# Package 'circlesplot'

February 20, 2024

Type Package	
Title Visualize Proportions with Circles in a Plot	
Version 1.1.0	
<b>Description</b> Method for visualizing proportions between objects of different sizes.  The proportions are drawn as circles with different diameters, which makes them ideal for visualizing proportions between planets.	
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Imports plotrix	
Suggests knitr, rmarkdown, testthat (>= 3.0.0), viridis	
<pre>URL https://github.com/BenSt099/circlesplot,</pre>	
https://benst099.github.io/circlesplot/	
BugReports https://github.com/BenSt099/circlesplot/issues	
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circlesplot

circlesplot(): Plots multiple circles with their given ratios

## **Description**

'circlesplot()' plots circles with a given diameter next to each other, so readers can observe the ratio between them.

#### Usage

```
circlesplot(
  cp_vals = NULL,
  cp_text = NULL,
  cp_max = 10L,
  cp_line_width = 2L,
  cp_title = "",
  cp_color = NULL,
  cp_title_size = 1.5,
  cp_sort = "none",
  cp_tight_spacing = 1,
  cp_shape = "circle"
)
```

#### **Arguments**

```
cp_vals
                   Vector (numeric); provides data
cp_text
                   Vector (characters); provides text-labels
                   Maximum number of circles in a row (integer)
cp_max
cp_line_width
                  Line-width of the circles (integer)
                   Title of the plot (String)
cp_title
                   Vector of hex-colors for each circle
cp_color
cp_title_size
                  Size of the title (numeric or integer)
cp_sort
                   String; specifies if values should be sorted ('asc', 'desc'; default: 'none')
cp_tight_spacing
                   Number (numeric); specifies spacing between rows (default: 1.0, possible: 1.0 -
                   2.0; 2.0 smallest distance)
                   String; specifies the shape (default: 'circle'; possible: 'square')
cp_shape
```

#### Value

Returns object of class 'recordedPlot'. Can be used for saving the plot to a variable and replay it again (See https://benst099.github.io/circlesplot/articles/cp\_vignette.html).

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## **Examples**

```
library('plotrix')
colors = c('#D1BBD7', '#AE76A3', '#882E72', '#1965B0', '#5289C7', '#7BAFDE', '#4EB265', '#90C987')
values = c(5,5,4,5,5,5,2,1)
text = c('8','7','6','5','4','3','2','1')
circlesplot(cp_vals=values, cp_text=text, cp_max=3L, cp_title="Some title", cp_color=colors)
# Proportions among planets
library('plotrix')
colors = c('#D1BBD7', '#AE76A3', '#882E72', '#1965B0', '#5289C7', '#7BAFDE', '#4EB265', '#90C987')
planets = c('Mercury','Venus','Earth','Mars','Jupiter','Saturn','Uranus','Neptune')
diameter = c(4879.4, 12103.6, 12756.3, 6792.4, 142984, 120536, 51118, 49528)
circlesplot(cp_vals=diameter, cp_text=planets, cp_max=3L, cp_title="Planets", cp_color=colors)
# For coloring, you can also use viridis package:
library("viridis")
values = c(5,5,4,5,5,5,2,1)
text = c('8', '7', '6', '5', '4', '3', '2', '1')
circlesplot(cp_vals=values, cp_text=text, cp_max=4L, cp_title="Some title", cp_color=viridis(8))
```

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