

Noise Simplex

This page provides information about the Noise (Simplex) texture in V-Ray for Blender.

Overview

The Noise Simplex texture creates a Simplex procedural noise. Simplex noise is a method developed by Ken Perlin as a more efficient alternative to Perlin Noise. One of the main advantages of Simplex Noise over Perlin Noise is its scalability to higher dimensions while retaining speed and quality. See the [Reference](#) section for the full paper on Simplex Noise.

UI Path

[[Node Editor]] > **Add** > **Textures** > **Noise (Simplex)**

Node

Amplitude – Controls the amount of distortion in the noise. A value of 0 makes these a straight line.

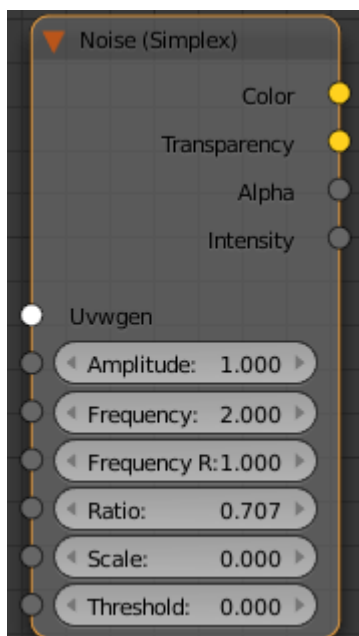
Frequency – Controls the the amount of Noise generated. Higher values create smaller, finer noise.

Frequency Ratio – Controls the amplitude ratio between two consecutive levels of the fractal noise. A value of 0 makes only the first noise level affect the result, and a value of 1 makes all noise levels affect the result with the same weight.

Ratio – Controls the fractal noise frequency.

Scale – Controls the translation for the noise UVW coordinates.

Threshold – Threshold value for the noise. Clamps all values going beyond the specified one.



Parameters

Alpha From Intensity – Specifies where to take the alpha from.

Bitmap alpha – This is the default setting. With this option selected, V-Ray renders the material the same on both sides.

Color intensity/luminance – Renders the backside of polygons as invisible for the camera.

Force opaque – Renders the backside of polygons as invisible to all rays, except shadow rays.

Compatibility – Allows you to match the result of the texture in Blender to that in either 3ds Max or Maya. If **Alpha From** is set to **Maya**:

3ds Max – The resulting alpha of the texture is the intensity of the texture.

Maya – The resulting alpha of the texture is the color luminescence.

Distortion Ratio –

Distortion U/V –

Gamma –

H – Specifies the height of the texture sector.

Invert – When enabled inverts the colors in final result.

Invert Alpha – Inverts the alpha channel if **Invert** is also enabled.

Jitter – The amount of random placement variation.

Noise Type –

Octaves – Controls the number of functions to use when calculating Perlin Noise.

Placement Type – Select how to place the texture.

Whole texture is valid

Crop

Place

Tile U/V – Enable to choose between a horizontal or vertical tiling.

U – U coordinate of the texture sector.

UV noise phase – Specifies the UV noise iterations.

UV noise amount – Specifies the UV noise amount.

Animate UV noise – If enabled, the noise is animated. Use the UV noise phase to animate the noise.

UV noise levels – Specifies the UV noise iterations.

UV noise on – Enables the noise.

UV noise size – Specifies the UV noise size.

V/W –

Node: Noise (Simplex)

Alpha From Intensity: Bitmap alpha

Compatibility With: Max

Distortion Ratio: 0.000

Distortion U: 0.000

Distortion V: 0.000

Gamma: 1.000

H: 1.000

☐ Invert

☒ Invert Alpha

Jitter: 0.000

Noise Type: 0

Octaves: 3

Placement Type: Whole texture is valid

☐ Tile U

☐ Tile V

U: 0.000

UV noise phase: 0.000

UV noise amount: 1.000

☐ Animate UV noise

UV noise levels: 1.000

☐ UV noise on

UV noise size: 1.000

V: 0.000

W: 1.000

Reference

[*] Ken Perlin, Noise hardware. In Real-Time Shading SIGGRAPH Course Notes (2001), Olano M., (Ed.). ([pdf](#))