

# Terrain

This component handles the generation of terrain meshes used for planets and stars. An SgtTerrain is made up of 6 sides of a cube that are then deformed into a sphere. These 6 sides are handled by the SgtPatch component, and means that you should use 6 materials to display your SgtTerrain, one material for each base SgtPatch child component. However, you can use one material if you use the SgtTerrainCylindrical component.

## Material

This allows you to set the material applied to all terrain patches.

NOTE: This can be overridden for each terrain patch.

## Corona

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

## Resolution

This allows you to set how many quads will be used to construct a single terrain patch. A setting of 4 means the terrain patch will use 4x4 quads.

## Skirt Thickness

This allows you to set how thick the terrain edge skirts are. This technique is used to hide seams between terrain edges. Increase this setting if you see gaps between terrain patches.

## 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.

## Height

The height of the terrain displacement in local coordinates.

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

## Default Displacement

This allows you to set the default displacement of the height sampling. For example, if your Radius value is 10, and your height is 3, then a default displacement value of 0.5 means your terrain will have a default radius of 11.5.

## Default Color

This allows you to set the default vertex color of the SgtPatch meshes.

## Budget

This allows you to set how many seconds per frame this SgtTerrain can spend in LateUpdate.

## Delay Min

This allows you to set the minimum seconds between update calls for a single SgtPatch.

## Delay Max

This allows you to set the maximum seconds between update calls for a single SgtPatch (unless the Budget has been exceeded).

## Max Depth In Edit Mode

This allows you to set the amount of times the terrain patches can be split while running in edit mode.

## 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 your terrain can split up to 4 times while still retaining full collider detail.

## Split Distances

This allows you to set how many times the terrain can be split, and allows you to control the observer distance required for a **Terrain Patch** to split or merge. For example, if the first split distance is 10.0, then at least one observer must be within 10.0 planet radii for it to split into higher detail meshes.

## Add Split Distance

This button will automatically add an extra LOD depth.