Package ‘spatialwidget’

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**Type** Package

**Title** Formats Spatial Data for Use in Htmlwidgets

**Version** 0.2.2

**Date** 2020-03-20

**Description** Many packages use 'htmlwidgets' <https://CRAN.R-project.org/package=htmlwidgets> for interactive plotting of spatial data. This package provides functions for converting R objects, such as simple features, into structures suitable for use in 'htmlwidgets' mapping libraries.

**URL** https://symbolixau.github.io/spatialwidget/articles/spatialwidget.html

**License** GPL-3

**Depends** R (>= 3.3.0)

**SystemRequirements** C++11

**Encoding** UTF-8

**LazyData** true

**Imports** Rcpp

**LinkingTo** BH, colourvalues (>= 0.3.4), geojsonsf (>= 1.3.3), jsonify (>= 1.1.1), rapidjsonr, Rcpp, sfheaders (>= 0.2.1)

**RoxygenNote** 7.0.2

**Suggests** colourvalues, covr, geojsonsf, jsonify, sfheaders, knitr, rmarkdown, testthat

**VignetteBuilder** knitr

**NeedsCompilation** yes

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**Repository** CRAN

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R topics documented:

- widget_arcs ........................................ 2
- widget_capitals .................................. 3
- widget_line ........................................ 3
- widget_melbourne ................................ 4
- widget_od .......................................... 5
- widget_point ....................................... 6
- widget_polygon .................................... 7
- widget_roads ....................................... 8

Index

| widget_arcs | Origin Destination points between Sydney, Australia and other capitals cities |

Description

A simple feature sf object with two sfc columns, "origin" and "destination"

Usage

widget_arcs

Format

A sf object with 199 observations and 6 variables

- country_from origin country
- capital_from origin capital
- country_to destination country
- capital_to destination capital
- origin sfc geometry column
- destination sfc geometry column
**Description**

A simple feature `sf` object containing the coordinates of 200 capital cities in the world.

**Usage**

```r
widget_capitals
```

**Format**

A `sf` object with 200 observations and 4 variables:

- **country**: country name
- **capital**: capital name
- **geometry**: sfc geometry column

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**widget_line**

**Widget Line**

**Description**

Converts an `sf` object with LINESTRING geometries into JSON for plotting in an htmlwidget.

**Usage**

```r
widget_line(
  data,
  stroke_colour = NULL,
  stroke_opacity = NULL,
  stroke_width = NULL,
  legend = TRUE,
  json_legend = TRUE,
  digits = 6
)
```
Arguments

- `data`: sf object
- `stroke_colour`: string specifying column of sf to use for the stroke colour, or a single value to apply to all rows of data
- `stroke_opacity`: string specifying column of sf to use for the stroke opacity, or a single value to apply to all rows of data
- `stroke_width`: string specifying column of sf to use for the stroke width, or a single value to apply to all rows of data
- `legend`: logical indicating if legend data will be returned
- `json_legend`: logical indicating if the legend will be returned as json
- `digits`: number of decimal places for rounding lon o& lat coordinates. Default 6

Examples

```r
## use default stroke options
l <- widget_line( widget_roads, legend = TRUE )
```

Description

A simple feature sf object of Polygons for Melbourne and the surrounding area

Usage

`widget_melbourne`

Format

A data frame with 397 observations and 7 variables

- `SA2_NAME`: statistical area 2 name of the polygon
- `SA3_NAME`: statistical area 3 name of the polygon
- `AREASQKM`: area of the SA2 polygon
- `geometry`: sfc geometry column

Details


The data is released under a Creative Commons Attribution 2.5 Australia licence [https://creativecommons.org/licenses/by/2.5/au/](https://creativecommons.org/licenses/by/2.5/au/)

The data has been down-cast from MULTIPOLYGONS to POLYGONS.
**widget_od**

**Widget OD**

**Description**

Converts an ‘sf’ object with two POINT geometries into JSON for plotting in an htmlwidget

**Usage**

```r
widget_od(
  data,
  origin,
  destination,
  fill_colour = NULL,
  fill_opacity = NULL,
  legend = TRUE,
  json_legend = TRUE,
  digits = 6
)
```

**Arguments**

- `data`: sf object
- `origin`: string specifying the column of data containing the origin geometry
- `destination`: string specifying the column of data containing the destination geometry
- `fill_colour`: string specifying column of sf to use for the fill colour, or a single value to apply to all rows of data
- `fill_opacity`: string specifying column of sf to use for the fill opacity, or a single value to apply to all rows of data
- `legend`: logical indicating if legend data will be returned
- `json_legend`: logical indicating if the legend will be returned as json
- `digits`: number of decimal places for rounding lon o& lat coordinates. Default 6

**Examples**

```r
l <- widget_od( data = widget_arcs, origin = "origin", destination = "destination", legend = FALSE )
```
Description

Converts an ‘sf’ object with POINT geometries into JSON for plotting in an htmlwidget

Usage

```r
widget_point(
  data,
  fill_colour = NULL,
  fill_opacity = NULL,
  lon = NULL,
  lat = NULL,
  legend = TRUE,
  json_legend = TRUE,
  digits = 6
)
```

Arguments

data `sf` object

fill_colour string specifying column of `sf` to use for the fill colour, or a single value to apply to all rows of data

fill_opacity string specifying column of `sf` to use for the fill opacity, or a single value to apply to all rows of data

lon string specifying the column of data containing the longitude. Ignored if using an `sf` object

lat string specifying the column of data containing the latitude. Ignored if using an `sf` object

legend logical indicating if legend data will be returned

json_legend logical indicating if the legend will be returned as json

digits number of decimal places for rounding lon & lat coordinates. Default 6

Examples

```r
l <- widget_point( data = widget_capitals, legend = FALSE )
```
Description

Converts an ‘sf’ object with POLYGON geometries into JSON for plotting in an htmlwidget.

Usage

```r
widget_polygon(
  data,
  stroke_colour = NULL,
  stroke_opacity = NULL,
  stroke_width = NULL,
  fill_colour = NULL,
  fill_opacity = NULL,
  legend = TRUE,
  json_legend = TRUE,
  digits = 6
)
```

Arguments

data: sf object
stroke_colour: string specifying column of sf to use for the stroke colour, or a single value to apply to all rows of data
stroke_opacity: string specifying column of sf to use for the stroke opacity, or a single value to apply to all rows of data
stroke_width: string specifying column of sf to use for the stroke width, or a single value to apply to all rows of data
fill_colour: string specifying column of sf to use for the fill colour, or a single value to apply to all rows of data
fill_opacity: string specifying column of sf to use for the fill opacity, or a single value to apply to all rows of data
legend: logical indicating if legend data will be returned
json_legend: logical indicating if the legend will be returned as json
digits: number of decimal places for rounding lon o& lat coordinates. Default 6

Examples

```r
l <- widget_polygon( widget_melbourne, legend = FALSE )
l <- widget_polygon( widget_melbourne, fill_colour = "AREASQKM16", legend = TRUE )
```
**widget_roads**

**Roads in central Melbourne**

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**Description**

A simple feature sf object of roads in central Melbourne

**Usage**

`widget_roads`

**Format**

An sf and data frame object with 18286 observations and 16 variables

**Details**

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Index

*Topic datasets
    widget_arcs, 2
    widget_capitals, 3
    widget_melbourne, 4
    widget_roads, 8

widget_arcs, 2
widget_capitals, 3
widget_line, 3
widget_melbourne, 4
widget_od, 5
widget_point, 6
widget_polygon, 7
widget_roads, 8