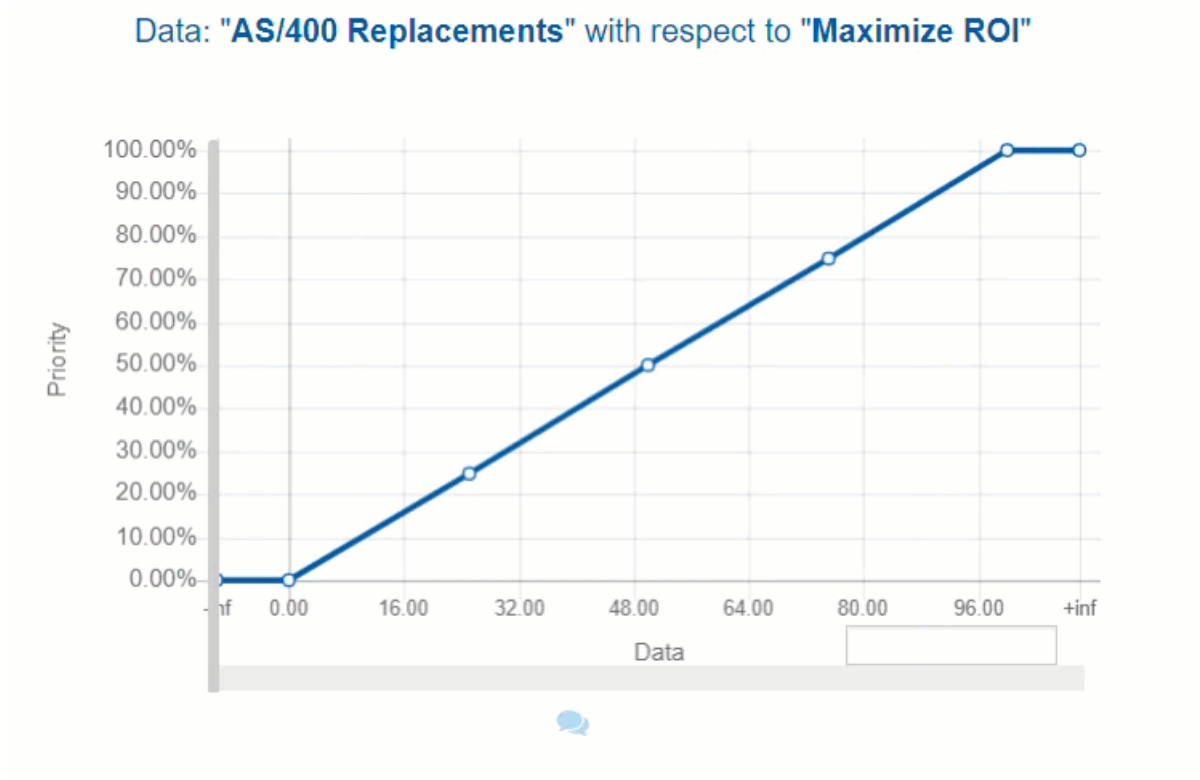# Step Function

The step function is used to convert raw data into ratio-scale data.

Depending on the settings made by the Project Manager, the Step Function graph and the resulting priority may vary depending on whether the Piecewise Linear option is enabled or not.

The graph below shows the Step Function when the Piecewise Linear option is enabled.

- The x-axis is the data for the alternative being evaluated
- The y-axis is the corresponding priority

The graph above shows that the slope from one point (delta priority/delta x value) is increasing.

The data can be entered by dragging the handle of the vertical slider, by typing in the text box provided, or via data grid upload (recommended when there are many alternatives).

In the image below, the ROI is 40, which (coincidentally) corresponds to a priority of 40% shown in the graph.

When the Piecewise Linear option is disabled on the same Step function scale used above, the graph will look like this (you can see why this is called a Step Function):

Data: "AS/400 Replacements" with respect to "Maximize ROI"
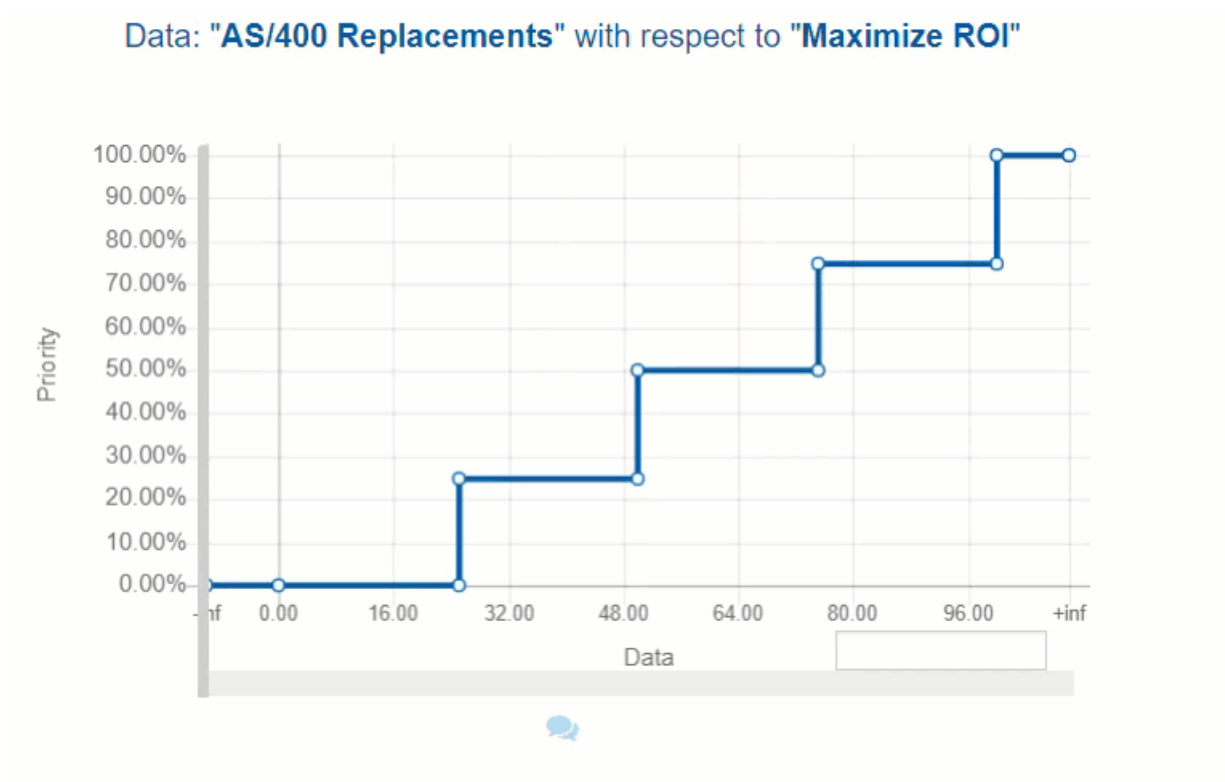
The above Step Function graph is different than the first one. The slope from one point to the next is now zero.

With the same ROI of 40, the resulting priority is now 25% (it was 40% when the Piecewise was enabled).