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# **Interpolate Curves Node**

Generate new curves on points by interpolating between existing curves. This is useful to have a smaller set of original curves to make editing easier and faster while still generating high-density curves for the viewport or a final render.

## **Inputs**

#### **Guide Curves**

Base curves that new curves are interpolated between.

#### Guide Up

Optional up vector that is typically a surface normal. Supplying an up vector will improve the quality of the interpolation, making it aware of the surface shape which it otherwise wouldn't have a way to know about.

Tip

In a typical "child hair" generation setup, this up direction is retrieved with a combination of the Sample UV Surface Node using the same geometry that the points were distributed on, and the Normal Node.

### **Guide Group ID**

Splits guides into separate groups. New curves interpolate existing curves from a single group. This input can be useful for generating hair parts by stopping curves in different sections (with different group IDs) from affecting each other.

#### **Points**

The positions of the first root control points of the newly generated interpolated curves.

#### **Points Up**

Optional up vector that is typically a surface normal.

## **Point Group ID**

The curve group to interpolate in.

## Max Neighbors

Maximum amount of close guide curves that are taken into account for interpolation.

# **Properties**

This node has no properties.

# **Outputs**

#### Curves

The guide curves with interpolated curves.

### **Closest Index**

Index of the closest guide curve for each generated curve.

Note

Internally this node mixes the data from multiple guide curves, with the maximum number of sources depending on the *Max Neighbors* input. The output is only the index of the curve with the largest weight.

## **Closest Weight**

Weight of the closest guide curve for each generated curve.

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