

# 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 material applied to all terrain patches.

NOTE: This can be overridden for each terrain patch.

## Atmosphere

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

## Bounds Offset

This allows you to offset the terrain mesh.bounds toward or away from the currently rendering camera. This is useful if your terrain also has another terrain acting as a transparent water layer, and you need to force them to render in a specific order without modifying the render queue.

## Target

This allows you to set which transform will be used as the LOD source. This should 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.

## Detail

This allows you to set the columns & rows in the first LOD stage, which the others will be based on.

## 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.