Planet Shader

This shader can be used in place of the Standard shader to create impressive planets, but it has many more settings you need to understand.

NOTE: For best results this shader should be used with one of the **Geosphere__(Planet)** meshes inside the **Features/Planet/Examples** folder. These meshes contain additional UV data used by this shader to produce seamless detail textures.

Albedo (RGB) Smoothness (A)

This is the main texture, where the albedo color is stored in the RGB channels, and the PBR Smoothness is stored in the alpha channel.

This texture should use equirectangular (cylindrical) projection, and have Wrap Mode = Repeat on the U axis.

Normal Map

This is the normal map. This should match the albedo mapping.

Normal Map Scale

This allows you to dampen or strengthen the normal map effect.

Ice (R) Height (A)

This is the additional data map, where the ice mask is stored in the red channel, and the height is stored in the alpha channel.

For now, the AO map is stored in the green channel, and the slope map is stored in the blue channel, but these are currently unused.

Main Color

This allows you to tint the terrain color.

Metallic

This allows you to control the PBR metallic setting of the whole planet (usually 0).

Smoothness

This allows you control the PBR smoothness of the whole planet (usually 1).

Detail Map (RGB)

This allows you to control where the detail textures are applied, where the red channel is detail map A, the green channel is detail map B, and the blue channel is the transition to the planet poles. This should match the albedo mapping.

Detail Tiling

This allows you control the amount of times the detail textures are tiled along the surface.

Detail Map A

This allows you to set the first detail normal map.

Detail Scale A

The allows you to reduce or increase the normal map strength.

Detail Map B

This allows you to set the second detail normal map.

Detail Scale B

The allows you to reduce or increase the normal map strength.

Water

If you enable this then your planet will be given water.

Keep in mind this feature uses the terrain height, you must set the "Ice (R) Height (A)" texture with valid alpha.

Ice Over Water

If you want ice to always appear above water on your planet regardless of water level then you can enable this.

Keep in mind this feature uses the ice map, you must set the "Ice (R) Height (A)" texture with valid red.

Water Tiling

This allows you to set the amount of times the water normal map is tiled around the planet.

Water Level

This allows you to control the water level, where 0 is no water, and 1 is full water. You can set this higher than 1 because water is transparent and a value of 1 may still reveal some land.

Water Color

This allows you set the water color lookup table texture, where the left side is used along the shore, and the right side is used in the deep ocean.

Water Color Scale

This allows you to set how quickly the water color texture goes to the deep ocean color on the right side.

Water Normal Map

This allows you to set the normal used by the water.

Water Normal Scale

The allows you to reduce or increase the normal map strength.

Water Sharpness

This allows you to set how quickly the water hides the underwater terrain.

Water Metallic

This allows you to set the PBR metallic of the water (usually 0)

Water Smoothness

This allows you to set the PBR smoothness of the water (usually 1)

Water Emission

This allows you to set the brightness of the water. This is useful if you want lava to glow.