12.1.36 Editors - Geometry Nodes Editor - Header - Add Menu - Point

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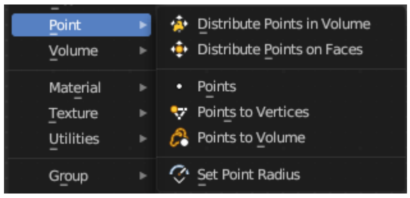
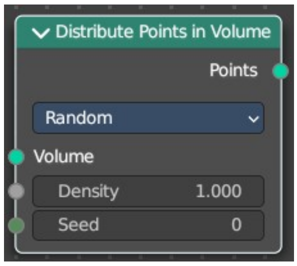
Add menu - Point



Distribute Points In Volume

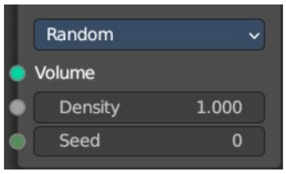


Distributes points randomly in a volume.

Point, corner and polygon attributes of the input geometry are transferred to the generated points. That includes vertex weights and UV maps. Additionally, the node has Normal and Rotation outputs.

The node also generates a stable ID, which is then stored in the built-in id attribute. It is used as a stable identifier for each point. When the geometry is deformed or the density changes the values will be consistent for each remaining point. This attribute is used in the Random Value and Instance on Points nodes.

Inputs Random mode



Volume

The volume to import the points to.

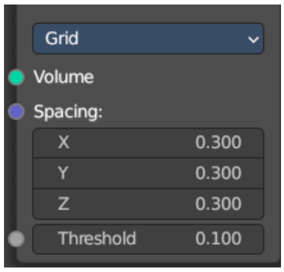
Density

Density of the points.

Seed

The random seed for the point distribution.

Inputs Grid mode



Volume

The volume to import the points to.

Spacing

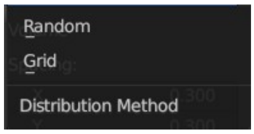
The spacing between the grid points.

Threshold

Minimum density of a volume cell to contain a grid point.

Properties

Distribution method



Random

Distributes the points randomly. This allows overlappings.

Grid

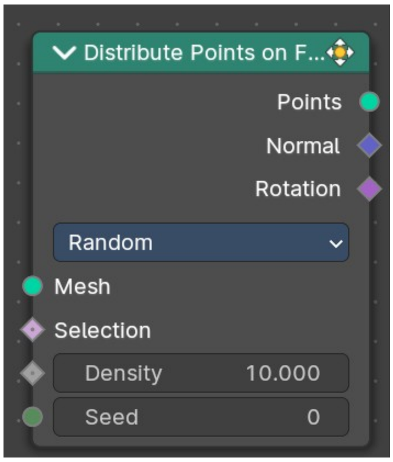
Distributes the points along a grid with given width.

Output

Points

Points output.

Distribute Points on Faces

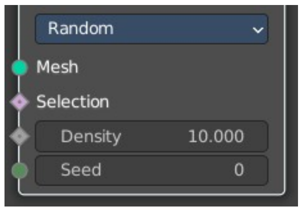


Distributes points randomly on the faces of a mesh geometry.

Point, corner and polygon attributes of the input geometry are transferred to the generated points. That includes vertex weights and UV maps. Additionally, the node has Normal and Rotation outputs.

The node also generates a stable ID, which is then stored in the built-in id attribute. It is used as a stable identifier for each point. When the mesh is deformed or the density changes the values will be consistent for each remaining point. This attribute is used in the Random Value and Instance on Points nodes.

Inputs Random mode



Mesh

Standard geometry input.

Selection

The selection of which face corners should be considered for point distribution.

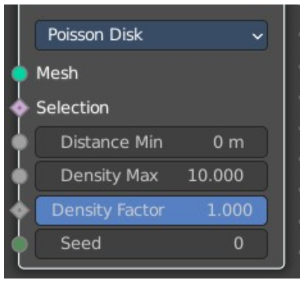
Density

Density of the points.

Seed

The random seed for the point distribution.

Inputs Poisson Disk mode



Mesh

Standard geometry input.

Selection

The selection of which face corners should be considered for point distribution.

Distance Min

The minimum distance that two points can have.

Distance Max

The naximum distance that two points can have.

Density Factor

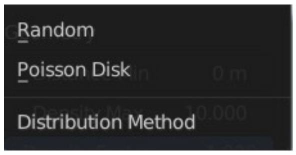
Density of the points.

Seed

The random seed for the point distribution.

Properties

Distribution method



Random

Distributes the points randomly. This allows overlappings.

Poisson Disk

Distributes the points randomly, but prevents overlappings by defining a minimum and maximum distance.

Output

Points

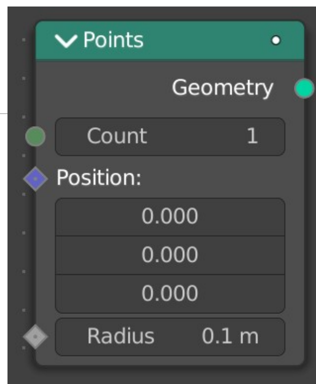
Points output.

Normal

Normal output.

Rotation

Euler Rotation output. Please note that the Z axis of the result rotation will be arbitrary. The mesh normal used to create the rotation does not have enough information to set all three rotation axes.



Points

Generates a single point or points with position, count and radius.

Inputs

Count

The count of the generated points as an integer.

Position

The position of the points as a vector. This is a field meaning you can set the position per index or ID of the point.

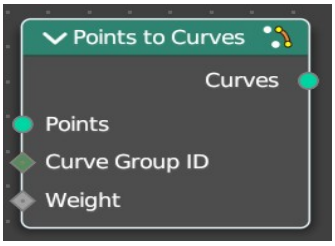
Radius

The radius of the points as a float. This is a field meaning you can set the scale per index or ID of the point.

Outputs

Mesh

Standard mesh output.



Points to Cuves

Generates a mesh vertex in the output geometry for each point cloud point in the input geometry.

Inputs

Points

Points input.

Curve Group ID

A curve is created from every distinct group ID. All points with the same ID are put into the same curve.

Selection

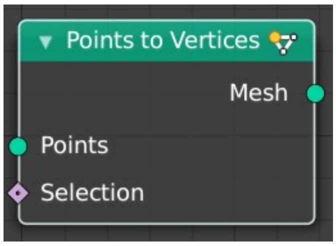
Selection input.

Outputs

Mesh

Standard mesh output.

Points to Vertices



Generates a mesh vertex in the output geometry for each point cloud point in the input geometry.

Inputs

Points

Points input.

Selection

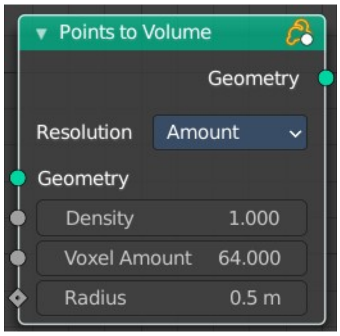
Selection input.

Outputs

Mesh

Standard mesh output.

Points to Volume



Creates a fog volume sphere around every point in the input geometry. The new volume grid is then called density.

Inputs

Geometry

Points input.

Density

The density of the volume.

Voxel Amount

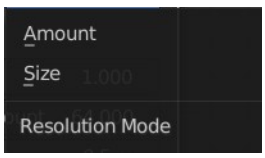
Voxel amount of the volume.

Radius

The radius of the generated volume around each point.

Properties

Resolution



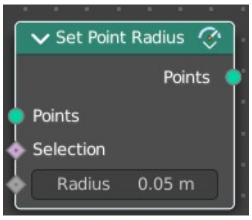
Base the voxel resolution at the amount or the size of the point cloud.

Outputs

Geometry

Standard geometry output.

Set Point Radius



The Set Point Radius node controls the size each selected point cloud point should display with in the viewport.

Inputs

Points

Geometry input.

Selection

Selection input.

Radius

The radius of the points.

Outputs

Points

Standard geometry output.