

## 12.1.14 Editors - Geometry Nodes Editor - Header - Add Menu - Mesh

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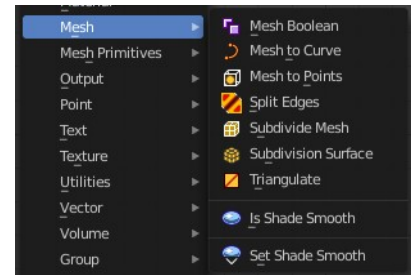
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## Add menu - Mesh

Nodes to modify the mesh geometry.



## Mesh Boolean

The Boolean Node allows you to cut, subtract, and join the geometry of two inputs. This node offers the same operations as the Boolean modifier.

### Inputs

#### **Geometry 1, 2**

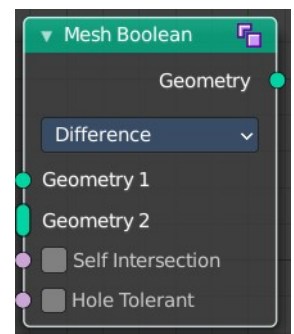
Standard geometry input.

#### **Self Intersect**

Allow self intersection.

#### **Hole Tolerant**

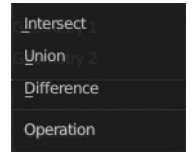
Allow holes.



## Properties

### **Operation**

The boolean operation.



### **Intersect**

Produce a new geometry containing only the volume inside of both geometry 1 and geometry 2.

### **Union**

The two input pieces of geometry are joined, then any interior elements are removed.

### **Difference**

Geometry 2 is subtracted from geometry 1 (everything outside of geometry 2 is kept).

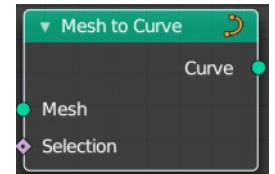
## Output

### **Geometry**

Standard geometry output.

## Mesh to Curve

Converts a mesh geometry to a curve geometry.



### **Inputs**

#### **Mesh**

Input mesh.

#### **Selection**

A selection of the input mesh.

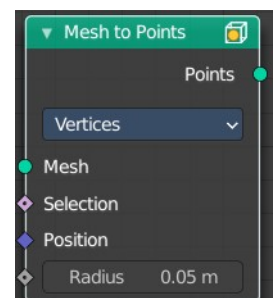
### **Outputs**

#### **Curve**

Standard curve output.

## Mesh to Points

Converts a mesh geometry to a point geometry.



## Inputs

### **Mesh**

Input mesh.

### **Selection**

A selection of the input mesh.

### **Position**

The position of the points.

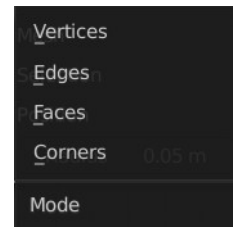
### **Radius**

The radius of the points

## Properties

### **Mode**

What geometry to convert to points.



## Outputs

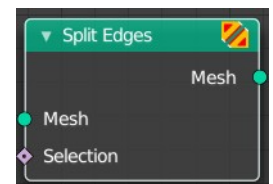
### **Curve**

Standard curve output.

## Split Edges

Splits the edges of the geometry.

Note that splitting edges breaks the mesh topology.



## Inputs

### **Mesh**

Input mesh.

### **Selection**

A selection of the input mesh.

## Outputs

### **Mesh**

Standard Mesh output.

## Subdivide Mesh

Subdivides the geometry by a simple division.

### Inputs

#### Geometry

Standard geometry input.

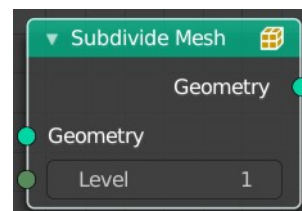
#### Level

To which degree the geometry will be deformed.

### Outputs

#### Geometry

Standard geometry output.



## Subdivision Surface

The Subdivision Surface node subdivides the geometry using Catmull-Clark deformation.

### Inputs

#### Geometry

Standard geometry input.

#### Level

To which degree the geometry will be deformed.

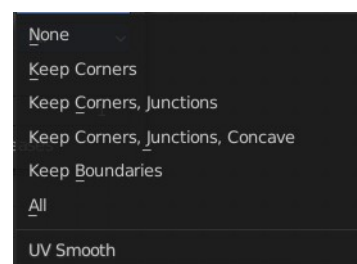
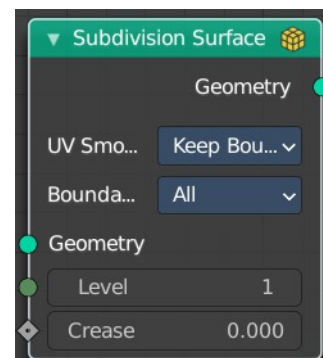
#### Creases

Control how smooth edges should be with Weighted Edge Creases.

### Properties

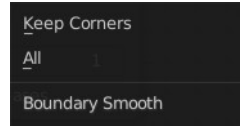
#### UV Smooth

The method to deal with smoothing the UV.



## ***Boundary Smooth***

Controls if open boundaries and corners are smooth.



## **Outputs**

### ***Geometry***

Standard geometry output.

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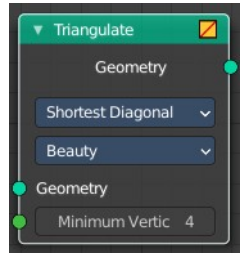
## **Triangulate**

The Triangulate node triangulates all faces in a mesh.

## **Inputs**

### ***Geometry***

Standard geometry input.



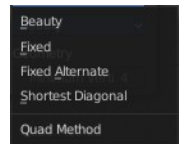
### ***Minimum Vertices***

Minimum number of vertices a face must have to be triangulated. For example, setting this value to 5, will prevent triangulation of Quads and only triangulate N-gons.

## **Properties**

### ***Quad Method***

A quad is a polygon with four edges.



### **Beauty**

Split the quads in nice triangles, slower method.

### **Fixed**

Split the quads on their 1st and 3rd vertices.

### **Fixed Alternate**

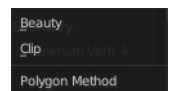
Split the quads on their 2nd and 4th vertices.

### **Shortest Diagonal**

Split the quads based on the diagonal distance between their vertices.

### ***Polygon Method***

Meant are N-Gons. Faces with more than four edges. Tris, Quads and N-Gons are all Polygons.



### **Beauty**

Arrange the new triangles nicely, slower method.

## Clip

Split the polygons using an ear-clipping algorithm (gives similar results to the tessellation used for the viewport rendering).

## Outputs

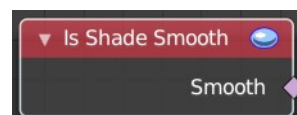
### Geometry

Standard geometry output.

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## Is Shade Smooth

Retrieves if the geometry is shaded smooth.



## Outputs

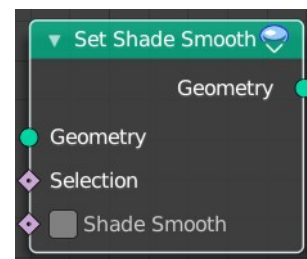
### Smooth

Smooth output.

---

## Set Shade Smooth

Retrieves if the geometry is shaded smooth.



## Input

### Geometry

Input mesh.

### Selection

A selection of the input mesh.

### Shade Smooth

Set the shading to smooth.

## Outputs

### Geometry

Geometry output.

## Legacy - Mesh

These nodes existed in a former Bforartists version, but are now deprecated. They do not show in the regular menu or UI anymore. And you cannot insert them in a newer Bforartists version. But old projects that uses this



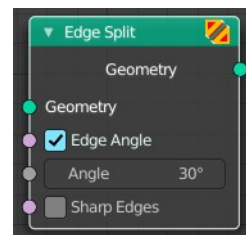
nodes still loads with these nodes showing and enabled.

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## Edge Split

The Edge Split node splits as split edge marked edges into two edges.

Note that splitting edges breaks the mesh topology.



### Inputs

#### Geometry

Standard geometry input.

#### Edge Angle

When enabled, edges will be split if the angle between its two adjacent faces is greater than the Split Angle.

#### Angle

On 0: all edges are split. On 180: no edges are split.

#### Sharp Edges

When enabled, edges will be split if they were marked as sharp.

### Outputs

#### Geometry

Standard geometry output.

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## Subdivision Surface

The Subdivision Surface node subdivides the geometry using Catmull-Clark deformation.

### Inputs

#### Geometry

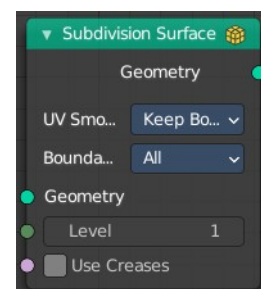
Standard geometry input.

#### Level

To which degree the geometry will be deformed.

#### Creases

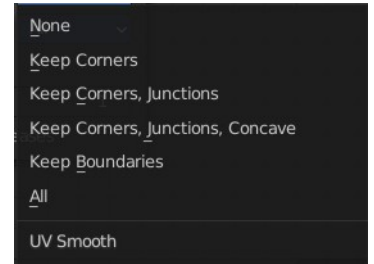
Control how smooth edges should be with Weighted Edge Creases.



## Properties

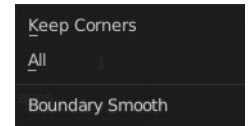
### ***UV Smooth***

The method to deal with smoothing the UV.



### ***Boundary Smooth***

Controls if open boundaries and corners are smooth.



## Outputs

### ***Geometry***

Standard geometry output.