

Nouveau

The overdue Status update

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Reliable Open-Source driver for Nvidia GPUs

- Modesetting support for Turing in 5.1
- Atomic modesetting support
- Reverse Prime improvements

- added in mesa 19.1
- required for OpenCL, Vulkan and GL 4.6 support
- can be tested with `NV50_PROG_USE_NIR = 1`

Updates - OpenCL

- added in mesa 19.3 for Fermi and newer
- can be enabled with `NOUVEAU_ENABLE_CL = 1`
- still a lot to do
- fixing OpenCL CTS fails

Updates - "Staffing"

- No big change in paid developers
- Intern at RH working on a Nouveau Shader cache

Updates - community members

- Big thanks to Ilia for his ongoing contributions!
- No new "core" developers
- Most old ones moved to other projects
- No big contributions from others *sadface*

- Getting firmware for acceleration needs time
- No firmware for Power Management yet

- It's improving
- Some published documentation: <https://github.com/NVIDIA/open-gpu-doc>
- tagr contributes Tegra code
- Random patches from others as well

- Pass Khronos CTS for exposing OpenGL 4.4+
- Improving Performance
- Building a CI system
- OpenCL support
- OpenGL on Volta and Turing

- Fixing runpm
- Device hot unplugging (eGPU)

Important tasks - userspace

- Fixing multithreading
- Vulkan driver
- Context recovery
- Debugging features

How to help

- Own hardware with bugs running Nouveau and fix those
- Be interested and motivated
- GSoC/EVoC (for students)

How to help - Good entry level tasks

- Compiler opts
- Making use of GPU GPIOs
- Fixing Fan controlling (we have the docs for that)

- IRC Channel on freenode: `#nouveau`
- Mailing list: <https://lists.freedesktop.org/mailman/listinfo/nouveau>
- Trello Board: <https://trello.com/b/ZudRDiTL/nouveau>
- GSoC/EVoC project ideas: <https://www.x.org/wiki/SummerOfCodeIdeas/>