Highlights

Version 1.1.0, by Giorgio Bianchini

Description: Highlights multiple nodes in a tree based on attribute values.

Module type: Plotting

Module ID: `28e76a57-6930-4c49-974c-639c104dc4ba`

This module adds shapes that highlight nodes in the tree. The shapes are rectangles if the tree is drawn using rectangular coordinates, or "wedges" if the tree is drawn with circular coordinates. If the tree is drawn using radial coordinates, the shapes of the highlight either follow the positions of the leaves that descend from the highlighted nodes, or their convex hull.

To draw highlights using this module, you need to add an attribute called `Highlight` to the node(s) that you wish to highlight, containing the colour for the highlight. You can similarly specify the highlight stroke by adding a `HighlightStroke` attribute. You can change the names of the attribute by changing the parameters of this module.

If only wish to higlight a single node, the *Highlight node* module (id `64769664-d163-4fce-b7ba-18fd9445fcfb`) might be more appropriate.

Parameters

Stroke colour

Control type: Colour (by node)

Default value: #000000 (opacity: 0%)

Default attribute: `HighlightStroke`

This colour is used to stroke the outline of the highlight.

Stroke thickness

Control type: Number spin box (by node)

Default value: 1

Range: [0, +∞)

Default attribute: `Thickness`

The thickness of the outline of the highlight.

Line dash

Control type: Line dash

Default value: ——————

- *Units on*: 0
- *Units off*: 0
- *Phase*: 0

The line dash to use when drawing the outline of the highlight.

Fill type

Control type: Drop-down list

Default value: Solid colour

Possible values:

- Solid colour
- Gradient

This parameter determines whether the highlight is filled with a solid colour or with a gradient.

Fill colour

Control type: Colour (by node)

Default value: #000000 (opacity: 0%)

Default attribute: `Highlight`

This colour is used to fill the highlight with a solid colour.

Start

Control type: Colour (by node)

Default value: #000000 (opacity: 0%)

Default attribute: `HighlightStart`

This colour represents the starting colour in the gradient.

End

Control type: Colour (by node)

Default value: #000000 (opacity: 0%)

Default attribute: `Highlight`

This colour represents the final colour in the gradient.

Midpoint

Control type: Slider

Default value: 0.50

Range: [0.00, 1.00]

This parameter determines where the midpoint of the gradient (i.e., the colour halfway through the gradient Start and the gradient End) is located, relative to the gradient. `0` refers to the start of the gradient and `1` to its end.

Direction

Control type: Drop-down list

Default value: Root to leaves

Possible values:

- Root to leaves
- Leaf to leaf

This parameter represents the direction of the gradient. `Root to leaves` means that the gradient Start refers to the most ancestral node in the selection, while the gradient End refers the most distant leaf node, hence the gradient is parallel to the "growing direction" of the tree. `Leaf to leaf` means that the Gradient Start refers to the first selected leaf node, while the gradient End refers to the last selected leaf node, hence the gradient is perpendicular to the "growing direction" of the tree.

Gradient version

Control type: Text box

Default value: 1.1.0

This hidden parameter is used internally to ensure forwards compatibility.

Left

Control type: Number spin box

Default value: 5

Range: (-∞, +∞)

The left margin of the highlight. If the tree is drawn using circular coordinates, this is the margin on the inner radius.

This setting has no effect if the tree is drawn using radial coordinates.

Top

Control type: Number spin box

Default value: 5

Range: (-∞, +∞)

The top margin of the highlight. If the tree is drawn using circular coordinates, this is the margin on the start angle.

This setting has no effect if the tree is drawn using radial coordinates.

Right

Control type: Number spin box

Default value: 5

Range: (-∞, +∞)

The right margin of the highlight. If the tree is drawn using circular coordinates, this is the margin on the outer radius.

This setting has no effect if the tree is drawn using radial coordinates.

Bottom

Control type: Number spin box

Default value: 5

Range: (-∞, +∞)

The bottom margin of the highlight. If the tree is drawn using circular coordinates, this is the

margin on the end angle.

This setting has no effect if the tree is drawn using radial coordinates.

Mode

Control type: Drop-down list

Default value: Convex hull

Possible values:

- Leaf points
- Convex hull

Determines the algorithm used to draw the highlight in a tree drawn using radial coordinates. If the selected value is `Leaf points`, the highlight path tightly envelopes the descendants of the selected node and it is not possible to specify a margin (because the path may not be convex). If the selected value is `Convex hull`, the convex hull of the coordinates of all the points that descend from the selected node is used instead. In this case, it is possible to specify a margin.

This setting has no effect if the tree is not drawn using radial coordinates.

Margin

Control type: Number spin box

Default value: 5

Range: [0, +∞)

The margin to use when highlighting the convex hull of the descendants of the selected node in a tree drawn using radial coordinates. This parameter is not available if the tree is not drawn using radial coordinates, or if the Mode is set to `Leaf points`.

This setting has no effect if the tree is not drawn using radial coordinates.

Margin balance

Control type: Slider

Default value: 0.50

Range: [0.00, 1.00]

This parameter determines the balance of the margin applied to the convex hull. If the

value of this parameter is 0.5, the same margin is applied to the root side of the node and to the leaf-side of the node. If this value is < 0.5, a higher margin is applied to the root side of the node than to the leaf side. If the value is > 0.5, a higher margin is applied to the leaf side of the node than to the root side. Changing this parameter is useful e.g. if you want to have a large margin towards the tips of the tree, but a smaller margin at the position of the selected node itself (maybe because there are other branches close by that could cause confusion).

This setting has no effect if the tree is not drawn using radial coordinates.