

12.1.13 Editors - Geometry Nodes Editor - Header - Add Menu - Geometry - Operations

Table of content

Detailed table of content.....	1
Add menu - Geometry - Operations.....	3
Bake.....	3
Bounding Box.....	4
Convex Hull.....	4
Delete Geometry.....	5
Duplicate Elements.....	5
Sort Elements.....	6
Merge by Distance.....	7
Transform Geometry.....	8
Separate Components.....	9
Separate Geometry.....	9
Split to Instances.....	10

Detailed table of content

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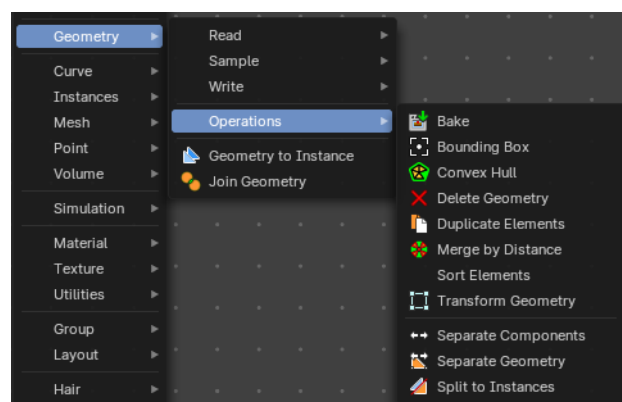
Detailed table of content.....	1
Add menu - Geometry - Operations.....	3
Bake.....	4
Input.....	4
Geometry.....	4
Properties.....	4
Animation / Still.....	4
Output.....	4
Geometry.....	4
Bounding Box.....	4
Inputs.....	4
Geometry.....	4
Output.....	4
Bounding Box.....	4
Min.....	4
Max.....	4
Convex Hull.....	5
Inputs.....	5
Geometry.....	5
Output.....	5
Convex Hull.....	5
Delete Geometry.....	5
Inputs.....	5
Geometry.....	5
Selection.....	5
Properties.....	5
Domain.....	5

Mode.....	5
Output.....	5
Geometry.....	5
Duplicate Elements.....	6
Inputs.....	6
Geometry.....	6
Selection.....	6
Amount.....	6
Properties.....	6
Domain.....	6
Output.....	6
Geometry.....	6
Duplicate Index.....	6
Sort Elements.....	6
Input.....	6
Geometry.....	6
Selection.....	6
Group ID.....	7
Sort Weight.....	7
Properties.....	7
Domain.....	7
Point.....	7
Face.....	7
Edge.....	7
Spline.....	7
Instance.....	7
Output.....	7
Geometry.....	7
Merge by Distance.....	7
Input.....	8
Geometry.....	8
Selection.....	8
Distance.....	8
Properties.....	8
Mode.....	8
All.....	8
Connected.....	8
Output.....	8
Geometry.....	8
Transform Geometry.....	8
Inputs.....	8
Geometry.....	8
Translation.....	8
Rotation.....	8
Scale.....	9
Output.....	9
Geometry.....	9
Separate Components.....	9
Inputs.....	9
Geometry.....	9
Outputs.....	9
Mesh.....	9
Point Cloud.....	9

Curve.....	9
Volume.....	9
Instance.....	9
Separate Geometry.....	9
Inputs.....	10
Geometry.....	10
Selection.....	10
Properties.....	10
Domain.....	10
Outputs.....	10
Selection.....	10
Inverted.....	10
Split to Instances.....	10
Inputs.....	10
Geometry.....	10
Selection.....	10
Group ID.....	10
Properties.....	11
Domain.....	11
Outputs.....	11
Instances.....	11
Group ID.....	11

Add menu - Geometry - Operations

Here you find nodes to modify the geometry.



Bake

Allows saving and loading intermediate geometries. This allows you to bake node tree parts to achieve better performance. Or you can bake some data for use with a render engine.

Input

Geometry

Standard geometry input.



Properties

Animation / Still

Bake a animation or a single frame. Note that the bake node does not do automatic caching.

Output

Geometry

Standard geometry output.

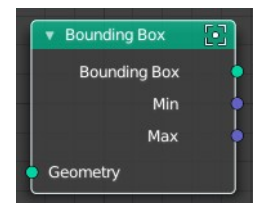
Bounding Box

The Bounding Box geometry node allows you to work with the values of a bounding box.

Inputs

Geometry

Standard geometry input.



Output

Bounding Box

Standard output.

Min

The minimum values of the bounding box.

Max

The maximum values of the bounding box.

Convex Hull

The node allows you to work with the values of a convex hull of this object.

Inputs

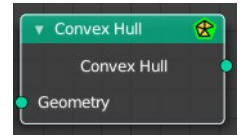
Geometry

Standard geometry input.

Output

Convex Hull

Standard output.



Delete Geometry

The node allows you to work with the values of a convex hull of this object.

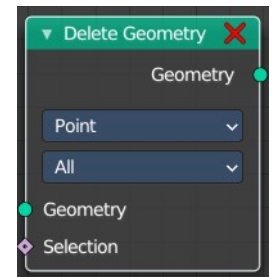
Inputs

Geometry

Standard geometry input.

Selection

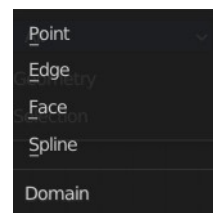
A selection of the geomerty



Properties

Domain

What element to delete.



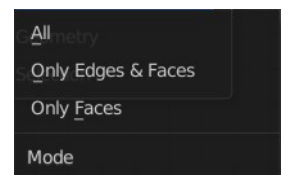
Mode

Delete mode. Names should be self explaining.

Output

Geometry

Standard output.



Duplicate Elements

Duplicates a part of a geometry a dynamic number of times.

Inputs

Geometry

Standard geometry input.

Selection

A selection of the geometry.

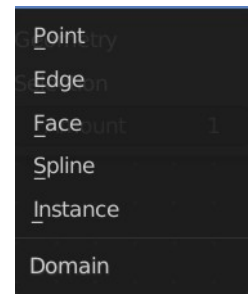
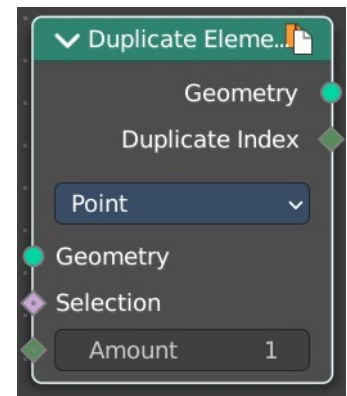
Amount

Number of times the geometry should be duplicated.

Properties

Domain

What element to duplicate.



Output

Geometry

Standard output.

Duplicate Index

The index of the duplicated elements.

Sort Elements

The *Sort Elements* node rearranges geometry elements by changing their indices.

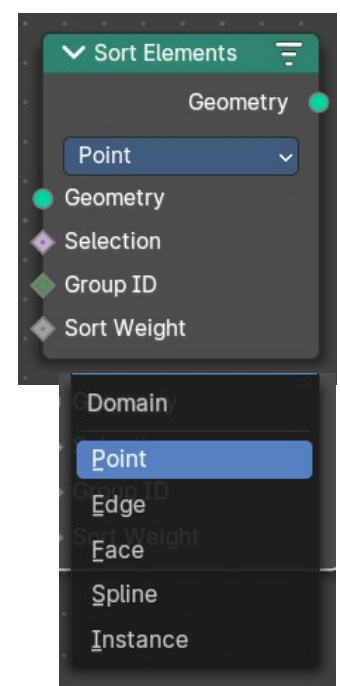
Input

Geometry

The input geometry.

Selection

A selection of the input geometry. If left blank, all elements are sorted. Non selected elements will keep their current indices.



Group ID

Group ID input value. A group is defined as all elements with the same group id. Elements with the same group ID are sorted together. If this is not a field, the node has no affect.

Sort Weight

The sorted values used to do the reordering. If this is not a field, the node has no affect.

Properties

Domain

Point

The fields are evaluated on points, control points, and vertices.

Face

The fields are evaluated on the edges of the mesh component.

Edge

The fields are evaluated on the faces of the mesh component.

Spline

The fields are evaluated on the splines in the curve component.

Instance

The fields are evaluated on the top-level instances. Realized instances are ignored.

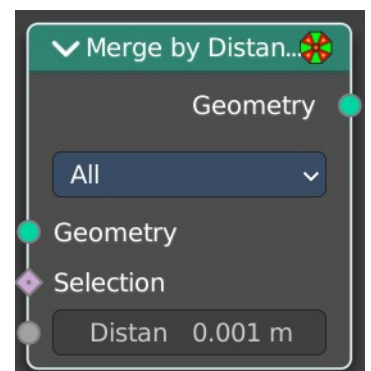
Output

Geometry

The output geometry.

Merge by Distance

Welds the selected geometry below a given distance into one vertice.



Input

Geometry

The input geometry.

Selection

A selection of the input geometry.

Distance

The merge distance. Everything below this distance will be merged into one vertice.

Properties

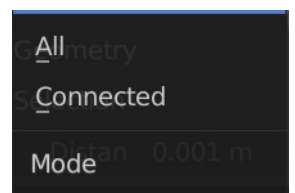
Mode

All

Merges all vertices in reach.

Connected

Merges just vertices that are connected by edges.



Output

Geometry

The output geometry.

Transform Geometry

Move, rotate or scale the geometry. The transformation is applied to the entire geometry, and not per element. For example, you can not rotate individual point cloud points with this node.

Inputs

Geometry

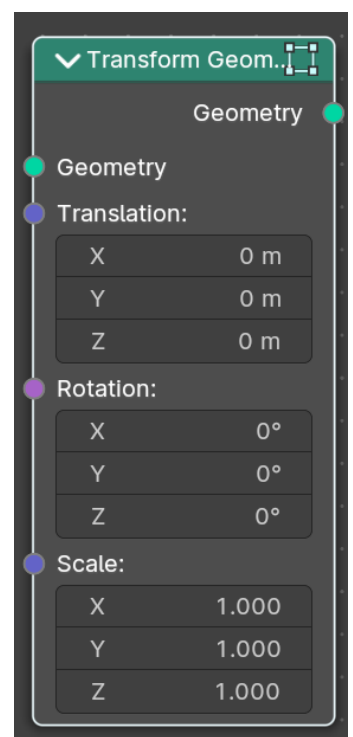
Standard geometry input.

Translation

Translates the geometry in local space of the modified object.

Rotation

Euler rotation in local space.



Scale

Scale to transform the geometries in local space.

Output

Geometry

Standard geometry output.

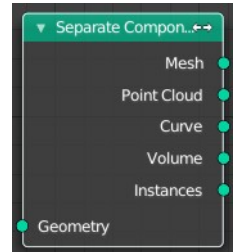
Separate Components

Splits a geometry into its components.

Inputs

Geometry

Geometry input.



Outputs

Mesh

Mesh component of the input geometry.

Point Cloud

Point cloud component of the input geometry.

Curve

Curve component of the input geometry.

Volume

Volume component of the input geometry.

In case that the input contains multiple volume instances, only the first volume component will be calculated.

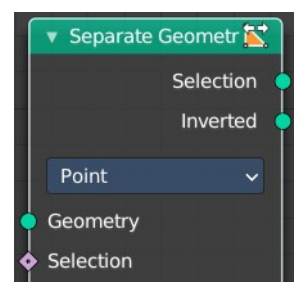
Instance

The single instances of the geometry.

Separate Geometry

Separates a selection of a geometry into its own object.

Tip: when you combine it with the Compare Floats node then you get a more precise control of which parts are separated to a given output geometry.



Inputs

Geometry

Geometry input.

Selection

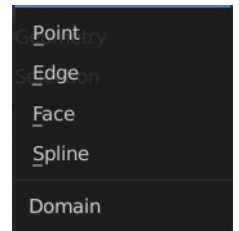
Selection input.

Properties

Domain

What kind of geometry to separate.

Note that when selecting a domain that doesn't modify all components, the unmodified components will appear in both outputs.



Outputs

Selection

Separated selection.

Inverted

The inverted separated selection.

Split to Instances

This node allows splitting up a geometry into groups. A group is defined as all elements with the same group id.

The node supports meshes, curves, point clouds and instances. Note that it only works on the top-level geometry. It does not go into nested instances because it also generates new instances.

Inputs

Geometry

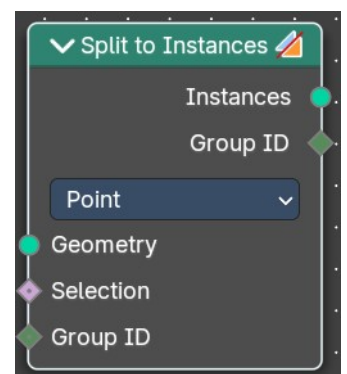
Geometry input.

Selection

Selection input.

Group ID

Group ID input value.

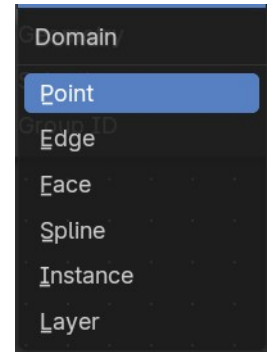


Properties

Domain

What kind of geometry to separate.

Note that when selecting a domain that doesn't modify all components, the unmodified components will appear in both outputs.



Outputs

Instances

Instances output. An Instance per group.

Group ID

Group ID output value.