

Package ‘ggBubbles’

September 4, 2019

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

Author Thomas Schwarzl [aut, cre] (<<https://orcid.org/0000-0001-7697-7000>>)

Maintainer Thomas Schwarzl <schwarzl@embl.de>

Repository CRAN

Date/Publication 2019-09-04 08:20:06 UTC

R topics documented:

<code>calc_offset</code>	2
<code>get_offset_table</code>	2
<code>MusicianInterests</code>	3
<code>MusicianInterestsSmall</code>	3
<code>PositionSurround</code>	4
<code>position_surround</code>	4

Index**5**

calc_offset	<i>Calculate offsets for a specific point, in a layer, position</i>
-------------	---

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

position	number for position at the particular side on the layer
layer	number of layer
side	side for offset 1 - top 2 - right 3 - bottom 4 - left
offset_x	offset for x axis
offset_y	offset for y axis

Value

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

get_offset_table	<i>Calculates offset table for number of maximum overlapping positions</i>
------------------	--

Description

Calculates offset table for number of maximum overlapping positions

Usage

```
get_offset_table(max_positions, offset_x, offset_y)
```

Arguments

max_positions	number of maximal exact overlaps
offset_x	offset for position distance
offset_y	offset for in-between layer distance

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 they 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 they play their instrument at.

Usage

```
data(MusicianInterestsSmall)
```

Format

An object of class "data.frame";

Examples

```
library(ggBubbles)
data(MusicianInterestsSmall)
head(MusicianInterestsSmall)
```

PositionSurround	<i>ggproto for position_surround()</i>
------------------	--

Description

ggproto for position_surround()

position_surround	<i>Surrounds exact overlapping points around the center</i>
-------------------	---

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", "#CCCCCC")) + theme_bw()
```

Index

*Topic **datasets**

MusicianInterests, [3](#)

MusicianInterestsSmall, [3](#)

PositionSurround, [4](#)

calc_offset, [2](#)

get_offset_table, [2](#)

MusicianInterests, [3](#)

MusicianInterestsSmall, [3](#)

position_surround, [4](#)

PositionSurround, [4](#)