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,
dataSlot,
zrange,
main = "",
do.names = TRUE,
do.legend = FALSE,
px = 24L,
ny = 16L,
fill = c("blue", "white", "red"),
abris = "#333333",
na.fill = "grey")

Arguments

z
A list of plate data. Each element provides data for a single 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. The elements of z can also be data.frames or lists, see the argument dataSlot.

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

dataSlot
Character of length 1. This can be convenient if elements of z are of class data.frame or list themselves. If dataSlot is not missing, lapply(z, "{[", dataSlot) is used.

zrange
The numeric range that is mapped to the color scale. If missing, the range of the data in z is used.

main
Character of length 1, the plot title.

do.names
Logical specifying if plate captions should be plotted.
do.legend Logical specifying if a legend for false color values should be output.
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.
fill A character vector of colors to create a color ramp for the false color data representation. At least two colors must be specified. The default color correspond to blue for low values, white for the middle of the range and red for high values.
abris A character value for the color of the plate outline.
na.fill Color for NA values.

Value
invisible(NULL)

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References
The idea for this function is from Ligia Bras.

Examples

screen = lapply(1:12, function(i) runif(352))
plotScreen(screen, ncol=3)
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