What's new

Version 1.9.6.

Support for URP 15.0.6.

Version 1.96 adds support for URP 15.0.6. if you update the package using Unity 2023.1.5f1.

Changes and Fixes

- **Terrain Shader** fixed procedural texturing when switching the build platform to Android.

Version 1.9.

Support for URP 14.0.4.

Version 1.9 adds support for URP 14.0.4. if you update the package using Unity 2022.2 and implements Forward+ lighting, rendering layers*, LOD cross fading and DOTS instancing to all the HLSL shader. Shader graphs will be updated automatically by Unity.

URP 14.0.4. still handles fog on transparents in a very special way. So i added the new blend modes but tweaked them to make them more pleasant. *See the "Fog on Transparents" demo scene.*

* Rendering layers however seem to be broken in URP: Even using the built in Lit shader they seem to only work when using deferred.

Please note: You have to update the package using Unity 2022.2. to get the 14.0.4. shaders.

New nodes for Shader Graph

- **Fast top down projection** like used in the HLSL shader.
- **In shader tone mapping** locally or globally controlled using ACES, neutral tone mapping and custom settings like gamma, contrast and saturation
- **Standard lighting node** as it is needed by the in shader tone mapping
- **GPU instanced mesh particles** node.

Changes and Fixes

- **Skin Lighting node for Shader Graph** now lets you provide custom diffuse and specular normal samples as input enabling you to create some kind of simple wrinkle maps. *See the "Custom Shader Graphs Demo" for an example.*
- **Uber Shader GUI** fixed: It now lets you tweak the rendering queue again.
- **Terrain Mesh Blend shader** Altho marked as deprecated I had another quick look into this one and added some tweaks. The "Terrain Blend Depth Only" shader now does a full GBuffer pass when using deferred lighting while the "Terrain Blend" shader only

adds the blending around the intersection with the terrain. SSAO now looks nicer but the shader still breaks if depth priming is active. Only solution is to set it to Render Queue >= Transparent.

- **Lit Particles** are flagged as deprecated now as well as their per vertex shadows do not work with Forward+. Shaders will just fall back to per pixel shadows at least for all additional lights. So the tessellation shader only produces smooth shadows for the directional light.

- **Lux URP Grass TextureDisplace shader** has been removed from the "Lux SRP Grass Displacement" folder: The default grass shader has an option to apply grass displacement.

- **Tree creator shaders** As all shaders using URP 14.0.4. now support LOD cross fading we can use tree creator trees like speed trees using LOD groups. So i added a simple billboard shader which supports geometry billboards based on a cross. *Check out the "Tree Creator LOD Demo" if you are on URP 14.0.4. This gives you real time lit and shadow casting billboards.*

- **Simple procedural skybox shader** added which supports fog. *Example can be found in teh "URP12+ Demo" scene.*

- **Overall cleanup** which fixed missing pass names, srp batcher being broken and things like this.

URP 14.0.4. broken features

URP is evolving but some of its features just break… Following issues are caused by URP and are not related to Lux URP Essentials as far as i can say:

- **Rendering Layers** are totally broken unless you use deferred lighting.

- **Deferred and Decals** are broken when using the Decal Buffer.

- **Directional shadows** on forward rendered materials such as skin or cloth look pixelated when using deferred rendering: Using the Lit Complex shader i get the same results as on the skin shader e.g. (regression in URP 14.0.4).

- **Additional light shadows** on forward rendered materials do not get rendered at all when using deferred rendering:
  URP simply never defines `_ADDITIONAL_LIGHT_SHADOWS`

So if you do not plan to make heavy use of Forward+ or use deferred lighting anyway i recommend to stick with URP 12.1. or 13.1.8 for now.

Changes in older versions are tracked in the Changelog.txt only.