

Package ‘carbonate’

February 6, 2020

Title Interact with 'carbon.js'

Version 0.1.3

Description Create beautiful images of source code using
'carbon.js' <<https://carbon.now.sh/about>>.

License MIT + file LICENSE

URL <https://github.com/yonicd/carbonate>

BugReports <https://github.com/yonicd/carbonate/issues>

Depends R (>= 3.2.0)

Imports clipr,
details,
httr,
magick,
R6,
RSelenium,
rtweet,
utils,
wdman,
yaml

Suggests covr,
knitr,
rmarkdown,
testthat

VignetteBuilder knitr

RdMacros details

Encoding UTF-8

LazyData true

Roxygen list(markdown = TRUE)

RoxygenNote 6.1.1

R topics documented:

| | |
|--------------------------|---|
| .browse | 2 |
| .carbonate | 3 |
| .chromeOptions | 4 |

| | |
|---------------------------------------|----|
| .encode | 4 |
| .get_windows_control_themes | 5 |
| .options | 5 |
| .rtweet | 6 |
| .set_template | 7 |
| .start | 7 |
| .tiny | 8 |
| .uri | 8 |
| carbon | 9 |
| carbon_fields | 10 |
| tinyurl | 11 |

| | |
|--------------|-----------|
| Index | 12 |
|--------------|-----------|

| | |
|---------|--|
| .browse | <i>open \$uri to in browser window</i> |
|---------|--|

Description

opens the uri address in [\\$uri](#) in the browser window.

Usage

```
.browse(self, private)
```

Arguments

| | |
|---------|-----------------------|
| self | carbon self object |
| private | carbon private object |

See Also

[carbon](#)

Examples

```
x <- carbon$new('x <- 1')
if(interactive())
  x$browse()
```

.carbonate

Carbonate script lines to a carbon image

Description

Main function of the package that invokes RSelenium to open a browser to the carbon.js uri, create an image and download the file.

Usage

```
.carbonate(self, private, file, path, code, rD)
```

Arguments

| | |
|---------|--|
| self | carbon self object |
| private | carbon private object |
| file | character, name of file to save image as |
| path | character, path to save the image |
| code | character, lines of script to make carbon image from |
| rD | RSelenium driver |

Details

Script is passed to <https://carbon.now.sh/> is downloaded to the `tempdir()` and appended to the list `$carbons` using RSelenium and Chrome.

Value

image object

See Also

[carbon](#), [rsDriver](#)

Examples

```
if(interactive()){  
  x <- carbon$new('x <- 1')  
  x$carbonate()  
}
```

| | |
|----------------|-----------------------------------|
| .chromeOptions | <i>chrome webdriver functions</i> |
|----------------|-----------------------------------|

Description

Functions to open,close,set chrome webdriver

Usage

```
.chromeOptions(self, private)
```

```
.chrome_start(self, private)
```

```
.chrome_stop(self, private)
```

Arguments

| | |
|---------|-----------------------|
| self | carbon self object |
| private | carbon private object |

See Also

[carbon](#), [chrome](#)

| | |
|---------|---------------------------------|
| .encode | <i>encode uri for carbon.js</i> |
|---------|---------------------------------|

Description

encode uri string for carbon.js. Augmented version of than [URLencode](#)

Usage

```
.encode(self, private, URL, reserved, repeated)
```

Arguments

| | |
|----------|---|
| self | carbon self object |
| private | carbon private object |
| URL | character, uri string to url encode |
| reserved | boolean, should 'reserved' characters be encoded? |
| repeated | boolean, should apparently already-encoded URLs be encoded again? |

Value

character

See Also

[URLencode](#), [carbon](#)

`.get_windows_control_themes`
carbon get functions

Description

function that gets the available list of aesthetic values of fields

Usage

```
.get_windows_control_themes(self, private)
```

```
.get_font_families(self, private)
```

```
.get_templates(self, private)
```

Arguments

| | |
|----------------------|-----------------------|
| <code>self</code> | carbon self object |
| <code>private</code> | carbon private object |

See Also

[carbon](#)

`.options` *concatenate the carbon options to a string*

Description

combine all the carbon options into a carbon.js valid string

Usage

```
.options(self, private, code)
```

Arguments

| | |
|----------------------|---|
| <code>self</code> | carbon self object |
| <code>private</code> | carbon private object |
| <code>code</code> | character, script to embed into the uri |

Value

OUTPUT_DESCRIPTION

See Also

[carbon](#)

`.rtweet` *send tweets using carbonate outputs*

Description

wrapper for [post_tweet](#) to send tweets with media created using carbonate.

Usage

```
.rtweet(self, private, media, status = self$tweet_status,
        media_format = c("png", "gif"), ...)
```

Arguments

| | |
|---------------------------|---|
| <code>self</code> | carbon self object |
| <code>private</code> | carbon private object |
| <code>media</code> | magick-image object or path to image |
| <code>status</code> | character, status to attach to post, Default: <code>self\$tweet_status</code> |
| <code>media_format</code> | character, type of media to tweet, Default: <code>c('png','gif')</code> |
| <code>...</code> | arguments to pass to post_tweet |

Details

If multiple images are passed they can be either converted to a gif by setting `media_format` to 'gif' or attached each one to the post.

Value

outcome from `rtweet`

See Also

[image_write](#) [post_tweet](#)

Examples

```
## Not run:
x <- carbonate::carbon$new()
x$carbonate(code = readLines(system.file('DESCRIPTION',package='carbonate')))
x$carbonate(code = 'x+2')

# using default status value (x$tweet_status)
x$rtweet(system.file('figures/hex_black_small.png',package='carbonate'))

x$rtweet(status = 'these are two pngs',media = x$carbons,media_format='png')
x$rtweet(status = 'this is a gif', media = x$carbons,media_format='gif')

## End(Not run)
```

.set_template *carbon set functions*

Description

function that set the aesthetics of the carbon image output

Usage

```
.set_template(self, private, template)

.set_window_control_theme(self, private, theme)

.set_font_family(self, private, family)
```

Arguments

| | |
|----------|--|
| self | carbon self object |
| private | carbon private object |
| template | character, name of template to set \$template to |
| theme | character, theme to set \$theme to |
| family | character, font family to set \$font_family to |

See Also

[carbon](#)

.start *RSelenium webdriver functions*

Description

Functions to open,stop, stop_all RSelenium sessions

Usage

```
.start(self, private, eCap)

.stop(self, private)

.stop_all(self, private)
```

Arguments

| | |
|---------|--|
| self | carbon self object |
| private | carbon private object |
| eCap | chromeOptions passed into rsDriver |

See Also

[carbon](#)

| | |
|--------------------|--------------------------------------|
| <code>.tiny</code> | <i>convert carbon uri to tinyurl</i> |
|--------------------|--------------------------------------|

Description

convert carbon uri to tinyurl with option to attach to clipboard.

Usage

```
.tiny(self, private, clip = FALSE)
```

Arguments

| | |
|----------------------|---|
| <code>self</code> | carbon self object |
| <code>private</code> | carbon private object |
| <code>clip</code> | boolean, write tinyurl to clipboard, Default: FALSE |

Details

If `clip` is set to TRUE [write_clip](#) will put the tinyurl on the clipboard.

Value

character

| | |
|-------------------|------------------------|
| <code>.uri</code> | <i>URI constructor</i> |
|-------------------|------------------------|

Description

Function that is called in a carbon object to construct valid uri to send to browser

Usage

```
.uri(self, private, code)
```

Arguments

| | |
|----------------------|---|
| <code>self</code> | carbon self object |
| <code>private</code> | carbon private object |
| <code>code</code> | character, script to embed into the uri |

See Also

[carbon](#)

Examples

```

if(interactive()){

x <- carbon$new('x <- 1')

# populate from self$code
x$uri()

# enter manually
x$uri(code = 'x <- y + 3')

}

```

carbon

*Carbon R6 class***Description**

The Carbon generator creates a new Carbon-object, which is the class containing all the app logic. The class is based on the [R6](#) OO-system and is thus reference-based with methods and data attached to each object, in contrast to the more well known S3 and S4 systems.

Initialization

A new 'Carbon'-object is initialized using the `new()` method on the generator:

```
x <- carbon$new(code = clipr::read_clip())
```

Fields

Description of fields of the R6 object that can be set by the user can be found in the following [page](#).

Methods

| | |
|---|--|
| <code>\$carbonate</code> | Using RSelenium fetch the carbon image output |
| <code>\$browse</code> | open <code>\$uri</code> in the browser |
| <code>\$set_template</code> | set <code>\$template</code> |
| <code>\$get_templates</code> | get a list of possible templates |
| <code>\$set_window_control_theme</code> | set <code>\$windows_control_theme</code> |
| <code>\$get_windows_control_themes</code> | get a list of possible window control themes |
| <code>\$set_font_family</code> | set <code>\$font_family</code> |
| <code>\$get_font_families</code> | get a list of possible fonts |
| <code>\$uri</code> | construct valid carbon.js uri |
| <code>\$options</code> | return all current carbon options |
| <code>\$encode</code> | URL encode a string for the <code>\$uri</code> |
| <code>\$tiny</code> | Create tinyurl from <code>\$uri</code> |
| <code>\$rtweet</code> | Send tweets containing media generated from carbon |

| | |
|------------------------------|------------------------------------|
| <code>\$chromeOptions</code> | construct a chromeOptions object |
| <code>\$chrome_start</code> | start a chrome session |
| <code>\$chrome_stop</code> | stop a chrome session |
| <code>\$start</code> | start a RSelenium session |
| <code>\$stop</code> | stop a RSelenium session |
| <code>\$stop_all</code> | stop all active RSelenium sessions |

carbon_fields *Carbon object fields*

Description

Fields that can be changed in the [Carbon](#) object

Arguments

| | |
|--------------------------------------|---|
| <code>code</code> | character, script to embed, Default: NULL |
| <code>palette</code> | numeric, layout pallete, Default: c(r=171,g=184,b=195,a=1) |
| <code>template</code> | character, layout template, Default: 'seti' |
| <code>add_window_control</code> | boolean, add/remove window controls (circles on top left corner), Default: TRUE |
| <code>window_control_theme</code> | character, change window control themes, Default: 'none' |
| <code>language</code> | character, language, Default: 'r' |
| <code>add_drop_shadow</code> | boolean, add/remove dropshadow, Default: TRUE |
| <code>drop_shadow_offset_y</code> | numeric, shadow vertical offset (px), Default: 20 |
| <code>drop_shadow_blur_radius</code> | numeric, shadow blur radius (px), Default: 68 |
| <code>auto_adjust_width</code> | boolean, auto-audjust output width, Default: TRUE |
| <code>padding_vertical</code> | numeric, vertical padding (px), Default: 48 |
| <code>padding_horizontal</code> | numeric, horizontal padding (px), Default: 32 |
| <code>add_line_number</code> | boolean, add/remove line numbers, Default: FALSE |
| <code>font_family</code> | character, layout font family, Default: 'Hack' |
| <code>font_size</code> | numeric, font size (px), Default: 14 |
| <code>line_height_percent</code> | numeric, relative space between lines (percent), Default: 133 |
| <code>square_image</code> | boolean, output image is square, Default: FALSE |

| | |
|----------------------|---|
| relative_export_size | numeric, image size in export relative to what is in the preview (1,2 or 4), Default: 1 |
| add_watermark | boolean, add official carbon.js watermark, Default: FALSE |
| add_tinyurl | boolean, add tinyurl link to image directing to the carbon page that created the image, Default: FALSE |
| tinyurl_location | character, string with gravity value to place the annotate tinyurl address on image, Default: 'southeast' |
| tweet | boolean, tweet out the image using post_tweet |
| tweet_status | character, status to add to the tweet. If add_tinyurl is TRUE then a link to the url will be appended to the status automatically, Default: 'Created in R using the Carbonate (Package Icon)' |
| add_timestamp | boolean, add timestamp to output filename, Default: FALSE |
| carbons | list, storage of rendered carbon images, Default: NULL |
| download_path | character, path to download the images, Default: tempdir() |
| chrome_args | character, arguments passed to chrome browser, Default: c('-disable-gpu', '-window-size=1280,800') |
| chrome_pref | list, preferences passed to chrome browser, Default: list("profile.default_content_settings.popups" = 0L, "download.prompt_for_download" = FALSE, "download.default_directory" = tempdir()) |
| rD | RSelenium Driver object |
| cDrv | Chrome Driver object from wdman |

See Also[carbon](#)

| | |
|---------|-------------------------------|
| tinyurl | <i>convert uri to tinyurl</i> |
|---------|-------------------------------|

Description

convert uri to tinyurl.

Usage

```
tinyurl(uri)
```

Arguments

uri character, the uri to convert

Value

character

Index

*Topic **datasets**

- carbon, 9
- .browse, 2
- .carbonate, 3
- .chromeOptions, 4
- .chrome_start(.chromeOptions), 4
- .chrome_stop(.chromeOptions), 4
- .encode, 4
- .get_font_families
 - (.get_windows_control_themes), 5
- .get_templates
 - (.get_windows_control_themes), 5
- .get_windows_control_themes, 5
- .options, 5
- .rtweet, 6
- .set_font_family(.set_template), 7
- .set_template, 7
- .set_window_control_theme
 - (.set_template), 7
- .start, 7
- .stop(.start), 7
- .stop_all(.start), 7
- .tiny, 8
- .uri, 8
- \$browse, 9
- \$carbonate, 9
- \$carbons, 3
- \$chromeOptions, 10
- \$chrome_start, 10
- \$chrome_stop, 10
- \$encode, 9
- \$font_family, 7
- \$get_font_families, 9
- \$get_templates, 9
- \$get_windows_control_themes, 9
- \$options, 9
- \$rtweet, 9
- \$set_font_family, 9
- \$set_template, 9
- \$set_window_control_theme, 9
- \$start, 10
- \$stop, 10
- \$stop_all, 10
- \$template, 7
- \$theme, 7
- \$tiny, 9
- \$uri, 2, 9
- Carbon, 10
 - carbon, 2–5, 7, 8, 9, 11
 - carbon-browse(.browse), 2
 - carbon-carbonate(.carbonate), 3
 - carbon-chrome(.chromeOptions), 4
 - carbon-encode(.encode), 4
 - carbon-fields(carbon_fields), 10
 - carbon-get-fields
 - (.get_windows_control_themes), 5
 - carbon-options(.options), 5
 - carbon-rtweet(.rtweet), 6
 - carbon-selenium(.start), 7
 - carbon-set-fields(.set_template), 7
 - carbon-tinyurl(.tiny), 8
 - carbon-uri(.uri), 8
 - carbon_fields, 10
 - carbonate(.carbonate), 3
 - chrome, 4
- gravity, 11
- image_write, 6
- page, 9
- post_tweet, 6, 11
- R6, 9
- rsDriver, 3, 7
- tinyurl, 11
- URLencode, 4
- write_clip, 8