Package ‘spnet’

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Description The package provides methods for dealing with spatial social networks. It allows to plot networks for which actors have a specific location on a map (cities, participants in a political debate, etc.). SpatialPolygons objects from the sp package are supported.

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SpatialNetwork-class  Class "SpatialNetwork"

Description

Allow to store spatial networks, especially for rendering them

Slots

.Data  object of class "list"
map  object of class "SpatialPolygons"
networks  object of class "list"
plot.title  object of class "list"
plot.label  object of class "list"
plot.color  object of class "list"
plot.symbol  object of class "list"
plot.arrow  object of class "list"
plot.barplot  object of class "list"
plot.legend  object of class "list"
plot.layout  object of class "list"
plot.par  object of class "list"
infos  object of class "list"
meta  object of class "list"
warnings  object of class "list"
names  object of class "character"
row.names  object of class "data.frameRowLabels"
.S3Class  object of class "character"

Objects from the Class

Objects can be created with the spnet function (official class builder).

See Also

Other res:  spnet.map.plot.position, spnet.map.plot.position, SpatialNetwork-method, spnet.map.plot.position, SpatialPolygons-method
Examples

```r
people <- c("John", "Elsa", "Brian", "Kate")
position <- c(2,4,6,8)

net1.df <- data.frame(
  'NODE' = people,
  'POSITION' = position
)

net1 <- spnet.create(
  x = net1.df
)
net1

net2 <- spnet.create(
  x = people
)
net2
```

Description

The spnet package offers methods for dealing with spacial social networks. It allows to plot networks for which actors have a specific location on a map (participants in a political debate, cities, etc.). SpatialPolygons objects from the sp package are supported.

References

Deville M. and Rousseaux E. (2013). TITLE. JOURNAL. VOLUME(NUMBER), PAGEFROM-PAGETO.

```r
spnet.barplotbgcolor Get the barplot background color of a SpatialNetwork object
```

Description

This generic method intends to extract the barplot background color of a SpatialNetwork object.

Usage

```r
spnet.barplotbgcolor(object)

## S4 method for signature 'SpatialNetwork'
spnet.barplotbgcolor(object)

## S4 replacement method for signature 'SpatialNetwork,character'
spnet.barplotbgcolor(object) <- value
```
Arguments

object  a SpatialNetwork object.
value  the new color.

Methods (by class)

• SpatialNetwork: method for SpatialNetwork objects.
  • object = SpatialNetwork, value = character: method for SpatialNetwork objects.

---

spnet.barplot.bgcolor<-  
Set the barplot background color of a SpatialNetwork object

---

Description

This generic method intends to set or replace the barplot background color of a SpatialNetwork object.

Usage

spnet.barplot.bgcolor(object) <- value

Arguments

object  a SpatialNetwork object.
value  the new color.

---

spnet.barplot.bound.lower  
Get the barplot lower bound position of a SpatialNetwork object

---

Description

This generic method intends to extract the barplot lower bound position of a SpatialNetwork object.

Usage

spnet.barplot.bound.lower(object)

## S4 method for signature 'SpatialNetwork'
spnet.barplot.bound.lower(object)

## S4 replacement method for signature 'SpatialNetwork,numeric'
spnet.barplot.bound.lower(object) <- value
Arguments

- **object**: a SpatialNetwork object.
- **value**: a numeric vector of coordinates, c(x,y), specifying a shift from the center of each country.

Methods (by class)

- **object**: SpatialNetwork, **value**: numeric: method for SpatialNetwork objects.

---

**spnet.barplot.bound.lower<-**

*Set the barplot lower bound position of a SpatialNetwork object*

Description

This generic method intends to set or replace the barplot lower bound position of a SpatialNetwork object.

Usage

```
spnet.barplot.bound.lower(object) <- value
```

Arguments

- **object**: a SpatialNetwork object.
- **value**: a numeric vector of coordinates, c(x,y), specifying a shift from the center of each country.

---

**spnet.barplot.bound.upper**

*Get the barplot upper bound position of a SpatialNetwork object*

Description

This generic method intends to extract the barplot upper bound position of a SpatialNetwork object.

Usage

```
spnet.barplot.bound.upper(object)
```

### S4 method for signature 'SpatialNetwork'

```
spnet.barplot.bound.upper(object)
```

### S4 replacement method for signature 'SpatialNetwork,numeric'

```
spnet.barplot.bound.upper(object) <- value
```
spnet.barplot.bound.upper

Set the barplot upper bound position of a SpatialNetwork object

Description

This generic method intends to set or replace the barplot upper bound position of a SpatialNetwork object.

Usage

spnet.barplot.bound.upper(object) <- value

Arguments

object a SpatialNetwork object.
value a numeric vector of coordinates, (x,y), specifying a shift from the center of each country.

spnet.barplot.fgcolor

Get the barplot foreground color of a SpatialNetwork object

Description

This generic method intends to extract the barplot foreground color of a SpatialNetwork object.

Usage

spnet.barplot.fgcolor(object)

## S4 method for signature 'SpatialNetwork'
spnet.barplot.fgcolor(object)

## S4 replacement method for signature 'SpatialNetwork,character'
spnet.barplot.fgcolor(object) <- value
Arguments

object  a SpatialNetwork object.
value the color.

Methods (by class)


spnet.barplot.fgcolor<-  

Set the barplot foreground color of a SpatialNetwork object

Description

This generic method intends to set or replace the barplot foreground color of a SpatialNetwork object.

Usage

spnet.barplot.fgcolor(object) <- value

Arguments

object  a SpatialNetwork object.
value the color.

spnet.barplot.list  

Get the list of all barplot parameters of a SpatialNetwork object

Description

This generic method intends to extract barplot parameters of a SpatialNetwork object.

Usage

spnet.barplot.list(object)

## S4 method for signature 'SpatialNetwork'
spnet.barplot.list(object)

## S4 replacement method for signature 'SpatialNetwork,list'
spnet.barplot.list(object) <- value
Arguments

object: the SpatialNetwork object for which we want to get parameters.
value: a list of parameters.

Methods (by class)

- spatialnetwork: method for spatialnetwork objects.
- object = spatialnetwork, value = list: method for SpatialNetwork objects.

spnet.barplot.list<-

Set the list of all barplot parameters of a SpatialNetwork object

Description

This generic method intends to set or replace barplot parameters of a SpatialNetwork object.

Usage

spnet.barplot.list(object) <- value

Arguments

object: the SpatialNetwork object for which we want to set parameters.
value: a list of parameters.

spnet.barplot.variable

Get the barplot variable of a SpatialNetwork object

Description

This generic method intends to extract the barplot variable of a SpatialNetwork object.

Usage

spnet.barplot.variable(object)

## S4 method for signature 'SpatialNetwork'
spnet.barplot.variable(object)

## S4 replacement method for signature 'SpatialNetwork,character'
spnet.barplot.variable(object) <- value
Arguments

object  a SpatialNetwork object.
value  the name of the variable to use for plotting barplots.

Methods (by class)


Description

This generic method intends to set or replace the barplot variable of a SpatialNetwork object.

Usage

spnet.barplot.variable(object) <- value

Arguments

object  a SpatialNetwork object.
value  the name of the variable to use for plotting barplots.

Description

This generic method intends to extract the barplot width of a SpatialNetwork object.

Usage

spnet.barplot.width(object)

## S4 method for signature 'SpatialNetwork'
spnet.barplot.width(object)

## S4 replacement method for signature 'SpatialNetwork, numeric'
spnet.barplot.width(object) <- value
Arguments

object a SpatialNetwork object.
value a numeric.

Methods (by class)

• SpatialNetwork: method for SpatialNetwork objects.
  • object = SpatialNetwork, value = numeric: method for SpatialNetwork objects.

spnet.barplot.width <- \textit{Set the barplot width of a SpatialNetwork object}

Description

This generic method intends to set or replace the barplot width of a SpatialNetwork object.

Usage

spnet.barplot.width(object) <- value

Arguments

object a SpatialNetwork object.
value a numeric.

spnet.color.background

\textit{Get the background color of a SpatialNetwork object}

Description

This generic method intends to extract the background color of a SpatialNetwork object.

Usage

spnet.color.background(object)

## S4 method for signature 'SpatialNetwork'
spnet.color.background(object)

## S4 replacement method for signature 'SpatialNetwork,character'
spnet.color.background(object) <- value
spnet.color.background<-

Arguments

- object: a SpatialNetwork object.
- value: a character, the color.

Methods (by class)


---

spnet.color.border    Get the border color of a SpatialNetwork object

Description

This generic method intends to set or replace the background color of a SpatialNetwork object.

Usage

spnet.color.background(object) <- value

Arguments

- object: a SpatialNetwork object.
- value: a character, the color.

---

spnet.color.border    Get the border color of a SpatialNetwork object

Description

This generic method intends to extract the border color of a SpatialNetwork object.

Usage

spnet.color.border(object)

## S4 method for signature 'SpatialNetwork'
spnet.color.border(object)

## S4 replacement method for signature 'SpatialNetwork,character'
spnet.color.border(object) <- value
spnet.color.legend

Arguments

object       a SpatialNetwork object.
value        a character, the color.

Methods (by class)


spnet.color.border<- Set the border color of a SpatialNetwork object

Description

This generic method intends to set or replace the border color of a SpatialNetwork object.

Usage

spnet.color.border(object) <- value

Arguments

object       a SpatialNetwork object.
value        a character, the color.

spnet.color.legend Get the color legend of a SpatialNetwork object

Description

This generic method intends to extract the color legend of a SpatialNetwork object.

Usage

spnet.color.legend(object)

## S4 method for signature 'SpatialNetwork'
spnet.color.legend(object)

## S4 replacement method for signature 'SpatialNetwork,character'
spnet.color.legend(object) <- value
spnet.color.legend<-  

**Arguments**

- `object`: a SpatialNetwork object.
- `value`: the color legend.

**Methods (by class)**


---

**spnet.color.legend<-**  
*Set the color legend of a SpatialNetwork object*

**Description**

This generic method intends to set or replace the color legend of a SpatialNetwork object.

**Usage**

```r
spnet.color.legend(object) <- value
```

**Arguments**

- `object`: a SpatialNetwork object.
- `value`: the color legend.

---

**spnet.color.list**  
*Get the list of all color parameters of a SpatialNetwork object*

**Description**

This generic method intends to extract color parameters of a SpatialNetwork object.

**Usage**

```r
spnet.color.list(object)
```

### S4 method for signature 'SpatialNetwork'

```r
spnet.color.list(object)
```

### S4 replacement method for signature 'SpatialNetwork,list'

```r
spnet.color.list(object) <- value
```
Arguments

object the SpatialNetwork object for which we want to get parameters.
value a list of parameters.

Methods (by class)


**spnet.color.list<-**  
*Set the list of all color parameters of a SpatialNetwork object*

Description

This generic method intends to set or replace color parameters of a SpatialNetwork object.

Usage

```r
spnet.color.list(object) <- value
```

Arguments

object the SpatialNetwork object for which we want to set parameters.
value a list of parameters.

**spnet.color.node**  
*Get the default color of a node of a SpatialNetwork object*

Description

This generic method intends to extract the default color of a node of a SpatialNetwork object.

Usage

```r
spnet.color.node(object)
```

## S4 method for signature 'SpatialNetwork'
```
spnet.color.node(object)
```

## S4 replacement method for signature 'SpatialNetwork,character'
```
spnet.color.node(object) <- value
```
spnet.color.node<-  

Arguments

  object  a SpatialNetwork object.
  value   a character, the color.

Methods (by class)


---

spnet.color.node<- | Set the default color of a node of a SpatialNetwork object

Description

This generic method intends to set or replace the default color of a node of a SpatialNetwork object.

Usage

spnet.color.node(object) <- value

Arguments

  object  a SpatialNetwork object.
  value   a character, the color.

---

spnet.color.region | Get the default color of a region of a SpatialNetwork object

Description

This generic method intends to extract the default color of a region of a SpatialNetwork object.

Usage

spnet.color.region(object)

## S4 method for signature 'SpatialNetwork'
spnet.color.region(object)

## S4 replacement method for signature 'SpatialNetwork,character'
spnet.color.region(object) <- value
Arguments

- object: a SpatialNetwork object.
- value: a character, the color.

Methods (by class)


\[
\text{spnet.color.region} <- \text{Set the default color of a region of a SpatialNetwork object}
\]

Description

This generic method intends to set or replace the default color of a region of a SpatialNetwork object.

Usage

\[
\text{spnet.color.region(object) <- value}
\]

Arguments

- object: a SpatialNetwork object.
- value: a character, the color.

\[
\text{spnet.color.variable} \quad \text{Get the color variable of a SpatialNetwork object}
\]

Description

This generic method intends to extract the color variable of a SpatialNetwork object.

Usage

\[
\text{spnet.color.variable(object)}
\]

## S4 method for signature 'SpatialNetwork'
\text{spnet.color.variable(object)}

## S4 replacement method for signature 'SpatialNetwork,character'
\text{spnet.color.variable(object) <- value}
**Arguments**

- **object**
  - a SpatialNetwork object.
- **value**
  - the new color, for example 
  - 
  - 

**Methods (by class)**

- **SpatialNetwork**: method for SpatialNetwork objects.
- **object = SpatialNetwork, value = character**: method for SpatialNetwork objects.

---

**Description**

This generic method intends to set or replace the color variable of a SpatialNetwork object.

**Usage**

```r
spnet.color.variable(object) <- value
```

**Arguments**

- **object**
  - a SpatialNetwork object.
- **value**
  - the new color, for example 
  - 
  - 

---

**spnet.create**

**Create a SpatialNetwork object**

---

**Description**

The spnet.create function is the official builder for creating SpatialNetwork objects.

**Usage**

```r
spnet.create(x, map, networks, plot.title = list(main =
  "Untitled SPNET object", sub = ", cex = 2, col = "#333333"),
  plot.label = list(cex = 1, col = "#333333"), plot.color, plot.symbol,
  plot.barplot = list(variable = ", bound.lower = c(-0.5, -0.5), bound.upper
  = c(0.5, -0.5), fgcolor = "#666666", bgcolor = "#eedeed", width = 8),
  plot.arrow, plot.legend = list(print = TRUE, cex = 1, ncol = 1, horiz =
  FALSE, lwd = 1), plot.layout = list(ratios = c(title = 1/10, graphic = 7/10,
  legend = 2/10), mat = NULL, reset = TRUE), plot.par = list(mar = c(1, 1, 1,
  1)), infos, quiet = FALSE)
```
**Arguments**

- **x** a data.frame containing at least two columns: NODE and POSITION.
- **map** a SpatialPolygons object.
- **networks** a list of the networks to plot.
- **plot.title** a list of parameters for setting the title.
- **plot.label** a list of parameters to be passed to the text function for setting labels.
- **plot.color** a list of parameters for setting colors.
- **plot.symbol** a list of parameters for setting symbols.
- **plot.barplot** a list of parameters for setting barplots.
- **plot.arrow** a list of parameters for setting arrows.
- **plot.legend** a list of parameters for setting the legend.
- **plot.layout** a list of parameters for setting the layout.
- **plot.par** a list of graphical parameters.
- **infos** a list of meta information about the instance of the object.
- **quiet** = FALSE a logical, suppress all messages.

**Examples**

```r
people <- c("John", "Elsa", "Brian", "Kate")
position <- c(2, 4, 6, 8)

net1.df <- data.frame(
    'NODE' = people,
    'POSITION' = position
)

net1 <- spnet.create(
    x = net1.df
)
net1

net2 <- spnet.create(
    x = people
)
net2
```
spnet.example.basic

Description

Create SpatialNetwork object examples for demonstration and testing purpose.

Usage

spnet.example.basic(map = TRUE, color = TRUE, symbol = TRUE,
network1 = TRUE, network2 = TRUE, barplot = TRUE, title = TRUE)

spnet.example.basic.full()

spnet.example.basic.map()

Arguments

map logical; if TRUE an example of map is provided.
color logical; if TRUE an example of map colorization is provided.
symbol logical; if TRUE an example of symbol use is provided.
network1 logical; if TRUE a first example of network is provided.
network2 logical; if TRUE a second example of network is provided.
barplot logical; if TRUE a example of barplot rendering of a numeric variable is provided.
title logical; if TRUE a example of title is provided.

Value

a SpatialNetwork object.

Examples

data(world.map.simplified, package = "spnet")
net1 <- spnet.example.basic()
plot(net1)
spnet.get.local.user.manual

*get the local copy of the spnet user manual*

**Description**

This function copies the spnet user manual to a user defined directory.

**Usage**

```r
spnet.get.local.user.manual(where = getwd(), overwrite = FALSE)
```

**Arguments**

- `where` the location where to copy the user manual. Default is the working directory.
- `overwrite` logical; should existing destination files be overwritten?

---

spnet.label.cex

*Get the label cex of a SpatialNetwork object*

**Description**

This generic method intends to extract the label cex of a SpatialNetwork object.

**Usage**

```r
spnet.label.cex(object)
```

```r
## S4 method for signature 'SpatialNetwork'
spnet.label.cex(object)
```

```r
## S4 replacement method for signature 'SpatialNetwork,numeric'
spnet.label.cex(object) <- value
```

**Arguments**

- `object` a SpatialNetwork object.
- `value` numeric; the cex parameter.

**Methods (by class)**

**spnet.label.cex<-**

*Set the label cex of a SpatialNetwork object*

**Description**

This generic method intends to set or replace the label cex of a SpatialNetwork object.

**Usage**

```
spnet.label.cex(object) <- value
```

**Arguments**

- **object**: a SpatialNetwork object.
- **value**: numeric; the cex parameter.

---

**spnet.label.color**

*Get the label color of a SpatialNetwork object*

**Description**

This generic method intends to extract the label color of a SpatialNetwork object.

**Usage**

```
spnet.label.color(object)
```

```r
## S4 method for signature 'SpatialNetwork'
spnet.label.color(object)
```

```r
## S4 replacement method for signature 'SpatialNetwork,character'
spnet.label.color(object) <- value
```

**Arguments**

- **object**: a SpatialNetwork object.
- **value**: the new label, for example "#000000".

**Methods (by class)**

spnet.label.color<-  *Set the label color of a SpatialNetwork object*

**Description**

This generic method intends to set or replace the label color of a SpatialNetwork object.

**Usage**

```r
spnet.label.color(object) <- value
```

**Arguments**

- `object` a SpatialNetwork object.
- `value` the new label, for example "#000000".

---

spnet.label.list  *Get the list of all label parameters of a SpatialNetwork object*

**Description**

This generic method intends to extract label parameters of a SpatialNetwork object.

**Usage**

```r
spnet.label.list(object)
```

```r
## S4 method for signature 'SpatialNetwork'
spnet.label.list(object)
```

```r
## S4 replacement method for signature 'SpatialNetwork,list'
spnet.label.list(object) <- value
```

**Arguments**

- `object` the SpatialNetwork object for which we want to get parameters.
- `value` a list of parameters.

**Methods (by class)**

**spnet.label.list<-**  
*Set the list of all label parameters of a SpatialNetwork object*

**Description**

This generic method intends to set or replace label parameters of a SpatialNetwork object.

**Usage**

```r
spnet.label.list(object) <- value
```

**Arguments**

- `object`: the SpatialNetwork object for which we want to set parameters.
- `value`: a list of parameters.

---

**spnet.label.variable**  
*Get the label variable of a SpatialNetwork object*

**Description**

This generic method intends to extract the label variable of a SpatialNetwork object.

**Usage**

```r
spnet.label.variable(object)
```

```r
## S4 method for signature 'SpatialNetwork'
spnet.label.variable(object)
```

```r
## S4 replacement method for signature 'SpatialNetwork,character'
spnet.label.variable(object) <- value
```

**Arguments**

- `object`: a SpatialNetwork object.
- `value`: the new label, for example "#000000".

**Methods (by class)**

spnet.label.variable<-  
*Set the label variable of a SpatialNetwork object*

**Description**

This generic method intends to set or replace the label variable of a SpatialNetwork object.

**Usage**

```r
spnet.label.variable(object) <- value
```

**Arguments**

- **object** a SpatialNetwork object.
- **value** the new label, for example "#000000".

---

spnet.layout.list  
*Get the list of all layout parameters of a SpatialNetwork object*

**Description**

This generic method intends to extract layout parameters of a SpatialNetwork object.

**Usage**

```r
spnet.layout.list(object)
```

```r
## S4 method for signature 'SpatialNetwork'
spnet.layout.list(object)
```

```r
## S4 replacement method for signature 'SpatialNetwork,list'
spnet.layout.list(object) <- value
```

**Arguments**

- **object** the SpatialNetwork object for which we want to get parameters.
- **value** a list of parameters.

**Methods (by class)**

spnet.layout.list<-  

Set the list of all layout parameters of a SpatialNetwork object

Description
This generic method intends to set or replace layout parameters of a SpatialNetwork object.

Usage
spnet.layout.list(object) <- value

Arguments
object the SpatialNetwork object for which we want to set parameters.
value a list of parameters.

spnet.legend.cex  

Get the legend cex parameter of a SpatialNetwork object

Description
This generic method intends to extract the legend cex parameter of a SpatialNetwork object.

Usage
spnet.legend.cex(object)

## S4 method for signature 'SpatialNetwork'
spnet.legend.cex(object)

## S4 replacement method for signature 'SpatialNetwork,numeric'
spnet.legend.cex(object) <- value

Arguments
object a SpatialNetwork object.
value a numeric.

Methods (by class)

**spnet.legend.cex**

*Set the legend cex parameter of a SpatialNetwork object*

**Description**

This generic method intends to set or replace the legend cex parameter of a SpatialNetwork object.

**Usage**

```r
spnet.legend.cex(object) <- value
```

**Arguments**

- `object`: a SpatialNetwork object.
- `value`: a numeric.

**spnet.legend.horiz**

*Get the legend horizontal or vertical setting of a SpatialNetwork object*

**Description**

This generic method intends to extract the legend horizontal or vertical setting of a SpatialNetwork object.

**Usage**

```r
spnet.legend.horiz(object)
```

```r
## S4 method for signature 'SpatialNetwork'
spnet.legend.horiz(object)

## S4 replacement method for signature 'SpatialNetwork,logical'
spnet.legend.horiz(object) <- value
```

**Arguments**

- `object`: a SpatialNetwork object.
- `value`: a logical.

**Methods (by class)**

- **SpatialNetwork**: method for SpatialNetwork objects.
spnet.legend.horiz<-  

Set the legend horizontal or vertical setting of a SpatialNetwork object

Description

This generic method intends to set or replace the legend horizontal or vertical setting of a SpatialNetwork object.

Usage

spnet.legend.horiz(object) <- value

Arguments

object a SpatialNetwork object.
value a logical.

spnet.legend.line.width

Get the legend line width parameter of a SpatialNetwork object

Description

This generic method intends to extract the legend line width parameter of a SpatialNetwork object.

Usage

spnet.legend.line.width(object)

## S4 method for signature 'SpatialNetwork'
spnet.legend.line.width(object)

## S4 replacement method for signature 'SpatialNetwork,numeric'
spnet.legend.line.width(object) <- value

Arguments

object a SpatialNetwork object.
value a logical.

Methods (by class)

spnet.legend.line.width<-  

Set the legend line width parameter of a SpatialNetwork object

---

**Description**

This generic method intends to set or replace the legend line width parameter of a SpatialNetwork object.

**Usage**

```r
spnet.legend.line.width(object) <- value
```

**Arguments**

- `object`: a SpatialNetwork object.
- `value`: a logical.

---

**Description**

This generic method intends to extract legend parameters of a SpatialNetwork object.

**Usage**

```r
spnet.legend.list(object)
```

```r
## S4 method for signature 'SpatialNetwork'
spnet.legend.list(object)
```

```r
## S4 replacement method for signature 'SpatialNetwork,list'
spnet.legend.list(object) <- value
```

**Arguments**

- `object`: the SpatialNetwork object for which we want to get parameters.
- `value`: a list of parameters.

**Methods (by class)**

spnet.legend.list<-  

Set the list of all legend parameters of a SpatialNetwork object

Description
This generic method intends to set or replace legend parameters of a SpatialNetwork object.

Usage
spnet.legend.list(object) <- value

Arguments
  object  the SpatialNetwork object for which we want to set parameters.
  value   a list of parameters.

spnet.legend.ncol  Get the legend number of columns of a SpatialNetwork object

Description
This generic method intends to extract the legend number of columns of a SpatialNetwork object.

Usage
spnet.legend.ncol(object)

## S4 method for signature 'SpatialNetwork'
spnet.legend.ncol(object)

## S4 replacement method for signature 'SpatialNetwork,numeric'
spnet.legend.ncol(object) <- value

Arguments
  object  a SpatialNetwork object.
  value   a numeric.

Methods (by class)
  • SpatialNetwork: method for SpatialNetwork objects.
  • object = SpatialNetwork, value = numeric: method for SpatialNetwork objects.
Description

This generic method intends to set or replace the legend number of columns of a SpatialNetwork object.

Usage

spnet.legend.ncol(object) <- value

Arguments

object  a SpatialNetwork object.
value   a numeric.

Description

This generic method intends to extract the legend print (yes/no) status of a SpatialNetwork object.

Usage

spnet.legend.print(object)

## S4 method for signature 'SpatialNetwork'
spnet.legend.print(object)

## S4 replacement method for signature 'SpatialNetwork,logical'
spnet.legend.print(object) <- value

Arguments

object  a SpatialNetwork object.
value   a logical.

Methods (by class)

• SpatialNetwork: method for SpatialNetwork objects.
• object = SpatialNetwork, value = logical: method for SpatialNetwork objects.
spnet.legend.print<-  

**Set the legend print (yes/no) status of a SpatialNetwork object**

**Description**

This generic method intends to set or replace the legend print (yes/no) status of a SpatialNetwork object.

**Usage**

spnet.legend.print(object) <- value

**Arguments**

- **object**
  - a SpatialNetwork object.
- **value**
  - a logical.

spnet.map  

**Get the map to a SpatialNetwork object**

**Description**

This generic method intends to extract the map object. Currently only SpatialPolygons from the sp package are supported.

**Usage**

spnet.map(object)

## S4 method for signature 'SpatialNetwork'
spnet.map(object)

## S4 replacement method for signature 'SpatialNetwork,SpatialPolygons'
spnet.map(object) <- value

**Arguments**

- **object**
  - the SpatialNetwork object for which we want to get the map.
- **value**
  - the map.

**Methods (by class)**

spnet.map.plot.position

Plot a map labelled with the ID numbering

Description

The spnet.map.plot.position function allows to plot maps defined as for example SpatialNetwork or SpatialPolygons objects, and render the ID numbering.

Usage

spnet.map.plot.position(x, label = "", ...)  

## S4 method for signature 'SpatialPolygons'
spnet.map.plot.position(x, label = "", ...)  

## S4 method for signature 'SpatialNetwork'
spnet.map.plot.position(x, label = "", ...)  

Arguments

x an object for which a spnet.map.plot.position method is defined.
label a character of length 1 for prefixing seat numbering.
... other arguments to pass to the plot function. The main usage is setting the cex value.

Methods (by class)

• SpatialPolygons: method for SpatialPolygons objects.
• SpatialNetwork: method for SpatialNetwork objects.

See Also

Other res: SpatialNetwork-class

Examples

## The world map
data(world.map.simplified, package = "spnet")

spnet.map.plot.position(world.map.simplified)
spnet.map.plot.position(world.map.simplified, cex = 0.4)
spnet.map.plot.position(world.map.simplified, label = "ID ", cex = 0.3)
spnet.map<-  

Set the map to a SpatialNetwork object

Description

This generic method intends to set or replace the map object. Currently only SpatialPolygons from the sp package are supported.

Usage

spnet.map(object) <- value

Arguments

object the SpatialNetwork object for which we want to set the map.
value the map.

spnet.network.arrow.color

Get the arrow color of a given network of a SpatialNetwork object

Description

This generic method intends to extract the arrow color of a given network of a SpatialNetwork object.

Usage

spnet.network.arrow.color(object, network.name)

## S4 method for signature 'SpatialNetwork,character'
spnet.network.arrow.color(object, network.name)

## S4 replacement method for signature 'SpatialNetwork,character,character'
spnet.network.arrow.color(object, network.name) <- value

Arguments

object a SpatialNetwork object.
network.name character; the name of the network.
value the arrow color.
Methods (by class)


spnet.network.arrow.color <-

Set the arrow color of a given network of a SpatialNetwork object

Description

This generic method intends to set or replace the arrow color of a given network of a SpatialNetwork object.

Usage

spnet.network.arrow.color(object, network.name) <- value

Arguments

object a SpatialNetwork object.
network.name character; the name of the network.
value the arrow color.

spnet.network.arrow.head.lth

Get the arrow head length of a given network of a SpatialNetwork object

Description

This generic method intends to extract the arrow head length of a given network of a SpatialNetwork object.

Usage

spnet.network.arrow.head.lth(object, network.name)

## S4 method for signature 'SpatialNetwork,character'
spnet.network.arrow.head.lth(object, network.name)

## S4 replacement method for signature 'SpatialNetwork,character,numeric'
spnet.network.arrow.head.lth(object, network.name) <- value
Arguments

object a SpatialNetwork object.
network.name character; the name of the network.
value the arrow head length.

Methods (by class)

• object = SpatialNetwork, network.name = character: method for SpatialNetwork objects.
• object = SpatialNetwork, network.name = character, value = numeric: method for SpatialNetwork objects.

---

spnet.network.arrow.head.lth <-

Set the arrow head length of a given network of a SpatialNetwork object

---

Description

This generic method intends to set or replace the arrow head length of a given network of a SpatialNetwork object.

Usage

spnet.network.arrow.head.lth(object, network.name) <- value

Arguments

object a SpatialNetwork object.
network.name character; the name of the network.
value the arrow head length.

---

spnet.network.arrow.head.type

Get the arrow head type of a given network of a SpatialNetwork object

---

Description

This generic method intends to extract the arrow head type of a given network of a SpatialNetwork object.
spnet.network.arrow.head.type<- 

Usage

spnet.network.arrow.head.type(object, network.name)

## S4 method for signature 'SpatialNetwork,character'
spnet.network.arrow.head.type(object, 
   network.name)

## S4 replacement method for signature 'SpatialNetwork,character,character'
spnet.network.arrow.head.type(object, 
   network.name) <- value

Arguments

object a SpatialNetwork object.
network.name character; the name of the network.
value type of arrowhead to draw, one of "simple", "curved", "triangle", "circle", "ellipse" or "T". See Arrows for details.

Methods (by class)


spnet.network.arrow.head.type<- 
   Set the arrow head type of a given network of a SpatialNetwork object

Description

This generic method intends to set or replace the arrow head type of a given network of a SpatialNetwork object.

Usage

spnet.network.arrow.head.type(object, network.name) <- value

Arguments

object a SpatialNetwork object.
network.name character; the name of the network.
value type of arrowhead to draw, one of "simple", "curved", "triangle", "circle", "ellipse" or "T". See Arrows for details.
spnet.network.arrow.opacity

Get the arrow opacity of a given network of a SpatialNetwork object

Description

This generic method intends to extract the arrow opacity of a given network of a SpatialNetwork object.

Usage

spnet.network.arrow.opacity(object, network.name)

## S4 method for signature 'SpatialNetwork,character'
spnet.network.arrow.opacity(object, network.name)

## S4 replacement method for signature 'SpatialNetwork,character,numeric'
spnet.network.arrow.opacity(object, network.name) <- value

Arguments

- object: a SpatialNetwork object.
- network.name: character; the name of the network.
- value: the arrow opacity.

Methods (by class)


spnet.network.arrow.opacity<-  

Set the arrow opacity of a given network of a SpatialNetwork object

Description

This generic method intends to set or replace the arrow opacity of a given network of a SpatialNetwork object.
Usage

spnet.network.arrow.opacity(object, network.name) <- value

Arguments

object
   a SpatialNetwork object.

network.name
   character; the name of the network.

value
   the arrow opacity.

spnet.network.arrow.shift.x
   Get the arrow shift on the x axis of a given network of a SpatialNetwork object

Description

This generic method intends to extract the arrow shift on the x axis of a given network of a SpatialNetwork object.

Usage

spnet.network.arrow.shift.x(object, network.name)

## S4 method for signature 'SpatialNetwork,character'
spnet.network.arrow.shift.x(object, network.name)

## S4 replacement method for signature 'SpatialNetwork,character,numERIC'
spnet.network.arrow.shift.x(object, network.name) <- value

Arguments

object
   a SpatialNetwork object.

network.name
   character; the name of the network.

value
   the arrow shift on the x axis.

Methods (by class)

**spnet.network.arrow.shift.x**

_Set the arrow shift on the x axis of a given network of a SpatialNetwork object_

---

**Description**
This generic method intends to set or replace the arrow shift on the x axis of a given network of a SpatialNetwork object.

**Usage**

`spnet.network.arrow.shift.x(object, network.name) <- value`

**Arguments**

- `object`: a SpatialNetwork object.
- `network.name`: character; the name of the network.
- `value`: the arrow shift on the x axis.

---

**spnet.network.arrow.shift.y**

_Get the arrow shift on the y axis of a given network of a SpatialNetwork object_

---

**Description**
This generic method intends to extract the arrow shift on the y axis of a given network of a SpatialNetwork object.

**Usage**

`spnet.network.arrow.shift.y(object, network.name)`

```r
## S4 method for signature 'SpatialNetwork,character'
spnet.network.arrow.shift.y(object, network.name)
```

```r
## S4 replacement method for signature 'SpatialNetwork,character,numeric'
spnet.network.arrow.shift.y(object, network.name) <- value
```
spnet.network.arrow.shift

Arguments

- object: a SpatialNetwork object.
- network.name: character; the name of the network.
- value: the arrow shift on the y axis.

Methods (by class)


spnet.network.arrow.shift.y <-

Set the arrow shift on the y axis of a given network of a SpatialNetwork object

Description

This generic method intends to set or replace the arrow shift on the y axis of a given network of a SpatialNetwork object.

Usage

spnet.network.arrow.shift.y(object, network.name) <- value

Arguments

- object: a SpatialNetwork object.
- network.name: character; the name of the network.
- value: the arrow shift on the y axis.

spnet.network.arrow.shorten

Get the arrow shortening of a given network of a SpatialNetwork object

Description

This generic method intends to extract the arrow shortening of a given network of a SpatialNetwork object.
Usage

spnet.network.arrow.shorten(object, network.name)

## S4 method for signature 'SpatialNetwork,character'
spnet.network.arrow.shorten(object, network.name)

## S4 replacement method for signature 'SpatialNetwork,character,numeric'
spnet.network.arrow.shorten(object, network.name) <- value

Arguments

- object: a SpatialNetwork object.
- network.name: character; the name of the network.
- value: the arrow shortening.

Methods (by class)


Description

This generic method intends to set or replace the arrow shortening of a given network of a SpatialNetwork object.

Usage

spnet.network.arrow.shorten(object, network.name) <- value

Arguments

- object: a SpatialNetwork object.
- network.name: character; the name of the network.
- value: the arrow shortening.
spnet.network.arrow.thickness

*Get the arrow thickness of a given network of a SpatialNetwork object*

**Description**

This generic method intends to extract the arrow thickness of a given network of a SpatialNetwork object.

**Usage**

```r
spnet.network.arrow.thickness(object, network.name)
```

```r
## S4 method for signature 'SpatialNetwork,character'
spnet.network.arrow.thickness(object, network.name)
```

```r
## S4 replacement method for signature 'SpatialNetwork,character,numeric'
spnet.network.arrow.thickness(object, network.name) <- value
```

**Arguments**

- **object**: a SpatialNetwork object.
- **network.name**: character; the name of the network.
- **value**: the arrow thickness.

**Methods (by class)**


---

spnet.network.arrow.thickness<-

*Set the arrow thickness of a given network of a SpatialNetwork object*

**Description**

This generic method intends to set or replace the arrow thickness of a given network of a SpatialNetwork object.
spnet.network.data

Usage

\texttt{spnet.network.arrow\_thickness(object, network\_name) \leftarrow value}

Arguments

\begin{verbatim}
object \quad a \text{SpatialNetwork} \text{ object.}
\text{network\_name} \quad \text{character; the name of the network.}
\text{value} \quad \text{the arrow thickness.}
\end{verbatim}

spnet.network.data \quad \textit{Get the data of a given network of a SpatialNetwork object}

Description

This generic method intends to extract the data of a given network of a \text{SpatialNetwork} \text{ object.}

Usage

\texttt{spnet.network.data(object, network\_name)}

\texttt{## S4 method for signature 'SpatialNetwork,character'
spnet.network.data(object, network\_name)}

\texttt{## S4 replacement method for signature 'SpatialNetwork,character,matrix'
spnet.network.data(object,
    network\_name) \leftarrow value}

Arguments

\begin{verbatim}
object \quad a \text{SpatialNetwork} \text{ object.}
\text{network\_name} \quad \text{character; the name of the network.}
\text{value} \quad \text{the network data. Currently only support a matrix object.}
\end{verbatim}

Methods (by class)

\begin{itemize}
  \item object = SpatialNetwork,\text{network\_name} = \text{character}: method for \text{SpatialNetwork} \text{ objects.}
  \item object = SpatialNetwork,\text{network\_name} = \text{character},\text{value} = \text{matrix}: method for \text{SpatialNetwork} \text{ objects.}
\end{itemize}
spnet.network.data <- Set the data of a given network of a SpatialNetwork object

Description

This generic method intends to set or replace the data of a given network of a SpatialNetwork object.

Usage

spnet.network.data(object, network.name) <- value

Arguments

<table>
<thead>
<tr>
<th>object</th>
<th>a SpatialNetwork object.</th>
</tr>
</thead>
<tbody>
<tr>
<td>network.name</td>
<td>character; the name of the network.</td>
</tr>
<tr>
<td>value</td>
<td>the network data. Currently only support a matrix object.</td>
</tr>
</tbody>
</table>

spnet.network.exists  Test if a network exist

Description

This function tests if the network name given in parameter match the name of a network defined within a SpatialNetwork object.

Usage

spnet.network.exists(object, network.name)

Arguments

<table>
<thead>
<tr>
<th>object</th>
<th>a SpatialNetwork object.</th>
</tr>
</thead>
<tbody>
<tr>
<td>network.name</td>
<td>a character; the name of the network.</td>
</tr>
</tbody>
</table>
spnet.network.label

*Get the label of a given network of a SpatialNetwork object*

**Description**

This generic method intends to extract the label of a given network of a SpatialNetwork object.

**Usage**

```r
spnet.network.label(object, network.name)
```

```r
## S4 method for signature 'SpatialNetwork,character'
spnet.network.label(object, network.name)
```

```r
## S4 replacement method for signature 'SpatialNetwork,character,character'
spnet.network.label(object, network.name) <- value
```

**Arguments**

- `object` a SpatialNetwork object.
- `network.name` character; the name of the network.
- `value` the network label.

**Methods (by class)**

- `object = SpatialNetwork, network.name = character` method for SpatialNetwork objects.
- `object = SpatialNetwork, network.name = character, value = character` method for SpatialNetwork objects.

---

spnet.network.label<-  *Set the label of a given network of a SpatialNetwork object*

**Description**

This generic method intends to set or replace the label of a given network of a SpatialNetwork object.

**Usage**

```r
spnet.network.label(object, network.name) <- value
```
Arguments

object a SpatialNetwork object.

network.name character; the name of the network.

value the network label.

spnet.network.list Get the list of all parameters of a given network of a SpatialNetwork object

Description

This generic method intends to extract all parameters of a given network of a SpatialNetwork object.

Usage

spnet.network.list(object, network.name)

## S4 method for signature 'SpatialNetwork,character'
spnet.network.list(object, network.name)

## S4 replacement method for signature 'SpatialNetwork,character,list'
spnet.network.list(object,
    network.name) <- value

Arguments

object the SpatialNetwork object for which we want to get parameters.

network.name character; the name of the network.

value a list of parameters.

Methods (by class)

• object = SpatialNetwork, network.name = character: method for SpatialNetwork objects.

• object = SpatialNetwork, network.name = character, value = list: method for SpatialNetwork objects.
spnet.network.list<-  Set the list of all parameters of a given network of a SpatialNetwork object

Description
This generic method intends to set or replace all parameters of a given network of a SpatialNetwork object.

Usage
spnet.network.list(object, network.name) <- value

Arguments
- object: the SpatialNetwork object for which we want to set parameters.
- network.name: character; the name of the network.
- value: a list of parameters.

spnet.networks.add<-  Add a network

Description
This function defines a new network item in a SpatialNetwork object.

Usage
spnet.networks.add(object) <- value

## S4 replacement method for signature 'SpatialNetwork,character'
spnet.networks.add(object) <- value

Arguments
- object: a SpatialNetwork object.
- value: a character; the name of the network.
spnet.networks.list <-  Get the list of all networks parameters of a SpatialNetwork object

Description

This generic method intends to extract networks parameters of a SpatialNetwork object.

Usage

spnet.networks.list(object)

## S4 method for signature 'SpatialNetwork'
spnet.networks.list(object)

## S4 replacement method for signature 'SpatialNetwork,list'
spnet.networks.list(object) <- value

## S4 replacement method for signature 'SpatialNetwork,list'
spnet.title.list(object) <- value

Arguments

object the SpatialNetwork object for which we want to get parameters.
value a list of parameters.

Methods (by class)

• SpatialNetwork: method for SpatialNetwork objects.
• object = SpatialNetwork,value = list: method for SpatialNetwork objects.
• object = SpatialNetwork,value = list: method for SpatialNetwork objects.

spnet.networks.list<-  Set the list of all networks parameters of a SpatialNetwork object

Description

This generic method intends to set or replace networks parameters of a SpatialNetwork object.

Usage

spnet.networks.list(object) <- value

Arguments

object the SpatialNetwork object for which we want to set parameters.
value a list of parameters.
spnet.networks.remove<-  

Remove a network

Description
This function remove a network item in a SpatialNetwork object.

Usage
spnet.networks.remove(object) <- value

## S4 replacement method for signature 'SpatialNetwork,character'
spnet.networks.remove(object) <- value

Arguments
object a SpatialNetwork object.
value a character; the name of the network.

spnet.par.list  

Get the list of all par parameters of a SpatialNetwork object

Description
This generic method intends to extract par parameters of a SpatialNetwork object.

Usage
spnet.par.list(object)

## S4 method for signature 'SpatialNetwork'
spnet.par.list(object)

## S4 replacement method for signature 'SpatialNetwork,list'
spnet.par.list(object) <- value

Arguments
object the SpatialNetwork object for which we want to get parameters.
value a list of parameters.

Methods (by class)
**spnet.par.list**

Set the list of all par parameters of a SpatialNetwork object

**Description**

This generic method intends to set or replace par parameters of a SpatialNetwork object.

**Usage**

`spnet.par.list(object) <- value`

**Arguments**

- **object**: the SpatialNetwork object for which we want to set parameters.
- **value**: a list of parameters.

**spnet.symbol.cex**

Get the symbol cex parameter of a SpatialNetwork object

**Description**

This generic method intends to extract the symbol cex parameter of a SpatialNetwork object.

**Usage**

```r
spnet.symbol.cex(object)
```

```r
## S4 method for signature 'SpatialNetwork'
spnet.symbol.cex(object)
```

```r
## S4 replacement method for signature 'SpatialNetwork,numeric'
spnet.symbol.cex(object) <- value
```

**Arguments**

- **object**: a SpatialNetwork object.
- **value**: the new cex parameter.

**Methods (by class)**

spnet.symbol.cex<-  

Set the symbol cex parameter of a SpatialNetwork object

Description

This generic method intends to set or replace the symbol cex parameter of a SpatialNetwork object.

Usage

spnet.symbol.cex(object) <- value

Arguments

| object   | a SpatialNetwork object. |
| value    | the new cex parameter. |

spnet.symbol.color  

Get the symbol color of a SpatialNetwork object

Description

This generic method intends to extract the symbol color of a SpatialNetwork object.

Usage

spnet.symbol.color(object)

## S4 method for signature 'SpatialNetwork'
spnet.symbol.color(object)

## S4 replacement method for signature 'SpatialNetwork,character'
spnet.symbol.color(object) <- value

Arguments

| object   | a SpatialNetwork object. |
| value    | the color. |

Methods (by class)

spnet.symbol.color <- Set the symbol color of a SpatialNetwork object

Description

This generic method intends to set or replace the symbol color of a SpatialNetwork object.

Usage

`spnet.symbol.color(object) <- value`

Arguments

- `object` a SpatialNetwork object.
- `value` the color.

spnet.symbol.legend <- Get the symbol legend of a SpatialNetwork object

Description

This generic method intends to extract the symbol legend of a SpatialNetwork object.

Usage

`spnet.symbol.legend(object)`

```r
## S4 method for signature 'SpatialNetwork'
spnet.symbol.legend(object)

## S4 replacement method for signature 'SpatialNetwork,character'
spnet.symbol.legend(object) <- value
```

Arguments

- `object` a SpatialNetwork object.
- `value` the new legend.

Methods (by class)

**spnet.symbol.legend<-**

*Set the symbol legend of a SpatialNetwork object*

**Description**

This generic method intends to set or replace the symbol legend of a SpatialNetwork object.

**Usage**

```
spnet.symbol.legend(object) <- value
```

**Arguments**

- `object`: a SpatialNetwork object.
- `value`: the new legend.

---

**spnet.symbol.list**

*Get the list of all symbol parameters of a SpatialNetwork object*

**Description**

This generic method intends to extract symbol parameters of a SpatialNetwork object.

**Usage**

```
spnet.symbol.list(object)
```

```r
## S4 method for signature 'SpatialNetwork'
spnet.symbol.list(object)
```

```r
## S4 replacement method for signature 'SpatialNetwork,list'
spnet.symbol.list(object) <- value
```

**Arguments**

- `object`: the SpatialNetwork object for which we want to get parameters.
- `value`: a list of parameters.

**Methods (by class)**

spnet.symbol.list<-  Set the list of all symbol parameters of a SpatialNetwork object

Description
This generic method intends to set or replace symbol parameters of a SpatialNetwork object.

Usage
spnet.symbol.list(object) <- value

Arguments
object       the SpatialNetwork object for which we want to set parameters.
value    a list of parameters.

spnet.symbol.shift.x  Get the symbol shift on the x axis of a SpatialNetwork object

Description
This generic method intends to extract the value of symbol shift on the x axis of a SpatialNetwork object.

Usage
spnet.symbol.shift.x(object)

## S4 method for signature 'SpatialNetwork'
spnet.symbol.shift.x(object)

## S4 replacement method for signature 'SpatialNetwork,numeric'
spnet.symbol.shift.x(object) <- value

Arguments
object       a SpatialNetwork object.
value    a numeric; the value of the shift.s

Methods (by class)
• SpatialNetwork: method for SpatialNetwork objects.
• object = SpatialNetwork, value = numeric: method for SpatialNetwork objects.
Description
This generic method intends to set or replace the value of symbol shift on the x axis of a SpatialNetwork object.

Usage
spnet.symbol.shift.x(object) <- value

Arguments

<table>
<thead>
<tr>
<th>Argument</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>object</td>
<td>a SpatialNetwork object.</td>
</tr>
<tr>
<td>value</td>
<td>a numeric; the value of the shift.</td>
</tr>
</tbody>
</table>

Description
This generic method intends to extract the value of the symbol shift on the y of a SpatialNetwork object.

Usage
spnet.symbol.shift.y(object)

## S4 method for signature 'SpatialNetwork'
spnet.symbol.shift.y(object)

## S4 replacement method for signature 'SpatialNetwork,numeric'
spnet.symbol.shift.y(object) <- value

Arguments

<table>
<thead>
<tr>
<th>Argument</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>object</td>
<td>a SpatialNetwork object.</td>
</tr>
<tr>
<td>value</td>
<td>a numeric; the value of the shift.</td>
</tr>
</tbody>
</table>

Methods (by class)

spnet.symbol.shift.y <-

*Set the symbol shift on the y axis of a SpatialNetwork object*

---

**Description**
This generic method intends to set or replace the value of the symbol shift on the y axis of a SpatialNetwork object.

**Usage**
```
spnet.symbol.shift.y(object) <- value
```

**Arguments**
- `object` - a SpatialNetwork object.
- `value` - a numeric; the value of the shift.

---

spnet.symbol.variable  
*Get the symbol variable of a SpatialNetwork object*

---

**Description**
This generic method intends to extract the symbol variable of a SpatialNetwork object.

**Usage**
```
spnet.symbol.variable(object)
```

```r
## S4 method for signature 'SpatialNetwork'
spnet.symbol.variable(object)
```

```r
## S4 replacement method for signature 'SpatialNetwork,character'
spnet.symbol.variable(object) <- value
```

**Arguments**
- `object` - a SpatialNetwork object.
- `value` - the symbol variable.

**Methods (by class)**
spnet.symbol.variable<-  

Set the symbol variable of a SpatialNetwork object

Description

This generic method intends to set or replace the symbol variable of a SpatialNetwork object.

Usage

spnet.symbol.variable(object) <- value

Arguments

- **object**: a SpatialNetwork object.
- **value**: the symbol variable.

spnet.title.list  

Get the list of all title parameters of a SpatialNetwork object

Description

This generic method intends to extract title parameters of a SpatialNetwork object.

Usage

spnet.title.list(object)

## S4 method for signature 'SpatialNetwork'
spnet.title.list(object)

Arguments

- **object**: the SpatialNetwork object for which we want to get parameters.

Methods (by class)

spnet.title.list<-  *Set the list of all title parameters of a SpatialNetwork object*

**Description**

This generic method intends to set or replace title parameters of a SpatialNetwork object.

**Usage**

```r
spnet.title.list(object) <- value
```

**Arguments**

- **object**: the SpatialNetwork object for which we want to set parameters.
- **value**: a list of parameters.

---

spnet.title.main  *Get the main title of a SpatialNetwork object*

**Description**

This generic method intends to extract the main title of a SpatialNetwork object.

**Usage**

```r
spnet.title.main(object)
```

```r
## S4 method for signature 'SpatialNetwork'
spnet.title.main(object)
```

```r
## S4 replacement method for signature 'SpatialNetwork,character'
spnet.title.main(object) <- value
```

**Arguments**

- **object**: a SpatialNetwork object.
- **value**: the new title.

**Methods (by class)**

**spnet.title.main**

*Set the main title of a SpatialNetwork object*

**Description**

This generic method intends to set or replace the main title of a SpatialNetwork object.

**Usage**

```r
spnet.title.main(object) <- value
```

**Arguments**

- **object**
  - a SpatialNetwork object.
- **value**
  - the new title.

**spnet.title.sub**

*Get the sub title of a SpatialNetwork object*

**Description**

This generic method intends to extract the sub title of a SpatialNetwork object.

**Usage**

```r
spnet.title.sub(object)
```

### S4 method for signature 'SpatialNetwork'

```r
spnet.title.sub(object)
```

### S4 replacement method for signature 'SpatialNetwork,character'

```r
spnet.title.sub(object) <- value
```

**Arguments**

- **object**
  - a SpatialNetwork object.
- **value**
  - the new title.

**Methods (by class)**

spnet.title.sub<- 

Set the sub title of a SpatialNetwork object

Description

This generic method intends to set or replace the sub title of a SpatialNetwork object.

Usage

spnet.title.sub(object) <- value

Arguments

object a SpatialNetwork object.
value the new title.

world.map.simplified

The TM_WORLD_BORDERS_SIMPL-0.3 world map.

Description

The simplified version of the world map provided by Bjorn Sandvik, thematicmapping.org.

Format

A SpatialPolygonsDataFrame.

Details

The map was imported in R as follows:

```r
require(maptools)
world.map.simplified <- readShapeSpatial("~/TM_WORLD_BORDERS_SIMPL-0.3/TM_WORLD_BORDERS_SIMPL-0.3.shp")
slot(world.map.simplified, 'data')['NAME'] <- iconv(slot(world.map.simplified, 'data')['NAME'], 'BLatin1', 'BUTF-8')
save(world.map.simplified, file="data/world.map.simplified.rda")
```

The result is a SpatialPolygonsDataFrame object. Its data slot contains a data frame with 246 observations and 11 variable:

- **FIPS**, FIPS 10-4 Country Code
- **ISO2**, ISO 3166-1 Alpha-2 Country Code
- **ISO3**, ISO 3166-1 Alpha-3 Country Code
- **UN**, ISO 3166-1 Numeric-3 Country Code
- **NAME**, Name of country/area
• **AREA.** Land area, FAO Statistics (2002)
• **REGION.** Macro geographical (continental region), UN Statistics
• **SUBREGION.** Geographical sub-region, UN Statistics
• **LON.** Longitude
• **LAT.** Latitude

**Note**

Note from the TM_WORLD_BORDERS_SIMPL-0.3’s README file:

• Use this dataset with care, as several of the borders are disputed.
• The original shapefile (worldBorders.zip, 3.2 MB) was downloaded from the Mapping Hacks website: http://www.mappinghacks.com/data/. The dataset was derived by Schuyler Erle from public domain sources. Sean Gilles did some clean up and made some enhancements.

---

**Description**

Extract or replace parts of a SpatialNetwork object

set parts of SpatialNetwork
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