

Package: vdiff (via r-universe)

June 28, 2024

Title Visual Regression Testing and Graphical Diffing

Version 1.0.7.9000

Encoding UTF-8

Description An extension to the 'testthat' package that makes it easy to add graphical unit tests. It provides a Shiny application to manage the test cases.

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LazyData true

ByteCompile true

Depends R (>= 3.2.0)

Imports diffobj, glue, grDevices, htmltools, lifecycle, rlang, testthat (>= 3.0.3), xml2 (>= 1.0.0)

Suggests covr, ggplot2 (>= 3.2.0), roxygen2, withr

LinkingTo cpp11

RoxygenNote 7.1.2

Roxygen list(markdown = TRUE)

URL <https://vdiff.r-lib.org/>, <https://github.com/r-lib/vdiff>

BugReports <https://github.com/r-lib/vdiff/issues>

SystemRequirements C++11, libpng

Config/Needs/website tidyverse/tidytemplate

Repository <https://r-lib.r-universe.dev>

RemoteUrl <https://github.com/r-lib/vdiff>

RemoteRef HEAD

RemoteSha 45bc98a9219485e51bdaf9eaa66de1f6af4ca02c

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expect_doppelganger *Does a figure look like its expected output?*

Description

`expect_doppelganger()` is a testthat expectation for graphical plots. It generates SVG snapshots that you can review graphically with `testthat::snapshot_review()`. You will find more information about snapshotting in the [testthat snapshots vignette](#).

Usage

```
expect_doppelganger(
  title,
  fig,
  path = deprecated(),
  ...,
  writer = write_svg,
  cran = FALSE
)
```

Arguments

<code>title</code>	<p>A brief description of what is being tested in the figure. For instance: "Points and lines overlap".</p> <p>If a <code>ggplot2</code> figure doesn't have a title already, <code>title</code> is applied to the figure with <code>ggtitle()</code>.</p> <p>The title is also used as file name for storing SVG (in a sanitized form, with special characters converted to "-").</p>
<code>fig</code>	<p>A figure to test. This can be a <code>ggplot</code> object, a <code>recordedplot</code>, or more generally any object with a <code>print</code> method.</p> <p>If you need to test a plot with non-printable objects (e.g. base plots), <code>fig</code> can be a function that generates and prints the plot, e.g. <code>fig = function() plot(1:3)</code>.</p>
<code>path, ...</code>	[Deprecated].
<code>writer</code>	<p>A function that takes the plot, a target SVG file, and an optional plot title. It should transform the plot to SVG in a deterministic way and write it to the target file. See <code>write_svg()</code> (the default) for an example.</p>
<code>cran</code>	<p>If <code>FALSE</code> (the default), mismatched snapshots only cause a failure when you run tests locally or in your CI (Github Actions or any platform that sets the CI environment variable). If <code>TRUE</code>, failures may also occur on CRAN machines.</p> <p>Failures are disabled on CRAN by default because testing the appearance of a figure is inherently fragile. Changes in the R graphics engine or in <code>ggplot2</code> may cause subtle differences in the aspect of a plot, such as a slightly smaller or larger margin. These changes will cause spurious failures because you need to update your snapshots to reflect the upstream changes.</p>

It would be distracting for both you and the CRAN maintainers if such changes systematically caused failures on CRAN. This is why snapshot expectations do not fail on CRAN by default and should be treated as a monitoring tool that allows you to quickly check how the appearance of your figures changes over time, and to manually assess whether changes reflect actual problems in your package.

Internally, this argument is passed to `testthat::expect_snapshot_file()`.

Debugging

It is sometimes difficult to understand the cause of a failure. This usually indicates that the plot is not created deterministically. Potential culprits are:

- Some of the plot components depend on random variation. Try setting a seed.
- The plot depends on some system library. For instance sf plots depend on libraries like GEOS and GDAL. It might not be possible to test these plots with vdiff.

To help you understand the causes of a failure, vdiff automatically logs the SVG diff of all failures when run under R CMD check. The log is located in `tests/vdiff.Rout.fail` and should be displayed on Travis.

You can also set the `VDIFFR_LOG_PATH` environment variable with `Sys.setenv()` to unconditionally (also interactively) log failures in the file pointed by the variable.

Examples

```
if (FALSE) { # Not run

library("ggplot2")

test_that("plots have known output", {
  disp_hist_base <- function() hist(mtcars$disp)
  expect_doppelganger("disp-histogram-base", disp_hist_base)

  disp_hist_ggplot <- ggplot(mtcars, aes(dis)) + geom_histogram()
  expect_doppelganger("disp-histogram-ggplot", disp_hist_ggplot)
})

}
```

write_svg

Default SVG writer

Description

This is the default SVG writer for vdiff test cases. It uses embedded versions of `svglite`, `harfbuzz`, and the Liberation and Symbola fonts in order to create deterministic SVGs.

Usage

```
write_svg(plot, file, title = "")
```

Arguments

plot	A plot object to convert to SVG. Can be a ggplot2 object, a recorded plot , or any object with a print() method.
file	The file to write the SVG to.
title	An optional title for the test case.

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