Package ‘ggBubbles’

October 13, 2022

Type Package
Title Mini Bubble Plots for Comparison of Discrete Data with 'ggplot2'
Version 0.1.4
VignetteBuilder knitr
Depends R (>= 3.5.0)
Imports dplyr, ggplot2
Suggests BiocStyle, knitr, rmarkdown, tibble
Description When comparing discrete data mini bubble plots allow displaying more information than traditional bubble plots via colour, shape or labels. Exact overlapping coordinates will be transformed so they surround the original point circularly without overlapping. This is implemented as a position_surround() function for 'ggplot2'.
License LGPL (>= 3)
Encoding UTF-8
LazyData true
biocViews
RoxygenNote 6.1.1
NeedsCompilation no
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**calc_offset**

*Calculate offsets for a specific point, in a layer, position*

**Description**

each side has several layers, with a number of positions in the layer

**Usage**

calc_offset(position, layer, side, offset_x = 0.1, offset_y = 0.1)

**Arguments**

<table>
<thead>
<tr>
<th>Argument</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>position</td>
<td>number for position at the particular side on the layer</td>
</tr>
<tr>
<td>layer</td>
<td>number of layer</td>
</tr>
<tr>
<td>side</td>
<td>side for offset 1 - top 2 - right 3 - bottom 4 - left</td>
</tr>
<tr>
<td>offset_x</td>
<td>offset for x axis</td>
</tr>
<tr>
<td>offset_y</td>
<td>offset for y axis</td>
</tr>
</tbody>
</table>

**Value**

integer vector of length 2 position 1 is new x value, position y is new y value

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**get_offset_table**

*Calculates offset table for number of maximum overlapping positions*

**Description**

Calculates offset table for number of maximum overlapping positions

**Usage**

get_offset_table(max_positions, offset_x, offset_y)

**Arguments**

<table>
<thead>
<tr>
<th>Argument</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>max_positions</td>
<td>number of maximal exact overlaps</td>
</tr>
<tr>
<td>offset_x</td>
<td>offset for position distance</td>
</tr>
<tr>
<td>offset_y</td>
<td>offset for in-between layer distance</td>
</tr>
</tbody>
</table>

**Value**

data frame with position, offsets_x and offsets_y
MusicianInterests

Survey about genre interests of some hobby musicians

Description
Tibble of what genre they are interested in, what instrument they play and what level the play their instrument at (1 = beginner, 2 = intermediate, 3 = experienced, 4 = very experienced, 5 = pro). Also there is an ID for the musician.

Usage
data(MusicianInterests)

Format
An object of class "data.frame";

Examples
library(ggBubbles)
data(MusicianInterests)
head(MusicianInterests)

MusicianInterestsSmall
Small test data of musician, interest and experience study

Description
Data.frame of what genre they are interested in, what instrument they play and what level the play their instrument at.

Usage
data(MusicianInterestsSmall)

Format
An object of class "data.frame";

Examples
library(ggBubbles)
data(MusicianInterestsSmall)
head(MusicianInterestsSmall)
Description

PositionSurround  ggproto for position_surround()

position_surround  Surrounds exact overlapping points around the center

Description

Bubble plots sometimes can be hard to interpret, especially if you want to overlay an additional feature. Instead of having to colour one blob with this function you can plot the individuals contributing to the bubble and colour them accordingly.

Usage

position_surround(offset = 0.1)

Arguments

offset  setting offset for x and y axis added to the points surrounding the exact position. Default is 0.1

Value

ggproto

Examples

library(ggplot2)
library(ggBubbles)
data(MusicianInterestsSmall)

ggplot(data = MusicianInterestsSmall, aes(x = Instrument, y = Genre, col = Level)) +
  geom_point(position = position_surround(), size = 4) +
  scale_colour_manual(values = c("#333333", "#666666", "#999999", "#CC9999")) + theme_bw()
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