

12.1.61 Editors - Geometry Nodes Editor - Header - Add Menu - Geometry Nodegroups - Hair - Deformation

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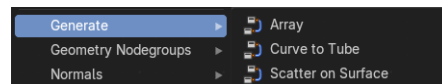
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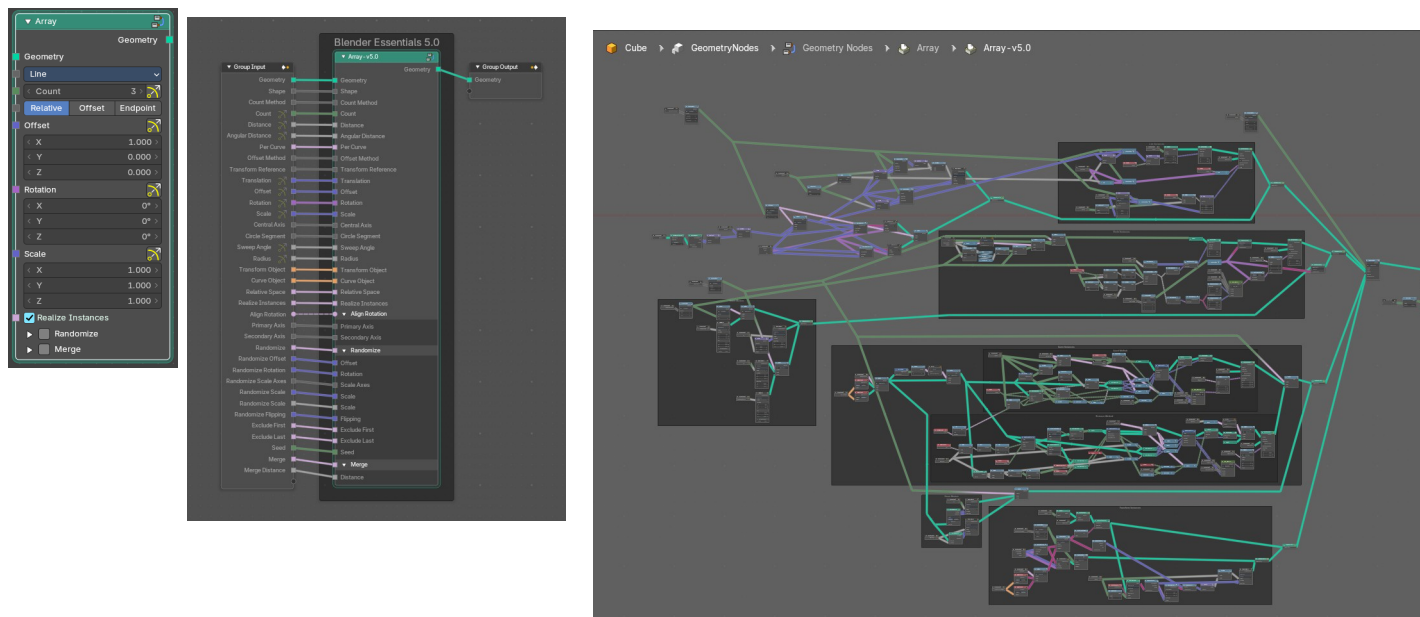
Add menu - Hair - Deformation

The nodes in this submenu are node groups. They use the regular single nodes under the hood.

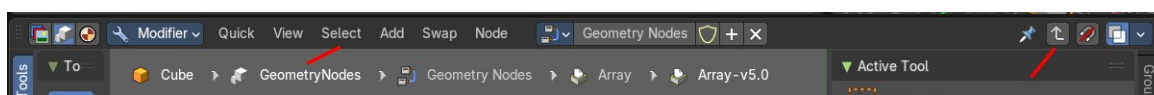


It is virtually impossible to document these nodes in detail. So we will just list them.

When you double click the header, then you will enter the first level of the group. When you then press tab, or click again at the header, then you will reach the single nodes.



To leave the group you can use the breadcrumb up left in the header. These breadcrumbs are clickable. Or the Parent Node Tree button up right in the header.



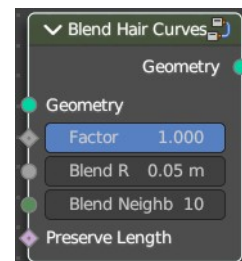
Blend Hair Curves

Blends the shape between multiple hair curves in a certain radius together.

Input

Geometry

The input geometry.



Factor

Factor to blend overall effect.

Blend Radius

Radius to select neighbors for blending.

Blend Neighbours

Amount of neighbors used for blending.

Preserve Length

Preserve the length of each curve during deformation.

Output

Geometry

The output geometry.

Displace Hair Curves

Displaces hair curves by a vector based on options.

Input

Geometry

The input geometry.

Factor

Factor to blend overall effect.

Shape

Shape of the influence along curves. 0 means constant. 0.5 means linear.

Object

The object to determine the displacement space.

Displace Vector

The vector for the displacement.

Surface Object

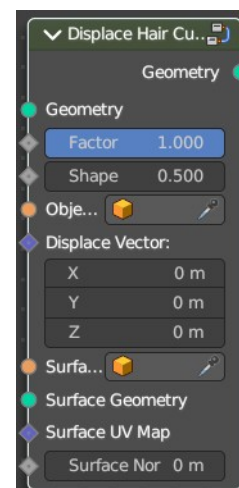
Surface object used to sample the normal for displacement.

Surface Geometry

Surface geometry used to sample the normal for displacement.

Surface UV Map

Surface UV Map used to sample the normal for displacement.



Surface Normal Displacement

Amount of displacement along the surface normals.

Output

Geometry

The output geometry.

Frizz Hair Curves

Deforms hair curves using a random vector per point to frizz them.

Input

Geometry

The input geometry.

Cumulative Offset

Apply offset cumulatively.

Factor

Factor to blend overall effect.

Distance

Overall distance factor for the deformation.

Shape

Shape of the influence along curves. 0 means constant. 0.5 means linear.

Seed

Random seed for the operation.

Preserve Length

Preserve the length of each curve during deformation.

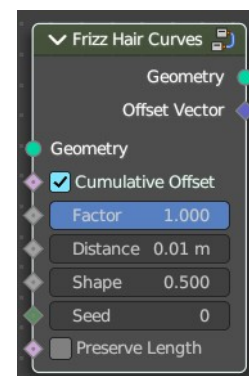
Output

Geometry

The output geometry.

Offset Vector

The vector by which each point was offset during deformation.



Hair Curves Noise

Deforms hair curves using noise texture.

Input

Geometry

The input geometry.

Cumulative Offset

Apply offset cumulatively.

Factor

Factor to blend overall effect.

Distance

Overall distance factor for the deformation.

Shape

Shape of the influence along curves. 0 means constant. 0.5 means linear.

Scale

Scale of the noise texture by root position.

Scale along Curve

Scale of the noise texture along the curve.

Offset per curve

Seed

Random seed for the operation.

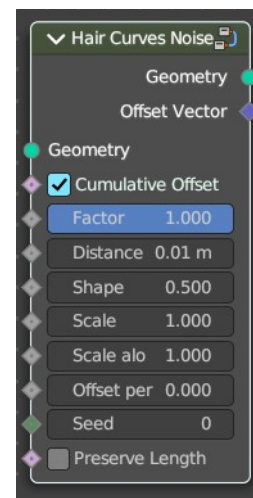
Preserve Length

Preserve the length of each curve during deformation.

Output

Geometry

The output geometry.



Offset Vector

The vector by which each point was offset during deformation.

Roll Hair Curves

Rolls up hair curves, starting from their tips.

Input

Factor

Factor to blend overall effect.

Subdivision

Subdivision level applied before deformation.

Variation Level

Level of smoothing on the roll path to include shape variation.

Roll Length

Length of each curve to be rolled

Roll Radius

Radius of the rolls.

Roll Depth

Depth offset of the rolls.

Roll Taper

Taper of the roll.

Retain Overall Shape

Offset the roll along the original curve to retain shape.

Roll Direction

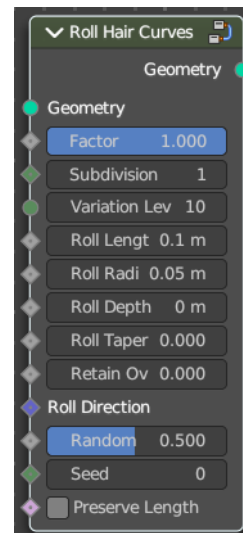
The axis around each curve is rolled.

Random Orientation

Amount of randomization of the direction of the roll.

Seed

Random seed for the operation.



Preserve Length

Preserve the length of each curve during deformation.

Output

Geometry

The output geometry.

Rotate Hair Curves

Rotates each hair curve around an axis.

Input

Geometry

The input geometry.

Factor

Factor to blend overall effect.

Axis

Rotation Axis. The default is tangent at root.

Angle

Angle of rotation

Random Off

Random offset to the rotation angle per curve.

Lock Ends

Lock rotation to the axis between the curve ends.

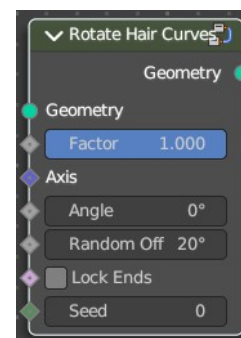
Seed

Random seed for the operation.

Output

Geometry

The output geometry.



Shrinkwrap Hair Curves

Shrinkwrap hair curves to a mesh surface from below and optionally from above.

Input

Geometry

The input geometry.

Surface

Surface geometry used for shrinkwrap.

Surface Object

A surface object used for shrinkwrap.

Factor

Factor to blend overall effect.

Offset Distance

Distance of the surface to shrinkwrap.

Above Surface

Blend shrinkwrap for points above the surface.

Smoothing Steps

The steps of Smoothing applied after shrinkwrap.

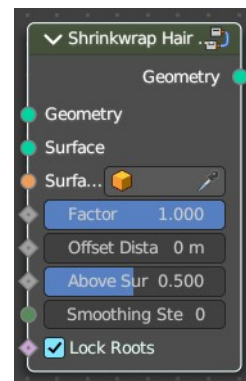
Lock Roots

Lock the position of root points.

Output

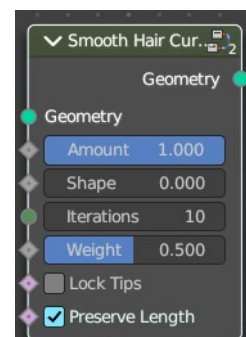
Geometry

The output geometry.



Smooth Hair Curves

Smooths the shape of hair curves.



Input

Geometry

The input geometry.

Amount

Amount of smoothing.

Shape

Shape of the influence along curves. 0 means constant. 0.5 means linear.

Iterations

Amount of smoothing steps.

Weight

Smoothing weight.

Lock Tip

Lock the position of tip points.

Preserve Length

Preserve the length of each curve during deformation.

Output

Geometry

The output geometry.

Straighten Hair Curves

Straighten hair curves between root and tip.

Input

Geometry

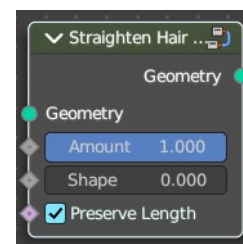
The input geometry.

Amount

Amount of smoothing.

Shape

Shape of the influence along curves. 0 means constant. 0.5 means linear.



Preserve Length

Preserve the length of each curve during deformation.

Output

Geometry

The output geometry.

Trim Hair Curves

Trims or scales hair curves to a certain length.

Input

Geometry

The input geometry.

Scale Uniform

Scale each curve uniformly to reach the target length.

Length Factor

Multiply the original length by a factor

Replace Length

Use the length input to fully replace the original length.

Length

Target length for the operation.

Mask

Mask to blend overall effect.

Random Offset

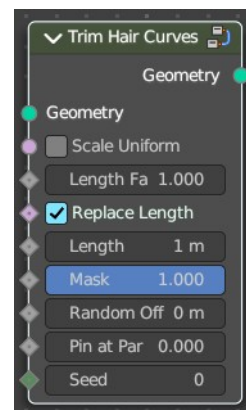
Trim hair curves randomly up to a certain amount.

Pin at parameter

Pin each curve at a certain point for the operation.

Seed

Random seed for the operation.



Output

Geometry

The output geometry.