

Package ‘geomapdata’

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Type Package

Title Data for topographic and Geologic Mapping

Version 1.0-4

Date 2007-10-23

Suggests GEOmap

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Depends R (>= 2.10)

Description Set of data for use in package GEOmap. Includes world map, USA map, Coso map, Japan Map, ETOPO5

License GPL

Repository CRAN

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NeedsCompilation no

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geomapdata-package *geomapdata*

Description

Topographic and Geologic Mapping

Details

Package: geomapdata
Type: Package
Version: 1.0-4
Date: 2007-10-23
License: GPL

Set of data for making Maps, Topographic Maps, Perspective plots, geological databases. These include: africa.bdy africa.cil africa.riv asia.bdy asia.cil asia.riv cosogeol cosomap ETOPO5 europe.bdy europe.cil europe.riv faults fujitopo hiways japmap kamaleutmap kammmap meijimap namer.bdy namer.cil namer.pby namer.riv owens samer.bdy samer.cil samer.riv usacity USAmap worldcity worldmap

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References

Lees, J. M., Geotouch: Software for Three and Four Dimensional GIS in the Earth Sciences, Computers & Geosciences, 26, 7, 751-761, 2000.

See Also

GEOmap

Examples

```
## Not run:  
library(GEOmap)  
data(worldmap)  
data(namer.bdy)  
data(namer.riv)  
  
plotGEOmap(worldmap)  
plotGEOmap(namer.bdy , add=TRUE)
```

```
plotGEOmap(namer.riv , add=TRUE)
```

```
## End(Not run)
```

africa.bdy

CIA data base maps

Description

R structures of CIA data information in GEOmap format

Usage

```
data(africa.bdy)
```

Format

STROKES list(nam, num, index, col, style, code, LAT1, LAT2, LON1, LON2)

POINTS list(lat, lon)

PROJ list(type, LAT0, LON0, LAT1, LAT2, LATS, LONS, DLAT, DLON, FE, FN, name)

Details

bdy=bodies, riv=rivers, cil=civilities (lakes)

Source

CIA data base

Examples

```
## Not run:
```

```
library(GEOmap)
data(worldmap)
data(namer.bdy)
data(namer.riv)
```

```
plotGEOmap(worldmap)
plotGEOmap(namer.bdy , add=TRUE)
```

```
plotGEOmap(namer.riv , add=TRUE)
```

```
## End(Not run)
```

```
##
```

cosomap

Coso Geothermal Region Faults and Geology

Description

Coso Geothermal Region Faults and Geology

Usage

```
data(cosomap)
```

Format

List structure:

STROKES list(nam, num, index, col, style, code, LAT1, LAT2, LON1, LON2)

POINTS list(lat, lon)

PROJ list(type, LAT0, LON0, LAT1, LAT2, LATS, LONS, DLAT, DLON, FE, FN, name)

Details

Details from Tomographic inversion geographic base map.

References

Lees, J. M., Geotouch: Software for Three and Four Dimensional GIS in the Earth Sciences, Computers & Geosciences, 26, 7, 751-761, 2000.

Examples

```
## Not run:
```

```
data(cosomap)
data(faults)
data(hiways)
data(owens)
```

```
##
```

```
proj = cosomap$PROJ
plotGEOmapXY(cosomap, PROJ=proj, add=FALSE, ann=FALSE, axes=FALSE)
```

```
plotGEOmapXY(hiways, PROJ=proj, add=TRUE, ann=FALSE, axes=FALSE)
plotGEOmapXY(owens, PROJ=proj, add=TRUE, ann=FALSE, axes=FALSE)
plotGEOmapXY(faults, PROJ=proj, add=TRUE, ann=FALSE, axes=FALSE)
```

```
## End(Not run)
```

ETOPO5

Etopo5 topographic data

Description

Etopo5 topographic data

Usage

```
data(ETOPO5)
```

Format

matrix of world elevation from 0-360 degrees long

Details

See web site: <http://www.ngdc.noaa.gov/mgg/global/etopo5.HTML>

References

Data Announcement 88-MGG-02, Digital relief of the Surface of the Earth. NOAA, National Geophysical Data Center, Boulder, Colorado, 1988.

Examples

```
## Not run:
library(GEOmap)
data(ETOPO5)

data(fujitopo)
data(japmap)
PLOC=list(LON=c(137.008, 141.000),LAT=c(34.000, 36.992),
          x=c(137.008, 141.000), y=c(34.000, 36.992) )

JAPANtopo = subsetTOPO(ETOPO5, PLOC)

d1 = dim(JAPANtopo$z)
```

```
JAPANtopo$z = JAPANtopo$z[ , d1[2]:1 ]

image(JAPANtopo, col=terrain.colors(100), asp=1 )
plotGEOmap(japmap, add=TRUE)

## End(Not run)
```

fujitopo

Topographic DEM of Japan

Description

Topography in Japan

Usage

```
data(fujitopo)
```

Format

lat latitude
lon longitude
z elevation

Details

This data comes as triplets of LAT-LON-Z

Source

Japan Meteriological Society

Examples

```
## Not run:
library(GEOmap)
data(fujitopo)
data(japmap)

PLOC=list(LON=range(fujitopo$lon), x=range(fujitopo$lon), LAT=range(fujitopo$lat), y=range(fujitopo$lat))
```

```
#### with projectionplotGEOMap(japmap, add=FALSE)

PROJ = setPROJ(type=2, LAT0=mean(PLOC$y) , LON0=mean(PLOC$x) )

plotGEOMapXY(japmap, PROJ=PROJ, LIM=c(min(PLOC$LON), min(PLOC$LAT),
max(PLOC$LON), max(PLOC$LAT)), add=FALSE)

xy = GLOB.XY(fujitopo$lat, fujitopo$lon, PROJ)

points(xy$x, xy$y, pch=".", col="pink")

## End(Not run)
```

kammap

Maps in GEOMap

Description

Maps of Kamchatka, Kamchatka and Aleutians, Meiji Seamounts, Japan

Usage

```
data(kammap)
```

Format

List structure:

STROKES list(nam, num, index, col, style, code, LAT1, LAT2, LON1, LON2)

POINTS list(lat, lon)

PROJ list(type, LAT0, LON0, LAT1, LAT2, LATS, LONS, DLAT, DLON, FE, FN, name)

Details

Boundary of Kamchatka, Aleutians and Meiji Seamounts.

Examples

```
## Not run:  
library(GEOmap)  
data(kammap)  
plotGEOmap(kammap)  
  
## End(Not run)
```

usacity

City Locations and Populations(USA)

Description

point data set showing cities locations and populations.

Usage

```
data(usacity)
```

Format

name name of city
lat latitude
lon longitude
p population

Details

World cities have no population (yet).

Examples

```
## Not run:  
library(GEOmap)  
data(USAmap)  
  
data(usacity)  
s=list()  
s$x=c(230.515290931,295.314341808)  
s$y=c(27.1303332212,49.7820066148)  
  
plotGEOmap(USAmap)  
  
rect(s$x[1], s$y[1], s$x[2], s$y[2])  
  
plotGEOmap(USAmap, LIM=c(s$x[1], s$y[1], s$x[2], s$y[2]) )
```



```
points(usacity$lon[usacity$p>10000],usacity$lat[usacity$p>10000], col='red')
```

```
## End(Not run)
```

worldmap

Global Maps

Description

Global Maps of World and details of U.S.

Usage

```
data(worldmap)
```

Format

List structure:

STROKES list(nam, num, index, col, style, code, LAT1, LAT2, LON1, LON2)

POINTS list(lat, lon)

PROJ list(type, LAT0, LON0, LAT1, LAT2, LATS, LONS, DLAT, DLON, FE, FN, name)

Details

USAmap includes world as well as USA.

Examples

```
## Not run:
library(GEOmap)
data(worldmap)
data(namer.bdy)
data(namer.riv)

plotGEOmap(worldmap)
plotGEOmap(namer.bdy , add=TRUE)

plotGEOmap(namer.riv , add=TRUE)

## End(Not run)
```

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