

12.1.23 Editors - Geometry Nodes Editor - Header - Add Menu - Mesh - Read

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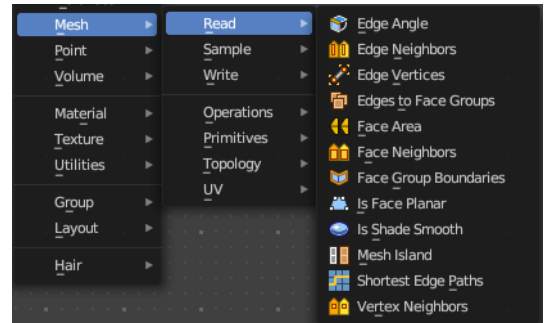
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Add menu - Mesh - Read

Nodes to modify the mesh geometry.



Edge Angle

Calculates the angle in radians between two faces that meet at an edge. Without two faces on the edge, the angle will be 0.



Outputs

Unsigned Angle

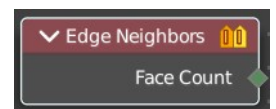
The unsigned output angle. The shortest angle will be picked.

Signed Angle

The signed angle between the two faces, where Convex angles are positive and Concave angles are negative. This calculation is slower than the unsigned angle.

Edge Neighbours

Outputs the number of faces connected to each edge.



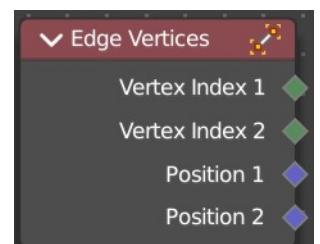
Outputs

Face Count

The number of faces.

Edge Vertices

Outputs the index and position of the two vertices that defines an edge. Index outputs an integer. Position a vector.



Outputs

Vertex Index 1

The index of the first vertice.

Vertex Index 2

The index of the second vertice.

Position 1

The position of the first vertice.

Position 2

The position of the second vertice.

Edges to Face Group

Group Faces into regions, surrounded by the selected boundary edges.



Inputs

Boundary Edges

The input edges.

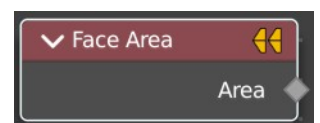
Outputs

Face Group ID

The output face group.

Face Area

Gives each face area a unique id. Which can be used in a capture attribute for example, to create instances of other geometry to this now unique face areas.



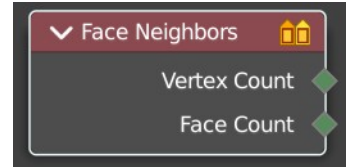
Outputs

Area

The face area output.

Face Neighbours

Outputs the number of vertices or faces connected to each face.



Outputs

Vertex Count

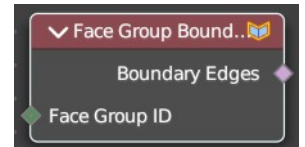
The vertex count for the face neighbors.

Face Count

The face count for the face neighbors.

Face Group Boundaries

Find edges on the boundaries between face sets



Inputs

Face Set

The input face sets to calculate the boundaries from.

Outputs

Boundary Edges

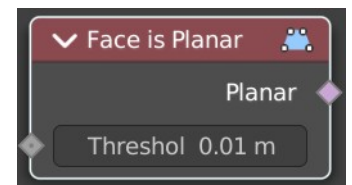
The edges that lies on the boundaries between the different face sets

Face Count

The face count for the face neighbors.

Is Face Planar

Returns true if all of the points of the evaluated face are on the same plane.



Inputs

Threshold

The threshold to consider the points to be at the same plane.

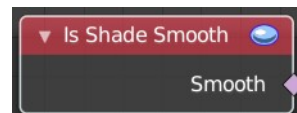
Outputs

Planar

True if the face is planar.

Is Shade Smooth

Retreives if the geometry is shaded smooth.



Outputs

Smooth

Smooth output.

Mesh Island

Outputs a separate index for each mesh island. The indices are based on the order of the lowest-numbered vertex in each island.



Outputs

Index

The index output.

Shortest Edge Path

Calculates the shortest path from multiple start points.

Input

End Vertex

The last point of the path.

Edge Cost

The amount of calculation to find the shortest path.

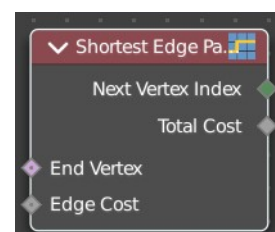
Outputs

Next Vertex Index

The vertices index of the shortest path.

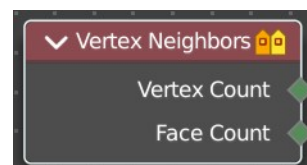
Total Cost

The calculation amount.



Vertex Neighbors

Outputs the number of vertices or faces connected to each vertex.



Outputs

Vertex Count

The vertex count for the vertex neighbors.

Face Count

The face count for the vertex neighbors.