Circular

Version 1.2.0, by Giorgio Bianchini

Description: Computes the coordinates for a circular tree.

Module type: Coordinate

Module ID: `92aac276-3af7-4506-a263-7220e0df5797`

This module computes coordinates for the nodes of the tree in a "circular" style. The root node of the tree is placed at the center of the circle, and the tips are placed in rings whose diameter depends on the total distance from the root.

Parameters

Outer radius

Control type: Number spin box

Default value: 200

Range: [0, +∞)

This parameter determines the radius of the ring that contains the tips with the highest distance from the root node (and, thus, the total diameter of the tree).

Inner radius

Control type: Number spin box

Default value: 20

Range: [0, +∞)

This parameter determines the radius of the inner circle on which the root node is placed. If the radius is 0, the root node is placed exactly at the center of the tree; otherwise, it is placed on a ring with the specified radius.

Rotation

Control type: Slider

Default value: 0°

Range: [0°, 360°]

This parameter determines the orientation of the labels in the tree. Change this value to rotate all of the tips by the specified amount.

Fixed rotations

Control type: Buttons

Buttons:

- 0°
- 90°
- 180°
- 270°

These buttons can be used to set predefined values for the Rotation of the tree.

Sweep angle

Control type: Slider

Default value: 360°

Range: [1°, 360°]

The angular width of the tree plot.

Coordinate shift

Control type: Drop-down list

Default value: None

Possible values:

- None
- Relative
- Absolute

This parameter determines the kind of coordinate shift that is applied. If the value is `None`, no coordinate shift is applied. If the value is `Relative`, the coordinates for each point are shifted by the amount specified by the selected X and Y attributes, relative to their default position. If the value is `Absolute`, the coordinates are set to the value specified by the selected X and Y attributes, regardless of their default position.

X shift

Control type: Check box

Default value: Unchecked

If this check box is checked, the X coordinates of the tree nodes are shifted. Otherwise, they are left as is.

X attribute

Control type: Attribute selector

Default value: Length

This parameter determines the attribute used to shift the X coordinate of the points.

Y shift

Control type: Check box

Default value: Unchecked

If this check box is checked, the Y coordinates of the tree nodes are shifted. Otherwise, they are left as is.

Y attribute

Control type: Attribute selector

Default value: Length

This parameter determines the attribute used to shift the Y coordinate of the points.

Custom script

Control type: Source code

Default value:

```
using PhyloTree;
using System.Collections.Generic;
using TreeViewer;
using VectSharp;

namespace a1668771f8eac4d57babe17b65e6a1f0d
```

```
{
    //Do not change class name
    public static class CustomCoordinates
    {
        //Do not change method signature
        public static void GetCoordinates(TreeNode tree, ref
 Dictionary<string, Point> coordinates)
        {
            //TODO: change the coordinate values contained in
 the coordinates dictionary
        }
    }
}
```

This script can be used to modify the coordinate values.

Apply

Control type: Button

This button applies the changes to the values of the other parameters and triggers a redraw of the tree.

Further information

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