extrapolateExponential

Extrapolate exponential

Input

- inputVariable

Options

- extrapolateDirection
- baseValue
- recessionConstant
- maxGapLength

Output

- outputVariable

Description

This transformation will fill the gap at the end or start of a time series by using a exponential decay of the last value of the time series before the gap. The option extrapolateDirection can be used to indicate if the gap at the start of the time series or at the end of the time series or both must be filled. The transformation will extrapolate to the configured base value with the configured recession constant. The value at a certain time which is n steps aways from the start of the gap will be calculated with the following formula:

*Y = (Ystartgap - baseValue)*recessionConstant^n+baseValue*

If the gap in the time series is larger than the configured mapGapLength the gap will not be filled.

Configuration example

```
<transformation id="Nomsng lineair interpolation">
<interpolationSerial>
<extrapolateExponential>
  <inputVariable>
    <variableId>input</variableId>
  </inputVariable>
  <extrapolateDirection>end</extrapolateDirection>
  <baseValue>0</baseValue>
  <recessionConstant>0.8</recessionConstant>
  <outputVariable>
    <variableId>output</variableId>
  </outputVariable>
</extrapolateExponential>
</interpolationSerial>
</transformation>
```