Camera Depth Flares

Light flares are billboards you place on top of light sources to show how bright they are. To make them seem extra bright you can render them on top of every other object, but for this to look good they must also slowly fade out if any solid objects get in the way.

This is normally done using raycasts, but raycasts are either solid or opaque, with nothing in between unless multiple raycasts are done, which can slow things down.

Camera depth flares allow you to make light flares that occlude based on the optical thickness between the rendering camera, and the light flare source. This is done by rendering the scene between the two points, and averaging the opacity of any occluding object.

Step 1 - Add a Depth Camera

Right click your Hierarchy window and select **Space Graphics Toolkit** → **Depth Camera**, your scene should now have a new Depth Flare GameObject.

Step 2 - Add a Light Flare

To add a basic light flare just add a child GameObject to your light source that has a **SpriteRenderer** with a flare sprite, and the **SgtBillboard** component.

NOTE: To make sure the light flare is ignored by the depth camera, change the layer to **Ignore Raycast**.

NOTE: To make the flare render on top of everything in the scene, use the **Billboard Overlay** material that comes with SGT.

NOTE: If you're using the floating origin system, you should use the **SgtFloatingBillboard** component for better performance.

Step 3 - Scale the Flare With Depth

To make the billboard change scale based on the depth camera from step 1, you need to add the **SgtDepthScale** component to your flare.

Step 4 - Done!

Your billboard now shrinks when any solid or transparent objects gets in the way.