

Package ‘interacCircos’

April 10, 2021

Type Package

Title The Generation of Interactive Circos Plot

Description Implement in an efficient approach to display the genomic data, relationship, information in an interactive circular genome(Circos) plot. 'interacCircos' are inspired by 'circosJS', 'BioCircos.js' and 'NG-Circos' and we integrate the modules of 'circosJS', 'BioCircos.js' and 'NG-Circos' into this R package, based on 'htmlwidgets' framework.

Version 1.1.2

License GPL-3

Encoding UTF-8

LazyData true

Depends R (>= 4.1)

Imports RColorBrewer, htmlwidgets, plyr, methods

RoxygenNote 7.1.1

Suggests knitr, rmarkdown

VignetteBuilder knitr

biocViews Visualization

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arcExample	<i>Arc plot example data</i>
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Description

The data is in matrix with column names

Usage

```
arcExample
```

Format

A data frame with 7 columns:

chr chromosome

start start position

end end position

color color

des description

link hyperlink

html The external html language

`bubbleExample`*Bubble plot example data*

Description

The data is in matrix with column names

Usage

```
bubbleExample
```

Format

A data frame with 8 columns:

chr chromosome

start start position

end end position

name name for description

value value

color specified color for bubble

layer layer number

html The external html language

`chord.pExample`*Example data of chord plot of circosJS*

Description

The data is in matrix with column names

Usage

```
chord.pExample
```

Format

A data frame in which each row represents the relationship from one genome position(source) to another one(target):

source_chr chromosome name of source

source_start start position of source

source_end end position of source

target_chr chromosome name of target

target_start start position of target

target_end end position of target

chordExample

Example data of chord plot of NG-Circos

Description

The data is in matrix with column names. The order and number is same as column, representing the same items

Usage

```
chordExample
```

Format

A data frame in which each value represents the relationship from a column to a row:

C.CK Genome 1, the name for each arc

C.NPK Genome 2, the name for each arc

GC.CK Genome 2, the name for each arc

GC.NPK Genome 2, the name for each arc

Alphaproteobacteria Genome 2, the name for each arc

Betaproteobacteria Genome 2, the name for each arc

Gammaproteobacteria Genome 2, the name for each arc

Deltaproteobacteria Genome 8, the name for each arc

Acidobacteria Genome 9, the name for each arc

Actinobacteria Genome 10, the name for each arc

Bacteroidetes Genome 11, the name for each arc

Chloroflexi Genome 12, the name for each arc

Firmicutes Genome 13, the name for each arc

Gemmatimonadetes Genome 14, the name for each arc

Planctomycetes Genome 15, the name for each arc

Thaumarchaeota Genome 16, the name for each arc

Verrucomicrobia Genome 17, the name for each arc

Ascomycota Genome 18, the name for each arc

Basidiomycota Genome 19, the name for each arc

Zygomycota Genome 20, the name for each arc

Circos

*interacCircos***Description**

Visualization of Interactive Circos Plot

Usage

```

Circos(
  moduleList = CircosModuleList(),
  genome = "hg19",
  genome2 = "hg19",
  genomeFillColor = "Spectral",
  chrPad = 0.02,
  width = NULL,
  height = NULL,
  innerRadius = 216,
  outerRadius = 240,
  svgClassName = "interacCircos",
  displayGenomeBorder = TRUE,
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  genomeBorderSize = 0.5,
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  genomeLabelTextColor = "#000",
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  compareEventGroupDistance = 0,
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  CNVMouseClickedArcOpacity = 1,
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```

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SCATTERMouseClickedDisplay = FALSE,
SCATTERMouseClickedColor = "red",
SCATTERMouseClickedCircleSize = 2,
SCATTERMouseClickedCircleOpacity = 1,
SCATTERMouseClickedCircleStrokeColor = "none",
SCATTERMouseClickedCircleStrokeWidth = "none",
SCATTERMouseClickedTextFromData = "fourth",
SCATTERMouseClickedTextOpacity = 1,
SCATTERMouseClickedTextColor = "red",
SCATTERMouseClickedTextSize = 8,
SCATTERMouseClickedTextPostionX = 1,
SCATTERMouseClickedTextPostionY = 10,
SCATTERMouseClickedTextDrag = TRUE,
SCATTERMouseDownDisplay = FALSE,
SCATTERMouseDownColor = "red",
SCATTERMouseDownCircleSize = 2,
SCATTERMouseDownCircleOpacity = 1,
SCATTERMouseDownCircleStrokeColor = "none",
SCATTERMouseDownCircleStrokeWidth = "none",
SCATTERMouseEnterDisplay = FALSE,
SCATTERMouseEnterColor = "red",
SCATTERMouseEnterCircleSize = 2,
SCATTERMouseEnterCircleOpacity = 1,
SCATTERMouseEnterCircleStrokeColor = "none",
SCATTERMouseEnterCircleStrokeWidth = "none",
```

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SCATTERMouseLeaveDisplay = FALSE,
SCATTERMouseLeaveColor = "red",
SCATTERMouseLeaveCircleSize = 2,
SCATTERMouseLeaveCircleOpacity = 1,
SCATTERMouseLeaveCircleStrokeColor = "none",
SCATTERMouseLeaveCircleStrokeWidth = "none",
SCATTERMouseMoveDisplay = FALSE,
SCATTERMouseMoveColor = "red",
SCATTERMouseMoveCircleSize = 2,
SCATTERMouseMoveCircleOpacity = 1,
SCATTERMouseMoveCircleStrokeColor = "none",
SCATTERMouseMoveCircleStrokeWidth = "none",
SCATTERMouseOutDisplay = FALSE,
SCATTERMouseOutAnimationTime = 500,
SCATTERMouseOutColor = "red",
SCATTERMouseOutCircleSize = 2,
SCATTERMouseOutCircleOpacity = 1,
SCATTERMouseOutCircleStrokeColor = "none",
SCATTERMouseOutCircleStrokeWidth = "none",
SCATTERMouseUpDisplay = FALSE,
SCATTERMouseUpColor = "red",
SCATTERMouseUpCircleSize = 2,
SCATTERMouseUpCircleOpacity = 1,
SCATTERMouseUpCircleStrokeColor = "none",
SCATTERMouseUpCircleStrokeWidth = "none",
SCATTERMouseOverDisplay = FALSE,
SCATTERMouseOverColor = "red",
SCATTERMouseOverCircleSize = 2,
SCATTERMouseOverCircleOpacity = 1,
SCATTERMouseOverCircleStrokeColor = "none",
SCATTERMouseOverCircleStrokeWidth = "none",
SCATTERMouseOverTooltipsSetting = "style1",
SCATTERMouseOverTooltipsHtml = " ",
SCATTERMouseOverTooltipsPosition = "absolute",
SCATTERMouseOverTooltipsBackgroundColor = "white",
SCATTERMouseOverTooltipsBorderStyle = "solid",
SCATTERMouseOverTooltipsBorderWidth = 0,
SCATTERMouseOverTooltipsPadding = "3px",
SCATTERMouseOverTooltipsBorderRadius = "3px",
SCATTERMouseOverTooltipsOpacity = 1,
ARCxlink = FALSE,
ARCMouseEvent = TRUE,
ARCMouseClickDisplay = FALSE,
ARCMouseClickColor = "red",
ARCMouseClickArcOpacity = 1,
ARCMouseClickArcStrokeColor = "none",
ARCMouseClickArcStrokeWidth = "none",
ARCMouseClickTextFromData = "fourth",
ARCMouseClickTextOpacity = 1,
ARCMouseClickTextColor = "red",
ARCMouseClickTextSize = 8,
ARCMouseClickTextPostionX = 1,

```



```
ARCMouseClickTextPostionY = 10,  
ARCMouseClickTextDrag = TRUE,  
ARCMouseDownDisplay = FALSE,  
ARCMouseDownColor = "red",  
ARCMouseDownArcOpacity = 1,  
ARCMouseDownArcStrokeColor = "none",  
ARCMouseDownArcStrokeWidth = "none",  
ARCMouseEnterDisplay = FALSE,  
ARCMouseEnterColor = "red",  
ARCMouseEnterArcOpacity = 1,  
ARCMouseEnterArcStrokeColor = "none",  
ARCMouseEnterArcStrokeWidth = "none",  
ARCMouseLeaveDisplay = FALSE,  
ARCMouseLeaveColor = "red",  
ARCMouseLeaveArcOpacity = 1,  
ARCMouseLeaveArcStrokeColor = "none",  
ARCMouseLeaveArcStrokeWidth = "none",  
ARCMouseMoveDisplay = FALSE,  
ARCMouseMoveColor = "red",  
ARCMouseMoveArcOpacity = 1,  
ARCMouseMoveArcStrokeColor = "none",  
ARCMouseMoveArcStrokeWidth = "none",  
ARCMouseOutDisplay = FALSE,  
ARCMouseOutAnimationTime = 500,  
ARCMouseOutColor = "red",  
ARCMouseOutArcOpacity = 1,  
ARCMouseOutArcStrokeColor = "none",  
ARCMouseOutArcStrokeWidth = "none",  
ARCMouseUpDisplay = FALSE,  
ARCMouseUpColor = "red",  
ARCMouseUpArcOpacity = 1,  
ARCMouseUpArcStrokeColor = "none",  
ARCMouseUpArcStrokeWidth = "none",  
ARCMouseOverDisplay = FALSE,  
ARCMouseOverColor = "red",  
ARCMouseOverArcOpacity = 1,  
ARCMouseOverArcStrokeColor = "none",  
ARCMouseOverArcStrokeWidth = "none",  
ARCMouseOverTooltipsSetting = "style1",  
ARCMouseOverTooltipsHtml = " ",  
ARCMouseOverTooltipsPosition = "absolute",  
ARCMouseOverTooltipsBackgroundColor = "white",  
ARCMouseOverTooltipsBorderStyle = "solid",  
ARCMouseOverTooltipsBorderWidth = 0,  
ARCMouseOverTooltipsPadding = "3px",  
ARCMouseOverTooltipsBorderRadius = "3px",  
ARCMouseOverTooltipsOpacity = 1,  
GENExlink = FALSE,  
GENEMouseEvent = TRUE,  
GENEMouseClickDisplay = FALSE,  
GENEMouseClickColor = "red",  
GENEMouseClickArcOpacity = 1,
```

```
GENEMouseClickArcStrokeColor = "none",
GENEMouseClickArcStrokeWidth = "none",
GENEMouseClickTextFromData = "fourth",
GENEMouseClickTextOpacity = 1,
GENEMouseClickTextColor = "red",
GENEMouseClickTextSize = 8,
GENEMouseClickTextPostionX = 1,
GENEMouseClickTextPostionY = 10,
GENEMouseClickTextDrag = TRUE,
GENEMouseDownDisplay = FALSE,
GENEMouseDownColor = "red",
GENEMouseDownArcOpacity = 1,
GENEMouseDownArcStrokeColor = "none",
GENEMouseDownArcStrokeWidth = "none",
GENEMouseEnterDisplay = FALSE,
GENEMouseEnterColor = "red",
GENEMouseEnterArcOpacity = 1,
GENEMouseEnterArcStrokeColor = "none",
GENEMouseEnterArcStrokeWidth = "none",
GENEMouseLeaveDisplay = FALSE,
GENEMouseLeaveColor = "red",
GENEMouseLeaveArcOpacity = 1,
GENEMouseLeaveArcStrokeColor = "none",
GENEMouseLeaveArcStrokeWidth = "none",
GENEMouseMoveDisplay = FALSE,
GENEMouseMoveColor = "red",
GENEMouseMoveArcOpacity = 1,
GENEMouseMoveArcStrokeColor = "none",
GENEMouseMoveArcStrokeWidth = "none",
GENEMouseOutDisplay = FALSE,
GENEMouseOutAnimationTime = 500,
GENEMouseOutColor = "red",
GENEMouseOutArcOpacity = 1,
GENEMouseOutArcStrokeColor = "none",
GENEMouseOutArcStrokeWidth = "none",
GENEMouseUpDisplay = FALSE,
GENEMouseUpColor = "red",
GENEMouseUpArcOpacity = 1,
GENEMouseUpArcStrokeColor = "none",
GENEMouseUpArcStrokeWidth = "none",
GENEMouseOverDisplay = FALSE,
GENEMouseOverColor = "red",
GENEMouseOverArcOpacity = 1,
GENEMouseOverArcStrokeColor = "none",
GENEMouseOverArcStrokeWidth = "none",
GENEMouseOverTooltipsSetting = "style1",
GENEMouseOverTooltipsHtml = " ",
GENEMouseOverTooltipsPosition = "absolute",
GENEMouseOverTooltipsBackgroundColor = "white",
GENEMouseOverTooltipsBorderStyle = "solid",
GENEMouseOverTooltipsBorderWidth = 0,
GENEMouseOverTooltipsPadding = "3px",
```

```
GENEMouseOverTooltipsBorderRadius = "3px",
GENEMouseOverTooltipsOpacity = 1,
LOLLIPOPxlink = FALSE,
LOLLIPOPMouseEvent = TRUE,
LOLLIPOPMouseClickedDisplay = FALSE,
LOLLIPOPMouseClickedColor = "red",
LOLLIPOPMouseClickedCircleSize = 2,
LOLLIPOPMouseClickedCircleOpacity = 1,
LOLLIPOPMouseClickedCircleStrokeColor = "none",
LOLLIPOPMouseClickedCircleStrokeWidth = "none",
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LOLLIPOPMouseClickedTextOpacity = 1,
LOLLIPOPMouseClickedTextColor = "red",
LOLLIPOPMouseClickedTextSize = 8,
LOLLIPOPMouseClickedTextPostionX = 1,
LOLLIPOPMouseClickedTextPostionY = 10,
LOLLIPOPMouseClickedTextDrag = TRUE,
LOLLIPOPMouseDownDisplay = FALSE,
LOLLIPOPMouseDownColor = "red",
LOLLIPOPMouseDownCircleSize = 2,
LOLLIPOPMouseDownCircleOpacity = 1,
LOLLIPOPMouseDownCircleStrokeColor = "none",
LOLLIPOPMouseDownCircleStrokeWidth = "none",
LOLLIPOPMouseEnterDisplay = FALSE,
LOLLIPOPMouseEnterColor = "red",
LOLLIPOPMouseEnterCircleSize = 2,
LOLLIPOPMouseEnterCircleOpacity = 1,
LOLLIPOPMouseEnterCircleStrokeColor = "none",
LOLLIPOPMouseEnterCircleStrokeWidth = "none",
LOLLIPOPMouseLeaveDisplay = FALSE,
LOLLIPOPMouseLeaveColor = "red",
LOLLIPOPMouseLeaveCircleSize = 2,
LOLLIPOPMouseLeaveCircleOpacity = 1,
LOLLIPOPMouseLeaveCircleStrokeColor = "none",
LOLLIPOPMouseLeaveCircleStrokeWidth = "none",
LOLLIPOPMouseMoveDisplay = FALSE,
LOLLIPOPMouseMoveColor = "red",
LOLLIPOPMouseMoveCircleSize = 2,
LOLLIPOPMouseMoveCircleOpacity = 1,
LOLLIPOPMouseMoveCircleStrokeColor = "none",
LOLLIPOPMouseMoveCircleStrokeWidth = "none",
LOLLIPOPMouseOutDisplay = FALSE,
LOLLIPOPMouseOutAnimationTime = 500,
LOLLIPOPMouseOutColor = "red",
LOLLIPOPMouseOutCircleSize = 2,
LOLLIPOPMouseOutCircleOpacity = 1,
LOLLIPOPMouseOutCircleStrokeColor = "none",
LOLLIPOPMouseOutCircleStrokeWidth = "none",
LOLLIPOPMouseUpDisplay = FALSE,
LOLLIPOPMouseUpColor = "red",
LOLLIPOPMouseUpCircleSize = 2,
LOLLIPOPMouseUpCircleOpacity = 1,
```

```

LOLLIPOPMouseUpCircleStrokeColor = "none",
LOLLIPOPMouseUpCircleStrokeWidth = "none",
LOLLIPOPMouseOverDisplay = FALSE,
LOLLIPOPMouseOverColor = "red",
LOLLIPOPMouseOverCircleSize = 2,
LOLLIPOPMouseOverCircleOpacity = 1,
LOLLIPOPMouseOverCircleStrokeColor = "none",
LOLLIPOPMouseOverCircleStrokeWidth = "none",
LOLLIPOPMouseOverTooltipsSetting = "style1",
LOLLIPOPMouseOverTooltipsHtml = " ",
LOLLIPOPMouseOverTooltipsPosition = "absolute",
LOLLIPOPMouseOverTooltipsBackgroundColor = "white",
LOLLIPOPMouseOverTooltipsBorderStyle = "solid",
LOLLIPOPMouseOverTooltipsBorderWidth = 0,
LOLLIPOPMouseOverTooltipsPadding = "3px",
LOLLIPOPMouseOverTooltipsBorderRadius = "3px",
LOLLIPOPMouseOverTooltipsOpacity = 1,
elementId = NULL,
...
)

```

Arguments

moduleList	Module list displayed in plot
genome	Could be either 'hg19', which is defaultly set to use chromosomes of hg19, or a list of chromosomes with length, for example, list("chr1"=100,"chr2"=200)
genome2	Second genome when compare module is applied, format is same as genome
genomeFillColor	Could be either a color palette from RColorBrewer, or a list of color name, for example, list("yellow","rgb(1,255,255)")
chrPad	Distance between each chromosome, default is 0.04
width, height	The width and height for svg element, could be px or percent or auto
innerRadius	Default 216, Inner radius of chromosome
outerRadius	Default 240, Outer radius of chromosome
svgClassName	The svg class name
displayGenomeBorder	Whether display a border for genome track or not
genomeBorderColor, genomeBorderSize	The color and size for border of genome
genomeTicksDisplay	Whether display the ticks for genome track
genomeTicksLen, genomeTicksColor, genomeTicksTextSize, genomeTicksTextColor, genomeTicksScale, genomeTicksTextDy	Parameters only works when genomeTicksDisplay is TRUE and their details are available on document
genomeLabelDisplay, genomeLabelTextSize, genomeLabelTextColor, genomeLabelDx, genomeLabelDy	Whether display the label for chromosome panel. Other parameters only works when genomeTicksDisplay is TRUE and their details are available on document
compareEvent	Default False, open/not COMPARE module
compareEventGroupGapRate	Default 0.1, control the two-side gap rate on each group of genome

compareEventGroupDistance	Default 0, distance between two groups of genome
zoom	Whether or not the plot is zoomable?
TEXTModuleDragEvent	Are text annotations draggable?
CNVxlink	Default False, add/not xlink for CNV module
CNVMouseEvent	Default True, open/not open mouse event of CNV module
CNVMouseClickedDisplay	Default False, show/not the tooltip when mouse click on a CNV point
CNVMouseClickedColor	Color when mouse clicking
CNVMouseClickedArcOpacity	Arc opacity when mouse clicking the element
CNVMouseClickedArcStrokeColor	Arc stroke color when mouse clicking the element
CNVMouseClickedArcStrokeWidth	Arc stroke width when mouse clicking the element
CNVMouseClickedTextFromData	Text column when mouse clicking the element
CNVMouseClickedTextOpacity	Text opacity when mouse clicking the element
CNVMouseClickedTextColor	Text color when mouse clicking the element
CNVMouseClickedTextSize	Text size when mouse clicking the element
CNVMouseClickedTextPostionX, CNVMouseClickTextPostionY	Text coordinates when mouse clicking the element
CNVMouseClickedTextDrag	Whether text is draggable when mouse clicking the element
CNVMouseDownDisplay	Default False, show/not the tooltip when mouse click down a CNV point
CNVMouseDownColor	Color when mouse moving down the element
CNVMouseDownArcOpacity	Arc opacity when mouse moving down the element
CNVMouseDownArcStrokeColor	Arc stroke color when mouse moving down the element
CNVMouseDownArcStrokeWidth	Arc stroke width when mouse moving down the element
CNVMouseEnterDisplay	Default False, show/not the tooltip when mouse mover over a CNV point
CNVMouseEnterColor	Color when mouse entering the element
CNVMouseEnterArcOpacity	Arc opacity when mouse entering the element
CNVMouseEnterArcStrokeColor	Arc stroke color when mouse entering the element

CNVMouseEnterArcStrokeWidth
 Arc stroke width when mouse entering the element
 CNVMouseLeaveDisplay
 Default False, show/not the tooltip when mouse mover leave a CNV point
 CNVMouseLeaveColor
 Color when mouse leaving the element
 CNVMouseLeaveArcOpacity
 Arc opacity when mouse leaving the element
 CNVMouseLeaveArcStrokeColor
 Arc stroke color when mouse leaving the element
 CNVMouseLeaveArcStrokeWidth
 Arc stroke width when mouse leaving the element
 CNVMouseMoveDisplay
 Default False, show/not the tooltip when mouse move into a CNV point
 CNVMouseMoveColor
 Color when mouse moving in the element
 CNVMouseMoveArcOpacity
 Arc opacity when mouse moving in the element
 CNVMouseMoveArcStrokeColor
 Arc stroke color when mouse moving in the element
 CNVMouseMoveArcStrokeWidth
 Arc stroke width when mouse moving in the element
 CNVMouseOutDisplay
 Defalut False, hide/not tooltip when mouse is not hovering a CNV point any-
 more
 CNVMouseOutAnimationTime
 Animation time when mouse moving out the element
 CNVMouseOutColor
 Color when mouse moving out the element
 CNVMouseOutArcOpacity
 Arc opacity when mouse moving out the element
 CNVMouseOutArcStrokeColor
 Arc stroke color when mouse moving out the element
 CNVMouseOutArcStrokeWidth
 Arc stroke width when mouse moving out the element
 CNVMouseUpDisplay
 Default False, show/not the tooltip when mouse click up a CNV point
 CNVMouseUpColor
 Color when mouse moving up the element
 CNVMouseUpArcOpacity
 Arc opacity when mouse clicking the element
 CNVMouseUpArcStrokeColor
 Arc stroke color when mouse clicking the element
 CNVMouseUpArcStrokeWidth
 Arc stroke width when mouse clicking the element
 CNVMouseOverDisplay
 Default False, show/not the tooltip when mouse hover on a CNV point
 CNVMouseOverColor
 Color when mouse moving over the element

CNVMouseOverArcOpacity	Arc opacity when mouse moving over the element
CNVMouseOverArcStrokeColor	Arc stroke color when mouse moving over the element
CNVMouseOverArcStrokeWidth	Arc stroke width when mouse moving over the element
CNVMouseOverTooltipsSetting	Default "style1"
CNVMouseOverTooltipsHtml	Default " "
CNVMouseOverTooltipsPosition	Default "absolute"
CNVMouseOverTooltipsBackgroundColor	Default "white"
CNVMouseOverTooltipsBorderStyle	Default "solid"
CNVMouseOverTooltipsBorderWidth	Default 0
CNVMouseOverTooltipsPadding	Default "3px"
CNVMouseOverTooltipsBorderRadius	Default "3px"
CNVMouseOverTooltipsOpacity	Default 0.8
HEATMAPMouseEvent	Default True, open/not open mouse event of HEATMAP module
HEATMAPMouseClickedDisplay	Default False, show/not the tooltip when mouse click on a HEATMAP point
HEATMAPMouseClickedColor	Color when mouse clicking
HEATMAPMouseClickedOpacity	Opacity when mouse clicking
HEATMAPMouseClickedStrokeColor	Stroke color when mouse clicking
HEATMAPMouseClickedStrokeWidth	Stroke width when mouse clicking
HEATMAPMouseDownDisplay	Default False, show/not the tooltip when mouse click down a HEATMAP point
HEATMAPMouseDownColor	Color when mouse moving down the element
HEATMAPMouseDownOpacity	Opacity when mouse moving down the element
HEATMAPMouseDownStrokeColor	Stroke color when mouse moving down the element
HEATMAPMouseDownStrokeWidth	Stroke width when mouse moving down the element
HEATMAPMouseEnterDisplay	Default False, show/not the tooltip when mouse mover over a HEATMAP point

HEATMAPMouseEnterColor
Color when mouse entering the element

HEATMAPMouseEnterOpacity
Opacity when mouse entering the element

HEATMAPMouseEnterStrokeColor
Stroke color when mouse entering the element

HEATMAPMouseEnterStrokeWidth
Stroke width when mouse entering the element

HEATMAPMouseLeaveDisplay
Default False, show/not the tooltip when mouse mover leave a HEATMAP point

HEATMAPMouseLeaveColor
Color when mouse leaving the element

HEATMAPMouseLeaveOpacity
Opacity when mouse leaving the element

HEATMAPMouseLeaveStrokeColor
Stroke color when mouse leaving the element

HEATMAPMouseLeaveStrokeWidth
Stroke width when mouse leaving the element

HEATMAPMouseMoveDisplay
Default False, show/not the tooltip when mouse move into a HEATMAP point

HEATMAPMouseMoveColor
Color when mouse moving in the element

HEATMAPMouseMoveOpacity
Opacity when mouse moving in the element

HEATMAPMouseMoveStrokeColor
Stroke color when mouse moving in the element

HEATMAPMouseMoveStrokeWidth
Stroke width when mouse moving in the element

HEATMAPMouseOutDisplay
Defalut False, hide/not tooltip when mouse is not hovering a HEATMAP point anymore

HEATMAPMouseOutAnimationTime
Animation time when mouse moving out the element

HEATMAPMouseOutColor
Color when mouse moving out the element

HEATMAPMouseOutOpacity
Opacity when mouse moving out the element

HEATMAPMouseOutStrokeColor
Stroke color when mouse moving out the element

HEATMAPMouseOutStrokeWidth
Stroke width when mouse moving out the element

HEATMAPMouseUpDisplay
Default False, show/not the tooltip when mouse click up a HEATMAP point

HEATMAPMouseUpColor
Color when mouse moving up the element

HEATMAPMouseUpOpacity
Opacity when mouse moving up the element

HEATMAPMouseUpStrokeColor
Stroke color when mouse moving up the element

HEATMAPMouseUpStrokeWidth
Stroke width when mouse moving up the element

HEATMAPMouseOverDisplay
Default False, show/not the tooltip when mouse hover on a HEATMAP point

HEATMAPMouseOverColor
Color when mouse moving over the element

HEATMAPMouseOverOpacity
Opacity when mouse moving over the element

HEATMAPMouseOverStrokeColor
Stroke color when mouse moving over the element

HEATMAPMouseOverStrokeWidth
Stroke width when mouse moving over the element

HEATMAPMouseOverTooltipsSetting
Default "style1"

HEATMAPMouseOverTooltipsHtml
Default " "

HEATMAPMouseOverTooltipsPosition
Default "absolute"

HEATMAPMouseOverTooltipsBackgroundColor
Default "white"

HEATMAPMouseOverTooltipsBorderStyle
Default "solid"

HEATMAPMouseOverTooltipsBorderWidth
Default 0

HEATMAPMouseOverTooltipsPadding
Default "3px"

HEATMAPMouseOverTooltipsBorderRadius
Default "3px"

HEATMAPMouseOverTooltipsOpacity
Default 0.8

BUBBLExlink Default False, add/not xlink for BUBBLE module

BUBBLEMouseEvent
Default True, open/not open mouse event of BUBBLE module

BUBBLEMouseClickedDisplay
Default False, show/not the tooltip when mouse click on a BUBBLE point

BUBBLEMouseClickedColor
Color when mouse clicking

BUBBLEMouseClickedOpacity
Opacity when mouse clicking

BUBBLEMouseClickedStrokeColor
Stroke color when mouse clicking

BUBBLEMouseClickedStrokeWidth
Stroke width when mouse clicking

BUBBLEMouseDownDisplay
Default False, show/not the tooltip when mouse click down a BUBBLE point

BUBBLEMouseDownColor
Color when mouse moving down the element

BUBBLEMouseDownOpacity	Opacity when mouse moving down the element
BUBBLEMouseDownStrokeColor	Stroke color when mouse moving down the element
BUBBLEMouseDownStrokeWidth	Stroke width when mouse moving down the element
BUBBLEMouseEnterDisplay	Default False, show/not the tooltip when mouse mover over a BUBBLE point
BUBBLEMouseEnterColor	Color when mouse entering the element
BUBBLEMouseEnterOpacity	Opacity when mouse entering the element
BUBBLEMouseEnterStrokeColor	Stroke color when mouse entering the element
BUBBLEMouseEnterStrokeWidth	Stroke width when mouse entering the element
BUBBLEMouseLeaveDisplay	Default False, show/not the tooltip when mouse mover leave a BUBBLE point
BUBBLEMouseLeaveColor	Color when mouse leaving the element
BUBBLEMouseLeaveOpacity	Opacity when mouse leaving the element
BUBBLEMouseLeaveStrokeColor	Stroke color when mouse leaving the element
BUBBLEMouseLeaveStrokeWidth	Stroke width when mouse leaving the element
BUBBLEMouseMoveDisplay	Default False, show/not the tooltip when mouse move into a BUBBLE point
BUBBLEMouseMoveColor	Color when mouse moving in the element
BUBBLEMouseMoveOpacity	Opacity when mouse moving in the element
BUBBLEMouseMoveStrokeColor	Stroke color when mouse moving in the element
BUBBLEMouseMoveStrokeWidth	Stroke width when mouse moving in the element
BUBBLEMouseOutDisplay	Defalut False, hide/not tooltip when mouse is not hovering a BUBBLE point anymore
BUBBLEMouseOutAnimationTime	Animation time when mouse moving out the element
BUBBLEMouseOutColor	Color when mouse moving out the element
BUBBLEMouseOutOpacity	Opacity when mouse moving out the element
BUBBLEMouseOutStrokeColor	Stroke color when mouse moving out the element

BUBBLEMouseOutStrokeWidth	Stroke width when mouse moving out the element
BUBBLEMouseUpDisplay	Default False, show/not the tooltip when mouse click up a BUBBLE point
BUBBLEMouseUpColor	Color when mouse moving up the element
BUBBLEMouseUpOpacity	Opacity when mouse moving up the element
BUBBLEMouseUpStrokeColor	Stroke color when mouse moving up the element
BUBBLEMouseUpStrokeWidth	Stroke width when mouse moving up the element
BUBBLEMouseOverDisplay	Default False, show/not the tooltip when mouse hover on a BUBBLE point
BUBBLEMouseOverColor	Color when mouse moving over the element
BUBBLEMouseOverOpacity	Opacity when mouse moving over the element
BUBBLEMouseOverStrokeColor	Stroke color when mouse moving over the element
BUBBLEMouseOverStrokeWidth	Stroke width when mouse moving over the element
BUBBLEMouseOverTooltipsSetting	Default "style1"
BUBBLEMouseOverTooltipsHtml	Default " "
BUBBLEMouseOverTooltipsPosition	Default "absolute"
BUBBLEMouseOverTooltipsBackgroundColor	Default "white"
BUBBLEMouseOverTooltipsBorderStyle	Default "solid"
BUBBLEMouseOverTooltipsBorderWidth	Default 0
BUBBLEMouseOverTooltipsPadding	Default "3px"
BUBBLEMouseOverTooltipsBorderRadius	Default "3px"
BUBBLEMouseOverTooltipsOpacity	Default 0.8
SNPxlink	Default False, add/not xlink for SNP module
SNPMouseEvent	Default True, open/not open mouse event of SNP module
SNPMouseCombinationEvent	Default False, open/not COMBINATION module for SNP module
SNPMouseCombinationImageDisplay	Default False, open/not image display in COMBINATION module for SNP module
SNPMouseCombinationImageTitle	Title of the image

SNPMouseCombinationImageTitleSize, SNPMouseCombinationImageTitleWeight, SNPMouseCombinationImageTitleColor
Size, weight and color of the title

SNPMouseCombinationImagePositionX, SNPMouseCombinationImagePositionY
Coordinates for image

SNPMouseCombinationImageHeight, SNPMouseCombinationImageWidth
Height and width of image

SNPMouseCombinationGraphDisplay
Default False, open/not graph display in COMBINATION module for SNP module

SNPMouseCombinationGraphTitle
Title of the graph

SNPMouseCombinationGraphTitleSize, SNPMouseCombinationGraphTitleWeight, SNPMouseCombinationGraphTitleColor
Size, weight and color of the title

SNPMouseCombinationGraphType
Type of graph

SNPMouseCombinationGraphPositionX, SNPMouseCombinationGraphPositionY
Coordinates for graph

SNPMouseCombinationGraphHeight, SNPMouseCombinationGraphWidth
Height and width for graph

SNPMouseCombinationGraphHistogramBarColor
Bar color of histogram graph

SNPMouseCombinationGraphHistogramPadding
Padding between bar of histogram graph

SNPMouseCombinationGraphHistogramPositionCorrectX
Correction distance of X axis in histogram

SNPMouseCombinationGraphPieAutoColor
Whether use auto color for pie graph or not

SNPMouseCombinationGraphPieColor
Color for pie graph if auto color is false

SNPMouseCombinationGraphPieSize
Size of pie graph

SNPMouseCombinationGraphPieStroke
Whether each pie has a stroke or not

SNPMouseCombinationGraphPieStrokeColor, SNPMouseCombinationGraphPieStrokeWidth
The stroke color and width for pie graph

SNPMouseCombinationGraphPieOpacity
Opacity for pie graph

SNPMouseCombinationGraphLineType, SNPMouseCombinationGraphLineColor, SNPMouseCombinationGraphLineWidth
Line type, color and width for line graph

SNPMouseCombinationGraphLinePoint
Whether display the broken point in line graph

SNPMouseCombinationGraphLinePointSize
Size of broken point

SNPMouseCombinationGraphLinePointAutoColor
Whether display the broken point in auto color

SNPMouseCombinationGraphLinePointColor
Color for broken point if auto color is false

SNPMouseCombinationGraphLinePointStroke
Whether display the broken point stroke

SNPMouseCombinationGraphLinePointStrokeColor, SNPMouseCombinationGraphLinePointStrokeWidth
The stroke color and width for broken point

SNPMouseCombinationGraphLinePointOpacity
Opacity for broken line

SNPMouseCombinationGraphLinePositionCorrectX
Correction distance of X axis for line

SNPMouseCombinationTextDisplay
Default False, open/not text display in COMBINATION module for SNP module

SNPMouseCombinationTextColor, SNPMouseCombinationTextSize, SNPMouseCombinationTextWeight
The color, size and weight for text

SNPMouseCombinationTextPositionCorrectX, SNPMouseCombinationTextPositionCorrectY
The coordinates for text

SNPMouseClickDisplay
Default False, show/not the tooltip when mouse click on a SNP point

SNPMouseClickColor
Color after clicking the element

SNPMouseClickCircleSize
Circle size after clicking the element

SNPMouseClickCircleOpacity
Opacity after clicking the element

SNPMouseClickCircleStrokeColor
Stroke color after clicking the element

SNPMouseClickCircleStrokeWidth
Stroke width after clicking the element

SNPMouseClickTextFromData
First,second,third,fourth column data click to show

SNPMouseClickTextOpacity
Text opacity after clicking the element

SNPMouseClickTextColor
Text color after clicking the element

SNPMouseClickTextSize
Text size after clicking the element

SNPMouseClickTextPostionX, SNPMouseClickTextPostionY
Text coordinate after clicking the element

SNPMouseClickTextDrag
Whether text is draggable for element

SNPMouseDownDisplay
Default False, show/not the tooltip when mouse click down a SNP point

SNPMouseDownColor
Color after mouse moving down the element

SNPMouseDownCircleSize
Circle size after mouse moving down the element

SNPMouseDownCircleOpacity
Circle opacity after mouse moving down the element

SNPMouseDownCircleStrokeColor
Circle stroke color after mouse moving down the element

SNPMouseDownCircleStrokeWidth
Circle stroke width after mouse moving down the element

SNPMouseEnterDisplay
Default False, show/not the tooltip when mouse mover over a SNP point

SNPMouseEnterColor
Color after mouse entering enter the element

SNPMouseEnterCircleSize
Circle size after mouse entering the element

SNPMouseEnterCircleOpacity
Circle opacity after mouse entering the element

SNPMouseEnterCircleStrokeColor
Circle stroke color after mouse entering the element

SNPMouseEnterCircleStrokeWidth
Circle stroke width after mouse entering the element

SNPMouseLeaveDisplay
Default False, show/not the tooltip when mouse mover leave a SNP point

SNPMouseLeaveColor
Color after mouse leaving the element

SNPMouseLeaveCircleSize
Circle size after mouse leaving the element

SNPMouseLeaveCircleOpacity
Circle opacity after mouse leaving the element

SNPMouseLeaveCircleStrokeColor
Circle stroke color after mouse leaving the element

SNPMouseLeaveCircleStrokeWidth
Circle stroke width after mouse leaving the element

SNPMouseMoveDisplay
Default False, show/not the tooltip when mouse move into a SNP point

SNPMouseMoveColor
Color after mouse moving in the element

SNPMouseMoveCircleSize
Circle size after mouse moving in the element

SNPMouseMoveCircleOpacity
Circle opacity after mouse moving in the element

SNPMouseMoveCircleStrokeColor
Circle stroke color after mouse moving in the element

SNPMouseMoveCircleStrokeWidth
Circle stroke width after mouse moving in the element

SNPMouseOutDisplay
Defalut False, hide/not tooltip when mouse is not hovering a SNP point anymore

SNPMouseOutAnimationTime
Animation time when mouse moving over the element

SNPMouseOutColor
Color when mouse moving over the element

SNPMouseOutCircleSize
Circle size when mouse moving over the element

SNPMouseOutCircleOpacity
Opacity when mouse moving over the element

SNPMouseOutCircleStrokeColor
Stroke color when mouse moving over the element

SNPMouseOutCircleStrokeWidth	Stroke width when mouse moving over the element
SNPMouseUpDisplay	Default False, show/not the tooltip when mouse click up a SNP point
SNPMouseUpColor	Color after mouse moving up the element
SNPMouseUpCircleSize	Circle size after mouse moving up the element
SNPMouseUpCircleOpacity	Circle opacity after mouse moving up the element
SNPMouseUpCircleStrokeColor	Circle stroke color after mouse moving up the element
SNPMouseUpCircleStrokeWidth	Circle stroke width after mouse moving up the element
SNPMouseOverDisplay	Default False, show/not the tooltip when mouse hover on a SNP point
SNPMouseOverColor	Color after mouse moving over the element
SNPMouseOverCircleSize	Circle size after mouse moving over the element
SNPMouseOverCircleOpacity	Circle opacity after mouse moving over the element
SNPMouseOverCircleStrokeColor	Circle stroke color after mouse moving over the element
SNPMouseOverCircleStrokeWidth	Circle stroke width after mouse moving over the element
SNPMouseOverTooltipsSetting	Default "chr : "
SNPMouseOverTooltipsHtml	Default " "
SNPMouseOverTooltipsPosition	Position for tooltips when mouse moving over
SNPMouseOverTooltipsBackgroundColor	Background color for tooltips when mouse moving over
SNPMouseOverTooltipsBorderStyle	Border style for tooltips when mouse moving over
SNPMouseOverTooltipsBorderWidth	Border width for tooltips when mouse moving over
SNPMouseOverTooltipsPadding	Padding for tooltips when mouse moving over
SNPMouseOverTooltipsBorderRadius	Border radius for tooltips when mouse moving over
SNPMouseOverTooltipsOpacity	Opacity for tooltips when mouse moving over
LINKxlink	Default False, add/not xlink for LINK module
LINKMouseEvent	Default True, open/not open mouse event of LINK module
LINKMouseClickDisplay	Default False, show/not the tooltip when mouse click on a LINK point

LINKMouseClickOpacity
Opacity when mouse clicking

LINKMouseClickStrokeColor
Stroke color when mouse clicking

LINKMouseClickStrokeWidth
Stroke width when mouse clicking

LINKMouseDownDisplay
Default False, show/not the tooltip when mouse click down a LINK point

LINKMouseDownOpacity
Opacity when mouse moving down the element

LINKMouseDownStrokeColor
Stroke color when mouse moving down the element

LINKMouseDownStrokeWidth
Stroke width when mouse moving down the element

LINKMouseEnterDisplay
Default False, show/not the tooltip when mouse mover over a LINK point

LINKMouseEnterOpacity
Opacity when mouse entering the element

LINKMouseEnterStrokeColor
Stroke color when mouse entering the element

LINKMouseEnterStrokeWidth
Stroke width when mouse entering the element

LINKMouseLeaveDisplay
Default False, show/not the tooltip when mouse mover leave a LINK point

LINKMouseLeaveOpacity
Opacity when mouse leaving the element

LINKMouseLeaveStrokeColor
Stroke color when mouse leaving the element

LINKMouseLeaveStrokeWidth
Stroke width when mouse leaving the element

LINKMouseMoveDisplay
Default False, show/not the tooltip when mouse move into a LINK point

LINKMouseMoveOpacity
Opacity when mouse moving in the element

LINKMouseMoveStrokeColor
Stroke color when mouse moving in the element

LINKMouseMoveStrokeWidth
Stroke width when mouse moving in the element

LINKMouseOutDisplay
Default False, hide/not tooltip when mouse is not hovering a LINK point any-
more

LINKMouseOutAnimationTime
Animation time when mouse moving out the element

LINKMouseOutOpacity
Opacity when mouse moving out the element

LINKMouseOutStrokeColor
Stroke color when mouse moving out the element

LINKMouseOutStrokeWidth
Stroke width when mouse moving out the element

LINKMouseUpDisplay
Default False, show/not the tooltip when mouse click up a LINK point

LINKMouseUpOpacity
Opacity when mouse moving up the element

LINKMouseUpStrokeColor
Stroke color when mouse moving up the element

LINKMouseUpStrokeWidth
Stroke width when mouse moving up the element

LINKMouseOverDisplay
Default False, show/not the tooltip when mouse hover on a LINK point

LINKMouseOverOpacity
Opacity when mouse moving over the element

LINKMouseOverStrokeColor
Stroke color when mouse moving over the element

LINKMouseOverStrokeWidth
Stroke width when mouse moving over the element

LINKMouseOverTooltipsSetting
Default "style1"

LINKMouseOverTooltipsHtml
Default " "

LINKMouseOverTooltipsPosition
Default "absolute"

LINKMouseOverTooltipsBackgroundColor
Default "white"

LINKMouseOverTooltipsBorderStyle
Default "solid"

LINKMouseOverTooltipsBorderWidth
Default 0

LINKMouseOverTooltipsPadding
Default "3px"

LINKMouseOverTooltipsBorderRadius
Default "3px"

LINKMouseOverTooltipsOpacity
Default 0.8

LINKLabelDragEvent
Default False, draggable for the label of LINK module

CHORDMouseEvent
Default True, open/not open mouse event of CHORD module from NG-Circos

CHORDMouseFillColorExcluded
A type of color in character, chord in this color will be hided

CHORDMouseClickedDisplay
Default False, show/not the tooltip when mouse click on a CHORD point

CHORDMouseClickedOpacity
Opacity when mouse clicking

CHORDMouseClickedStrokeColor
Stroke color when mouse clicking

CHORDMouseClickedStrokeWidth
Stroke width when mouse clicking

CHORDMouseDownDisplay
Default False, show/not the tooltip when mouse click down a CHORD point

CHORDMouseDownOpacity
Opacity when mouse moving down the element

CHORDMouseDownStrokeColor
Stroke color when mouse moving down the element

CHORDMouseDownStrokeWidth
Stroke width when mouse moving down the element

CHORDMouseEnterDisplay
Default False, show/not the tooltip when mouse mover over a CHORD point

CHORDMouseEnterOpacity
Opacity when mouse entering the element

CHORDMouseEnterStrokeColor
Stroke color when mouse entering the element

CHORDMouseEnterStrokeWidth
Stroke width when mouse entering the element

CHORDMouseLeaveDisplay
Default False, show/not the tooltip when mouse mover leave a CHORD point

CHORDMouseLeaveOpacity
Opacity when mouse leaving the element

CHORDMouseLeaveStrokeColor
Stroke color when mouse leaving the element

CHORDMouseLeaveStrokeWidth
Stroke width when mouse leaving the element

CHORDMouseMoveDisplay
Default False, show/not the tooltip when mouse move into a CHORD point

CHORDMouseMoveOpacity
Opacity when mouse moving in the element

CHORDMouseMoveStrokeColor
Stroke color when mouse moving in the element

CHORDMouseMoveStrokeWidth
Stroke width when mouse moving in the element

CHORDMouseOutDisplay
Defalut False, hide/not tooltip when mouse is not hovering a CHORD point anymore

CHORDMouseOutAnimationTime
Animation time when mouse moving out the element

CHORDMouseOutOpacity
Opacity when mouse moving out the element

CHORDMouseOutStrokeColor
Stroke color when mouse moving out the element

CHORDMouseOutStrokeWidth
Stroke width when mouse moving out the element

CHORDMouseUpDisplay
Default False, show/not the tooltip when mouse click up a CHORD point

CHORDMouseUpOpacity
Opacity when mouse moving up the element

CHORDMouseUpStrokeColor
Stroke color when mouse moving up the element

CHORDMouseUpStrokeWidth
Stroke width when mouse moving up the element

CHORDMouseOverDisplay
Default False, show/not the tooltip when mouse hover on a CHORD point

CHORDMouseOverOpacity
Opacity when mouse moving over the element

CHORDMouseOverStrokeColor
Stroke color when mouse moving over the element

CHORDMouseOverStrokeWidth
Stroke width when mouse moving over the element

HISTOGRAMxlink Default False, add/not xlink for HISTOGRAM module

HISTOGRAMMouseEvent
Default True, open/not open mouse event of HISTOGRAM module

HISTOGRAMMouseClickedDisplay
Default False, show/not the tooltip when mouse click on a HISTOGRAM point

HISTOGRAMMouseClickedColor
Color when mouse clicking

HISTOGRAMMouseClickedOpacity
Opacity when mouse clicking

HISTOGRAMMouseClickedStrokeColor
Stroke color when mouse clicking

HISTOGRAMMouseClickedStrokeWidth
Stroke width when mouse clicking

HISTOGRAMMouseDownDisplay
Default False, show/not the tooltip when mouse click down a HISTOGRAM point

HISTOGRAMMouseDownColor
Color when mouse moving down the element

HISTOGRAMMouseDownOpacity
Opacity when mouse moving up the element

HISTOGRAMMouseDownStrokeColor
Stroke color when mouse moving up the element

HISTOGRAMMouseDownStrokeWidth
Stroke width when mouse moving up the element

HISTOGRAMMouseEnterDisplay
Default False, show/not the tooltip when mouse mover over a HISTOGRAM point

HISTOGRAMMouseEnterColor
Color when mouse entering the element

HISTOGRAMMouseEnterOpacity
Opacity when mouse entering the element

HISTOGRAMMouseEnterStrokeColor
Stroke color when mouse entering the element

HISTOGRAMMouseEnterStrokeWidth
Stroke width when mouse entering the element

HISTOGRAMMouseLeaveDisplay
Default False, show/not the tooltip when mouse mover leave a HISTOGRAM point

HISTOGRAMMouseLeaveColor
Color when mouse leaving the element

HISTOGRAMMouseLeaveOpacity
Opacity when mouse leaving the element

HISTOGRAMMouseLeaveStrokeColor
Stroke color when mouse leaving the element

HISTOGRAMMouseLeaveStrokeWidth
Stroke width when mouse leaving the element

HISTOGRAMMouseMoveDisplay
Default False, show/not the tooltip when mouse move into a HISTOGRAM point

HISTOGRAMMouseMoveColor
Color when mouse moving in the element

HISTOGRAMMouseMoveOpacity
Opacity when mouse moving in the element

HISTOGRAMMouseMoveStrokeColor
Stroke color when mouse moving in the element

HISTOGRAMMouseMoveStrokeWidth
Stroke width when mouse moving in the element

HISTOGRAMMouseOutDisplay
Defalut False, hide/not tooltip when mouse is not hovering a HISTOGRAM point anymore

HISTOGRAMMouseOutAnimationTime
Animation time when mouse moving out the element

HISTOGRAMMouseOutColor
Color when mouse moving out the element

HISTOGRAMMouseOutOpacity
Opacity when mouse moving out the element

HISTOGRAMMouseOutStrokeColor
Stroke color when mouse moving out the element

HISTOGRAMMouseOutStrokeWidth
Stroke width when mouse moving out the element

HISTOGRAMMouseUpDisplay
Default False, show/not the tooltip when mouse click up a HISTOGRAM point

HISTOGRAMMouseUpColor
Color when mouse moving up the element

HISTOGRAMMouseUpOpacity
Opacity when mouse moving up the element

HISTOGRAMMouseUpStrokeColor
Stroke color when mouse moving up the element

HISTOGRAMMouseUpStrokeWidth
Stroke width when mouse moving up the element

HISTOGRAMMouseOverDisplay
Default False, show/not the tooltip when mouse hover on a HISTOGRAM point

HISTOGRAMMouseOverColor
Color when mouse moving over the element

HISTOGRAMMouseOverOpacity
Opacity when mouse moving over the element

HISTOGRAMMouseOverStrokeColor
Stroke color when mouse moving over the element

HISTOGRAMMouseOverStrokeWidth
Stroke width when mouse moving over the element

HISTOGRAMMouseOverTooltipsSetting
Default "style1"

HISTOGRAMMouseOverTooltipsHtml
Default " "

HISTOGRAMMouseOverTooltipsPosition
Default "absolute"

HISTOGRAMMouseOverTooltipsBackgroundColor
Default "white"

HISTOGRAMMouseOverTooltipsBorderStyle
Default "solid"

HISTOGRAMMouseOverTooltipsBorderWidth
Default 0

HISTOGRAMMouseOverTooltipsPadding
Default "3px"

HISTOGRAMMouseOverTooltipsBorderRadius
Default "3px"

HISTOGRAMMouseOverTooltipsOpacity
Default 0.8

LINEMouseEvent Default True, open/not open mouse event of LINE module

LINEMouseClickedDisplay
Default False, show/not the tooltip when mouse click on a LINE point

LINEMouseClickedLineOpacity
Line opacity when mouse clicking the element

LINEMouseClickedLineStrokeColor
Stroke color when mouse clicking the element

LINEMouseClickedLineStrokeWidth
Stroke width when mouse clicking the element

LINEMouseDownDisplay
Default False, show/not the tooltip when mouse click down a LINE point

LINEMouseDownLineOpacity
Line opacity when mouse moving down the element

LINEMouseDownLineStrokeColor
Stroke color when mouse moving down the element

LINEMouseDownLineStrokeWidth
Stroke width when mouse moving down the element

LINEMouseEnterDisplay
Default False, show/not the tooltip when mouse mover over a LINE point

LINEMouseEnterLineOpacity
Line opacity when mouse entering the element

LINEMouseEnterLineStrokeColor
Stroke color when mouse entering the element

LINEMouseEnterLineStrokeWidth
Stroke width when mouse entering the element

LINEMouseLeaveDisplay
 Default False, show/not the tooltip when mouse mover leave a LINE point
 LINEMouseLeaveLineOpacity
 Line opacity when mouse leaving the element
 LINEMouseLeaveLineStrokeColor
 Stroke color when mouse leaving the element
 LINEMouseLeaveLineStrokeWidth
 Stroke width when mouse leaving the element
 LINEMouseMoveDisplay
 Default False, show/not the tooltip when mouse move into a LINE point
 LINEMouseMoveLineOpacity
 Line opacity when mouse moving in the element
 LINEMouseMoveLineStrokeColor
 Stroke color when mouse moving in the element
 LINEMouseMoveLineStrokeWidth
 Stroke width when mouse moving in the element
 LINEMouseOutDisplay
 Defalut False, hide/not tooltip when mouse is not hovering a LINE point any-
 more
 LINEMouseOutAnimationTime
 Animation time when mouse moving out the element
 LINEMouseOutLineOpacity
 Line opacity when mouse moving out the element
 LINEMouseOutLineStrokeColor
 Stroke color when mouse moving out the element
 LINEMouseOutLineStrokeWidth
 Stroke width when mouse moving out the element
 LINEMouseUpDisplay
 Default False, show/not the tooltip when mouse click up a LINE point
 LINEMouseUpLineOpacity
 Line opacity when mouse moving up the element
 LINEMouseUpLineStrokeColor
 Stroke color when mouse moving up the element
 LINEMouseUpLineStrokeWidth
 Stroke width when mouse moving up the element
 LINEMouseOverDisplay
 Default False, show/not the tooltip when mouse hover on a LINE point
 LINEMouseOverLineOpacity
 Line opacity when mouse moving over the element
 LINEMouseOverLineStrokeColor
 Stroke color when mouse moving over the element
 LINEMouseOverLineStrokeWidth
 Stroke width when mouse moving over the element
 LINEMouseOverTooltipsSetting
 Default "style1"
 LINEMouseOverTooltipsHtml
 Default " "
 LINEMouseOverTooltipsPosition
 Default "absolute"

LINEMouseOverTooltipsBackgroundColor
Default "white"

LINEMouseOverTooltipsBorderStyle
Default "solid"

LINEMouseOverTooltipsBorderWidth
Default 0

LINEMouseOverTooltipsPadding
Default "3px"

LINEMouseOverTooltipsBorderRadius
Default "3px"

LINEMouseOverTooltipsOpacity
Default 0.8

WIGMouseEvent Default True, open/not open mouse event of WIG module

WIGMouseClickedDisplay
Default False, show/not the tooltip when mouse click on a WIG point

WIGMouseClickedLineOpacity
Line opacity when mouse clicking the element

WIGMouseClickedLineStrokeColor
Stroke color when mouse clicking the element

WIGMouseClickedLineStrokeWidth
Stroke width when mouse clicking the element

WIGMouseClickedFillColor
Filling color when mouse clicking the element

WIGMouseDownDisplay
Default False, show/not the tooltip when mouse click down a WIG point

WIGMouseDownLineOpacity
Line opacity when mouse moving down the element

WIGMouseDownLineStrokeColor
Stroke color when mouse moving down the element

WIGMouseDownLineStrokeWidth
Stroke width when mouse moving down the element

WIGMouseDownFillColor
Filling color when mouse moving down the element

WIGMouseEnterDisplay
Default False, show/not the tooltip when mouse mover over a WIG point

WIGMouseEnterLineOpacity
Line opacity when mouse entering the element

WIGMouseEnterLineStrokeColor
Stroke color when mouse entering the element

WIGMouseEnterLineStrokeWidth
Stroke width when mouse entering the element

WIGMouseEnterFillColor
Filling color when mouse entering the element

WIGMouseLeaveDisplay
Default False, show/not the tooltip when mouse mover leave a WIG point

WIGMouseLeaveLineOpacity
Line opacity when mouse leaving the element

WIGMouseLeaveLineStrokeColor
Stroke color when mouse leaving the element

WIGMouseLeaveLineStrokeWidth
Stroke width when mouse leaving the element

WIGMouseLeaveFillColor
Filling color when mouse leaving the element

WIGMouseMoveDisplay
Default False, show/not the tooltip when mouse move into a WIG point

WIGMouseMoveLineOpacity
Line opacity when mouse moving in the element

WIGMouseMoveLineStrokeColor
Stroke color when mouse moving in the element

WIGMouseMoveLineStrokeWidth
Stroke width when mouse moving in the element

WIGMouseMoveFillColor
Filling color when mouse leaving the element

WIGMouseOutDisplay
Default False, hide/not tooltip when mouse is not hovering a WIG point anymore

WIGMouseOutAnimationTime
Animation time when mouse moving out the element

WIGMouseOutLineOpacity
Line opacity when mouse moving out the element

WIGMouseOutLineStrokeColor
Stroke color when mouse moving out the element

WIGMouseOutLineStrokeWidth
Stroke width when mouse moving out the element

WIGMouseOutFillColor
Filling color when mouse moving out the element

WIGMouseUpDisplay
Default False, show/not the tooltip when mouse click up a WIG point

WIGMouseUpLineOpacity
Line opacity when mouse moving up the element

WIGMouseUpLineStrokeColor
Stroke color when mouse moving up the element

WIGMouseUpLineStrokeWidth
Stroke width when mouse moving up the element

WIGMouseUpFillColor
Filling color when mouse moving up the element

WIGMouseOverDisplay
Default False, show/not the tooltip when mouse hover on a WIG point

WIGMouseOverLineOpacity
Line opacity when mouse moving over the element

WIGMouseOverLineStrokeColor
Stroke color when mouse moving over the element

WIGMouseOverLineStrokeWidth
Stroke width when mouse moving over the element

WIGMouseOverFillColor
Filling color when mouse moving over the element

WIGMouseOverTooltipsSetting
Default "style1"


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WIGMouseOverTooltipsHtml
    Default " "
WIGMouseOverTooltipsPosition
    Default "absolute"
WIGMouseOverTooltipsBackgroundColor
    Default "white"
WIGMouseOverTooltipsBorderStyle
    Default "solid"
WIGMouseOverTooltipsBorderWidth
    Default 0
WIGMouseOverTooltipsPadding
    Default "3px"
WIGMouseOverTooltipsBorderRadius
    Default "3px"
WIGMouseOverTooltipsOpacity
    Default 0.8
SCATTERxlink    Default False, add/not xlink for SCATTER module
SCATTERMouseEvent
    Default True, open/not open mouse event of SCATTER module
SCATTERMouseClickedDisplay
    Default False, show/not the tooltip when mouse click on a SCATTER point
SCATTERMouseClickedColor
    Color when mouse clicking the element
SCATTERMouseClickedCircleSize
    Circle size when mouse clicking the element
SCATTERMouseClickedCircleOpacity
    Circle opacity when mouse clicking the element
SCATTERMouseClickedCircleStrokeColor
    Circle stroke color when mouse clicking the element
SCATTERMouseClickedCircleStrokeWidth
    Circle stroke width when mouse clicking the element
SCATTERMouseClickedTextFromData
    Text column when mouse clicking the element
SCATTERMouseClickedTextOpacity
    Text opacity when mouse clicking the element
SCATTERMouseClickedTextColor
    Text color when mouse clicking the element
SCATTERMouseClickedTextSize
    Text size when mouse clicking the element
SCATTERMouseClickedTextPostionX, SCATTERMouseClickedTextPostionY
    Text coordinates when mouse clicking the element
SCATTERMouseClickedTextDrag
    Whether text is draggable when clicing element
SCATTERMouseDownDisplay
    Default False, show/not the tooltip when mouse click down a SCATTER point
SCATTERMouseDownColor
    Color when mouse moving down the element
SCATTERMouseDownCircleSize
    Circle size when mouse moving down the element

```

SCATTERMouseDownCircleOpacity
 Circle opacity when mouse moving down the element

SCATTERMouseDownCircleStrokeColor
 Circle stroke color when mouse moving down the element

SCATTERMouseDownCircleStrokeWidth
 Circle stroke width when mouse moving down the element

SCATTERMouseEnterDisplay
 Default False, show/not the tooltip when mouse mover over a SCATTER point

SCATTERMouseEnterColor
 Color when mouse entering the element

SCATTERMouseEnterCircleSize
 Circle size when mouse entering the element

SCATTERMouseEnterCircleOpacity
 Circle opacity when mouse entering the element

SCATTERMouseEnterCircleStrokeColor
 Circle stroke color when mouse entering the element

SCATTERMouseEnterCircleStrokeWidth
 Circle stroke width when mouse entering the element

SCATTERMouseLeaveDisplay
 Default False, show/not the tooltip when mouse mover leave a SCATTER point

SCATTERMouseLeaveColor
 Color when mouse leaving the element

SCATTERMouseLeaveCircleSize
 Circle size when mouse leaving the element

SCATTERMouseLeaveCircleOpacity
 Circle opacity when mouse leaving the element

SCATTERMouseLeaveCircleStrokeColor
 Circle stroke color when mouse leaving the element

SCATTERMouseLeaveCircleStrokeWidth
 Circle stroke width when mouse leaving the element

SCATTERMouseMoveDisplay
 Default False, show/not the tooltip when mouse move into a SCATTER point

SCATTERMouseMoveColor
 Color when mouse moving in the element

SCATTERMouseMoveCircleSize
 Circle size when mouse moving in the element

SCATTERMouseMoveCircleOpacity
 Circle opacity when mouse moving in the element

SCATTERMouseMoveCircleStrokeColor
 Circle stroke color when mouse moving in the element

SCATTERMouseMoveCircleStrokeWidth
 Circle stroke width when mouse moving in the element

SCATTERMouseOutDisplay
 Defalut False, hide/not tooltip when mouse is not hovering a SCATTER point anymore

SCATTERMouseOutAnimationTime
 Animation time when mouse moving out the element

SCATTERMouseOutColor	Color when mouse moving out the element
SCATTERMouseOutCircleSize	Circle size when mouse moving out the element
SCATTERMouseOutCircleOpacity	Circle opacity when mouse moving out the element
SCATTERMouseOutCircleStrokeColor	Circle stroke color when mouse moving out the element
SCATTERMouseOutCircleStrokeWidth	Circle stroke width when mouse moving out the element
SCATTERMouseUpDisplay	Default False, show/not the tooltip when mouse click up a SCATTER point
SCATTERMouseUpColor	Color when mouse moving up the element
SCATTERMouseUpCircleSize	Circle size when mouse moving up the element
SCATTERMouseUpCircleOpacity	Circle opacity when mouse moving up the element
SCATTERMouseUpCircleStrokeColor	Circle stroke color when mouse moving up the element
SCATTERMouseUpCircleStrokeWidth	Circle stroke width when mouse moving up the element
SCATTERMouseOverDisplay	Default False, show/not the tooltip when mouse hover on a SCATTER point
SCATTERMouseOverColor	Color when mouse moving over the element
SCATTERMouseOverCircleSize	Circle size when mouse moving over the element
SCATTERMouseOverCircleOpacity	Circle opacity when mouse moving over the element
SCATTERMouseOverCircleStrokeColor	Circle stroke color when mouse moving over the element
SCATTERMouseOverCircleStrokeWidth	Circle stroke width when mouse moving over the element
SCATTERMouseOverTooltipsSetting	Default "style1"
SCATTERMouseOverTooltipsHtml	Default " "
SCATTERMouseOverTooltipsPosition	Default "absolute"
SCATTERMouseOverTooltipsBackgroundColor	Default "white"
SCATTERMouseOverTooltipsBorderStyle	Default "solid"
SCATTERMouseOverTooltipsBorderWidth	Default 0
SCATTERMouseOverTooltipsPadding	Default "3px"

SCATTERMouseOverTooltipsBorderRadius
 Default "3px"
 SCATTERMouseOverTooltipsOpacity
 Default 0.8
 ARCxlink Default False, add/not xlink for ARC module
 ARCMouseEvent Default True, open/not open mouse event of ARC module
 ARCMouseClickDisplay
 Default False, show/not the tooltip when mouse click on a ARC point
 ARCMouseClickColor
 Color when mouse clicking the element
 ARCMouseClickArcOpacity
 Arc opacity when mouse clicking the element
 ARCMouseClickArcStrokeColor
 Arc stroke color when mouse clicking the element
 ARCMouseClickArcStrokeWidth
 Arc stroke width when mouse clicking the element
 ARCMouseClickTextFromData
 Text column when mouse clicking the element
 ARCMouseClickTextOpacity
 Text opacity when mouse clicking the element
 ARCMouseClickTextColor
 Text color when mouse clicking the element
 ARCMouseClickTextSize
 Text size when mouse clicking the element
 ARCMouseClickTextPostionX, ARCMouseClickTextPostionY
 Text coordinates when mouse clicking the element
 ARCMouseClickTextDrag
 Whether text is draggable when mouse clicking the element
 ARCMouseDownDisplay
 Default False, show/not the tooltip when mouse click down a ARC point
 ARCMouseDownColor
 Color when mouse moving down the element
 ARCMouseDownArcOpacity
 Arc opacity when mouse moving down the element
 ARCMouseDownArcStrokeColor
 Arc stroke color when mouse moving down the element
 ARCMouseDownArcStrokeWidth
 Arc stroke width when mouse moving down the element
 ARCMouseEnterDisplay
 Default False, show/not the tooltip when mouse mover over a ARC point
 ARCMouseEnterColor
 Color when mouse entering the element
 ARCMouseEnterArcOpacity
 Arc opacity when mouse entering the element
 ARCMouseEnterArcStrokeColor
 Arc stroke color when mouse entering the element
 ARCMouseEnterArcStrokeWidth
 Arc stroke width when mouse entering the element

ARCMouseLeaveDisplay
Default False, show/not the tooltip when mouse mover leave a ARC point

ARCMouseLeaveColor
Color when mouse leaving the element

ARCMouseLeaveArcOpacity
Arc opacity when mouse leaving the element

ARCMouseLeaveArcStrokeColor
Arc stroke color when mouse leaving the element

ARCMouseLeaveArcStrokeWidth
Arc stroke width when mouse leaving the element

ARCMouseMoveDisplay
Default False, show/not the tooltip when mouse move into a ARC point

ARCMouseMoveColor
Color when mouse moving in the element

ARCMouseMoveArcOpacity
Arc opacity when mouse moving in the element

ARCMouseMoveArcStrokeColor
Arc stroke color when mouse moving in the element

ARCMouseMoveArcStrokeWidth
Arc stroke width when mouse moving in the element

ARCMouseOutDisplay
Defalut False, hide/not tooltip when mouse is not hovering a ARC point any-
more

ARCMouseOutAnimationTime
Animation time when mouse moving out the element

ARCMouseOutColor
Color when mouse moving out the element

ARCMouseOutArcOpacity
Arc opacity when mouse moving out the element

ARCMouseOutArcStrokeColor
Arc stroke color when mouse moving out the element

ARCMouseOutArcStrokeWidth
Arc stroke width when mouse moving out the element

ARCMouseUpDisplay
Default False, show/not the tooltip when mouse click up a ARC point

ARCMouseUpColor
Color when mouse moving up the element

ARCMouseUpArcOpacity
Arc opacity when mouse moving up the element

ARCMouseUpArcStrokeColor
Arc stroke color when mouse moving up the element

ARCMouseUpArcStrokeWidth
Arc stroke width when mouse moving up the element

ARCMouseOverDisplay
Default False, show/not the tooltip when mouse hover on a ARC point

ARCMouseOverColor
Color when mouse moving over the element

ARCMouseOverArcOpacity
Arc opacity when mouse moving over the element

ARCMouseOverArcStrokeColor
 Arc stroke color when mouse moving over the element
 ARCMouseOverArcStrokeWidth
 Arc stroke width when mouse moving over the element
 ARCMouseOverTooltipsSetting
 Default "style1"
 ARCMouseOverTooltipsHtml
 Default " "
 ARCMouseOverTooltipsPosition
 Default "absolute"
 ARCMouseOverTooltipsBackgroundColor
 Default "white"
 ARCMouseOverTooltipsBorderStyle
 Default "solid"
 ARCMouseOverTooltipsBorderWidth
 Default 0
 ARCMouseOverTooltipsPadding
 Default "3px"
 ARCMouseOverTooltipsBorderRadius
 Default "3px"
 ARCMouseOverTooltipsOpacity
 Default 0.8
 GENExlink Default False, add/not xlink for GENE module
 GENEMouseEvent Default True, open/not open mouse event of GENE module
 GENEMouseClickedDisplay
 Default False, show/not the tooltip when mouse click on a GENE point
 GENEMouseClickedColor
 Color when mouse clicking the element
 GENEMouseClickedArcOpacity
 Arc opacity when mouse clicking the element
 GENEMouseClickedArcStrokeColor
 Arc stroke color when mouse clicking the element
 GENEMouseClickedArcStrokeWidth
 Arc stroke width when mouse clicking the element
 GENEMouseClickedTextFromData
 Text column when mouse clicking the element
 GENEMouseClickedTextOpacity
 Text opacity when mouse clicking the element
 GENEMouseClickedTextColor
 Text color when mouse clicking the element
 GENEMouseClickedTextSize
 Text size when mouse clicking the element
 GENEMouseClickedTextPostionX, GENEMouseClickedTextPostionY
 Text coordinates when mouse clicking the element
 GENEMouseClickedTextDrag
 Whether text is draggable when mouse clicking the element
 GENEMouseDownDisplay
 Default False, show/not the tooltip when mouse click down a GENE point

GENEMouseDownColor
Color when mouse moving down the element

GENEMouseDownArcOpacity
Arc opacity when mouse moving down the element

GENEMouseDownArcStrokeColor
Arc stroke color when mouse moving down the element

GENEMouseDownArcStrokeWidth
Arc stroke width when mouse moving down the element

GENEMouseEnterDisplay
Default False, show/not the tooltip when mouse mover over a GENE point

GENEMouseEnterColor
Color when mouse entering the element

GENEMouseEnterArcOpacity
Arc opacity when mouse entering the element

GENEMouseEnterArcStrokeColor
Arc stroke color when mouse entering the element

GENEMouseEnterArcStrokeWidth
Arc stroke width when mouse entering the element

GENEMouseLeaveDisplay
Default False, show/not the tooltip when mouse mover leave a GENE point

GENEMouseLeaveColor
Color when mouse leaving the element

GENEMouseLeaveArcOpacity
Arc opacity when mouse leaving the element

GENEMouseLeaveArcStrokeColor
Arc stroke color when mouse leaving the element

GENEMouseLeaveArcStrokeWidth
Arc stroke width when mouse leaving the element

GENEMouseMoveDisplay
Default False, show/not the tooltip when mouse move into a GENE point

GENEMouseMoveColor
Color when mouse moving in the element

GENEMouseMoveArcOpacity
Arc opacity when mouse moving in the element

GENEMouseMoveArcStrokeColor
Arc stroke color when mouse moving in the element

GENEMouseMoveArcStrokeWidth
Arc stroke width when mouse moving in the element

GENEMouseOutDisplay
Defalut False, hide/not tooltip when mouse is not hovering a GENE point any-
more

GENEMouseOutAnimationTime
Animation time when mouse moving out the element

GENEMouseOutColor
Color when mouse moving out the element

GENEMouseOutArcOpacity
Arc opacity when mouse moving out the element

GENEMouseOutArcStrokeColor
Arc stroke color when mouse moving out the element

GENEMouseOutArcStrokeWidth
 Arc stroke width when mouse moving out the element
 GENEMouseUpDisplay
 Default False, show/not the tooltip when mouse click up a GENE point
 GENEMouseUpColor
 Color when mouse moving up the element
 GENEMouseUpArcOpacity
 Arc opacity when mouse moving up the element
 GENEMouseUpArcStrokeColor
 Arc stroke color when mouse moving up the element
 GENEMouseUpArcStrokeWidth
 Arc stroke width when mouse moving up the element
 GENEMouseOverDisplay
 Default False, show/not the tooltip when mouse hover on a GENE point
 GENEMouseOverColor
 Color when mouse moving over the element
 GENEMouseOverArcOpacity
 Arc opacity when mouse moving over the element
 GENEMouseOverArcStrokeColor
 Arc stroke color when mouse moving over the element
 GENEMouseOverArcStrokeWidth
 Arc stroke width when mouse moving over the element
 GENEMouseOverTooltipsSetting
 Default "style1"
 GENEMouseOverTooltipsHtml
 Default " "
 GENEMouseOverTooltipsPosition
 Default "absolute"
 GENEMouseOverTooltipsBackgroundColor
 Default "white"
 GENEMouseOverTooltipsBorderStyle
 Default "solid"
 GENEMouseOverTooltipsBorderWidth
 Default 0
 GENEMouseOverTooltipsPadding
 Default "3px"
 GENEMouseOverTooltipsBorderRadius
 Default "3px"
 GENEMouseOverTooltipsOpacity
 Default 0.8
 LOLLIPOPxlink Default False, add/not xlink for LOLLIPOP module
 LOLLIPOPMouseEvent
 Default True, open/not open mouse event of LOLLIPOP module
 LOLLIPOPMouseClickedDisplay
 Default False, show/not the tooltip when mouse click on a LOLLIPOP point
 LOLLIPOPMouseClickedColor
 Color when mouse clicking
 LOLLIPOPMouseClickedCircleSize
 Circle size when mouse clicking the element

LOLLIPOPMouseClickedCircleOpacity
Circle opacity when mouse clicking the element

LOLLIPOPMouseClickedCircleStrokeColor
Circle stroke color when mouse clicking the element

LOLLIPOPMouseClickedCircleStrokeWidth
Circle stroke width when mouse clicking the element

LOLLIPOPMouseClickedTextFromData
Text column when mouse clicking the element

LOLLIPOPMouseClickedTextOpacity
Text opacity when mouse clicking the element

LOLLIPOPMouseClickedTextColor
Text color when mouse clicking the element

LOLLIPOPMouseClickedTextSize
Text size when mouse clicking the element

LOLLIPOPMouseClickedTextPostionX, LOLLIPOPMouseClickedTextPostionY
Text coordinates when mouse clicking the element

LOLLIPOPMouseClickedTextDrag
Whether text is draggable when mouse clicking the element

LOLLIPOPMouseDownDisplay
Default False, show/not the tooltip when mouse click down a LOLLIPOP point

LOLLIPOPMouseDownColor
Color when mouse moving down the element

LOLLIPOPMouseDownCircleSize
Circle size when mouse moving down the element

LOLLIPOPMouseDownCircleOpacity
Circle opacity when mouse moving down the element

LOLLIPOPMouseDownCircleStrokeColor
Circle stroke color when mouse moving down the element

LOLLIPOPMouseDownCircleStrokeWidth
Circle stroke width when mouse moving down the element

LOLLIPOPMouseEnterDisplay
Default False, show/not the tooltip when mouse mover over a LOLLIPOP point

LOLLIPOPMouseEnterColor
Color when mouse entering the element

LOLLIPOPMouseEnterCircleSize
Circle size when mouse entering the element

LOLLIPOPMouseEnterCircleOpacity
Circle opacity when mouse entering the element

LOLLIPOPMouseEnterCircleStrokeColor
Circle stroke color when mouse entering the element

LOLLIPOPMouseEnterCircleStrokeWidth
Circle stroke width when mouse entering the element

LOLLIPOPMouseLeaveDisplay
Default False, show/not the tooltip when mouse mover leave a LOLLIPOP point

LOLLIPOPMouseLeaveColor
Color when mouse leaving the element

LOLLIPOPMouseLeaveCircleSize
Circle size when mouse leaving the element

LOLLIPOPMouseLeaveCircleOpacity
Circle opacity when mouse leaving the element

LOLLIPOPMouseLeaveCircleStrokeColor
Circle stroke color when mouse leaving the element

LOLLIPOPMouseLeaveCircleStrokeWidth
Circle stroke width when mouse leaving the element

LOLLIPOPMouseMoveDisplay
Default False, show/not the tooltip when mouse move into a LOLLIPOP point

LOLLIPOPMouseMoveColor
Color when mouse moving in the element

LOLLIPOPMouseMoveCircleSize
Circle size when mouse moving in the element

LOLLIPOPMouseMoveCircleOpacity
Circle opacity when mouse moving in the element

LOLLIPOPMouseMoveCircleStrokeColor
Circle stroke color when mouse moving in the element

LOLLIPOPMouseMoveCircleStrokeWidth
Circle stroke width when mouse moving in the element

LOLLIPOPMouseOutDisplay
Default False, hide/not tooltip when mouse is not hovering a LOLLIPOP point anymore

LOLLIPOPMouseOutAnimationTime
Animation time when mouse moving out the element

LOLLIPOPMouseOutColor
Color when mouse moving out the element

LOLLIPOPMouseOutCircleSize
Circle size when mouse moving out the element

LOLLIPOPMouseOutCircleOpacity
Circle opacity when mouse moving out the element

LOLLIPOPMouseOutCircleStrokeColor
Circle stroke color when mouse moving out the element

LOLLIPOPMouseOutCircleStrokeWidth
Circle stroke width when mouse moving out the element

LOLLIPOPMouseUpDisplay
Default False, show/not the tooltip when mouse click up a LOLLIPOP point

LOLLIPOPMouseUpColor
Color when mouse moving up the element

LOLLIPOPMouseUpCircleSize
Circle size when mouse moving up the element

LOLLIPOPMouseUpCircleOpacity
Circle opacity when mouse moving up the element

LOLLIPOPMouseUpCircleStrokeColor
Circle stroke color when mouse moving up the element

LOLLIPOPMouseUpCircleStrokeWidth
Circle stroke width when mouse moving up the element

LOLLIPOPMouseOverDisplay
Default False, show/not the tooltip when mouse hover on a LOLLIPOP point

LOLLIPOPMouseOverColor	Color when mouse moving over the element
LOLLIPOPMouseOverCircleSize	Circle size when mouse moving over the element
LOLLIPOPMouseOverCircleOpacity	Circle opacity when mouse moving over the element
LOLLIPOPMouseOverCircleStrokeColor	Circle stroke color when mouse moving over the element
LOLLIPOPMouseOverCircleStrokeWidth	Circle stroke width when mouse moving over the element
LOLLIPOPMouseOverTooltipsSetting	Default "style1"
LOLLIPOPMouseOverTooltipsHtml	Default " "
LOLLIPOPMouseOverTooltipsPosition	Default "absolute"
LOLLIPOPMouseOverTooltipsBackgroundColor	Default "white"
LOLLIPOPMouseOverTooltipsBorderStyle	Default "solid"
LOLLIPOPMouseOverTooltipsBorderWidth	Default 0
LOLLIPOPMouseOverTooltipsPadding	Default "3px"
LOLLIPOPMouseOverTooltipsBorderRadius	Default "3px"
LOLLIPOPMouseOverTooltipsOpacity	Default 0.8
elementId	the name of the HTML id to be used to contain the visualization
...	Ignored

Value

The main figure for interacCircos with all tracks

Examples

```
Circos(genome = "hg19")
```

CircosArc	ARC module
-----------	------------

Description

Create the CNV plot without value, Gene domain, Chromosome band

Usage

```

CircosArc(
  modulename,
  compareGroup = 1,
  outerRadius = 150,
  innerRadius = 130,
  opacity = 1,
  animationDisplay = FALSE,
  animationTime = 2000,
  animationDelay = 20,
  animationType = "bounce",
  data,
  ...
)

```

Arguments

modulename	The name of the new module
compareGroup	The group number of this module in compare module
innerRadius, outerRadius	Where the module should begin and end
opacity	The opacity for arc
animationDisplay	Whether display animation
animationTime, animationDelay, animationType	The time, delay and display type for animation
data	A list of arc with details including chr, start, end, color, des, link and html. Details can be found on document
...	Ignored

Value

The module tracks for arc modules

Examples

```

arcData<-arcExample
Circos(CircosArc('Arc01', outerRadius = 212, innerRadius = 224, data=arcData),
  genome=list("EGFR"=1211),outerRadius = 220,genomeFillColor = c("grey"))

```

CircosAuxLine

AUXILIARYLINE module

Description

A auxiliary line for better explanation of the visualization

Usage

```

CircosAuxLine(
    modulename,
    startX = 20,
    startY = 20,
    endX = 120,
    endY = 120,
    color = "red",
    width = 0.5,
    type = "straight",
    controlPointX = 0,
    controlPointY = 0,
    lineType = "solid",
    dashArray = 3,
    marker = TRUE,
    markerType = "circle",
    markerColor = "blue",
    markerHeight = 5,
    markerWidth = 5,
    markerPosition = 2,
    animationDisplay = FALSE,
    animationTime = 50,
    animationDelay = 1000,
    animationType = "linear",
    ...
)

```

Arguments

modulename	The name of the new module
startX, startY	Start coordinates for auxiliary line
endX, endY	End coordinates for auxiliary line
color	Color for auxiliary line
width	Width for auxiliary line
type	Type for auxiliary line, could be straight/curve/broken
controlPointX, controlPointY	The middle point coordinates for curve and broken
lineType	Line type, could be solid/dot
dashArray	The dash gap width
marker	Whether display a marker on the end of line
markerType	Type of marker, could be circle/square/arrow/stub
markerColor, markerHeight, markerWidth	Color, Height and Width for marker
markerPosition	1 means start, 2 means end, 3 means both
animationDisplay	whether display animation
animationTime, animationDelay, animationType	The time, delay and display type for animation
...	Ignored

Value

The module tracks for auxliary line modules

Examples

```
Circos(CircosAuxLine('AuxLine01'))
```

CircosBackground	<i>BACKGROUND module</i>
------------------	--------------------------

Description

Background for better display of other modules

Usage

```
CircosBackground(  
  modulename,  
  compareGroup = 1,  
  fillColors = "#EEEEFF",  
  borderColors = "#000000",  
  axisShow = FALSE,  
  axisColor = "#000",  
  axisOpacity = 0.5,  
  axisNum = 4,  
  axisWidth = 0.3,  
  maxRadius = 190,  
  minRadius = 105,  
  borderSize = 0.3,  
  animationDisplay = FALSE,  
  animationTime = 2000,  
  animationDelay = 20,  
  animationType = "bounce",  
  ...  
)
```

Arguments

modulename	The name of the new module
compareGroup	The group number of this module in compare module
fillColors	The filling color of the module
borderColors	The border color of the module
axisShow	Whether show a axis or not
axisWidth, axisColor, axisOpacity, axisNum	The color, opacity value and number of line for axis
minRadius, maxRadius	The outer and inner ring range of module
borderSize	The thickness of the border

```

animationDisplay      Whether display animation or not
animationTime, animationDelay, animationType
                      The time, delay and display type for animation
...                   Ignored

```

Value

The module tracks for background modules.

Examples

```
Circos(CircosBackground('bg01', fillColors="#FFEEEE", borderSize = 1))
```

CircosBubble

BUBBLE module

Description

Create a bubble plot

Usage

```

CircosBubble(
  modulename,
  compareGroup = 1,
  maxRadius = 200,
  minRadius = 50,
  blockStroke = TRUE,
  blockStrokeColor = "black",
  blockStrokeWidth = 1,
  blockFill = FALSE,
  blockFillColor = "white",
  bubbleMaxSize = 5,
  bubbleMinSize = 2,
  minColor = "red",
  maxColor = "green",
  ValueAxisManualScale = FALSE,
  ValueAxisMaxScale = 10,
  ValueAxisMinScale = 0,
  totallayer = 1,
  animationDisplay = FALSE,
  animationTime = 2000,
  animationDelay = 20,
  animationType = "bounce",
  data,
  ...
)

```

Arguments

<code>modulename</code>	The name of the new module
<code>compareGroup</code>	The group number of this module in compare module
<code>maxRadius, minRadius</code>	The outer and inner ring range of module
<code>blockStroke</code>	Whether display the stroke between each bubble block
<code>blockStrokeColor</code>	Stroke color for block
<code>blockStrokeWidth</code>	Stroke width for block
<code>blockFill</code>	Whether fill a block or not
<code>blockFillColor</code>	The color for filling the block
<code>bubbleMaxSize</code>	The max size for bubble
<code>bubbleMinSize</code>	The min size for bubble
<code>minColor</code>	The color the bubble of min value
<code>maxColor</code>	The color the bubble of max value
<code>ValueAxisManualScale</code>	Whether manually control the scale of value
<code>ValueAxisMaxScale, ValueAxisMinScale</code>	The max and min scale value for manually control
<code>totalLayer</code>	The color and width for stroke
<code>animationDisplay</code>	Whether display animation
<code>animationTime, animationDelay, animationType</code>	The time, delay and display type for animation
<code>data</code>	A list of value in bubble plot with details including chr, start, end, value, name, layer, color and html. Details can be found on document
<code>...</code>	Ignored

Value

The module tracks for bubble modules

Examples

```
bubbleData<-bubbleExample
Circos(CircosBubble('Bubble01', maxRadius = 230, minRadius = 170, data=bubbleData,
blockStroke = TRUE, bubbleMaxSize =10, bubbleMinSize = 2, maxColor = "red", minColor = "yellow",
totalLayer =3, animationDisplay = TRUE, animationType="linear"),
genome = list("2L"=23011544,"2R"=21146708,"3L"=24543557,"3R"= 27905053,"X"=22422827,"4"=1351857),
BUBBLEmouseoverDisplay =TRUE,innerRadius = 236)
```


CircosChord

*CHORD module of NG-Circos***Description**

Create a chord module using a data matrix

Usage

```
CircosChord(
  modulename,
  innerRadius = 237,
  outerRadius = 238,
  fillOpacity = 0.67,
  fillStrokeWidth = 1,
  padding = 0.06,
  autoFillColor = TRUE,
  fillColor = c("#B8B8B8"),
  fillStrokeColor = c("black"),
  outerARC = TRUE,
  outerARCAutoColor = TRUE,
  outerARCColor = c("red"),
  outerARCStrokeColor = c("black"),
  outerARCText = TRUE,
  data,
  ...
)
```

Arguments

<code>modulename</code>	The name of the new module
<code>innerRadius</code>	The inner radius for chord circle
<code>outerRadius</code>	The outer radius for chord circle
<code>fillOpacity</code>	The opacity for filling color
<code>fillStrokeWidth</code>	The stroke width for chord
<code>padding</code>	The pad of chord
<code>autoFillColor</code>	Whether auto assign color for chord
<code>fillColor</code>	If not, manually assign color for chord
<code>fillStrokeColor</code>	The color for stroke
<code>outerARC</code>	Whether display outer arc
<code>outerARCAutoColor</code>	If true, whether auto assign color for arc
<code>outerARCColor</code>	The manually assigned color for arc
<code>outerARCStrokeColor</code>	The stroke color for arc

outerARCText	Whether display text for arc or not
data	A matrix-list of chord value with relationship details
...	Ignored

Value

The module tracks for chord modules of NG-Circos

Examples

```
chordData<-chordExample
Circos(CircosChord('CHORD', data = chordData,innerRadius= 210,outerRadius= 211,fillOpacity=0.67,
strokeColor="black",strokeWidth= "1px",outerARCText=FALSE),genome=list("C.CK" = 189.51,"C.NPK"=188,
"GC.CK"=186.11, "GC.NPK"=191.51,"Alphaproteobacteria"=70.16,"Betaproteobacteria"=23.51,
"Gammaproteobacteria"=25.51, "Deltaproteobacteria"=23.28,"Acidobacteria"=53.62,
"Actinobacteria"=72.33, "Bacteroidetes"=22.41, "Chloroflexi"=15.08,"Firmicutes"=10.72,
"Gemmatimonadetes"=26.37, "Planctomycetes"=19.26,"Thaumarchaeota"=6.15, "Verrucomicrobia"=8.3,
"Ascomycota"=159.41, "Basidiomycota"=79.73,"Zygomycota"=139.29 ),outerRadius = 217,
genomeLabelDisplay = FALSE)
```

CircosChord.p

CHORD module of circosJS

Description

Create a chord module using a data path. chord.p means chord plot based on path

Usage

```
CircosChord.p(
  modulename,
  radius = 216,
  opacity = 0.67,
  color = "#B8B8B8",
  data,
  ...
)
```

Arguments

modulename	The name of the new module
radius	The radius for chord circle
opacity	The opacity for chord
color	The color for chord
data	A list of chord value with relationship details, details could be found on chord.pExample
...	Ignored

Value

The module tracks for chord modules of circosJS

Examples

```
chord.pData<-chord.pExample
Circos()
```

CircosCnv

*CNV module***Description**

Create a copy number variance module

Usage

```
CircosCnv(
  modulename,
  compareGroup = 1,
  maxRadius = 200,
  minRadius = 190,
  width = 10,
  color = "#CAE1FF",
  ValueAxisManualScale = FALSE,
  ValueAxisMaxScale = 10,
  ValueAxisMinScale = 0,
  strokeColor = "black",
  strokeWidth = 1,
  opacity = 1,
  animationDisplay = FALSE,
  animationTime = 2000,
  animationDelay = 50,
  animationType = "bounce",
  data,
  ...
)
```

Arguments

<code>modulename</code>	The name of the new module
<code>compareGroup</code>	The group number of this module in compare module
<code>maxRadius, minRadius</code>	The outer and inner ring range of module
<code>width</code>	Width for CNV module
<code>color</code>	Color for CNV module
<code>ValueAxisManualScale</code>	Whether manually control the scale of value or not
<code>ValueAxisMaxScale, ValueAxisMinScale</code>	The max and min scale value for manually control
<code>strokeColor, strokeWidth</code>	The color and width for stroke

opacity	The opacity for module
animationDisplay	Whether display animationn
animationTime, animationDelay, animationType	The time, delay and display type for animationn
data	A list of CNV with details including start, end, value, link, color and html. Details can be found on document
...	Ignored

Value

The module tracks for cnv modules

Examples

```
cnvData<-cnvExample
Circos(CircosCnv('Cnv01',maxRadius =175, minRadius =116, data =cnvData,width=2,color = "#4876FF")+
CircosBackground("bg01",minRadius = 116,maxRadius = 175,fillColors = "#F2F2F2",axisShow = TRUE),
CNVMouseOverDisplay = TRUE)
```

CircosGene	<i>GENE module</i>
------------	--------------------

Description

Create a number of genes with different functional region

Usage

```
CircosGene(
  modulename,
  compareGroup = 1,
  outerRadius = 180,
  innerRadius = 150,
  pathColor = "black",
  pathWidth = 1,
  arrow = TRUE,
  arrowGap = 2,
  arrowColor = "blue",
  arrowSize = 5,
  cdsColor = "#1e77b3",
  cdsStrokeColor = "black",
  cdsStrokeWidth = 1,
  utrWidth = -5,
  utrColor = "blue",
  utrStrokeColor = "blue",
  utrStrokeWidth = 1,
  animationDisplay = FALSE,
  animationTime = 2000,
  animationDelay = 20,
```

```

    animationType = "bounce",
    data,
    ...
)

```

Arguments

modulename	The name of the new module
compareGroup	The group number of this module in compare module
outerRadius, innerRadius	Where the module should begin and end
pathColor	The color for path between gene elements
pathWidth	The width for path between gene elements
arrow	Whether display arrows on path
arrowGap, arrowColor, arrowSize	The gap, color and size for arrow
cdsColor, cdsStrokeColor, cdsStrokeWidth	The color, stroke color and stroke width for coding
utrWidth, utrColor, utrStrokeColor, utrStrokeWidth	The max size for bubble
animationDisplay	Whether display animation
animationTime, animationDelay, animationType	The time, delay and display type for animation
data	A list of gene with details including chr, strand, start, end, type, name, link and html. Details can be found on document
...	Ignored

Value

The module tracks for gene modules

Examples

```

geneData<-geneExample
Circos(CircosGene('Gene01', outerRadius = 195, innerRadius = 180, data=geneData, arrowGap = 10,
  arrowColor = "black", arrowSize = "12px", cdsColor = "#1e77b3", cdsStrokeColor = "#1e77b3",
  cdsStrokeWidth= 5, utrWidth= -2, utrColor= "#fe7f0e", utrStrokeColor= "#fe7f0e",
  animationDisplay = TRUE), genome =list("EGFR"=1000), outerRadius = 220)

```

CircosHeatmap

HEATMAP module

Description

Create a heatmap plot

Usage

```

CircosHeatmap(
  modulename,
  compareGroup = 1,
  maxRadius = 180,
  minRadius = 100,
  minColor = "red",
  maxColor = "green",
  ValueAxisManualScale = FALSE,
  ValueAxisMaxScale = 10,
  ValueAxisMinScale = 0,
  totallayer = 1,
  animationDisplay = FALSE,
  animationDirection = "O2I",
  animationColorDirection = "L2C",
  animationTime = 2000,
  animationDelay = 20,
  animationType = "bounce",
  data,
  ...
)

```

Arguments

<code>modulename</code>	The name of the new module
<code>compareGroup</code>	The group number of this module in compare module
<code>maxRadius, minRadius</code>	Where the module should begin and end
<code>minColor</code>	The color for heatmap of min value
<code>maxColor</code>	The color for heatmap of max value
<code>ValueAxisManualScale</code>	Whether manually control the scale of value
<code>ValueAxisMaxScale, ValueAxisMinScale</code>	The max and min scale value for manually control
<code>totallayer</code>	The color and width for stroke
<code>animationDisplay</code>	Whether display animation
<code>animationDirection</code>	The direction for animation. O2I: from outside to inside, I2O: from inside to outside
<code>animationColorDirection</code>	The color changing in animation. L2C: lowest to customized, H2C: highest to customized, the customized color should be defined in data
<code>animationTime, animationDelay, animationType</code>	The time, delay and display type for animation
<code>data</code>	A list of value in heatmap plot with details including chr, start, end, value, name, layer and html. Details can be found on document
<code>...</code>	Ignored

Value

The module tracks for heatmap modules.

Examples

```
heatmapData<-heatmapExample
Circos(CircosHeatmap('Heatmap01', maxRadius= 180, minRadius = 100, data=heatmapData,totalLayer = 3),
genome = list("2L"=23011544,"2R"=21146708,"3L"=24543557,"3R"=27905053,"4"=1351857,"X"=22422827),
HEATMAPMouseEvent = TRUE,HEATMAPMouseOverDisplay = TRUE)
```

CircosHistogram	<i>HISTOGRAM module</i>
-----------------	-------------------------

Description

Create a multi-layer histogram plot

Usage

```
CircosHistogram(
  modulename,
  compareGroup = 1,
  maxRadius = 108,
  minRadius = 95,
  ValueAxisManualScale = FALSE,
  ValueAxisMaxScale = 10,
  ValueAxisMinScale = 0,
  fillColor = "red",
  animationDisplay = FALSE,
  animationTime = 2000,
  animationDelay = 20,
  data,
  ...
)
```

Arguments

modulename	The name of the new module
compareGroup	The group number of this module in compare module
maxRadius, minRadius	Where the module should begin and end
ValueAxisManualScale	Whether manually control the scale of value
ValueAxisMaxScale, ValueAxisMinScale	The max and min scale value for manually control
fillColor	The color for histogram
animationDisplay	Whether display animation

animationTime, animationDelay	The time and delay for animation
data	A list of value with details including chr, start, end, name, link, value and html. Details can be found on document
...	Ignored

Value

The module tracks for histogram modules

Examples

```

histogramData<-histogramExample
Circos(CircosHistogram('HISTOGRAM01', data = histogramData,fillColor= "#ff7f0e",maxRadius = 210,
minRadius = 175),genome=list("2L"=23011544,"2R"=21146708,"3L"=24543557,"3R"= 27905053,
"X"=22422827,"4"=1351857),
outerRadius = 220)

```

CircosLegend

LEGEND module

Description

Simple legend annotation displayed in the visualization

Usage

```

CircosLegend(
  modulename,
  x = 20,
  y = 20,
  title = "legend",
  size = 6,
  weight = "normal",
  GapBetweenGraphicText = 5,
  GapBetweenLines = 20,
  data,
  ...
)

```

Arguments

modulename	The name of the new module
x, y	The coordinates if legend
title	The title for legend
size	Font size for title
weight	Font weight for title. Should be either "normal", "bold", "bolder" or "lighter"
GapBetweenGraphicText	Gap between icon and text in legend

GapBetweenLines	Gap between each two lines in legend
data	A list of legend with details including type, color, opacity, circleSize, rectSize, lineWidth, lineHeight, text, textSize and textWeight. Details can be found on document
...	Ignored

Value

The module tracks for legend modules.

Examples

```
legend1 <- list(type= "circle", color="#1E77B4",opacity="1.0",circleSize="8",text= "C.CK",
textSize= "14",textWeight="normal")
legend2 <- list(type= "circle", color="#AEC7E8",opacity="1.0",circleSize="8",text= "C.NPK",
textSize= "14",textWeight="normal")
Circos(CircosLegend('legend01', title = "legend",data=list(legend1,legend2),size = 20))
```

CircosLine

LINE module

Description

Create a multi-layer line plot

Usage

```
CircosLine(
  modulename,
  compareGroup = 1,
  maxRadius = 108,
  minRadius = 95,
  ValueAxisManualScale = FALSE,
  ValueAxisMaxScale = 10,
  ValueAxisMinScale = 0,
  color = "red",
  width = 2,
  type = "cardinal",
  animationDisplay = FALSE,
  animationDirection = "S2E",
  animationTime = 2000,
  animationDelay = 20,
  animationType = "bounce",
  data,
  ...
)
```

Arguments

modulename	The name of the new module
compareGroup	The group number of this module in compare module
maxRadius, minRadius	Where the module should begin and end
ValueAxisManualScale	Whether manually control the scale of value
ValueAxisMaxScale, ValueAxisMinScale	The max and min scale value for manually control
color	Color for line
width	Width for line
type	Type for line, could be linear, cardinal, basis and monotone
animationDisplay	Whether display animation
animationDirection	The direction of animation, could be S2E(start to end) or E2S(end to start)
animationTime, animationDelay, animationType	The time, delay and display type for animation
data	A list of value with details including chr, pos, des, value and html. Details can be found on document
...	Ignored

Value

The module tracks for line modules

Examples

```
lineData<-lineExample
Circos(CircosLine('LINE01', data = lineData,maxRadius=200,minRadius=150,color= "#ff0031")+
CircosBackground('BG01',minRadius = 205,maxRadius = 150))
```

CircosLink	<i>LINK module</i>
------------	--------------------

Description

Create a link of two specific region in genome

Usage

```
CircosLink(
  modulename,
  compareGroup = 1,
  radius = 108,
  fillColor = "red",
  width = 3,
```

```

    type = "Q",
    displayLinkAxis = TRUE,
    axisColor = "#B8B8B8",
    axisWidth = 0.5,
    axisPad = 3,
    displayLinkLabel = TRUE,
    labelColor = "red",
    labelSize = 13,
    labelPad = 8,
    animationDisplay = FALSE,
    animationDirection = "1to2",
    animationTime = 2000,
    animationDelay = 20,
    animationType = "bounce",
    data,
    ...
)

```

Arguments

modulename	The name of the new module
compareGroup	The group number of this module in compare module
radius	Radius of link circle
fillColor	Color for link
width	Width for link
type	Type of link, could be Q/S/T
displayLinkAxis	Whether display axis for link or not
axisColor	The color for axis
axisWidth	The width for axis
axisPad	The pad for axis
displayLinkLabel	Whether display label for link or not
labelColor	The color for label
labelSize	The size for label
labelPad	The pad for label
animationDisplay	Whether display animation
animationDirection	The direction of link animation, could be 1to2 or 2to1
animationTime, animationDelay, animationType	The time, delay and display type for animation
data	A list of link with details including g1chr, g1start, g1end, g2chr, g2start, g2end, g1name, g2name, fusion, link and html. Details can be found on document
...	Ignored

Value

The module tracks for link modules

Examples

```
linkData<-linkExample
Circos(CircosLink('LINK', data = linkData,LinkRadius= 140,fillColor= "#9e9ac6",width= 2,
axisPad= 3,labelPad=8,animationDisplay=TRUE,animationDirection="1to2", animationType= "linear" ))
```

CircosLollipop

LOLLIPOP module

Description

Create a lollipop plot

Usage

```
CircosLollipop(
  modulename,
  compareGroup = 1,
  fillColor = "#9400D3",
  secondColor = "#FFFFFF",
  pointType = "circle",
  circleSize = 2,
  diamondWidth = 10,
  diamondHeight = 5,
  rectWidth = 2,
  rectHeight = 2,
  stroke = TRUE,
  strokeColor = "#000000",
  strokeWidth = 0.5,
  lineAutoHeight = TRUE,
  lineAutoMaximumHeightZoomRate = 1,
  lineHeightRate = 0.75,
  lineWidth = 2,
  lineColor = "#000000",
  realStart = 0,
  ValueAxisManualScale = FALSE,
  ValueAxisMaxScale = 10,
  ValueAxisMinScale = 0,
  animationDisplay = FALSE,
  animationTime = 2000,
  animationDelay = 20,
  animationType = "bounce",
  data,
  ...
)
```

Arguments

modulename	The name of the new module
compareGroup	The group number of this module in compare module

fillColor	Filling color for lollipop
secondColor	Second filling color for heterogeneous lollipop
pointType	The type for lollipop, could be circle, rect and diamond
circleSize	If circle, the size for lollipop
diamondWidth, diamondHeight	If diamond, the width and height for lollipop
rectWidth, rectHeight	If rect, the width and height for lollipop
stroke	Whether display the stroke for lollipop
strokeColor, strokeWidth	The color and width for stroke
lineAutoHeight	Whether auto assign the height for each lollipop
lineAutoMaximumHeightZoomRate	If auto assign, the zoom rate for each lollipop
lineHeightRate	If manually assign, the rate of lollipop compared to real value
lineWidth, lineColor	The width and color for the line of lollipop
realStart	The real start position for data in genome
ValueAxisManualScale	Whether manually control the scale of value
ValueAxisMaxScale, ValueAxisMinScale	The max and min scale value for manually control
animationDisplay	Whether display animation
animationTime, animationDelay, animationType	The time, delay and display type for animation
data	A list of lollipop value with details including protein, chr, pos, strand, Cancer-TypeNumber, color, link, Consequence, AA_pos, AA_change, type, link and html. Details can be found on document
...	Ignored

Value

The module tracks for lollipop modules.

Examples

```
lollipopData<-lollipopExample
arcData<-arcExample
Circos(CircosLollipop('Lollipop01', data=lollipopData, fillColor="#9400D3",
circleSize= 6, strokeColor= "#999999", strokeWidth= "1px", animationDisplay=TRUE, lineWidth= 2,
realStart= 101219350)+CircosArc('Arc01', outerRadius = 212, innerRadius = 224, data=arcData),
genome=list("EGFR"=1211),outerRadius = 220,genomeFillColor = c("grey"))
```

CircosModuleList	Create a list of modules
------------------	--------------------------

Description

This allows the use of the '+' and '-' operator on these lists

Usage

```
CircosModuleList()

## S3 method for class 'CircosModuleList'
x + ...

## S3 method for class 'CircosModuleList'
x - ...
```

Arguments

x	The moduleList on which other modules should be added or removed
...	The modules to add (as moduleLists) or to remove (as module names)

Value

The list of all tracks of modules.

CircosScatter	SCATTER module
---------------	----------------

Description

Create a point plot

Usage

```
CircosScatter(
  modulename,
  compareGroup = 1,
  radius = 140,
  innerCircleSize = 1,
  outerCircleSize = 5,
  innerCircleColor = "#F26223",
  outerCircleColor = "#F26223",
  innerPointType = "circle",
  outerPointType = "circle",
  innerrectWidth = 2,
  innerrectHeight = 2,
  outerrectWidth = 2,
  outerrectHeight = 2,
```

```

    outerCircleOpacity = 1,
    random_data = 0,
    animationDisplay = FALSE,
    animationInitialPositionX = 0,
    animationInitialPositionY = 0,
    animationTime = 2000,
    animationDelay = 20,
    animationType = "bounce",
    data,
    ...
)

```

Arguments

modulename	The name of the new module
compareGroup	The group number of this module in compare module
radius	Radius of scatter circle
innerCircleSize, outerCircleSize	If circle, inner and outer circle size
innerCircleColor, outerCircleColor	If circle, inner and outer circle color
innerPointType, outerPointType	The type for inner and outer point, could be circle or rect
innerrectWidth, innerrectHeight	If rect, inner width and height
outerrectWidth, outerrectHeight	If rect, inner width and height
outerCircleOpacity	If circle, the opacity for outer circle
random_data	Scatter position fluctuation
animationDisplay	Whether display animation
animationInitialPositionX, animationInitialPositionY	The initial coordinates for animation
animationTime, animationDelay, animationType	The time, delay and display type for animation
data	A list of value with details including chr, start, end, name, des, link and html. Details can be found on document
...	Ignored

Value

The module tracks for scatter modules

Examples

```

scatterData<-scatterExample
Circos(CircosScatter('SCATTER01', data = scatterData, radius=180, innerCircleColor= "#3d6390",
outerCircleColor= "#99cafe", random_data= 40))

```

CircosSnp

*SNP module***Description**

Create SNPs are defined by genomic coordinates and associated with a numerical value

Usage

```
CircosSnp(
  modulename,
  compareGroup = 1,
  minRadius = 153,
  maxRadius = 205,
  fillColorType = "specific",
  fillColor = "#9400D3",
  fillr2Color = c("13#ff0031", "#ff0031", "#ff0031", "#ff0031", "#ff0031"),
  ValueAxisManualScale = FALSE,
  ValueAxisMaxScale = 10,
  ValueAxisMinScale = 0,
  pointType = "circle",
  circleSize = 2,
  rectWidth = 2,
  rectHeight = 2,
  animationDisplay = FALSE,
  animationInitialPositionX = 0,
  animationInitialPositionY = 0,
  animationTime = 2000,
  animationDelay = 20,
  animationType = "bounce",
  data,
  ...
)
```

Arguments

modulename	The name of the new module
compareGroup	The group number of this module in compare module
maxRadius, minRadius	Where the module should begin and end
fillColorType	The type of filling color, could be either specific or r2(means based on r2)
fillColor	If specific, the color for SNP filling
fillr2Color	If r2, the color for SNP filling
ValueAxisManualScale	Whether manually control the scale of value
ValueAxisMaxScale, ValueAxisMinScale	The max and min scale value for manually control
pointType	The type of SNP point, could be circle or rect
circleSize	If circle, the size for SNP circle

rectWidth	If rect, the width for SNP rect
rectHeight	If rect, the height for SNP rect
animationDisplay	Whether display animation
animationInitialPositionX, animationInitialPositionY	The initial position coordinates for animation
animationTime, animationDelay, animationType	The time, delay and display type for animation
data	A list of SNP value with details including chr, pos, value, des, color, r2value, link, index, image and html. Details can be found on document
...	Ignored

Value

The module tracks for snp modules

Examples

```
snpData<-snpExample
Circos(CircosSnp('SNP01', minRadius =150, maxRadius = 190, data = snpExample,fillColor= "#9ACD32",
  circleSize= 2, SNPAnimationDisplay=TRUE,SNPAnimationTime= 2000,SNPAnimationDelay= 0,
  SNPAnimationType= "linear") + CircosBackground('BG01',minRadius = 145, maxRadius = 200))
```

CircosText	<i>Text module</i>
------------	--------------------

Description

Text for better explanation of other modules

Usage

```
CircosText(
  modulename,
  text,
  x = 0,
  y = 0,
  size = "1.2em",
  weight = "bold",
  opacity = 1,
  color = "#000000",
  rotateRate = 0,
  animationDisplay = FALSE,
  animationInitialSize = 20,
  animationInitialWeight = "bold",
  animationInitialColor = "black",
  animationInitialOpacity = 1,
  animationInitialPositionX = 0,
  animationInitialPositionY = 0,
```

```

    animationInitialRotate = 0,
    animationDelay = 50,
    animationTime = 1000,
    animationType = "linear",
    ...
)

```

Arguments

modulename	The name of the new module
text	The details of text
x, y	The coordinates of the text
size	Font size
weight	Font weight. Should be either "normal", "bold", "bolder" or "lighter"
opacity	Font opacity
color	Font color
rotateRate	rotate rate for text
animationDisplay	Whether display animation or not
animationInitialSize	Initial text size in animation
animationInitialWeight	Initial text weight in animation
animationInitialColor	Initial text color in animation
animationInitialOpacity	Initial text opacity in animation
animationInitialPositionX, animationInitialPositionY	Initial text coordinates in animation(The parameter x,y will become the final position for text if animation displayed)
animationInitialRotate	Initial rotate rate in animation
animationTime, animationDelay, animationType	The time, delay and display type for animation
...	Ignored

Value

The module tracks for text modules.

Examples

```
Circos(CircosText('text01', 'Annotation', color = '#DD2222', x = -40))
```

CircosWig

*WIG module***Description**

Create a multi-layer line plot

Usage

```
CircosWig(
  modulename,
  compareGroup = 1,
  maxRadius = 108,
  minRadius = 95,
  direction = "out",
  ValueAxisManualScale = FALSE,
  ValueAxisMaxScale = 10,
  ValueAxisMinScale = 0,
  color = "red",
  opacity = 1,
  strokeColor = "black",
  strokeWidth = 1,
  strokeType = "cardinal",
  animationDisplay = FALSE,
  animationTime = 2000,
  animationDelay = 20,
  animationType = "bounce",
  data,
  ...
)
```

Arguments

<code>modulename</code>	The name of the new module
<code>compareGroup</code>	The group number of this module in compare module
<code>maxRadius, minRadius</code>	Where the module should begin and end
<code>direction</code>	The direction of plot, either inside or outside
<code>ValueAxisManualScale</code>	Whether manually control the scale of value
<code>ValueAxisMaxScale, ValueAxisMinScale</code>	The max and min scale value for manually control
<code>color</code>	Color for plot
<code>opacity</code>	Opacity for plot
<code>strokeColor</code>	The color for stroke
<code>strokeWidth</code>	The width for stroke
<code>strokeType</code>	Line type for stroke, could be linear, cardinal, basis and monotone

animationDisplay	Whether display animation
animationTime, animationDelay, animationType	The time, delay and display type for animation
data	A list of value with details including chr, pos, des, value and html. Details can be found on document
...	Ignored

Value

The module tracks for wig modules

Examples

```
wigData<-wigExample
Circos(CircosWig('WIG01', data = wigData, maxRadius= 200,minRadius= 150,strokeColor= "darkblue",
color= "lightblue",strokeType= "cardinal")+CircosBackground('BG01',minRadius = 205,maxRadius = 150)
,genome=list("chr8"=1000),outerRadius = 220)
```

cnvExample

Cnv module example data

Description

The data is in matrix with column names

Usage

```
cnvExample
```

Format

A data frame with 7 columns:

chr chromosome

start start position

end end position

value value

link hyperlink for cnv

color color

html The external html language

geneExample	<i>Gene plot example data</i>
-------------	-------------------------------

Description

The data is in matrix with column names

Usage

geneExample

Format

A data frame with 8 columns:

chr chromosome

strand strand, - or +

start start position

end end position

type region type, gene or utr or cds

name name for description

link hyperlink for this region

html The external html language

heatmapExample	<i>Heatmap plot example data</i>
----------------	----------------------------------

Description

The data is in matrix with column names

Usage

heatmapExample

Format

A data frame with 7 columns:

chr chromosome

start start position

end end position

name name for description

value value

layer layer number

html The external html language

hg19_ideogram	<i>Ideogram for hg19</i>
---------------	--------------------------

Description

The ideogram for human hg19 reference including the color for each region

Usage

```
hg19_ideogram
```

Format

A data frame with 4 columns:

chr chromosome

start start position

end end position

color color

histogramExample	<i>Histogram plot example data</i>
------------------	------------------------------------

Description

The data is in matrix with column names

Usage

```
histogramExample
```

Format

A data frame with 7 columns:

chr chromosome

start start position

end end position

name name for description

link hyperlink

value value

html The external html language

lineExample	<i>Line plot example data</i>
-------------	-------------------------------

Description

The data is in matrix with column names

Usage

```
lineExample
```

Format

A data frame with 5 columns:

chr chromosome

pos position

des description

value value

html The external html language

linkExample	<i>Link plot example data</i>
-------------	-------------------------------

Description

The data is in matrix with column names

Usage

```
linkExample
```

Format

A data frame with 11 columns:

g1chr first chromosome

g1start first start position

g1end first end position

g2chr second chromosome

g2start second start position

g2end second end position

g1name first name

g2name second name

fusion fusion name

link hyperlink for link line

html The external html language

lollipopExample	<i>Lollipop plot example data</i>
-----------------	-----------------------------------

Description

The data is in matrix with column names

Usage

lollipopExample

Format

A data frame with 12 columns:

- protein** protein name
- chr** chromosome
- pos** position
- strand** strand, - or +
- CancerTypeNumber** Cancer type number
- color** color
- link** hyperlink
- Consequence** consequence
- AA_pos** AA_pos
- AA_change** AA_change
- type** type for mutation,Hetero or Homo
- html** The external html language

scatterExample	<i>Scatter plot example data</i>
----------------	----------------------------------

Description

The data is in matrix with column names

Usage

scatterExample

Format

A data frame with 7 columns:

chr chromosome

start start position

end end position

name name for scatter

des description

link hyperlink

html The external html language

snpExample

Snp plot example data

Description

The data is in matrix with column names

Usage

snpExample

Format

A data frame with 10 columns:

chr chromosome

pos position

value value, such as p-value

des description

color color

r2value r2 value

link hyperlink for snp

index index for combination

image image for combination

html The external html language

`wigExample`*Wig plot example data*

Description

The data is in matrix with column names

Usage

```
wigExample
```

Format

A data frame with 5 columns:

chr chromosome

pos position

des description

value value

html The external html language

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