

Package ‘grPipe’

June 9, 2022

Type Package

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

Version 0.1.0

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, magrittr, rsvg, png, grid

RoxygenNote 7.2.0

NeedsCompilation no

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Repository CRAN

Date/Publication 2022-06-09 07:50:05 UTC

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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

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)
```

Arguments

<code>nodes</code>	<code>data.frame</code>
<code>id</code>	<code>character</code>
<code>id_next</code>	<code>character</code>
<code>text</code>	<code>character</code>

Value

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

<code>nodes</code>	data.frame
<code>pngfile</code>	character
<code>title</code>	character
<code>plot</code>	logical
<code>showGrid</code>	logical
<code>colSpace</code>	numeric
<code>rowSpace</code>	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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