

# Package ‘ggtangle’

October 24, 2024

**Title** Draw Network with Data

**Version** 0.0.3

**Description** Extends the 'ggplot2' plotting system to support network visualization. Inspired by 'ggtree', 'ggtangle' is designed to work with network associated data.

**Imports** ggfun (>= 0.1.7), ggplot2, ggrepel, igraph, rlang, yulab.utils (>= 0.1.7)

**Suggests** aplot, ggtree, knitr, prettydoc, rmarkdown, scatterpie (>= 0.2.4)

**VignetteBuilder** knitr

**License** Artistic-2.0

**Encoding** UTF-8

**RoxygenNote** 7.3.2

**NeedsCompilation** no

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**Repository** CRAN

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## Contents

cnetplot . . . . .	2
drag_network . . . . .	3
geom_edge . . . . .	4

<b>Index</b>	<b>5</b>
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`cnetplot`*category-item network plot*

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## Description

category-item network plot

## Usage

```
cnetplot(  
  x,  
  layout = igraph::layout_nicely,  
  showCategory = 5,  
  color_category = "#E5C494",  
  size_category = 1,  
  color_item = "#B3B3B3",  
  size_item = 1,  
  color_edge = "grey",  
  size_edge = 0.5,  
  node_label = "all",  
  foldChange = NULL,  
  hilight = "none",  
  hilight_alpha = 0.3,  
  ...  
)
```

```
## S3 method for class 'list'  
cnetplot(  
  x,  
  layout = igraph::layout_nicely,  
  showCategory = 5,  
  color_category = "#E5C494",  
  size_category = 1,  
  color_item = "#B3B3B3",  
  size_item = 1,  
  color_edge = "grey",  
  size_edge = 0.5,  
  node_label = "all",  
  foldChange = NULL,  
  hilight = "none",  
  hilight_alpha = 0.3,  
  ...  
)
```

## Arguments

x                   input object

layout	network layout
showCategory	selected category to be displayed
color_category	color of category node
size_category	relative size of the category
color_item	color of item node
size_item	relative size of the item (e.g., genes)
color_edge	color of edge
size_edge	relative size of edge
node_label	one of 'all', 'none', 'category' and 'item'
foldChange	numeric values to color the item (e.g, foldChange of gene expression values)
hilight	selected category to be highlighted
hilight_alpha	transparent value for not selected to be highlight
...	additional parameters

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drag\_network

*Drag the nodes of a network to update the layout of the network*


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### Description

Drag the nodes of a network to update the layout of the network

### Usage

```
drag_network(p, g = NULL)
```

### Arguments

**p** the network diagram as a ggplot/gg/ggraph object.  
**g** an corresponding igraph object. Default is to extract from the 'ggraph' attribute.

### Value

an updated ggplot/gg/ggraph object

### Examples

```
## Not run:
library(igraph)
library(ggraph)

flow_info <- data.frame(from = c(1,2,3,3,4,5,6),
                       to = c(5,5,5,6,7,6,7))
g = graph_from_data_frame(flow_info)
p <- ggraph(g, layout='nicely') + geom_node_point() + geom_edge_link()
pp <- drag_network(p)

## End(Not run)
```

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geom_edge	<i>layer to draw edges of a network</i>
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### Description

layer to draw edges of a network

### Usage

```
geom_edge(mapping = NULL, data = NULL, geom = geom_segment, ...)
```

### Arguments

mapping	aesthetic mapping, default is NULL
data	data to plot, default is NULL
geom	geometric layer to draw lines
...	additional parameter passed to 'geom'

### Value

line segments layer

### Examples

```
flow_info <- data.frame(from = LETTERS[c(1,2,3,3,4,5,6)],
                        to = LETTERS[c(5,5,5,6,7,6,7)])

dd <- data.frame(
  label = LETTERS[1:7],
  v1 = abs(rnorm(7)),
  v2 = abs(rnorm(7)),
  v3 = abs(rnorm(7))
)

g = igraph::graph_from_data_frame(flow_info)

p <- ggplot(g) + geom_edge()
library(ggplot2)
library(scatterpie)

p %+% dd +
  geom_scatterpie(cols = c("v1", "v2", "v3")) +
  geom_text(aes(label=label), nudge_y = .2) +
  coord_fixed()
```

# Index

`cnetplot`, 2

`drag_network`, 3

`geom_edge`, 4