splots

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plotScreen   *Plot a false-color representation of screening data*

Description

plotScreen produces a false-color representation of screening data from multiple plates (typical use case: dozens of plates) in a single plot.

Usage

```
plotScreen(z,
           ncol = 6L,
           zrange,
           main = "",
           do.names = TRUE,
           do.legend = TRUE,
           legend.label = deparse(substitute(z)),
           nx = 24,
           ny = 16,
           fill,
           na.fill = "grey" ,
           do.grid.newpage = TRUE)
```

Arguments

z   A list of plate data. Each element provides data for a plate and is expected to
                be a vector of length at least nx*ny (only the first nx*ny elements will be
                displayed). The values are assumed to come in row-by-row order, e.g. A1, A2,
                A3, ..., B1, B2, ... Alternatively, the elements of z can be factors that represent
                well or spot classes (e.g. the different types of controls, empty wells, wells with
                reagent of interest).

ncol   Integer of length 1. Number of columns (plates in one row) for the plot.

zrange   If the elements of z are numeric, then this optional parameter can be used to
                specify the numeric range that is mapped to the color scale; by default, a sym-
                metric interval around the median of unlist(z) is used. If the elements of z
                are factors, then this optional parameter can be used to specify the total ordered
                set of factor levels; by default, the union of the levels of the elements of z is
                used.

fill	If the elements of `z` are numeric, then this parameter can be used to specify a character vector of color names used to create a color ramp for the false color data representation. The default colors correspond to blue for low values, white for the middle of the range and red for high values. If the elements of `z` are factors, then this parameter can be used to define the corresponding color names; by default, a palette from `RColorBrewer` is used.
main	Character of length 1 or plotmath expression used for the plot title. To omit, set this argument to length 0, to the empty character `""`, to `FALSE` or to `NULL`.
do.names	Logical specifiying if plate captions should be plotted.
do.legend	Logical specifying if a legend for false color values should be output.
legend.label	Character of length 1 or plotmath expression that is printed next to the legend (see vignette for examples). To omit, set this argument to length 0, to the empty character `""`, to `FALSE` or to `NULL`.
nx	An integer for the number of columns in a plate. Default 24 for a 384-well plate.
ny	An integer for the number of rows in a plate. Default 16 for a 384-well plate.
na.fill	Color for NA values.
do.grid.newpage	
	Logical, if `TRUE`, then the function `grid.newpage` is called at the begin of this function.

Value

None. The function is called for its side effect.

Author(s)

Wolfgang Huber, based on an earlier version by Oleg Sklyar.

Examples

```
screen = lapply(1:12, function(i) cumsum(rnorm(384)))
plotScreen(screen, ncol=3, fill=c("white", "darkblue"))
```

Index