Shaders In Build

The Space Graphics Toolkit comes with almost 150 shaders that are automatically switched between based on your component settings. For example: adding an atmosphere to your planet will change the shader applied to your planet's surface, and it will also add begin using the atmosphere shader. Because the shaders can be switched at any time, there is no automatic way to know which shaders your final build will use, so I had to place every shader in a **/Resources** directory (which will force the shaders to all be included in all of your builds).

This isn't an issue on desktops, but certain mobile (only Android?) devices experience extreme loading times when loading this many shaders. The Shader Builder allows you to move the shaders outside of **/Resources**, and to selectively include the ones you think you'll use in your game.

If you want to use this feature, then open the window by going to **Component/Space Graphics Toolkit/Shaders In Build**.

Note: Moving shaders out of the /Resources directory means that every project/build/scene using that install of Space Graphics Toolkit will be affected.

Include All Shaders

Note: By default, this button has already been pressed.
Note: Moving shaders between directories may take several minutes.

This button will move all shader files used by the Space Graphics Toolkit into a **/Resources** directory.

Sync Shaders

Note: Moving shaders between directories may take several minutes.

This button will move all marked shader files into a **/Resources** directory, and move unmarked shaders outside. You can mark/unmark the by modifying the options below.

Asteroid Ring

Enable this field if any of your scenes use the Asteroid Ring component.

Shadow

Set this field if any of the asteroid rings in your scene receive shadows (Have the Shadow field enabled).

Spin

Set this field if any of the asteroid rings in your scene have spinning asteroids (Have the Spin field enabled).

Corona

Enable this field if any of your scenes use the Corona component.

Cull Near

Set this field if any of the coronas in your scene have their near vertices/pixels hidden (Have the **Cull Near** field enabled).

Per Pixel

Set this field if any of the coronas in your scene use per-pixel falloff (Have the **Corona → Per Pixel** field enabled).

Ring

Set this field if any of the coronas in your scene are rings (Have the **Mesh → Type** field set to **Ring**).

Fog (Volumetric Probe)

Enable this field if any of your scenes use the Volumetric Probe component.

Gas Giant

Enable this field if any of your scenes use the Gas Giant component.

Planet Shadow

Set this field if any of the gas giants in your scene receive shadows cast from the Planet **Shadow → Caster → Type**.

Ring Shadow

Set this field if any of the gas giants in your scene receive shadows cast from the Ring **Shadow → Caster → Type**.

Planet

Enable this field if any of your scenes use the Planet component.

Atmosphere

Set this field if any of the planets in your scene have an atmosphere.

Scattering

Set this field if any of the planets in your scene use atmospheric scattering.

Normal

Set this field if any of the planets in your scene use normal mapping (Have the **Surface → Texture → Normal** field set).

Specular

Set this field if any of the planets in your scene use specular mapping (Have the **Surface → Texture → Specular** field set).

Planet Shadow

Set this field if any of the planets in your scene receive shadows cast from the Planet **Shadow → Caster → Type**.

Ring Shadow

Set this field if any of the planets in your scene receive shadows cast from the Ring **Shadow → Caster → Type**.

Detail

Set this field if any of the planets in your scene use detail mapping (Have the **Surface → Texture → Detail** field set).

Clouds

Set this field if any of the planets in your scene have a cloud layer (Have the Clouds option enabled).

Ring

Enable this field if any of your scenes use the Ring component.

Stretched

Set this field if any of the asteroid rings in your scene use stretched textures (Have the **Sliced → Tiled** field **Disabled**).

Shadow

Set this field if any of the rings in your scene receive shadows (Have the Shadow field enabled).

Lit

Set this field if any of the rings in your scene are lit (Have the Lit field enabled).

Scattering

Set this field if any of the rings in your scene scatter light (Have the Scattering field enabled).

Skysphere

Enable this field if any of your scenes use the Skysphere component.

Star

Enable this field if any of your scenes use the Star component.

Per Pixel

Set this field if any of the Stars in your scene use per-pixel optical depth (Have the **Atmosphere → Falloff → Per Pixel** field enabled).

Starfield

Enable this field if any of your scenes use the Starfield component.

Dust

Enable this field if any of your scenes use the Dust component.

Nebula

Enable this field if any of your scenes use the Nebula component.