Package 'geouy'

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Type Package

Title Geographic Information of Uruguay

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Description The toolbox have functions to load and process geographic information for Uruguay. And extra-function to get address coordinates and orthophotos through the uruguayan 'IDE' API <https://www.gub.uy/infraestructura-datos-espaciales/tramites-y-servicios/servicios/servicio-direcciones-geograficas>.

BugReports https://github.com/RichDeto/geouy/issues

License GPL-3

Depends R (>= 3.4.0)

Language en, es

Encoding UTF-8

LazyData TRUE

RoxygenNote 7.1.0

SystemRequirements GDAL (>= 3.0.2), GEOS (>= 3.8.0), PROJ (>= 6.2.1)

Imports rlang, RCurl, dplyr, glue, stringr, sf (>= 0.9), ggplot2, ggthemes, ggspatial, methods, magrittr, fs, assertthat, testthat (>= 2.1.0), viridis

Suggests knitr, rmarkdown, covr

VignetteBuilder knitr

NeedsCompilation no

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R topics documented:

geocode_ide_uy 2
geouy 3
is.uy32721 3
is.uy4326 4
is.uy5381 4
is.uy5382 5
load_geouy 5
loc_agr_ine 6
metadata 7
plot_geouy 7
which_uy 8

Index **10**

`geocode_ide_uy` *A function to geocoding directions using IDE_uy*

Description

A function to geocoding directions using IDE_uy

Usage

```
geocode_ide_uy(x, details = F)
```

Arguments

`x`	Dataframe with unless 3 variables: dpto = corresponding to the department, loc = city / location, dir = to the address.
`details`	Logical value, default FALSE for X and Y variables only, if TRUE keep all variables of the service.

Value

The DafaFrame x with the coordinates variables append (x and y)

Examples

```
# x1 <- cbind(dpto="Montevideo",loc="Montevideo",dir="Av. 18 de julio 1453")
# x2 <- data.frame(x1, stringsAsFactors = F)
# geocode_ide_uy(x2)
```

`geouy` `geouy` *package*

Description

The toolbox have functions to load and process geographic information for Uruguay.

Details

See the README on Github

`is.uy32721` *This function test if an 'sf' object match with Uruguay at crs = 32721.*

Description

This function test if an 'sf' object match with Uruguay at crs = 32721.

Usage

```
is.uy32721(x)
```

Arguments

`x`	An 'sf' object with the same crs as the homonym parameter

Value

logical value based in crs parameter of the sf object

Examples

```
is.uy32721(load_geouy("Peajes"))
```

is.uy4326 *This function test if an 'sf' object match with Uruguay at crs = 4326.*

Description

This function test if an 'sf' object match with Uruguay at crs = 4326.

Usage

```
is.uy4326(x)
```

Arguments

x	An 'sf' object with the same crs as the homonym parameter

Value

logical value based in crs parameter of the sf object

Examples

```
is.uy4326(load_geouy("Peajes"))
```

is.uy5381 *This function test if an 'sf' object match with Uruguay at crs = 5381.*

Description

This function test if an 'sf' object match with Uruguay at crs = 5381.

Usage

```
is.uy5381(x)
```

Arguments

x	An 'sf' object with the same crs as the homonym parameter

Value

logical value based in crs parameter of the sf object

Examples

```
is.uy5381(load_geouy("Peajes"))
```

`is.uy5382` *This function test if an 'sf' object match with Uruguay at crs = 5382.*

Description

This function test if an 'sf' object match with Uruguay at crs = 5382.

Usage

```
is.uy5382(x)
```

Arguments

`x`	An 'sf' object with the same crs as the homonym parameter

Value

logical value based in crs parameter of the sf object

Examples

```
is.uy5382(load_geouy("Peajes"))
```

`load_geouy` *This function allows to take oficial uruguayan geometries, as object "sf", from various servers.*

Description

This function allows to take oficial uruguayan geometries, as object "sf", from various servers.

Usage

```
load_geouy(c, crs = 32721, folder = tempdir())
```

Arguments

`c`	Define the geometries to download: may be: "Departamentos", "Secciones", "Zonas", etc. View(metadata) for details.
`crs`	Define the Coordinate Reference Systems you want the output, default 32721
`folder`	Folder where are the files download if formato == "zip" in metadata. Default tempdir()

Value

sf object with the requested geometries

Examples

```
secc <- load_geouy(c = "Secciones")
```

`loc_agr_ine` *INE "Localidades Agregadas"*

Description

A dataset containing the cods, names and others attributes of urban locations for Uruguay.

Usage

```
loc_agr_ine
```

Format

A data frame with 615 rows and 8 variables:

depto name of the "Departamento"

nomloc name of the "Localidad"

codloc code of the "Localidad"

pob2011 Population by "Censo 2011"

dens2011km Population density by "Censo 2011" (population/km)

Nom_loc_agr_13 name of the "Localidades agrupadas" (2013)

Loc_agr_13 code of the "Localidades agrupadas" (2013)

cat_loc_agr Tipical categories of "Localidades"

metadata *Metadata of geoservices for Uruguay*

Description

A dataset containing the urls and other attributes of geoservices for Uruguay.

Usage

```
metadata
```

Format

A data frame with 18 rows and 9 variables:

capa name of the geoservice

productor name of the institution produced the data

repositor name of the institution that serves the data

crs Coordinate Reference Systems of data

formato name of the institution producing the data

anio year of data production

url url of the service

cod name of the variable that contains the cod value of the geometries

name name of the variable that contains the name of the geometries

plot_geouy *plot_geouy*

Description

This function allows you to set ggplot2 theme in our suggested format.

Usage

```
plot_geouy(x, col, viri_opt = "plasma", l = NULL, other_lab = NULL, ...)
```

Arguments

x	An sf object like load_geouy() results
col	Variable of "x" to plot (character)
viri_opt	A character string indicating the colormap option to use. Four options are available: "magma" (or "A"), "inferno" (or "B"), "plasma" (or "C"), "viridis" (or "D", the default option) and "cividis" (or "E")
l	If NULL none label added, if "%" porcentage with 1 decimal labels, if "n" the value is the label, if "c" put other variable in other_lab. Default NULL
other_lab	If l is "c" put here the variable name for the labels.
...	All parameters allowed from ggplot2 themes.

Value

ggplot object of a choropleth map with x geometries and col values.

Examples

```
secc <- load_geouy("Secciones")
plot_geouy(x = secc, col = "AREA")
```

---

which_uy *This function allows to add to an 'sf' object its spatial coincidence with one or more administrative units in Uruguay, generating the corresponding variables.*

Description

This function allows to add to an 'sf' object its spatial coincidence with one or more administrative units in Uruguay, generating the corresponding variables.

Usage

```
which_uy(x, c = c("Localidades pg", "Departamentos"), d = c("cod", "name"))
```

Arguments

x	An 'sf' object with the same crs as the homonym parameter
c	Define the geometries to download: may be: "Departamentos", "Secciones", "Zonas", etc. View(metadata) for details.
d	A vector who determines the variables to be added, with three options: "cod", "name", or "full". Default c("cod", "name").

Value

sf object with the x geometries, with d variables requested from c added

Examples

```
x <- load_geouy("Peajes")
x1 <- which_uy(x, c = "Localidades pg")
```

Index

∗ **CRS**
  is.uy32721, 3
  is.uy4326, 4
  is.uy5381, 4
  is.uy5382, 5
∗ **IDE_uy**
  geocode_ide_uy, 2
∗ **IDE**
  load_geouy, 5
  which_uy, 8
∗ **INE**
  load_geouy, 5
  which_uy, 8
∗ **MIDES**
  load_geouy, 5
  which_uy, 8
∗ **Uruguay**
  is.uy32721, 3
  is.uy4326, 4
  is.uy5381, 4
  is.uy5382, 5
∗ **datasets**
  loc_agr_ine, 6
  metadata, 7
∗ **geocoding**
  geocode_ide_uy, 2
∗ **ggplot2**
  plot_geouy, 7
∗ **maps**
  plot_geouy, 7
∗ **sf**
  is.uy32721, 3
  is.uy4326, 4
  is.uy5381, 4
  is.uy5382, 5
  plot_geouy, 7

geocode_ide_uy, 2
geouy, 3
is.uy32721, 3
is.uy4326, 4
is.uy5381, 4
is.uy5382, 5

load_geouy, 5
loc_agr_ine, 6

metadata, 7

plot_geouy, 7

which_uy, 8