Points to Curves Node

The *Points to Curves* node generates a Curves geometry by taking all points and inserting them to new curves. All Attributes from points are propagated to Curve Points. Built-in curves attributes stored in points will be ignored.

Points to Curves node.

> **Tip**
>
> To simplify thinking about points, attributes and their positions in each curve, The weight of each point in curve can be associated with a point attributes value. The sorting and grouping will be reflected on the attributes as like on the Weight and Group ID.

Inputs

Points

 The Point Cloud geometry component.

Curve Group ID

 All points with the same Group ID value will be joined in the same curve. The value of Group ID can be any value (negative, zero, or infinity, etc.) All created curves must have at least a single point. The order of curves depends both on Group ID value and on the order of Group ID values in the Point Cloud.

Weight

 If the curve contains more than one Point, the Weight of each Point is used to define the order of all points in curve via sorting. The goal of sorting to have points with the minimal Weight value at the start of curve and the maximum Weight at the end of curve.

> **Note**
>
> If points of curve have the same Weight value, the order will be the same as its original relative location. Without any Weight and Group ID inputs, each point will have the same indices in the curve.
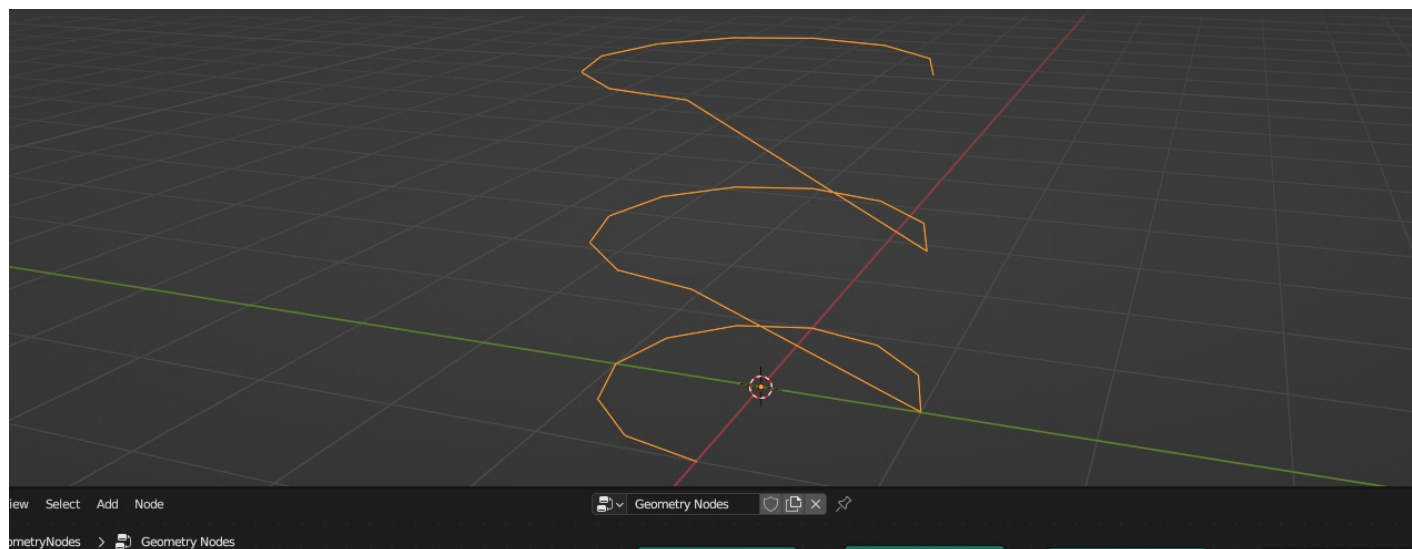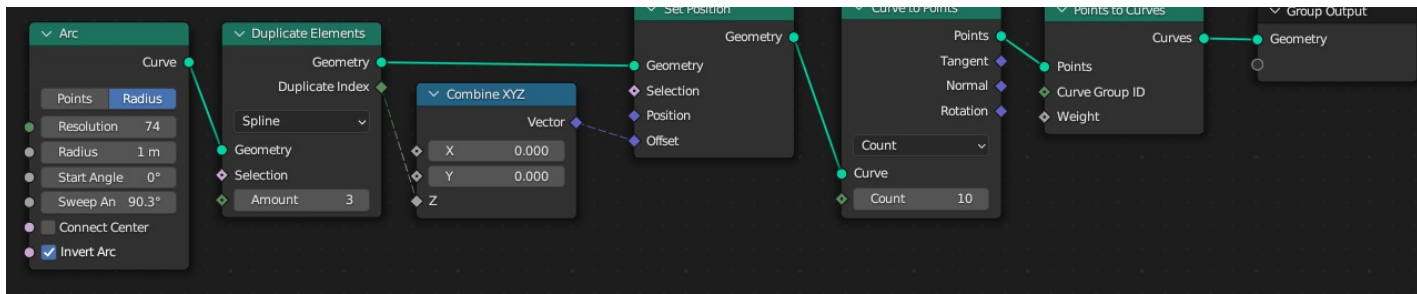
Properties

This node has no properties.

Outputs

Curves

 The curves with all copied points from the Point Cloud, but joined in curves. All other components aren't saved. The resulting curves are always non-cyclic.

Examples

The above example creates a curve Array with connections between curves. This is created by duplicating the Arc primitive curve with the Duplicate Elements Node. Each curve is shifted in a top direction based on its index value. All the curves are converted to the Point Cloud by the Curve to Points Node. Finally, the points are converted to curves by the Points to Curves node.

All the Points of the resulting Curves geometry have the same attributes as points on the initial Arc primitive.