

Render Tips for SWF

Tips for Getting Good Flash Results in Amorphium Pro

Since Amorphium Pro is a complete the 3D modeling, animation, and render package, it has a lot of features designed for professional print, multimedia and even broadcast video. Features like full procedural texture maps, raytracing, multiple light sources, refractions, and reflections allow for realistic bitmap imagery at high resolutions. But rendering to Flash is much trickier because the imagery has to be converted into SWF, which is a limited 2D vector-based format. Because of this, many of the program's advanced bitmap features and realistic techniques will not necessarily translate well to the SWF format.

For instance, Flash is limited to having one color per vector shape and one color for the shape's outline. The color of the shape can have linear or radial gradient between two colors. That being said there are a few simple tricks and techniques to keep in mind that will make a huge difference in the quality of your Flash animations. The goal of this document is to outline these essential concepts and to help you take full advantage of Amorphium Pro's powerful rendering capabilities for Flash. The combination will allow you to create stunning vector imagery that could not be achieved in any other 3D program. Additionally, I'll show you some instances where it is better to actually incorporate bitmap images into Flash.

Now let's begin!

1. Creating and Surfacing Objects

Objects should be solid colors in order to work best in SWF. Whenever possible, it is best to avoid putting textures on your objects because for every surface color change, Amorphium Pro will have to create multiple vector shapes to simulate surface color and texture. This will cause much larger Flash files, longer render times and usually a less desirable result. If you want your object to have lots of surface textures and realistic bump maps, then it is probably better to render your object to a JPEG or PNG file, import it into flash and then save it as a SWF file.

For example: in **Figure 1**, you will see the alien head object rendered as a SWF vector file. If you zoom in on this file you will notice that it is trying to render the gradients for each texture change which looks kinda chunky with a less desirable result. And while Amorphium Pro may create low file sizes in SWF, the amount of gradients for these textures caused the file to be 412 kb, which is too large the Internet.





Figure 1

Now if we look at **Figure 2**, this is a bitmap render saved as a PNG file, then imported into a Flash, and then saved as a SWF file. It has the desired textured look and the result is only a size of 8 kb!!!



Figure 2

Amorphium Pro does offer a trick to creating multiple surface colors by using the "Boolean" tool. For example: if you have a solid blue box and you Boolean subtract it with a red ball, the part cut out of the box will be red and the outside of the box will still be blue. (**Figure 3**)

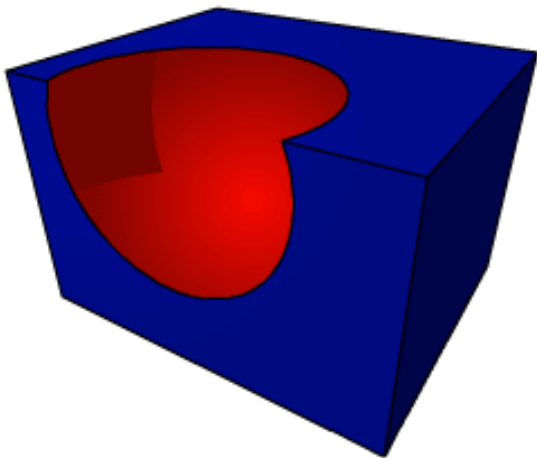


Figure 3

Here is another example: in **Figure 4**, this character head has facial features painted on the surface.

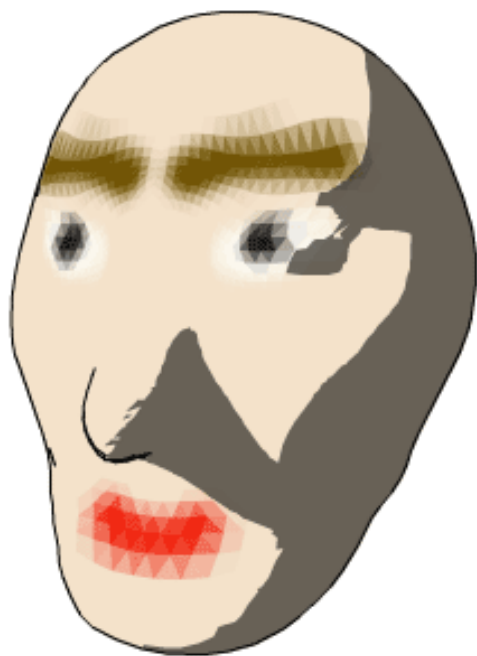


Figure 4

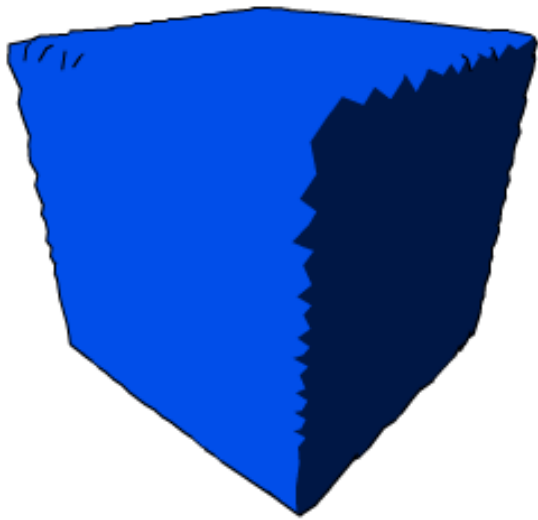
You can see where the vector-renderer is trying to blend the colors across the polygons (17kb), but in **Figure 5** the facial features are separate objects.



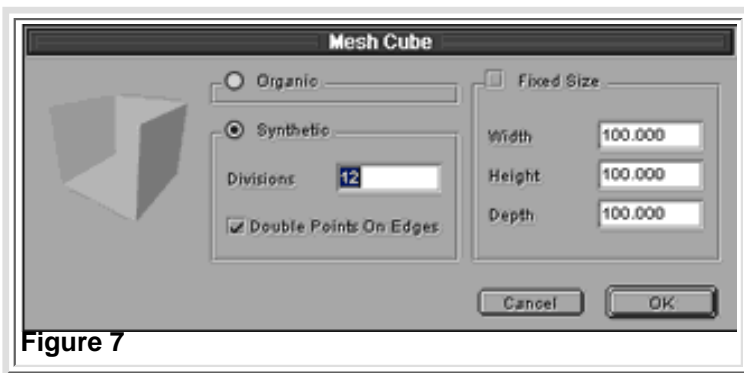
The eyes instead of being painted on the surface of the object, are four separate spheres. Two white spheres for the whites of the eyes, and two black spheres for the pupils. The eyebrows are elongated spheres painted a solid brown, and then were joined to the head object by using the Boolean Add tool. The mouth was made by creating a sphere then painting a solid red and then using a Boolean Subtract tool to cut the opening for the mouth (4 kb).

For every primitive object that Amorphium Pro can create, (sphere, cube, cone, etc.) there are two types, organic and synthetic. The default is organic. Now if you want create a hard edged box, organic is not the type you want, because with organic selected it will create a box that has rounded edges so that you can create organic shapes that box. **(Figure 6)**



**Figure 6**

To change this setting, so that you can create a hard edged box, right-click on the mesh cube icon in the tool palette. This will open the mesh cube options window, (**Figure 7**) then just click the circle next to synthetic.

**Figure 7**

Now when you create the box, it will have nice hard edges (**Figure 8**).

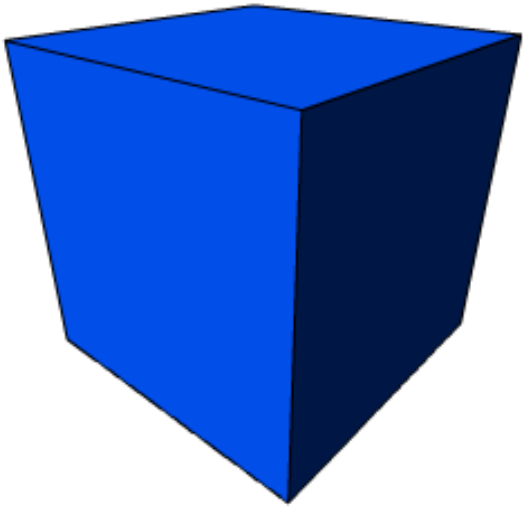


Figure 8

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