The screenshot shows the Tableau interface for a heatmap. The Columns shelf contains 'AVG(Sales)' and the Rows shelf contains 'AVG(Profit)'. The Marks card is set to 'Density'. The Filter shelf contains 'Country' and 'State'. The heatmap shows a dense cluster of points for the United States, with a few outliers. A tooltip for Florida, United States, is shown, indicating an average profit of -\$9 and average sales of \$234.

Country:	United States
State:	Florida
Avg. Profit:	-\$9
Avg. Sales:	\$234