Package ‘DeducerSpatial’

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Maintainer  Ian Fellows <ian@fellstat.com>
License     GPL-2
Title       Deducer for spatial data analysis
Author      Ian Fellows and Alex Rickett with contributions from Neal Fultz.
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
            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
Date/Publication 2013-04-13 20:38:11

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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)
spatialBubblePlot

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

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

## End(Not run)
```

---

**spatialBubblePlot**  
*bubble plot*

Description

*bubble plot*

Usage

```r
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

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(43.84526782236814, 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

```r
## Not run:

data(LA_places)
plot.new()
par(mar=c(.5,.5,2.25,.5), oma=c(1,1,1,1))
plot.window(c(-1.316602491515616E7,-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 = '#e070ff')
spatialTextPlot(LA_places,text = slot(LA_places,"data")[,'NAME'],adj = 0.0,col = '#ff7f7f')
title('Long Beach Terminal')

## End(Not run)
```
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