Drawing Orbit Paths

You can use the SgtSimpleOrbit component to make your planets orbit around, but what if you want to visualize the orbit with a line?

You can do this with the SgtRing component, and set the Inner & Outer Radius values to lie near the orbit distance of your planet. If your planet follows an elliptical shape then you can alter the scale of your ring GameObject.

Drawing With Gas Giants

If you try to draw lines through gas giants then you will notice they render incorrectly. This is because transparent objects must render either on top, or underneath one another. But in the case of orbit lines, both transparent objects are intersecting, so neither scenario is desirable.

One way to fix this issue is to treat the gas giant as a solid object. This can be done using the SgtDepth component, which you can add to any GameObject you like.

To make it work correctly, begin by finding the GameObjects used by your gas giant. These should be called ‘Model’ and be children of your gas giant gameObject.

Next, drag and drop these ‘Model’ GameObjects into your SgtDepth component’s Renderers list. This will cause all the added renderers to have their depth drawn.

Finally, you must make sure the render queues are in the correct order. For this to work correctly, your gas giant must be rendered first, followed by the depth, and finally the ring.

By default SgtJovian (gas giant) has a render queue of Transparent + 0 (3000) which you should leave alone.

By default SgtDepth has a render queue of Transparent + 1 (3001), which should be fine.

However, by default SgtRing has a render queue of Transparent + 0 (3000) which is lower than SgtDepth, so you need to increase this. The same goes for any other objects you want to intersect with the gas giant.

NOTE: This method produces solid boundaries between the intersecting transparent objects, so it may not look so good under all circumstances.