# Discrete Time Series

Overview

Time series do not necessarily have to be continuous. You also have the option to set your report data to be viewed according to distinct time junctures, such as a particular day, month or quarter, rather than viewing it as a continuous or progressive time flow (that is, from past to present/future). For example, rather than viewing your data from year 2005 to year 2016, you can now compare the results of specific months with one another. This way the combined result of all your March sales from 2005 to 2016 will form a single block on your chart.

How to Use

Here's how you can display a discrete time series in your charts.

Note: If you're not using the Auto Charts feature, you will need to **switch on** the Time Series functionality, to enable the Discrete Time Data option.
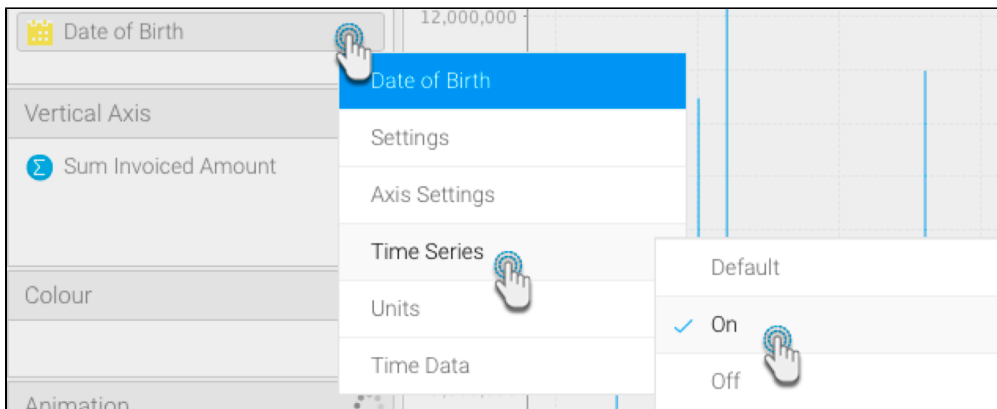
1. Create a report as you normally would, with at least one date field and a metric.
2. Once you've added your data to the report, move to the Charts section and drop your date field into an axis.
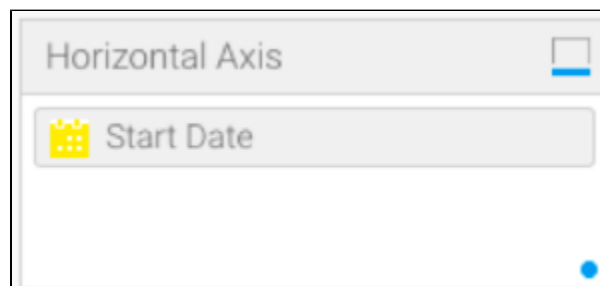

3. Drag your metric field to the other axis.

4. By default the time series chart will display continuous data. You will need to change the setting to Discrete. For this example, let's change the selected time unit to year, therefore the data is displayed as progressive years (from the oldest year onwards).
5. To change the **time unit**, simply expand the menu next to your date field, then choose Units and then select any one of the options, e.g. years.
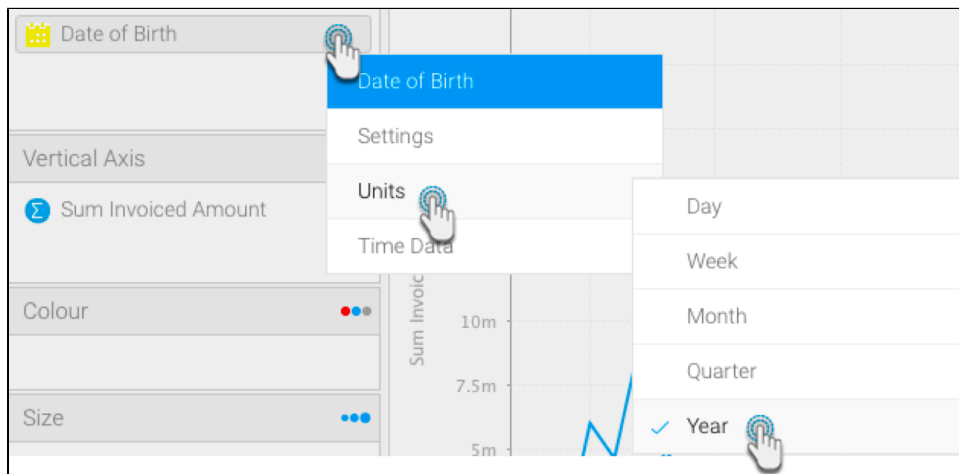

6. This is what our example chart looks like in the continuous form: (Our example chart is sorted by the Series option. You can change this, as discussed in step 10.)
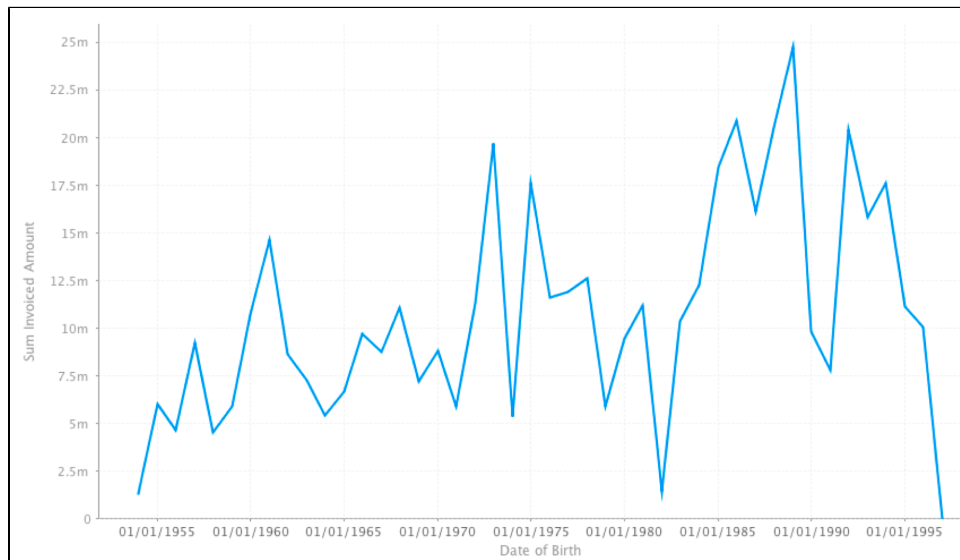
7. Now let's view this same data as discrete content. First, click on the menu icon that appears next to this date field. Then choose the Time Data option, and then click on Discrete.
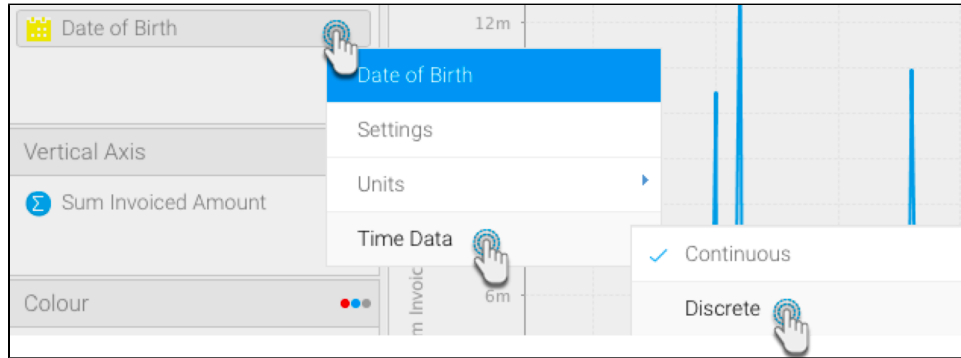
8. You will notice that the date specification on your chart will have changed to discrete time units, without being in a continuous time order. (Since our chosen time unit was 'years', and the selected sort order was 'series' by a selected metric value, i.e. sum invoiced amount, therefore the chart is displayed according to each year's total invoice amount. The values are shown distinct points in time, rather than in a continuous flow.)
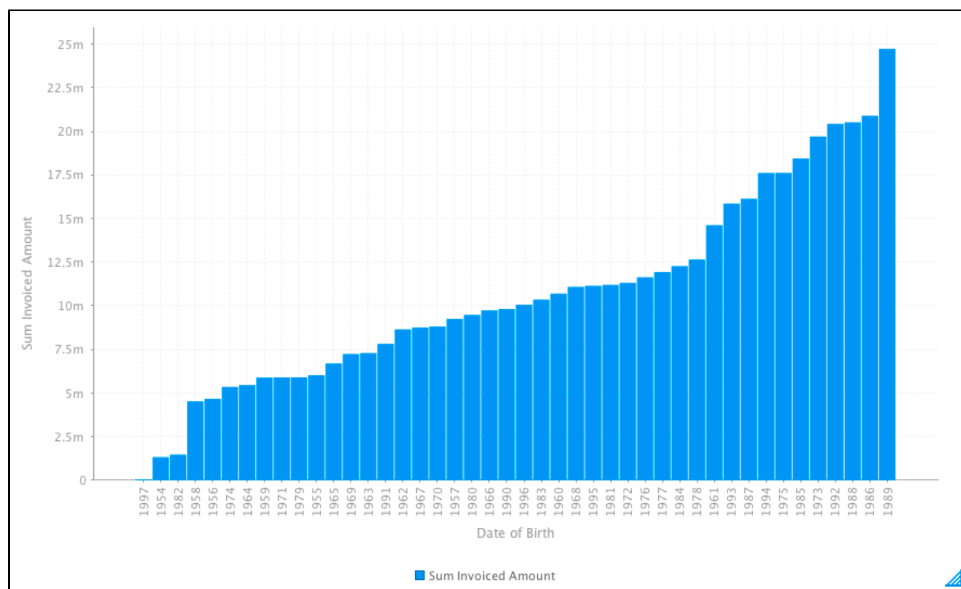
9. Once you make the time series discrete, new sorting options will appear in your date field's menu, since they are not being sorted in a continuous order by default now.
10. Now we can sort our date value. Just click on **Sort By** in the menu, and select an option. (Click here to learn about the sorting options.)
11. To sort your data in either the ascending or descending order, choose the **Sort** option from the data field menu and then select your preferred order.
12. Continue working on your report, as you normally would.