geo in R

Jacob Kasper

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1 Why geo?

Geo was developed for spataial plotting in and around Iceland by Höskuldur Björnsson at the Marine Research Institute in Iceland. It is useful package which is easy to learn and has a whole host of functions which are quite intuative. Also is the geoextras package which expands on the functionality of geo. Geo is currently maintained and hosted on github https://github.com/Hafro/geo

```
> x <- rnorm(100)
```

```
> #install.packages("devltools")
> ## I had to install Rtools
> ##install rtools 3.3 http://cran.r-project.org/bin/windows/Rtools
> #install.packages("maps")
> #devtools::install_github("hafro/geo")
> #library("geo")
> #install.packages("geoextras", repos="http://r-forge.r-project.org", type="source")
>
> library(mapdata); library(geo);library(geoextras)
> options(bg="white")
> geoplot(xlim = list(lat = c(40, 43), lon = c(-68, -72)),
+         country = "none", grid = F, cex=.5)
> geoworld(database = "worldHires", allowed.size = 1e6)
> ##can use two different database, worldHires is more informative
> geopoints(41,-70, col="red", cex=2)
> geolines(c(41, 42),c(-70, -69), col="blue")
> arcdist(41, -70, 42, -69) ## defaults to nmi
```

```
[1] 74.96458
```

```
> Arrow(list(lat=c(41, 41.5), lon=c(-70.5, -71)), angle = 15, col = 2)
> geolegend(list(lat=c(42, 42.5), lon=c(-70.5, -71)), "Legend", bty = "n")
>
```

2 What else can geo do?

Data maniuplations

geo.Split.poly(): Split a polygon into a list geoconvert(): Convert between different representations of latitude and longitude, namely degrees-minutes-decimal minutes and decimal degrees. These are just a few of the useful functions, there are many many more build into this package, some of which are mentioned in this table.


geo-commands.png