Package 'tinysnapshot'

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Type Package

Title Snapshots for Unit Tests using the 'tinytest' Framework

Version 0.2.0

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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().

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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

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`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),
 style = getOption("tinysnapshot_plot_diff_style", default = c("old", "new", "diff")),
```

```
  review = getOption("tinysnapshot_plot_review", default = TRUE),
  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.
style	A character vector to control the panels of the diff image saved to file. The order and number of entries controls the side-by-side panels. Allowable values are: "old", "new", "diff".
review	logical. TRUE if a a diff plot should be saved to file for review when the expectation fails.
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

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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()),
  par_args = getOption("tinysnapshot_par_args", default = NULL),
 style = getOption("tinysnapshot_plot_diff_style", default = c("old", "new", "diff")),
  review = getOption("tinysnapshot_plot_review", default = TRUE),
  os = getOption("tinysnapshot_os", default = Sys.info()["sysname"]),
  skip = getOption("tinysnapshot_plot_skip", default = !interactive() &&
    !identical(Sys.getenv("NOT_CRAN"), "true"))
)
```

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).
par_args	named list of arguments to pass to graphics::par() for setting graphical parameters. Only used when device is "png" or "ragg". Default is NULL.
style	A character vector to control the panels of the diff image saved to file. The order and number of entries controls the side-by-side panels. Allowable values are: "old", "new", "diff".
review	logical. TRUE if a a diff plot should be saved to file for review when the expectation fails.
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"]

skip — logical. If TRUE, the test is skipped. Default: TRUE when not interactive and NOT_CRAN environment variable is not "true".

Value

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

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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"),
 ignore_white_space = getOption("tinysnapshot_ignore_white_space", default = FALSE),
  fn_current = getOption("tinysnapshot_fn_current", default = identity),
  fn_target = getOption("tinysnapshot_fn_target", default = identity),
  ...
)
```

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
ignore_white_space	TRUE to ignore horizontal white space and empty lines.
fn_current	A function to apply to the current output before comparison.
fn_target	A function to apply to the target output before comparison.
...	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

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