



26.10.24 Editors - Properties Editor - Particle Properties Tab - Hair - Children panel

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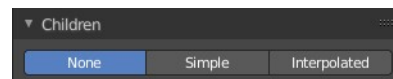
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Children panel

Children are Hair or Emitter particles originating from individual particles. They allow to work with a relatively low amount of Parent particles. Which reduces the calculation effort.

If you activate children, then the parents are no longer rendered. They can be re-enabled in the Render panel in the Extras subpanel. Parent Particles. By default, parent particles are not rendered because the shape of the children can be quite different from that of their parents.

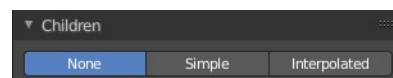


Children panel - Type None

Child Type

None

No children are generated. No settings.



Children panel - Type Simple

Simple

Children are emitted from the parent position.

Display Amount

The number of children in the 3D Viewport.

Render Amount

The number of children to be rendered.

Length

Length of child paths.

Threshold

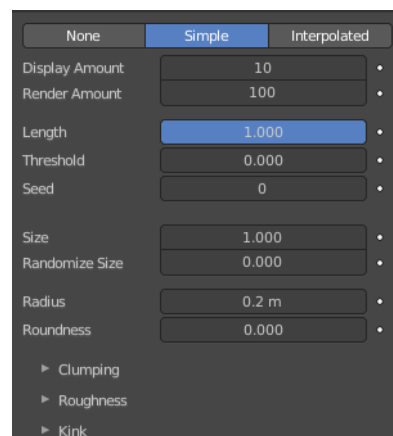
Amount of particles left untouched by child path length.

Seed

Offset in the random number table for child particles, to get a different randomized result.

Size

A multiplier for children size.



Random Size

Random variation to the size of child particles

Radius

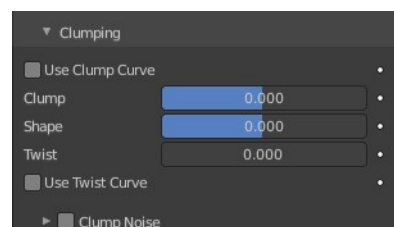
The radius in which the children are distributed around their parents. This is 3D, so children may be emitted higher or lower than their parents.

Roundness

The roundness of the children around their parents. Either in a sphere (1.0) or in-plane (0.0).

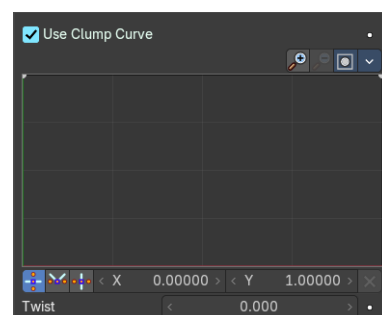
Children panel - Type Simple - Clumping subpanel

Clumping allows as the name says to break the even look, and clump particles together.



Use Clump Curve

Use a Curve instead of parameters to adjust the clumping.



Adding Points

You can add new curve points by simply left clicking at the curve. Move the mouse to position them where you need it.

Selecting Points

You can select curve points by clicking at them.

Selected points can be moved around. Left click at them, hold the mouse button down and move them to a new location.

Navigation elements

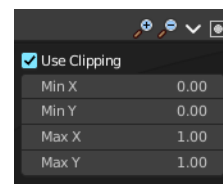
The navigation elements at the top are described from left to right.

Zoom in and out

The two buttons with the magnifying glass at it zooms in and out in the curve window.

Clipping

Clipping options. Set up clipping for the stroke.



Delete Points

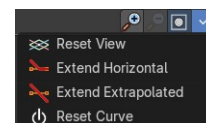
Deletes selected curve points.

Tools

Tools is a menu where you can find some curve related tools.

Reset View

Resets the curve windows zoom.



Extend horizontal

Extend the curve horizontally before the first and after the last curve point.

Extend vertical

Extend the curve vertically before the first and after the last curve point.

Reset Curve

Resets the curve to the initial shape.

Vector Handle

Set handle type to Vector.

Auto Handle

Set handle type to Auto.

Auto Clamped Handle

Set handle type to Auto Clamped.

X / Y values

The x and y position of the current selected curve point.

Delete Points

Delete the current selected curve point.

Twist

Number of turns around parent along the strand.

Clump

Clumping amount along child strands. The children may meet at their tip (1.0) or start together at their root (-1.0).

Shape

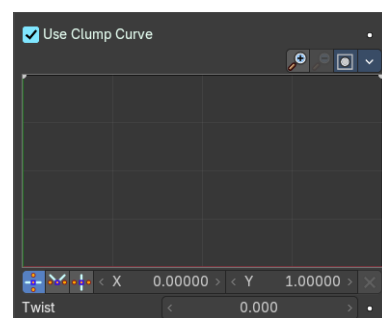
Form of Clump. Either inverse parabolic (0.99) or exponentially (-0.99).

Twist

Number of turn around parent along the strand.

Use Clump Curve

Use a Curve instead of parameters to adjust the clumping.



Adding Points

You can add new curve points by simply left clicking at the curve. Move the mouse to position them where you need it.

Selecting Points

You can select curve points by clicking at them.

Selected points can be moved around. Left click at them, hold the mouse button down and move them to a new location.

Navigation elements

The navigation elements at the top are described from left to right.

Zoom in and out

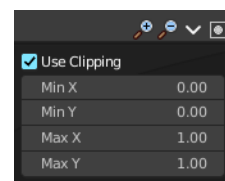
The two buttons with the magnifying glass at it zooms in and out in the curve window.

Clipping

Clipping options. Set up clipping for the stroke.

Delete Points

Deletes selected curve points.

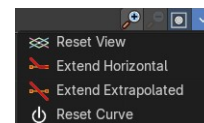


Tools

Tools is a menu where you can find some curve related tools.

Reset View

Resets the curve windows zoom.



Extend horizontal

Extend the curve horizontally before the first and after the last curve point.

Extend vertical

Extend the curve vertically before the first and after the last curve point.

Reset Curve

Resets the curve to the initial shape.

Vector Handle

Set handle type to Vector.

Auto Handle

Set handle type to Auto.

Auto Clamped Handle

Set handle type to Auto Clamped.

X / Y values

The x and y position of the current selected curve point.

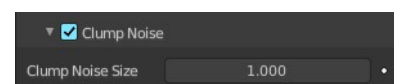
Delete Points

Delete the current selected curve point.

Children panel - Type Simple - Clump Noise subpanel

Clump Noise subpanel

Creates random clumps around the parent hair.



Clump Noise Size

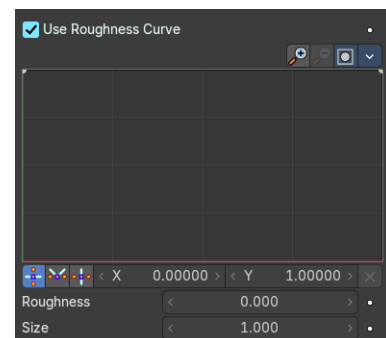
The size of clump noise.

Children panel - Type Simple - Roughness subpanel

Give the particles a roughness.

Use Roughness Curve

Use Curve Widget instead of parameters.



Adding Points

You can add new curve points by simply left clicking at the curve. Move the mouse to position them where you need it.

Selecting Points

You can select curve points by clicking at them.

Selected points can be moved around. Left click at them, hold the mouse button down and move them to a new location.

Navigation elements

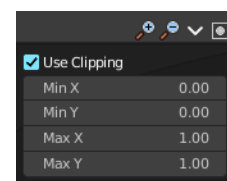
The navigation elements at the top are described from left to right.

Zoom in and out

The two buttons with the magnifying glass at it zooms in and out in the curve window.

Clipping

Clipping options. Set up clipping for the stroke.

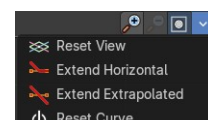


Delete Points

Deletes selected curve points.

Tools

Tools is a menu where you can find some curve related tools.



Reset View

Resets the curve windows zoom.

Extend horizontal

Extend the curve horizontally before the first and after the last curve point.

Extend vertical

Extend the curve vertically before the first and after the last curve point.

Reset Curve

Resets the curve to the initial shape.

Vector Handle

Set handle type to Vector.

Auto Handle

Set handle type to Auto.

Auto Clamped Handle

Set handle type to Auto Clamped.

X / Y values

The x and y position of the current selected curve point.

Delete Points

Delete the current selected curve point.

Roughness

Amount of location dependent roughness.

Size

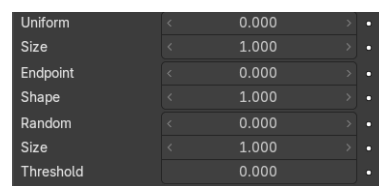
Size of location dependent roughness.

Uniform

“Rough End” randomizes path ends (a bit like random negative clumping). Shape may be varied from <1 (parabolic) to 10.0 (hyperbolic).

Size

It is based on children location so it varies the paths in a similar way when the children are near.



Uniform	<	0.000	>	•
Size	<	1.000	>	•
Endpoint	<	0.000	>	•
Shape	<	1.000	>	•
Random	<	0.000	>	•
Size	<	1.000	>	•
Threshold		0.000		•

Endpoint

“Rough End” randomizes path ends (a bit like random negative clumping). Shape may be varied from <1 (parabolic) to 10.0 (hyperbolic).

Shape

“Rough End” randomizes path ends (a bit like random negative clumping). Shape may be varied from <1 (parabolic) to 10.0 (hyperbolic).

Random

It is based on a random vector so it is not the same for nearby children. The threshold can be specified to apply this to only a part of children. This is useful for creating a few stray children that will not do what others do.

Size

It is based on a random vector so it is not the same for nearby children. The threshold can be specified to apply this to only a part of children. This is useful for creating a few stray children that will not do what others do.

Threshold

It is based on a random vector so it is not the same for nearby children. The threshold can be specified to apply this to only a part of children. This is useful for creating a few stray children that will not do what others do.

Children panel - Type Simple + Interpolated - Kink subpanel

With Kink you can rotate the children around the parent.

Kink Type

Nothing

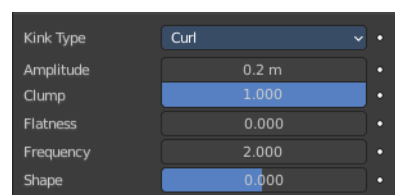
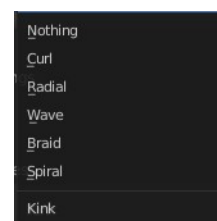
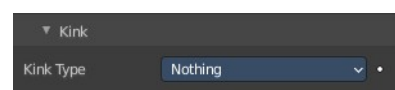
Deactivated.

Curl, Radial, Wave, Braid

Curl - Children grow in a spiral around the parent hairs.

Radial - Children form around the parent a wave shape that passes through the parent hair.

Wave - Children form a wave, all in the same direction.



Braid - Children braid themselves around the parent hair.

Amplitude

The amplitude of the offset.

Clump

How much clump effects kink amplitude.

Flatness

How flat the hairs are.

Frequency

The frequency of the offset (1/total length). The higher the frequency the more rotations are done.

Shape

Where the rotation starts (offset of rotation).

Spiral

Generates a spiral at the end of each hair.

Amplitude

The amplitude of the offset.

Randomize Amplitude

Give the amplitude a random variation.

Axis

Which axis to use for offset.

Randomize Axis

Randomize the orientation.

Frequency

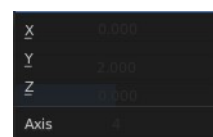
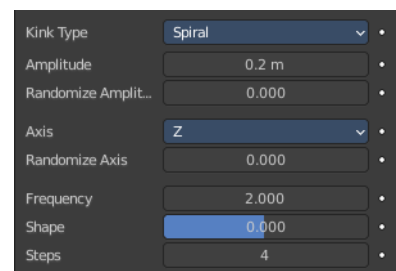
The frequency of the offset (1/total length). The higher the frequency the more rotations are done.

Shape

Where the rotation starts (offset of rotation).

Steps

Extra steps for resolution of special kink features.



Children panel - Type Interpolated

Children are emitted between the Parent particles on the faces of a mesh. They interpolate between adjacent parents. This is especially useful for fur, because you can achieve an even distribution. Some of the children can become virtual parents, which are influencing other particles nearby.

Display Amount

The number of children in the 3D Viewport.

Render Amount

The number of children to be rendered.

Length

Length of child paths.

Threshold

Amount of particles left untouched by child path length.

Seed

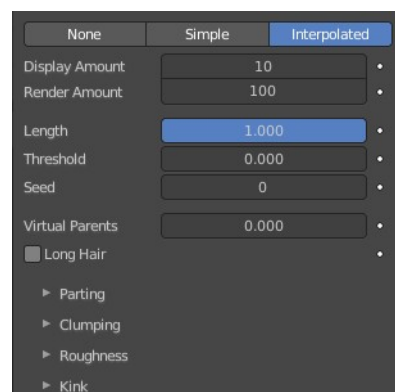
Offset in the random number table for child particles, to get a different randomized result.

Virtual Parents

Relative Amount of virtual parents.

Long Hair

Belongs to Hair particles. Calculate children that suit long hair well.

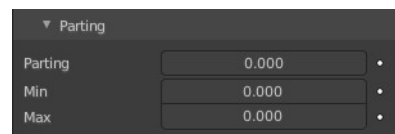


Children panel - Type Interpolated - Parting subpanel

This panel belongs to Hair particles.

Parting

Creates parting in the children based on parent strands.



Min

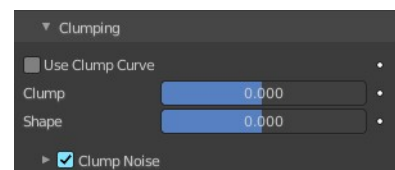
Minimum root to tip angle. Tip distance / root distance for long hair.

Max

Maximum root to tip angle. Tip distance / root distance for long hair.

Children panel - Type Interpolated - Clumping subpanel

Clumping allows as the name says to break the even look, and clump particles together.



Use Clump Curve

Use a Curve instead of parameters to adjust the clumping.



Adding Points

You can add new curve points by simply left clicking at the curve. Move the mouse to position them where you need it.

Selecting Points

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Selected points can be moved around. Left click at them, hold the mouse button down and move them to a new location.

Navigation elements

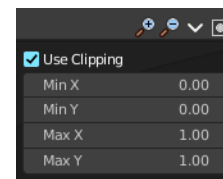
The navigation elements at the top are described from left to right.

Zoom in and out

The two buttons with the magnifying glass at it zooms in and out in the curve window.

Clipping

Clipping options. Set up clipping for the stroke.



Delete Points

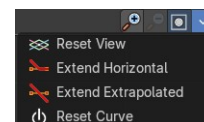
Deletes selected curve points.

Tools

Tools is a menu where you can find some curve related tools.

Reset View

Resets the curve windows zoom.



Extend horizontal

Extend the curve horizontally before the first and after the last curve point.

Extend vertical

Extend the curve vertically before the first and after the last curve point.

Reset Curve

Resets the curve to the initial shape.

Vector Handle

Set handle type to Vector.

Auto Handle

Set handle type to Auto.

Auto Clamped Handle

Set handle type to Auto Clamped.

X / Y values

The x and y position of the current selected curve point.

Delete Points

Delete the current selected curve point.

Clump

Clumping amount along child strands. The children may meet at their tip (1.0) or start together at their root (-1.0).

Shape

Form of Clump. Either inverse parabolic (0.99) or exponentially (-0.99).

Clump Noise subpanel

Creates random clumps around the parent hair.



Clump Noise Size

The size of clump noise.