

Package ‘geosmdata2’

October 21, 2015

Type Package

Title Get data from Open Street Map

Version 0.1

Date 2015-04-24

Author Jan-Philipp Kolb

Maintainer <Jan-Philipp_Kolb@gmx.net>

Description This package is a wrapper for some functions to access information on OpenStreetMap.

License The GNU General Public License version 2

LazyData TRUE

Imports osmar,RCurl,sp,XML

Depends rjson,RCurl,stringr,XML

NeedsCompilation no

R topics documented:

CircSearch	2
CountNodes	2
extract_info_op	3
extract_position_op	3
geocode_osm	4
get_osm_area	5
get_osm_nodes	5
get_osm_relation	6
get_osm_ways	6
get_xapi_info	7
osm_df	7
plotbui	8
repluml	8
Index	9

CircSearch	<i>function CircSearch</i>
------------	----------------------------

Description

Performs circum search

Usage

```
CircSearch(what,lat,lon,radius)
```

Arguments

what	lat	lon	radius
			Map feature
lat			Latitude
lon			Longitude
radius			Radius

Author(s)

Jan-Philipp Kolb <Jan-Philipp_Kolb@gmx.net>

References

http://wiki.openstreetmap.org/wiki/Overpass_API#Around

Examples

```
gc <- geocode_osm(place="Venice beach",output="all")
cafes_venice <- CircSearch(what="cafe",lat=gc$lat,lon=gc$lon,radius=10000)
```

CountNodes	<i>function to count nodes in an osm xml object</i>
------------	---

Description

function to count nodes

Usage

```
CountNodes(object2)
```

Arguments

object2	a xml object
---------	--------------

Author(s)

Jan-Philipp Kolb <Jan-Philipp_Kolb@gmx.net>

Examples

```
ambulance_station <- get_osm_nodes(object2="ambulance_station",place="Berlin")
CountNodes(ambulance_station)
```

extract_info_op	<i>function extract_info_op</i>
-----------------	---------------------------------

Description

Extract information from OpenStreetMap object

Usage

```
extract_info_op(OSM.Data,value)
```

Arguments

OSM.Data	an osm object.
value	a map feature.

Value

.

Author(s)

Jan-Philipp Kolb <Jan-Philipp_Kolb@gmx.net>

Examples

```
schools <- get_osm_nodes(object2="school",place="Meppen")
info <- extract_info_op(OSM.Data=schools,value="school")
```

extract_position_op	<i>function extract_position_op</i>
---------------------	-------------------------------------

Description

Extract position from OpenStreetMap object

Usage

```
extract_position_op(OSM.Data,value)
```

Arguments

OSM.Data	an osm object.
value	a map feature.

Value

.

Author(s)

Jan-Philipp Kolb <Jan-Philipp_Kolb@gmx.net>

Examples

```
bikeways <- get_osm_ways(object2="cycleway",place="San Francisco")
info <- extract_position_op(OSM.Data=bikeways,value="cycleway")
```

geocode_osm

function geocode_osm

Description

Returns info from <http://nominatim.openstreetmap.org/>

Usage

```
geocode_osm(place,output)
```

Arguments

place	Place which should be geocoded
output	Complete result or just the geocode

Author(s)

Jan-Philipp Kolb <Jan-Philipp_Kolb@gmx.net>

References

<https://github.com/malexan/nominatim/blob/master/geocode.r>

Examples

```
geocode_osm(place="Mannheim B2,1")
```

get_osm_area	<i>function get_osm_area</i>
--------------	------------------------------

Description

Returns info on ways from <http://www.overpass-api.de/api/>

Usage

```
get_osm_area(object2,place)
```

Arguments

object2	Value for map feature you are searching for
place	Place for the map features

Author(s)

Jan-Philipp Kolb <Jan-Philipp_Kolb@gmx.net>

Examples

```
roads <- get_osm_area(object2="pedestrian",place="Rom")
```

get_osm_nodes	<i>function get_osm_nodes</i>
---------------	-------------------------------

Description

Returns info on nodes from <http://www.overpass-api.de/api/>

Usage

```
get_osm_nodes(object2,place)
```

Arguments

object2	Value for map feature you are searching for
place	Place for the map features

Author(s)

Jan-Philipp Kolb <Jan-Philipp_Kolb@gmx.net>

See Also

[get_osm_relation](#), <http://www.r-project.org>

Examples

```
cafes <- get_osm_nodes("cafe",place="Emeryville")  
# brewery <- get_osm_nodes("brewery",place="Ingolstadt")
```

get_osm_relation	<i>function get_osm_relation</i>
------------------	----------------------------------

Description

Returns info on nodes from <http://www.overpass-api.de/api/>

Usage

```
get_osm_relation(object2,place)
```

Arguments

object2	Value for map feature you are searching for
place	Place for the map features

Author(s)

Jan-Philipp Kolb <Jan-Philipp_Kolb@gmx.net>

Examples

```
bike_routes <- get_osm_relation(object2="bicycle",place="Mannheim")
```

get_osm_ways	<i>function get_osm_ways</i>
--------------	------------------------------

Description

Returns info on ways from <http://www.overpass-api.de/api/>

Usage

```
get_osm_nodes(object2,place)
```

Arguments

object2	Value for map feature you are searching for
place	Place for the map features

Author(s)

Jan-Philipp Kolb <Jan-Philipp_Kolb@gmx.net>

Examples

```
# roads <- get_osm_ways(object2="secondary",place="Sandhofen")
bike_routes <- get_osm_ways(object2="cycleway",place="Berkeley")
```

get_xapi_info	<i>function get_xapi_info</i>
---------------	-------------------------------

Description

Returns info from <http://open.mapquestapi.com/xapi/>

Usage

```
get_xapi_info(xapi_obj)
```

Arguments

xapi_obj an XML object with xapi information

Value

an instance of request_xapi.

Author(s)

Jan-Philipp Kolb <Jan-Philipp_Kolb@gmx.net>

Examples

```
bbox_x1 <- "8.461786,49.4320257,8.5514127,49.4984071"  
object_x="amenity=pub"
```

```
# MA_pub <- xmlParse(paste("http://open.mapquestapi.com/xapi/api/0.6/node%5B",object_x,"%5D%5Bbbox=",bbox_x
```

osm_df	<i>data frame map features OpenStreetMap</i>
--------	--

Description

Overview of all available map features at OpenStreetMap http://wiki.openstreetmap.org/wiki/Map_Features

Usage

```
data(osm_df)
```

Author(s)

Jan-Philipp Kolb <Jan-Philipp_Kolb@gmx.net>

Examples

```
data(osm_df)
```

plotbui	<i>function plotbui</i>
---------	-------------------------

Description

Converts osmar object in polygons

Usage

```
plotbui(ua)
```

Arguments

ua the osmar file which the polygons are to be read from.

Value

an instance of `get_osm`.

Author(s)

Jan-Philipp Kolb <Jan-Philipp_Kolb@gmx.net>

Examples

```
data(uaBerlin)
pol_Berlin <- plotbui(uaBerlin)
```

repluml	<i>function to replace umlauts</i>
---------	------------------------------------

Description

function to replace umlauts

Usage

```
repluml(x)
```

Arguments

x character vector with umlauts

Author(s)

Jan-Philipp Kolb <Jan-Philipp_Kolb@gmx.net>

Examples

```
cityname <- repluml("MÃ¼nchen")
brewery <- get_osm_nodes("brewery", place=cityname)
```


Index

CircSearch, [2](#)

CountNodes, [2](#)

extract_info_op, [3](#)

extract_position_op, [3](#)

geocode_osm, [4](#)

get_osm_area, [5](#)

get_osm_nodes, [5](#)

get_osm_relation, [5](#), [6](#)

get_osm_ways, [6](#)

get_xapi_info, [7](#)

osm_df, [7](#)

plotbui, [8](#)

repluml, [8](#)