



Linear transformation

Version 1.0.0, by Giorgio Bianchini

Description: Applies a linear transformation to a numeric attribute.

Module type: FurtherTransformation

Module ID: 50a98b43-6e92-4499-a81e-4f9609b47e7b

This module applies a linear transformation $f(x) = ax + b$ to the value of an attribute on the tree. x is the value of the [Attribute](#), a is the [Scaling factor](#), and b is the [Translation factor](#). The resulting value can be used to replace the current attribute value, or saved to a new attribute.

For obvious reasons, this module can only be applied to attributes with numerical values.

Parameters

Attribute

Control type: Attribute selector

Default value: Length

This parameter determines the attribute whose value is modified by this module. This must be a numeric attribute.

Scaling factor

Control type: Number spin box

Default value: 1

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

This parameter controls the scaling of the attribute, i.e. the value of a in the equation $f(x) = ax + b$.

Translation factor

Control type: Number spin box

Default value: 0

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

This parameter controls the translation of the attribute, i.e. the value of b in the equation $f(x) = ax + b$.

Replacement attribute

Control type: Text box

Default value: Length

This parameter determines to which attribute the modified value is assigned. If this is the same as the original [Attribute](#), the value of the attribute is replaced; otherwise, a new attribute is created.

Apply

Control type: Button

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