

Package ‘sfhelper’

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Title Repair Functions for 'sf' Package Objects

Version 0.2.2.0

Description A group of functions that support the 'sf' package, focused primarily on repairing polygons that break when re-projected.

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Encoding UTF-8

RoxygenNote 7.3.2

Imports RCurl, rjson, mapview, sf, stringr, dplyr, ggplot2

Suggests testthat (>= 3.0.0)

Config/testthat/edition 3

NeedsCompilation no

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geolocate *Geolocate historical toponyms*

Description

This function uses the API for the World Historical Gazetteer to geolocate place names. It takes the place name and region as inputs and returns a data frame with results, primarily the longitude and latitude.

Usage

```
geolocate(df, place = "place", iso = "iso")
```

Arguments

df	A data frame with two columns, places names and two-letter ISO codes for regions
place	A column with toponyms in the data frame
iso	A column of ISO codes for regions

Value

A data frame of the geospatial data

Examples

```
# Search for Paris and Edo (now Tokyo)
example.df <- data.frame("place" = c("Paris", "Edo"), "iso" = c("FR", "JP"))
geolocate(example.df)
```

st_equal_grid *Create and equal area grid for multiple maps*

Description

Create and equal area grid for multiple maps

Usage

```
st_equal_grid(places, titles, buffer, map_theme)
```

Arguments

places	a list of sf object
titles	a character vector of title for the maps
buffer	a numeric vector of buffer values
map_theme	a ggplot theme

Value

A list of sf objects

st_match_geometry	<i>Match and set geometry for a data frame</i>
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Description

This function sets the geometry in a target data frame based on matching values in a source data frame

Usage

```
st_match_geometry(source, target, match_field)
```

Arguments

source	An sf data frame with a geometry column
target	A data frame
match_field	A column name (in quotes) for matching, shared by both data frames

Value

A sf data frame

Examples

```
a <- sf::st_polygon(list(rbind(c(-90,40),c(-90,50),c(-95,50),c(-95,40),c(-90,40))))
b <- sf::st_polygon(list(rbind(c(-80,30),c(-80,20),c(-70,20),c(-70,30),c(-80,30))))
ab <- sf::st_sfc(a,b)
sf::st_crs(ab) <- 4326
source.sf <- data.frame("match_field"=c("A","B"))
sf::st_geometry(source.sf) <- ab
target.df <- data.frame("match_field"=c("A","A","B","C"))
```

st_transform_outline *Create outline of sf projection*

Description

Create outline of sf projection

Usage

```
st_transform_outline(crs)
```

Arguments

crs The crs for transforming the sf

Value

An sf object

st_transform_repair *Repair sf polygons*

Description

Repair sf polygons

Usage

```
st_transform_repair(x, crs)
```

Arguments

x An sf object with unprojected coordinates
crs The crs for transforming the sf

Value

An sf object

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