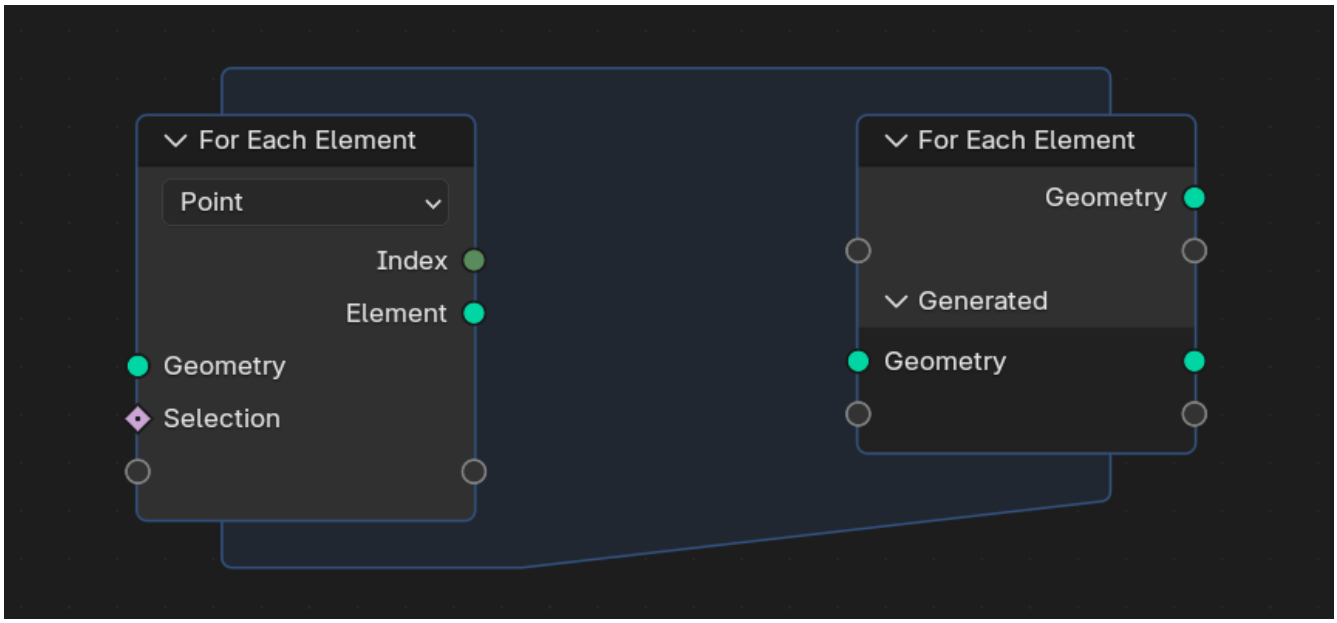
Skip to content

For Each Geometry Element Zone

This zone type allows executing nodes for each element of a geometry. For example, the nodes can process every face of a mesh, or every instance.



The *For Each Element* zone.

The zone is ideal for tasks that generate large or complex geometry for every element of an input geometry. For example, generating a unique tree for every input curve, or a unique building on every input face.

The zone makes less sense for processing small amounts of geometry. In that case (for example each of a character's hairs separately) it will likely **alway be slower** than working on fewer larger geometries. The additional flexibility from processing each element separately comes at the cost that Blender ca optimize the operation as well. For node groups that need to handle lots of geometry elements, it's recommended to design the node setup so that iterati over tiny sub-geometries is not required.

Inputs

Geometry

Geometry whose elements are iterated over.

Selection

Which subset of the chosen *Domain* to process.

Index

Index of the element in the source geometry. Note that the same index can occur more than once when iterating over multiple geometry compone types at once.

Element

The input geometry is split up into a separate geometry for each element. This is the single element geometry for the current iteration. This is not available for the *Face Corner* domain, since face corners cannot exist without their face.

> Note
>
> It can be quite inefficient to split up large geometries into many small elements. Because this output isn't computed if it's not used in the node graph, not using it will typically improve performance.

Properties

Domain

Which attribute domain to process.

Inspection Index

Inspection Index

Geometry element index that is used by inspection features like the Viewer Node or socket inspection.

Outputs

The *Main Geometry* outputs create attributes on the "main" output geometry (the first output). Every single value on the inside of the zone becomes a value of the attribute at the current index.

The outputs in the *Generated* panel, including the default *Geometry* output are joined together from the geometry generated from each element. Any no geometry type below a specific geometry in this list will output as an anonymous attribute on that joined geometry (and not the others). Attributes from th zone's input geometry are also propagated to these geometry outputs.

Previous
Rotate Euler Node

N
Index Switch No

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Last updated on 2025-05-10

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