Package: ggreveal (via r-universe)

October 29, 2024

Title Reveal a 'ggplot' Incrementally

Version 0.1.3

Description Provides functions that make it easy to reveal 'ggplot2' graphs incrementally. The functions take a plot produced with 'ggplot2' and return a list of plots showing data incrementally by panels, layers, groups, the values in an axis or any arbitrary aesthetic.

License MIT + file LICENSE

Encoding UTF-8

Roxygen list(markdown = TRUE)

RoxygenNote 7.3.2.9000

Imports cli, dplyr, ggplot2, ggplotify, lemon, rlang, stringr, tidyr

Suggests testthat (>= 3.0.0), withr, vdiffr, mockery

Config/testthat/edition 3

URL http://www.weverthon.com/ggreveal/, https://github.com/weverthonmachado/ggreveal

BugReports https://github.com/weverthonmachado/ggreveal/issues

Repository https://weverthonmachado.r-universe.dev

RemoteUrl https://github.com/weverthonmachado/ggreveal

RemoteRef HEAD

RemoteSha d8949c0074d9465353114b921967d6502b108611

Contents

reveal_aes *Reveal plot by aes*

Description

Turns a ggplot into a list of plots, showing data incrementally by an arbitrary aesthetic.

Usage

```
reveal_aes(p, aes = "group", order = NULL, max = 20)
```

Arguments

p	A ggplot2 object
aes	which aesthetic to reveal E.g.: group, colour, shape, linetype
order	(optional) A numeric vector specifying in which order to reveal levels of the specified aesthetic. For example, if `aes='shape'` and the plot uses three shapes, `order = c(3, 2, 1)` will invert the order in which they are revealed. Any shape not included in the vector will be omitted from the incremental plots. E.g.: with `order = c(3, 1)`, the second shape is not shown. By default, the first plot is blank, showing layout elements (title, legends, axes, etc) but no data. To omit the blank plot, include `-1`: e.g. `order = c(-1, 3, 1)`, or `order = -1`.
max	maximum number of unique levels of aesthetic to be used

Value

A list of ggplot2 objects, which can be passed to `reveal_save()`

Examples

```
# Create full plot
library(ggplot2)

 p <- mtcars |>
   ggplot(aes(mpg, wt,
              color = factor(vs),
              group = factor(vs))) +
   geom_point(aes(shape=factor(am)), size=2) +
   geom_smooth(method="lm",
               formula = 'y ~ x',
               linewidth=1)
 p

 plot_list <- reveal_aes(p, "shape")
 plot_list[[1]]
```

```
plot_list[[2]]
plot_list[[3]]
plot_list[[4]]


# Save plots
reveal_save(plot_list, "myplot.png", width = 8, height = 4, path = tempdir())

# Clean temp files
file.remove(list.files(path = tempdir(), pattern = "myplot", full.names = TRUE))
```

`reveal_groups` *Reveal plot by group*

Description

Turns a ggplot into a list of plots, showing data incrementally by groups. Note that if the `group` aesthetic is not explicitly defined in the original plot, `ggplot2` will set it to the interaction of all discrete variables (see ggplot2::aes_group_order).

Usage

```
reveal_groups(p, order = NULL)
```

Arguments

`p`	A ggplot2 object
`order`	(optional) A numeric vector specifying in which order to reveal the groups For example, if there are three groups in the plot, `order = c(3, 2, 1)` will invert the order in which they are revealed. Any group not included in the vector will be omitted from the incremental plots. E.g.: with `order = c(3, 1)`, the second group is not shown. By default, the first plot is blank, showing layout elements (title, legends, axes, etc) but no data. To omit the blank plot, include `-1`: e.g. `order = c(-1, 3, 1)`, or `order = -1`.

Value

A list of ggplot2 objects, which can be passed to `reveal_save()`

Examples

```
# Create full plot
library(ggplot2)
data("mtcars")

p <- mtcars |>
  ggplot(aes(mpg, wt,
```

```
            color = factor(vs),
            group = factor(vs))) +
  geom_point() +
  geom_smooth(method="lm",
              formula = 'y ~ x',
              linewidth=1) +
  facet_wrap(~am)
p

plot_list <- reveal_groups(p)
plot_list[[1]]
plot_list[[2]]
plot_list[[3]]

# Save plots
reveal_save(plot_list, "myplot.png", width = 8, height = 4, path = tempdir())

# Clean temp files
file.remove(list.files(path = tempdir(), pattern = "myplot", full.names = TRUE))
```

`reveal_layers` *Reveal plot by layer*

Description

Turns a ggplot into a list of plots, showing data incrementally by layers.

Usage

```
reveal_layers(p, order = NULL)
```

Arguments

`p`	A ggplot2 object
`order`	(optional) A numeric vector specifying in which order to reveal the layers For example, if there are three layers in the plot, `order = c(3, 2, 1)` will invert the order in which they are revealed. Any layer not included in the vector will be omitted from the incremental plots. E.g.: with `order = c(3, 1)`, the second layer is not shown. By default, the first plot is blank, showing layout elements (title, legends, axes, etc) but no data. To omit the blank plot, include `-1`: e.g. `order = c(-1, 3, 1)`, or `order = -1`.

Value

A list of ggplot2 objects, which can be passed to `reveal_save()`

Examples

```
# Create full plot
library(ggplot2)
data("mtcars")

p <- mtcars |>
  ggplot(aes(mpg, wt,
             color = factor(vs),
             group = factor(vs))) +
  geom_point() +
  geom_smooth(method="lm",
              formula = 'y ~ x',
              linewidth=1) +
  facet_wrap(~am)
p

plot_list <- reveal_layers(p)
plot_list[[1]]
plot_list[[2]]
plot_list[[3]]

# Save plots
reveal_save(plot_list, "myplot.png", width = 8, height = 4, path = tempdir())

# Clean temp files
file.remove(list.files(path = tempdir(), pattern = "myplot", full.names = TRUE))
```

`reveal_panels` *Reveal plot by panel*

Description

Turns a ggplot into a list of plots, showing data incrementally by panels.

Usage

```
reveal_panels(p, order = NULL, what = c("data", "everything"))
```

Arguments

`p`	A ggplot2 object
`order`	(optional) A numeric vector specifying in which order to reveal the panels For example, if there are three panels in the plot, `order = c(3, 2, 1)` will invert the order in which they are revealed. Any panel not included in the vector will be omitted from the incremental plots. E.g.: with `order = c(3, 1)`, the second panel is not shown. By default, the first plot is blank, showing layout elements (title, legends, axes, etc) but no data. To omit the blank plot, include `-1`: e.g. `order = c(-1, 3, 1)`, or `order = -1`.

what (optional) one of "data" or "everything".' With "data" (the default), the basic graph layout, including axes and facet labels, is shown from the start, and only the data points are shown incrementally. With "everything", the entire panels are shown incrementally.

Value

A list of ggplot2 objects, which can be passed to reveal_save()

Examples

```
# Create full plot
library(ggplot2)
data("mtcars")

p <- mtcars |>
  ggplot(aes(mpg, wt,
             color = factor(vs),
             group = factor(vs))) +
  geom_point() +
  geom_smooth(method="lm",
              formula = 'y ~ x',
              linewidth=1) +
  facet_wrap(~am)
p

# Only data
plot_list <- reveal_panels(p, what = "data")
plot_list[[1]]
plot_list[[2]]
plot_list[[3]]

# Everything
plot_list <- reveal_panels(p, what = "everything")
plot_list[[1]]
plot_list[[2]]
plot_list[[3]]

# Save plots
reveal_save(plot_list, "myplot.png", width = 8, height = 4, path = tempdir())

# Clean temp files
file.remove(list.files(path = tempdir(), pattern = "myplot", full.names = TRUE))
```

---

reveal_save *Saves incremental plots*

Description

Saves incremental plots

Usage

```
reveal_save(plot_list, basename, ...)
```

Arguments

plot_list	A list of plots created by one of the reveal_* functions (e.g. reveal_groups(), reveal_layers(), reveal_aes()]
basename	The base file name that will be used for saving.
...	Additional arguments (e.g. width, height) to be passed to ggplot2::ggsave()

Value

The paths of the saved plots, invisibly

Examples

```
# Create full plot
library(ggplot2)
data("mtcars")

p <- mtcars |>
  ggplot(aes(mpg, wt,
             color = factor(vs),
             group = factor(vs))) +
  geom_point() +
  geom_smooth(method="lm",
              formula = 'y ~ x',
              linewidth=1) +
  facet_wrap(~am)
p

plot_list <- reveal_groups(p)
plot_list[[1]]
plot_list[[2]]
plot_list[[3]]

# Save plots
reveal_save(plot_list, "myplot.png", width = 8, height = 4, path = tempdir())

# Clean temp files
file.remove(list.files(path = tempdir(), pattern = "myplot", full.names = TRUE))
```

---

reveal_x *Reveal plot by axis*

Description

Turns a ggplot into a list of plots, showing data incrementally by the categories in the x or y axis.

Usage

```
reveal_x(p, order = NULL)

reveal_y(p, order = NULL)
```

Arguments

p	A ggplot2 object
order	(optional) A numeric vector specifying in which order to reveal the categories For example, if there are three categories in the axis, `order = c(3, 2, 1)` will invert the order in which they are revealed. Any category not included in the vector will be omitted from the incremental plots. E.g.: with `order = c(3, 1)`, the second category is not shown. By default, the first plot is blank, showing layout elements (title, legends, axes, etc) but no data. To omit the blank plot, include `-1`: e.g. `order = c(-1, 3, 1)`, or `order = -1`.

Value

A list of ggplot2 objects, which can be passed to `reveal_save()`

Examples

```
# Create full plot
library(ggplot2)
data("mtcars")

p <- mtcars |>
  ggplot(aes(factor(vs),
             color = gear,
             fill= gear,
             group = gear)) +
  geom_bar() +
  facet_wrap(~am)
p

plot_list <- reveal_x(p)
plot_list[[1]]
plot_list[[2]]
plot_list[[3]]

# Save plots
reveal_save(plot_list, "myplot.png", width = 8, height = 4, path = tempdir())

# Clean temp files
file.remove(list.files(path = tempdir(), pattern = "myplot", full.names = TRUE))
```

Index