Think Silicon® releases GLOVE™, an OpenGL ES over Vulkan middleware as open source

Open source runtime translation of OpenGL ES and EGL API calls to Vulkan commands

TORONTO, ONTARIO, CANADA, August 1, 2018 /EINPresswire.com/ -- Think Silicon®, a leader in developing ultra-low power graphics IP technology, gladly announces the release of GLOVE™ (GL Over Vulkan®), as open source. GLOVE™ is a middleware, which allows developers for Android™, Linux® and Windows® operating systems to run seamlessly OpenGL® ES on supported hardware by translating at runtime OpenGL ES API calls to Vulkan API commands for that platform.

Over the years the increased complexity of the driver's implementation based on OpenGL and OpenGL ES, the most widely used standards for the development of graphics-based applications, led to the introduction of Vulkan, a lower-lever API that transfers much of the driver's functionality to the application-side. Since direct transition to Vulkan requires in many cases increased efforts, the developers and vendors are forced to maintain driver support for both Vulkan and OpenGL.

GLOVE™ bridges this gap by offering multiple benefits to developers and OS vendors. Developers have now the flexibility to seamlessly transition their software between these APIs, while vendors can discard duplicate OpenGL ES drivers and rely solely on a lighter implementation of the Vulkan API. Furthermore, GLOVE™ allows now to run OpenGL ES calls not only on Android and Linux systems, but also on Windows operating systems, which was not possible before.

GLOVE™ offers the possibility to run legacy applications

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> *Dimitris Georgakakis, Team Lead, Graphics Software Stack, Think Silicon*

and games on top of Vulkan at a glance. This saves a lot of effort and provides backwards compatibility. It also gives the room to quickly explore Vulkan driver capabilities and performance by using existing OpenGL ES code.

"We are excited to release GLOVE™ as Open Source Project to the graphics developer community and we will continue our efforts to support more platforms and features to ensure GLOVE™ can be useful in a lot of use cases" said Dimitris Georgakakis, Team Lead, Graphics Software Stack, Think Silicon."

The software has been designed towards facilitating developers to easily build and integrate new features, allowing at the same time its further extension, portability and interoperability. The modular design can be easily extended to encompass implementations of other client APIs as well. GLOVE™ is considered as a work-in-progress and is open-sourced under the LGPL v3 license through which it is provided as free software with unlimited use for educational and research

purposes. GLOVE™ is available for download from https://github.com/Think-Silicon/GLOVE where you may find more information about this middleware.

Future planned extensions of GLOVE™ include the broader support for desktop and safety critical OpenGL applications. Currently, Think Silicon® is cooperating with the University of Thessaly, ORama|VR and the Foundation for Research and Technology – Hellas (FORTH) within the frame of the VipGPU project aiming at extending GLOVE™ for compute purposes.

About Think Silicon®:

Think Silicon S.A. is a privately held Limited Company located in: Patras/ Greece (HQ), Toronto/ Canada (Business Development & Marketing office), San Jose/CA, USA (Sales office), Cologne, Germany/EMEA region (Sales office), Taipei/TW (Sales office), Tokyo/JP (Sales office). Think Silicon® is specialized in developing and licensing high-performance graphics and AI IP technology for ultra-low power and area limited digital mobile, wearable, embedded devices and IoT end-nodes for fabless semiconductor technology customers.

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