

Package ‘DeducerSpatial’

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Title Deducer for spatial data analysis

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Description A Deducer plug-in for spatial data analysis. Includes The ability to plot and explore open street map and Bing satellite images.

SystemRequirements Java (>= 1.5), JRI

Version 0.7

URL <http://www.deducer.org/pmwiki/pmwiki.php?n=Main.DeducerSpatial>
<http://www.fellstat.com> <http://research.cens.ucla.edu/>

Date 2013-04-12

Depends JavaGD (>= 0.6-0), Deducer (>= 0.7-4), sp, maptools, OpenStreetMap, scales, rgdal

Suggests UScensus2010

Imports UScensus2010, Hmisc

Collate 'DeducerSpatial-package.R' 'plot-util.R' 'census.R' 'zzz.R'

NeedsCompilation no

Repository CRAN

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DeducerSpatial-package

Deducer for spatial data analysis.

Description

Deducer for spatial data analysis.

Details

Package:	DeducerSpatial
Type:	Package
Version:	1.0
Date:	2011-04-04
License:	LGPL-2
LazyLoad:	yes

A Deducer plug-in for spatial data analysis.

Author(s)

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References

<http://www.deducer.org>

loadCensusData

load 200 or 2010 census data

Description

Loads SpatialPolygonDataFrames representing the 2000 or 2010 census. If the dataset packages are not present they are installed (via the internet).

Usage

```
loadCensusData(state, level=c("county", "tract", "blkgrp", "blk", "cdp"),  
year=c("2010", "2000"), verbose=TRUE, osmTransform=TRUE, envir = .GlobalEnv)
```

Arguments

state	the name of the state (lower case)
level	the detail level of the dataset. note that blkgrp and blk yield very large datasets
year	census year
verbose	how verbose to be
osmTransform	should data be loaded in the OpenStreetMaps mercator projection
envir	the environment where the data should be loaded

Examples

```
## Not run:
loadCensusData(state = 'california')
plot(california.county10)

## End(Not run)
```

spatialBubblePlot *bubble plot*

Description

bubble plot

Usage

```
spatialBubblePlot(x, z, minRadius=.01,
maxRadius=.05, color="#F75252", ...)
```

Arguments

x	a SpatialPointsDataFrame
z	The name of the variable in x or a vector to be mapped to size
minRadius	smallest point size
maxRadius	largest point size
color	the color of the points
...	additional parameters for symbol

spatialChoropleth *lifted from choropleth in the USCensus2000 package*

Description

produces a choropleth plot for a SpatialPolygonsDataFrame

Usage

```
spatialChoropleth(sp, color ,quantileBin=FALSE, palette, alpha=1,
  main = NULL, sub = "", legend.loc = "bottomleft",
  legend.title ,add=TRUE,border="transparent", ...)
```

Arguments

sp	a SpatialPolygonsDataFrame
color	the variable to map to color (either the name in x or a vector)
quantileBin	should color be divided into quantile bins. If true, 5 bins are used. alternatively quantileBin can be set to the number of desired bins
palette	A color scale (See the scales package)
alpha	transparency
main	title
sub	subtitle
legend.loc	legend location
legend.title	title
add	add to current plot
border	polygon border type
...	additional parameters for plot

Examples

```
## Not run:
library(UScensus2000)

lat <- c(43.834526782236814,30.334953881988564)
lon <- c(-131.0888671875 , -107.8857421875)
southwest <- openmap(c(lat[1],lon[1]),c(lat[2],lon[2]),5,'bing')
data(california.tract)
california.tract <- spTransform(california.tract,osm())

plot(southwest,removeMargin=TRUE)
spatialChoropleth(california.tract,'med.age',
  legend.title = 'Median Age',alpha=1)

## End(Not run)
```

spatialColoredPoints *plot spatial points with colors*

Description

plot spatial points with colors

Usage

```
spatialColoredPoints(x, color_var, pch=1, palette , legend.loc="bottomleft",  
legend.title,...)
```

Arguments

x	a SpatialPointsDataFrame
color_var	the name of the variable in x, or a vector
pch	plotting symbol
palette	A color scale (See the scales package)
legend.loc	the location of the legend
legend.title	title
...	additional parameters for plot

spatialTextPlot *Plot text*

Description

Plot text

Usage

```
spatialTextPlot(x, text,...)
```

Arguments

x	a spatial data frame (points or polygon
text	the name of a variable in x or a vector representing the labels
...	additional parameters for text

Examples

```
## Not run:
```

```
data(LA_places)
plot.new()
par(mar=c(.5, .5, 2.25, .5), oma=c(1, 1, 1, 1))
plot.window(c(-1.3160249151515616E7, -1.3155204307648793E7), c(3992993.9205893227, 3996691.5618326175), xaxs = 'i')
plot(openmap(c(33.760525217369974, -118.22052955627441), c(33.73290566922855, -118.17521095275879)), 14, 'bing'), add = TRUE)
plot(x = LA_places, add = TRUE, pch = 16.0, col = '#e00700')
spatialTextPlot(LA_places, text = slot(LA_places, "data")[, 'NAME'], adj = 0.0, col = '#fff7f9')
title('Long Beach Terminal')
```

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

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