User Manual for the graphomate bullet graphs for SAP Lumira

Version 1.4 – as of Jan 2017

https://www.graphomate.com
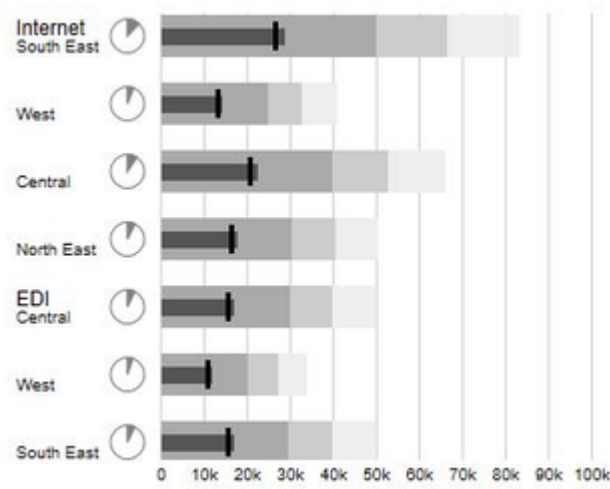
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Introduction

Bullet Graphs – the alternative to tachometers and thermometers

A *bullet graph* is a variation of a bar graph developed by Stephen Few middle of the last decade. Seemingly inspired by the traditional thermometer charts and progress bars found in many dashboards, the *bullet graph* ser ves as a replacement for dashboard gauges and meters. Bullet graphs were developed to overcome the fundamental issues of gauges and meters: they typically display too little information, require too much space, and are cluttered with useless and distracting decoration.

The *bullet graph* features a single Performance Measure (e.g. current year-to-date revenue), compares that measure to one or more other measures to enrich its meaning (for example, compared to a target), and displays it in the context of Qualitative Ranges of performance, such as poor, satisfactory, and good. The Qualitative Ranges are displayed as varying intensities of a single hue. A quantitative scale and a text label complete the *bul let graph*.
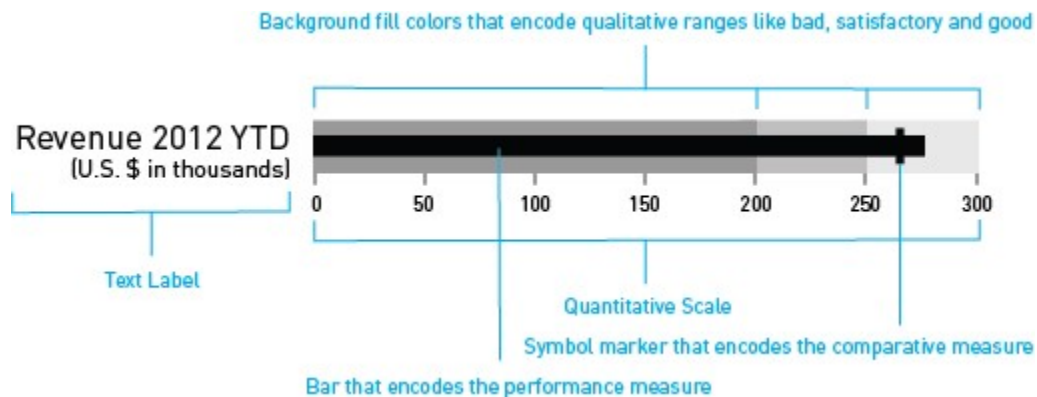
graphomate bullet graphs can be used horizontally and vertically aligned as well as scaled identically. According to the number of dimension members in the query multiple *bullet graphs* are drawn. A *Reverse Quantitative Scale* - for example, for costs representations - can be easily realized.

If the *Qualitative Ranges* are missing in the database, these values can be determined on percentage values based on the second *Qualitative Range*.

Installation

Lumira Desktop

You have installed Lumira 1.30 or higher on your computer.

1. Save the zip file *graphomate_bulletgraphs_1.4.X.X-LM1.30* to a folder of your choice.
2. In Lumira, choose *File – Extensions*, click on *Manual Installation* and select the zip-file which has been saved before.
3. Restart Lumira manually.

After the restart, the *graphomate bullet graphs* appear in the Chart Extensions.

BI Platform

You have installed Lumira Server for BI Platform 1.30 or higher on your server.

1. Save the zip-file *graphomate_bulletgraphs_1.4.X.X-LM1.30* to a folder of your choice.
2. Navigate to *CMC->ApplicationsSAPLumira* and select "*Extensions*" from the context menu.
3. Follow the instructions to load the zip file.
4. After restarting your Application Processing Servers and the Lumira Server the extension should be listed under *CMCApplicationsSAPLumiraExtensions*.

Now all uploaded Lumira documents should display the *graphomate bullet graphs* correctly.

Quick Start

You have defined a Data Source and now want to depict data series from this query with a *graphomate bullet graph*.

1. In *Visualize* room choose *graphomate bullet graphs* at the *Chart Extensions*.
2. Now 8 so called *Feeds* appear. You can fill them with Dimensions or Mesures.
3. To fill the *Feeds*, click on the + symbol or drag and drop a measure or a dimensions directly to the appropriate feed.

Properties

Basically the features of the *graphomate bullet graphs* can only be maintained in the *Storyboard* room. If you have created a visualisation in the *Visualize* room, you can drag and drop this visualisation to the visualisation area in the *Compose* room. If you have done so, the *Visualisation Properties* appear at the right side of the page when you click on the visualisation.

Appearance Tab	

Font Sizes

Set here the font size of the axis labelling (*Axis*) and the Category Label (*Cat. Label*). In addition a *Font Family* can be chosen (out of four available fonts currently).

Height of Elements

Depending on the orientation of the *Bullet Graphs* these values describe the height (vertical) or the width (horizontal) of the corresponding elements.
The value for the *Performance Bars* and for the *Qualitative Ranges* describe the width or height of the very same.The value for the *Comparative Markers* describes the thickness of them. The *Drawing Area* value determines the height/width of the drawing area for a single bullet graph.
In order to realize a distance between the axis label and the *bullet graph*, the height of the drawing area has to be larger than the height of the qualitative ranges. The *Space between Bullets* means the gap between every single Bullet Graph including the axis.

Value Format

Select the format of the *Category Labels* according to guidelines of numeral.js – see Appendix.

Locale sets the label country format in the *Basic mode*. DE, FR, EN and AUTO are available options. Choosing *auto* the *Locale* is retrieved from the *preferences*.

Color Configuration

At this point the differnt colors of the *bullet graph* can be set; first of all the colors for *Performance Bars* (1 and 2), in the next section the colors for the *Comparative Marker* (1 and 2) and finally the colors for the 3 *Qualitative Ranges*.

Behaviour Tab

Display Elements

This section controls the labels of the *bullet graphs*. If the first *Checkbox* is activated, the *Category Labels* are displayed. If the second *Checkbox* is activated, repeating *Category Labels* will be suppressed.

Value Axis

This option controls the display of the *Value Axis*. *Always* draws one *Value Axis* f or each bullet; *Once* draws a single *Value Axis*, which applies to all bullet graphs. This appears at the bottom of the component. *Never* suppresses the display of the *Value Axis* completely.

Use Individual Scales

If this *Checkbox* is activated, each bullet axis is calculated individually. Otherwise all bullets are scaled identically. While choosing *Value Axis* option *Once*, *Use Individual Scales* is disabled.

Reverse Qualitative Ranges

This *Checkbox* controls the display of the *Qualitative Ranges*. If this option is deselected, they are drawn from the left side (usually the value range minimum) to the input value (or calculated value). If the option is activated, the *Qualitative Ranges* are displayed in reverse so that the range is drawn from the input value to the value range maximum.

Reverse Quantitative Ranges

This *Checkbox* controls the representation of the axis. If this option is activated, the axis is drawnfrom n to 0, otherwise the scaling is inverted – from 0 to n.

Align Charts Vertivally

This *Checkbox* describes the orientation of the *bullets*. If it is activated, they are displayed vertically, otherwise they are displayed horizontally.

Display Micro Pies

Activating this *Checkbox* will display a pie chart in front of each bullet graph. This small pie displays the percentage of the primary measure as part-to-whole – the sum of the primary measure.If a total exists in the data source, it is used as a basis for the calculation. If only partial or no sums are available, the total amount will be calculated from the data.The diameter of the *Micro Pies* can be changed with the option *Diameter of Micro Pies*. The color of the *Micro Pies* can be selected with the option *Micro Pie Color*.

Display Elements
- ☑ Category Labels
- ☑ Suppress Repeating Cat. Lab.

Value Axis

| Once | **Always** | Never |

- ☐ Use Individual Scales

- ☐ Reverse Qualitative Ranges
- ☐ Reverse Quantitative Ranges
- ☐ Align Charts Vertically

- ☑ Display Micro Pies
  - Diameter   20
  - Color   ▇

- ☑ Calculate Qualitative Ranges
  - % for Qualiative Range 1
  - 0.75
  - % for Qualiative Range 3
  - 1.25

Calculate Qualitative Ranges

If this *Checkbox* is activated, *Qualitative Ranges 1* and *3* will be calculated. The values of *Percentage for Qualitative Range 1* and *3* are used to calculate *Qualitative Ranges 1* and *3* based on *Qualitative Range 2*. The two missing ranges are calculated by multiplying range 2 by the values entered here. Therefore the first value should be < 1, as otherwise the bar for *Qualitative Range 2* will be obscured by the bar for *Qualitative Range 1*.
Yet the second value should be > 1, as otherwise the bar for *Qualitative Range 3* will be obscured by the bar for *Qualitative Range 2*.

Info Tab	
Here you can find the version number of our *graphomate bullet graphs* as well as a link where you may report bugs or propose wishes for new features. A list of all open-source libraries that we used can be found under *Credits*.	**graphomate .ıl** graphomate bullets 0.8.4.0-LM1.29 Please use this link to submit errors or ideas for improvement. The General Terms of Licence and Maintaining of the graphomate GmbH apply. © 2015 graphomate GmbH, D-Kiel, www.graphomate.com Credits **SAP** Partner jQuery D3.js Numeral.js Underscore.js ▲ less

Known Issues

- The BI Mobile App does currently not support Lumira extensions. This is a limitation of the extension sdk.

Number Formatting

Input options for the numeral.js Format String

Numbers		
Number	**Format**	**String**
10000	'0,0.0000'	10.000,0000
10000.23	'0,0'	10
-10000	'0,0.0'	-10.000,0
-0.23	'.00'	-,23
-0.23	'(.00)'	(,23)
0.23	'0.00000'	0,23000
0.23	'0.0[0000]'	0,23
1230974	'0.0a'	1,2m
1460	'0 a'	1 k
1	'0o'	1st
Currency		
Number	**Format**	**String**
1.000.234	'$0,0.00'	$1.000,23
1000.2	0,0[.]00 $'	1.000,20 $
1001	'$ 0,0[.]00'	$ 1.001
Percentages		
Number	**Format**	**String**
1	'0%'	100%
-0.43	'0 %'	-43%

source: http://numeraljs.com/