Khronos Announces glTF Geometry Compression Extension Using Google Draco Technology

BEAVERTON, OR, USA, February 15, 2018 /EINPresswire.com/ -- February 15, 2018 – Beaverton, OR – The Khronos™ Group, an open consortium of leading hardware and software companies creating advanced acceleration standards, announces the release of a geometry compression extension to glTF™ 2.0 using Google Draco technology to significantly reduce the size of glTF models and scenes. The Khronos glTF Draco extension specification is accompanied by optimized, open source compression and decompression libraries on the Draco GitHub site to enable the rapid deployment of glTF compressed geometry into tools, engines, applications, and browsers everywhere.

Draco is an open source library developed by Google for compressing and decompressing 3D geometric meshes, intended to improve the storage and transmission of 3D models. Draco was designed and built for high compression, efficiency, and speed. The code compresses vertex positions, connectivity information, texture coordinates, color information, normals, and any other generic attributes associated with geometry. With Draco, 3D applications and assets can be significantly smaller without compromising visual fidelity. For users, this means that apps, scenes and models can now be downloaded faster, 3D graphics in the browser can load quicker, and VR and AR scenes can now be transmitted using a fraction of the bandwidth.

The Draco extension to glTF enables creators to compress the mesh data within glTF files to dramatically reduce file size. In sample glTF models, up to 12X compression has been demonstrated with no change in visual fidelity. Smaller glTF files will enable an explosion in 3D file availability across devices and applications, even on slow networks.

The Draco open source libraries offer high-performance Google-provided JavaScript and C++ decoders, so that compressed files can be rendered in all major browsers, Android, iOS, and most other platforms. The glTF ecosystem using the Draco extension is set to grow rapidly, with forthcoming support in native 3D engines including the UX3D Engine and popular 3D web viewers including Three, Babylon, and Cesium.

The Draco team at Google is continuing to improve mesh compression ratios, decoder size and decode speed. The team is also investigating compression of animations and point clouds for inclusion into future glTF extensions. Current projects already incorporating Draco compressed glTF objects include glTF pipeline, FBX2glTF, the open-source version of AMD Compressonator, three.js, and glTF sample models. Check out the open source Draco code on GitHub and use the issue tracker to tell us about successes and feature requests.

Read more about glTF 2.0 here: https://www.khronos.org/gltf/.

For more information about The Khronos Group visit Khronos.org.

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