

Package ‘gmapsdistance’

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Type Package

Title Distance and Travel Time Between Two Points from Google Maps

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URL <https://github.com/rodazuero/gmapsdistance>

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Description Get distance and travel time between two points from Google Maps.
Four possible modes of transportation (bicycling, walking, driving and public transportation).

License GPL (>= 2)

Imports RCurl, XML, methods, stats

NeedsCompilation no

Repository CRAN

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R topics documented:

get.api.key	2
gmapsdistance	2
pkg.env	5
set.api.key	6

Index	7
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<code>get.api.key</code>	<i>Get the Google Maps API key</i>
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Description

This function returns the user's Google Maps API key that was defined with `set.api.key`.

Usage

```
get.api.key()
```

Value

the user's api key

Examples

```
get.api.key()
```

<code>gmapsdistance</code>	<i>gmapsdistance</i>
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Description

Compute Distance with Google Maps

Usage

```
gmapsdistance(origin, destination, combinations, mode, key,
  shape, avoid, departure, dep_date, dep_time,
  traffic_model, arrival, arr_date, arr_time)
```

Arguments

<code>origin</code>	A string or vector of strings containing the description of the starting point(s). Should be inside of quotes (""). If more than one word for a same location is used, they should be separated by a plus sign e.g. "Bogota+Colombia". Coordinates in LAT-LONG format are also a valid input as long as they can be identified by Google Maps.
<code>destination</code>	A string or vector of strings containing the description of the end point(s). Should be the same format as the variable "origin".
<code>combinations</code>	When the origin and destination entries are vectors, the user can specify if the function computes all possible combinations between origins and destinations, or only pairwise distance and times. Should be inside of double quotes ("") and one of the following: "all", "pairwise". If the combinations is set to "pairwise", the origin and destination vectors must have the same length.

mode	<p>A string containing the mode of transportation desired. Should be inside of double quotes ("") and one of the following: "bicycling", "walking", "transit" or "driving".</p>
key	<p>In order to use the Google Maps Distance Matrix API it is necessary to have an API key. The key should be inside of quotes. Example: "THISISMYKEY". This key can also be set using <code>set . api . key ("THISISMYKEY")</code>.</p>
shape	<p>A string that specifies the shape of the distance and time matrices to be returned. Should be inside of double quotes ("") and one of the following: "long" or "wide".</p> <p>If the function is used to find the distance/time for one origin and one destination, the shape does not matter. If there is more than one city as origin or destination, "long" will return a matrix in long format and "wide" will return a matrix in wide format. The shape is set as wide by default.</p>
avoid	<p>When the mode is set to "driving", the user can find the time and distance of the route by avoiding tolls, highways, indoor and ferries. Should be inside of double quotes ("") and one of the following: "tolls", "highways", "ferries", "indoor". ONLY works with a Google Maps API key.</p>
departure	<p>The time and distance can be computed at the desired time of departure. The option departure is the number of seconds since January 1, 1970 00:00:00 UCT. Alternatively, the user can use the <code>dep_date</code> and <code>dep_time</code> options to set the departure date and time.</p> <p>If no value is set for departure, <code>dep_date</code> and <code>dep_time</code>, the departure time is set to the present.</p> <p>ONLY works with a Google Maps API key AND MUST be according to UCT time.</p>
dep_date	<p>Instead of using the departure option, the user can set the departure date and time using <code>dep_date</code> and <code>dep_time</code> options.</p> <p>If no value is set for departure, <code>dep_date</code> and <code>dep_time</code>, the departure time is set to the present.</p> <p>ONLY works with a Google Maps API key AND MUST be according to UCT time.</p>
dep_time	<p>Instead of using the departure option, the user can set the departure date and time using <code>dep_date</code> and <code>dep_time</code> options.</p> <p>If no value is set for departure, <code>dep_date</code> and <code>dep_time</code>, the departure time is set to the present.</p> <p>ONLY works with a Google Maps API key AND MUST be according to UCT time.</p>
traffic_model	<p>When the mode is set to "driving", the user can find the times and distances using different traffic models. Should be inside of double quotes ("") and one of the following: "optimistic", "pessimistic", "best_guess".</p> <p>ONLY works with a Google Maps API key and with a departure time.</p>
arrival	<p>The time and distance can be computed to arrive at a predetermined time. The option arrival is the number of seconds since January 1, 1970 00:00:00 UCT. Alternatively, the user can use the <code>arr_date</code> and <code>arr_time</code> options to set the arrival date and time.</p>


```

# Example 4
origin = c("Washington+DC", "Miami+FL")
destination = c("Los+Angeles+CA", "Austin+TX", "Chicago+IL")
results = gmapsdistance(origin, destination, mode = "driving", shape = "long")
results

# Example 5
origin = c("40.431478+-80.0505401", "33.7678359+-84.4906438")
destination = c("43.0995629+-79.0437609", "41.7096483+-86.9093986")
results = gmapsdistance(origin, destination, mode = "bicycling", shape="long")
results

# Example 6
# results = gmapsdistance(origin = c("Washington+DC", "NewYork+NY"),
#                           destination = c("Los+Angeles+CA", "Austin+TX"),
#                           mode = "driving",
#                           departure = 1514742000,
#                           traffic_model = "pessimistic",
#                           shape = "long",
#                           key=APIkey)
#
# results

# EXAMPLE 7:
# results = gmapsdistance(origin = c("Washington+DC", "NewYork+NY"),
#                           destination = c("Los+Angeles+CA", "Austin+TX"),
#                           mode = "driving",
#                           avoid = "tolls",
#                           key=APIkey)
#
# results

```

pkg.env

Define package environment

Description

pkg.env is a package environment that contains the variable `api.key` with the user's Google Maps API key

Usage

```
pkg.env
```

Format

```
<environment: 0x57722a0>
```

set.api.key	<i>Set the Google Maps API key</i>
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Description

This function stores a user's Google Maps API key as the package's environmental variable

Usage

```
set.api.key(key)
```

Arguments

key is the user's Google Maps API key

Examples

```
#DONTRUN  
set.api.key("MY-GOOGLE-MAPS-API-KEY")
```

Index

*Topic **datasets**

pkg.env, [5](#)

get.api.key, [2](#)

gmapsdistance, [2](#)

pkg.env, [5](#)

set.api.key, [6](#)