The Bounty (YafaRay Fork) - SubSurface Scattering

Use The Bounty version 0.1.6 RC3.

Render Options (Wings3D Menu)

Lighting Tab > SubSurface Scattering (The scale of the Object affects the settings required)

Enabled: Enable to use SubSurface Scattering. A material with SSS must be applied to an object.

Photons: If the value of this setting is too low, the object will not show light scattering. If the object shows random spots of light, increase the value to a higher value. If good results are achieved, reduce the number until you find the optimum number of photons. Use as few photons as possible, since higher numbers will increase rendering times. (This setting affects the number of photons produced by lights in the scene and it also increases the number of photons that hit the object). Increasing the power setting of lights in your scene will increase the strength of SSS in materials.

Render of model posted by Patricia Barber at archibaseplanet.com.
**Scale:** The rendering scale of the object. Increasing this value reduces the amount of SSS, since a larger object will show less light scattering. (This setting changes the object scaling value in mm relative to a value of 1. A value of 30 sets 1 unit = 30mm). The scale of the Wings3D object will affect the settings you need to use. Smaller objects may require a larger value for scale.

![Scale set to value of 2.0](image1)
![Scale set to value of 5.0](image2)
![Scale set to value of 10.0](image3)

*Render of model posted by Patricia Barber at archibaseplanet.com.*

**Depth:** Controls the number of times photons are reflected. The default value of 15 should work.

**SingleScatter Samples:** Affects the quality of the SSS. The default value of 32 should give good results. Even much lower numbers will give good results.

![Render of model posted by 3d-Art at archibaseplanet.com. Marble Procedural Texture added.](image4)
Material Properties (Wings3D Menu) – Start by testing the default settings.

**IOR, Glossy Color, Diffuse Color, Specular Color:** Standard material properties.

**Absorption Color:** Sigma A value. (Absorption Coefficient)

**Absorption Distance:** A value of 3 should give good results. Higher numbers increase the depth that the light penetrates, resulting in a lighter material.


The Absorption Distance setting has a large affect on the appearance of the material, as shown in the following images. The size of the Wings3D object affects the setting you will use.

Translucency: Start with a value of 1.0.

![Translucency value 1.0](image1) ![Translucency value 0.5](image2) ![Translucency value 0.25](image3)

Scatter Color: Sigma S value. (Scattering Coefficient). Using white (1,1,1) will result in a material with a creamy pastel color.

![Green Scatter Color](image4) ![White (1,1,1) Scatter Color](image5)

SigmaS Factor: Leaving this value set to 1 should give good results. Smaller Wings3D objects may require a higher number. (Increase to a value greater than 1 to produce a scatter color larger than (1,1,1)). This setting is a multiplier for the Scatter Color value (SigmaS Factor * Scatter Color).

Diffuse Reflection, Glossy Reflection: Standard material properties.
**Exponent:** Increase this value, in combination with Glossy Reflection, to get a shiny surface. If using Spot Lights for light, the soft shadows option has to be disabled for shiny surfaces.