Package ‘ggstance’

April 2, 2020

Title Horizontal ‘ggplot2’ Components

Version 0.3.4

Description A ‘ggplot2’ extension that provides flipped components:
  horizontal versions of ‘Stats’ and ‘Geoms’, and vertical versions
  of ‘Positions’.

Depends R (>= 3.1.0)

Imports ggplot2 (>= 3.2.0), plyr, rlang, withr (>= 2.0.0)

Suggests Hmisc, testthat, vdiffr (>= 0.3.0)

License GPL-3

LazyData true

Encoding UTF-8

RoxygenNote 7.1.0

  ‘position-dodge2v.R’ ‘position-jitterdodgev.R’
  ‘stat-xdensity.R’

NeedsCompilation no

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Repository CRAN

Date/Publication 2020-04-02 16:40:02 UTC
R topics documented:

- `draw_key`                                2
- `geom_barh`                                3
- `geom_boxploth`                            5
- `geom_crossbarh`                           8
- `geom_histogramh`                          11
- `geom_violinh`                             12
- `hmisc_h`                                  14
- `mean_se_h`                                15
- `position_dodgev`                         16
- `stat_binh`                                17
- `stat_boxploth`                            19
- `stat_counth`                              20
- `stat_summeryh`                            22
- `stat_xdensity`                            23

Index

```
<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>draw_key</code></td>
<td>Horizontal key drawing functions</td>
</tr>
</tbody>
</table>
```

Description

Horizontal key drawing functions

Usage

- `draw_key_hpath(data, params, size)`
- `draw_key_pointrangeh(data, params, size)`
- `draw_key_crossbarh(data, params, size)`
- `draw_key_boxploth(data, params, size)`

Arguments

- `data` A single row data frame containing the scaled aesthetics to display in this key
- `params` A list of additional parameters supplied to the geom.
- `size` Width and height of key in mm.

Value

A grid grob.
Description

Horizontal version of `geom_bar()`.

Usage

```r
geom_barh(
  mapping = NULL,
  data = NULL,
  stat = "counth",
  position = "stackv",
  ...,
  width = NULL,
  binwidth = NULL,
  na.rm = FALSE,
  show.legend = NA,
  inherit.aes = TRUE
)
```

```r
geom_colh(
  mapping = NULL,
  data = NULL,
  position = "stackv",
  ...,
  width = NULL,
  na.rm = FALSE,
  show.legend = NA,
  inherit.aes = TRUE
)
```

Arguments

- **mapping** Set of aesthetic mappings created by `aes()` or `aes_()`. If specified and `inherit.aes = TRUE` (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** The data to be displayed in this layer. There are three options:
  - If `NULL`, the default, the data is inherited from the plot data as specified in the call to `ggplot()`.
  - A `data.frame`, or other object, will override the plot data. All objects will be fortified to produce a data frame. See `fortify()` for which variables will be created.
  - A function will be called with a single argument, the plot data. The return value must be a `data.frame`, and will be used as the layer data. A function can be created from a formula (e.g. `~ head(.x,10)`).
Override the default connection between `geom_bar()` and `stat_count()`.

**Position adjustment, either as a string, or the result of a call to a position adjustment function.**

... Other arguments passed on to `layer()`. These are often aesthetics, used to set an aesthetic to a fixed value, like `colour = "red"` or `size = 3`. They may also be parameters to the paired geom/stat.

**Bar width. By default, set to 90% of the resolution of the data.**

`geom_bar()` no longer has a `binwidth` argument - if you use it you’ll get an warning telling to you use `geom_histogram()` instead.

If FALSE, the default, missing values are removed with a warning. If TRUE, missing values are silently removed.

Logical. Should this layer be included in the legends? NA, the default, includes if any aesthetics are mapped. FALSE never includes, and TRUE always includes. It can also be a named logical vector to finely select the aesthetics to display.

If FALSE, overrides the default aesthetics, rather than combining with them. This is most useful for helper functions that define both data and aesthetics and shouldn’t inherit behaviour from the default plot specification, e.g. `borders()`.

### Aesthetics

`geom_barh()` understands the following aesthetics (required aesthetics are in bold):

- `x`
- `y`
- `alpha`
- `colour`
- `fill`
- `group`
- `linetype`
- `size`

Learn more about setting these aesthetics in vignette("ggplot2-specs").

`geom_colh()` understands the following aesthetics (required aesthetics are in bold):

- `y`
- `x`
- `alpha`
- `colour`
- `fill`
- `group`
- `linetype`
- `size`

Learn more about setting these aesthetics in vignette("ggplot2-specs").
**Description**

Horizontal version of `geom_boxplot()`.

**Usage**

```r
gem_boxploth(
  mapping = NULL,
  data = NULL,
  stat = "boxploth",
  position = "dodge2v",
  ...,
  outlier.colour = NULL,
  outlier.color = NULL,
  outlier.fill = NULL,
  outlier.shape = 19,
  outlier.size = 1.5,
  outlier.stroke = 0.5,
  outlier.alpha = NULL,
  notch = FALSE,
  notchwidth = 0.5,
  varwidth = FALSE,
  na.rm = FALSE,
  show.legend = NA,
  inherit.aes = TRUE
)
```

**Arguments**

- **mapping**: Set of aesthetic mappings created by `aes()` or `aes()`. If specified and `inherit.aes` = TRUE (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**: The data to be displayed in this layer. There are three options:

  If NULL, the default, the data is inherited from the plot data as specified in the call to `ggplot()`.

  A data.frame, or other object, will override the plot data. All objects will be fortified to produce a data frame. See `fortify()` for which variables will be created.

  A function will be called with a single argument, the plot data. The return value must be a data.frame, and will be used as the layer data. A function can be created from a formula (e.g. `~ head(.x,10)`).

- **stat**: Use to override the default connection between `geom_boxplot` and `stat_boxplot`. 
position  
Position adjustment, either as a string, or the result of a call to a position adjust-
ment function.

...  
Other arguments passed on to layer(). These are often aesthetics, used to set an aesthetic to a fixed value, like colour = "red" or size = 3. They may also be parameters to the paired geom/stat.

outlier.colour, outlier.color, outlier.shape, outlier.size, outlier.stroke  
Default aesthetics for outliers. Set to NULL to inherit from the aesthetics used for the box.
In the unlikely event you specify both US and UK spellings of colour, the US spelling will take precedence.

outlier.fill  
Default aesthetics for outliers. Set to NULL to inherit from the aesthetics used for the box.
In the unlikely event you specify both US and UK spellings of colour, the US spelling will take precedence.
Sometimes it can be useful to hide the outliers, for example when overlaying the raw data points on top of the boxplot. Hiding the outliers can be achieved by setting outlier.shape = NA. Importantly, this does not remove the outliers, it only hides them, so the range calculated for the y-axis will be the same with outliers shown and outliers hidden.

outlier.alpha  
Default aesthetics for outliers. Set to NULL to inherit from the aesthetics used for the box.
In the unlikely event you specify both US and UK spellings of colour, the US spelling will take precedence.
Sometimes it can be useful to hide the outliers, for example when overlaying the raw data points on top of the boxplot. Hiding the outliers can be achieved by setting outlier.shape = NA. Importantly, this does not remove the outliers, it only hides them, so the range calculated for the y-axis will be the same with outliers shown and outliers hidden.

notch  
If FALSE (default) make a standard box plot. If TRUE, make a notched box plot. Notches are used to compare groups; if the notches of two boxes do not overlap, this suggests that the medians are significantly different.

notchwidth  
For a notched box plot, width of the notch relative to the body (defaults to notchwidth = 0.5).

varwidth  
If FALSE (default) make a standard box plot. If TRUE, boxes are drawn with widths proportional to the square-roots of the number of observations in the groups (possibly weighted, using the weight aesthetic).

na.rm  
If FALSE, the default, missing values are removed with a warning. If TRUE, missing values are silently removed.

show.legend  
logical. Should this layer be included in the legends? NA, the default, includes if any aesthetics are mapped. FALSE never includes, and TRUE always includes. It can also be a named logical vector to finely select the aesthetics to display.

inherit.aes  
If FALSE, overrides the default aesthetics, rather than combining with them. This is most useful for helper functions that define both data and aesthetics and shouldn’t inherit behaviour from the default plot specification, e.g. borders().
Aesthetics

`geom_boxploth()` understands the following aesthetics (required aesthetics are in bold):

- y
- xlower
- xupper
- xmiddle
- xmin
- xmax
- alpha
- colour
- fill
- group
- linetype
- shape
- size
- weight

Learn more about setting these aesthetics in vignette("ggplot2-specs").

Examples

```r
library("ggplot2")

# With ggplot2 we need coord_flip():
ggplot(mpg, aes(class, hwy, fill = factor(cyl))) +
  geom_boxplot() +
  coord_flip()

# With ggstance we use the h-suffixed version:
ggplot(mpg, aes(hwy, class, fill = factor(cyl))) +
  geom_boxploth()

# With facets ggstance horizontal layers are often the only way of
# having all ggplot features working correctly, for instance free
# scales:
df <- data.frame(
  Group = factor(rep(1:3, each = 4), labels = c("Drug A", "Drug B", "Control")),
  Subject = factor(rep(1:6, each = 2), labels = c("A", "B", "C", "D", "E", "F")),
  Result = rnorm(12)
)

ggplot(df, aes(Result, Subject)) +
  geom_boxploth(aes(fill = Group)) +
  facet_grid(Group ~ ., scales = "free_y")
```
Horizontal intervals: lines, crossbars & errorbars.

Description

Horizontal versions of `geom_linerange()`, `geom_pointrange()`, `geom_errorbar()` and `geom_crossbar()`.

Usage

```r
geom_crossbarh(
  mapping = NULL,
  data = NULL,
  stat = "identity",
  position = "identity",
  ..., 
  fatten = 2.5,
  na.rm = FALSE,
  show.legend = NA,
  inherit.aes = TRUE
)

geom_errorbarh(
  mapping = NULL,
  data = NULL,
  stat = "identity",
  position = "identity",
  ..., 
  na.rm = FALSE,
  show.legend = NA,
  inherit.aes = TRUE
)

geom_linerangeh(
  mapping = NULL,
  data = NULL,
  stat = "identity",
  position = "identity",
  ..., 
  na.rm = FALSE,
  show.legend = NA,
  inherit.aes = TRUE
)

geom_pointrangeh(
  mapping = NULL,
  data = NULL,
  stat = "identity",
  ...)
position = "identity",
...
, fatten = 4,
na.rm = FALSE,
show.legend = NA,
inherit.aes = TRUE
)

Arguments

mapping Set of aesthetic mappings created by \texttt{aes()} or \texttt{aes()}. If specified and \texttt{inherit.aes} = \texttt{TRUE} (the default), it is combined with the default mapping at the top level of the plot. You must supply \texttt{mapping} if there is no plot mapping.

data The data to be displayed in this layer. There are three options:
If \texttt{NULL}, the default, the data is inherited from the plot data as specified in the call to \texttt{ggplot()}. A data.frame, or other object, will override the plot data. All objects will be fortified to produce a data frame. See \texttt{fortify()} for which variables will be created.
A function will be called with a single argument, the plot data. The return value must be a data.frame, and will be used as the layer data. A function can be created from a formula (e.g. \texttt{~ head(.x,10)}).

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 \texttt{layer()}. These are often aesthetics, used to set an aesthetic to a fixed value, like colour = "red" or size = 3. They may also be parameters to the paired geom/stat.

fatten A multiplicative factor used to increase the size of the middle bar in \texttt{geom_crossbar()} and the middle point in \texttt{geom_pointrange()}.

na.rm If \texttt{FALSE}, the default, missing values are removed with a warning. If \texttt{TRUE}, missing values are silently removed.

show.legend logical. Should this layer be included in the legends? \texttt{NA}, the default, includes if any aesthetics are mapped. \texttt{FALSE} never includes, and \texttt{TRUE} always includes. It can also be a named logical vector to finely select the aesthetics to display.

inherit.aes If \texttt{FALSE}, overrides the default aesthetics, rather than combining with them. This is most useful for helper functions that define both data and aesthetics and shouldn’t inherit behaviour from the default plot specification, e.g. \texttt{borders()}.

Aesthetics

\texttt{geom_crossbarh()} understands the following aesthetics (required aesthetics are in bold):

- \texttt{x}
- \texttt{y}
- \texttt{xmin}
• xmax
• alpha
• colour
• fill
• group
• linetype
• size

Learn more about setting these aesthetics in vignette("ggplot2-specs").

geom_errorbarh() understands the following aesthetics (required aesthetics are in bold):

• y
• xmin
• xmax
• alpha
• colour
• group
• linetype
• size
• width

Learn more about setting these aesthetics in vignette("ggplot2-specs").

geom_linerangeh() understands the following aesthetics (required aesthetics are in bold):

• y
• xmin
• xmax
• alpha
• colour
• group
• linetype
• size

Learn more about setting these aesthetics in vignette("ggplot2-specs").

geom_pointrangeh() understands the following aesthetics (required aesthetics are in bold):

• x
• y
• xmin
• xmax
• alpha
• colour
• fill
• group
• linetype
• shape
• size
• stroke

Learn more about setting these aesthetics in vignette("ggplot2-specs").

Different between ggplot2 and ggstance

‘ggplot2::geom_errorbarh()’ uses the ‘height’ aesthetic. The ggstance version uses the ‘width’ aesthetic. This is for consistency with the direction of the geom and other ggstance functions. You can still supply ‘height’ for compatibility.

**geom_histogramh**

Horizontal histograms and frequency polygons.

---

**Description**

Horizontal version of geom_histogram().

**Usage**

```r
geom_histogramh(
  mapping = NULL,
  data = NULL,
  stat = "binh",
  position = "stackv",
  ...,
  binwidth = NULL,
  bins = NULL,
  na.rm = FALSE,
  show.legend = NA,
  inherit.aes = TRUE
)
```

**Arguments**

- `mapping` Set of aesthetic mappings created by `aes()` or `aes()`. If specified and `inherit.aes = TRUE` (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.
geom_violinh

Horizontal violin plot.

Description

Horizontal version of geom_violin().
Usage

```r
gem_violinh(
  mapping = NULL,
  data = NULL,
  stat = "xdensity",
  position = "dodgev",
  ...,
  draw_quantiles = NULL,
  trim = TRUE,
  scale = "area",
  na.rm = FALSE,
  show.legend = NA,
  inherit.aes = TRUE
)
```

Arguments

- **mapping**: Set of aesthetic mappings created by `aes()` or `aes()`. If specified and `inherit.aes = TRUE` (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**: The data to be displayed in this layer. There are three options:
  - If `NULL`, the default, the data is inherited from the plot data as specified in the call to `ggplot()`.
  - A `data.frame`, or other object, will override the plot data. All objects will be fortified to produce a data frame. See `fortify()` for which variables will be created.
  - A function will be called with a single argument, the plot data. The return value must be a `data.frame`, and will be used as the layer data. A function can be created from a `formula` (e.g. `~ head(.x,10)`).

- **stat**: Use to override the default connection between `geom_violin` and `stat_ydensity`.

- **position**: Position adjustment, either as a string, or the result of a call to a position adjustment function.

- **...**: Other arguments passed on to `layer()`. These are often aesthetics, used to set an aesthetic to a fixed value, like `colour = "red"` or `size = 3`. They may also be parameters to the paired geom/stat.

- **draw_quantiles**: If not `NULL` (default), draw horizontal lines at the given quantiles of the density estimate.

- **trim**: If `TRUE` (default), trim the tails of the violins to the range of the data. If `FALSE`, don’t trim the tails.

- **scale**: if "area" (default), all violins have the same area (before trimming the tails). If "count", areas are scaled proportionally to the number of observations. If "width", all violins have the same maximum width.

- **na.rm**: If `FALSE`, the default, missing values are removed with a warning. If `TRUE`, missing values are silently removed.
hmisc_h

show.legend logical. Should this layer be included in the legends? NA, the default, includes if any aesthetics are mapped. FALSE never includes, and TRUE always includes. It can also be a named logical vector to finely select the aesthetics to display.

inherit.aes If FALSE, overrides the default aesthetics, rather than combining with them. This is most useful for helper functions that define both data and aesthetics and shouldn’t inherit behaviour from the default plot specification, e.g. borders().

Aesthetics

geom_violinh() understands the following aesthetics (required aesthetics are in bold):

- x
- y
- alpha
- colour
- fill
- group
- linetype
- size
- weight

Learn more about setting these aesthetics in vignette("ggplot2-specs").

hmisc_h Horizontal versions of summary functions from Hmisc

Description

These are horizontal versions of the wrappers around functions from Hmisc designed to make them easier to use with stat_summaryh. The corresponding vertical versions are hmisc(). See the Hmisc documentation for more details:

- smean.cl.boot
- smean.cl.normal
- smean.sdl
- smedian.hilow

Usage

mean_cl_boot_h(x, ...)

mean_cl_normal_h(x, ...)

mean_sdl_h(x, ...)

median_hilow_h(x, ...)
**mean_se_h**

**Arguments**

- `x` a numeric vector
- `...` other arguments passed on to the respective Hmisc function.

**Value**

A data frame with columns `x`, `xmin`, and `xmax`.

**Examples**

```r
x <- rnorm(100)
mean_cl_boot_h(x)
mean_cl_normal_h(x)
mean_sdl_h(x)
median_hilow_h(x)
```

---

**mean_se_h**  
*Calculate mean and standard error*

**Description**

For use with `stat_summaryh`. Corresponding function for vertical geoms is `mean_se()`.

**Usage**

```r
mean_se_h(x, mult = 1)
```

**Arguments**

- `x` numeric vector
- `mult` number of multiples of standard error

**Value**

A data frame with columns `x`, `xmin`, and `xmax`.

**Examples**

```r
x <- rnorm(100)
mean_se_h(x)
```
position_dodgev  Vertical Positions

Description

Vertical versions of `position_dodge()`, `position_jitterdodge()`, `position_fill()`, `position_stack()`.

Usage

```r
position_dodgev(height = NULL, preserve = c("total", "single"))

position_dodge2v(
    height = NULL,
    preserve = c("single", "total"),
    padding = 0.1,
    reverse = TRUE
)

position_jitterdodgev(
    jitter.height = NULL,
    jitter.width = 0,
    dodge.height = 0.75,
    seed = NA
)

position_stackv(hjust = 1, reverse = FALSE)

position_fillv()
```

Arguments

- **height**: Dodging height, when different to the height of the individual elements. This is useful when you want to align narrow geoms with taller geoms.
- **preserve**: Should dodging preserve the total width of all elements at a position, or the width of a single element?
- **padding**: Padding between elements at the same position. Elements are shrunk by this proportion to allow space between them. Defaults to 0.1.
- **reverse**: If TRUE, will reverse the default stacking order. This is useful if you’re rotating both the plot and legend.
- **jitter.height**: degree of jitter in y direction. Defaults to 0.
- **jitter.width**: degree of jitter in x direction. Defaults to 40% of the resolution of the data.
- **dodge.height**: the amount to dodge in the y direction. Defaults to 0.75, the default `position_dodgev()` height.
stat_binh

seed  A random seed to make the jitter reproducible. Useful if you need to apply the same jitter twice, e.g., for a point and a corresponding label. The random seed is reset after jittering. If NA (the default value), the seed is initialised with a random value; this makes sure that two subsequent calls start with a different seed. Use NULL to use the current random seed and also avoid resetting (the behaviour of ggplot 2.2.1 and earlier).

hjust  Horizontal adjustment for geoms that have a position (like points or lines), not a dimension (like bars or areas). Set to ‘0’ to align with the left side, ‘0.5’ for the middle, and ‘1’ (the default) for the right side.

Description

Horizontal version of stat_bin().

Usage

stat_binh(
  mapping = NULL,
  data = NULL,
  geom = "barh",
  position = "stackv",
  ...,
  binwidth = NULL,
  bins = NULL,
  center = NULL,
  boundary = NULL,
  closed = c("right", "left"),
  pad = FALSE,
  na.rm = FALSE,
  show.legend = NA,
  inherit.aes = NA
)

Arguments

- **mapping**  Set of aesthetic mappings created by aes() or aes_( ). If specified and inherit.aes = TRUE (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**  The data to be displayed in this layer. There are three options:
  If NULL, the default, the data is inherited from the plot data as specified in the call to ggplot().
  A data.frame, or other object, will override the plot data. All objects will be fortified to produce a data frame. See fortify() for which variables will be created.
A function will be called with a single argument, the plot data. The return value must be a data.frame, and will be used as the layer data. A function can be created from a formula (e.g. \(~\text{head}(.x,10)\)).

gem
Use to override the default connection between geom_histogram()/geom_freqpoly() and stat_bin().

position
Position adjustment, either as a string, or the result of a call to a position adjustment function.

...  
Other arguments passed on to layer(). These are often aesthetics, used to set an aesthetic to a fixed value, like colour = "red" or size = 3. They may also be parameters to the paired geom/stat.

binwidth
The width of the bins. Can be specified as a numeric value or as a function that calculates width from unscaled x. Here, "unscaled x" refers to the original x values in the data, before application of any scale transformation. When specifying a function along with a grouping structure, the function will be called once per group. The default is to use the number of bins in bins, covering the range of the data. You should always override this value, exploring multiple widths to find the best to illustrate the stories in your data.

The bin width of a date variable is the number of days in each time; the bin width of a time variable is the number of seconds.

bins
Number of bins. Overridden by binwidth. Defaults to 30.

center
bin position specifiers. Only one, center or boundary, may be specified for a single plot. center specifies the center of one of the bins. boundary specifies the boundary between two bins. Note that if either is above or below the range of the data, things will be shifted by the appropriate integer multiple of width. For example, to center on integers use width = 1 and center = 0, even if 0 is outside the range of the data. Alternatively, this same alignment can be specified with width = 1 and boundary = 0.5, even if 0.5 is outside the range of the data.

boundary
bin position specifiers. Only one, center or boundary, may be specified for a single plot. center specifies the center of one of the bins. boundary specifies the boundary between two bins. Note that if either is above or below the range of the data, things will be shifted by the appropriate integer multiple of width. For example, to center on integers use width = 1 and center = 0, even if 0 is outside the range of the data. Alternatively, this same alignment can be specified with width = 1 and boundary = 0.5, even if 0.5 is outside the range of the data.

closed
One of "right" or "left" indicating whether right or left edges of bins are included in the bin.

pad
If TRUE, adds empty bins at either end of x. This ensures frequency polygons touch 0. Defaults to FALSE.

na.rm
If FALSE, the default, missing values are removed with a warning. If TRUE, missing values are silently removed.

show.legend
logical. Should this layer be included in the legends? NA, the default, includes if any aesthetics are mapped. FALSE never includes, and TRUE always includes. It can also be a named logical vector to finely select the aesthetics to display.

inherit.aes
If FALSE, overrides the default aesthetics, rather than combining with them. This is most useful for helper functions that define both data and aesthetics and shouldn’t inherit behaviour from the default plot specification, e.g. borders().
Aesthetics

stat_binh() understands the following aesthetics (required aesthetics are in bold):

• y
• group
• x

Learn more about setting these aesthetics in vignette("ggplot2-specs").

Description

Horizontal version of stat_boxplot().

Usage

stat_boxploth(
  mapping = NULL,
  data = NULL,
  geom = "boxploth",
  position = "dodge2v",
  ...,
  coef = 1.5,
  na.rm = FALSE,
  show.legend = NA,
  inherit.aes = TRUE
)

Arguments

mapping Set of aesthetic mappings created by aes() or aes_.() If specified and inherit.aes = TRUE (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 The data to be displayed in this layer. There are three options:

If NULL, the default, the data is inherited from the plot data as specified in the call to ggplot().

A data.frame, or other object, will override the plot data. All objects will be fortified to produce a data frame. See fortify() for which variables will be created.

A function will be called with a single argument, the plot data. The return value must be a data.frame, and will be used as the layer data. A function can be created from a formula (e.g. ~ head(.x,10)).

geom Use to override the default connection between geom_boxplot and stat_boxplot.
position

Position adjustment, either as a string, or the result of a call to a position adjustment function.

...

Other arguments passed on to `layer()`. These are often aesthetics, used to set an aesthetic to a fixed value, like `colour = "red"` or `size = 3`. They may also be parameters to the paired geom/stat.

coef

Length of the whiskers as multiple of IQR. Defaults to 1.5.

na.rm

If FALSE, the default, missing values are removed with a warning. If TRUE, missing values are silently removed.

show.legend

logical. Should this layer be included in the legends? NA, the default, includes if any aesthetics are mapped. FALSE never includes, and TRUE always includes. It can also be a named logical vector to finely select the aesthetics to display.

inherit.aes

If FALSE, overrides the default aesthetics, rather than combining with them. This is most useful for helper functions that define both data and aesthetics and shouldn’t inherit behaviour from the default plot specification, e.g. `borders()`.

Aesthetics

`stat_boxploth()` understands the following aesthetics (required aesthetics are in bold):

- x
- y
- group

Learn more about setting these aesthetics in vignette("ggplot2-specs").

stat_counth

Horizontal counting.

Description

Horizontal version of `stat_count()`.

Usage

```r
stat_counth(
  mapping = NULL,
  data = NULL,
  geom = "barh",
  position = "stackv",
  ...,
  width = NULL,
  na.rm = FALSE,
  show.legend = NA,
  inherit.aes = TRUE
)
```
Arguments

mapping  Set of aesthetic mappings created by `aes()` or `aes_()`. If specified and `inherit.aes = TRUE` (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  The data to be displayed in this layer. There are three options:

If `NULL`, the default, the data is inherited from the plot data as specified in the call to `ggplot()`.

A `data.frame`, or other object, will override the plot data. All objects will be fortified to produce a data frame. See `fortify()` for which variables will be created.

A function will be called with a single argument, the plot data. The return value must be a `data.frame`, and will be used as the layer data. A function can be created from a formula (e.g. `~ head(.x,10)`).

gem  Override the default connection between `geom_bar()` and `stat_count()`.

position  Position adjustment, either as a string, or the result of a call to a position adjustment function.

...  Other arguments passed on to `layer()`. These are often aesthetics, used to set an aesthetic to a fixed value, like `colour = "red"` or `size = 3`. They may also be parameters to the paired `geom/stat`.

width  Bar width. By default, set to 90% of the resolution of the data.

na.rm  If FALSE, the default, missing values are removed with a warning. If TRUE, missing values are silently removed.

show.legend  logical. Should this layer be included in the legends? NA, the default, includes if any aesthetics are mapped. FALSE never includes, and TRUE always includes. It can also be a named logical vector to finely select the aesthetics to display.

inherit.aes  If FALSE, overrides the default aesthetics, rather than combining with them. This is most useful for helper functions that define both data and aesthetics and shouldn’t inherit behaviour from the default plot specification, e.g. `borders()`.

Aesthetics

`stat_count()` understands the following aesthetics (required aesthetics are in bold):

• y
• group
• weight
• x

Learn more about setting these aesthetics in vignette("ggplot2-specs").
stat_summaryh

---

**Horizontal summary.**

**Description**

Horizontal version of `stat_summary()`.

**Usage**

```r
stat_summaryh(
  mapping = NULL,
  data = NULL,
  geom = "pointrangeh",
  position = "identity",
  ...,
  fun.data = NULL,
  fun.x = NULL,
  fun.xmax = NULL,
  fun.xmin = NULL,
  fun.args = list(),
  na.rm = FALSE,
  show.legend = NA,
  inherit.aes = TRUE
)
```

**Arguments**

- **mapping**: Set of aesthetic mappings created by `aes()` or `aes_()`. If specified and `inherit.aes` = TRUE (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**: The data to be displayed in this layer. There are three options:
  - If NULL, the default, the data is inherited from the plot data as specified in the call to `ggplot()`.
  - An object, will override the plot data. All objects will be fortified to produce a data frame. See `fortify()` for which variables will be created.
  - A function will be called with a single argument, the plot data. The return value must be a data frame, and will be used as the layer data. A function can be created from a formula (e.g. ~ head(.x,10)).
- **geom**: Use to override the default connection between `geom_histogram()`/`geom_freqpoly()` and `stat_bin()`.
- **position**: Position adjustment, either as a string, or the result of a call to a position adjustment function.
- **...**: Other arguments passed on to `layer()`. These are often aesthetics, used to set an aesthetic to a fixed value, like `colour = "red"` or `size = 3`. They may also be parameters to the paired geom/stat.
fun.data A function that is given the complete data and should return a data frame with variables xmin, x, and xmax.

fun.xmin, fun.x, fun.xmax Alternatively, supply three individual functions that are each passed a vector of x’s and should return a single number.

fun.args Optional additional arguments passed on to the functions.

na.rm If FALSE, the default, missing values are removed with a warning. If TRUE, missing values are silently removed.

show.legend logical. Should this layer be included in the legends? NA, the default, includes if any aesthetics are mapped. FALSE never includes, and TRUE always includes. It can also be a named logical vector to finely select the aesthetics to display.

inherit.aes If FALSE, overrides the default aesthetics, rather than combining with them. This is most useful for helper functions that define both data and aesthetics and shouldn’t inherit behaviour from the default plot specification, e.g. borders().

Aesthetics

stat_summaryh() understands the following aesthetics (required aesthetics are in bold):

• x
• y
• group

Learn more about setting these aesthetics in vignette("ggplot2-specs").

## stat_xdensity

Density computation on x axis.

Description

Horizontal version of stat_ydensity().

Usage

stat_xdensity(
mapping = NULL,
data = NULL,
geom = "violinh",
position = "dodgev",

..., bw = "nrd0",
adjust = 1,
kernel = "gaussian",
trim = TRUE,
scale = "area",
na.rm = FALSE,
show.legend = NA,
inherit.aes = TRUE
)

Arguments

- **mapping**: Set of aesthetic mappings created by `aes()` or `aes()`. If specified and `inherit.aes` = TRUE (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**: The data to be displayed in this layer. There are three options:
  - If NULL, the default, the data is inherited from the plot data as specified in the call to `ggplot()`.
  - A `data.frame`, or other object, will override the plot data. All objects will be fortified to produce a data frame. See `fortify()` for which variables will be created.
  - A function will be called with a single argument, the plot data. The return value must be a `data.frame`, and will be used as the layer data. A function can be created from a formula (e.g. `~ head(.x,10)`).

- **geom**: Use to override the default connection between `geom_violin` and `stat_ydensity`.

- **position**: Position adjustment, either as a string, or the result of a call to a position adjustment function.

- **...**: Other arguments passed on to `layer()`. These are often aesthetics, used to set an aesthetic to a fixed value, like `colour = "red"` or `size = 3`. They may also be parameters to the paired geom/stat.

- **bw**: The smoothing bandwidth to be used. If numeric, the standard deviation of the smoothing kernel. If character, a rule to choose the bandwidth, as listed in `stats::bw.nrd()`.

- **adjust**: A multiplicate bandwidth adjustment. This makes it possible to adjust the bandwidth while still using the a bandwidth estimator. For example, adjust = 1/2 means use half of the default bandwidth.

- **kernel**: Kernel. See list of available kernels in `density()`.

- **trim**: If TRUE (default), trim the tails of the violins to the range of the data. If FALSE, don’t trim the tails.

- **scale**: if "area" (default), all violins have the same area (before trimming the tails). If "count", areas are scaled proportionally to the number of observations. If "width", all violins have the same maximum width.

- **na.rm**: If FALSE, the default, missing values are removed with a warning. If TRUE, missing values are silently removed.

- **show.legend**: logical. Should this layer be included in the legends? NA, the default, includes if any aesthetics are mapped. FALSE never includes, and TRUE always includes. It can also be a named logical vector to finely select the aesthetics to display.

- **inherit.aes**: If FALSE, overrides the default aesthetics, rather than combining with them. This is most useful for helper functions that define both data and aesthetics and shouldn’t inherit behaviour from the default plot specification, e.g. `borders()`.
Aesthetics

`stat_xdensity()` understands the following aesthetics (required aesthetics are in bold):

- `x`
- `y`
- `group`

Learn more about setting these aesthetics in `vignette("ggplot2-specs")`. 
Index

aes(), 3, 5, 9, 11, 13, 17, 19, 21, 22, 24
aes_(), 3, 5, 9, 11, 13, 17, 19, 21, 22, 24
borders(), 4, 6, 9, 12, 14, 18, 20, 21, 23, 24
density(), 24
draw_key, 2
draw_key_boxplot (draw_key), 2
draw_key_crossbarh (draw_key), 2
draw_key_hpath (draw_key), 2
draw_key_pointrangeh (draw_key), 2
fortify(), 3, 5, 9, 12, 13, 17, 19, 21, 22, 24
geom_bar, 3
geom_barh, 3
geom_boxplot, 5
geom_boxplot(), 5
geom_colh (geom_barh), 3
geom_crossbar, 8
geom_crossbarh, 8
geom_errorbar, 8
geom_errorbarh (geom_crossbar), 8
geom_histogram, 11
geom_histogram(), 4
geom_histogramh, 11
geom_linerange, 8
geom_linerangeh (geom_crossbarh), 8
geom_pointrange, 8
geom_pointrangeh (geom_crossbarh), 8
geom_violin, 12
geom_violinh, 12
ggplot(), 3, 5, 9, 12, 13, 17, 19, 21, 22, 24
hmisc, 14
hmisc_h, 14

layer(), 4, 6, 9, 12, 13, 18, 20–22, 24

mean_cl_boot (hmisc_h), 14
mean_cl_boot_h (hmisc_h), 14
mean_cl_normal, 14
mean_cl_normal_h (hmisc_h), 14
mean_se, 15
mean_se_h, 15
median_hilow_h (hmisc_h), 14

position-vertical (position_dodgev), 16
position_dodge, 16
position_dodge2v (position_dodgev), 16
position_dodgev, 16
position_fill, 16
position_fillv (position_dodgev), 16
position_jitterdodge, 16
position_jitterdodgev
(position_dodgev), 16
position_stack, 16
position_stackv (position_dodgev), 16

smean.cl.boot, 14
smean.cl.normal, 14
smean.sdl, 14
smedian.hilow, 14
stat_bin, 17
stat_binh, 17
stat_boxplot, 19
stat_boxplot(), 19
stat_count, 20
stat_counth, 20
stat_summary, 22
stat_summaryh, 14, 15, 22
stat_xdensity, 23
stat_ydensity, 23
stats::bw.nrd(), 24