

Package ‘NGCircos’

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Type Package

Title Next Generation Circos in R

Version 1.0.0

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Description

A R package for NGCircos: Next-generation Circos for data visualization and interpretation

License MIT

Encoding UTF-8

LazyData true

Depends R (>= 3.1.0)

Imports RColorBrewer, htmlwidgets, jsonlite, plyr, grDevices

RoxygenNote 7.1.0

Suggests testthat,
knitr,
rmarkdown

VignetteBuilder knitr

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

Description

The data is in matrix with row 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	<i>Bubble plot example data</i>
---------------	---------------------------------

Description

The data is in matrix with row 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

chordExample	<i>Chord plot example data</i>
--------------	--------------------------------

Description

The data is in matrix with row names

Usage

```
chordExample
```

Format

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

column name the name for each arc

row the order and number is same as column, representing the same items

cnvExample	<i>Cnv module example data</i>
------------	--------------------------------

Description

The data is in matrix with row 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 row 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 row 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

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

Description

The data is in matrix with row 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 row 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 row names

Usage

```
linkExample
```

Format

A data frame with 11 columns:

g1chr first chromosome

g1start first start position

g1end first end position

g2chr second chromosome

g2start second start position

g2end second end position

g1name first name

g2name second name

fusion fusion name

link hyperlink for link line

html The external html language

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

Description

The data is in matrix with row 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

NGCircos	<i>NGCircos</i>
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Description

A R packages based on Next Generation Circos

Usage

```
NGCircos(
  moduleList = NGCircosModuleList(),
  genome = "hg19",
  genome2 = "hg19",
  genomeFillColor = "Spectral",
  chrPad = 0.02,
  width = NULL,
  height = NULL,
  innerRadius = 216,
```

```
outerRadius = 240,  
svgClassName = "NGCircos",  
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genomeBorderSize = 0.5,  
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genomeTicksRealLength = TRUE,  
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genomeTicksOffset = 0,  
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genomeLabelDy = 0,  
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compareEventGroupDistance = 0,  
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CNVMouseEnterArcStrokeWidth = 0,  
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CNVMouseLeaveArcOpacity = 1,  
CNVMouseLeaveArcStrokeColor = "#F26223",  
CNVMouseLeaveArcStrokeWidth = 0,
```



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HEATMAPMouseOverTooltipsBorderStyle = "solid",
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BUBBLEMouseEnterStrokeColor = "none",
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BUBBLEMouseLeaveStrokeColor = "none",
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```

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BUBBLEMouseOutOpacity = 1,
BUBBLEMouseOutStrokeColor = "none",
BUBBLEMouseOutStrokeWidth = "none",
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BUBBLEMouseUpOpacity = 1,
BUBBLEMouseUpStrokeColor = "none",
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BUBBLEMouseOverTooltipsPosition = "absolute",
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BUBBLEMouseOverTooltipsBorderStyle = "solid",
BUBBLEMouseOverTooltipsBorderWidth = 0,
BUBBLEMouseOverTooltipsPadding = "3px",
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BUBBLEMouseOverTooltipsOpacity = 0.8,
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SNPMouseCombinationImageTitleSize = 5,
SNPMouseCombinationImageTitleWeight = "bold",
SNPMouseCombinationImageTitleColor = "black",
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```

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SNPMouseCombinationGraphLinePointStroke = TRUE,
SNPMouseCombinationGraphLinePointStrokeColor = "black",
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```

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```

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LINEMouseOverTooltipsHtml = " ",

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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,
SCATTERMouseClickedDisplay = FALSE,
SCATTERMouseClickedColor = "red",
SCATTERMouseClickedCircleSize = 2,
SCATTERMouseClickedCircleOpacity = 1,
SCATTERMouseClickedCircleStrokeColor = "none",
SCATTERMouseClickedCircleStrokeWidth = "none",
SCATTERMouseClickedTextFromData = "fourth",
SCATTERMouseClickedTextOpacity = 1,
SCATTERMouseClickedTextColor = "red",
SCATTERMouseClickedTextSize = 8,
SCATTERMouseClickedTextPostionX = 1,
SCATTERMouseClickedTextPostionY = 10,
SCATTERMouseClickedTextDrag = TRUE,
SCATTERMouseDownDisplay = FALSE,
SCATTERMouseDownColor = "red",
SCATTERMouseDownCircleSize = 2,
SCATTERMouseDownCircleOpacity = 1,
SCATTERMouseDownCircleStrokeColor = "none",
SCATTERMouseDownCircleStrokeWidth = "none",
SCATTERMouseEnterDisplay = FALSE,
SCATTERMouseEnterColor = "red",
SCATTERMouseEnterCircleSize = 2,
SCATTERMouseEnterCircleOpacity = 1,
SCATTERMouseEnterCircleStrokeColor = "none",
SCATTERMouseEnterCircleStrokeWidth = "none",
SCATTERMouseLeaveDisplay = FALSE,
SCATTERMouseLeaveColor = "red",
SCATTERMouseLeaveCircleSize = 2,
SCATTERMouseLeaveCircleOpacity = 1,
SCATTERMouseLeaveCircleStrokeColor = "none",
SCATTERMouseLeaveCircleStrokeWidth = "none",
SCATTERMouseMoveDisplay = FALSE,
SCATTERMouseMoveColor = "red",
SCATTERMouseMoveCircleSize = 2,
SCATTERMouseMoveCircleOpacity = 1,
SCATTERMouseMoveCircleStrokeColor = "none",
SCATTERMouseMoveCircleStrokeWidth = "none",
SCATTERMouseOutDisplay = FALSE,
SCATTERMouseOutAnimationTime = 500,
SCATTERMouseOutColor = "red",
SCATTERMouseOutCircleSize = 2,
SCATTERMouseOutCircleOpacity = 1,
SCATTERMouseOutCircleStrokeColor = "none",
SCATTERMouseOutCircleStrokeWidth = "none",
```

```
SCATTERMouseUpDisplay = FALSE,
SCATTERMouseUpColor = "red",
SCATTERMouseUpCircleSize = 2,
SCATTERMouseUpCircleOpacity = 1,
SCATTERMouseUpCircleStrokeColor = "none",
SCATTERMouseUpCircleStrokeWidth = "none",
SCATTERMouseOverDisplay = FALSE,
SCATTERMouseOverColor = "red",
SCATTERMouseOverCircleSize = 2,
SCATTERMouseOverCircleOpacity = 1,
SCATTERMouseOverCircleStrokeColor = "none",
SCATTERMouseOverCircleStrokeWidth = "none",
SCATTERMouseOverTooltipsSetting = "style1",
SCATTERMouseOverTooltipsHtml = " ",
SCATTERMouseOverTooltipsPosition = "absolute",
SCATTERMouseOverTooltipsBackgroundColor = "white",
SCATTERMouseOverTooltipsBorderStyle = "solid",
SCATTERMouseOverTooltipsBorderWidth = 0,
SCATTERMouseOverTooltipsPadding = "3px",
SCATTERMouseOverTooltipsBorderRadius = "3px",
SCATTERMouseOverTooltipsOpacity = 1,
ARCxlink = FALSE,
ARCMouseEvent = TRUE,
ARCMouseClickDisplay = FALSE,
ARCMouseClickColor = "red",
ARCMouseClickArcOpacity = 1,
ARCMouseClickArcStrokeColor = "none",
ARCMouseClickArcStrokeWidth = "none",
ARCMouseClickTextFromData = "fourth",
ARCMouseClickTextOpacity = 1,
ARCMouseClickTextColor = "red",
ARCMouseClickTextSize = 8,
ARCMouseClickTextPostionX = 1,
ARCMouseClickTextPostionY = 10,
ARCMouseClickTextDrag = TRUE,
ARCMouseDownDisplay = FALSE,
ARCMouseDownColor = "red",
ARCMouseDownArcOpacity = 1,
ARCMouseDownArcStrokeColor = "none",
ARCMouseDownArcStrokeWidth = "none",
ARCMouseEnterDisplay = FALSE,
ARCMouseEnterColor = "red",
ARCMouseEnterArcOpacity = 1,
ARCMouseEnterArcStrokeColor = "none",
ARCMouseEnterArcStrokeWidth = "none",
ARCMouseLeaveDisplay = FALSE,
ARCMouseLeaveColor = "red",
ARCMouseLeaveArcOpacity = 1,
ARCMouseLeaveArcStrokeColor = "none",
ARCMouseLeaveArcStrokeWidth = "none",
ARCMouseMoveDisplay = FALSE,
ARCMouseMoveColor = "red",
```

```

ARCMouseMoveArcOpacity = 1,
ARCMouseMoveArcStrokeColor = "none",
ARCMouseMoveArcStrokeWidth = "none",
ARCMouseOutDisplay = FALSE,
ARCMouseOutAnimationTime = 500,
ARCMouseOutColor = "red",
ARCMouseOutArcOpacity = 1,
ARCMouseOutArcStrokeColor = "none",
ARCMouseOutArcStrokeWidth = "none",
ARCMouseUpDisplay = FALSE,
ARCMouseUpColor = "red",
ARCMouseUpArcOpacity = 1,
ARCMouseUpArcStrokeColor = "none",
ARCMouseUpArcStrokeWidth = "none",
ARCMouseOverDisplay = FALSE,
ARCMouseOverColor = "red",
ARCMouseOverArcOpacity = 1,
ARCMouseOverArcStrokeColor = "none",
ARCMouseOverArcStrokeWidth = "none",
ARCMouseOverTooltipsSetting = "style1",
ARCMouseOverTooltipsHtml = " ",
ARCMouseOverTooltipsPosition = "absolute",
ARCMouseOverTooltipsBackgroundColor = "white",
ARCMouseOverTooltipsBorderStyle = "solid",
ARCMouseOverTooltipsBorderWidth = 0,
ARCMouseOverTooltipsPadding = "3px",
ARCMouseOverTooltipsBorderRadius = "3px",
ARCMouseOverTooltipsOpacity = 1,
GENExlink = FALSE,
GENMouseEvent = TRUE,
GENMouseClickedDisplay = FALSE,
GENMouseClickedColor = "red",
GENMouseClickedArcOpacity = 1,
GENMouseClickedArcStrokeColor = "none",
GENMouseClickedArcStrokeWidth = "none",
GENMouseClickedTextFromData = "fourth",
GENMouseClickedTextOpacity = 1,
GENMouseClickedTextColor = "red",
GENMouseClickedTextSize = 8,
GENMouseClickedTextPostionX = 1,
GENMouseClickedTextPostionY = 10,
GENMouseClickedTextDrag = TRUE,
GENMouseDownDisplay = FALSE,
GENMouseDownColor = "red",
GENMouseDownArcOpacity = 1,
GENMouseDownArcStrokeColor = "none",
GENMouseDownArcStrokeWidth = "none",
GENMouseEnterDisplay = FALSE,
GENMouseEnterColor = "red",
GENMouseEnterArcOpacity = 1,
GENMouseEnterArcStrokeColor = "none",
GENMouseEnterArcStrokeWidth = "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

moduleList	Module list displayed in plot.
genome	Could be either 'hg19', which is defaultly set to use chromosomes of hg19, or a list of chromosomes with length, for example, list("chr1"=100,"chr2"=200).
genome2	Second genome when compare module is applied, format is same as genome
genomeFillColor	Could be either a color palette from RColorBrewer, or a list of color name, for example, list("yellow","rgb(1,255,255)")
chrPad	Distance between each chromosome, default is 0.04
width, height	The width and height for svg element, could be px or percent or auto.
innerRadius	Default 216, Inner radius of chromosome
outerRadius	Default 240, Outer radius of chromosome
svgClassName	The svg class name
displayGenomeBorder, genomeBorderColor, genomeBorderSize	Should the reference genome have borders?
genomeTicksDisplay, genomeTicksLen, genomeTicksColor, genomeTicksTextSize, genomeTicksTextColor, genomeTicksTextAlign	Whether display the ticks for chromosome panel. Other parameters only works when genomeTicksDisplay is TRUE and their details are available on NGCircos document.
genomeLabelDisplay, genomeLabelTextSize, genomeLabelTextColor, genomeLabelDx, genomeLabelDy	Whether display the label for chromosome panel. Other parameters only works when genomeTicksDisplay is TRUE and their details are available on NGCircos document.
compareEvent	Default False, open/not COMPARE module
compareEventGroupGapRate	Default 0.1, control the two-side gap rate on each group of genome
compareEventGroupDistance	Default 0, distance between two groups of genome
zoom	Whether or not the plot is zoomable?
TEXTModuleDragEvent	Are text annotations draggable?
CNVxlink	Default False, add/not xlink for CNV module
CNVMouseEvent	Default True, open/not open mouse event of CNV module
CNVMouseClickedDisplay	Default False, show/not the tooltip when mouse click on a CNV point.
CNVMouseClickedColor	Color when mouse clicking
CNVMouseClickedArcOpacity	Arc opacity when mouse clicking the element
CNVMouseClickedArcStrokeColor	Arc stroke color when mouse clicking the element
CNVMouseClickedArcStrokeWidth	Arc stroke width when mouse clicking the element

CNVMouseClickTextFromData
 Text column when mouse clicking the element
 CNVMouseClickTextOpacity
 Text opacity when mouse clicking the element
 CNVMouseClickTextColor
 Text color when mouse clicking the element
 CNVMouseClickTextSize
 Text size when mouse clicking the element
 CNVMouseClickTextPostionX, CNVMouseClickTextPostionY
 Text coordinates when mouse clicking the element
 CNVMouseClickTextDrag
 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
 Default 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
Default False, hide/not tooltip when mouse is not hovering a HEATMAP point anymore.

HEATMAPMouseOutAnimationTime
Animation time when mouse moving out the element

HEATMAPMouseOutColor
Color when mouse moving out the element

HEATMAPMouseOutOpacity
Opacity when mouse moving out the element

HEATMAPMouseOutStrokeColor
Stroke color when mouse moving out the element

HEATMAPMouseOutStrokeWidth
Stroke width when mouse moving out the element

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

HEATMAPMouseUpColor
Color when mouse moving up the element

HEATMAPMouseUpOpacity
Opacity when mouse moving up the element

HEATMAPMouseUpStrokeColor
Stroke color when mouse moving up the element

HEATMAPMouseUpStrokeWidth
Stroke width when mouse moving up the element

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

HEATMAPMouseOverColor
Color when mouse moving over the element

HEATMAPMouseOverOpacity
Opacity when mouse moving over the element

HEATMAPMouseOverStrokeColor
Stroke color when mouse moving over the element

HEATMAPMouseOverStrokeWidth
Stroke width when mouse moving over the element

HEATMAPMouseOverTooltipsSetting
Default "style1"

HEATMAPMouseOverTooltipsHtml
Default " "

HEATMAPMouseOverTooltipsPosition
Default "absolute"

HEATMAPMouseOverTooltipsBackgroundColor
 Default "white"
 HEATMAPMouseOverTooltipsBorderStyle
 Default "solid"
 HEATMAPMouseOverTooltipsBorderWidth
 Default 0
 HEATMAPMouseOverTooltipsPadding
 Default "3px"
 HEATMAPMouseOverTooltipsBorderRadius
 Default "3px"
 HEATMAPMouseOverTooltipsOpacity
 Default 0.8
 BUBBLExlink Default False, add/not xlink for BUBBLE module
 BUBBLEMouseEvent
 Default True, open/not open mouse event of BUBBLE module
 BUBBLEMouseClickedDisplay
 Default False, show/not the tooltip when mouse click on a BUBBLE point.
 BUBBLEMouseClickedColor
 Color when mouse clicking
 BUBBLEMouseClickedOpacity
 Opacity when mouse clicking
 BUBBLEMouseClickedStrokeColor
 Stroke color when mouse clicking
 BUBBLEMouseClickedStrokeWidth
 Stroke width when mouse clicking
 BUBBLEMouseDownDisplay
 Default False, show/not the tooltip when mouse click down a BUBBLE point.
 BUBBLEMouseDownColor
 Color when mouse moving down the element
 BUBBLEMouseDownOpacity
 Opacity when mouse moving down the element
 BUBBLEMouseDownStrokeColor
 Stroke color when mouse moving down the element
 BUBBLEMouseDownStrokeWidth
 Stroke width when mouse moving down the element
 BUBBLEMouseEnterDisplay
 Default False, show/not the tooltip when mouse mover over a BUBBLE point.
 BUBBLEMouseEnterColor
 Color when mouse entering the element
 BUBBLEMouseEnterOpacity
 Opacity when mouse entering the element
 BUBBLEMouseEnterStrokeColor
 Stroke color when mouse entering the element
 BUBBLEMouseEnterStrokeWidth
 Stroke width when mouse entering the element
 BUBBLEMouseLeaveDisplay
 Default False, show/not the tooltip when mouse mover leave a BUBBLE point.
 BUBBLEMouseLeaveColor
 Color when mouse leaving the element

BUBBLEMouseLeaveOpacity
Opacity when mouse leaving the element

BUBBLEMouseLeaveStrokeColor
Stroke color when mouse leaving the element

BUBBLEMouseLeaveStrokeWidth
Stroke width when mouse leaving the element

BUBBLEMouseMoveDisplay
Default False, show/not the tooltip when mouse move into a BUBBLE point.

BUBBLEMouseMoveColor
Color when mouse moving in the element

BUBBLEMouseMoveOpacity
Opacity when mouse moving in the element

BUBBLEMouseMoveStrokeColor
Stroke color when mouse moving in the element

BUBBLEMouseMoveStrokeWidth
Stroke width when mouse moving in the element

BUBBLEMouseOutDisplay
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 mod-
 ule
 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.

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
 CHORDMouseFillColorExcluded
 A type of color in character, chord in this color will be hided
 CHORDMouseClickedDisplay
 Default False, show/not the tooltip when mouse click on a CHORD point.
 CHORDMouseClickedOpacity
 Opacity when mouse clicking
 CHORDMouseClickedStrokeColor
 Stroke color when mouse clicking
 CHORDMouseClickedStrokeWidth
 Stroke width when mouse clicking
 CHORDMouseDownDisplay
 Default False, show/not the tooltip when mouse click down a CHORD point.
 CHORDMouseDownOpacity
 Opacity when mouse moving down the element
 CHORDMouseDownStrokeColor
 Stroke color when mouse moving down the element
 CHORDMouseDownStrokeWidth
 Stroke width when mouse moving down the element
 CHORDMouseEnterDisplay
 Default False, show/not the tooltip when mouse mover over a CHORD point.
 CHORDMouseEnterOpacity
 Opacity when mouse entering the element
 CHORDMouseEnterStrokeColor
 Stroke color when mouse entering the element
 CHORDMouseEnterStrokeWidth
 Stroke width when mouse entering the element
 CHORDMouseLeaveDisplay
 Default False, show/not the tooltip when mouse mover leave a CHORD point.

CHORDMouseLeaveOpacity
 Opacity when mouse leaving the element
 CHORDMouseLeaveStrokeColor
 Stroke color when mouse leaving the element
 CHORDMouseLeaveStrokeWidth
 Stroke width when mouse leaving the element
 CHORDMouseMoveDisplay
 Default False, show/not the tooltip when mouse move into a CHORD point.
 CHORDMouseMoveOpacity
 Opacity when mouse moving in the element
 CHORDMouseMoveStrokeColor
 Stroke color when mouse moving in the element
 CHORDMouseMoveStrokeWidth
 Stroke width when mouse moving in the element
 CHORDMouseOutDisplay
 Default 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

HISTOGRAMMouseClickOpacity
Opacity when mouse clicking

HISTOGRAMMouseClickStrokeColor
Stroke color when mouse clicking

HISTOGRAMMouseClickStrokeWidth
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
Default False, hide/not tooltip when mouse is not hovering a HISTOGRAM point anymore.

HISTOGRAMMouseOutAnimationTime
Animation time when mouse moving out the element

HISTOGRAMMouseOutColor
Color when mouse moving out the element

HISTOGRAMMouseOutOpacity
Opacity when mouse moving out the element

HISTOGRAMMouseOutStrokeColor
Stroke color when mouse moving out the element

HISTOGRAMMouseOutStrokeWidth
Stroke width when mouse moving out the element

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

HISTOGRAMMouseUpColor
Color when mouse moving up the element

HISTOGRAMMouseUpOpacity
Opacity when mouse moving up the element

HISTOGRAMMouseUpStrokeColor
Stroke color when mouse moving up the element

HISTOGRAMMouseUpStrokeWidth
Stroke width when mouse moving up the element

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

HISTOGRAMMouseOverColor
Color when mouse moving over the element

HISTOGRAMMouseOverOpacity
Opacity when mouse moving over the element

HISTOGRAMMouseOverStrokeColor
Stroke color when mouse moving over the element

HISTOGRAMMouseOverStrokeWidth
Stroke width when mouse moving over the element

HISTOGRAMMouseOverTooltipsSetting
Default "style1"

HISTOGRAMMouseOverTooltipsHtml
Default " "

HISTOGRAMMouseOverTooltipsPosition
Default "absolute"

HISTOGRAMMouseOverTooltipsBackgroundColor
Default "white"

HISTOGRAMMouseOverTooltipsBorderStyle
Default "solid"

HISTOGRAMMouseOverTooltipsBorderWidth
Default 0

HISTOGRAMMouseOverTooltipsPadding
Default "3px"

HISTOGRAMMouseOverTooltipsBorderRadius
 Default "3px"

HISTOGRAMMouseOverTooltipsOpacity
 Default 0.8

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

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

LINEMouseClickedLineOpacity
 Line opacity when mouse clicking the element

LINEMouseClickedLineStrokeColor
 Stroke color when mouse clicking the element

LINEMouseClickedLineStrokeWidth
 Stroke width when mouse clicking the element

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

LINEMouseDownLineOpacity
 Line opacity when mouse moving down the element

LINEMouseDownLineStrokeColor
 Stroke color when mouse moving down the element

LINEMouseDownLineStrokeWidth
 Stroke width when mouse moving down the element

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

LINEMouseEnterLineOpacity
 Line opacity when mouse entering the element

LINEMouseEnterLineStrokeColor
 Stroke color when mouse entering the element

LINEMouseEnterLineStrokeWidth
 Stroke width when mouse entering the element

LINEMouseLeaveDisplay
 Default False, show/not the tooltip when mouse mover leave a LINE point.

LINEMouseLeaveLineOpacity
 Line opacity when mouse leaving the element

LINEMouseLeaveLineStrokeColor
 Stroke color when mouse leaving the element

LINEMouseLeaveLineStrokeWidth
 Stroke width when mouse leaving the element

LINEMouseMoveDisplay
 Default False, show/not the tooltip when mouse move into a LINE point.

LINEMouseMoveLineOpacity
 Line opacity when mouse moving in the element

LINEMouseMoveLineStrokeColor
 Stroke color when mouse moving in the element

LINEMouseMoveLineStrokeWidth
 Stroke width when mouse moving in the element

LINEMouseOutDisplay
 Defalut False, hide/not tooltip when mouse is not hovering a LINE point any-
 more.

LINEMouseOutAnimationTime
 Animation time when mouse moving out the element
 LINEMouseOutLineOpacity
 Line opacity when mouse moving out the element
 LINEMouseOutLineStrokeColor
 Stroke color when mouse moving out the element
 LINEMouseOutLineStrokeWidth
 Stroke width when mouse moving out the element
 LINEMouseUpDisplay
 Default False, show/not the tooltip when mouse click up a LINE point.
 LINEMouseUpLineOpacity
 Line opacity when mouse moving up the element
 LINEMouseUpLineStrokeColor
 Stroke color when mouse moving up the element
 LINEMouseUpLineStrokeWidth
 Stroke width when mouse moving up the element
 LINEMouseOverDisplay
 Default False, show/not the tooltip when mouse hover on a LINE point.
 LINEMouseOverLineOpacity
 Line opacity when mouse moving over the element
 LINEMouseOverLineStrokeColor
 Stroke color when mouse moving over the element
 LINEMouseOverLineStrokeWidth
 Stroke width when mouse moving over the element
 LINEMouseOverTooltipsSetting
 Default "style1"
 LINEMouseOverTooltipsHtml
 Default " "
 LINEMouseOverTooltipsPosition
 Default "absolute"
 LINEMouseOverTooltipsBackgroundColor
 Default "white"
 LINEMouseOverTooltipsBorderStyle
 Default "solid"
 LINEMouseOverTooltipsBorderWidth
 Default 0
 LINEMouseOverTooltipsPadding
 Default "3px"
 LINEMouseOverTooltipsBorderRadius
 Default "3px"
 LINEMouseOverTooltipsOpacity
 Default 0.8
 WIGMouseEvent Default True, open/not open mouse event of WIG module
 WIGMouseClickDisplay
 Default False, show/not the tooltip when mouse click on a WIG point.
 WIGMouseClickLineOpacity
 Line opacity when mouse clicking the element
 WIGMouseClickLineStrokeColor
 Stroke color when mouse clicking the element

WIGMouseClickedLineStrokeWidth	Stroke width when mouse clicking the element
WIGMouseClickedFillColor	Filling color when mouse clicking the element
WIGMouseDownDisplay	Default False, show/not the tooltip when mouse click down a WIG point.
WIGMouseDownLineOpacity	Line opacity when mouse moving down the element
WIGMouseDownLineStrokeColor	Stroke color when mouse moving down the element
WIGMouseDownLineStrokeWidth	Stroke width when mouse moving down the element
WIGMouseDownFillColor	Filling color when mouse moving down the element
WIGMouseEnterDisplay	Default False, show/not the tooltip when mouse mover over a WIG point.
WIGMouseEnterLineOpacity	Line opacity when mouse entering the element
WIGMouseEnterLineStrokeColor	Stroke color when mouse entering the element
WIGMouseEnterLineStrokeWidth	Stroke width when mouse entering the element
WIGMouseEnterFillColor	Filling color when mouse entering the element
WIGMouseLeaveDisplay	Default False, show/not the tooltip when mouse mover leave a WIG point.
WIGMouseLeaveLineOpacity	Line opacity when mouse leaving the element
WIGMouseLeaveLineStrokeColor	Stroke color when mouse leaving the element
WIGMouseLeaveLineStrokeWidth	Stroke width when mouse leaving the element
WIGMouseLeaveFillColor	Filling color when mouse leaving the element
WIGMouseMoveDisplay	Default False, show/not the tooltip when mouse move into a WIG point.
WIGMouseMoveLineOpacity	Line opacity when mouse moving in the element
WIGMouseMoveLineStrokeColor	Stroke color when mouse moving in the element
WIGMouseMoveLineStrokeWidth	Stroke width when mouse moving in the element
WIGMouseMoveFillColor	Filling color when mouse leaving the element
WIGMouseOutDisplay	Defalut False, hide/not tooltip when mouse is not hovering a WIG point any-more.
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
 ARCMouseClickDisplay
 Default False, show/not the tooltip when mouse click on a ARC point.
 ARCMouseClickColor
 Color when mouse clicking the element
 ARCMouseClickArcOpacity
 Arc opacity when mouse clicking the element
 ARCMouseClickArcStrokeColor
 Arc stroke color when mouse clicking the element
 ARCMouseClickArcStrokeWidth
 Arc stroke width when mouse clicking the element
 ARCMouseClickTextFromData
 Text column when mouse clicking the element

ARCMouseClickTextOpacity
Text opacity when mouse clicking the element

ARCMouseClickTextColor
Text color when mouse clicking the element

ARCMouseClickTextSize
Text size when mouse clicking the element

ARCMouseClickTextPostionX, ARCMouseClickTextPostionY
Text coordinates when mouse clicking the element

ARCMouseClickTextDrag
Whether text is draggable when mouse clicking the element

ARCMouseDownDisplay
Default False, show/not the tooltip when mouse click down a ARC point.

ARCMouseDownColor
Color when mouse moving down the element

ARCMouseDownArcOpacity
Arc opacity when mouse moving down the element

ARCMouseDownArcStrokeColor
Arc stroke color when mouse moving down the element

ARCMouseDownArcStrokeWidth
Arc stroke width when mouse moving down the element

ARCMouseEnterDisplay
Default False, show/not the tooltip when mouse mover over a ARC point.

ARCMouseEnterColor
Color when mouse entering the element

ARCMouseEnterArcOpacity
Arc opacity when mouse entering the element

ARCMouseEnterArcStrokeColor
Arc stroke color when mouse entering the element

ARCMouseEnterArcStrokeWidth
Arc stroke width when mouse entering the element

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

ARCMouseLeaveColor
Color when mouse leaving the element

ARCMouseLeaveArcOpacity
Arc opacity when mouse leaving the element

ARCMouseLeaveArcStrokeColor
Arc stroke color when mouse leaving the element

ARCMouseLeaveArcStrokeWidth
Arc stroke width when mouse leaving the element

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

ARCMouseMoveColor
Color when mouse moving in the element

ARCMouseMoveArcOpacity
Arc opacity when mouse moving in the element

ARCMouseMoveArcStrokeColor
Arc stroke color when mouse moving in the element

ARCMouseMoveArcStrokeWidth
Arc stroke width when mouse moving in the element

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

LOLLIPOPMouseOutAnimationTime
Animation time when mouse moving out the element

LOLLIPOPMouseOutColor
Color when mouse moving out the element

LOLLIPOPMouseOutCircleSize
Circle size when mouse moving out the element

LOLLIPOPMouseOutCircleOpacity
Circle opacity when mouse moving out the element

LOLLIPOPMouseOutCircleStrokeColor
Circle stroke color when mouse moving out the element

LOLLIPOPMouseOutCircleStrokeWidth
Circle stroke width when mouse moving out the element

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

LOLLIPOPMouseUpColor
Color when mouse moving up the element

LOLLIPOPMouseUpCircleSize
Circle size when mouse moving up the element

LOLLIPOPMouseUpCircleOpacity
Circle opacity when mouse moving up the element

LOLLIPOPMouseUpCircleStrokeColor
Circle stroke color when mouse moving up the element

LOLLIPOPMouseUpCircleStrokeWidth
Circle stroke width when mouse moving up the element

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

LOLLIPOPMouseOverColor
Color when mouse moving over the element

LOLLIPOPMouseOverCircleSize
Circle size when mouse moving over the element

LOLLIPOPMouseOverCircleOpacity
Circle opacity when mouse moving over the element

LOLLIPOPMouseOverCircleStrokeColor
Circle stroke color when mouse moving over the element

LOLLIPOPMouseOverCircleStrokeWidth
Circle stroke width when mouse moving over the element

LOLLIPOPMouseOverTooltipsSetting
Default "style1"

LOLLIPOPMouseOverTooltipsHtml
Default " "

LOLLIPOPMouseOverTooltipsPosition
Default "absolute"

LOLLIPOPMouseOverTooltipsBackgroundColor
Default "white"

LOLLIPOPMouseOverTooltipsBorderStyle
Default "solid"

LOLLIPOPMouseOverTooltipsBorderWidth	Default 0
LOLLIPOPMouseOverTooltipsPadding	Default "3px"
LOLLIPOPMouseOverTooltipsBorderRadius	Default "3px"
LOLLIPOPMouseOverTooltipsOpacity	Default 0.8
elementId	the name of the HTML id to be used to contain the visualization.
...	Ignored

Examples

```
NGCircos(genome = "hg19")
```

 NGCircos-shiny

Shiny bindings for NGCircos

Description

Output and render functions for using NGCircos within Shiny applications and interactive Rmd documents.

Usage

```
NGCircosOutput(outputId, width = "100%", height = "400px")
```

```
renderNGCircos(expr, env = parent.frame(), quoted = FALSE)
```

Arguments

outputId	output variable to read from
width, height	Must be a valid CSS unit (like '100%', '400px', 'auto') or a number, which will be coerced to a string and have 'px' appended.
expr	An expression that generates a NGCircos
env	The environment in which to evaluate expr.
quoted	Is expr a quoted expression (with quote())? This is useful if you want to save an expression in a variable.

NGCircosArc

Create a ARC module to a NGCircos moduleList

Description

Display the CNV without value, Gene domain, Chromosome band in the visualization

Usage

```
NGCircosArc(
  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 NGCircos document.
...	Ignored

Examples

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

NGCircosAuxLine

Create a AUXILIAYLINE module to a NGCircos moduleList

Description

A auxiliary line displayed in the visualization The document for more parameters in NGCircos is available at www.xxxxx.com

Usage

```
NGCircosAuxLine(
  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

Examples

```
NGCircos(NGCircosAuxLine('AuxLine01'))
```

NGCircosBackground	<i>Create a BACKGROUND module to be added to a NGCircos moduleList</i>
--------------------	--

Description

Simple background to display behind another module

Usage

```

NGCircosBackground(
  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 color of the background element, in hexadecimal RGB format.
borderColors	The color of the background borders, in hexadecimal RGB format.
axisShow	Whether show a axis or not
axisWidth, axisColor, axisOpacity, axisNum	The color, opacity value and number of line for axis
minRadius, maxRadius	Where the module should begin and end
borderSize	The thickness of the background borders.
animationDisplay	Whether display a animation or not
animationTime, animationDelay, animationType	The time, delay and display type for animation
...	Ignored

Examples

```
NGCircos(NGCircosBackground('bg01', fillColors="#FFEEEE", borderSize = 1))
```

NGCircosBubble	<i>Create a BUBBLE module to a NGCircos moduleList</i>
----------------	--

Description

A bubble plot displayed in the visualization

Usage

```
NGCircosBubble(
  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>	Where the module should begin and end.
<code>blockStroke</code>	Whether display the stroke between each bubble block
<code>blockStrokeColor</code>	Stroke color for block
<code>blockStrokeWidth</code>	Stroke width for block
<code>blockFill</code>	Whether fill a block or not
<code>blockFillColor</code>	The color for filling the block
<code>bubbleMaxSize</code>	The max size for bubble
<code>bubbleMinSize</code>	The min size for bubble
<code>minColor</code>	The color the bubble with min value
<code>maxColor</code>	The color the bubble with max value
<code>ValueAxisManualScale</code>	Whether manually control the scale of value
<code>ValueAxisMaxScale, ValueAxisMinScale</code>	The max and min scale value for manually control
<code>totallayer</code>	The color and width for stroke
<code>animationDisplay</code>	Whether display animation
<code>animationTime, animationDelay, animationType</code>	The time, delay and display type for animation
<code>data</code>	A list of value in bubble plot with details including chr, start, end, value, name, layer, color and html. Details can be found on NGCircos document.
<code>...</code>	Ignored

Examples

```

bubbleData<-bubbleExample
NGCircos(NGCircosBubble('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),
BUBBLEMouseOverDisplay =TRUE,innerRadius = 236)

```

 NGCircosChord

 Create a *CHORD* module to a *NGCircos moduleList*

Description

Display a chord module using a data matrix.

Usage

```
NGCircosChord(
  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

modulename	The name of the new module.
innerRadius	The inner radius for chord circle
outerRadius	The outer radius for chord circle
fillOpacity	The opacity for filling color.
fillStrokeWidth	The stroke width for chord.
padding	The pad of chord
autoFillColor	Whether auto assign color for chord
fillColor	If not, manually assign color for chord
fillStrokeColor	The color for stroke
outerARC	Whether display outer arc
outerARCAutoColor	If true, whether auto assign color for arc
outerARCColor	The manually assigned color for arc
outerARCStrokeColor	The stroke color for arc
outerARCText	Whether display text for arc or not
data	A matrix-list of chord value with relationship details.
...	Ignored

Examples

```
chordData<-chordExample
NGCircos(NGCircosChord('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"=
"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.
"Verrucomicrobia"=8.3,"Ascomycota"=159.41,"Basidiomycota"=79.73,"Zygomycota"=139.29 ),outerRadius = 217,
genomeLabelDisplay = FALSE)
```

NGCircosCnv

Create a CNV module to a NGCircos moduleList

Description

A copy number variance module displayed in the visualization

Usage

```
NGCircosCnv(
  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	Where the module should begin and end.
width	Width for CNV module
color	Color for CNV module

ValueAxisManualScale	Whether manually control the scale of value
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 animation
animationTime, animationDelay, animationType	The time, delay and display type for animation
data	A list of CNV with details including start, end, value, link, color and html. Details can be found on NGCircos document.
...	Ignored

Examples

```
cnvData<-cnvExample
NGCircos(NGCircosCnv('Cnv01',maxRadius =175, minRadius =116, data =cnvData,width=2,color = "#4876FF")+
NGCircosBackground("bg01",minRadius = 116,maxRadius = 175,fillColors = "#F2F2F2",axisShow = TRUE),CNVMouseOve
```

NGCircosGene

Create a GENE module to a NGCircos moduleList

Description

A number of genes with different functional region displayed in the visualization

Usage

```
NGCircosGene(
  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 NGCircos document.
...	Ignored

Examples

```

geneData<-geneExample
NGCircos(NGCircosGene('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)

```

 NGCircosHeatmap

 Create a HEATMAP module to a NGCircos moduleList

Description

A heatmap plot displayed in the visualization

Usage

```

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

```

Arguments

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

Examples

```
heatmapData<-heatmapExample
NGCircos(NGCircosHeatmap('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)
```

NGCircosHistogram

Create a *HISTOGRAM* module to a NGCircos moduleList

Description

Display a multi-layer histogram in circos

Usage

```
NGCircosHistogram(
  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 NGCircos document.
...	Ignored

Examples

```
histogramData<-histogramExample
NGCircos(NGCircosHistogram('HISTOGRAM01', data = histogramData,fillColor= "#ff7f0e",maxRadius = 210,
minRadius = 175),genome=list("2L"=23011544,"2R"=21146708,"3L"=24543557,"3R"= 27905053,"X"=22422827,"4"=1351
outerRadius = 220)
```

NGCircosLegend	Create a <i>LEGEND</i> module to a NGCircos moduleList
----------------	--

Description

Simple legend annotation displayed in the visualization.

Usage

```
NGCircosLegend(
  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	Coordinates of the lower left corner of the annotation
title	The title for legend
size	Font size for title, with units specified (such as em or px).
weight	Font weight for title. Can be "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 NGCircos document.
...	Ignored

Examples

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

NGCircosLine

*Create a LINE module to a NGCircos moduleList***Description**

Display a multi-layer line plot in circos

Usage

```
NGCircosLine(
  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 NGCircos document.
...	Ignored

Examples

```
lineData<-lineExample
NGCircos(NGCircosLine('LINE01', data = lineData,maxRadius=200,minRadius=150,color= "#ff0031")+
NGCircosBackground('BG01',minRadius = 205,maxRadius = 150))
```

NGCircosLink	<i>Create a LINK module to a NGCircos moduleList</i>
--------------	--

Description

Link two specific region in genome.

Usage

```
NGCircosLink(
  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 NGCircos document.
...	Ignored

Examples

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

NGCircosLollipop

Create a LOLLIPOP module to a NGCircos moduleList

Description

Display a lollipop plot in the visualization

Usage

```
NGCircosLollipop(
  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

<code>modulename</code>	The name of the new module.
<code>compareGroup</code>	The group number of this module in compare module
<code>fillColor</code>	Filling color for lollipop
<code>secondColor</code>	Second filling color for heterogeneous lollipop
<code>pointType</code>	The type for lollipop, could be circle, rect and diamond
<code>circleSize</code>	If circle, the size for lollipop
<code>diamondWidth, diamondHeight</code>	If diamond, the width and height for lollipop
<code>rectWidth, rectHeight</code>	If rect, the width and height for lollipop
<code>stroke</code>	Whether display the stroke for lollipop
<code>strokeColor, strokeWidth</code>	The color and width for stroke
<code>lineAutoHeight</code>	Whether auto assign the height for each lollipop
<code>lineAutoMaximumHeightZoomRate</code>	If auto assign, the zoom rate for each lollipop
<code>lineHeightRate</code>	If manually assign, the rate of lollipop compared to real value
<code>lineWidth, lineColor</code>	The width and color for the line of lollipop
<code>realStart</code>	The real start position for data in genome.
<code>ValueAxisManualScale</code>	Whether manually control the scale of value
<code>ValueAxisMaxScale, ValueAxisMinScale</code>	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 NGCircos document.
...	Ignored

Examples

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

NGCircosModuleList	<i>Create a list of NGCircos modules</i>
--------------------	--

Description

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

Usage

```
NGCircosModuleList()

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

## S3 method for class 'NGCircosModuleList'
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).

NGCircosScatter

Create a SCATTER module to a NGCircos moduleList

Description

Display a point plot in circos

Usage

```
NGCircosScatter(
  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 NGCircos document.
...	Ignored

Examples

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

NGCircosSnp

Create a module with SNPs to be added to a NGCircos moduleList

Description

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

Usage

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

```

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

```

Arguments

modulename	The name of the new module.
compareGroup	The group number of this module in compare module
maxRadius, minRadius	Where the module should begin and end
fillColorType	The type of filling color, could be either specific or r2(means based on r2)
fillColor	If specific, the color for SNP filling
fillr2Color	If r2, the color for SNP filling
ValueAxisManualScale	Whether manually control the scale of value
ValueAxisMaxScale, ValueAxisMinScale	The max and min scale value for manually control
pointType	The type of SNP point, could be circle or rect
circleSize	If circle, the size for SNP circle
rectWidth	If rect, the width for SNP rect
rectHeight	If rect, the height for SNP rect
animationDisplay	Whether display animation
animationInitialPositionX, animationInitialPositionY	The initial position coordinates for animation
animationTime, animationDelay, animationType	The time, delay and display type for animation
data	A list of SNP value with details including chr, pos, value, des, color, r2value, link, index, image and html. Details can be found on NGCircos document.
...	Ignored

Examples

```

snpData<-snpExample
NGCircos(NGCircosSnp('SNP01', minRadius =150, maxRadius = 190, data = snpExample,fillColor= "#9ACD32",
  circleSize= 2, SNPAnimationDisplay=TRUE,SNPAnimationTime= 2000,SNPAnimationDelay= 0, SNPAnimationType="li
  NGCircosBackground('BG01',minRadius = 145, maxRadius = 200))

```

NGCircosText

Create Text module to be added to a NGCircos moduleList

Description

Simple text annotation displayed in the visualization

Usage

```
NGCircosText(
    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 text to be displayed.
x, y	Coordinates of the lower left corner of the annotation
size	Font size, with units specified (such as em or px).
weight	Font weight. Can be "normal", "bold", "bolder" or "lighter".
opacity	Font opacity.
color	Font color, in hexadecimal RGB format.
rotateRate	rotate rate for text
animationDisplay	Whether display a 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

```

Examples

```
NGCircos(NGCircosText('text01', 'Annotation', color = '#DD2222', x = -40))
```

NGCircosWig

Create a WIG module to a NGCircos moduleList

Description

Display a multi-layer line plot in circos

Usage

```

NGCircosWig(
    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 NGCircos document.
...	Ignored

Examples

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

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

Description

The data is in matrix with row names

Usage

```
scatterExample
```

Format

A data frame with 7 columns:

chr chromosome

start start position

end end position

name name for scatter

des description

link hyperlink

html The external html language

snpExample

Snp plot example data

Description

The data is in matrix with row 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 row names

Usage

wigExample

Format

A data frame with 5 columns:

chr chromosome

pos position

des description

value value

html The external html language

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