Package 'tinysnapshot'

February 20, 2024

Type Package

Title Snapshots for Unit Tests using the 'tinytest' Framework

Version 0.0.4

Maintainer Vincent Arel-Bundock <vincent.arel-bundock@umontreal.ca>

Description Snapshots for unit tests using the 'tinytest' framework for R. Includes expectations to test base R and 'ggplot2' plots as well as console output from print().

License GPL (>= 3)

URL https://github.com/vincentarelbundock/tinysnapshot

BugReports https://github.com/vincentarelbundock/tinysnapshot/issues

Imports diffobj, magick (>= 2.7.4), tinytest (>= 1.4.1)

Suggests fontquiver, ggplot2, ragg, rsvg, svglite

Encoding UTF-8

RoxygenNote 7.2.3

NeedsCompilation no

Author Vincent Arel-Bundock [aut, cre, cph]
(<https://orcid.org/0000-0003-2042-7063>)

Repository CRAN

Date/Publication 2024-02-20 21:10:02 UTC

R topics documented:

`tinysnapshot-package` *Snapshots for Unit Tests using the 'tinytest' Framework*

Description

Snapshots for unit tests using the 'tinytest' framework for R. Includes expectations to test base R and 'ggplot2' plots as well as console output from print().

Package Content

Index of help topics:

```
expect_equivalent_images
                        Test if two image files are equivalent
expect_snapshot_plot    Test if the new plot matches a target
                        (snapshot) plot
expect_snapshot_print   Test if printed output matches a target
                        printout
tinysnapshot-package    Snapshots for Unit Tests using the 'tinytest'
                        Framework
```

Maintainer

Vincent Arel-Bundock <vincent.arel-bundock@umontreal.ca>

Author(s)

Vincent Arel-Bundock [aut, cre, cph] (<https://orcid.org/0000-0003-2042-7063>)

`expect_equivalent_images` *Test if two image files are equivalent*

Description

Test if two image files are equivalent

Usage

```
expect_equivalent_images(
  current,
  target,
  tol = getOption("tinysnapshot_tol", default = 0),
  metric = getOption("tinysnapshot_metric", default = "AE"),
  fuzz = getOption("tinysnapshot_fuzz", default = 0),
  diffpath = NULL
)
```

Arguments

current	path to an image file
target	path to an image file
tol	distance estimates larger than this threshold will trigger a test failure. Scale depends on the metric argument. With the default metric="AE" (absolute error), the tolerance corresponds roughly to the number of pixels of difference between the plot and the reference image.
metric	string with a metric from magick::metric_types() such as "AE" or "phash".
fuzz	relative color distance between 0 and 100 to be considered similar.
diffpath	path where to save an image which shows the differences between current and target. NULL means that the diff image is not saved.

Value

A tinytest object. A tinytest object is a logical with attributes holding information about the test that was run

---

expect_snapshot_plot *Test if the new plot matches a target (snapshot) plot*

Description

This expectation can be used with tinytest to check if the new plot matches a target plot.

When the expectation is checked for the first time, the expectation fails and a reference plot is saved to the inst/tinytest/_tinysnapshot folder.

When the expectation fails, the reference plot, the new plot, and a diff are saved to the inst/tinytest/label folder. Call the review() function to compare.

To update a snapshot, delete the reference file from the _tinysnapshot folder and run the test suite again.

See the package README file or website for detailed examples.

Usage

```
expect_snapshot_plot(
  current,
  label,
  width = getOption("tinysnapshot_width", default = NULL),
  height = getOption("tinysnapshot_height", default = NULL),
  tol = getOption("tinysnapshot_tol", default = 0),
  metric = getOption("tinysnapshot_metric", default = "AE"),
  fuzz = getOption("tinysnapshot_fuzz", default = 0),
  device = getOption("tinysnapshot_device", default = "svg"),
  device_args = getOption("tinysnapshot_device_args", default = list()),
  os = getOption("tinysnapshot_os", default = Sys.info()["sysname"])
)
```

Arguments

current	an object of class ggplot or a function which returns a base R plot.
label	a string to identify the snapshot (alpha-numeric, hyphens, or underscores). Each plot in the test suite must have a unique label.
width	of the snapshot. PNG default: 480 pixels. SVG default: 7 inches.
height	of the snapshot. PNG default: 480 pixels. SVG default: 7 inches.
tol	distance estimates larger than this threshold will trigger a test failure. Scale depends on the metric argument. With the default metric="AE" (absolute error), the tolerance corresponds roughly to the number of pixels of difference between the plot and the reference image.
metric	string with a metric from magick::metric_types() such as "AE" or "phash".
fuzz	relative color distance between 0 and 100 to be considered similar.
device	"svg", "png", "ragg" or "svglite"
device_args	list of arguments to pass to the device call (e.g., user_fonts for svglite device).
os	character vector of operating systems on which the test should be run (e.g., "Windows", "Linux", "Darwin"). Tests are skipped when no element of the vector matches the output of: Sys.info()["sysname"]

Value

A tinytest object. A tinytest object is a logical with attributes holding information about the test that was run

---

expect_snapshot_print *Test if printed output matches a target printout*

Description

This expectation can be used with tinytest to check if the new plot matches a target plot.

When the expectation is checked for the first time, the expectation fails and a reference text file is saved to the inst/tinytest/_tinysnapshot folder.

To update a snapshot, delete the reference file from the _tinysnapshot folder and run the test suite again.

See the package README file or website for detailed examples.

Usage

```
expect_snapshot_print(
  current,
  label,
  mode = getOption("tinysnapshot_mode", default = "unified"),
  format = getOption("tinysnapshot_format", default = "ansi256"),
  ...
)
```

Arguments

current	an object which returns text to the console when calling print(x)‘
label	a string to identify the snapshot (alpha-numeric, hyphens, or underscores). Each plot in the test suite must have a unique label.
mode	"unified", "sidebyside", "context", or "auto". See ?diffobj::diffPrint
format	"raw", "ansi8", "ansi256", "html", or "auto". See ?diffobj::diffPrint
...	Additional arguments are passed to diffobj::diffPrint()

Value

A tinytest object. A tinytest object is a logical with attributes holding information about the test that was run

Index