VKMS Improvements

Earlier setting up the mode (screen resolution, color depth, and refresh rate) for display screen was done through userspace programs, thus exposing system calls and breaking up while changing different modes. In order to configure the mode setting, the dri-devel community developed the Kernel Mode Setting (KMS) code, and API. Virtual Kernel Mode Setting(VKMS) is a newly added device driver in the Linux Kernel that provides virtual KMS implementation for headless systems and DRM test coverage. It will be valuable for running X or Wayland on a headless machine enabling the use of GPU. At the moment that VKMS gets mature enough, it will be used to run i-g-t test cases and to automate userspace testing. In this talk, Shayenne and Mamta will talk about a journey of how they started contributing in Linux Kernel and later ended up debugging and adding features for VKMS driver. They will also explain how VKMS fits in the workflow of a graphics pipeline and also share their experiences as newcomers in the community. Shayenne Moura worked to solve bugs related to vblank issues (VKMS was not synchronized with vblank timestamps) and add i-g-t tests to verify well working, while Mamta contributed to add features like alpha blending and support for overlay planes in this virtual driver. Also, she would like to highlight some more applications of VKMS.

Code of Conduct

Yes

GSoC, EVoC or Outreachy

Yes

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