Package ‘spatialwidget’

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Type Package

Title Formats Spatial Data for Use in Htmlwidgets

Version 0.2.3

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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.


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), geometries, jsonify (>= 1.1.1), rapidjsonr, Rcpp, sfheaders (>= 0.2.1)

RoxygenNote 7.1.0

Suggests colourvalues, covr, geojsonsf, jsonify, sfheaders, knitr, markdown, testthat

VignetteBuilder knitr

NeedsCompilation yes

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Repository CRAN

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#### Description

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

#### Usage

```r
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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**Description**

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

**Usage**

```r
widget_line(
  data,  # Required
  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

This data set is a subset of the Statistical Area Level 2 (SA2) ASGS Edition 2016 data released by the Australian Bureau of Statistics [https://www.abs.gov.au/](https://www.abs.gov.au/)

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.
**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 o& lat coordinates. Default 6.

### Examples

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

**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 & 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

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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