



# Scale axis

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*Version 1.1.0, by Giorgio Bianchini*

**Description:** Draws a scale axis.

**Module type:** Plotting

**Module ID:** aeacf625-90cf-41a5-8d10-c37c75aaa2b1

This module is used to draw a scale axis on the tree plot. The module can only be used when *Rectangular* or *Circular* coordinates are enabled.

For the default values of the parameters that follow, let  $t$  be the total length of the tree from the root node to the farthest tip.

## Parameters

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### Top axis

**Control type:** Check box

**Default value:** Checked

This check box determines whether the axis is shown above the tree.

### Bottom axis

**Control type:** Check box

**Default value:** Checked

This check box determines whether the axis is shown below the tree.

### Reverse axes

**Control type:** Check box

**Default value:** Checked

If this check box is checked, the units of the axes are reversed, i.e. the tips of the tree will start at an age of 0. Otherwise, the age of 0 will correspond to the root node.

## Spacing


**Control type:** Number spin box

**Default value:** 10

**Range:** (  $-\infty$ ,  $+\infty$  )

## Axis colour

**Control type:** Colour

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

This parameter determines the colour used to draw the axis and the labels.

## Line thickness

**Control type:** Number spin box

**Default value:** 1

**Range:** [ 0,  $+\infty$  )

This parameter determines the thickness of line used to draw the axis.

## Units

**Control type:** Text box

This parameter is used to determine the measurement units of the scale axis (e.g. Mya or Gya).

## Unit position

**Control type:** Drop-down list

**Default value:** Both

**Possible values:**

- Root
- Both
- Tips

This parameter is used to determine the position of the measurement unit.

## Tick spacing

**Control type:** Number spin box

**Default value:**  $0.05 \cdot t$

**Range:**  $[0, 2]$

This parameter determines the spacing between ticks on the axis (in tree age units).

## Start

**Control type:** Number spin box

**Default value:** 0

**Range:**  $(-\infty, +\infty)$

This parameter determines the start of the axis (in tree age units).

## End

**Control type:** Number spin box

**Default value:**  $t$

**Range:**  $(-\infty, +\infty)$

This parameter determines the end of the axis (in tree age units).

## Tick size

**Control type:** Number spin box

**Default value:** 5

**Range:**  $[0, +\infty)$

This parameter determines the size of the ticks on the axis.

## Labels every

**Control type:** Number spin box

**Default value:** 2

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

This parameter determines how many ticks are labelled.

## Digits

**Control type:** Number spin box

**Default value:** 2

**Range:** [ 0,  $+\infty$  )

This parameter determines the number of decimal digits to show for the age labels.

## Font

**Control type:** Font

**Default value:** Helvetica 10pt

This parameter determines the font used to draw the labels.

## Grid type

**Control type:** Drop-down list

**Default value:** Shading


**Possible values:**

- None
- Lines
- Shading

This parameter determines which kind of grid (if any) is drawn. If the value is `None`, no grid is shown. If the value is `Lines`, lines are drawn corresponding to every tick in the axis. If the value is `Shading`, alternating shaded and un-shaded areas are drawn.

## Grid colour


**Control type:** Colour

**Default value:**  #000000 (opacity: 4%)

This parameter determines the colour of the grid lines or shading.

## Grid dash

**Control type:** Line dash

**Default value:** 

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

If the [Grid type](#) is `Lines`, this parameter determines the dashing style used to draw the grid lines.