

12.1.11 Editors - Geometry Nodes Editor - Header - Add Menu - Geometry - Read

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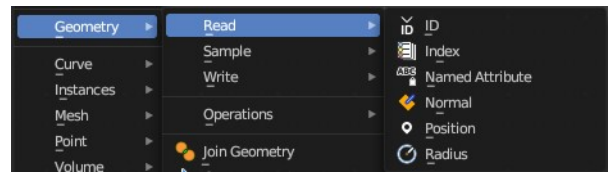
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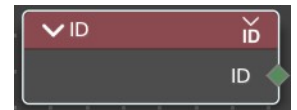
Add menu - Geometry - Read

Here you find nodes to modify the geometry.



ID

Retrieve the ID of the object.



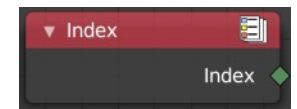
Outputs

ID

The ID of the object.

Index

Retrieves an integer value indicating the position of each element in the list. This list depends on the internal order of the data in the geometry, which is not necessarily visible in the 3D Viewport. However, the index value is visible in the left-most column in the Spreadsheet Editor.



Outputs

Index

Integer value which enumerates each point on the geometry.

Named Attribute

Adds a field input.

Input

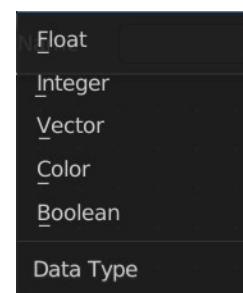
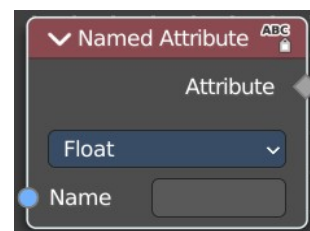
Name

The input name for the field.

Input

Data Type

What data type to use.



Output

Attribute

The output attribute name.

Normal

Returns a vector for each evaluated point indicating the normal direction. The output can depend on the attribute domain used in the node evaluating the field, but the output is always a normalized unit vector.

The output depends on where you plug in the normal node.

Face

On the face domain, the normal is the “up” direction of the face.

Mesh Vertices

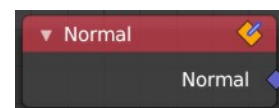
For mesh vertices, the normal is an average of the surrounding face normals. If the vertex does not have any connected faces, the output is simply the normalized position of that vertex.

Edge

The normal output for each edge is the average of the edge’s two vertex normals.

Face Corner

The output for each face corner is the same as the face normal of the corresponding face.



Curve Control Points

The output of this node when used for curve geometry is the evaluated normal of the curve, which depends on the twist method. The normal vector is always perpendicular to the direction of the curve's path at every point.

Warning!

Please keep in mind that for NURBS and Bézier spline curves the value retrieved from this node is the value at every control point. Which may not correspond to the visible evaluated points. For NURBS splines the difference may be even more pronounced and the result may not be as expected. A Resample Curve Node can be used to create a poly spline, where there is a control point for every evaluated point.

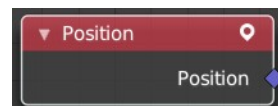
Outputs

Normal

The normal vector output.

Position

The Position node outputs a vector of each point of the geometry the node is connected to.



The node can work on geometry domains besides points. In that case, the position data will be automatically interpolated to the new domain. For example, when used as part of the input to the mesh edge split node, the position for each edge will be the average position of the edges two vertices.

For instances, the output is the origin of each instance. However, if the node is for a geometry node that adjusts data inside instances, the position output of this node will be in the local space of each instance.

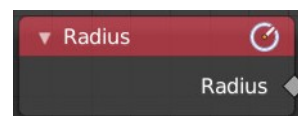
Outputs

Position

The position vector output.

Radius

Retrieve the radius of the object.



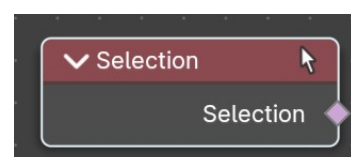
Outputs

Radius

The radius output.

Selection – Tool Mode

User selection of the edited geometry, for tool execution. When using this node, this gets the selection of the active object to use in the Node Tree.



Example: You can select faces on an object in Edit Mode in the 3D View editor then run the Node Group Tool on only the selected faces by getting the Selection from this node.

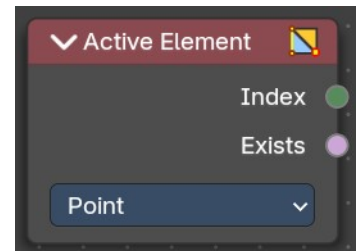
Outputs

Selection

The selection output.

Active Element – Tool Mode

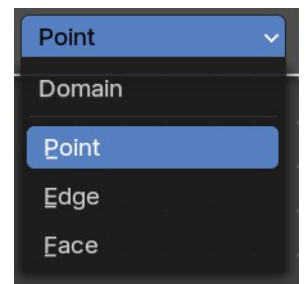
Retrieve the index of the active elements. This is used for tool execution.



Properties

Domain

What kind of element to retrieve.



Outputs

Index

The selection output.

Exists

True if element exists.