

Package ‘interacCircos’

November 6, 2024

Type Package

Title The Generation of Interactive Circos Plot

Description Implement 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 1.17.0

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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Contents

| | |
|-------------------------|---|
| arcExample | 2 |
| bubbleExample | 3 |

| | |
|----------------------------|----|
| chord.pExample | 4 |
| chordExample | 4 |
| Circos | 5 |
| CircosArc | 56 |
| CircosAuxLine | 57 |
| CircosBackground | 58 |
| CircosBubble | 60 |
| CircosChord | 61 |
| CircosChord.p | 63 |
| CircosCnv | 64 |
| CircosGene | 65 |
| CircosHeatmap | 67 |
| CircosHistogram | 68 |
| CircosLegend | 69 |
| CircosLine | 70 |
| CircosLink | 72 |
| CircosLollipop | 73 |
| CircosModuleList | 75 |
| CircosScatter | 76 |
| CircosSnp | 78 |
| CircosText | 79 |
| CircosWig | 81 |
| cnvExample | 82 |
| geneExample | 83 |
| heatmapExample | 83 |
| hg19_ideogram | 84 |
| histogramExample | 84 |
| lineExample | 85 |
| linkExample | 85 |
| lollipopExample | 86 |
| scatterExample | 87 |
| snpExample | 87 |
| wigExample | 88 |

Index **89**

| | |
|------------|------------------------------|
| arcExample | <i>Arc plot example data</i> |
|------------|------------------------------|

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,  
  genomeBorderColor = "#000",  
  genomeBorderSize = 0.5,  
  genomeTicksDisplay = FALSE,  
  genomeTicksLen = 5,
```

```
genomeTicksColor = "#000",
genomeTicksTextSize = "0.6em",
genomeTicksRealLength = TRUE,
genomeTicksTextColor = "#000",
genomeTicksScale = 3e+07,
genomeTicksOffset = 0,
genomeLabelDisplay = TRUE,
genomeLabelTextSize = "10pt",
genomeLabelTextColor = "#000",
genomeLabelDx = 0,
genomeLabelDy = 0,
compareEvent = FALSE,
compareEventGroupGapRate = 0.1,
compareEventGroupDistance = 0,
zoom = TRUE,
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CNVMouseEvent = TRUE,
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CNVMouseLeaveArcStrokeColor = "#F26223",
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HEATMAPMouseLeaveOpacity = 1,
HEATMAPMouseLeaveStrokeColor = "none",
HEATMAPMouseLeaveStrokeWidth = "none",
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BUBBLEMouseDownStrokeWidth = "none",
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BUBBLEMouseEnterStrokeColor = "none",
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BUBBLEMouseLeaveDisplay = FALSE,
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BUBBLEMouseOverTooltipsBorderStyle = "solid",
BUBBLEMouseOverTooltipsBorderWidth = 0,
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BUBBLEMouseOverTooltipsOpacity = 0.8,
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SNPMouseEventCombinationImageTitleSize = 5,
SNPMouseEventCombinationImageTitleWeight = "bold",
SNPMouseEventCombinationImageTitleColor = "black",
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SNPMouseEventCombinationImagePositionY = 0,
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SNPMouseEventCombinationImageWidth = 300,
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SNPMouseEventCombinationGraphTitle = "This is graph",
```

```
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SNPMouseCombinationGraphLinePointStroke = TRUE,  
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SNPMouseEnterCircleOpacity = 1,  
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WIGMouseOutFillColor = "none",  
WIGMouseUpDisplay = FALSE,  
WIGMouseUpLineOpacity = 1,  
WIGMouseUpLineStrokeColor = "none",  
WIGMouseUpLineStrokeWidth = "none",  
WIGMouseUpFillColor = "none",  
WIGMouseOverDisplay = FALSE,  
WIGMouseOverLineOpacity = 1,  
WIGMouseOverLineStrokeColor = "none",  
WIGMouseOverLineStrokeWidth = "none",  
WIGMouseOverFillColor = "none",  
WIGMouseOverTooltipsSetting = "style1",  
WIGMouseOverTooltipsHtml = " ",  
WIGMouseOverTooltipsPosition = "absolute",  
WIGMouseOverTooltipsBackgroundColor = "white",  
WIGMouseOverTooltipsBorderStyle = "solid",  
WIGMouseOverTooltipsBorderWidth = 0,  
WIGMouseOverTooltipsPadding = "3px",  
WIGMouseOverTooltipsBorderRadius = "3px",  
WIGMouseOverTooltipsOpacity = 1,  
SCATTERxlink = FALSE,  
SCATTERMouseEvent = TRUE,  
SCATTERMouseClickDisplay = FALSE,  
SCATTERMouseClickColor = "red",  
SCATTERMouseClickCircleSize = 2,  
SCATTERMouseClickCircleOpacity = 1,  
SCATTERMouseClickCircleStrokeColor = "none",  
SCATTERMouseClickCircleStrokeWidth = "none",  
SCATTERMouseClickTextFromData = "fourth",
```



```
SCATTERMouseClickTextOpacity = 1,  
SCATTERMouseClickTextColor = "red",  
SCATTERMouseClickTextSize = 8,  
SCATTERMouseClickTextPostionX = 1,  
SCATTERMouseClickTextPostionY = 10,  
SCATTERMouseClickTextDrag = 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",  
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,
ARCMouseClickedDisplay = FALSE,
ARCMouseClickedColor = "red",
ARCMouseClickedArcOpacity = 1,
ARCMouseClickedArcStrokeColor = "none",
ARCMouseClickedArcStrokeWidth = "none",
ARCMouseClickedTextFromData = "fourth",
ARCMouseClickedTextOpacity = 1,
ARCMouseClickedTextColor = "red",
ARCMouseClickedTextSize = 8,
ARCMouseClickedTextPostionX = 1,
ARCMouseClickedTextPostionY = 10,
ARCMouseClickedTextDrag = 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,
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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",
LOLLIPOPMouseClickedTextFromData = "fourth",
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

| | |
|--|--|
| <code>moduleList</code> | Module list displayed in plot |
| <code>genome</code> | Could be either 'hg19', which is defaultly set to use chromosomes of hg19, or a list of chromosomes with length, for example, <code>list("chr1"=100,"chr2"=200)</code> |
| <code>genome2</code> | Second genome when compare module is applied, format is same as <code>genome</code> |
| <code>genomeFillColor</code> | Could be either a color palette from <code>RColorBrewer</code> , or a list of color name, for example, <code>list("yellow","rgb(1,255,255)")</code> |
| <code>chrPad</code> | Distance between each chromosome, default is 0.04 |
| <code>width, height</code> | The width and height for svg element, could be px or percent or auto |
| <code>innerRadius</code> | Default 216, Inner radius of chromosome |
| <code>outerRadius</code> | Default 240, Outer radius of chromosome |
| <code>svgClassName</code> | The svg class name |
| <code>displayGenomeBorder</code> | Whether display a border for genome track or not |
| <code>genomeBorderColor, genomeBorderSize</code> | The color and size for border of genome |
| <code>genomeTicksDisplay</code> | Whether display the ticks for genome track |
| <code>genomeTicksLen, genomeTicksColor, genomeTicksTextSize, genomeTicksTextColor, genomeTicksScale, genomeTicksRealLength, genomeTicksOffset</code> | arameters only works when <code>genomeTicksDisplay</code> is TRUE and their details are available on document |
| <code>genomeLabelDisplay, genomeLabelTextSize, genomeLabelTextColor, genomeLabelDx, genomeLabelDy</code> | Whether display the label for chromosome panel. Other parameters only works when <code>genomeTicksDisplay</code> is TRUE and their details are available on document |
| <code>compareEvent</code> | Default False, open/not COMPARE module |
| <code>compareEventGroupGapRate</code> | Default 0.1, control the two-side gap rate on each group of genome |
| <code>compareEventGroupDistance</code> | Default 0, distance between two groups of genome |
| <code>zoom</code> | Whether or not the plot is zoomable? |
| <code>TEXTModuleDragEvent</code> | 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

BUBBLEMouseClickOpacity
Opacity when mouse clicking

BUBBLEMouseClickStrokeColor
Stroke color when mouse clicking

BUBBLEMouseClickStrokeWidth
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 | Default 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

SNPMouseClickedCircleOpacity
Opacity after clicking the element

SNPMouseClickedCircleStrokeColor
Stroke color after clicking the element

SNPMouseClickedCircleStrokeWidth
Stroke width after clicking the element

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

SNPMouseClickedTextOpacity
Text opacity after clicking the element

SNPMouseClickedTextColor
Text color after clicking the element

SNPMouseClickedTextSize
Text size after clicking the element

SNPMouseClickedTextPostionX, SNPMouseClickedTextPostionY
Text coordinate after clicking the element

SNPMouseClickedTextDrag
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

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|--------------------------------|--|
| 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 | Default 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

LINKMouseClickedDisplay
Default False, show/not the tooltip when mouse click on a LINK point

LINKMouseClickedOpacity
Opacity when mouse clicking

LINKMouseClickedStrokeColor
Stroke color when mouse clicking

LINKMouseClickedStrokeWidth
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
Defalut 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 hidid

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

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|------------------------------|--|
| LINEMouseDownLineStyleColor | Stroke color when mouse moving down the element |
| LINEMouseDownLineStyleWidth | 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 |
| LINEMouseEnterLineStyleColor | Stroke color when mouse entering the element |
| LINEMouseEnterLineStyleWidth | 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 |
| LINEMouseLeaveLineStyleColor | Stroke color when mouse leaving the element |
| LINEMouseLeaveLineStyleWidth | 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 |
| LINEMouseMoveLineStyleColor | Stroke color when mouse moving in the element |
| LINEMouseMoveLineStyleWidth | 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 |
| LINEMouseOutLineStyleColor | Stroke color when mouse moving out the element |
| LINEMouseOutLineStyleWidth | 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 |
| LINEMouseUpLineStyleColor | 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

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|------------------------------|--|
| 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 | Defalut 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"

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 |
| ARCMouseClickedDisplay | Default False, show/not the tooltip when mouse click on a ARC point |
| ARCMouseClickedColor | 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 | Default False, hide/not tooltip when mouse is not hovering a ARC point anymore |
| 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

GENEMouseClickDisplay
Default False, show/not the tooltip when mouse click on a GENE point

GENEMouseClickColor
Color when mouse clicking the element

GENEMouseClickArcOpacity
Arc opacity when mouse clicking the element

GENEMouseClickArcStrokeColor
Arc stroke color when mouse clicking the element

GENEMouseClickArcStrokeWidth
Arc stroke width when mouse clicking the element

GENEMouseClickTextFromData
Text column when mouse clicking the element

GENEMouseClickTextOpacity
Text opacity when mouse clicking the element

GENEMouseClickTextColor
Text color when mouse clicking the element

GENEMouseClickTextSize
Text size when mouse clicking the element

GENEMouseClickTextPostionX, GENEMouseClickTextPostionY
Text coordinates when mouse clicking the element

GENEMouseClickTextDrag
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
Defalut 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 auxiliary line modules

Examples

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

CircosBackground *BACKGROUND module*

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 |

| | |
|--|---|
| blockFill | Whether fill a block or not |
| blockFillColor | The color for filling the block |
| bubbleMaxSize | The max size for bubble |
| bubbleMinSize | The min size for bubble |
| minColor | The color the bubble of min value |
| maxColor | The color the bubble of max value |
| ValueAxisManualScale | Whether manually control the scale of value |
| ValueAxisMaxScale, ValueAxisMinScale | The max and min scale value for manually control |
| totalLayer | The color and width for stroke |
| animationDisplay | Whether display animation |
| animationTime, animationDelay, animationType | The time, delay and display type for animation |
| data | 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 |
| ... | 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)
```

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

Value

The module tracks for chord modules of NG-Circos

Examples

```
chordData<-chordExample
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

| | |
|----------------------|--|
| modulename | The name of the new module |
| compareGroup | The group number of this module in compare module |
| maxRadius, minRadius | The outer and inner ring range of module |
| width | Width for CNV module |
| color | Color for CNV module |
| ValueAxisManualScale | Whether manually control the scale of value or not |

| | |
|--|--|
| ValueAxisMaxScale, ValueAxisMinScale | The max and min scale value for manually control |
| strokeColor, strokeWidth | 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

GENE module

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

| | |
|--------------------------------------|---|
| 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 |
| minColor | The color for heatmap of min value |
| maxColor | The color for heatmap of max value |
| ValueAxisManualScale | Whether manually control the scale of value |
| ValueAxisMaxScale, ValueAxisMinScale | The max and min scale value for manually control |
| totalLayer | The color and width for stroke |
| animationDisplay | Whether display animation |

| | |
|--|--|
| animationDirection | The direction for animation. O2I: from outside to inside, I2O: from inside to outside |
| animationColorDirection | The color changing in animation. L2C: lowest to customized, H2C: highest to customized, the customized color should be defined in data |
| animationTime, animationDelay, animationType | The time, delay and display type for animation |
| data | A list of value in heatmap plot with details including chr, start, end, value, name, layer and html. Details can be found on document |
| ... | 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 *HISTOGRAM module*

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

*LINK module***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 thic 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 | <i>SCATTER module</i> |
|---------------|-----------------------|

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

| | |
|-----------------------------------|--|
| <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>fillColorType</code> | The type of filling color, could be either specific or r2(means based on r2) |
| <code>fillColor</code> | If specific, the color for SNP filling |
| <code>fillr2Color</code> | If r2, the color for SNP filling |
| <code>ValueAxisManualScale</code> | 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

Text module

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

| | |
|--------------------------------------|---|
| 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 |
| direction | The direction of plot, either inside or outside |
| ValueAxisManualScale | Whether manually control the scale of value |
| ValueAxisMaxScale, ValueAxisMinScale | The max and min scale value for manually control |

| | |
|--|--|
| color | Color for plot |
| opacity | Opacity for plot |
| strokeColor | The color for stroke |
| strokeWidth | The width for stroke |
| strokeType | 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 *Lollipop plot example data*

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 | <i>Snp plot example data</i> |
|------------|------------------------------|

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

Index

* datasets

- arcExample, 2
- bubbleExample, 3
- chord.pExample, 4
- chordExample, 4
- cnvExample, 82
- geneExample, 83
- heatmapExample, 83
- hg19_ideogram, 84
- histogramExample, 84
- lineExample, 85
- linkExample, 85
- lollipopExample, 86
- scatterExample, 87
- snpExample, 87
- wigExample, 88
- + .CircosModuleList (CircosModuleList), 75
- .CircosModuleList (CircosModuleList), 75

- arcExample, 2

- bubbleExample, 3

- chord.pExample, 4
- chordExample, 4
- Circos, 5
- CircosArc, 56
- CircosAuxLine, 57
- CircosBackground, 58
- CircosBubble, 60
- CircosChord, 61
- CircosChord.p, 63
- CircosCnv, 64
- CircosGene, 65
- CircosHeatmap, 67
- CircosHistogram, 68
- CircosLegend, 69
- CircosLine, 70
- CircosLink, 72
- CircosLollipop, 73
- CircosModuleList, 75
- CircosScatter, 76
- CircosSnp, 78
- CircosText, 79
- CircosWig, 81
- cnvExample, 82

- geneExample, 83

- heatmapExample, 83
- hg19_ideogram, 84
- histogramExample, 84

- lineExample, 85
- linkExample, 85
- lollipopExample, 86

- scatterExample, 87
- snpExample, 87

- wigExample, 88