Package 'grPipe'

October 13, 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

R topics documented:

`grPipe.create` *Create New Graphviz Data.Frame (grPipe Nodes)*

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

nodes	data.frame
id	character
id_next	character
text	character

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

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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