

Graphics and sound

Graphics

I upgraded my system to Debian 6.0 (Squeeze), and the X died. every time I boot the machine, the system freezes after starting the gdm(GNOME Display Manager), leaves me a blank screen. I say freeze because I cannot even ssh to it, or if I am fast enough I can establish a ssh connection to the system between the time the system starting up and gdm starting, but as soon as gdm starts, my connected terminal also freezes.

Here is the story how I fixed it.

First Boot using previous working kernel (Which X also fails but fortunately the system does not freeze.)
Figure out my graphic card type

```
# lspci -v |grep VGA
```

My output was

```
ATI Technologies Inc M98L [Mobility Radeon HD 4850] ...
```

Goggling and found this <http://wiki.debian.org/ATIProprietary> page, following the Squeeze section's instruction. for memorize I copy them (with some small modifications) here:

1. Add a "non-free" component to /etc/apt/sources.list, for example:

```
deb http://ftp.us.debian.org/debian squeeze main contrib non-free
```

2. Update the list of available packages, then install the relevant linux-headers, fglrx-control and fglrx-driver packages:

```
# aptitude update
# aptitude install linux-headers-2.6-$(uname -r | sed 's,.*,') fglrx-control fglrx-driver
```

This will also install fglrx-glx, fglrx-modules-dkms and other recommended packages. DKMS will build the fglrx module for your system.

3. If the X Window System is running, exit your desktop environment or window manager. If a display manager is in operation, switch to a virtual console and stop it. For example:

```
# invoke-rc.d gdm stop
```

or

```
# invoke-rc.d kdm stop
```

4. Unload the radeon and drm modules:

```
# modprobe -r radeon drm
```

5. Create or amend /etc/X11/xorg.conf to include a Device section and request use of the fglrx driver:

```
# sensible-editor /etc/X11/xorg.conf
```

or

```
# vi /etc/X11/xorg.conf
```

A minimal /etc/X11/xorg.conf example is shown below:

```
Section "Device"
    Identifier "ATI"
    Driver     "fglrx"
EndSection

Section "Screen"
    Identifier "Default Screen"
    DefaultDepth 24
EndSection
```

6. Start the X Window System (startx) as a regular user, or start your display manager. For example:

```
# invoke-rc.d gdm start
```

or

```
# invoke-rc.d kdm start
```

Sounds

The camera and speaker work out of box after the update, but the microphone does not work. I test the microphone by the Sound recorder application under Sound & Video category.

By the way maybe you don't know where the microphone is for a iMac 27". On the top side of the screen, above the camera, you may find some very tiny holes. There it is!

[This](#) and [this](#) post on ubuntu forum helped me out.

Actually the mic did work but it is muffled.

Sum them up:

1. Install "PulseAudio Device Chooser"

```
# apt-get install paman
```

```
# apt-get install padevchooser
```

2. Start it from

```
Application -> Sound & Video -> PulseAudio Device Chooser
```

Then you will find an icon shows in your system tray on the top right of your screen.

3. Adjust the mic volume
- Click on the icon in the upper-right corner
 - Choose Manager... -> Tab "Devices" -> In the tree "Sources" -> alsa_input.pci-0000_00_08.0.analog-stereo Internal Audio Stereo -> Button "Properties".
 - Set the Volume to above 300% (the 100% value was too low, that is the reason why I feel the mic does NOT work.)
 - Close. Well done.
4. Add a option to kernel (I am not quite sure if this is needed)

```
# echo "options snd-hda-intel model=mbp55" >> /etc/modprobe.d/alsa-base.conf
```

5. Restart