VMware Plumbing OpenGL 4.x Support For The VMWGFX Graphics Stack

VMware's VMWGFX open-source Linux graphics driver stack for interfacing with their virtualization software to offer guest VM 3D acceleration that is in turn handled by the host's drivers will soon be offering OpenGL 4.x support.

It's been a while since last having any big news to share on the VMWGFX stack either for their Linux kernel DRM or Mesa Gallium3D code. But they've been busy working on all of the bits necessary to implement for being able to handle OpenGL 4.0 support.

VMware's Roland Scheidegger on Friday sent out a patch series providing the necessary kernel-side bits for OpenGL 4 functionality with their Direct Rendering Manager driver. Various new commands and other capabilities were required for allowing their OpenGL driver to move beyond OpenGL 3.3.

Erik Faye-Lund: Introducing OpenCL® and OpenGL® on DirectX

For the last few months, we have been working on two exciting new projects at Collabora, and it's finally time to share some information about them with the world:

We are partnering with Microsoft DirectX engineers to build OpenCL and OpenGL mapping layers, in order to bring OpenCL 1.2 and OpenGL 3.3 support to all Windows and DirectX 12 enabled devices out there!

This work builds on a lot of previous work. First and foremost, we are building this by using Mesa 3D, with the Gallium interface as the base for the OpenGL layer, and NIR as the base for the OpenCL compiler. We are also using LLVM and the SPIRV-LLVM-Translator from...
Khronos as the compiler front-end.

- **Collabora partnered with Microsoft to get OpenGL and OpenCL on DirectX** [4]

  A very interesting use of open source in action here from the incredibly smart team over at Collabora who teamed up with Microsoft engineers to get OpenGL and OpenCL via DirectX.

  Why is this interesting? Well, they're doing it by using the open source Mesa drivers. It's pretty darn clever, and shows just how far translation layers are being used industry-wide. Once this is all implemented, it means that any device that supports DirectX 12 would also work with (and actually be compliant) with OpenGL 3.3 and OpenCL 1.2.

- **Microsoft + Collabora Working To Map OpenGL/OpenCL Over DirectX 12** [5]

  Microsoft and Collabora are today announcing a partnership for building OpenCL and OpenGL mapping layers over DirectX (D3D12).

  The focus is on providing OpenCL 1.2 and OpenGL 3.3 support for all Windows builds on DirectX 12 enabled devices.