Node shapes

Version 1.0.4, by Giorgio Bianchini

Description: Draws shapes on nodes, tips or branches.

Module type: Plotting

Module ID: `7434420a-1afd-46ee-aeea-75ed8a5eeada`

This module is used to draw shapes at each node in the tree. The size of the shape and its colour can vary from node to node based on the value of attributes of the nodes.

Parameters

Show on

Control type: Drop-down list

Default value: Leaves

Possible values:

- Leaves
- Internal nodes
- All nodes

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

Anchor

Control type: Drop-down list

Default value: Node

Possible values:

- Node
- Mid-branch
- Origin

This parameter determines the anchor for the centre of the shape. If the value is `Node`,

the centre of the shape is anchored to the corresponding node. If the value is `Mid-branch`, the centre of the shape is aligned with the midpoint of the branch connecting the node to its parent. If the value is `Origin`, the alignment depends on the value of the [Branch reference](#):

Branch reference	Origin
Rectangular	A point corresponding to the projection of the node on a line perpedicular to the direction in which the tree expands and passing through the root node. Usually (i.e. if the tree is horizontal), this means a point with the same horizontal coordinate as the root node and the same vertical coordinate as the current node.
Radial	The root node.
Circular	The root node.

Orientation reference

Control type: Drop-down list

Default value: Branch

Possible values:

- Horizontal
- Branch

This parameter determines the direction along which the offset of the centre of the shape from the anchor is computed. If the value is `Horizontal`, the offset `X` coordinate of the offset corresponds to an horizontal displacement and the `Y` coordinate to a vertical displacement; if the value is `Branch`, the `X` coordinate corresponds to a shift in the direction of the branch, while the `Y` coordinate corresponds to a shift in a direction perpendicular to the branch.

Branch reference

Control type: Drop-down list

Default value: Rectangular

Possible values:

- Rectangular
- Radial
- Circular

This parameter determines the algorithm used to compute branch orientations. For best results, the value of this parameter should correspond to the coordinates module actually used.

Position

Control type: Point

Default value: (0, 0)

This parameter determines how shifted from the anchor point the shape is. The `X` coordinate corresponds to the line determined by the [Orientation reference](); the `Y` coordinate corresponds to the line perpendicular to this.

Size

Control type: Number spin box (by node)

Default value: 8

Range: [0, +∞)

Default attribute: `ShapeSize`

This parameter determines the size (diameter) of the shapes.

Shape

Control type: Drop-down list

Default value: Polygon

Possible values:

- Circle
- Polygon

This parameter determines whether the shape is a circle or a polygon.

Sides

Control type: Number spin box

Default value: 5

Range: [3, +∞)

If the Shape is a `Polygon` , this parameter determines the number of sides of the polygon.

Star

Control type: Check box

Default value: Checked

If this check box is checked, the polygon will have a star-like appearance.

Angle

Control type: Slider

Default value: 0°

Range: [0°, 360°]

This parameter determines the orientation of the shape with respect to the Orientation reference. Changing this value rotates the shape around its centre.

Auto fill colour by node

Control type: Check box

Default value: Checked

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

Fill opacity

Control type: Slider

Default value: 100 %

Range: [0 %, 100 %]

This parameter determines the opacity of the colour used if the Auto fill colour by node option is enabled.

Fill colour

Control type: Colour (by node)

Default value: ■ #00A2E8 (opacity: 100%)

Default attribute: `Color`

Stroke thickness

Control type: Number spin box

Default value: 0

Range: [0, +∞)

This parameter determines the thickness of the stroke used to draw the shape.

Auto stroke colour by node

Control type: Check box

Default value: Unchecked

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

Stroke opacity

Control type: Slider

Default value: 100 %

Range: [0 %, 100 %]

This parameter determines the opacity of the colour used if the Auto stroke colour by node option is enabled.

Stroke colour

Control type: Colour (by node)

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

Default attribute: `Color`