Package 'ggfittext'

October 13, 2022

Title Fit Text Inside a Box in 'ggplot2'

Version 0.9.1

Description Provides 'ggplot2' geoms to fit text into a box by growing, shrinking
or wrapping the text.

Depends R (>= 3.6)

License GPL-2

LazyData true

Imports grid (>= 3.1), stringi (>= 1.1.2), ggplot2 (>= 2.2.1), shades
(>= 1.3.1)

RoxygenNote 7.1.1

URL https://wilkox.org/ggfittext/

BugReports https://github.com/wilkox/ggfittext/issues/

Suggests knitr, rmarkdown, testthat, vdiffr, spelling

VignetteBuilder knitr

Encoding UTF-8

Language en-GB

NeedsCompilation no

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Repository CRAN

Date/Publication 2021-01-30 06:30:03 UTC

R topics documented:

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altitudes   *Some craft and their altitudes*

Description

Some craft and their altitudes

Usage

    altitudes

Format

A data frame with 4 rows and 2 variables:

craft the name of the craft

altitude the craft's normal cruising altitude in metres

---

animals   *Some animals, their types and their masses*

Description

Some animals, their types and their masses

Usage

    animals

Format

A data frame with 6 rows and 4 variables:

animal the name of the animal

type the type of animal

flies whether the animal can fly

mass the average mass of the animal in grams

---

beverages *The compositions of some espresso-based beverages*

Description

The compositions of some espresso-based beverages

Usage

```
beverages
```

Format

A data frame with 6 rows and 3 variables:

beverage the name of the beverage

ingredient the ingredient

proportion the proportion of a cup to fill with the ingredient

---

geom_bar_text *A 'ggplot2' geom to fit text inside a box*

Description

`geom_fit_text()` shrinks, grows and wraps text to fit inside a defined box. `geom_bar_text()` is a convenience wrapper around `geom_fit_text()` for labelling bar plots generated with `geom_col()` and `geom_bar()`.

Usage

```
geom_bar_text(
  mapping = NULL,
  data = NULL,
  stat = "identity",
  position = "identity",
  na.rm = FALSE,
  show.legend = NA,
  inherit.aes = TRUE,
  padding.x = grid::unit(1, "mm"),
  padding.y = grid::unit(1, "mm"),
  min.size = 8,
  place = NULL,
  grow = FALSE,
  reflow = FALSE,
  hjust = NULL,
```

```
    vjust = NULL,
    fullheight = NULL,
    width = NULL,
    height = NULL,
    formatter = NULL,
    contrast = NULL,
    outside = NULL,
    ...
  )

  geom_fit_text(
    mapping = NULL,
    data = NULL,
    stat = "identity",
    position = "identity",
    na.rm = FALSE,
    show.legend = NA,
    inherit.aes = TRUE,
    padding.x = grid::unit(1, "mm"),
    padding.y = grid::unit(1, "mm"),
    min.size = 4,
    place = "centre",
    outside = FALSE,
    grow = FALSE,
    reflow = FALSE,
    hjust = NULL,
    vjust = NULL,
    fullheight = NULL,
    width = NULL,
    height = NULL,
    formatter = NULL,
    contrast = FALSE,
    ...
  )
```

Arguments

mapping	ggplot2::aes() object as standard in 'ggplot2'. Note that aesthetics specifying the box must be provided. See Details.
data, stat, position, na.rm, show.legend, inherit.aes, ...	
	Standard geom arguments as for ggplot2::geom_text().
padding.x, padding.y	
	Horizontal and vertical padding around the text, expressed in grid::unit() objects. Both default to 1 mm.
min.size	Minimum font size, in points. Text that would need to be shrunk below this size to fit the box will be hidden. Defaults to 4 pt (8 pt for geom_bar_text())
place	Where inside the box to place the text. Default is 'centre'; other options are 'topleft', 'top', 'topright', 'right', 'bottomright', 'bottom', 'bottomleft', 'left',

	and 'center'/'middle' which are both synonyms for 'centre'. For geom_bar_text(), will be set heuristically if not specified.
grow	If TRUE, text will be grown as well as shrunk to fill the box. Defaults to FALSE.
reflow	If TRUE, text will be reflowed (wrapped) to better fit the box. Defaults to FALSE.
hjust, vjust	Horizontal and vertical justification of the text. By default, these are automatically set to appropriate values based on place.
fullheight	If TRUE, descenders will be counted when resizing and placing text; if FALSE, only the x-height and ascenders will be counted. The main use for this option is for aligning text at the baseline (FALSE) or preventing descenders from spilling outside the box (TRUE). By default this is set automatically depending on place and grow.
width, height	When using x and/or y aesthetics, these set the width and/or height of the box. These should be either grid::unit() objects or numeric values on the x and y scales.
formatter	A function that will be applied to the text before it is drawn. This is useful when using geom_fit_text() in context involving interpolated variables, such as with the 'gganimate' package. formatter will be applied serially to each element in the label column, so it does not need to be a vectorised function.
contrast	If TRUE and in combination with a fill aesthetic, the colour of the text will be inverted for better contrast against dark background fills. FALSE by default for geom_fit_text(), set heuristically for geom_bar_text().
outside	If TRUE, text placed in one of 'top', 'right', 'bottom' or 'left' that would need to be shrunk smaller than min.size to fit the box will be drawn outside the box if possible. This is mostly useful for drawing text inside bar/column geoms. Defaults to TRUE for position = "identity" when using geom_bar_text(), otherwise FALSE.

Details

Except where noted, geom_fit_text() behaves more or less like ggplot2::geom_text().

There are three ways to define the box in which you want the text to be drawn. The extents of the box on the x and y axes are independent, so any combination of these methods can be used:

1. If the x and/or y aesthetics are used to set the location of the box, the width or height will be set automatically based on the number of discrete values in x and/and y.

2. Alternatively, if x and/or y aesthetics are used, the width and/or height of the box can be overridden with a 'width' and/or 'height' argument. These should be grid::unit() objects; if not, they will be assumed to use the native axis scale.

3. The boundaries of the box can be set using the aesthetics 'xmin' and 'xmax', and/or 'ymin' and 'ymax'.

If the text is too big for the box, it will be shrunk to fit the box. With grow = TRUE, the text will be made to fill the box completely whether that requires shrinking or growing.

reflow = TRUE will cause the text to be reflowed (wrapped) to better fit in the box. If the text cannot be made to fit by reflowing alone, it will be reflowed then shrunk to fit the box. Existing line breaks in the text will be respected when reflowing.

geom_fit_text() includes experimental support for drawing text in polar coordinates (by adding coord_polar() to the plot), however not all features are available when doing so.

Aesthetics

- label (required)
- (xmin AND xmax) OR x (required)
- (ymin AND ymax) OR y (required)
- alpha
- angle
- colour
- family
- fontface
- lineheight
- size

Examples

```
ggplot2::ggplot(ggplot2::presidential, ggplot2::aes(ymin = start, ymax = end,
    label = name, x = party)) +
  geom_fit_text(grow = TRUE)
```

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ggfittext	*'ggfittext': provides a 'ggplot2' geom to fit text inside a box.*

Description

This package provides only one function, geom_fit_text().

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gold	*Robert Frost's poem* Nothing Gold Can Stay *(1923)*

Description

Robert Frost's poem *Nothing Gold Can Stay* (1923)

Usage

```
gold
```

Format

A data frame with 8 rows and 5 variables:

line a line from the poem

xmin the xmin coordinate with which to draw the word

xmax the xmax coordinate with which to draw the word

ymin the ymin coordinate with which to draw the word

ymax the ymax coordinate with which to draw the word

linenumber the line number

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