Package 'hexsession'

March 30, 2026

Title Create a Tile of Logos for Loaded Packages

Version 0.1.0

Description Creates a responsive HTML file with tiled hexagonal logos for packages in an R session. Tiles can be also be generated for a custom set of packages specified with a character vector. Output can be saved as a static screenshot in PNG format using a headless browser.

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Suggests knitr, rmarkdown, rsvg, testthat (>= 3.0.0), withr

Config/testthat/edition 3

Encoding UTF-8

RoxygenNote 7.3.3

URL https://github.com/luisDVA/hexsession, https://hexsession.liomys.mx/

BugReports https://github.com/luisDVA/hexsession/issues

Depends R (>= 4.1.0)

Imports base64enc, chromote, jsonlite, magick, purrr, htmltools,

NeedsCompilation no

Author Luis D. Verde Arregoitia [aut, cre, cph] (ORCID: <https://orcid.org/0000-0001-9520-6543>)

Maintainer Luis D. Verde Arregoitia <luis@liomys.mx>

Repository CRAN

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Contents

`col_arrange` *Arrange Images by Color*

Description

Takes a vector of image paths, extracts the main color from each image using k-means clustering, converts the colors to the LAB color space, and sorts the images based on the lightness (L) component of their dominant color.

Usage

```
col_arrange(image_paths)
```

Arguments

`image_paths`	Character vector. A vector of file paths to the images.

Value

A character vector of image paths, sorted by the lightness of their main color.

Examples

```
img1 <- system.file("extdata/rectLight.png", package = "hexsession")
img2 <- system.file("extdata/rectMed.png", package = "hexsession")
img3 <- system.file("extdata/rectDark.png", package = "hexsession")
sorted_paths <- col_arrange(c(img1,img3,img2))
```

encode_image *Encode image to Base64*

Description

Encode image to Base64

Usage

```
encode_image(file_path)
```

Arguments

file_path	Path to an image file

Value

A character string containing a base64-encoded data URI (e.g., "..."), or NULL with a warning if encoding fails.

Examples

```
img <- system.file("extdata/rectLight.png", package = "hexsession")
encode_image(img)
```

find_imgpaths *Find image paths*

Description

Find image paths

Usage

```
find_imgpaths(pkgnames)
```

Arguments

pkgnames	Character vector of package names

Details

Images in svg format will be converted to png. When no image matches 'logo' in the file name the used is will be prompted to select likely logos.

Value

A list of image file paths for each package

`find_logopaths` *Find logo paths*

Description

Find logo paths

Usage

```
find_logopaths(imagepaths, pkgnames)
```

Arguments

`imagepaths`	List of image paths
`pkgnames`	Character vector of package names

Value

A vector of logo paths

`generate_hexsession_js` *Generate JavaScript file for hexsession*

Description

Generate JavaScript file for hexsession

Usage

```
generate_hexsession_js(
  logopaths,
  urls,
  dark_mode,
  output_js,
  highlight_mode = FALSE,
  pkg_names = NULL,
  focus = NULL
)
```

Arguments

logopaths	Vector of image paths
urls	Vector of URLs
dark_mode	Use dark mode, inherited from make_tile
output_js	Path to save the JavaScript file
highlight_mode	Use highlight mode, inherited from make_tile
pkg_names	Vector of package names (optional)
focus	Vector of package names to focus on (optional)

Value

Called for its side effect; invisibly returns NULL. Writes a JavaScript file to output_js containing base64-encoded image data and dark/light mode CSS variable assignments.

Examples

```
img <- system.file("extdata/rectLight.png", package = "hexsession")
out <- tempfile(fileext = ".js")
generate_hexsession_js(
  logopaths = img,
  urls = "https://example.com",
  dark_mode = FALSE,
  output_js = out
)
```

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getLoaded *Get loaded packages*

Description

Get loaded packages

Usage

```
getLoaded()
```

Value

A character vector of the attached packages (excludes base packages)

get_pkg_data *Get package data*

Description

Get package data

Usage

```
get_pkg_data(packages = NULL)
```

Arguments

packages	Character vector of package names (default is NULL, uses loaded packages)

Value

A list containing logopaths, urls, and package names

maincolorRGB *Extract the Most Frequent Color from an Image*

Description

Internal helper. For a given image path, this functions uses k-means clustering to identify the most dominant color in the image.

Usage

```
maincolorRGB(imgpath)
```

Arguments

imgpath	Character string. File path to the image.

Value

A data frame with one row containing the RGB values of the dominant color. The column name is set to the input image path.

make_missingLogos *Create missing logos*

Description

Create missing logos

Usage

```
make_missingLogos(attached_pkgs, logopaths)
```

Arguments

attached_pkgs	Character vector of attached package names
logopaths	Vector of existing logo paths

Value

Vector of paths to new logos

make_tile *Generate tile of package logos*

Description

Creates and returns an interactive html tile of the packages either listed in the packages argument, or all the packages attached to the search path. When rendered interactively, the result is output in the viewer. When rendered in Quarto or RMarkdown, the tile becomes part of the rendered html. revealjs presentations are now supported. If local images are provided, only these images will be used, excluding loaded packages.

Usage

```
make_tile(
  packages = NULL,
  local_images = NULL,
  local_urls = NULL,
  dark_mode = FALSE,
  color_arrange = FALSE,
  highlight_mode = FALSE,
  focus = NULL,
  output_dir = tempdir()
)
```

Arguments

packages	A character vector of package names to include (defaults to NULL, which uses loaded packages)
local_images	Optional character vector of local image paths to add to the tile
local_urls	Optional character vector of URLs for each of the local images passed
dark_mode	Draw the tile on a dark background?
color_arrange	Logical, whether to arrange the images by color along the 'Lab' color space (defaults to FALSE)
highlight_mode	Logical, dim all images except on hover (defaults to FALSE)
focus	A character vector of package names to highlight, dimming all others (defaults to NULL)
output_dir	Directory where the intermediate js, rds, and HTML outputs are written. Defaults to `tempdir()`. To keep the output HTML in your project folder, pass `output_dir = getwd()` or any other path. The returned value and a console message both show the exact file location.

Details

If an installed package does not have a bundled logo, or if the logo has been added to .Rbuildignore, a generic logo with the name of the package will be created instead. When the function cannot locate a package logo unambiguously, users will be prompted to select one from a list of potential options.

Set the execution options to `output: asis` in Quarto revealjs presentations to enable raw markdown output and adequate rendering of the tiles.

Value

The path to the output HTML file (invisibly) when called interactively. A `message()` also prints the location. Returns an `htmltools` HTML object when rendered inside Quarto or R Markdown.

Examples

```
img1 <- system.file("extdata/rectLight.png", package = "hexsession")
img2 <- system.file("extdata/rectMed.png", package = "hexsession")
img3 <- system.file("extdata/rectDark.png", package = "hexsession")
path <- make_tile(local_images = c(img1, img2, img3))
```

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pkgurls *Get package URLs*

Description

Get package URLs

Usage

```
pkgurls(pkgnames)
```

Arguments

pkgnames	Character vector of package names

Value

A vector of package URLs

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snap_tile *Take screenshot of html image tile*

Description

Take screenshot of html image tile

Usage

```
snap_tile(
  output_path,
  screen_width = 800,
  screen_height = 700,
  dark_mode = FALSE,
  output_dir = getwd()
)
```

Arguments

output_path	Path to image file
screen_width	Width of the browser window
screen_height	Height of the browser window
dark_mode	Is the tile being saved dark or light mode?
output_dir	Directory where `make_tile()` wrote its files. Must match the `output_dir` used in the preceding `make_tile()` call. Defaults to `getwd()`. To snap a tile written to `tempdir()`, pass `output_dir = tempdir()` explicitly.

Value

Path to the saved PNG image (the value of `output_path`).

Examples

```
snap_tile(tempfile(fileext = ".png"))
```

Index