

Package ‘ggvenn’

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Title Draw Venn Diagram by 'ggplot2'

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Description An easy-to-use way to draw pretty venn diagram by 'ggplot2'.

Depends dplyr, grid, ggplot2

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geom_venn	<i>Plot venn diagram as a ggplot layer object. It supports only data.frame as input.</i>
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Description

Plot venn diagram as a ggplot layer object. It supports only data frame as input.

Usage

```
geom_venn(
  mapping = NULL,
  data = NULL,
  stat = "identity",
  position = "identity",
  ...,
  set_names = NULL,
  show_percentage = TRUE,
  digits = 1,
  label_sep = ", ",
  fill_color = c("blue", "yellow", "green", "red"),
  fill_alpha = 0.5,
  stroke_color = "black",
  stroke_alpha = 1,
  stroke_size = 1,
  stroke_linetype = "solid",
  set_name_color = "black",
  set_name_size = 6,
  text_color = "black",
  text_size = 4
)
```

Arguments

mapping	Set of aesthetic mappings created by <code>aes()</code> or <code>aes_()</code> . If specified and <code>inherit.aes = TRUE</code> (the default), it is combined with the default mapping at the top level of the plot. You must supply mapping if there is no plot mapping.
data	A <code>data.frame</code> or a list as input data.
stat	The statistical transformation to use on the data for this layer, as a string.
position	Position adjustment, either as a string, or the result of a call to a position adjustment function.
...	Other arguments passed on to <code>layer()</code> . These are often aesthetics, used to set an aesthetic to a fixed value, like <code>colour = "red"</code> or <code>size = 3</code> . They may also be parameters to the paired geom/stat.
set_names	Set names, use column names if omitted.
show_percentage	Show percentage for each set.
digits	The desired number of digits after the decimal point
label_sep	separator character for displaying elements.
fill_color	Filling colors in circles.
fill_alpha	Transparency for filling circles.
stroke_color	Stroke color for drawing circles.
stroke_alpha	Transparency for drawing circles.

stroke_size Stroke size for drawing circles.
stroke_linetype Line type for drawing circles.
set_name_color Text color for set names.
set_name_size Text size for set names.
text_color Text color for intersect contents.
text_size Text size for intersect contents.

Value

The ggplot object to print or save to file.

See Also

ggvenn

Examples

```
library(ggvenn)

# use data.frame as input
d <- tibble(value = c(1, 2, 3, 5, 6, 7, 8, 9),
             `Set 1` = c(TRUE, FALSE, TRUE, TRUE, FALSE, TRUE, FALSE, TRUE),
             `Set 2` = c(TRUE, FALSE, FALSE, TRUE, FALSE, FALSE, FALSE, TRUE),
             `Set 3` = c(TRUE, TRUE, FALSE, FALSE, FALSE, FALSE, TRUE, TRUE),
             `Set 4` = c(FALSE, FALSE, FALSE, FALSE, TRUE, TRUE, FALSE, FALSE))

# ggplot grammar
ggplot(d) +
  geom_venn(aes(A = `Set 1`, B = `Set 2`)) +
  coord_fixed() +
  theme_void()
ggplot(d) +
  geom_venn(aes(A = `Set 1`, B = `Set 2`, C = `Set 3`)) +
  coord_fixed() +
  theme_void()
ggplot(d) +
  geom_venn(aes(A = `Set 1`, B = `Set 2`, C = `Set 3`, D = `Set 4`)) +
  coord_fixed() +
  theme_void()

# set fill color
ggplot(d) +
  geom_venn(aes(A = `Set 1`, B = `Set 2`), fill_color = c("red", "blue")) +
  coord_fixed() +
  theme_void()

# hide percentage
ggplot(d) +
  geom_venn(aes(A = `Set 1`, B = `Set 2`), show_percentage = FALSE) +
```

```

    coord_fixed() +
    theme_void()

# change precision of percentages
ggplot(d) +
  geom_venn(aes(A = `Set 1`, B = `Set 2`), digits = 2) +
  coord_fixed() +
  theme_void()

# show elements instead of count/percentage
ggplot(d) +
  geom_venn(aes(A = `Set 1`, B = `Set 2`, C = `Set 3`, D = `Set 4`, label = value)) +
  coord_fixed() +
  theme_void()

```

ggvenn

Plot venn diagram as an independent function. It supports both data frame and list as input.

Description

Plot venn diagram as an independent function. It supports both data frame and list as input.

Usage

```

ggvenn(
  data,
  columns = NULL,
  show_elements = FALSE,
  show_percentage = TRUE,
  digits = 1,
  fill_color = c("blue", "yellow", "green", "red"),
  fill_alpha = 0.5,
  stroke_color = "black",
  stroke_alpha = 1,
  stroke_size = 1,
  stroke_linetype = "solid",
  set_name_color = "black",
  set_name_size = 6,
  text_color = "black",
  text_size = 4,
  label_sep = ", "
)

```

Arguments

`data` A data.frame or a list as input data.

`columns` A character vector use as index to select columns/elements.

show_elements Show set elements instead of count/percentage.
 show_percentage Show percentage for each set.
 digits The desired number of digits after the decimal point
 fill_color Filling colors in circles.
 fill_alpha Transparency for filling circles.
 stroke_color Stroke color for drawing circles.
 stroke_alpha Transparency for drawing circles.
 stroke_size Stroke size for drawing circles.
 stroke_linetype Line type for drawing circles.
 set_name_color Text color for set names.
 set_name_size Text size for set names.
 text_color Text color for intersect contents.
 text_size Text size for intersect contents.
 label_sep separator character for displaying elements.

Value

The ggplot object to print or save to file.

See Also

geom_venn

Examples

```

library(ggvenn)

# use list as input
a <- list(`Set 1` = c(1, 3, 5, 7),
          `Set 2` = c(1, 5, 9),
          `Set 3` = c(1, 2, 8),
          `Set 4` = c(6, 7))
ggvenn(a, c("Set 1", "Set 2"))
ggvenn(a, c("Set 1", "Set 2", "Set 3"))
ggvenn(a)

# use data.frame as input
d <- tibble(value = c(1, 2, 3, 5, 6, 7, 8, 9),
            `Set 1` = c(TRUE, FALSE, TRUE, TRUE, FALSE, TRUE, FALSE, TRUE),
            `Set 2` = c(TRUE, FALSE, FALSE, TRUE, FALSE, FALSE, FALSE, TRUE),
            `Set 3` = c(TRUE, TRUE, FALSE, FALSE, FALSE, FALSE, FALSE, TRUE),
            `Set 4` = c(FALSE, FALSE, FALSE, FALSE, TRUE, TRUE, FALSE, FALSE))
ggvenn(d, c("Set 1", "Set 2"))
ggvenn(d, c("Set 1", "Set 2", "Set 3"))
ggvenn(d)

```

```
# set fill color
ggvenn(d, c("Set 1", "Set 2"), fill_color = c("red", "blue"))

# hide percentage
ggvenn(d, c("Set 1", "Set 2"), show_percentage = FALSE)

# change precision of percentages
ggvenn(d, c("Set 1", "Set 2"), digits = 2)

# show elements instead of count/percentage
ggvenn(a, show_elements = TRUE)
ggvenn(d, show_elements = "value")
```

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