Package 'webglobe'

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Type Package

Title 3D Interactive Globes

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NeedsCompilation no

Depends R (>= 3.4.0), geojsonio (>= 0.3.2), jsonlite (>= 1.4), httpuv
(>= 1.3.3)

Suggests knitr, R.rsp (>= 0.41.0), rmarkdown (>= 1.0)

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Description Displays geospatial data on an interactive 3D globe in the web browser.

URL https://github.com/r-barnes/webglobe/

BugReports https://github.com/r-barnes/webglobe/

RoxygenNote 7.1.1

VignetteBuilder knitr, R.rsp

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R topics documented:

  +.webglobe   *Send command*

Description

Send a command to a webglobe

Usage

```
## S3 method for class 'webglobe'
wg + x
```

Arguments

wg	Webglobe
x	Command to send

Value

The same webglobe

Examples

```
## Not run:
library(webglobe)
wg<-webglobe(immediate=TRUE)
wg + wgclear()

## End(Not run)
```

---

is.webglobe   *Is it a webglobe?*

Description

Determine if an object is a webglobe

Usage

```
is.webglobe(x)
```

Arguments

x   The object that might be a webglobe

Value

TRUE or FALSE

Examples

```
## Not run:
library(webglobe)
wg<-webglobe(immediate=TRUE)
is.webglobe(wg)

## End(Not run)
```

---

print.webglobe   *Display a webglobe*

Description

Displays a webglobe. If the webglobe is immediate, then a browser window containing it should already be open; in this case, the webglobe's address is returned. If the webglobe is not immediate then a new browser is open and the cached pipeline is sent to it.

Usage

```
## S3 method for class 'webglobe'
print(x, ...)
```

Arguments

x   The webglobe
...   Ignored

Value

NA

Examples

```
## Not run:
library(webglobe)
wg<-webglobe()
wg

## End(Not run)
```

---

webglobe   *Make a new webglobe*

Description

Constructs a new webglobe and starts its server

Usage

```
webglobe(immediate = FALSE)
```

Arguments

immediate   Whether the webglobe should immediately show the results of graphics com-
                   mands or additively cache them. 'immediate' mode can be used to experimen-
                   tally build up a pipeline. Once established this can be stored in a non-immediate
                   webglobe for easy acces later

Value

A webglobe object

Examples

```
## Not run:
library(webglobe)
wg<-webglobe(immediate=TRUE)

## End(Not run)
```

---

wgbar   *Plot bars from the surface*

Description

Plots bars rising upwards from points on the Earth's surface

Usage

```
wgbar(lat, lon, alt = 3e+06, colour = "blue", width = 3)
```

Arguments

lat	Latitude of the bars' bases, in degrees
lon	Latitude of the bars' bases, in degrees
alt	Altitude of the bars' tops, may be one or many values
colour	Colour of the bars, may be one or many values
width	Width of bar bars, may be one or many values

Value

A webglobe command

Examples

```
## Not run:
library(webglobe)
data(quakes)                                              #Load up some data
wg <- webglobe(immediate=FALSE)                           #Make a webglobe
wg <- wg + wgbar(quakes$lat, quakes$lon, alt=1.5e6*quakes$mag/10) #Plot quakes
wg <- wg + wgcamcenter(-33.35, 142.96, 8000)             #Move camera
wg

## End(Not run)
```

---

wgcamcenter   *Camera: Center on a point*

Description

Centers the camera on a point

Usage

```
wgcamcenter(lat, lon, alt = NA)
```

Arguments

lat	Latitude of the center point, in degrees
lon	Longitude of the center point, in degrees
alt	Altitude of the center point, in kilometres

Value

A webglobe command

Examples

```
## Not run:
library(webglobe)
wg<-webglobe(immediate=TRUE)
wg+wgcamcenter(45,-93,5000)

## End(Not run)
```

---

wgcamhome   *Camera: Send home*

Description

Send the camera to its home location

Usage

```
wgcamhome()
```

Value

A webglobe command

Examples

```
## Not run:
library(webglobe)
wg<-webglobe(immediate=TRUE)
wg+wgcamhome()

## End(Not run)
```

---

wgclear *Clear the scene*

Description

Clears everything from the map

Usage

```
wgclear()
```

Value

A webglobe command

Examples

```
## Not run:
library(webglobe)
wg<-webglobe(immediate=TRUE)
wg+wgclear()

## End(Not run)
```

---

wgimmediate *Immediate mode: On*

Description

Turns on immediate mode

Usage

```
wgimmediate()
```

Value

A webglobe command

Examples

```
## Not run:
library(webglobe)
wg<-webglobe(immediate=FALSE)
wg + wgimmediate() #wg is now immediate

## End(Not run)
```

---

wgimmediate_set   *Immediate mode: Set*

Description

Set immediate mode by value

Usage

```
wgimmediate_set(mode)
```

Arguments

mode   TRUE or FALSE: TRUE immplies immediate mode on, FALSE implies off

Value

A webglobe command

Examples

```
## Not run:
library(webglobe)
wg<-webglobe(immediate=TRUE)
wg + wgimmediate_set(FALSE) #wg is now unimmediate

## End(Not run)
```

---

wgpoints   *Plot points*

Description

Plots latitude-longitude points

Usage

```
wgpoints(lat, lon, label = NA, alt = 0, colour = "yellow", size = 10)
```

Arguments

lat	One or more latitude values
lon	One or more longitude values
label	Label to put next to point
alt	Altitude of the points, can be single value or vector
colour	Colour name of the points, can be single value or vector
size	Size of the points, can be single value or vector

Value

A webglobe command

Examples

```
## Not run:
library(webglobe)
wg <- webglobe(immediate=FALSE)
wg <- wg + wgpoints(c(45,20),c(-93,127),alt=3,colour=c("blue","red"))
wg <- wg + wgpoints(51.5074,-0.1278,label="London",alt=0,colour="blue")
wg

## End(Not run)
```

---

wgpolygondf   *Plot long-frame polygons*

Description

Plot polygons defined by long-style data frame

Usage

```
wgpolygondf(df, fill = NA, alpha = 1, extrude_height = 0,
  stroke = "yellow", stroke_width = 10)
```

Arguments

df	Data frame to plot
fill	Fill colour name
alpha	Alpha (transparency value)
extrude_height	Height of the polygon above the surrounding landscape, in TODO
stroke	Outline colour (TODO)
stroke_width	Outline width (TODO)

Value

A webglobe command

Examples

```
## Not run:
library(webglobe)
wg<-webglobe(immediate=TRUE)
wg+wgpolygondf(ggplot2::map_data("usa"),fill="blue",extrude_height=1000)

## End(Not run)
```

---

wgport   *Get webglobe's port*

Description

Determine which port a webglobe is running on

Usage

```
wgport(wg)
```

Arguments

wg   Webglobe whose port should be determined

Value

A number representing the webglobe's port

Examples

```
## Not run:
library(webglobe)
wg<-webglobe(immediate=TRUE)
wgport(webglobe)

## End(Not run)
```

---

wgtitle   *Title of webglobe browser window*

Description

Changes the tab/window title of the webglobe's browser view

Usage

```
wgtitle(title)
```

Arguments

title   The title to use

Value

A webglobe command

Examples

```
## Not run:
library(webglobe)
wg<-webglobe(immediate=TRUE)
wg+wgtitle("I am the new title!")

## End(Not run)
```

---

wgunimmediate *Immediate mode: Off*

Description

Turns off immediate mode

Usage

```
wgunimmediate()
```

Value

A webglobe command

Examples

```
## Not run:
library(webglobe)
wg<-webglobe(immediate=TRUE)
wg + wgunimmediate() #wg is now unimmediate

## End(Not run)
```

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