visDmatCluster

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visDmatCluster	*Function to visualise clusters/bases partitioned from a supra-hexagonal grid*

Description

visDmatCluster is supposed to visualise clusters/bases partitioned from a supra-hexagonal grid

Usage

```
visDmatCluster(sMap, sBase, height = 7, margin = rep(0.1, 4),
area.size = 1, gp = grid::gpar(cex = 0.8, font = 2, col = "black"),
border.color = "transparent", fill.color = NULL, lty = 1, lwd = 1,
lineend = "round", linejoin = "round", colormap = c("rainbow", "jet",
"bwr", "gbr", "wyr", "br", "yr", "wb"), clip = c("on", "inherit",
"off"),
newpage = T)
```

Arguments

sMap	an object of class "sMap"
sBase	an object of class "sBase"
height	a numeric value specifying the height of device
margin	margins as units of length 4 or 1
area.size	an inteter or a vector specifying the area size of each hexagon
gp	an object of class "gpar". It is the output from a call to the function "gpar" (i.e., a list of graphical parameter settings)
border.color	the border color for each hexagon
fill.color	the filled color for each hexagon
lty	the line type for each hexagon. 0 for 'blank', 1 for 'solid', 2 for 'dashed', 3 for 'dotted', 4 for 'dotdash', 5 for 'longdash', 6 for 'twodash'
lwd	the line width for each hexagon
lineend	the line end style for each hexagon. It can be one of 'round', 'butt' and 'square'
linejoin	the line join style for each hexagon. It can be one of 'round', 'mitre' and 'bevel'

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
clip	either "on" for clipping to the extent of this viewport, "inherit" for inheriting the clipping region from the parent viewport, or "off" to turn clipping off altogether
newpage	logical to indicate whether to open a new page. By default, it sets to true for opening a new page

Value

invisible

Note

none

See Also

sDmatCluster, sDmat, visColormap, visHexGrid

Examples

```
# 1) generate an iid normal random matrix of 100x10
data <- matrix( rnorm(100*10,mean=0,sd=1), nrow=100, ncol=10)

# 2) get trained using by default setup
sMap <- sPipeline(data=data)

# 3) partition the grid map into clusters using region-growing algorithm
sBase <- sDmatCluster(sMap=sMap, which_neigh=1,
distMeasure="median", clusterLinkage="average")

# 4) visualise clusters/bases partitioned from the sMap
visDmatCluster(sMap,sBase)
# 4a) also, the area size is proportional to the hits
visDmatCluster(sMap,sBase, area.size=log2(sMap$hits+1))
# 4b) also, the area size is inversely proportional to the map distance
dMat <- sDmat(sMap)
visDmatCluster(sMap,sBase, area.size=-1*log2(dMat))

# 5) customise the fill color and line type
my_color <-
visColormap(colormap="PapayaWhip-pink-Tomato")(length(sBase$seeds))[sBase$bases]
my_lty <- (sBase$bases %% 2)
visDmatCluster(sMap,sBase, fill.color=my_color, lty=my_lty,
border.color="black", lwd=2, area.size=0.9)
# also, the area size is inversely proportional to the map distance
visDmatCluster(sMap,sBase, fill.color=my_color, lty=my_lty,
border.color="black", lwd=2, area.size=-1*log2(dMat))
```