

# Package ‘symbols’

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**Type** Package

**Title** Symbol plots

**Version** 1.1

**Date** 2009-11-28

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**Depends** R (>= 2.9.1), shape

**Description** Package that implements various symbol plots (bars, profiles, stars, Chernoff faces, color icons, stick figures).

**License** GPL (>= 2)

**LazyLoad** yes

**Repository** CRAN

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**NeedsCompilation** no

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`symbols-package`*Symbol plots*

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**Description**

Package that implements various symbol plots (bars, profiles, stars, Chernoff faces, color icons, stick figures).

**Details**

Package: symbols  
Type: Package  
Version: 1.1  
Date: 2009-11-28  
License: GPL (>= 2)  
LazyLoad: yes

**Author(s)**

Jaroslav Myslivec <jaroslav.myslivec@upce.cz>

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nnumattr                      *Number of numeric variables*

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**Description**

Counts number of numeric variables in data frame.

**Usage**

```
nnumattr(df)
```

**Arguments**

df                      data frame.

**Details**

Counts number of numeric variables in data frame.

**Value**

Returns number of numeric variables.

**Author(s)**

Jaroslav Myslivec <jaroslav.myslivec@upce.cz>

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 normalize

*Normalization*


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### Description

Normalization of variable.

### Usage

```
normalize(ar)
```

### Arguments

ar                    numeric variable.

### Details

Normalization of variable:  $ar \leftarrow (ar - \min(ar)) / (\max(ar) - \min(ar))$

### Value

Returns normalized variable.

### Author(s)

Jaroslav Myslivec <jaroslav.myslivec@upce.cz>

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 symbol

*Symbol plots*


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### Description

Package that implements various symbol plots (bars, profiles, stars, Chernoff faces, color icons, stick figures).

### Usage

```
symbol(df, type="star", colin=NULL, colout=NULL, colin2=NA, colout2=1, ssize=NULL, labels=0, labelsiz
  scheme=1, sortby=0, descending=FALSE, coorx=NULL, coory=NULL, lty=1, main=NULL, sub=NULL, xlab=
  add=FALSE, xlim=NULL, ylim=NULL, facew=0.5, faceh=0.5, eyes=0.5, eyed=0.5, mouthw=0.5, mouthc=0
  browp=0.5, nosel=0.5, nosew=0.5, ears=0.5, pupils=0.5, body=0.5, limb1=0.5, limb2=0.5, limb3=0.
```

**Arguments**

df	data frame.
type	type of symbol plot: bar, profile, star, sun, polygon, face, stick, icon.
colin	number of column in data frame for color filling of symbol.
colout	number of column in data frame for color of border.
colin2	color for filling the symbol.
colout2	color of border.
ssize	size of symbol.
labels	number of column in data frame for labels of symbols.
labelsize	size of labels.
scheme	ordering scheme of symbols: 1=normal, 2=left to right-right to left, 3=spiral.
sortby	number of column in data frame for sorting the symbols.
descending	descending (TRUE) or ascending (FALSE) order of symbols.
coorx	x coordinates of symbols.
coory	y coordinates of symbols.
lty	line type used for drawing lines inside stars and suns.
main	main title for the plot.
sub	sub title for the plot.
xlab	label for the x axis.
ylab	label for the y axis.
add	if TRUE add symbols to current plot.
xlim	vector with the range of x coordinates of plot.
ylim	vector with the range of y coordinates of plot.
facew	number of column in data frame for face width for Chernoff faces.
faceh	number of column in data frame for face height for Chernoff faces.
eyes	number of column in data frame for eyes size for Chernoff faces.
eyed	number of column in data frame for eyes distance for Chernoff faces.
mouthw	number of column in data frame for mouth width for Chernoff faces.
mouthc	number of column in data frame for mouth curve for Chernoff faces.
brows	number of column in data frame for brows size for Chernoff faces.
browp	number of column in data frame for brows position for Chernoff faces.
nose1	number of column in data frame for nose length for Chernoff faces.
nosew	number of column in data frame for nose width for Chernoff faces.
ears	number of column in data frame for ears size for Chernoff faces.
pupils	number of column in data frame for pupils position for Chernoff faces.
body	number of column in data frame for body of stick figures.
limb1	number of column in data frame for first limb of stick figures.
limb2	number of column in data frame for second limb of stick figures.
limb3	number of column in data frame for third limb of stick figures.
limb4	number of column in data frame for fourth limb of stick figures.
defcol	default color for color icons

**Details**

This package implements eight types of symbol plots. Symbols can be colored with continuous or categorical variable (`colin` and `colout`) or with defined color (`colin2` and `colout2`). Symbols can be placed in plot depending on order (with three different schemes - `sortby` and `scheme`), depending on some variables or some derived coordinates (`coorx` and `coory`). Chernoff faces can be defined by 12 variables, stick figures by 5 and color icons by 8.

**Author(s)**

Jaroslav Myslivec <jaroslav.myslivec@upce.cz>

**Examples**

```
data(iris)
symbol(iris)
symbol(iris,coorx=iris[,2],coory=iris[,3],colout=5)
symbol(iris,type="face",scheme=3,sortby=2,colin=5)
symbol(iris,type="stick",coorx=iris[,4],coory=iris[,3],colout=2)
```

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