

Package: grPipe (via r-universe)

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Type Package

Title Graphviz Pipeline Plot Based on Grids (grPipe: Graphviz Pipeline)

Version 0.2.0

Description Create a grid-based graphviz using the following functions: 1 - Creating the data.frame where the nodes are; 2 - Adding and editing nodes; 3 - Plotting these nodes.

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Encoding UTF-8

Imports DiagrammeR, DiagrammeRsvg, dplyr, magick, magrittr

RoxygenNote 7.2.0

Repository <https://d-gaspar.r-universe.dev>

RemoteUrl <https://github.com/d-gaspar/grpipe>

RemoteRef HEAD

RemoteSha 030f1329bd896f09aff5ccc2cfbd0791b5b82a49

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grPipe.create	<i>Create New Graphviz Data.Frame (grPipe Nodes)</i>
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Description

if nrow or ncol parameters are equal zero, then the output will be an empty data.frame.

Usage

```
grPipe.create(nrow = 0, ncol = 0)
```

Arguments

nrow	integer
ncol	integer

Value

Returns a data.frame with 3 columns (id, id_next and text) where:

- if nrow==0 or ncol==0, then return an empty data.frame;
- if nrow>0 and ncol>0, then return a data.frame with one row:
 - id = paste0(LETTERS[nrow], ncol)
 - id_next = NA
 - text = NA
 - attr = NA
 - image = NA

Author(s)

Daniel Gaspar Gonçalves

Examples

```
nodes = grPipe.create()  
nodes = grPipe.create(nrow = 2, ncol = 5)
```

grPipe.node

Add or Update grPipe Nodes

Description

add a new node if it doesn't exist or update an existing one.

Usage

```
grPipe.node(  
  nodes,  
  id,  
  id_next,  
  text,  
  
  attr = "style=filled, shape=box, fillcolor='#d3d3d3', color='#d3d3d3', margin='0.2,0'",  
  image = NA  
)
```

Arguments

nodes	data.frame
id	character
id_next	character
text	character
attr	character
image	character

Value

Returns a data.frame with 5 columns (id, id_next, text, attr and image) where:

- If **id** and **id_next** already exist in the data.frame **nodes**, then return the data.frame **nodes** with the value **text** updated;
- Otherwise, add a row in the data.frame **nodes** with the values passed (**id**, **id_next** and **text**) and then return the data.frame **nodes**.

Author(s)

Daniel Gaspar Gonçalves

Examples

```
nodes = grPipe.create(2,5)
nodes = grPipe.node(nodes, "A1", "A2", "input")
nodes = grPipe.node(nodes, "A2", "B2", "step 1")
nodes = grPipe.node(nodes, "B2", "B3", "step 2")
nodes = grPipe.node(nodes, "B3", "B4", "step 3")
nodes = grPipe.node(nodes, "B4", "A4", "step 4")
nodes = grPipe.node(nodes, "A4", "A5", "step 5")
nodes = grPipe.node(nodes, "A5", NA, "output")
```

grPipe.plot

Plot grPipe Nodes

Description

save grPipe nodes in **pngfile** path.

Usage

```
grPipe.plot(  
  nodes,  
  pngfile,  
  title = "",  
  plot = TRUE,  
  showGrid = FALSE,  
  colSpace = 0.5,  
  rowSpace = 0.5  
)
```

Arguments

nodes	data.frame
pngfile	character
title	character
plot	logical
showGrid	logical
colSpace	numeric
rowSpace	numeric

Value

No return value.

Author(s)

Daniel Gaspar Gonçalves

Examples

```
nodes = grPipe.create(2,5)  
nodes = grPipe.node(nodes, "A1", "A2", "input")  
nodes = grPipe.node(nodes, "A2", "B2", "step 1")  
nodes = grPipe.node(nodes, "B2", "B3", "step 2")  
nodes = grPipe.node(nodes, "B3", "B4", "step 3")  
nodes = grPipe.node(nodes, "B4", "A4", "step 4")  
nodes = grPipe.node(nodes, "A4", "A5", "step 5")  
nodes = grPipe.node(nodes, "A5", NA, "output")  
grPipe.plot(nodes, tempfile(), showGrid = TRUE)  
grPipe.plot(nodes, tempfile(), showGrid = FALSE)
```

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