

Package ‘jpmesh’

November 12, 2016

Type Package

Title Utilities for Japanese Mesh Code

Version 0.3.0

Date 2016-11-12

Maintainer Shinya Uryu <suika1127@gmail.com>

Description Helpful functions for using mesh code (80km to 250m) data in Japan. Visualize mesh code using 'ggplot2' and 'leaflet', etc.

Depends R (>= 2.10)

URL <https://github.com/uribo/jpmesh>

BugReports <https://github.com/uribo/jpmesh/issues>

Imports broom, dplyr, foreach, geojsonio, leaflet, magrittr, miniUI, purrr, readr, rgdal, shiny, sp, tibble, tidyr

Suggests testthat

License MIT + file LICENSE

RoxygenNote 5.0.1

NeedsCompilation no

Author Shinya Uryu [aut, cre]

Repository CRAN

Date/Publication 2016-11-12 19:55:03

R topics documented:

bundle_mesh_vars	2
detect_mesh	2
export_mesh	3
fine_separate	3
jpnrect	4
latlong_to_meshcode	5
latlong_to_separate_mesh	5
meshcode_to_latlon	6

mesh_area	7
mesh_rectangle	7
mesh_viewer	8
pref_mesh	8
raw_pref_mesh	9

Index 10

bundle_mesh_vars	<i>generate null variables for jpmesh</i>
------------------	---

Description

generate null variables for jpmesh

Usage

bundle_mesh_vars(df)

Arguments

df	data frame
----	------------

detect_mesh	<i>Detect file scale mesh code</i>
-------------	------------------------------------

Description

Find out position.

Usage

detect_mesh(meshcode, lat, long)

Arguments

meshcode	mesh code
lat	latitude
long	longitude

Examples

```
detect_mesh(52350422, lat = 34.684176, long = 135.526130)
detect_mesh(523504221, lat = 34.684028, long = 135.529506)
```

export_mesh	<i>Export rectangle mesh to geojson</i>
-------------	---

Description

Convert and export meshcode area to geojson string.

Usage

```
export_mesh(code)
```

Arguments

code	meshcode
------	----------

Value

geojson character strings

Examples

```
# export geojson string
export_mesh(
  code = latlong_to_meshcode(lat = 35.82083, long = 137.0563, order = 3))

library(leaflet)
leaflet() %>%
  addTiles() %>%
  setView(lng = 135.0, lat = 38.0, zoom = 3) %>%
  addGeoJSON(
    export_mesh(
      code = c(
        latlong_to_meshcode(lat = 35.82083, long = 137.0563, order = 3),
        latlong_to_meshcode(lat = 38.40052, long = 141.0131, order = 3)))
```

fine_separate	<i>Separate more fine mesh order</i>
---------------	--------------------------------------

Description

Return contains fine mesh codes

Usage

```
fine_separate(meshcode = NULL, order = c("half", "quarter"), ...)
```

Arguments

meshcode	mesh code
order	Choose mesh order
...	other parameters for paste

Value

character vector

Examples

```
fine_separate(52350400, "harf")
fine_separate(52350400, "quarter")
fine_separate(52350400, "quarter", collapse = ",")
```

jpnrect

Simple displaed as rectangel for Japan (fortified)

Description

Rectangle Japanese prefectures positions.

Usage

```
jpnrect
```

Format

A data frame with 235 rows 11 variables:

- long
- lat
- order
- hole
- piece
- id
- group
- mesh_code
- latitude
- longitude
- abb_name

latlong_to_meshcode *Convert from coordinate to mesh code*

Description

From coordinate to mesh codes.

Usage

```
latlong_to_meshcode(lat = NULL, long = NULL, order = 3)
```

Arguments

lat	numeric. latitude
long	numeric. longitude
order	integer. mesh type

Details

http://takenaka-akio.org/etc/j_map/index.html

Value

mesh code (default 3rd meshcode)

Author(s)

Akio Takenaka

Examples

```
latlong_to_meshcode(43.06462, 141.3468, order = 3)
latlong_to_meshcode(35.68949, 139.6917, order = 2)
```

latlong_to_separate_mesh
Convert from coordinate to separate mesh code

Description

From coordinate to mesh codes.

Usage

```
latlong_to_separate_mesh(lat = NULL, long = NULL, order = c("half",
"quarter"))
```

Arguments

lat	numeric. latitude
long	numeric. longitude
order	choose character harf or quarter

Value

separate meshcode

Examples

```
latlong_to_sepate_mesh(35.442788, 139.301255, order = "harf")  
latlong_to_sepate_mesh(35.442893, 139.310654, order = "quarter")  
latlong_to_sepate_mesh(35.448767, 139.301706, order = "quarter")  
latlong_to_sepate_mesh(35.449011, 139.311340, order = "quarter")
```

meshcode_to_latlon *Get from mesh code to latitude and longitude*

Description

mesh centroid

Usage

```
meshcode_to_latlon(code)
```

Arguments

code	numeric. mesh code
------	--------------------

Details

http://takenaka-akio.org/etc/j_map/index.html

Author(s)

Akio Takenaka

Examples

```
meshcode_to_latlon(64414277)
```

mesh_area	<i>Rectangle mesh grid area</i>
-----------	---------------------------------

Description

Single mesh covered area.

Usage

```
mesh_area(code, order = c("half", "quarter", "eight"))
```

Arguments

code	mesh code
order	mesh order

Examples

```
mesh_area(523504221, order = "half")
```

mesh_rectangle	<i>mesh rectangle check</i>
----------------	-----------------------------

Description

Multiple mesh covered area.

Usage

```
mesh_rectangle(df, code = "mesh_code", view = TRUE)
```

Arguments

df	data.frame
code	mesh code
view	option.

Examples

```
## Not run:  
library(dplyr)  
mesh_rectangle(pref_mesh(33), code = "id", view = FALSE)  
  
## End(Not run)
```

`mesh_viewer`*interactive meshcode check*

Description

Shiny gadgets for jpmesh.

Usage

```
mesh_viewer(...)
```

Arguments

```
...          other parameters
```

Examples

```
## Not run:  
mesh_viewer()  
  
## End(Not run)
```

`pref_mesh`*Collect prefecture 1km mesh data*

Description

Japanese prefectures administrations

Usage

```
pref_mesh(code = NULL)
```

Arguments

```
code          prefecture code (jiscode)
```

Examples

```
head(pref_mesh(33))
```

raw_pref_mesh	<i>Detect mesh code include prefectures</i>
---------------	---

Description

inherent function

Usage

raw_pref_mesh(path)

Arguments

path path to local file.

Index

*Topic **datasets**

jpnrect, [4](#)

bundle_mesh_vars, [2](#)

detect_mesh, [2](#)

export_mesh, [3](#)

fine_separate, [3](#)

jpnrect, [4](#)

latlong_to_meshcode, [5](#)

latlong_to_sepate_mesh, [5](#)

mesh_area, [7](#)

mesh_rectangle, [7](#)

mesh_viewer, [8](#)

meshcode_to_latlon, [6](#)

pref_mesh, [8](#)

raw_pref_mesh, [9](#)