6.2.2 Painting and Sculpting - Painting - Vertex Paint
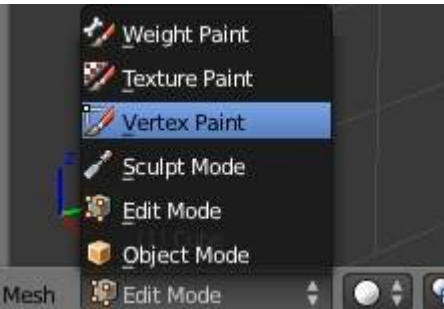
Vertex Paint

- Introduction
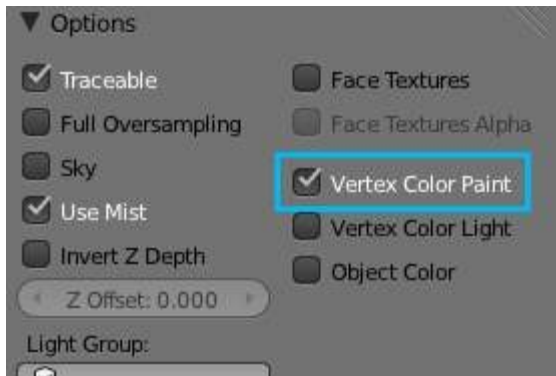   - Settings
    - Options

Introduction

Vertex Painting is a simple way of painting color onto an object, by directly manipulating the color of vertices, rather than textures, and is fairly straightforward.

When a vertex is painted, the color of the vertex is modified according to the rules of the 'brush'. The color of all visible planes and edges attached to the vertex are then modified with a gradient to the color of the other connected vertices. (Note that the color of non-visible faces are not modified).

Vertex colors can be painted by first going into Edit Mode, then switching to *Vertex Paint Mode*; however, it will not show up in the render unless you check "Vertex Color Paint" in the Materials *Options* Panel.
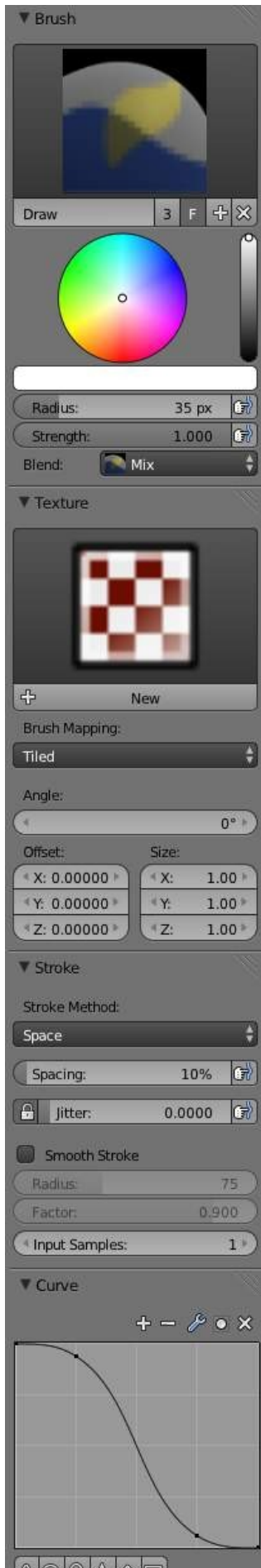

Vertex Painting Mode

Check this box

Settings

The Tools Shelf, shortcut T contains most of the options for vertex painting. The following sections describe the controls in each of the available panels.

▼ Brush

Draw | 3 | F | + | ✕

Radius: 35 px
Strength: 1.000
Blend: Mix

▼ Texture

+ New

Brush Mapping:
Tiled

Angle:
0°

Offset: | Size:
X: 0.00000 | X: 1.00
Y: 0.00000 | Y: 1.00
Z: 0.00000 | Z: 1.00

▼ Stroke

Stroke Method:
Space

Spacing: 10%
Jitter: 0.0000

Smooth Stroke
Radius: 75
Factor: 0.900
Input Samples: 1

▼ Curve

+ − 🔧 ● ✕

Settings for vertex painting
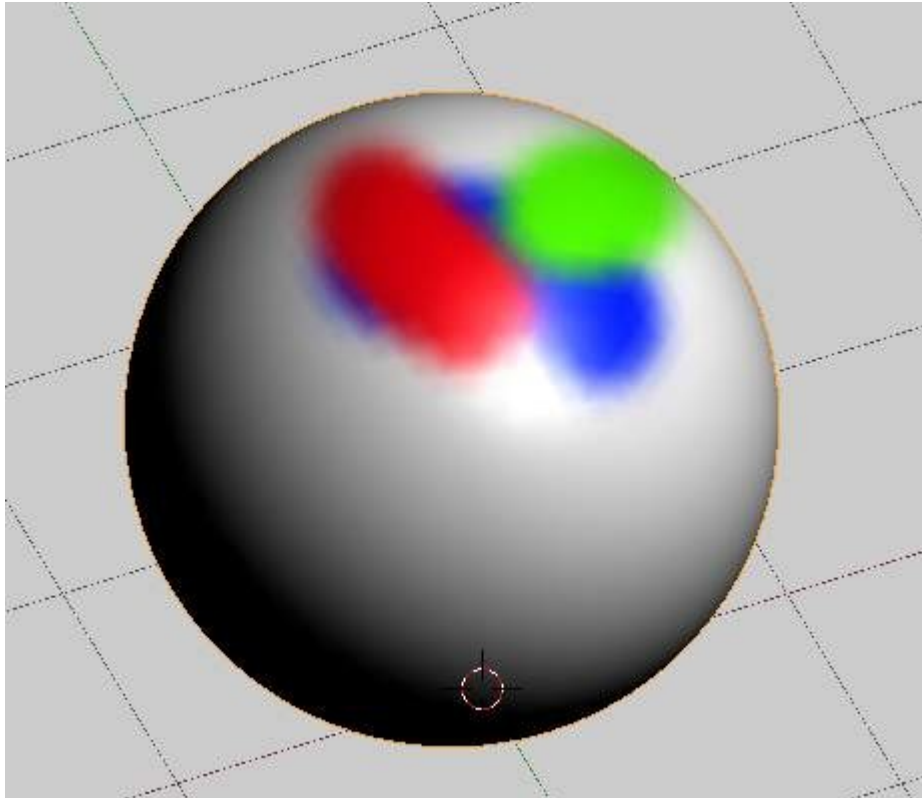
Brush

Brush Data-Block
> The image, name panel and color selector at the top allows you to select brush presets, rename brushes, as well as add custom brushes, and delete them.

Radius
> Set the radius of the brush

Strength
> Set the strength of the brush's effect.

Mix overlay with full strength

Blend menu

> **Mix**
>
> > Mixes RGB values. When set to a strength of 1.0, it will cover the underlying "paint".
>
> **Add**
>
> > Adds RGB values. Will eventually turn the entire object white as RGB values accumulate to 1.0-1.0-1.0: Pure White.
>
> **Subtract**
>
> > Subtracts RGB values. Usually results in Black.
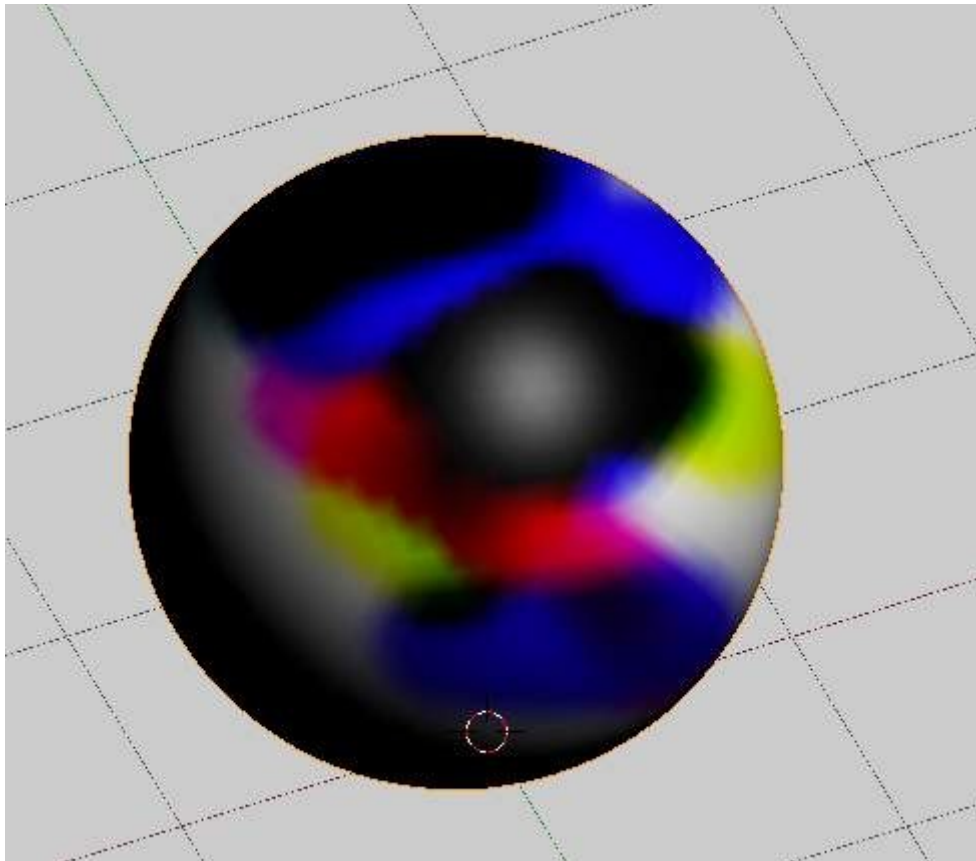>
> **Multiply**

Multiplies brush colors by the vertex colors.

Blur

Blurs vertex colors.

Lighten

Lightens the color of the vertices.

Subtract with full strength

Darken
Darkens the color of the vertices.

Texture

Use the texture selector at the bottom of the paint panel to select a pre-loaded image or procedural texture to use as your brush pattern. Note that in order to use it, you must have a placeholder material defined, and that particular texture defined using the Material and Texture buttons. It is not necessary to have that material or texture applied to any mesh anywhere; it must only be defined.

Brush Mapping Mode

Sets how the texture is applied to the brush

View Plane
In 2D painting, the texture moves with the brush

Tiled
> The texture is offset by the brush location

3D
> Same as tiled mode

Stencil
> Texture is applied only in borders of the stencil.

Random
> Random applying of texture.

Angle

This is the rotation angle of the texture brush. It can be changed interactively via `Ctrl-F` in the 3D view. While in the interactive rotation you can enter a value numerically as well. Can be set to:

User
> Directly input the angle value.

Rake
> Angle follows the direction of the brush stroke. Not available with *3D* textures.

Random
> Angle is randomized.

Offset
> Offset the texture in x, y, and z.

Size
> Set the scale of the texture in each axis.

Stroke

Stroke Method

Allows set the way applying strokes.

Airbrush

Flow of the brush continues as long as the mouse click is held, determined by the *Rate* setting. If disabled, the brush only modifies the color when the brush changes its location.

Rate
> Interval between paints for airbrush

Space

Creates brush stroke as a series of dots, whose spacing is determined by the *Spacing* setting.

Spacing
> Represents the percentage of the brush diameter. Limit brush application to the distance specified by spacing.

Dots
> Apply paint on each mouse move step

Jitter
> Jitter the position of the brush while painting

Smooth stroke

Brush lags behind mouse and follows a smoother path. When enabled, the following become active:

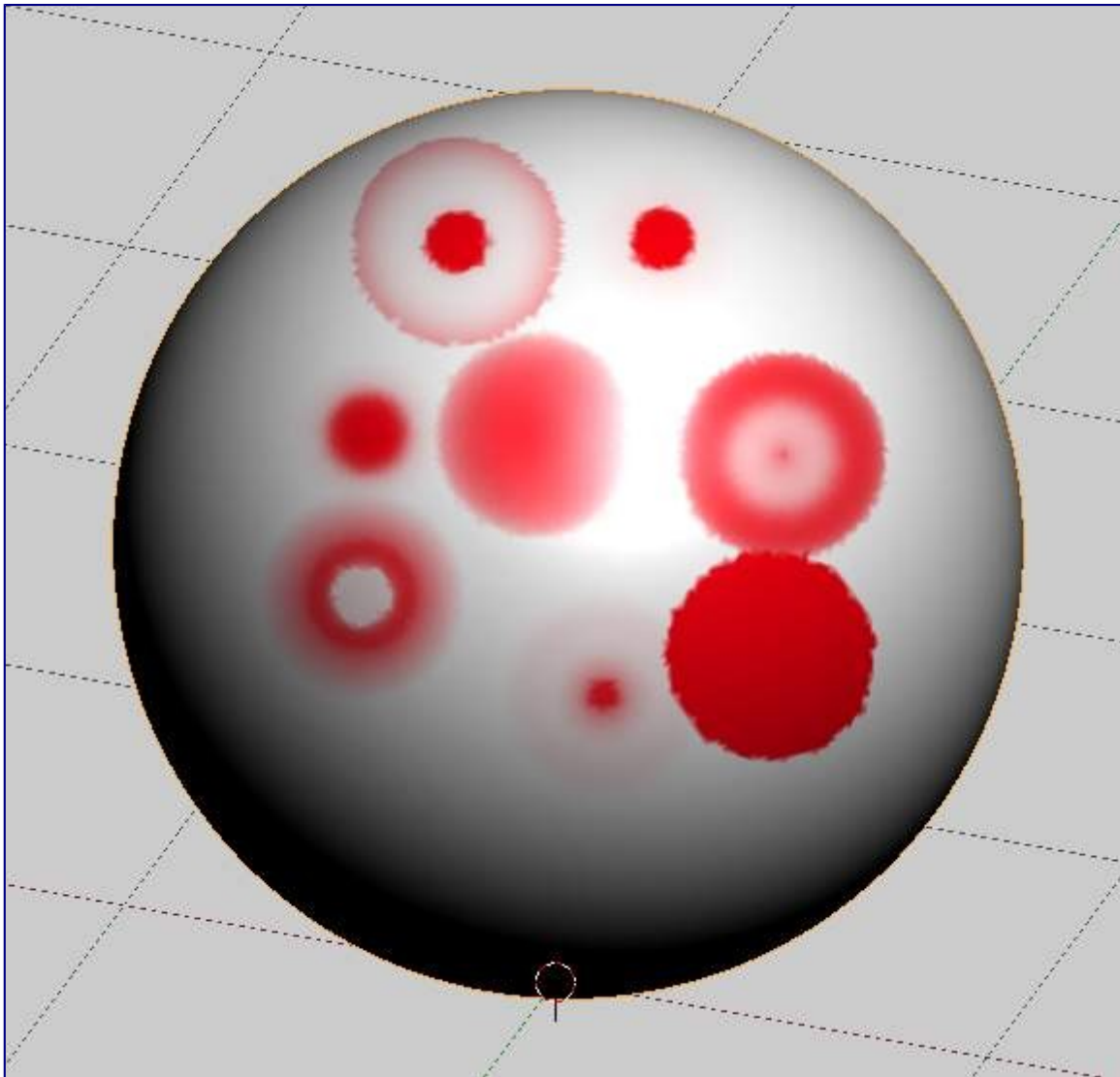**Radius**

Sets the minimun distance from the last point before stroke continues.

Factor

Sets the amount of smoothing.

Input Samples

Average multiple input samples together to smooth the brush stroke.

Various brush curves

Curve

Brush Curves affect how strongly the color is applied depending on distance from the center of the brush. In other words, they allow you to edit the Falloff of the brush intensity.

Options

Options for vertex painting

Overlay

Allows you to customize the display of curve and texture that applied to the brush.

Appearance

Allows you to customize the color of the brush radius outline, as well as specify a custom icon.

Options

Normals
> Applies the Vertex Normal before painting. This does not usually affect painting.

Spray
> Continues painting for as long as the mouse is held.

Unified Settings
> **Size**
>> All brushes use the same size.
>
> **Strength**
>> All brushes use the same strength.