Orthographic Cameras

If you've tried using an orthographic camera in SGT you may have noticed graphical issues in certain circumstances. This is because many of the shaders (e.g. SgtAtmosphere) perform calculations based on the camera position, which means the graphical result will change based on camera distance, which isn't what we want. Since an orthographic camera is designed to render everything in the scene orthogonally to the camera's view direction, the only valid 'position' the camera can be said to be at is infinitely far away. This obviously can't be done using the camera's Transform.position values, but you can get close to this with some simple workarounds.

Step 1 - Move The Camera Back

If your camera is placed at 0,0,0 and looks down the Z axis, then you should move the camera back to something like 0,0,-1000

NOTE: The distance you want to move back should be based on the size of the visible parts of the scene, but you can easily go higher, just try not to go so high that you encounter floating point precision issues.

Step 2 - Adjust the Clipping Planes

If you've moved your camera back, you may notice all the objects in your scene disappear as they go out of camera view. To fix this simple adjust the camera's Clipping Planes → Near & Far values based on the distance you moved the camera back.

For example, if you moved your camera 1000 units backwards, then clipping plane distances of 900 & 1100 might be a good start. Make sure the values lie below and above the distance to the objects in your scene so they don't get clipped out.

Your scene should now be working correctly in orthographic cameras!

Just keep in mind that moving your camera back like this may require you to adjust settings or modify scripts to account for the distance change.