

Package ‘ggaltdata’

October 14, 2026

Title Data-Driven Alternative Text and Data Tables for 'ggplot2'
Charts

Version 0.1.0

Description Generates alternative text that states what a 'ggplot2' chart shows (highest and lowest values, rankings, trends, gaps between groups, overlap of intervals), a long description and the data table, computed from the data of the chart itself. Output for 'R Markdown', 'Quarto', 'Word', saved images and 'Shiny', in English and Italian.

License MIT + file LICENSE

URL <https://github.com/fniniv/ggaltdata>

BugReports <https://github.com/fniniv/ggaltdata/issues>

Encoding UTF-8

Language en-US

RoxygenNote 8.0.0

Depends R (>= 4.1)

Imports ggplot2 (>= 3.5.2), rlang, stats, utils

Suggests knitr, officer, rmarkdown, sf, shiny, testthat (>= 3.0.0),
withr

Config/testthat/edition 3

VignetteBuilder knitr

NeedsCompilation no

Author Federico Ninivaggi [aut, cre]

Maintainer Federico Ninivaggi <fninivdevelopment@gmail.com>

Repository CRAN

Date/Publication 2026-10-14 15:22:06 UTC

Contents

add_alt	2
alt_data	3
alt_describe	3
alt_text	4
as_docx_table	5
as_markdown	5
save_alt	6
Index	7

add_alt	<i>Store a generated alternative text in the plot</i>
---------	---

Description

Fills `labs(alt = )`, so that `ggplot2::get_alt_text()`, Shiny's `renderPlot()` and tools that read it use the generated text. A text already written by hand is kept unless `overwrite = TRUE`.

Usage

```
add_alt(p, lang = "en", max_chars = 250, overwrite = FALSE, area_var = NULL)
```

Arguments

<code>p</code>	A ggplot object.
<code>lang</code>	Language of the text: "en" (default) or "it".
<code>max_chars</code>	Maximum length of the text in characters (default 250).
<code>overwrite</code>	Replace an existing alternative text.
<code>area_var</code>	For maps (<code>geom_sf</code>), the column with the names of the areas.

Value

The plot, with the alternative text set.

Examples

```
library(ggplot2)
df <- data.frame(item = c("Apples", "Pears"), score = c(3.6, 2.7))
p <- add_alt(ggplot(df, aes(item, score)) + geom_col())
ggplot2::get_alt_text(p)
```

alt_data	<i>The data table of a chart</i>
----------	----------------------------------

Description

The data table of a chart

Usage

```
alt_data(p, area_var = NULL)
```

Arguments

p	A ggplot object.
area_var	For maps (geom_sf), the column with the names of the areas.

Value

A data frame with the plotted values under readable column names.

Examples

```
library(ggplot2)
df <- data.frame(item = c("Apples", "Pears"), score = c(3.6, 2.7))
alt_data(ggplot(df, aes(item, score)) + geom_col())
```

alt_describe	<i>Long description and data table, for reading in the R console</i>
--------------	--

Description

Builds a plain-text description of the chart (title, structure, every finding, ranking) and its data table. Printed in the console, it reads line by line in a screen reader.

Usage

```
alt_describe(p, lang = "en", n_extremes = 3, area_var = NULL)
```

Arguments

p	A ggplot object.
lang	Language of the text: "en" (default) or "it".
n_extremes	How many categories to name at the top and bottom when there are many.
area_var	For maps (geom_sf), the column with the names of the areas.

Value

An object of class `ggaltdata` with elements `short_sentences`, `long`, `table` and `facts`; its `print` method writes the long description and the data table.

Examples

```
library(ggplot2)
df <- data.frame(item = c("Apples", "Pears", "Plums"), score = c(3.6, 2.7, 3.2))
alt_describe(ggplot(df, aes(item, score)) + geom_col())
```

alt_text

Generate the short alternative text of a ggplot2 chart

Description

Reads the data drawn by the chart and writes one or two sentences with its main finding: highest and lowest values, gaps between two groups, trends of series, intervals that overlap or not. Every number comes from the data of the chart.

Usage

```
alt_text(p, lang = "en", max_chars = 250, n_extremes = 3, area_var = NULL)
```

Arguments

<code>p</code>	A <code>ggplot</code> object.
<code>lang</code>	Language of the text: "en" (default) or "it".
<code>max_chars</code>	Maximum length of the text in characters (default 250).
<code>n_extremes</code>	How many categories to name at the top and bottom when there are many.
<code>area_var</code>	For maps (<code>geom_sf</code>), the column with the names of the areas.

Value

A character string.

Examples

```
library(ggplot2)
df <- data.frame(item = c("Apples", "Pears", "Plums"), score = c(3.6, 2.7, 3.2))
p <- ggplot(df, aes(item, score)) + geom_col() + labs(y = "average score")
alt_text(p)
alt_text(p, lang = "it")
```

as_docx_table	<i>Add the data table to a Word document</i>
---------------	--

Description

Requires the officer package.

Usage

```
as_docx_table(x, doc, caption = NULL, lang = "en")
```

Arguments

x	A ggplot object or the result of <code>alt_describe()</code> .
doc	An rdocx object from <code>officer::read_docx()</code> .
caption	Optional caption written before the table.
lang	Language of the generated texts, if x is a plot.

Value

The rdocx object with the table added.

Examples

```
if (requireNamespace("officer", quietly = TRUE)) {  
  library(ggplot2)  
  df <- data.frame(item = c("Apples", "Pears"), score = c(3.6, 2.7))  
  p <- ggplot(df, aes(item, score)) + geom_col()  
  doc <- as_docx_table(p, officer::read_docx(), caption = "Data of Figure 1")  
  print(doc, target = file.path(tempdir(), "report.docx"))  
}
```

as_markdown	<i>The data table as a Markdown table</i>
-------------	---

Description

The data table as a Markdown table

Usage

```
as_markdown(x, caption = NULL, digits = NULL, lang = "en")
```

Arguments

x	A ggplot object or the result of <code>alt_describe()</code> .
caption	Optional caption written above the table.
digits	Digits for numbers; by default chosen from the data.
lang	Language used for numbers (decimal mark).

Value

A character string with a pipe table.

Examples

```
library(ggplot2)
df <- data.frame(item = c("Apples", "Pears"), score = c(3.6, 2.7))
cat(as_markdown(ggplot(df, aes(item, score)) + geom_col()))
```

save_alt	<i>Save the alternative text and the data table next to an image</i>
----------	--

Description

Writes two files beside the image saved with `ggplot2::ggsave()`: for file = "figure1.png", figure1.alt.txt (short and long text) and figure1.data.csv (the data table).

Usage

```
save_alt(p, file, lang = "en", max_chars = 250, area_var = NULL)
```

Arguments

p	A ggplot object.
file	Path of the image (for example "figure1.png").
lang	Language of the text: "en" (default) or "it".
max_chars	Maximum length of the text in characters (default 250).
area_var	For maps (<code>geom_sf</code>), the column with the names of the areas.

Value

Invisibly, the paths of the two files written.

Examples

```
library(ggplot2)
df <- data.frame(item = c("Apples", "Pears"), score = c(3.6, 2.7))
p <- ggplot(df, aes(item, score)) + geom_col()
f <- file.path(tempdir(), "figure1.png")
ggsave(f, p, width = 4, height = 3)
save_alt(p, f)
```

Index

`add_alt`, [2](#)
`alt_data`, [3](#)
`alt_describe`, [3](#)
`alt_describe()`, [5](#), [6](#)
`alt_text`, [4](#)
`as_docx_table`, [5](#)
`as_markdown`, [5](#)

`save_alt`, [6](#)