visNetReorder

June 4, 2015

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visNetReorder	*Function to visualise the multiple graph colorings reorded within a sheet-shape rectangle grid*

Description

visNetReorder is supposed to visualise the multiple graph colorings reorded within a sheet-shape rectangle grid

Usage

```
visNetReorder(g, data, sReorder, height = 7, margin = rep(0.1, 4),
border.color = "#EEEEEE", colormap = c("bwr", "jet", "gbr", "wyr",
"br",
"yr", "rainbow", "wb"), ncolors = 40, zlim = NULL, colorbar = T,
colorbar.fraction = 0.5, newpage = T,
glayout = layout.fruchterman.reingold, mtext.side = 3, mtext.adj = 0,
mtext.cex = 1, mtext.font = 2, mtext.col = "black", ...)
```

Arguments

g	an object of class "igraph" or "graphNEL"
data	an input data matrix used to color-code vertices/nodes. One column corresponds to one graph node coloring. The input matrix must have row names, and these names should include all node names of input graph, i.e. V(g)$name, since there is a mapping operation. After mapping, the length of the pattern vector should be the same as the number of nodes of input graph. The way of how to color-code is to map values in the pattern onto the whole colormap (see the next arguments: colormap, ncolors, zlim and colorbar)
sReorder	an object of class "sReorder"
height	a numeric value specifying the height of device
margin	margins as units of length 4 or 1
border.color	the border color of each figure

colormap   short name for the colormap. It can be one of "jet" (jet colormap), "bwr" (blue-
                      white-red colormap), "gbr" (green-black-red colormap), "wyr" (white-yellow-
                      red colormap), "br" (black-red colormap), "yr" (yellow-red colormap), "wb"
                      (white-black colormap), and "rainbow" (rainbow colormap, that is, red-yellow-
                      green-cyan-blue-magenta). Alternatively, any hyphen-separated HTML color
                      names, e.g. "blue-black-yellow", "royalblue-white-sandybrown", "darkgreen-
                      white-darkviolet". A list of standard color names can be found in [http://
                      html-color-codes.info/color-names](http://html-color-codes.info/color-names)

ncolors   the number of colors specified over the colormap

zlim   the minimum and maximum z/patttern values for which colors should be plotted,
                      defaulting to the range of the finite values of z. Each of the given colors will be
                      used to color an equispaced interval of this range. The midpoints of the intervals
                      cover the range, so that values just outside the range will be plotted

colorbar   logical to indicate whether to append a colorbar. If pattern is null, it always sets
                      to false

colorbar.fraction
                      the relative fraction of colorbar block against the figure block

newpage   logical to indicate whether to open a new page. By default, it sets to true for
                      opening a new page

glayout   either a function or a numeric matrix configuring how the vertices will be placed
                      on the plot. If layout is a function, this function will be called with the graph
                      as the single parameter to determine the actual coordinates. This function can
                      be one of "layout.auto", "layout.random", "layout.circle", "layout.sphere", "lay-
                      out.fruchterman.reingold", "layout.kamada.kawai", "layout.spring", "layout.reingold.tilford",
                      "layout.fruchterman.reingold.grid", "layout.lgl", "layout.graphopt", "layout.svd"
                      and "layout.norm". A full explanation of these layouts can be found in [http:
                      //igraph.org/r/doc/layout.html](http://igraph.org/r/doc/layout.html)

mtext.side   on which side of the mtext plot (1=bottom, 2=left, 3=top, 4=right)

mtext.adj   the adjustment for mtext alignment (0 for left or bottom alignment, 1 for right
                      or top alignment)

mtext.cex   the font size of mtext labels

mtext.font   the font weight of mtext labels

mtext.col   the color of mtext labels

...   additional graphic parameters. See [http://igraph.org/r/doc/plot.common.
                      html](http://igraph.org/r/doc/plot.common.html) for the complete list.

Value

invisible

Note

See Also

[visNet](), [dNetReorder]()

Examples

```
# 1) generate a random graph according to the ER model
g <- erdos.renyi.game(100, 1/100)

# 2) produce the induced subgraph only based on the nodes in query
subg <- dNetInduce(g, V(g), knn=0)

# 3) reorder the module with vertices being color-coded by input data
nnodes <- vcount(subg)
nsamples <- 10
data <- matrix(runif(nnodes*nsamples), nrow=nnodes, ncol=nsamples)
rownames(data) <- V(subg)$name
sReorder <- dNetReorder(g=subg, data, feature="node",
node.normalise="none")

# 4) visualise the module with vertices being color-coded by input data
visNetReorder(g=subg, colormap="bwr", data=data, sReorder)
```