

Tutorial 8: Simple fogging effect in OSG

Francin Foping

`francin@netcourrier.com`

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Abstract

In the previous tutorial, we have learnt how to add textures to our objects, loading 3Ds models, create our custom geometry as well as achieving a multitexturing effect. Remember that I hinted that the capsule was BEHIND the quad, does not it? However, in order to properly illustrate that tenet, a depth cue is definitely needed. With the addition of a terrain, it is easy to navigate through the scene. This tutorial will guide through the process of adding the fog to your scene. Fog is a good depth cue. Its addition to the scene will greatly improve the realism. Because this tutorial is designed for beginners, I will only cover basic fogging effect. Volumetric fog will not be covered in this tutorial. Also it is possible to create the fog within a shader, I will tell you how in another tutorial. For now, fasten your belt.

1 Fogging in OSG

OpenSceneGraph provides you with a very nice and well written class that wraps the OpenGL `GL_FOG` functionality. Therefore, fog can be achieved by following these steps. I assume that you already know how `GL_FOG` works in OpenGL. So off we go!

1. Create a Fog object
2. Set its mode (linear or exponential)

3. Specifies its colour
4. Set its start and end distance
5. Create a StateSet object and bind the fog object to it
6. Attach that StateSet object to the root node of the scene and that is it!

2 Results

The final screenshot of the scene is as follow:



Figure 1: Our final scene

3 Do-it-yourself

1. Play with the different properties of the fog, for instance for an under-water effect, you may need to change its color to blue. You can also change its start distance and see what happens.