Terrain

This component handles the generation of terrain meshes used for planets and stars, giving you dynamic LOD as you approach the surface. An **SgtTerrain** is made up of 6 sides of a cube that are handled by the **SgtTerrainFace** component, that are then deformed into a sphere. This sphere can then be deformed by components like **SgtTerrainDisplacement** to give it detail. If you want to texture the terrain using offline data (e.g. Earth texture), then it's best to use 6 materials, one for each face of the cube (see: Creating Cube Textures.pdf). However, you can use just one material if your shader samples a cube map, or tiles a texture along each side.

Material

This allows you to set the base material applied to the whole terrain.

Atmosphere

If you want to apply an **Atmosphere** on top of your terrain, then drag and drop it here.

Targets

This allows you to set which transforms will be used as the LOD source, and cause the terrain to increase in detail as they approach the surface.

For example: This could be your main camera, or main player.

Radius

The base radius of the terrain in local coordinates.

NOTE: After deformation it's possible for this radius to be higher or lower than desired.

Subdivisions

This allows you to set detail of each terrain mesh.

Normals

This allows you to set the method used to calculate the terrain mesh normal data.

Normalized

This sets all the normals to normalized positions. This should be used if your terrain material uses a normal map that matches the terrain height data.

Hierarchical

This sets all the normals to be based on surrounding vertex positions. This should be used for procedural terrains.

Tangents

Should the terrain mesh have tangents written? Some shaders (e.g. with normal maps) require this.

Max Collider Depth

This allows you to set how detailed the generated Mesh Colliders can be. A value of 0 will give you no mesh colliders, whereas a value of 5 means mesh colliders can be generated up to 5 LOD levels deep.

Distances

This allows you to set the maximum LOD count, and the **Target** distance required for each level to become visible in local space. For example, if the distance is 10.0, then the **Target** transform must be within 10.0 terrain radii for this level to become visible.

Add Distance

This button will automatically add an extra LOD distance at half the last distance.