# Rectangular

Version 1.0.1, by Giorgio Bianchini

Description: Computes the coordinates for a rectangular tree.

Module type: Coordinate

Module ID: `68e25ec6-5911-4741-8547-317597e1b792`

This module computes coordinates for the nodes of the tree in a "rectangular" style. The root node of the tree is placed at the left, and branches expand horizontally towards the right (the orientation of the tree can be changed with the Rotation parameter.
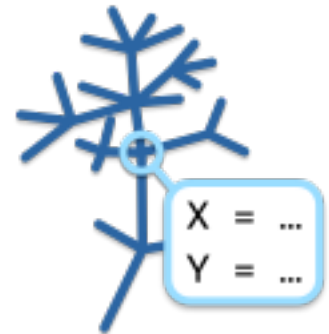
For the default value of the parameters below, let n be the number of taxa (i.e. leaves) in the tree.

Parameters

Width

Control type: Number spin box

Default value: $20 \cdot t / \min l$

Range: $[0, +\infty)$

This parameter determines the width of the area covered by the tree.

t is the total length from the root node of the tree to the farthest tip; $\min l$ is the minimum branch length that is > 0. If the default width cannot be computed (e.g. because the tree does not have any branch length information), the default width is equal to the default height.

The default width and height are adjusted to keep an aspect ratio between 9:16 and 16:9.

Height

Control type: Number spin box

Default value: $14 \cdot n$

Range: $[0, +\infty)$

This parameter determines the height of the area covered by the tree.

The default width and height are adjusted to keep an aspect ratio between 9:16 and 16:9.

Rotation

Control type: Slider

Default value: 0°

Range: [0°, 360°]

This parameter determines the rotation of the tree coordinates.

Fixed rotations

Control type: Buttons

Buttons:

- 0°
- 90°
- 180°
- 270°

These buttons can be used to quickly set the value of the Rotation to predefined values.

Apply

Control type: Button

This button applies changes to the other parameter values and signals that the tree needs to be redrawn.

Further information

Here is an example of a tree drawn using rectangular coordinates (and with the appropriate shape for the *Branches*):