

# Node bars

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*Version 1.0.0, by Giorgio Bianchini*

**Description:** Draws node bars.

**Module type:** Plotting

**Module ID:** 319e8f63-d6c9-4dac-9419-0b621dcd5f23

This module draws "bars" at nodes in the tree, used to show e.g. an age range associated to each node.

This module can only be applied if *Rectangular* or *Circular* coordinates are being used.



## Parameters

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### Attribute

**Control type:** Attribute selector

**Default value:** any range attribute

This parameter determines the attribute used to specify the range associated to each node. If any attribute that can be parsed as a range is present in the tree, that attribute is used as the default value for this parameter.

### Show on

**Control type:** Drop-down list

**Default value:** Internal nodes

**Possible values:**

- Leaves
- Internal nodes
- All nodes

This parameter determines on which nodes the bars are shown. If the value is `Leaves`, the bars are only shown for terminal nodes (nodes with no child nodes). If the value is `Internal nodes` the bars are shown only for internal nodes (nodes which have at least one child). If the value is `All nodes`, bars are shown for both leaves and internal nodes.

### Exclude cartoon nodes

**Control type:** Check box

**Default value:** Checked

This parameter determines whether bars are shown for nodes which have been "cartooned" or collapsed. If the check box is checked, bars are not shown for nodes that have been "cartooned".

## Auto colour by node

**Control type:** Check box

**Default value:** Checked

If this check box is checked, the colour of each bar is determined algorithmically in a pseudo-random way designed to achieve an aesthetically pleasing distribution of colours, while being reproducible if the same tree is rendered multiple times.

## Opacity

**Control type:** Slider


**Default value:** 100 %

**Range:** [ 0 %, 100 % ]

This parameter determines the opacity of the colour used if the [Auto colour by node](#) option is enabled.

## Colour

**Control type:** Colour (by node)

**Default value:**  #000000 (opacity: 100%)

**Default attribute:** `Color`

This parameter determines the colour used to draw each bar (if the [Auto colour by node](#) option is disabled). The colour can be determined based on the value of an attribute of the nodes in the tree. For nodes that do not possess the specified attribute (or that have the attribute with an invalid value), a default value is used. The default attribute used to determine the colour is `Color`.

## Thickness

**Control type:** Number spin box

**Default value:** 2

**Range:** [ 1,  $+\infty$  )

This parameter determines the thickness of the bar.

## Whiskers

**Control type:** Check box

**Default value:** Checked

If this check box is checked, the bars will have "whiskers", i.e. little perpendicular markers indicating the start and end of each bar.

## Whisker size

**Control type:** Number spin box

**Default value:** 10

**Range:** [ 1,  $+\infty$  )

This parameter controls the height of the whiskers.

## Whisker thickness

**Control type:** Number spin box

**Default value:** 2

**Range:** [ 1,  $+\infty$  )

This parameter controls the thickness of the whiskers.

## Further information

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The attribute that is used to determine the range associated to each node must be a string that can be parsed as a "Range". This means a list of two integers separated by commas ( , ), semicolons ( ; ), or underscores ( \_ ) and optionally enclosed within square ( [ ] ) or curly ( { } ) brackets. The following are all examples of valid ranges:

- [ 2.5, 3 ]
- 2.5,3
- { 4.67\_6.5 }
- 1;3
- 2\_4

The order of the elements in the range does not matter. If the list contains more than two elements, it is not a valid range.