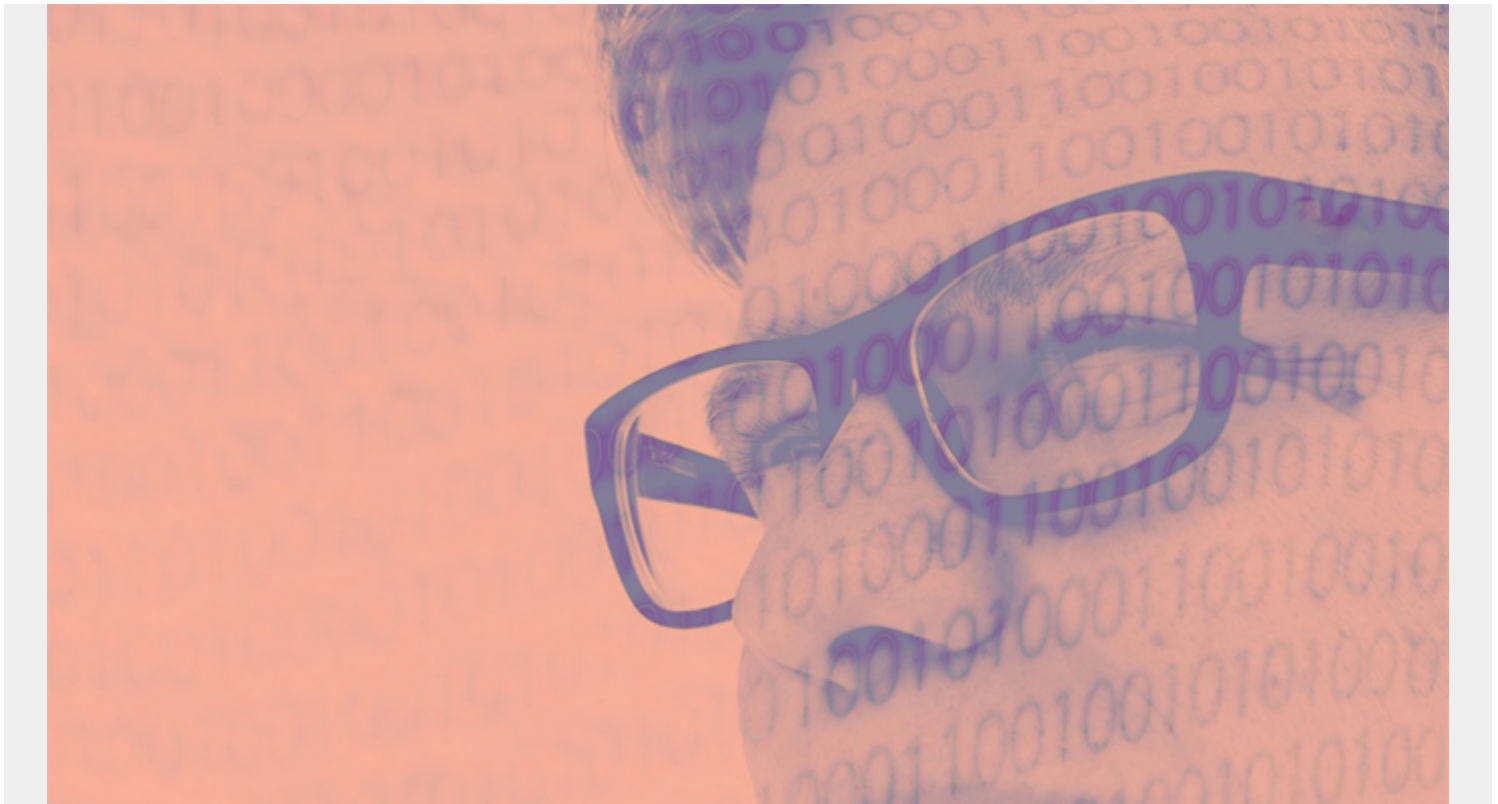


# TABLEAU ONLINE: PLOTTING MULTIPLE AXES ON THE VERTICAL AXIS, PT. 2



Here we show how to plot more than one **metric** on a single vertical axis in Tableau Online. Metrics are called **Pills** in Tableau, since they are shaped like a pill.

## The problem

For the beginner, Tableau Online is frustrating because, when you put two metrics on the rows (horizontal), it draws two charts as the default behavior. Users of Microsoft Excel are used to Excel doing the desired behavior, plotting multiple axes, automatically.

In [Part 1 of this tutorial](#), we did that using a **union**. Here we do that by taking two data points from a single view. We'll create charts with:

- [Two data points on the left vertical axis](#)
- [Two data points with one on the left axis and one on the right](#)

## Generate your data

You can run [this Python code](#) to create some data and then run this SQL command to add a **revenue** column. Or just pick any data that you have and follow these general instructions.

```
create view revenue as select salesdate, product, quantity, quantity *
```

```
random() * 10 as revenue from sales;
```

## Plot two data points on left vertical axis

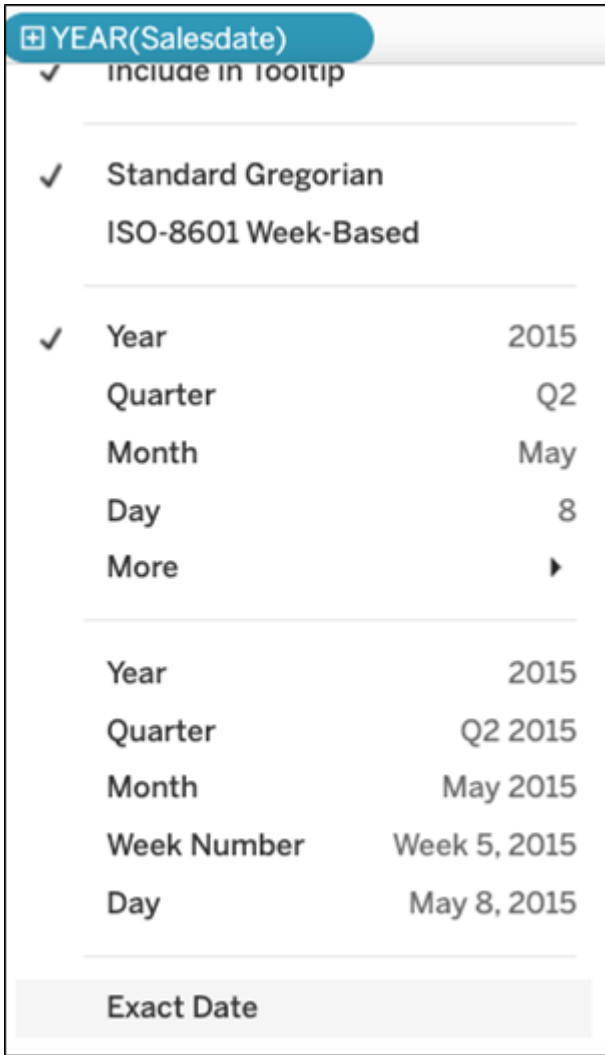
Create a new data source.

The screenshot shows the Tableau interface. On the left, the 'Connections' pane shows 'walkercodetutorials.codes' (PostgreSQL) and the 'Database sales' section. The 'Table' pane lists 'jose', 'phil', 'productsales', 'sales', 'sally', 'New Custom SQL', and 'New Union'. The main view shows the 'productsales' data source with a table view. The table has three columns: 'Salesdate', 'Product', and 'Sum'. The data rows are:

Salesdate	Product	Sum
4/19/2020	x-22	10.0000
6/1/2020	x-11	7.0000

Drag the

**Salesdate** to **Columns** and then change the date from **YEAR()** to **exact date**.



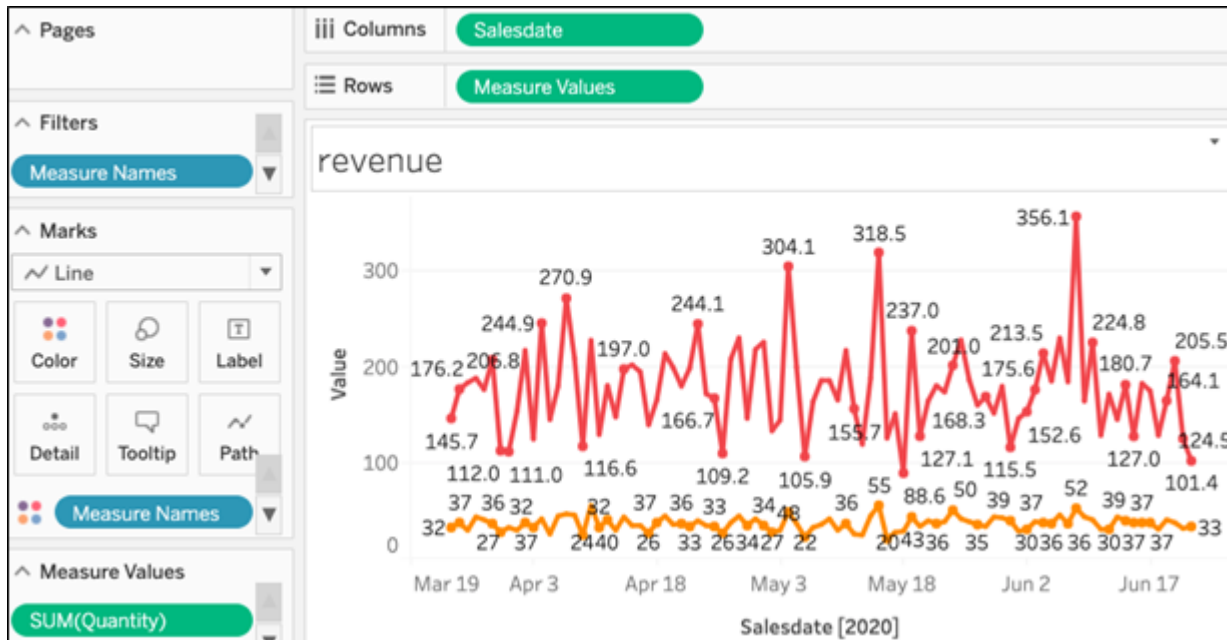
This next step is not exactly intuitive. Drag **Measure Names**

onto the **Color Mark**. Drag the **Measure Values** to **Rows**. This creates a legend to the right for each metric and plot each metric on the chart. (That is the frustrating part for beginners as if you drag each metrics onto Rows it makes a separate chart for each metrics.)

You'll also want to remove **SUM(Number of Records)** as that's not too useful, but Tableau Online adds it to the chart automatically. So, scroll down and find it and remove it from here:

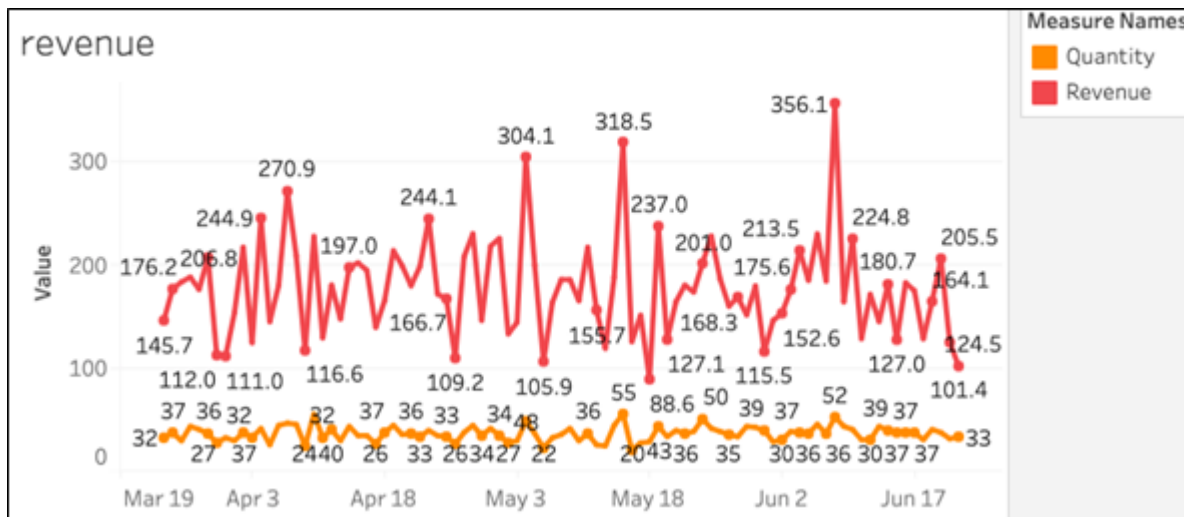


The chart now looks like this:



Zoom in for a

closer view:

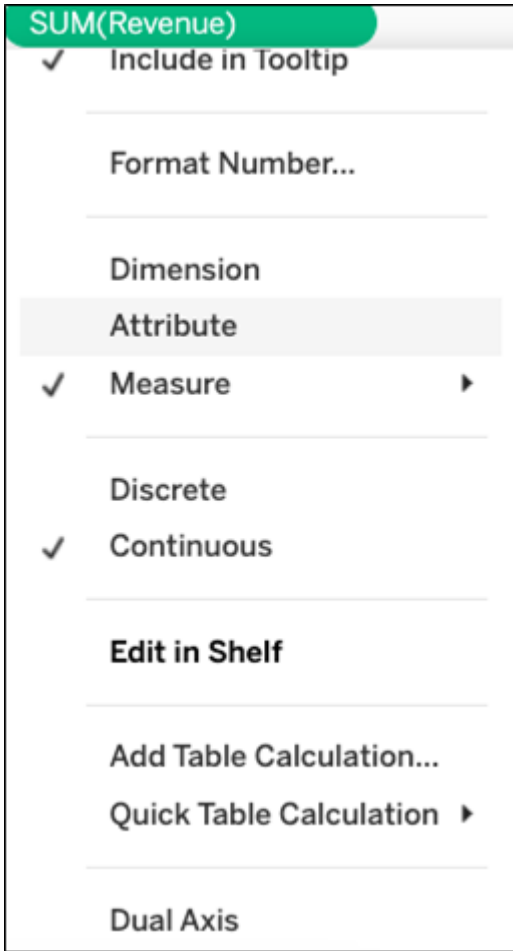


## Plot two data points on dual axis

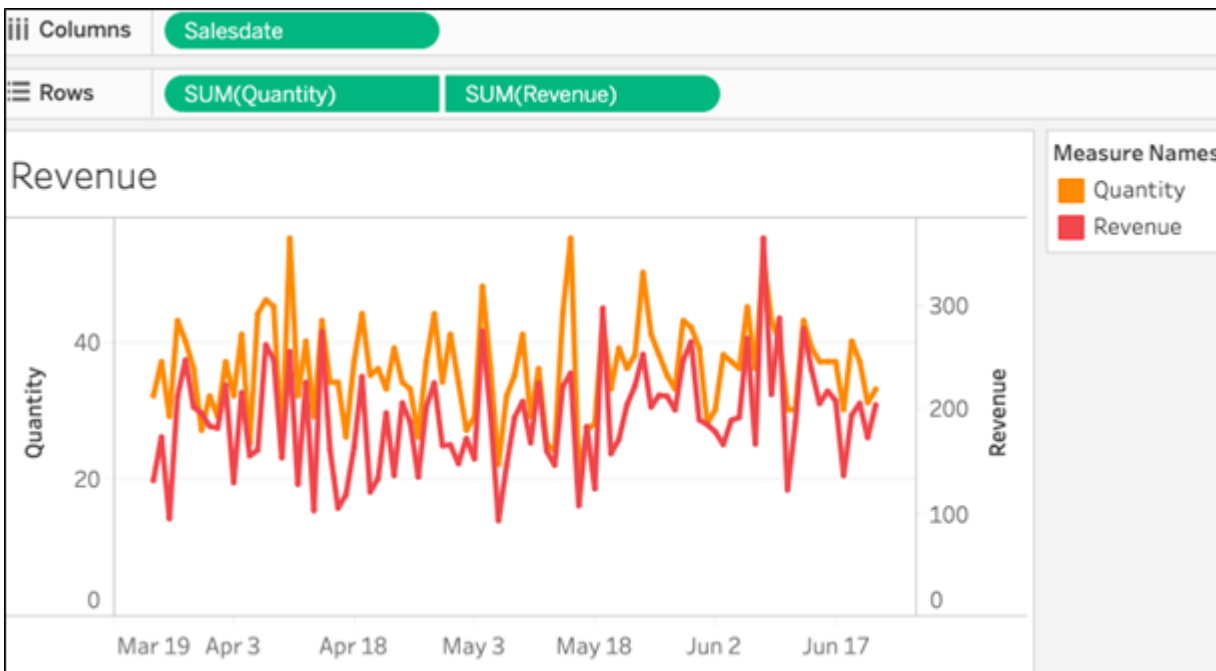
The chart above looks OK. You could change the label **Value** to **Revenue/Quantity**. But let's use another technique and plot one metric on the left axis and the other on the right axis.

So, instead of using **Measure Values** drag **Revenue** and **Quantity** onto **Rows**.

Tableau makes two charts. So click **Sum(Revenue)** and then select **Dual Axis** to make one instead.

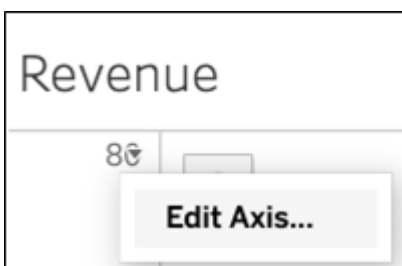


The resulting chart is a bit crowded:



So, edit the

**quantity** axis to force values to a range that does not overlap with the **revenue** range.



Set a **fixed** range.

### Edit Axis [Quantity]

General
Tick Marks

---

**Range**

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

Fixed start ▼      Fixed end ▼  


---

 20 80


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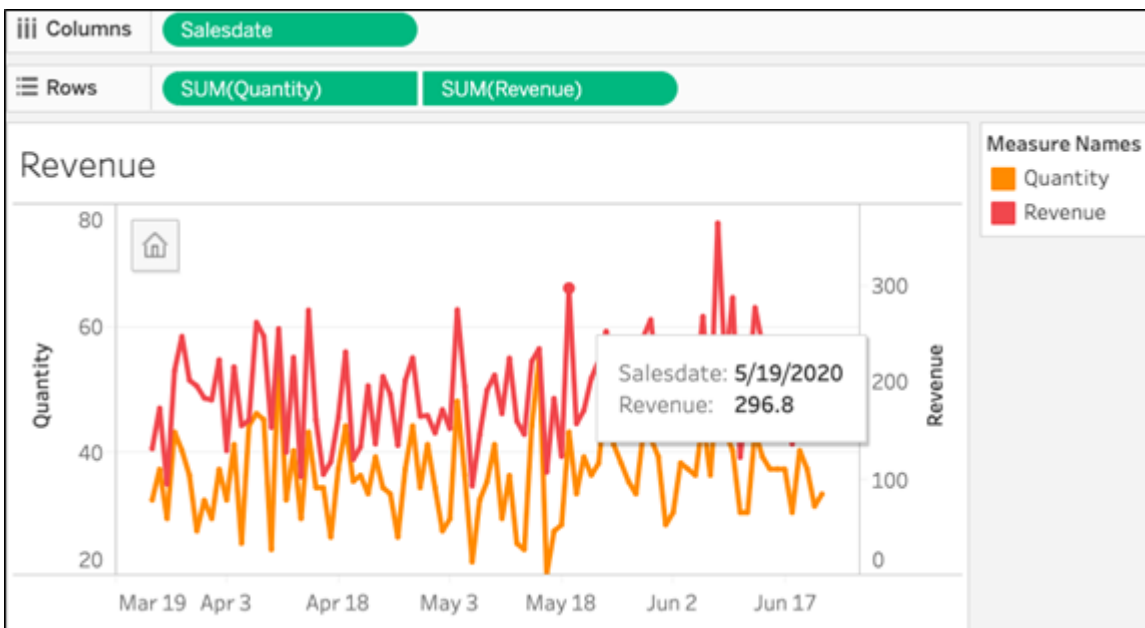
**Scale**

Reversed  
 Logarithmic  
 Positive       Symmetric

**Axis Titles**

Title

Now it's easier to read:



Zoom in for a closer

view.

# Revenue

## Measure Names

- Quantity
- Revenue

