Point Starfield

This is the base class for billboard starfield components (e.g. SgtEllipticalStarfield, SgtNegulaStarfield).

These starfields can be rendered in the world, or in the background by adjusting the **Render Queue** and **Follow Cameras** settings.

Color

This allows you to tint the starfield color.

Brightness

The **Color**.RGB values get multiplied by this when written to the shader. This is useful in combination with HDR.

Render Queue

This allows you to set which render queue group the starfield will be placed in.

Render Queue Offset

This allows you to tweak the render queue position. For example, the Transparent render queue is 3000, so an offset of 5 will set the render queue to 3005.

Main Tex

This allows you to set the texture applied to all stars in the starfield. This can be a texture of a single star, or multiple stars.

Layout

This allows you to specify how the stars are laid out in the **Main Tex.**

Grid

This layout means each star in the Main Tex is laid out in a grid. For example, if you have 256x256 texture with a grid of 2x2 stars, each one is 128x128 pixels.

Layout Columns

The amount of star columns in the **Main Tex**.

Layout Rows

The amount of star rows in the **Main Tex**.

Custom

This allows you to manually set the rectangles defining the stars within your **Main Tex**.

Rects

Each rect defines one star variant.

Softness

This setting allows you to make the stars have soft edges when intersecting solid geometry. This is useful if you are creating dust clouds that need to intersect solid geometry (e.g. asteroids).

NOTE: To make particles intersect solid geometry the Render Queue of your starfield must be set to Transparent, or similar.

NOTE: Cameras don’t render depth textures by default, so this setting will not work correctly. To make them render depth textures, add the SgtDepthTextureMode component to your Camera(s), and set the DepthMode to either Depth, or DepthNormals.

Follow Cameras

This allows you to force the starfield to follow all cameras in the scene. This is useful for placing stars in the background, just make sure you also change the RenderQueue to **Background** if you do this.

Wrap

If you enable this, then all stars will wrap around the camera, creating an infinitely repeating starfield.

The wrapping is calculated using a box shape, so it's recommended you use this setting with the SgtBoxStarfield component if you want a seamless wrap, just make sure the **Wrap Size** matches the SgtBoxStarfield's **Extents** setting.

Wrap Size

This allows you to set the size of the wrapping area in local space. This size defines a box that is centered around the camera.

Fade Near

This setting causes stars to fade out if they get too close to the camera.

Fade Near Tex

This allows you to set the lookup table used to calculate the star opacity based on the camera distance.

The SgtStarfieldFadeNear component can be used to generate this.

Fade Near Radius

This allows you to set the camera distance at which particles will become invisible. This should be set to your camera's **Near Clipping Plane** distance, or similar.

Fade Near Thickness

This allows you to set the thickness of the fading region.

Fade Far

This setting causes stars to fade out if they get too far from the camera. This setting is mainly used with the **Wrap** setting, to hide the wrapping effect.

Fade Far Tex

This allows you to set the lookup table used to calculate the star opacity based on the camera distance.

The SgtStarfieldFadeFar component can be used to generate this.

Fade Far Radius

This allows you to set the camera distance at which particles will become invisible. This should be set to half of your **Wrap Size**'s shortest axis value, or similar. For example, if your **Wrap Size** is 500, 1000, 300, then a Far Fade Radius value of 150 would be ideal.

Fade Far Thickness

This allows you to set the thickness of the fading region.

Stretch

This setting causes the stars in the starfield to get stretched according to the velocity of the rendering camera. If you enable this then your stars may initially disappear, because your camera has no velocity by default, if if the camera moves then they should appear while moving.

NOTE: Each camera rendering this effect must have the SgtObserver component, which records velocity data.

Stretch Vector

This allows you to offset the stretching value of every star. This is useful if you want to manually control how the stretching looks.

Stretch Scale

This allows you to set how much an camera's velocity will change the stretching of each star. You can set this to 0 if you don't want any camera stretching.

Pulse

If you enable this, then the stars in the starfield will have an animated radius, causing them to pulse over time.

Pulse Offset

This allows you to set the current pulse offset value.

Pulse Speed

This allows you to set the speed at which the Pulse Offset setting changes.

[CONTEXT] Make Editable Copy

This option will create a new a new belt using the **Custom Belt** component, and fill it with all the asteroids generated in this component, but in a manually editable format.

[CONTEXT] Update Material

This option will force the starfield material and its settings to be updated.

NOTE: This should automatically get called when modifying values in the inspector.

[CONTEXT] Update Meshes and Models

This option will force the starfield meshes and models to be updated.

NOTE: This should automatically get called when modifying values in the inspector.