

Package ‘leafpop’

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Type Package

Title Include Tables, Images and Graphs in Leaflet Pop-Ups

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Description Creates 'HTML' strings to embed tables, images or graphs in pop-ups of interactive maps created with packages like 'leaflet' or 'mapview'. Handles local images located on the file system or via remote URL. Handles graphs created with 'lattice' or 'ggplot2' as well as interactive plots created with 'htmlwidgets'.

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Imports base64enc, brew, gdalUtils, htmlwidgets, Rcpp (>= 1.0.0),
svglite, uuid

Suggests lattice, leaflet (>= 2.0.0), sf, sp

LinkingTo Rcpp

RoxygenNote 6.1.0

NeedsCompilation yes

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leafpop-package *Include Tables, Images and Graphs in Leaflet Popups*

Description

Include Tables, Images and Graphs in Leaflet Popups

Details

Creates HTML strings to embed tables, images or graphs in popups of interactive maps created with packages 'leaflet' or 'mapview'. Handles local paths to images on the file system or remote urls. Handles graphs created with 'base' graphics, 'lattice' or 'ggplot2' as well as interactive plots created with 'htmlwidgets'.

Author(s)

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popupTable *Create HTML strings for popups*

Description

Create HTML strings for popup tables used as input for mapview or leaflet. This optionally allows the user to include only a subset of feature attributes.

Create HTML strings for popup images used as input for mapview or leaflet.

Create HTML strings for popup graphs used as input for mapview or leaflet.

Usage

```
popupTable(x, zcol, row.numbers = TRUE, feature.id = TRUE)
```

```
popupImage(img, src = c("local", "remote"), embed = FALSE, ...)
```

```
popupGraph(graphs, type = c("png", "svg", "html"), width = 300,
  height = 300, ...)
```

Arguments

x	A Spatial* object.
zcol	numeric or character vector indicating the columns included in the output popup table. If missing, all columns are displayed.
row.numbers	logical whether to include row numbers in the popup table.
feature.id	logical whether to add 'Feature ID' entry to popup table.

img	A character vector of file path(s) or web-URL(s) to any sort of image file(s).
src	Whether the source is "local" (i.e. valid file path(s)) or "remote" (i.e. valid URL(s)).
embed	whether to embed the (local) images in the popup html as base64 encoded. Set this to TRUE if you want to save and share your map, unless you want render many images, then set to FALSE and make sure to copy ../graphs when copying the map to a different location.
...	further arguments passed on to underlying methods such as height and width.
graphs	A list of figures associated with x.
type	Output filetype, one of "png" (default), "svg" or "html".
width	popup width in pixels.
height	popup height in pixels.

Details

Type `svg` uses native `svg` encoding via [readLines](#). `height` and `width` are set via `...` and passed on to [svg](#)

Type `png` embeds via "`<img src = ...`". `height` and `width` are set via `...` and passed on to [png](#)

Type `html` embeds via "`<iframe src = ...`". `height` and `width` are set directly in pixels.

Value

A list of HTML strings required to create feature popup tables.

A list of HTML strings required to create popup graphs.

A list of HTML strings required to create popup graphs.

Examples

```
library(leaflet)

leaflet() %>% addTiles() %>% addCircleMarkers(data = breweries91)
leaflet() %>%
  addTiles() %>%
  addCircleMarkers(data = breweries91,
                  popup = popupTable(breweries91))
leaflet() %>%
  addTiles() %>%
  addCircleMarkers(data = breweries91,
                  popup = popupTable(breweries91,
                                     zcol = c("brewery", "zipcode", "village"),
                                     feature.id = FALSE,
                                     row.numbers = FALSE))

if (interactive()) {
  ## remote images -----
  ### one image
  library(sf)
```

```

pnt = st_as_sf(data.frame(x = 174.764474, y = -36.877245),
                coords = c("x", "y"),
                crs = 4326)

img = "http://bit.ly/1TVwRiR"

leaflet() %>%
  addTiles() %>%
  addCircleMarkers(data = pnt, popup = popupImage(img, src = "remote"))

### multiple file (types)
library(sp)
images = c(img,
            "https://upload.wikimedia.org/wikipedia/commons/9/91/Octicons-mark-github.svg",
            "https://www.r-project.org/logo/Rlogo.png",
            "https://upload.wikimedia.org/wikipedia/commons/d/d6/MeanMonthlyP.gif")

pt4 = data.frame(x = jitter(rep(174.764474, 4), factor = 0.01),
                 y = jitter(rep(-36.877245, 4), factor = 0.01))
coordinates(pt4) = ~ x + y
proj4string(pt4) = "+init=epsg:4326"

leaflet() %>%
  addTiles() %>%
  addMarkers(data = pt4, popup = popupImage(images)) # NOTE the gif animation

## local images -----
pnt = st_as_sf(data.frame(x = 174.764474, y = -36.877245),
                coords = c("x", "y"), crs = 4326)
img = system.file("img", "Rlogo.png", package="png")
leaflet() %>%
  addTiles() %>%
  addCircleMarkers(data = pnt, popup = popupImage(img))
}

if (interactive()) {
### example: svg -----

library(sp)
library(lattice)

data(meuse)
coordinates(meuse) = ~ x + y
proj4string(meuse) = CRS("+init=epsg:28992")
meuse = spTransform(meuse, CRS("+init=epsg:4326"))

## create plots with points colored according to feature id
library(lattice)
p = xyplot(copper ~ cadmium, data = meuse@data, col = "grey")
p = mget(rep("p", length(meuse)))

clr = rep("grey", length(meuse))

```

```
p = lapply(1:length(p), function(i) {
  clr[i] = "red"
  update(p[[i]], col = clr)
})

leaflet() %>%
  addTiles() %>%
  addCircleMarkers(data = meuse, popup = popupGraph(p, type = "svg"))

### example: png -----
pt = data.frame(x = 174.764474, y = -36.877245)

coordinates(pt) = ~ x + y
proj4string(pt) = "+init=epsg:4326"

p2 = levelplot(t(volcano), col.regions = terrain.colors(100))

leaflet() %>%
  addTiles() %>%
  addCircleMarkers(data = pt, popup = popupGraph(p2, width = 300, height = 400))

### example: html -----
leaflet() %>%
  addTiles() %>%
  addCircleMarkers(
    data = breweries91[, ],
    popup = popupGraph(
      leaflet() %>%
        addProviderTiles("Esri.WorldImagery") %>%
        addMarkers(data = breweries91[, ],
                  popup = popupTable(breweries91[, ])),
      type = "html"
    )
  )
}
```

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