## polygonNeighbors

#### September 15, 2016

### R topics documented:

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polygonNeighbors	Find the neighboring regions of each region in a shapefile.	_

#### Description

Find the neighboring regions of each region in a shapefile. Outputs a dataframe with each region and optionally a matrix and plot of adjacencies.

#### Usage

```
polygonNeighbors(shp, id = NULL, nb.matrix = FALSE, plot = FALSE)
```

#### Arguments

shp	A SpatialPolygonsDataFrame
id	The name of the variable in shp@data to find adjacencies for.

nb.matrix Whether to output the adjacency matrix as well.

plot Whether to plot the adjacencies (for checking).

#### Value

Returns a list with a data. frame of each adjacency and optionally the adjacency matrix and/or a plot of the adjacencies.

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#### Examples

```
# Get a shapefile of US States:
file <- "http://www2.census.gov/geo/tiger/GENZ2015/shp/cb_2015_us_state_20m.zip"
download.file(file, "states.zip")
unzip("states.zip")
shp <- rgdal::readOGR(".", "cb_2015_us_state_20m")
shp <- shp[!(shp@data$STATEFP

state.adj <- polygonNeighbors(shp, id = "NAME", nb.matrix = TRUE, plot = TRUE)</pre>
```

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