Package ‘tidygate’

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Type Package

Title Add Gate Information to Your Tibble

Version 0.2.8

Maintainer Stefano Mangiola <mangiolastefano@gmail.com>

Description It interactively or programmatically label points within custom gates on two dimensions.
The information is added to your tibble. It is based on the package 'gatepoints' from Wajid Jawaid.
The benefits are (i) in interactive mode you can draw your gates on extensive 'ggplot'-
like scatter plots;
(ii) you can draw multiple gates; and (iii) you can save your gates and apply the programmatically.

License GPL-3

Depends R (>= 3.6.0)

Encoding UTF-8

LazyData true

RoxygenNote 7.1.1

Imports methods,
lme4,
stats,
utils,
graphics,
lifecycle,
gatepoints,
scales,
magrittr,
tibble,
dplyr,
tidyselect,
purrr,
rlang,
tidyr,
viridis,
grDevices,
RColorBrewer,
stringr

RdMacros lifecycle

Suggests testthat,
markdown,
knitr

VignetteBuilder knitr

Biarch true

biocViews AssayDomain, Infrastructure

R topics documented:

gate *Label points within a scatter plot drawing a gate*

Description

gate() takes as input a ‘tbl‘ formatted as | <DIMENSION 1> | <DIMENSION 2> | <...> | and calculates the rotated dimensional space of the feature value.

Usage

```
gate(
  .data,
  .element,
  .dim1,
  .dim2,
  .color = NULL,
  .shape = NULL,
  .size = NULL,
  opacity = 1,
  how_many_gates = 1,
  gate_list = NULL,
  name = "gate",
  action = "add",
  ...
)

## S3 method for class 'spec_tbl_df'
gate(
  .data,
  .element,
  .dim1,
  .dim2,
  .color = NULL,
  .shape = NULL,
  .size = NULL,
  opacity = 1,
  how_many_gates = 1,
  gate_list = NULL,
  name = "gate",
  action = "add",
  ...
)

## S3 method for class 'tbl_df'
gate(
  .data,
  .element,
  .dim1,
  .dim2,
  .color = NULL,
  .shape = NULL,
  .size = NULL,
  opacity = 1,
  how_many_gates = 1,
  gate_list = NULL,
  name = "gate",
  action = "add",
  ...
)
```

Arguments

.data	A tibble
.element	A column symbol. The column that is used to calculate distance (i.e., normally genes)
.dim1	A column symbol. The x dimension
.dim2	A column symbol. The y dimension
.color	A column symbol. Color of points
.shape	A column symbol. Shape of points
.size	A column symbol. Size of points
opacity	A number between 0 and 1. The opacity level of the data points
how_many_gates	An integer. The number of gates to label
gate_list	A list of gates. It is returned by gate function as attribute \"gate\". If you want to create this list yourself, each element of the list is a data frame with x and y columns. Each row is a coordinate. The order matter.
name	A character string. The name of the new column
action	A character string. Whether to join the new information to the input tbl (add), or just get the non-redundant tbl with the new information (get).
...	Further parameters passed to the function gatepoints::fhs

Details

Maturing

This function allow the user to label data points in inside one or more 2D gates. This package is based on on the package gatepoints.

Value

A tbl object with additional columns for the inside gate information. additional columns for the rotated dimensions. The rotated dimensions will be added to the original data set as ‘<NAME OF DIMENSION> rotated <ANGLE>‘ by default, or as specified in the input arguments.

A tbl object with additional columns for the reduced dimensions. additional columns for the rotated dimensions. The rotated dimensions will be added to the original data set as ‘<NAME OF DIMENSION> rotated <ANGLE>‘ by default, or as specified in the input arguments.

A tbl object with additional columns for the reduced dimensions. additional columns for the rotated dimensions. The rotated dimensions will be added to the original data set as ‘<NAME OF DIMENSION> rotated <ANGLE>‘ by default, or as specified in the input arguments.

Examples

```
  if(interactive()){

    tidygate::tidygate_data %>%
    gate( .element = c(`ct 1`, `ct 2`), Dim1, Dim2 )

  }



library(magrittr)

tidygate::tidygate_data  %>%
 gate(
   .element = c(`ct 1`, `ct 2`),
   Dim1, Dim2,
   gate_list = tidygate::gate_list
 )
```

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