Linux Graphics info

Older Linux distros used to come with the "Intel" Xserver driver. This driver is known as xserver-xorg-video-intel in the Ubuntu repo. This driver works with the i915 kernel module to enable the X server, which previously handled all of the video output as well as user input in Linux. It's still in use on many, probably most, Linux desktops now (mine included), but it's showing its age, and the goal is for it to be replaced by Wayland, the next generation graphics subsystem. Some people use it now, but it's a work in progress.

The "Intel" X driver uses its own acceleration methods, with the most advanced being SNA, for Sandy Bridge's New Acceleration (showing how old it is), and forms the graphic stack along with the X server and OpenGL (which is a free software equivalent of Direct3d in Windows).

Newer Ubuntu-based distros do not come with the "Intel" X driver installed on newer hardware, though it is still available in the repo. For newer hardware, the preferred X driver is the "modesetting" driver, which is built into the kernel itself. Like the "Intel" X driver, it uses the i915 kernel module. It also uses another open-source Intel driver for Mesa, the open-source graphics library that handles things like OpenGL and Vulkan. That driver has long been the i965 driver that is included as part of Mesa. What this means is that if you are using the "modesetting" driver for Intel graphics, you are actually using the i915 driver for the kernel end, the modesetting driver (that is part of the kernel) for X or Wayland, and the i965 driver for Mesa, which implements the graphics APIs like OpenGL.

https://www.askwoody.com/forums/topic/mesa-20-arrives-good-news-for-intel-graphics-users-on-linux/

```
sudo vi /etc/modprobe.d/i915.conf
```

```
options i915 enable_guc=0 enable_fbc=1 enable_dc=0 enable_dp_mst=1
#options i915 enable_dc=1 enable_guc=2
#enable_fbc = enable frame buffer compression reduces power consumption
#enable_dp_mst = 1 enable DisplayPort MST (Multi-Stream Transport) for
multi-monitor support
#enable_guc = 2
#enable_dc = 1
```

```
sudo update-initramfs -u
sudo update-grub
sudo reboot
```

From:
http://wuff.dyndns.org/ - **Wulf's Various Things**

Permanent link:
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