Package 'sketcher'

May 9, 2026

Title Pencil Sketch Effect

Version 0.1.3

Description
An implementation of image processing effects that convert a photo into a line drawing image. For details, please refer to Tsuda, H. (2020). sketcher: An R package for converting a photo into a sketch style image. <doi:10.31234/osf.io/svmw5>.

URL https://htsuda.net/sketcher/

BugReports https://github.com/tsuda16k/sketcher/issues/

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Encoding UTF-8

LazyData true

RoxygenNote 7.1.0

Imports jpeg, png, readbitmap, downloader, imager, magrittr, methods, stringr, dplyr

Depends R (>= 2.10)

Suggests knitr, rmarkdown

NeedsCompilation no

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Repository CRAN

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Contents

`face` *A face image.*

Description

A photograph obtained from a free stock photos site. pexels.com/photo/man-about-to-touch-his-face-wearing-blue-suit-718261/

Usage

```
face
```

Format

An array with 600 x 460 * 3 dimensions. Each dimension represents y-coordinate, x-coordinate, and color channel.

Examples

```
plot(face)
```

`im_load` *Load image from file or URL*

Description

Load image from file or URL

Usage

```
im_load(file, name)
```

Arguments

`file`	path to file or URL
`name`	a string for name attribute. if missing, inferred from the file argument.

Value

an array of image data

Examples

```
## Not run:
# load an image from disk
im = im_load("path/to/your/image.jpg")
plot(im)
# load an image from URL
im = im_load("http://placehold.jp/150x150.png")

## End(Not run)
```

`im_save` *Save an image to disk*

Description

Save an image to disk

Usage

```
im_save(im, name, path, format = "png", quality = 0.95)
```

Arguments

`im`	An image.
`name`	Name of the image file.
`path`	Path to file.
`format`	Image format. Either "jpg", "png", "tiff", or "bmp". Default is "png".
`quality`	(jpg only) default is 0.95. Higher quality means less compression.

Value

No return value, called for side effects.

Examples

```
## Not run:
im = sketch(face)

# im.png is saved to the current working directory
im_save( im, name = "im", path = getwd() )

# myimage.jpg is saved to a specified directory
im_save( im, name = "myimage", path = "path/to/image", format = "jpg" )

## End(Not run)
```

plot.nimg *Display an image*

Description

Display an image

Usage

```
## S3 method for class 'nimg'
plot(x, rescale = FALSE, ...)
```

Arguments

x	an image
rescale	logical. if true, then pixel value is rescaled to range between 0 and 1.
...	other parameters to be passed to plot.default

Value

No return value, called for side effects.

Examples

```
plot(face)
```

sketch *Apply the sketch effect on an image*

Description

Apply the sketch effect on an image

Usage

```
sketch(
  im,
  style = 1,
  lineweight = 1,
  smooth = ceiling(lineweight),
  gain = 0.02,
  contrast = NULL,
  shadow = 0,
  max.size = 2048
)
```

Arguments

im	an image (array).
style	a numeric (integer). Either 1 or 2.
lineweight	a numeric. Strength of lines.
smooth	a numeric (integer). Smoothness of image texture.
gain	a numeric between 0 and 1. Can be used to reduce noise in dim regions.
contrast	a numeric (integer). Adjusts the image contrast.
shadow	a numeric between 0 and 1
max.size	maximum image resolution (width or height) of the output image

Value

an image.

Examples

```
im = sketch(face)
plot(im)

## Not run:
im = im_load("path/to/your/image.jpg")
plot(im)

## End(Not run)
```

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survey *Create multiple sketches at once and combine them into a single image*

Description

It is often necessary to find optimal sketch style parameters for your task. With this function, you can easily compare the effects of different style parameters.

Usage

```
survey(
  im,
  style = 1,
  weight_levels = c(1, 2, 4),
  smooth_levels = c(1, 2, 4),
  gain = 0.02,
  contrast = NULL,
  shadow = 0,
  verbose = TRUE
)
```

Arguments

`im`	an image.
`style`	numeric (integer). Either 1 (edge-focused) or 2 (smooth gradient)
`weight_levels`	numeric (integer). a vector of lineweight values
`smooth_levels`	numeric (integer). a vector of smooth values
`gain`	a numeric between 0 and 1. Can be used to reduce noise in dim regions.
`contrast`	numeric (integer). Adjusts the image contrast.
`shadow`	a numeric between 0 and 1
`verbose`	If TRUE (default), progress information is displayed in the Console.

Value

an array of the sketched image.

Examples

```
im = survey(face, style = 1, weight_levels = c(1, 3), smooth_levels = c(1, 3), shadow = 0.3)
plot(im)
```

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