# Package 'plot4fun'

March 20, 2024

**Type** Package

**Title** Just Plot for Fun

**Version** 0.1.1

**Description** Explore the world of R graphics with fun and interesting plot functions!
Use make_LED() to create dynamic LED screens, draw interconnected rings with Olympic_rings(),
and make festive Chinese couplets with chunlian().
Unleash your creativity and turn data into exciting visuals!

**License** GPL-3

**Encoding** UTF-8

**RoxygenNote** 7.2.3

**Depends** R (>= 4.1.0)

**Imports** magrittr, ggplot2, stats, utils, grDevices, reshape2,
graphics, pcutils, ggforce, plot3D, magick, gifski, showtext,
sysfonts

**Suggests** wordcloud2, geomtextpath

**NeedsCompilation** no

**Author** Chen Peng [aut, cre] (<https://orcid.org/0000-0002-9449-7606>)

**Maintainer** Chen Peng <pengchen2001@zju.edu.cn>

**Repository** CRAN

**Date/Publication** 2024-03-20 12:30:05 UTC

## R topics documented:

---

`chunlian` *Draw a Chunlian (Spring Festival couplet) using ggplot2*

---

## Description

Draw a Chunlian (Spring Festival couplet) using ggplot2

## Usage

```
chunlian(
  words = NULL,
  bg_size = 20,
  bg_shape = 22,
  bg_fill = "red2",
  text_size = 10,
  text_params = list(),
  font_file = NULL,
  download_dir = "plot4fun_temp"
)
```

## Arguments

| | |
|---|---|
| `words` | A character vector containing three strings for the three lines of the couplet |
| `bg_size` | Size of the points in geom_point, 20 |
| `bg_shape` | Shape of the points in geom_point (21~25), 22 or 23 are very good. |
| `bg_fill` | Fill color of the points in geom_point |
| `text_size` | Size of the text in geom_text, 10 |
| `text_params` | parameters parse to geom_text |
| `font_file` | font file, e.g XX.ttf, XX.ttc |
| `download_dir` | download_dir for font_file |

## Value

A ggplot object representing the Chunlian

clock *Plot clock*

## Description

Plot clock

## Usage

```
clock(
  x = format(Sys.time(), "%H:%M"),
  time_label = as.roman(1:12),
  rotate_text = FALSE,
  text_color = "black",
  bg_color = "white",
  pointer_color = "black"
)
```

## Arguments

| | |
|---|---|
| x | time, defalut: format(Sys.time(), "%H:%M"), e.g. 12:30 |
| time_label | time_label, default: as.roman(1:12) |
| rotate_text | rotate_text, FALSE |
| text_color | text_color, "black" |
| bg_color | bg_color, "white" |
| pointer_color | pointer_color, "black" |

## Value

ggplot

## References

https://allancameron.github.io/geomtextpath/

## Examples

```
clock()
```

## convert_chr_to_matrix *convert a character to 01 matrix*

### Description

convert a character to 01 matrix

### Usage

```
convert_chr_to_matrix(
  char,
  size = 32,
  font_file = NULL,
  picture_dir = tempdir()
)
```

### Arguments

| | |
|---|---|
| char | a character |
| size | 32 |
| font_file | font_file |
| picture_dir | where to save the temporary picture |

### Value

chr_mat

### Examples

```
convert_chr_to_matrix("A")
```

## convert_img_to_matrix *convert a imgage to 01 matrix*

### Description

convert a imgage to 01 matrix

### Usage

```
convert_img_to_matrix(image_file, size = 32, breaks = 2)
```

### Arguments

| | |
|---|---|
| image_file | image_file |
| size | 32 |
| breaks | breaks, default 2 |

### Value

chr_mat

---

DNA_plot *Plot a DNA double helix*

---

### Description

Plot a DNA double helix

### Usage

```
DNA_plot(
  col_DNA = "#377EB8",
  col_ATCG = c("#7FC97F", "#FB8072", "#FFFFB3", "#A6CEE3"),
  DNA_length = 2
)
```

### Arguments

| | |
|---|---|
| col_DNA | col_DNA, "#377EB8" |
| col_ATCG | col_ATCG, c("#7FC97F","#FB8072","#FFFFB3","#A6CEE3") |
| DNA_length | DNA_length, 2 |

### Value

ggplot

### References

https://github.com/SherryDong/create_plot_by_R_base

### Examples

```
DNA_plot()
```

## give_you_a_rose *Give you a rose*

### Description

Give you a rose

### Usage

```
give_you_a_rose(color = "red3")
```

### Arguments

| | |
|---|---|
| color | "skyblue3" |

### Value

plot

### References

https://mp.weixin.qq.com/s/W-BYPR3UXL120XWpTmN3rA

## life_game *Life Game Simulation*

### Description

Life Game Simulation

### Usage

```
life_game(
  save_file = NULL,
  size = 20,
  time = 20,
  fps = 0.75,
  colors = c("black", "green4"),
  ...
)
```

### Arguments

| | |
|---|---|
| save_file | gif filename |
| size | size of the world |
| time | how many times the life game continue. |
| fps | fps, 0.75 |
| colors | c("green4", "black") |
| ... | add |

### Value

a gif file

### References

https://zhuanlan.zhihu.com/p/136727731

### Examples

```
if (interactive()) life_game()
```

---

## make_LED *make a LED screen*

---

### Description

make a LED screen

### Usage

```
make_LED(
  chars = "SOS!",
  save_file = NULL,
  LED_width = NULL,
  speed = 32,
  fps = 10,
  colors = c("grey", "red2"),
  LED_height = 32,
  image_scale = 10,
  ...
)
```

### Arguments

| | |
|---|---|
| chars | chars |
| save_file | save_file |
| LED_width | LED_width |
| speed | pixel speed, default 32 |
| fps | frame per second, 10 |
| colors | c("grey","red2") |
| LED_height | LED_height, 64 |
| image_scale | image scale, 10 |
| ... | add |

### Value

gif file

### Examples

```
if (interactive()) make_LED("SOS!")
```

---

## my_wordcloud *Word cloud plot*

---

### Description

Word cloud plot

### Usage

```
my_wordcloud(
  str_vector,
 ignore_words = "Unclassified|uncultured|Ambiguous|Unknown|unknown|metagenome|Unassig",
  topN = 50
)
```

### Arguments

| | |
|---|---|
| str_vector | string vector |
| ignore_words | ignore_words |
| topN | topN, 50 |

### Value

a htmlwidget

## Examples

```
data(otutab, package = "pcutils")
if (requireNamespace("wordcloud2")) {
  my_wordcloud(taxonomy$Genus)
}
```

---

`Olympic_rings` *Plot the Olympic rings*

---

## Description

Plot the Olympic rings

## Usage

```
Olympic_rings()
```

## Value

ggplot

## Examples

```
Olympic_rings()
```

---

`plot.chr_mat` *Plot a chr_mat*

---

## Description

Plot a chr_mat

## Usage

```
## S3 method for class 'chr_mat'
plot(x, colors = c("grey", "red2"), random = FALSE, ...)
```

## Arguments

| | |
|---|---|
| `x` | chr_mat object |
| `colors` | c("grey","red2") |
| `random` | add random |
| `...` | add |

### Value

plot

---

`show_github_calendar` *Plot a github style calendar*

---

### Description

Plot a github style calendar

### Usage

```
show_github_calendar(usr = "asa12138", color = NULL, save_file = NULL, ...)
```

### Arguments

| | |
|---|---|
| `usr` | github username |
| `color` | color, NULL |
| `save_file` | save_file, NULL |
| `...` | add |

### Value

a svg file

# Index