# SgtAtmosphere

This component allows you to draw a volumetric atmosphere. The atmosphere is rendered using two materials, one for the surface (inner), and one for the sky (outer). The outer part of the atmosphere is automatically generated by this component using the OuterMesh you specify. The inner part of the atmosphere is provided by you (e.g. a normal sphere GameObject), and is specified in the SgtSharedMaterial component that this component automatically adds.

## Color

The base color will be multiplied by this.

## Brightness

The Color.rgb values are multiplied by this, allowing you to quickly adjust the overall brightness.

## RenderQueue

This allows you to adjust the render queue of the atmosphere materials. You can normally adjust the render queue in the material settings, but since these materials are procedurally generated your changes will be lost.

## InnerDepthTex

The look up table associating optical depth with atmospheric color for the planet surface. The left side is used when the atmosphere is thin (e.g. center of the planet when looking from space). The right side is used when the atmosphere is thick (e.g. the horizon).

## InnerMeshRadius

The radius of the meshes set in the SgtSharedMaterial.

## OuterDepthTex

The look up table associating optical depth with atmospheric color for the planet sky. The left side is used when the atmosphere is thin (e.g. edge of the atmosphere when looking from space). The right side is used when the atmosphere is thick (e.g. the horizon).

## OuterMesh

This allows you to set the mesh used to render the atmosphere. This should be a sphere.

## OuterMeshRadius

This allows you to set the radius of the OuterMesh. If this is incorrectly set then the atmosphere will render incorrectly.

## Height

This allows you to set how high the atmosphere extends above the surface of the planet in local space.

## InnerFog

This allows you to adjust the fog level of the atmosphere on the surface.

## OuterFog

This allows you to adjust the fog level of the atmosphere in the sky.

## Sky

This allows you to control how thick the atmosphere is when the camera is inside its radius.

## CameraOffset

This allows you to offset the camera distance in world space when rendering the atmosphere, giving you fine control over the render order.

## Lit

If you enable this then nearby SgtLight and SgtShadow casters will be found and applied to the lighting calculations.

## LightingTex

The look up table associating light angle with surface color. The left side is used on the dark side, the middle is used on the horizon, and the right side is used on the light side.

## Scattering

If you enable this then light will scatter through the atmosphere. This means light entering the eye will come from all angles, especially around the light point.

## GroundScattering

If you enable this then atmospheric scattering will be applied to the surface material.

## ScatteringTex

The look up table associating light angle with scattering color. The left side is used on the dark side, the middle is used on the horizon, and the right side is used on the light side.

## ScatteringStrength

The scattering is multiplied by this value, allowing you to easily adjust the brightness of the effect.

## ScatteringMie

The mie scattering term, allowing you to adjust the distribution of front scattered light.

## ScatteringRayleigh

The mie rayleigh term, allowing you to adjust the distribution of front and back scattered light.