

# Install Ubuntu / Linux on a Packard Bell EasyNote MX37

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<http://www.bortzmeyer.org/packard-bell-mx37.html>

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I installed the operating system Ubuntu on a Packard-Bell EasyNote MX37 (<http://www.packardbell.fr/products/ordinateur-portable/easynote-mx/productgroup-631-788.html>) laptop machine. This article is to share the information that I obtained during the process.

While the basic functions are OK, there are problems. As often with laptops, especially very recent machines, a lot of things do not work, or do not work out of the box.

I hope I used only free software but I did not check thoroughly the licences.

This machine has the following hardware and, for each one, I indicate if it worked out of the box, or after manipulations :

- SiS 191 Gigabit Ethernet network controller. Works out of the box. Tested at 100 Mb/s.
- SiS 771/671 PCIE graphics card. Works out of the box at low resolution and at full resolution after a lot of tweaking. When upgrading to version "Lucid Lynx" of Ubuntu, it was quite a pain (see later).
- Atheros AR242x 802.11abg Wireless controller. Not tested. Ubuntu warned it had to load a non-free driver for it.
- SIS966 "Azalia" Realtek ALC660-VD sound card. Works fine but only after manual configuration.
- An internal CD/DVD reader/writer. Not tested.
- Power management system. Not tested.
- PCMCIA. Not tested yet.
- USB controller. Works OK.

The X11 resolution problem took a long time. For the X11 server to work at 1280x768, I choosed the "Configure" option when Ubuntu claims it cannot drive at a better resolution. This produces a working `xorg.conf` (en ligne sur <http://www.bortzmeyer.org/files/manouchian-xorg.conf>).

When upgrading to Ubuntu "Lucid Lynx", the screen was completely unusable, even for the console (recovery mode, terminal), slashed with jagged lines. Booting on an older kernel solved this issue but, unfortunately, it also made the X server freezes immediately. I had to reinstall from scratch (that is why

it is a good idea to make backups before an upgrade and/or to have /home on a separate partition) and, after that, the same kernel worked fine. X started but the only available resolution was 800x600.

The solution I used for that is described in "How to install SiS 771/671 Mirage 3 Video Drivers in ubuntu 10.04 (Lucid) (<http://www.ubuntugeek.com/how-to-install-sis-771671-mirage-3-video-drivers.html>)". I followed them religiously, except that I used ssh to avoid typing commands blindly. Besides these instructions, I also had to edit `xorg.conf` and change the driver line to `Driver "sis671"`. After that, the machine was again able to run its screen at 1280x800 and the console was OK.

For the sound card to work, I used the Ubuntu documentation in french ([http://doc.ubuntu-fr.org/audio\\_intel\\_hda](http://doc.ubuntu-fr.org/audio_intel_hda)). Basically, I just had to add this line :

```
options snd-hda-intel model=lenovo
```

at the end of the configuration file `/etc/modprobe.d/alsa-base` and to reboot. The difficult thing was to find it!

Here are some details about the machine, as seen by Linux. First, the hardware as seen by `lspci` :

```
00:00.0 Host bridge: Silicon Integrated Systems [SiS] 671MX
00:01.0 PCI bridge: Silicon Integrated Systems [SiS] SiS AGP Port (virtual PCI-to-PCI bridge)
00:02.0 ISA bridge: Silicon Integrated Systems [SiS] SiS968 [MuTIOL Media IO] (rev 01)
00:02.5 IDE interface: Silicon Integrated Systems [SiS] 5513 [IDE] (rev 01)
00:03.0 USB Controller: Silicon Integrated Systems [SiS] USB 1.1 Controller (rev 0f)
00:03.1 USB Controller: Silicon Integrated Systems [SiS] USB 1.1 Controller (rev 0f)
00:03.3 USB Controller: Silicon Integrated Systems [SiS] USB 2.0 Controller
00:04.0 Ethernet controller: Silicon Integrated Systems [SiS] 191 Gigabit Ethernet Adapter (rev 02)
00:05.0 IDE interface: Silicon Integrated Systems [SiS] SATA Controller / IDE mode (rev 03)
00:06.0 PCI bridge: Silicon Integrated Systems [SiS] PCI-to-PCI bridge
00:07.0 PCI bridge: Silicon Integrated Systems [SiS] PCI-to-PCI bridge
00:0f.0 Audio device: Silicon Integrated Systems [SiS] Azalia Audio Controller
01:00.0 VGA compatible controller: Silicon Integrated Systems [SiS] 771/671 PCIE VGA Display Adapter (rev 10)
02:00.0 Ethernet controller: Atheros Communications Inc. AR242x 802.11abg Wireless PCI Express Adapter (rev 01)
```

And the CPU information (yes, laptops have dual core, now). Do note that Ubuntu's installed kernel has no problems with SMP :

```
processor      : 0
vendor_id     : GenuineIntel
cpu family    : 6
model         : 15
model name    : Intel(R) Pentium(R) Dual CPU T2330 @ 1.60GHz
stepping     : 13
cpu MHz       : 800.000
cache size   : 1024 KB
physical id   : 0
siblings     : 2
core id      : 0
cpu cores    : 2
fdiv_bug     : no
hlt_bug     : no
f00f_bug    : no
coma_bug    : no
fpu         : yes
fpu_exception : yes
```

```

cpuid level      : 10
wp              : yes
flags           : fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov      pat pse36 clflush dts acpi m
bogomips        : 3201.04
clflush size    : 64

processor        : 1
vendor_id       : GenuineIntel
cpu family      : 6
model           : 15
model name      : Intel(R) Pentium(R) Dual CPU T2330 @ 1.60GHz
stepping        : 13
cpu MHz         : 800.000
cache size      : 1024 KB
physical id     : 0
siblings        : 2
core id         : 1
cpu cores       : 2
fdiv_bug        : no
hlt_bug         : no
f00f_bug        : no
coma_bug        : no
fpu             : yes
fpu_exception   : yes
cpuid level     : 10
wp              : yes
flags           : fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov      pat pse36 clflush dts acpi m
bogomips        : 3199.10
clflush size    : 64

```

### The X11 messages :

This is a pre-release version of the X server from The X.Org Foundation.  
It is not supported in any way.  
Bugs may be filed in the bugzilla at <http://bugs.freedesktop.org/>.  
Select the "xorg" product for bugs you find in this release.  
Before reporting bugs in pre-release versions please check the  
latest version in the X.Org Foundation git repository.  
See <http://wiki.x.org/wiki/GitPage> for git access instructions.

```

X.Org X Server 1.4.0.90
Release Date: 5 September 2007
X Protocol Version 11, Revision 0
Build Operating System: Linux Ubuntu (xorg-server 2:1.4.1~git20080131-1ubuntu9.2)
Current Operating System: Linux manouchian 2.6.24-19-generic #1 SMP Wed Aug 20 22:56:21 UTC 2008 i686
Build Date: 13 June 2008 01:08:21AM

```

```

Before reporting problems, check http://wiki.x.org
to make sure that you have the latest version.
Module Loader present
Markers: (--) probed, (**) from config file, (==) default setting,
(++) from command line, (!!) notice, (II) informational,
(WW) warning, (EE) error, (NI) not implemented, (??) unknown.
(==) Log file: "/var/log/Xorg.0.log", Time: Mon Sep 15 20:02:15 2008
(==) Using config file: "/etc/X11/xorg.conf"
(==) ServerLayout "Default Layout"
(**) |-->Screen "Default Screen" (0)
(**) |   |-->Monitor "Configured Monitor"
(**) |   |-->Device "Configured Video Device"
(**) |-->Input Device "Synaptics Touchpad"
(==) Automatically adding devices
(==) Automatically enabling devices
(==) No FontPath specified. Using compiled-in default.
(WW) The directory "/usr/share/fonts/X11/cyrillic" does not exist.

```

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<http://www.bortzmeyer.org/packard-bell-mx37.html>

```

Entry deleted from font path.
(==) FontPath set to:
/usr/share/fonts/X11/misc,
/usr/share/fonts/X11/100dpi:unscaled,
/usr/share/fonts/X11/75dpi:unscaled,
/usr/share/fonts/X11/Type1,
/usr/share/fonts/X11/100dpi,
/usr/share/fonts/X11/75dpi,
/var/lib/defoma/x-ttcidfont-conf.d/dirs/TrueType
(==) RgbPath set to "/etc/X11/rgb"
(==) ModulePath set to "/usr/lib/xorg/modules"
(==) |-->Input Device "Configured Mouse"
(==) |-->Input Device "Generic Keyboard"
(==) The core pointer device wasn't specified explicitly in the layout.
Using the first mouse device.
(==) The core keyboard device wasn't specified explicitly in the layout.
Using the first keyboard device.
(II) Open ACPI successful (/var/run/acpid.socket)
(II) Loader magic: 0x81dc500
(II) Module ABI versions:
X.Org ANSI C Emulation: 0.3
X.Org Video Driver: 2.0
X.Org XInput driver : 2.0
X.Org Server Extension : 0.3
X.Org Font Renderer : 0.5
(II) Loader running on linux
(II) LoadModule: "pcidata"
(II) Loading /usr/lib/xorg/modules//libpcidata.so
(II) Module pcidata: vendor="X.Org Foundation"
compiled for 1.4.0.90, module version = 1.0.0
ABI class: X.Org Video Driver, version 2.0
(++) using VT number 7

(II) PCI: PCI scan (all values are in hex)
(II) PCI: 00:00:0: chip 1039,0671 card 1631,c10b rev 00 class 06,00,00 hdr 00
(II) PCI: 00:01:0: chip 1039,0003 card 0000,0000 rev 00 class 06,04,00 hdr 01
(II) PCI: 00:02:0: chip 1039,0968 card 1631,c10b rev 01 class 06,01,00 hdr 80
(II) PCI: 00:02:5: chip 1039,5513 card 1631,c10b rev 01 class 01,01,80 hdr 00
(II) PCI: 00:03:0: chip 1039,7001 card 1631,c10b rev 0f class 0c,03,10 hdr 80
(II) PCI: 00:03:1: chip 1039,7001 card 1631,c10b rev 0f class 0c,03,10 hdr 00
(II) PCI: 00:03:3: chip 1039,7002 card 1631,c10b rev 00 class 0c,03,20 hdr 00
(II) PCI: 00:04:0: chip 1039,0191 card 1631,c10b rev 02 class 02,00,00 hdr 00
(II) PCI: 00:05:0: chip 1039,1183 card 1631,c10b rev 03 class 01,01,85 hdr 00
(II) PCI: 00:06:0: chip 1039,000a card 0000,0000 rev 00 class 06,04,00 hdr 01
(II) PCI: 00:07:0: chip 1039,000a card 0000,0000 rev 00 class 06,04,00 hdr 01
(II) PCI: 00:0f:0: chip 1039,7502 card 1631,c10b rev 00 class 04,03,00 hdr 00
(II) PCI: 01:00:0: chip 1039,6351 card 1631,c10b rev 10 class 03,00,00 hdr 00
(II) PCI: 02:00:0: chip 168c,001c card 1a3b,1026 rev 01 class 02,00,00 hdr 00
(II) PCI: End of PCI scan
(II) Host-to-PCI bridge:
(II) Bus 0: bridge is at (0:0:0), (0,0,3), BCTRL: 0x0008 (VGA_EN is set)
(II) Bus 0 I/O range:
[0] -1 0 0x00000000 - 0x0000ffff (0x10000) IX[B]
(II) Bus 0 non-prefetchable memory range:
[0] -1 0 0x00000000 - 0xffffffff (0x0) MX[B]
(II) Bus 0 prefetchable memory range:
[0] -1 0 0x00000000 - 0xffffffff (0x0) MX[B]
(II) PCI-to-PCI bridge:
(II) Bus 1: bridge is at (0:1:0), (0,1,1), BCTRL: 0x001b (VGA_EN is set)
(II) Bus 1 I/O range:
[0] -1 0 0x0000d000 - 0x0000dfff (0x1000) IX[B]
(II) Bus 1 non-prefetchable memory range:
[0] -1 0 0xfde00000 - 0xfdefffff (0x100000) MX[B]
(II) Bus 1 prefetchable memory range:
[0] -1 0 0xc0000000 - 0xcfffffff (0x10000000) MX[B]
(II) PCI-to-ISA bridge:
(II) Bus -1: bridge is at (0:2:0), (0,-1,-1), BCTRL: 0x0008 (VGA_EN is set)
(II) PCI-to-PCI bridge:
(II) Bus 2: bridge is at (0:6:0), (0,2,2), BCTRL: 0x0003 (VGA_EN is cleared)

```

```
(II) Bus 2 non-prefetchable memory range:
[0] -1 0 0xfdf00000 - 0xfdf00000 (0x100000) MX[B]
(II) PCI-to-PCI bridge:
(II) Bus 3: bridge is at (0:7:0), (0,3,5), BCTRL: 0x0003 (VGA_EN is cleared)
(II) Bus 3 I/O range:
[0] -1 0 0x0000e000 - 0x0000efff (0x1000) IX[B]
(II) Bus 3 non-prefetchable memory range:
[0] -1 0 0xfe000000 - 0xfebfffff (0xc00000) MX[B]
(II) Bus 3 prefetchable memory range:
[0] -1 0 0xde000000 - 0xdfffffff (0x2000000) MX[B]
(-- PCI:* (1:0:0) Silicon Integrated Systems [SiS] 771/671 PCIE VGA Display Adapter rev 16, Mem @ 0xc0000000/28,
(II) Addressable bus resource ranges are
[0] -1 0 0x00000000 - 0xffffffff (0x0) MX[B]
[1] -1 0 0x00000000 - 0x0000ffff (0x10000) IX[B]
(II) OS-reported resource ranges:
[0] -1 0 0x00100000 - 0x3fffffff (0x3ff00000) MX[B]E(B)
[1] -1 0 0x000f0000 - 0x000fffff (0x10000) MX[B]
[2] -1 0 0x000c0000 - 0x000effff (0x30000) MX[B]
[3] -1 0 0x00000000 - 0x0009ffff (0xa0000) MX[B]
[4] -1 0 0x0000ffff - 0x0000ffff (0x1) IX[B]
[5] -1 0 0x00000000 - 0x000000ff (0x100) IX[B]
(II) PCI Memory resource overlap reduced 0xf0000000 from 0xf7ffffff to 0xefffffff
(II) Active PCI resource ranges:
[0] -1 0 0xfddf4000 - 0xfddf7fff (0x4000) MX[B]
[1] -1 0 0xfddfcc00 - 0xfddfcc7f (0x80) MX[B]
[2] -1 0 0xfddfd000 - 0xfddfdfff (0x1000) MX[B]
[3] -1 0 0xfddfe000 - 0xfddfefff (0x1000) MX[B]
[4] -1 0 0xfddff000 - 0xfddfffff (0x1000) MX[B]
[5] -1 0 0xf0000000 - 0xefffffff (0x0) MX[B]O
[6] -1 0 0xfdee0000 - 0xfdefffff (0x20000) MX[B] (B)
[7] -1 0 0xc0000000 - 0xcfffffff (0x10000000) MX[B] (B)
[8] -1 0 0x0000b400 - 0x0000b47f (0x80) IX[B]
[9] -1 0 0x0000b800 - 0x0000b80f (0x10) IX[B]
[10] -1 0 0x0000bc00 - 0x0000bc03 (0x4) IX[B]
[11] -1 0 0x0000c000 - 0x0000c007 (0x8) IX[B]
[12] -1 0 0x0000c400 - 0x0000c403 (0x4) IX[B]
[13] -1 0 0x0000c800 - 0x0000c807 (0x8) IX[B]
[14] -1 0 0x0000cc00 - 0x0000cc7f (0x80) IX[B]
[15] -1 0 0x0000ffe0 - 0x0000ffef (0x10) IX[B]
[16] -1 0 0x000001f0 - 0x000001f0 (0x1) IX[B]
[17] -1 0 0x000001f0 - 0x000001f7 (0x8) IX[B]
[18] -1 0 0x000001f0 - 0x000001f0 (0x1) IX[B]
[19] -1 0 0x000001f0 - 0x000001f7 (0x8) IX[B]
[20] -1 0 0x0000dc00 - 0x0000dc7f (0x80) IX[B] (B)
(II) Inactive PCI resource ranges:
[0] -1 0 0xfdff0000 - 0xfdffffff (0x10000) MX[B]
(II) Active PCI resource ranges after removing overlaps:
[0] -1 0 0xfddf4000 - 0xfddf7fff (0x4000) MX[B]
[1] -1 0 0xfddfcc00 - 0xfddfcc7f (0x80) MX[B]
[2] -1 0 0xfddfd000 - 0xfddfdfff (0x1000) MX[B]
[3] -1 0 0xfddfe000 - 0xfddfefff (0x1000) MX[B]
[4] -1 0 0xfddff000 - 0xfddfffff (0x1000) MX[B]
[5] -1 0 0xf0000000 - 0xefffffff (0x0) MX[B]O
[6] -1 0 0xfdee0000 - 0xfdefffff (0x20000) MX[B] (B)
[7] -1 0 0xc0000000 - 0xcfffffff (0x10000000) MX[B] (B)
[8] -1 0 0x0000b400 - 0x0000b47f (0x80) IX[B]
[9] -1 0 0x0000b800 - 0x0000b80f (0x10) IX[B]
[10] -1 0 0x0000bc00 - 0x0000bc03 (0x4) IX[B]
[11] -1 0 0x0000c000 - 0x0000c007 (0x8) IX[B]
[12] -1 0 0x0000c400 - 0x0000c403 (0x4) IX[B]
[13] -1 0 0x0000c800 - 0x0000c807 (0x8) IX[B]
[14] -1 0 0x0000cc00 - 0x0000cc7f (0x80) IX[B]
[15] -1 0 0x0000ffe0 - 0x0000ffef (0x10) IX[B]
[16] -1 0 0x000001f0 - 0x000001f0 (0x1) IX[B]
[17] -1 0 0x000001f0 - 0x000001f7 (0x8) IX[B]
[18] -1 0 0x000001f0 - 0x000001f0 (0x1) IX[B]
[19] -1 0 0x000001f0 - 0x000001f7 (0x8) IX[B]
[20] -1 0 0x0000dc00 - 0x0000dc7f (0x80) IX[B] (B)
(II) Inactive PCI resource ranges after removing overlaps:
```

```
[0] -1 0 0xfdf00000 - 0xfdf00000 (0x10000) MX[B]
(II) OS-reported resource ranges after removing overlaps with PCI:
[0] -1 0 0x00100000 - 0x3fffffff (0x3ff00000) MX[B]E(B)
[1] -1 0 0x000f0000 - 0x000fffff (0x10000) MX[B]
[2] -1 0 0x000c0000 - 0x000effff (0x30000) MX[B]
[3] -1 0 0x00000000 - 0x0009ffff (0xa0000) MX[B]
[4] -1 0 0x0000ffff - 0x0000ffff (0x1) IX[B]
[5] -1 0 0x00000000 - 0x000000ff (0x100) IX[B]
(II) All system resource ranges:
[0] -1 0 0x00100000 - 0x3fffffff (0x3ff00000) MX[B]E(B)
[1] -1 0 0x000f0000 - 0x000fffff (0x10000) MX[B]
[2] -1 0 0x000c0000 - 0x000effff (0x30000) MX[B]
[3] -1 0 0x00000000 - 0x0009ffff (0xa0000) MX[B]
[4] -1 0 0xfddf4000 - 0xfddf7fff (0x4000) MX[B]
[5] -1 0 0xfddfcc00 - 0xfddfcc7f (0x80) MX[B]
[6] -1 0 0xfddfd000 - 0xfddfdfff (0x1000) MX[B]
[7] -1 0 0xfddfe000 - 0xfddfefff (0x1000) MX[B]
[8] -1 0 0xfddff000 - 0xfddfffff (0x1000) MX[B]
[9] -1 0 0xf0000000 - 0xefffffff (0x0) MX[B]O
[10] -1 0 0xfdee0000 - 0xfdefffff (0x20000) MX[B](B)
[11] -1 0 0xc0000000 - 0xcfffffff (0x10000000) MX[B](B)
[12] -1 0 0xfdf00000 - 0xfdf00000 (0x10000) MX[B]
[13] -1 0 0x0000ffff - 0x0000ffff (0x1) IX[B]
[14] -1 0 0x00000000 - 0x000000ff (0x100) IX[B]
[15] -1 0 0x0000b400 - 0x0000b47f (0x80) IX[B]
[16] -1 0 0x0000b800 - 0x0000b80f (0x10) IX[B]
[17] -1 0 0x0000bc00 - 0x0000bc03 (0x4) IX[B]
[18] -1 0 0x0000c000 - 0x0000c007 (0x8) IX[B]
[19] -1 0 0x0000c400 - 0x0000c403 (0x4) IX[B]
[20] -1 0 0x0000c800 - 0x0000c807 (0x8) IX[B]
[21] -1 0 0x0000cc00 - 0x0000cc7f (0x80) IX[B]
[22] -1 0 0x0000ffe0 - 0x0000ffef (0x10) IX[B]
[23] -1 0 0x000001f0 - 0x000001f0 (0x1) IX[B]
[24] -1 0 0x000001f0 - 0x000001f7 (0x8) IX[B]
[25] -1 0 0x000001f0 - 0x000001f0 (0x1) IX[B]
[26] -1 0 0x000001f0 - 0x000001f7 (0x8) IX[B]
[27] -1 0 0x0000dc00 - 0x0000dc7f (0x80) IX[B](B)
(II) "extmod" will be loaded by default.
(II) "dbe" will be loaded by default.
(II) "glx" will be loaded. This was enabled by default and also specified in the config file.
(II) "freetype" will be loaded by default.
(II) "record" will be loaded by default.
(II) "dri" will be loaded by default.
(II) LoadModule: "glx"
(II) Loading /usr/lib/xorg/modules/extensions//libglx.so
(II) Module glx: vendor="X.Org Foundation"
compiled for 1.4.0.90, module version = 1.0.0
ABI class: X.Org Server Extension, version 0.3
(==) AIGLX enabled
(II) Loading extension GLX
(II) LoadModule: "v4l"
(II) Loading /usr/lib/xorg/modules/drivers//v4l_drv.so
(II) Module v4l: vendor="X.Org Foundation"
compiled for 1.4.0, module version = 0.1.1
ABI class: X.Org Video Driver, version 2.0
(II) LoadModule: "extmod"
(II) Loading /usr/lib/xorg/modules/extensions//libextmod.so
(II) Module extmod: vendor="X.Org Foundation"
compiled for 1.4.0.90, module version = 1.0.0
Module class: X.Org Server Extension
ABI class: X.Org Server Extension, version 0.3
(II) Loading extension SHAPE
(II) Loading extension MIT-SUNDRY-NONSTANDARD
(II) Loading extension BIG-REQUESTS
(II) Loading extension SYNC
(II) Loading extension MIT-SCREEN-SAVER
(II) Loading extension XC-MISC
(II) Loading extension XFree86-VidModeExtension
(II) Loading extension XFree86-Misc
```

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```
(II) Loading extension XFree86-DGA
(II) Loading extension DPMS
(II) Loading extension TOG-CUP
(II) Loading extension Extended-Visual-Information
(II) Loading extension XVideo
(II) Loading extension XVideo-MotionCompensation
(II) Loading extension X-Resource
(II) LoadModule: "dbe"
(II) Loading /usr/lib/xorg/modules/extensions//libdbe.so
(II) Module dbe: vendor="X.Org Foundation"
compiled for 1.4.0.90, module version = 1.0.0
Module class: X.Org Server Extension
ABI class: X.Org Server Extension, version 0.3
(II) Loading extension DOUBLE-BUFFER
(II) LoadModule: "freetype"
(II) Loading /usr/lib/xorg/modules//fonts/libfreetype.so
(II) Module freetype: vendor="X.Org Foundation & the After X-TT Project"
compiled for 1.4.0.90, module version = 2.1.0
Module class: X.Org Font Renderer
ABI class: X.Org Font Renderer, version 0.5
(II) Loading font FreeType
(II) LoadModule: "record"
(II) Loading /usr/lib/xorg/modules/extensions//librecord.so
(II) Module record: vendor="X.Org Foundation"
compiled for 1.4.0.90, module version = 1.13.0
Module class: X.Org Server Extension
ABI class: X.Org Server Extension, version 0.3
(II) Loading extension RECORD
(II) LoadModule: "dri"
(II) Loading /usr/lib/xorg/modules/extensions//libdri.so
(II) Module dri: vendor="X.Org Foundation"
compiled for 1.4.0.90, module version = 1.0.0
ABI class: X.Org Server Extension, version 0.3
(II) Loading extension XFree86-DRI
(II) LoadModule: "vesa"
(II) Loading /usr/lib/xorg/modules/drivers//vesa_drv.so
(II) Module vesa: vendor="X.Org Foundation"
compiled for 1.4.0.90, module version = 1.3.0
Module class: X.Org Video Driver
ABI class: X.Org Video Driver, version 2.0
(II) LoadModule: "synaptics"
(II) Loading /usr/lib/xorg/modules/input//synaptics_drv.so
(II) Module synaptics: vendor="X.Org Foundation"
compiled for 4.3.99.902, module version = 1.0.0
Module class: X.Org XInput Driver
ABI class: X.Org XInput driver, version 2.0
(II) LoadModule: "mouse"
(II) Loading /usr/lib/xorg/modules/input//mouse_drv.so
(II) Module mouse: vendor="X.Org Foundation"
compiled for 1.4.0, module version = 1.2.3
Module class: X.Org XInput Driver
ABI class: X.Org XInput driver, version 2.0
(II) LoadModule: "kbd"
(II) Loading /usr/lib/xorg/modules/input//kbd_drv.so
(II) Module kbd: vendor="X.Org Foundation"
compiled for 1.4.0, module version = 1.2.2
Module class: X.Org XInput Driver
ABI class: X.Org XInput driver, version 2.0
(II) v4l driver for Video4Linux
(II) VESA: driver for VESA chipsets: vesa
(II) Primary Device is: PCI 01:00:0
(--) Chipset vesa found
(II) resource ranges after xf86ClaimFixedResources() call:
[0] -1 0 0x00100000 - 0x3fffffff (0x3ff00000) MX[B]E(B)
[1] -1 0 0x000f0000 - 0x000fffff (0x10000) MX[B]
[2] -1 0 0x000c0000 - 0x000effff (0x30000) MX[B]
[3] -1 0 0x00000000 - 0x0009ffff (0xa0000) MX[B]
[4] -1 0 0xfddf4000 - 0xfddf7fff (0x4000) MX[B]
[5] -1 0 0xfddfcc00 - 0xfddfcc7f (0x80) MX[B]
```

```
[6] -1 0 0xfddfd000 - 0xfddfdfff (0x1000) MX[B]
[7] -1 0 0xfddfe000 - 0xfddfefff (0x1000) MX[B]
[8] -1 0 0xfddff000 - 0xfddfffff (0x1000) MX[B]
[9] -1 0 0xf0000000 - 0xefffffff (0x0) MX[B]O
[10] -1 0 0xfdee0000 - 0xfdefffff (0x20000) MX[B] (B)
[11] -1 0 0xc0000000 - 0xcfffffff (0x10000000) MX[B] (B)
[12] -1 0 0xfdf00000 - 0xfdf0ffff (0x10000) MX[B]
[13] -1 0 0x0000ffff - 0x0000ffff (0x1) IX[B]
[14] -1 0 0x00000000 - 0x000000ff (0x100) IX[B]
[15] -1 0 0x0000b400 - 0x0000b47f (0x80) IX[B]
[16] -1 0 0x0000b800 - 0x0000b80f (0x10) IX[B]
[17] -1 0 0x0000bc00 - 0x0000bc03 (0x4) IX[B]
[18] -1 0 0x0000c000 - 0x0000c007 (0x8) IX[B]
[19] -1 0 0x0000c400 - 0x0000c403 (0x4) IX[B]
[20] -1 0 0x0000c800 - 0x0000c807 (0x8) IX[B]
[21] -1 0 0x0000cc00 - 0x0000cc7f (0x80) IX[B]
[22] -1 0 0x0000ffe0 - 0x0000ffef (0x10) IX[B]
[23] -1 0 0x000001f0 - 0x000001f0 (0x1) IX[B]
[24] -1 0 0x000001f0 - 0x000001f7 (0x8) IX[B]
[25] -1 0 0x000001f0 - 0x000001f0 (0x1) IX[B]
[26] -1 0 0x000001f0 - 0x000001f7 (0x8) IX[B]
[27] -1 0 0x0000dc00 - 0x0000dc7f (0x80) IX[B] (B)
```

(II) resource ranges after probing:

```
[0] -1 0 0x00100000 - 0x3fffffff (0x3ff00000) MX[B]E(B)
[1] -1 0 0x000f0000 - 0x000fffff (0x10000) MX[B]
[2] -1 0 0x000c0000 - 0x000effff (0x30000) MX[B]
[3] -1 0 0x00000000 - 0x0009ffff (0xa0000) MX[B]
[4] -1 0 0xfddf4000 - 0xfddf7fff (0x4000) MX[B]
[5] -1 0 0xfddf0000 - 0xfddf7fff (0x80) MX[B]
[6] -1 0 0xfddfd000 - 0xfddfdfff (0x1000) MX[B]
[7] -1 0 0xfddfe000 - 0xfddfefff (0x1000) MX[B]
[8] -1 0 0xfddff000 - 0xfddfffff (0x1000) MX[B]
[9] -1 0 0xf0000000 - 0xefffffff (0x0) MX[B]O
[10] -1 0 0xfdee0000 - 0xfdefffff (0x20000) MX[B] (B)
[11] -1 0 0xc0000000 - 0xcfffffff (0x10000000) MX[B] (B)
[12] -1 0 0xfdf00000 - 0xfdf0ffff (0x10000) MX[B]
[13] 0 0 0x000a0000 - 0x000affff (0x10000) MS[B]
[14] 0 0 0x000b0000 - 0x000b7fff (0x8000) MS[B]
[15] 0 0 0x000b8000 - 0x000bffff (0x8000) MS[B]
[16] -1 0 0x0000ffff - 0x0000ffff (0x1) IX[B]
[17] -1 0 0x00000000 - 0x000000ff (0x100) IX[B]
[18] -1 0 0x0000b400 - 0x0000b47f (0x80) IX[B]
[19] -1 0 0x0000b800 - 0x0000b80f (0x10) IX[B]
[20] -1 0 0x0000bc00 - 0x0000bc03 (0x4) IX[B]
[21] -1 0 0x0000c000 - 0x0000c007 (0x8) IX[B]
[22] -1 0 0x0000c400 - 0x0000c403 (0x4) IX[B]
[23] -1 0 0x0000c800 - 0x0000c807 (0x8) IX[B]
[24] -1 0 0x0000cc00 - 0x0000cc7f (0x80) IX[B]
[25] -1 0 0x0000ffe0 - 0x0000ffef (0x10) IX[B]
[26] -1 0 0x000001f0 - 0x000001f0 (0x1) IX[B]
[27] -1 0 0x000001f0 - 0x000001f7 (0x8) IX[B]
[28] -1 0 0x000001f0 - 0x000001f0 (0x1) IX[B]
[29] -1 0 0x000001f0 - 0x000001f7 (0x8) IX[B]
[30] -1 0 0x0000dc00 - 0x0000dc7f (0x80) IX[B] (B)
[31] 0 0 0x000003b0 - 0x000003bb (0xc) IS[B]
[32] 0 0 0x000003c0 - 0x000003df (0x20) IS[B]
```

(II) Setting vga for screen 0.

(II) Loading sub module "vbe"

(II) LoadModule: "vbe"

(II) Loading /usr/lib/xorg/modules//libvbe.so

(II) Module vbe: vendor="X.Org Foundation"

compiled for 1.4.0.90, module version = 1.1.0

ABI class: X.Org Video Driver, version 2.0

(II) Loading sub module "int10"

(II) LoadModule: "int10"

(II) Loading /usr/lib/xorg/modules//libint10.so

(II) Module int10: vendor="X.Org Foundation"

compiled for 1.4.0.90, module version = 1.0.0

ABI class: X.Org Video Driver, version 2.0

---

```
(II) VESA(0): initializing int10
(II) VESA(0): Primary V_BIOS segment is: 0xc000
(II) VESA(0): VESA BIOS detected
(II) VESA(0): VESA VBE Version 3.0
(II) VESA(0): VESA VBE Total Mem: 131072 kB
(II) VESA(0): VESA VBE OEM: SiS
(II) VESA(0): VESA VBE OEM Software Rev: 1.0
(II) VESA(0): VESA VBE OEM Vendor: Silicon Integrated Systems Corp.
(II) VESA(0): VESA VBE OEM Product: 6330
(II) VESA(0): VESA VBE OEM Product Rev: S205.007
(**) VESA(0): Depth 24, (--) framebuffer bpp 32
(==) VESA(0): RGB weight 888
(==) VESA(0): Default visual is TrueColor
(**) VESA(0): Using gamma correction (1.0, 1.0, 1.0)
(II) Loading sub module "ddc"
(II) LoadModule: "ddc"(II) Module "ddc" already built-in
(II) VESA(0): VESA VBE DDC supported
(II) VESA(0): VESA VBE DDC Level none
(II) VESA(0): VESA VBE DDC transfer in appr. 0 sec.
(II) VESA(0): VESA VBE DDC read failed
(II) VESA(0): Searching for matching VESA mode(s):
Mode: 11c (1280x768)
ModeAttributes: 0x9f
WinAAttributes: 0x7
WinBAttributes: 0x0
WinGranularity: 64
WinSize: 64
WinASegment: 0xa000
WinBSegment: 0xa000
WinFuncPtr: 0xc000862b
BytesPerScanline: 1280
XResolution: 1280
YResolution: 768
XCharSize: 8
YCharSize: 16
NumberOfPlanes: 1
BitsPerPixel: 8
NumberOfBanks: 1
MemoryModel: 4
BankSize: 0
NumberOfImages: 7
RedMaskSize: 0
RedFieldPosition: 0
GreenMaskSize: 0
GreenFieldPosition: 0
BlueMaskSize: 0
BlueFieldPosition: 0
RsvdMaskSize: 0
RsvdFieldPosition: 0
DirectColorModeInfo: 0
PhysBasePtr: 0xc0000000
LinBytesPerScanLine: 1280
BnkNumberOfImagePages: 7
LinNumberOfImagePages: 7
LinRedMaskSize: 0
LinRedFieldPosition: 0
LinGreenMaskSize: 0
LinGreenFieldPosition: 0
LinBlueMaskSize: 0
LinBlueFieldPosition: 0
LinRsvdMaskSize: 0
LinRsvdFieldPosition: 0
MaxPixelClock: 0
Mode: 11d (1280x768)
ModeAttributes: 0x9b
WinAAttributes: 0x7
WinBAttributes: 0x0
WinGranularity: 64
WinSize: 64
```

WinASegment: 0xa000  
WinBSegment: 0xa000  
WinFuncPtr: 0xc000862b  
BytesPerScanline: 2560  
XResolution: 1280  
YResolution: 768  
XCharSize: 8  
YCharSize: 16  
NumberOfPlanes: 1  
BitsPerPixel: 16  
NumberOfBanks: 1  
MemoryModel: 6  
BankSize: 0  
NumberOfImages: 3  
RedMaskSize: 5  
RedFieldPosition: 11  
GreenMaskSize: 6  
GreenFieldPosition: 5  
BlueMaskSize: 5  
BlueFieldPosition: 0  
RsvdMaskSize: 0  
RsvdFieldPosition: 0  
DirectColorModeInfo: 0  
PhysBasePtr: 0xc0000000  
LinBytesPerScanLine: 2560  
BnkNumberOfImagePages: 3  
LinNumberOfImagePages: 3  
LinRedMaskSize: 5  
LinRedFieldPosition: 11  
LinGreenMaskSize: 6  
LinGreenFieldPosition: 5  
LinBlueMaskSize: 5  
LinBlueFieldPosition: 0  
LinRsvdMaskSize: 0  
LinRsvdFieldPosition: 0  
MaxPixelClock: 0  
\*Mode: 11e (1280x768)  
ModeAttributes: 0x9b  
WinAAttributes: 0x7  
WinBAttributes: 0x0  
WinGranularity: 64  
WinSize: 64  
WinASegment: 0xa000  
WinBSegment: 0xa000  
WinFuncPtr: 0xc000862b  
BytesPerScanline: 5120  
XResolution: 1280  
YResolution: 768  
XCharSize: 8  
YCharSize: 16  
NumberOfPlanes: 1  
BitsPerPixel: 32  
NumberOfBanks: 1  
MemoryModel: 6  
BankSize: 0  
NumberOfImages: 1  
RedMaskSize: 8  
RedFieldPosition: 16  
GreenMaskSize: 8  
GreenFieldPosition: 8  
BlueMaskSize: 8  
BlueFieldPosition: 0  
RsvdMaskSize: 8  
RsvdFieldPosition: 24  
DirectColorModeInfo: 0  
PhysBasePtr: 0xc0000000  
LinBytesPerScanLine: 5120  
BnkNumberOfImagePages: 1  
LinNumberOfImagePages: 1

```
LinRedMaskSize: 8
LinRedFieldPosition: 16
LinGreenMaskSize: 8
LinGreenFieldPosition: 8
LinBlueMaskSize: 8
LinBlueFieldPosition: 0
LinRsvdMaskSize: 8
LinRsvdFieldPosition: 24
MaxPixelClock: 0
Mode: 101 (640x480)
ModeAttributes: 0x9f
WinAAttributes: 0x7
WinBAttributes: 0x0
WinGranularity: 64
WinSize: 64
WinASegment: 0xa000
WinBSegment: 0xa000
WinFuncPtr: 0xc000862b
BytesPerScanline: 640
XResolution: 640
YResolution: 480
XCharSize: 8
YCharSize: 16
NumberOfPlanes: 1
BitsPerPixel: 8
NumberOfBanks: 1
MemoryModel: 4
BankSize: 0
NumberOfImages: 24
RedMaskSize: 0
RedFieldPosition: 0
GreenMaskSize: 0
GreenFieldPosition: 0
BlueMaskSize: 0
BlueFieldPosition: 0
RsvdMaskSize: 0
RsvdFieldPosition: 0
DirectColorModeInfo: 0
PhysBasePtr: 0xc0000000
LinBytesPerScanLine: 640
BnkNumberOfImagePages: 24
LinNumberOfImagePages: 24
LinRedMaskSize: 0
LinRedFieldPosition: 0
LinGreenMaskSize: 0
LinGreenFieldPosition: 0
LinBlueMaskSize: 0
LinBlueFieldPosition: 0
LinRsvdMaskSize: 0
LinRsvdFieldPosition: 0
MaxPixelClock: 0
Mode: 100 (640x400)
ModeAttributes: 0x9f
WinAAttributes: 0x7
WinBAttributes: 0x0
WinGranularity: 64
WinSize: 64
WinASegment: 0xa000
WinBSegment: 0xa000
WinFuncPtr: 0xc000862b
BytesPerScanline: 640
XResolution: 640
YResolution: 400
XCharSize: 8
YCharSize: 16
NumberOfPlanes: 1
BitsPerPixel: 8
NumberOfBanks: 1
MemoryModel: 4
```

BankSize: 0  
NumberOfImages: 31  
RedMaskSize: 0  
RedFieldPosition: 0  
GreenMaskSize: 0  
GreenFieldPosition: 0  
BlueMaskSize: 0  
BlueFieldPosition: 0  
RsvdMaskSize: 0  
RsvdFieldPosition: 0  
DirectColorModeInfo: 0  
PhysBasePtr: 0xc0000000  
LinBytesPerScanLine: 640  
BnkNumberOfImagePages: 31  
LinNumberOfImagePages: 31  
LinRedMaskSize: 0  
LinRedFieldPosition: 0  
LinGreenMaskSize: 0  
LinGreenFieldPosition: 0  
LinBlueMaskSize: 0  
LinBlueFieldPosition: 0  
LinRsvdMaskSize: 0  
LinRsvdFieldPosition: 0  
MaxPixelClock: 0  
Mode: 103 (800x600)  
ModeAttributes: 0x9f  
WinAAttributes: 0x7  
WinBAttributes: 0x0  
WinGranularity: 64  
WinSize: 64  
WinASegment: 0xa000  
WinBSegment: 0xa000  
WinFuncPtr: 0xc000862b  
BytesPerScanline: 800  
XResolution: 800  
YResolution: 600  
XCharSize: 8  
YCharSize: 16  
NumberOfPlanes: 1  
BitsPerPixel: 8  
NumberOfBanks: 1  
MemoryModel: 4  
BankSize: 0  
NumberOfImages: 15  
RedMaskSize: 0  
RedFieldPosition: 0  
GreenMaskSize: 0  
GreenFieldPosition: 0  
BlueMaskSize: 0  
BlueFieldPosition: 0  
RsvdMaskSize: 0  
RsvdFieldPosition: 0  
DirectColorModeInfo: 0  
PhysBasePtr: 0xc0000000  
LinBytesPerScanLine: 800  
BnkNumberOfImagePages: 15  
LinNumberOfImagePages: 15  
LinRedMaskSize: 0  
LinRedFieldPosition: 0  
LinGreenMaskSize: 0  
LinGreenFieldPosition: 0  
LinBlueMaskSize: 0  
LinBlueFieldPosition: 0  
LinRsvdMaskSize: 0  
LinRsvdFieldPosition: 0  
MaxPixelClock: 0  
Mode: 104 (1024x768)  
ModeAttributes: 0x1f  
WinAAttributes: 0x7

WinBAttributes: 0x0  
WinGranularity: 64  
WinSize: 64  
WinASegment: 0xa000  
WinBSegment: 0xa000  
WinFuncPtr: 0xc000862b  
BytesPerScanline: 128  
XResolution: 1024  
YResolution: 768  
XCharSize: 8  
YCharSize: 16  
NumberOfPlanes: 4  
BitsPerPixel: 4  
NumberOfBanks: 1  
MemoryModel: 3  
BankSize: 0  
NumberOfImages: 15  
RedMaskSize: 0  
RedFieldPosition: 0  
GreenMaskSize: 0  
GreenFieldPosition: 0  
BlueMaskSize: 0  
BlueFieldPosition: 0  
RsvdMaskSize: 0  
RsvdFieldPosition: 0  
DirectColorModeInfo: 0  
PhysBasePtr: 0xc0000000  
LinBytesPerScanLine: 128  
BnkNumberOfImagePages: 15  
LinNumberOfImagePages: 15  
LinRedMaskSize: 0  
LinRedFieldPosition: 0  
LinGreenMaskSize: 0  
LinGreenFieldPosition: 0  
LinBlueMaskSize: 0  
LinBlueFieldPosition: 0  
LinRsvdMaskSize: 0  
LinRsvdFieldPosition: 0  
MaxPixelClock: 0  
Mode: 105 (1024x768)  
ModeAttributes: 0x9f  
WinAAttributes: 0x7  
WinBAttributes: 0x0  
WinGranularity: 64  
WinSize: 64  
WinASegment: 0xa000  
WinBSegment: 0xa000  
WinFuncPtr: 0xc000862b  
BytesPerScanline: 1024  
XResolution: 1024  
YResolution: 768  
XCharSize: 8  
YCharSize: 16  
NumberOfPlanes: 1  
BitsPerPixel: 8  
NumberOfBanks: 1  
MemoryModel: 4  
BankSize: 0  
NumberOfImages: 9  
RedMaskSize: 0  
RedFieldPosition: 0  
GreenMaskSize: 0  
GreenFieldPosition: 0  
BlueMaskSize: 0  
BlueFieldPosition: 0  
RsvdMaskSize: 0  
RsvdFieldPosition: 0  
DirectColorModeInfo: 0  
PhysBasePtr: 0xc0000000

---

```
LinBytesPerScanLine: 1024
BnkNumberOfImagePages: 9
LinNumberOfImagePages: 9
LinRedMaskSize: 0
LinRedFieldPosition: 0
LinGreenMaskSize: 0
LinGreenFieldPosition: 0
LinBlueMaskSize: 0
LinBlueFieldPosition: 0
LinRsvdMaskSize: 0
LinRsvdFieldPosition: 0
MaxPixelClock: 0
Mode: 10d (320x200)
ModeAttributes: 0x9b
WinAAttributes: 0x7
WinBAttributes: 0x0
WinGranularity: 64
WinSize: 64
WinASegment: 0xa000
WinBSegment: 0xa000
WinFuncPtr: 0xc000862b
BytesPerScanline: 640
XResolution: 320
YResolution: 200
XCharSize: 8
YCharSize: 8
NumberOfPlanes: 1
BitsPerPixel: 15
NumberOfBanks: 1
MemoryModel: 6
BankSize: 0
NumberOfImages: 63
RedMaskSize: 5
RedFieldPosition: 10
GreenMaskSize: 5
GreenFieldPosition: 5
BlueMaskSize: 5
BlueFieldPosition: 0
RsvdMaskSize: 0
RsvdFieldPosition: 0
DirectColorModeInfo: 0
PhysBasePtr: 0xc0000000
LinBytesPerScanLine: 640
BnkNumberOfImagePages: 63
LinNumberOfImagePages: 63
LinRedMaskSize: 5
LinRedFieldPosition: 10
LinGreenMaskSize: 5
LinGreenFieldPosition: 5
LinBlueMaskSize: 5
LinBlueFieldPosition: 0
LinRsvdMaskSize: 0
LinRsvdFieldPosition: 0
MaxPixelClock: 0
Mode: 10e (320x200)
ModeAttributes: 0x9b
WinAAttributes: 0x7
WinBAttributes: 0x0
WinGranularity: 64
WinSize: 64
WinASegment: 0xa000
WinBSegment: 0xa000
WinFuncPtr: 0xc000862b
BytesPerScanline: 640
XResolution: 320
YResolution: 200
XCharSize: 8
YCharSize: 8
NumberOfPlanes: 1
```

BitsPerPixel: 16  
NumberOfBanks: 1  
MemoryModel: 6  
BankSize: 0  
NumberOfImages: 63  
RedMaskSize: 5  
RedFieldPosition: 11  
GreenMaskSize: 6  
GreenFieldPosition: 5  
BlueMaskSize: 5  
BlueFieldPosition: 0  
RsvdMaskSize: 0  
RsvdFieldPosition: 0  
DirectColorModeInfo: 0  
PhysBasePtr: 0xc0000000  
LinBytesPerScanLine: 640  
BnkNumberOfImagePages: 63  
LinNumberOfImagePages: 63  
LinRedMaskSize: 5  
LinRedFieldPosition: 11  
LinGreenMaskSize: 6  
LinGreenFieldPosition: 5  
LinBlueMaskSize: 5  
LinBlueFieldPosition: 0  
LinRsvdMaskSize: 0  
LinRsvdFieldPosition: 0  
MaxPixelClock: 0  
Mode: 110 (640x480)  
ModeAttributes: 0x9b  
WinAAttributes: 0x7  
WinBAttributes: 0x0  
WinGranularity: 64  
WinSize: 64  
WinASegment: 0xa000  
WinBSegment: 0xa000  
WinFuncPtr: 0xc000862b  
BytesPerScanline: 1280  
XResolution: 640  
YResolution: 480  
XCharSize: 8  
YCharSize: 16  
NumberOfPlanes: 1  
BitsPerPixel: 15  
NumberOfBanks: 1  
MemoryModel: 6  
BankSize: 0  
NumberOfImages: 11  
RedMaskSize: 5  
RedFieldPosition: 10  
GreenMaskSize: 5  
GreenFieldPosition: 5  
BlueMaskSize: 5  
BlueFieldPosition: 0  
RsvdMaskSize: 0  
RsvdFieldPosition: 0  
DirectColorModeInfo: 0  
PhysBasePtr: 0xc0000000  
LinBytesPerScanLine: 1280  
BnkNumberOfImagePages: 11  
LinNumberOfImagePages: 11  
LinRedMaskSize: 5  
LinRedFieldPosition: 10  
LinGreenMaskSize: 5  
LinGreenFieldPosition: 5  
LinBlueMaskSize: 5  
LinBlueFieldPosition: 0  
LinRsvdMaskSize: 0  
LinRsvdFieldPosition: 0  
MaxPixelClock: 0

Mode: 111 (640x480)  
ModeAttributes: 0x9b  
WinAAttributes: 0x7  
WinBAttributes: 0x0  
WinGranularity: 64  
WinSize: 64  
WinASegment: 0xa000  
WinBSegment: 0xa000  
WinFuncPtr: 0xc000862b  
BytesPerScanline: 1280  
XResolution: 640  
YResolution: 480  
XCharSize: 8  
YCharSize: 16  
NumberOfPlanes: 1  
BitsPerPixel: 16  
NumberOfBanks: 1  
MemoryModel: 6  
BankSize: 0  
NumberOfImages: 11  
RedMaskSize: 5  
RedFieldPosition: 11  
GreenMaskSize: 6  
GreenFieldPosition: 5  
BlueMaskSize: 5  
BlueFieldPosition: 0  
RsvdMaskSize: 0  
RsvdFieldPosition: 0  
DirectColorModeInfo: 0  
PhysBasePtr: 0xc0000000  
LinBytesPerScanLine: 1280  
BnkNumberOfImagePages: 11  
LinNumberOfImagePages: 11  
LinRedMaskSize: 5  
LinRedFieldPosition: 11  
LinGreenMaskSize: 6  
LinGreenFieldPosition: 5  
LinBlueMaskSize: 5  
LinBlueFieldPosition: 0  
LinRsvdMaskSize: 0  
LinRsvdFieldPosition: 0  
MaxPixelClock: 0  
Mode: 113 (800x600)  
ModeAttributes: 0x9b  
WinAAttributes: 0x7  
WinBAttributes: 0x0  
WinGranularity: 64  
WinSize: 64  
WinASegment: 0xa000  
WinBSegment: 0xa000  
WinFuncPtr: 0xc000862b  
BytesPerScanline: 1600  
XResolution: 800  
YResolution: 600  
XCharSize: 8  
YCharSize: 16  
NumberOfPlanes: 1  
BitsPerPixel: 15  
NumberOfBanks: 1  
MemoryModel: 6  
BankSize: 0  
NumberOfImages: 7  
RedMaskSize: 5  
RedFieldPosition: 10  
GreenMaskSize: 5  
GreenFieldPosition: 5  
BlueMaskSize: 5  
BlueFieldPosition: 0  
RsvdMaskSize: 0

---

```
RsvdFieldPosition: 0
DirectColorModeInfo: 0
PhysBasePtr: 0xc0000000
LinBytesPerScanLine: 1600
BnkNumberOfImagePages: 7
LinNumberOfImagePages: 7
LinRedMaskSize: 5
LinRedFieldPosition: 10
LinGreenMaskSize: 5
LinGreenFieldPosition: 5
LinBlueMaskSize: 5
LinBlueFieldPosition: 0
LinRsvdMaskSize: 0
LinRsvdFieldPosition: 0
MaxPixelClock: 0
Mode: 114 (800x600)
ModeAttributes: 0x9b
WinAAttributes: 0x7
WinBAttributes: 0x0
WinGranularity: 64
WinSize: 64
WinASegment: 0xa000
WinBSegment: 0xa000
WinFuncPtr: 0xc000862b
BytesPerScanline: 1600
XResolution: 800
YResolution: 600
XCharSize: 8
YCharSize: 16
NumberOfPlanes: 1
BitsPerPixel: 16
NumberOfBanks: 1
MemoryModel: 6
BankSize: 0
NumberOfImages: 7
RedMaskSize: 5
RedFieldPosition: 11
GreenMaskSize: 6
GreenFieldPosition: 5
BlueMaskSize: 5
BlueFieldPosition: 0
RsvdMaskSize: 0
RsvdFieldPosition: 0
DirectColorModeInfo: 0
PhysBasePtr: 0xc0000000
LinBytesPerScanLine: 1600
BnkNumberOfImagePages: 7
LinNumberOfImagePages: 7
LinRedMaskSize: 5
LinRedFieldPosition: 11
LinGreenMaskSize: 6
LinGreenFieldPosition: 5
LinBlueMaskSize: 5
LinBlueFieldPosition: 0
LinRsvdMaskSize: 0
LinRsvdFieldPosition: 0
MaxPixelClock: 0
Mode: 116 (1024x768)
ModeAttributes: 0x9b
WinAAttributes: 0x7
WinBAttributes: 0x0
WinGranularity: 64
WinSize: 64
WinASegment: 0xa000
WinBSegment: 0xa000
WinFuncPtr: 0xc000862b
BytesPerScanline: 2048
XResolution: 1024
YResolution: 768
```

---

```
XCharSize: 8
YCharSize: 16
NumberOfPlanes: 1
BitsPerPixel: 15
NumberOfBanks: 1
MemoryModel: 6
BankSize: 0
NumberOfImages: 4
RedMaskSize: 5
RedFieldPosition: 10
GreenMaskSize: 5
GreenFieldPosition: 5
BlueMaskSize: 5
BlueFieldPosition: 0
RsvdMaskSize: 0
RsvdFieldPosition: 0
DirectColorModeInfo: 0
PhysBasePtr: 0xc0000000
LinBytesPerScanLine: 2048
BnkNumberOfImagePages: 4
LinNumberOfImagePages: 4
LinRedMaskSize: 5
LinRedFieldPosition: 10
LinGreenMaskSize: 5
LinGreenFieldPosition: 5
LinBlueMaskSize: 5
LinBlueFieldPosition: 0
LinRsvdMaskSize: 0
LinRsvdFieldPosition: 0
MaxPixelClock: 0
Mode: 117 (1024x768)
ModeAttributes: 0x9b
WinAAttributes: 0x7
WinBAttributes: 0x0
WinGranularity: 64
WinSize: 64
WinASegment: 0xa000
WinBSegment: 0xa000
WinFuncPtr: 0xc000862b
BytesPerScanline: 2048
XResolution: 1024
YResolution: 768
XCharSize: 8
YCharSize: 16
NumberOfPlanes: 1
BitsPerPixel: 16
NumberOfBanks: 1
MemoryModel: 6
BankSize: 0
NumberOfImages: 4
RedMaskSize: 5
RedFieldPosition: 11
GreenMaskSize: 6
GreenFieldPosition: 5
BlueMaskSize: 5
BlueFieldPosition: 0
RsvdMaskSize: 0
RsvdFieldPosition: 0
DirectColorModeInfo: 0
PhysBasePtr: 0xc0000000
LinBytesPerScanLine: 2048
BnkNumberOfImagePages: 4
LinNumberOfImagePages: 4
LinRedMaskSize: 5
LinRedFieldPosition: 11
LinGreenMaskSize: 6
LinGreenFieldPosition: 5
LinBlueMaskSize: 5
LinBlueFieldPosition: 0
```

---

```
LinRsvdMaskSize: 0
LinRsvdFieldPosition: 0
MaxPixelClock: 0
Mode: 127 (320x240)
ModeAttributes: 0x9f
WinAAttributes: 0x7
WinBAttributes: 0x0
WinGranularity: 64
WinSize: 64
WinASegment: 0xa000
WinBSegment: 0xa000
WinFuncPtr: 0xc000862b
BytesPerScanline: 320
XResolution: 320
YResolution: 240
XCharSize: 8
YCharSize: 8
NumberOfPlanes: 1
BitsPerPixel: 8
NumberOfBanks: 1
MemoryModel: 4
BankSize: 0
NumberOfImages: 63
RedMaskSize: 0
RedFieldPosition: 0
GreenMaskSize: 0
GreenFieldPosition: 0
BlueMaskSize: 0
BlueFieldPosition: 0
RsvdMaskSize: 0
RsvdFieldPosition: 0
DirectColorModeInfo: 0
PhysBasePtr: 0xc0000000
LinBytesPerScanLine: 320
BnkNumberOfImagePages: 63
LinNumberOfImagePages: 63
LinRedMaskSize: 0
LinRedFieldPosition: 0
LinGreenMaskSize: 0
LinGreenFieldPosition: 0
LinBlueMaskSize: 0
LinBlueFieldPosition: 0
LinRsvdMaskSize: 0
LinRsvdFieldPosition: 0
MaxPixelClock: 0
Mode: 128 (400x300)
ModeAttributes: 0x9f
WinAAttributes: 0x7
WinBAttributes: 0x0
WinGranularity: 64
WinSize: 64
WinASegment: 0xa000
WinBSegment: 0xa000
WinFuncPtr: 0xc000862b
BytesPerScanline: 400
XResolution: 400
YResolution: 300
XCharSize: 8
YCharSize: 8
NumberOfPlanes: 1
BitsPerPixel: 8
NumberOfBanks: 1
MemoryModel: 4
BankSize: 0
NumberOfImages: 63
RedMaskSize: 0
RedFieldPosition: 0
GreenMaskSize: 0
GreenFieldPosition: 0
```

BlueMaskSize: 0  
BlueFieldPosition: 0  
RsvdMaskSize: 0  
RsvdFieldPosition: 0  
DirectColorModeInfo: 0  
PhysBasePtr: 0xc0000000  
LinBytesPerScanLine: 400  
BnkNumberOfImagePages: 63  
LinNumberOfImagePages: 63  
LinRedMaskSize: 0  
LinRedFieldPosition: 0  
LinGreenMaskSize: 0  
LinGreenFieldPosition: 0  
LinBlueMaskSize: 0  
LinBlueFieldPosition: 0  
LinRsvdMaskSize: 0  
LinRsvdFieldPosition: 0  
MaxPixelClock: 0  
Mode: 129 (512x384)  
ModeAttributes: 0x9f  
WinAAttributes: 0x7  
WinBAttributes: 0x0  
WinGranularity: 64  
WinSize: 64  
WinASegment: 0xa000  
WinBSegment: 0xa000  
WinFuncPtr: 0xc000862b  
BytesPerScanline: 512  
XResolution: 512  
YResolution: 384  
XCharSize: 8  
YCharSize: 8  
NumberOfPlanes: 1  
BitsPerPixel: 8  
NumberOfBanks: 1  
MemoryModel: 4  
BankSize: 0  
NumberOfImages: 41  
RedMaskSize: 0  
RedFieldPosition: 0  
GreenMaskSize: 0  
GreenFieldPosition: 0  
BlueMaskSize: 0  
BlueFieldPosition: 0  
RsvdMaskSize: 0  
RsvdFieldPosition: 0  
DirectColorModeInfo: 0  
PhysBasePtr: 0xc0000000  
LinBytesPerScanLine: 512  
BnkNumberOfImagePages: 41  
LinNumberOfImagePages: 41  
LinRedMaskSize: 0  
LinRedFieldPosition: 0  
LinGreenMaskSize: 0  
LinGreenFieldPosition: 0  
LinBlueMaskSize: 0  
LinBlueFieldPosition: 0  
LinRsvdMaskSize: 0  
LinRsvdFieldPosition: 0  
MaxPixelClock: 0  
Mode: 12a (320x240)  
ModeAttributes: 0x9b  
WinAAttributes: 0x7  
WinBAttributes: 0x0  
WinGranularity: 64  
WinSize: 64  
WinASegment: 0xa000  
WinBSegment: 0xa000  
WinFuncPtr: 0xc000862b

BytesPerScanline: 640  
XResolution: 320  
YResolution: 240  
XCharSize: 8  
YCharSize: 8  
NumberOfPlanes: 1  
BitsPerPixel: 16  
NumberOfBanks: 1  
MemoryModel: 6  
BankSize: 0  
NumberOfImages: 41  
RedMaskSize: 5  
RedFieldPosition: 11  
GreenMaskSize: 6  
GreenFieldPosition: 5  
BlueMaskSize: 5  
BlueFieldPosition: 0  
RsvdMaskSize: 0  
RsvdFieldPosition: 0  
DirectColorModeInfo: 0  
PhysBasePtr: 0xc0000000  
LinBytesPerScanLine: 640  
BnkNumberOfImagePages: 41  
LinNumberOfImagePages: 41  
LinRedMaskSize: 5  
LinRedFieldPosition: 11  
LinGreenMaskSize: 6  
LinGreenFieldPosition: 5  
LinBlueMaskSize: 5  
LinBlueFieldPosition: 0  
LinRsvdMaskSize: 0  
LinRsvdFieldPosition: 0  
MaxPixelClock: 0  
Mode: 12b (400x300)  
ModeAttributes: 0x9b  
WinAAttributes: 0x7  
WinBAttributes: 0x0  
WinGranularity: 64  
WinSize: 64  
WinASegment: 0xa000  
WinBSegment: 0xa000  
WinFuncPtr: 0xc000862b  
BytesPerScanline: 800  
XResolution: 400  
YResolution: 300  
XCharSize: 8  
YCharSize: 8  
NumberOfPlanes: 1  
BitsPerPixel: 16  
NumberOfBanks: 1  
MemoryModel: 6  
BankSize: 0  
NumberOfImages: 31  
RedMaskSize: 5  
RedFieldPosition: 11  
GreenMaskSize: 6  
GreenFieldPosition: 5  
BlueMaskSize: 5  
BlueFieldPosition: 0  
RsvdMaskSize: 0  
RsvdFieldPosition: 0  
DirectColorModeInfo: 0  
PhysBasePtr: 0xc0000000  
LinBytesPerScanLine: 800  
BnkNumberOfImagePages: 31  
LinNumberOfImagePages: 31  
LinRedMaskSize: 5  
LinRedFieldPosition: 11  
LinGreenMaskSize: 6

LinGreenFieldPosition: 5  
LinBlueMaskSize: 5  
LinBlueFieldPosition: 0  
LinRsvdMaskSize: 0  
LinRsvdFieldPosition: 0  
MaxPixelClock: 0  
Mode: 12c (512x384)  
ModeAttributes: 0x9b  
WinAAttributes: 0x7  
WinBAttributes: 0x0  
WinGranularity: 64  
WinSize: 64  
WinASegment: 0xa000  
WinBSegment: 0xa000  
WinFuncPtr: 0xc000862b  
BytesPerScanline: 1024  
XResolution: 512  
YResolution: 384  
XCharSize: 8  
YCharSize: 8  
NumberOfPlanes: 1  
BitsPerPixel: 16  
NumberOfBanks: 1  
MemoryModel: 6  
BankSize: 0  
NumberOfImages: 20  
RedMaskSize: 5  
RedFieldPosition: 11  
GreenMaskSize: 6  
GreenFieldPosition: 5  
BlueMaskSize: 5  
BlueFieldPosition: 0  
RsvdMaskSize: 0  
RsvdFieldPosition: 0  
DirectColorModeInfo: 0  
PhysBasePtr: 0xc0000000  
LinBytesPerScanLine: 1024  
BnkNumberOfImagePages: 20  
LinNumberOfImagePages: 20  
LinRedMaskSize: 5  
LinRedFieldPosition: 11  
LinGreenMaskSize: 6  
LinGreenFieldPosition: 5  
LinBlueMaskSize: 5  
LinBlueFieldPosition: 0  
LinRsvdMaskSize: 0  
LinRsvdFieldPosition: 0  
MaxPixelClock: 0  
Mode: 12d (320x200)  
ModeAttributes: 0x9f  
WinAAttributes: 0x7  
WinBAttributes: 0x0  
WinGranularity: 64  
WinSize: 64  
WinASegment: 0xa000  
WinBSegment: 0xa000  
WinFuncPtr: 0xc000862b  
BytesPerScanline: 320  
XResolution: 320  
YResolution: 200  
XCharSize: 8  
YCharSize: 8  
NumberOfPlanes: 1  
BitsPerPixel: 8  
NumberOfBanks: 1  
MemoryModel: 4  
BankSize: 0  
NumberOfImages: 127  
RedMaskSize: 0

---

```
RedFieldPosition: 0
GreenMaskSize: 0
GreenFieldPosition: 0
BlueMaskSize: 0
BlueFieldPosition: 0
RsvdMaskSize: 0
RsvdFieldPosition: 0
DirectColorModeInfo: 0
PhysBasePtr: 0xc0000000
LinBytesPerScanLine: 320
BnkNumberOfImagePages: 127
LinNumberOfImagePages: 127
LinRedMaskSize: 0
LinRedFieldPosition: 0
LinGreenMaskSize: 0
LinGreenFieldPosition: 0
LinBlueMaskSize: 0
LinBlueFieldPosition: 0
LinRsvdMaskSize: 0
LinRsvdFieldPosition: 0
MaxPixelClock: 0
Mode: 131 (640x400)
ModeAttributes: 0x9b
WinAAttributes: 0x7
WinBAttributes: 0x0
WinGranularity: 64
WinSize: 64
WinASegment: 0xa000
WinBSegment: 0xa000
WinFuncPtr: 0xc000862b
BytesPerScanline: 1280
XResolution: 640
YResolution: 400
XCharSize: 8
YCharSize: 16
NumberOfPlanes: 1
BitsPerPixel: 16
NumberOfBanks: 1
MemoryModel: 6
BankSize: 0
NumberOfImages: 15
RedMaskSize: 5
RedFieldPosition: 11
GreenMaskSize: 6
GreenFieldPosition: 5
BlueMaskSize: 5
BlueFieldPosition: 0
RsvdMaskSize: 0
RsvdFieldPosition: 0
DirectColorModeInfo: 0
PhysBasePtr: 0xc0000000
LinBytesPerScanLine: 1280
BnkNumberOfImagePages: 15
LinNumberOfImagePages: 15
LinRedMaskSize: 5
LinRedFieldPosition: 11
LinGreenMaskSize: 6
LinGreenFieldPosition: 5
LinBlueMaskSize: 5
LinBlueFieldPosition: 0
LinRsvdMaskSize: 0
LinRsvdFieldPosition: 0
MaxPixelClock: 0
*Mode: 112 (640x480)
ModeAttributes: 0x9b
WinAAttributes: 0x7
WinBAttributes: 0x0
WinGranularity: 64
WinSize: 64
```

WinASegment: 0xa000  
WinBSegment: 0xa000  
WinFuncPtr: 0xc000862b  
BytesPerScanline: 2560  
XResolution: 640  
YResolution: 480  
XCharSize: 8  
YCharSize: 16  
NumberOfPlanes: 1  
BitsPerPixel: 32  
NumberOfBanks: 1  
MemoryModel: 6  
BankSize: 0  
NumberOfImages: 5  
RedMaskSize: 8  
RedFieldPosition: 16  
GreenMaskSize: 8  
GreenFieldPosition: 8  
BlueMaskSize: 8  
BlueFieldPosition: 0  
RsvdMaskSize: 8  
RsvdFieldPosition: 24  
DirectColorModeInfo: 0  
PhysBasePtr: 0xc0000000  
LinBytesPerScanLine: 2560  
BnkNumberOfImagePages: 5  
LinNumberOfImagePages: 5  
LinRedMaskSize: 8  
LinRedFieldPosition: 16  
LinGreenMaskSize: 8  
LinGreenFieldPosition: 8  
LinBlueMaskSize: 8  
LinBlueFieldPosition: 0  
LinRsvdMaskSize: 8  
LinRsvdFieldPosition: 24  
MaxPixelClock: 0  
\*Mode: 115 (800x600)  
ModeAttributes: 0x9b  
WinAAttributes: 0x7  
WinBAttributes: 0x0  
WinGranularity: 64  
WinSize: 64  
WinASegment: 0xa000  
WinBSegment: 0xa000  
WinFuncPtr: 0xc000862b  
BytesPerScanline: 3200  
XResolution: 800  
YResolution: 600  
XCharSize: 8  
YCharSize: 16  
NumberOfPlanes: 1  
BitsPerPixel: 32  
NumberOfBanks: 1  
MemoryModel: 6  
BankSize: 0  
NumberOfImages: 3  
RedMaskSize: 8  
RedFieldPosition: 16  
GreenMaskSize: 8  
GreenFieldPosition: 8  
BlueMaskSize: 8  
BlueFieldPosition: 0  
RsvdMaskSize: 8  
RsvdFieldPosition: 24  
DirectColorModeInfo: 0  
PhysBasePtr: 0xc0000000  
LinBytesPerScanLine: 3200  
BnkNumberOfImagePages: 3  
LinNumberOfImagePages: 3

```
LinRedMaskSize: 8
LinRedFieldPosition: 16
LinGreenMaskSize: 8
LinGreenFieldPosition: 8
LinBlueMaskSize: 8
LinBlueFieldPosition: 0
LinRsvdMaskSize: 8
LinRsvdFieldPosition: 24
MaxPixelClock: 0
*Mode: 118 (1024x768)
ModeAttributes: 0x9b
WinAAttributes: 0x7
WinBAttributes: 0x0
WinGranularity: 64
WinSize: 64
WinASegment: 0xa000
WinBSegment: 0xa000
WinFuncPtr: 0xc000862b
BytesPerScanline: 4096
XResolution: 1024
YResolution: 768
XCharSize: 8
YCharSize: 16
NumberOfPlanes: 1
BitsPerPixel: 32
NumberOfBanks: 1
MemoryModel: 6
BankSize: 0
NumberOfImages: 1
RedMaskSize: 8
RedFieldPosition: 16
GreenMaskSize: 8
GreenFieldPosition: 8
BlueMaskSize: 8
BlueFieldPosition: 0
RsvdMaskSize: 8
RsvdFieldPosition: 24
DirectColorModeInfo: 0
PhysBasePtr: 0xc0000000
LinBytesPerScanLine: 4096
BnkNumberOfImagePages: 1
LinNumberOfImagePages: 1
LinRedMaskSize: 8
LinRedFieldPosition: 16
LinGreenMaskSize: 8
LinGreenFieldPosition: 8
LinBlueMaskSize: 8
LinBlueFieldPosition: 0
LinRsvdMaskSize: 8
LinRsvdFieldPosition: 24
MaxPixelClock: 0
Mode: 102 (800x600)
ModeAttributes: 0x1f
WinAAttributes: 0x7
WinBAttributes: 0x0
WinGranularity: 64
WinSize: 64
WinASegment: 0xa000
WinBSegment: 0xa000
WinFuncPtr: 0xc000862b
BytesPerScanline: 100
XResolution: 800
YResolution: 600
XCharSize: 8
YCharSize: 16
NumberOfPlanes: 4
BitsPerPixel: 4
NumberOfBanks: 1
MemoryModel: 3
```

```

BankSize: 0
NumberOfImages: 31
RedMaskSize: 0
RedFieldPosition: 0
GreenMaskSize: 0
GreenFieldPosition: 0
BlueMaskSize: 0
BlueFieldPosition: 0
RsvdMaskSize: 0
RsvdFieldPosition: 0
DirectColorModeInfo: 0
PhysBasePtr: 0xc0000000
LinBytesPerScanLine: 100
BnkNumberOfImagePages: 31
LinNumberOfImagePages: 31
LinRedMaskSize: 0
LinRedFieldPosition: 0
LinGreenMaskSize: 0
LinGreenFieldPosition: 0
LinBlueMaskSize: 0
LinBlueFieldPosition: 0
LinRsvdMaskSize: 0
LinRsvdFieldPosition: 0
MaxPixelClock: 0

```

```

(II) VESA(0): Total Memory: 2048 64KB banks (131072kB)
(II) VESA(0): Configured Monitor: Using hsync range of 31.50-81.00 kHz
(II) VESA(0): Configured Monitor: Using vrefresh range of 50.00-75.00 Hz
(II) VESA(0): Not using mode "1280x800@60" (no mode of this name)
(II) VESA(0): Not using mode "1440x900@75" (no mode of this name)
(II) VESA(0): Not using mode "1280x720@50" (no mode of this name)
(II) VESA(0): Not using mode "1440x900@60" (no mode of this name)
(II) VESA(0): Not using mode "1280x768@75" (no mode of this name)
(II) VESA(0): Not using mode "1600x1024@60" (no mode of this name)
(II) VESA(0): Not using mode "1280x800@75" (no mode of this name)
(II) VESA(0): Not using mode "1680x1050@60" (no mode of this name)
(II) VESA(0): Not using mode "1280x720@60" (no mode of this name)
(II) VESA(0): Not using mode "1920x1200@60" (no mode of this name)
(II) VESA(0): Not using mode "1280x768@60" (no mode of this name)
(II) VESA(0): Not using mode "1280x854" (no mode of this name)
(II) VESA(0): Not using mode "1152x768@54" (no mode of this name)
(II) VESA(0): Not using mode "800x600@60" (no mode of this name)
(II) VESA(0): Not using mode "800x600@75" (no mode of this name)
(II) VESA(0): Not using mode "800x600@72" (no mode of this name)
(II) VESA(0): Not using mode "800x600@56" (no mode of this name)
(--)) VESA(0): Virtual size is 1280x768 (pitch 1280)
(**) VESA(0): Built-in mode "1280x768"
(**) VESA(0): Built-in mode "1024x768"
(**) VESA(0): Built-in mode "800x600"
(**) VESA(0): Built-in mode "640x480"
(==) VESA(0): DPI set to (96, 96)
(II) VESA(0): Attempting to use 75Hz refresh for mode "1280x768" (11e)
(II) VESA(0): Attempting to use 75Hz refresh for mode "1024x768" (118)
(II) VESA(0): Attempting to use 72Hz refresh for mode "800x600" (115)
(II) VESA(0): Attempting to use 73Hz refresh for mode "640x480" (112)
(**) VESA(0): Using "Shadow Framebuffer"
(II) Loading sub module "shadow"
(II) LoadModule: "shadow"
(II) Loading /usr/lib/xorg/modules//libshadow.so
(II) Module shadow: vendor="X.Org Foundation"
compiled for 1.4.0.90, module version = 1.1.0
ABI class: X.Org ANSI C Emulation, version 0.3
(II) Loading sub module "fb"
(II) LoadModule: "fb"
(II) Loading /usr/lib/xorg/modules//libfb.so
(II) Module fb: vendor="X.Org Foundation"
compiled for 1.4.0.90, module version = 1.0.0
ABI class: X.Org ANSI C Emulation, version 0.3
(--)) Depth 24 pixmap format is 32 bpp

```

```
(II) do I need RAC? No, I don't.
(II) resource ranges after preInit:
[0] -1 0 0x00100000 - 0x3fffffff (0x3ff00000) MX[B]E(B)
[1] -1 0 0x000f0000 - 0x000fffff (0x10000) MX[B]
[2] -1 0 0x000c0000 - 0x000effff (0x30000) MX[B]
[3] -1 0 0x00000000 - 0x0009ffff (0xa0000) MX[B]
[4] -1 0 0xfddf4000 - 0xfddf7fff (0x4000) MX[B]
[5] -1 0 0xfddfcc00 - 0xfddfcc7f (0x80) MX[B]
[6] -1 0 0xfddfd000 - 0xfddfdfff (0x1000) MX[B]
[7] -1 0 0xfddfe000 - 0xfddfefff (0x1000) MX[B]
[8] -1 0 0xfddff000 - 0xfddfffff (0x1000) MX[B]
[9] -1 0 0xf0000000 - 0xffffffff (0x0) MX[B]O
[10] -1 0 0xfdee0000 - 0xfdeeffff (0x20000) MX[B] (B)
[11] -1 0 0xc0000000 - 0xcfffffff (0x10000000) MX[B] (B)
[12] -1 0 0xfdf00000 - 0xfdffffff (0x10000) MX[B]
[13] 0 0 0x000a0000 - 0x000affff (0x10000) MS[B]
[14] 0 0 0x000b0000 - 0x000b7fff (0x8000) MS[B]
[15] 0 0 0x000b8000 - 0x000bffff (0x8000) MS[B]
[16] -1 0 0x0000ffff - 0x0000ffff (0x1) IX[B]
[17] -1 0 0x00000000 - 0x000000ff (0x100) IX[B]
[18] -1 0 0x0000b400 - 0x0000b47f (0x80) IX[B]
[19] -1 0 0x0000b800 - 0x0000b80f (0x10) IX[B]
[20] -1 0 0x0000bc00 - 0x0000bc03 (0x4) IX[B]
[21] -1 0 0x0000c000 - 0x0000c007 (0x8) IX[B]
[22] -1 0 0x0000c400 - 0x0000c403 (0x4) IX[B]
[23] -1 0 0x0000c800 - 0x0000c807 (0x8) IX[B]
[24] -1 0 0x0000cc00 - 0x0000cc7f (0x80) IX[B]
[25] -1 0 0x0000fe00 - 0x0000ffef (0x10) IX[B]
[26] -1 0 0x000001f0 - 0x000001f0 (0x1) IX[B]
[27] -1 0 0x000001f0 - 0x000001f7 (0x8) IX[B]
[28] -1 0 0x000001f0 - 0x000001f0 (0x1) IX[B]
[29] -1 0 0x000001f0 - 0x000001f7 (0x8) IX[B]
[30] -1 0 0x0000dc00 - 0x0000dc7f (0x80) IX[B] (B)
[31] 0 0 0x000003b0 - 0x000003bb (0xc) IS[B]
[32] 0 0 0x000003c0 - 0x000003df (0x20) IS[B]
(II) Loading sub module "int10"
(II) LoadModule: "int10"
(II) Reloading /usr/lib/xorg/modules//libint10.so
(II) VESA(0): initializing int10
(II) VESA(0): Primary V_BIOS segment is: 0xc000
(II) VESA(0): VESA BIOS detected
(II) VESA(0): VESA VBE Version 3.0
(II) VESA(0): VESA VBE Total Mem: 131072 kB
(II) VESA(0): VESA VBE OEM: Sis
(II) VESA(0): VESA VBE OEM Software Rev: 1.0
(II) VESA(0): VESA VBE OEM Vendor: Silicon Integrated Systems Corp.
(II) VESA(0): VESA VBE OEM Product: 6330
(II) VESA(0): VESA VBE OEM Product Rev: S205.007
(==) VESA(0): Write-combining range (0xc0000000,0x8000000)
(II) VESA(0): virtual address = 0xaf9a0000,
physical address = 0xc0000000, size = 134217728
(==) VESA(0): Default visual is TrueColor
(==) VESA(0): Backing store disabled
(II) VESA(0): DPMS enabled
(==) RandR enabled
(II) Setting vga for screen 0.
(II) Initializing built-in extension MIT-SHM
(II) Initializing built-in extension XInputExtension
(II) Initializing built-in extension XTEST
(II) Initializing built-in extension XKEYBOARD
(II) Initializing built-in extension XC-APPGROUP
(II) Initializing built-in extension XAccessControlExtension
(II) Initializing built-in extension SECURITY
(II) Initializing built-in extension XINERAMA
(II) Initializing built-in extension XFIXES
(II) Initializing built-in extension XFree86-Bigfont
(II) Initializing built-in extension RENDER
(II) Initializing built-in extension RANDR
(II) Initializing built-in extension COMPOSITE
```

```

(II) Initializing built-in extension DAMAGE
(II) Initializing built-in extension XEVIE
(II) AIGLX: Screen 0 is not DRI capable
(II) Loading sub module "GLcore"
(II) LoadModule: "GLcore"
(II) Loading /usr/lib/xorg/modules/extensions//libGLcore.so
(II) Module GLcore: vendor="X.Org Foundation"
compiled for 1.4.0.90, module version = 1.0.0
ABI class: X.Org Server Extension, version 0.3
(II) GLX: Initialized MESA-PROXY GL provider for screen 0
Atom 4, CARD32 4, unsigned long 4
(II) Synaptics touchpad driver version 0.14.6 (1406)
(-- Synaptics Touchpad auto-dev sets device to /dev/input/event9
(** Option "Device" "/dev/input/event9"
(** Option "HorizEdgeScroll" "0"
(-- Synaptics Touchpad touchpad found
(** Option "SendCoreEvents" "true"
(** Synaptics Touchpad: always reports core events
(WW Configured Mouse: No Device specified, looking for one...
(II) Configured Mouse: Setting Device option to "/dev/input/mice"
(-- Configured Mouse: Device: "/dev/input/mice"
(== Configured Mouse: Protocol: "Auto"
(** Option "CorePointer"
(** Configured Mouse: always reports core events
(== Configured Mouse: Emulate3Buttons, Emulate3Timeout: 50
(** Configured Mouse: ZAxisMapping: buttons 4 and 5
(** Configured Mouse: Buttons: 9
(** Configured Mouse: Sensitivity: 1
(** Option "CoreKeyboard"
(** Generic Keyboard: always reports core events
(** Option "Protocol" "standard"
(** Generic Keyboard: Protocol: standard
(** Option "AutoRepeat" "500 30"
(** Option "XkbRules" "xorg"
(** Generic Keyboard: XkbRules: "xorg"
(** Option "XkbModel" "pc105"
(** Generic Keyboard: XkbModel: "pc105"
(** Option "XkbLayout" "fr"
(** Generic Keyboard: XkbLayout: "fr"
(** Option "XkbVariant" "oss"
(** Generic Keyboard: XkbVariant: "oss"
(** Option "CustomKeycodes" "off"
(** Generic Keyboard: CustomKeycodes disabled
(II) evaluating device (Generic Keyboard)
(II) XINPUT: Adding extended input device "Generic Keyboard" (type: KEYBOARD)
(II) evaluating device (Configured Mouse)
(II) XINPUT: Adding extended input device "Configured Mouse" (type: MOUSE)
(II) evaluating device (Synaptics Touchpad)
(II) XINPUT: Adding extended input device "Synaptics Touchpad" (type: MOUSE)
(-- Configured Mouse: PnP-detected protocol: "ExplorerPS/2"
(II) Configured Mouse: ps2EnableDataReporting: succeeded
(-- Synaptics Touchpad auto-dev sets device to /dev/input/event9
(** Option "Device" "/dev/input/event9"
(-- Synaptics Touchpad touchpad found
SetClientVersion: 0 9

```

and finally the boot messages :

```

[ 0.000000] Initializing cgroup subsys cpuset
[ 0.000000] Initializing cgroup subsys cpu
[ 0.000000] Linux version 2.6.24-19-generic (buildd@terranova) (gcc version 4.2.3 (Ubuntu 4.2.3-2ubuntu7))
[ 0.000000] BIOS-provided physical RAM map:
[ 0.000000] BIOS-e820: 0000000000000000 - 000000000009fc00 (usable)

```

```
[ 0.000000] BIOS-e820: 000000000009fc00 - 00000000000a0000 (reserved)
[ 0.000000] BIOS-e820: 00000000000e0000 - 0000000000100000 (reserved)
[ 0.000000] BIOS-e820: 0000000000100000 - 0000000077fa8000 (usable)
[ 0.000000] BIOS-e820: 0000000077fa8000 - 0000000077fb0000 (ACPI NVS)
[ 0.000000] BIOS-e820: 0000000077fb0000 - 0000000077fbe000 (ACPI data)
[ 0.000000] BIOS-e820: 0000000077fbe000 - 0000000078000000 (ACPI NVS)
[ 0.000000] BIOS-e820: 00000000fee00000 - 00000000fee01000 (reserved)
[ 0.000000] 1023MB HIGHMEM available.
[ 0.000000] 896MB LOWMEM available.
[ 0.000000] found SMP MP-table at 000ff780
[ 0.000000] Entering add_active_range(0, 0, 491432) 0 entries of 256 used
[ 0.000000] Zone PFN ranges:
[ 0.000000]   DMA             0 ->    4096
[ 0.000000]   Normal          4096 ->  229376
[ 0.000000]   HighMem        229376 ->  491432
[ 0.000000] Movable zone start PFN for each node
[ 0.000000] early_node_map[1] active PFN ranges
[ 0.000000]   0:             0 ->  491432
[ 0.000000] On node 0 totalpages: 491432
[ 0.000000]   DMA zone: 32 pages used for memmap
[ 0.000000]   DMA zone: 0 pages reserved
[ 0.000000]   DMA zone: 4064 pages, LIFO batch:0
[ 0.000000]   Normal zone: 1760 pages used for memmap
[ 0.000000]   Normal zone: 223520 pages, LIFO batch:31
[ 0.000000]   HighMem zone: 2047 pages used for memmap
[ 0.000000]   HighMem zone: 260009 pages, LIFO batch:31
[ 0.000000]   Movable zone: 0 pages used for memmap
[ 0.000000] DMI present.
[ 0.000000] ACPI: RSDP signature @ 0xc00f9b10 checksum 0
[ 0.000000] ACPI: RSDP 000f9b10, 0014 (r0 ACPIAM)
[ 0.000000] ACPI: RSDT 77fb0000, 004c (r1 PacBel PBNB000A 20071127 MSFT      97)
[ 0.000000] ACPI: FACP 77fb0200, 0084 (r1 112707 FACP1919 20071127 MSFT      97)
[ 0.000000] ACPI: DSDT 77fb0690, 94f4 (r1 T12C0 T12C0001      1 INTL 20051117)
[ 0.000000] ACPI: FACS 77fbe000, 0040
[ 0.000000] ACPI: APIC 77fb0390, 006c (r1 112707 APIC1919 20071127 MSFT      97)
[ 0.000000] ACPI: MCFG 77fb0440, 003c (r1 112707 OEMMCFG 20071127 MSFT      97)
[ 0.000000] ACPI: SLIC 77fb0480, 0176 (r1 PacBel PBNB000A 20071127 MSFT      97)
[ 0.000000] ACPI: ECDT 77fb0630, 0055 (r1 112707 OEMECDT 20071127 MSFT      97)
[ 0.000000] ACPI: DBGp 77fb0400, 0034 (r1 112707 DBGp1919 20071127 MSFT      97)
[ 0.000000] ACPI: BOOT 77fb0600, 0028 (r1 112707 BOOT1919 20071127 MSFT      97)
[ 0.000000] ACPI: OEMB 77fbe040, 0071 (r1 112707 OEMB1919 20071127 MSFT      97)
[ 0.000000] ACPI: HPET 77fb9b90, 0038 (r1 112707 OEMHPET 20071127 MSFT      97)
[ 0.000000] ACPI: SSDT 77fbec70, 04e6 (r1 PmRef  CpuPm      3000 INTL 20051117)
[ 0.000000] ACPI: PM-Timer IO Port: 0x808
[ 0.000000] ACPI: Local APIC address 0xfe000000
[ 0.000000] ACPI: LAPIC (acpi_id[0x01] lapic_id[0x00] enabled)
[ 0.000000] Processor #0 6:15 APIC version 20
[ 0.000000] ACPI: LAPIC (acpi_id[0x02] lapic_id[0x01] enabled)
[ 0.000000] Processor #1 6:15 APIC version 20
[ 0.000000] ACPI: LAPIC (acpi_id[0x03] lapic_id[0x82] disabled)
[ 0.000000] ACPI: LAPIC (acpi_id[0x04] lapic_id[0x83] disabled)
[ 0.000000] ACPI: IOAPIC (id[0x02] address[0xfec00000] gsi_base[0])
[ 0.000000] IOAPIC[0]: apic_id 2, version 20, address 0xfec00000, GSI 0-23
[ 0.000000] ACPI: INT_SRC_OVR (bus 0 bus_irq 0 global_irq 2 dfl dfl)
[ 0.000000] ACPI: INT_SRC_OVR (bus 0 bus_irq 9 global_irq 9 low level)
[ 0.000000] ACPI: IRQ0 used by override.
[ 0.000000] ACPI: IRQ2 used by override.
[ 0.000000] ACPI: IRQ9 used by override.
[ 0.000000] Enabling APIC mode: Flat. Using 1 I/O APICs
[ 0.000000] ACPI: HPET id: 0x10398201 base: 0xfed00000
[ 0.000000] Using ACPI (MADT) for SMP configuration information
[ 0.000000] Allocating PCI resources starting at 80000000 (gap: 78000000:86e00000)
[ 0.000000] swsusp: Registered nosave memory region: 000000000009f000 - 00000000000a0000
[ 0.000000] swsusp: Registered nosave memory region: 00000000000a0000 - 00000000000e0000
[ 0.000000] swsusp: Registered nosave memory region: 00000000000e0000 - 0000000000100000
[ 0.000000] Built 1 zonelists in Zone order, mobility grouping on. Total pages: 487593
[ 0.000000] Kernel command line: root=UUID=d3cd2780-5947-4352-b155-493e8dbcc790 ro quiet splash locale=fr_FR
[ 0.000000] mapped APIC to fffffb000 (fee00000)
[ 0.000000] mapped IOAPIC to fffffa000 (fec00000)
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[ 0.000000] Enabling fast FPU save and restore... done.
[ 0.000000] Enabling unmasked SIMD FPU exception support... done.
[ 0.000000] Initializing CPU#0
[ 0.000000] PID hash table entries: 4096 (order: 12, 16384 bytes)
[ 0.000000] Detected 1599.590 MHz processor.
[ 15.388417] Console: colour VGA+ 80x25
[ 15.388423] console [tty0] enabled
[ 15.388790] Dentry cache hash table entries: 131072 (order: 7, 524288 bytes)
[ 15.389112] Inode-cache hash table entries: 65536 (order: 6, 262144 bytes)
[ 15.483642] Memory: 1936900k/1965728k available (2177k kernel code, 27668k reserved, 1006k data, 368k in
[ 15.483651] virtual kernel memory layout:
[ 15.483652]   fixmap : 0xffff4b000 - 0xfffff000   ( 720 kB)
[ 15.483653]   pkmap : 0xff8000000 - 0xffc000000 (4096 kB)
[ 15.483654]   vmalloc : 0xf88000000 - 0xff7fe0000 ( 111 MB)
[ 15.483655]   lowmem : 0xc00000000 - 0xf80000000 ( 896 MB)
[ 15.483656]   .init : 0xc04210000 - 0xc047d0000 ( 368 kB)
[ 15.483657]   .data : 0xc03204c40 - 0xc041bdc40 (1006 kB)
[ 15.483658]   .text : 0xc01000000 - 0xc03204c40 (2177 kB)
[ 15.483662] Checking if this processor honours the WP bit even in supervisor mode... Ok.
[ 15.483725] SLUB: Genslabs=11, HWalig=64, Order=0-1, MinObjects=4, CPUs=2, Nodes=1
[ 15.483892] hpet clockevent registered
[ 15.563872] Calibrating delay using timer specific routine.. 3201.04 BogoMIPS (lpj=6402084)
[ 15.563902] Security Framework initialized
[ 15.563914] SELinux: Disabled at boot.
[ 15.563934] AppArmor: AppArmor initialized
[ 15.563940] Failure registering capabilities with primary security module.
[ 15.563950] Mount-cache hash table entries: 512
[ 15.564130] Initializing cgroup subsys ns
[ 15.564138] Initializing cgroup subsys cpuacct
[ 15.564152] CPU: After generic identify, caps: bfebfbff 20100000 00000000 00000000 0000e39d 00000000 000
[ 15.564160] monitor/mwait feature present.
[ 15.564162] using mwait in idle threads.
[ 15.564167] CPU: L1 I cache: 32K, L1 D cache: 32K
[ 15.564169] CPU: L2 cache: 1024K
[ 15.564173] CPU: Physical Processor ID: 0
[ 15.564174] CPU: Processor Core ID: 0
[ 15.564176] CPU: After all inits, caps: bfebfbff 20100000 00000000 00003940 0000e39d 00000000 00000001 00
[ 15.564188] Compat vDSO mapped to fffe0000.
[ 15.564206] Checking 'hlt' instruction... OK.
[ 15.580348] SMP alternatives: switching to UP code
[ 15.582313] Early unpacking initramfs... done
[ 15.946311] ACPI: Core revision 20070126
[ 15.946377] ACPI: Looking for DSDT in initramfs... error, file /DSDT.aml not found.
[ 15.952971] CPU0: Intel(R) Pentium(R) Dual CPU T2330 @ 1.60GHz stepping 0d
[ 15.952991] SMP alternatives: switching to SMP code
[ 15.953867] Booting processor 1/1 eip 3000
[ 15.965126] Initializing CPU#1
[ 16.043727] Calibrating delay using timer specific routine.. 3199.10 BogoMIPS (lpj=6398200)
[ 16.043736] CPU: After generic identify, caps: bfebfbff 20100000 00000000 00000000 0000e39d 00000000 000
[ 16.043741] monitor/mwait feature present.
[ 16.043745] CPU: L1 I cache: 32K, L1 D cache: 32K
[ 16.043747] CPU: L2 cache: 1024K
[ 16.043749] CPU: Physical Processor ID: 0
[ 16.043751] CPU: Processor Core ID: 1
[ 16.043752] CPU: After all inits, caps: bfebfbff 20100000 00000000 00003940 0000e39d 00000000 00000001 00
[ 16.044289] CPU1: Intel(R) Pentium(R) Dual CPU T2330 @ 1.60GHz stepping 0d
[ 16.044313] Total of 2 processors activated (6400.14 BogoMIPS).
[ 16.044418] ENABLING IO-APIC IRQs
[ 16.044584] ..TIMER: vector=0x31 apic1=0 pin1=2 apic2=-1 pin2=-1
[ 16.084287] ..MP-BIOS bug: 8254 timer not connected to IO-APIC
[ 16.084332] ...trying to set up timer (IRQ0) through the 8259A ... failed.
[ 16.084335] ...trying to set up timer as Virtual Wire IRQ... works.
[ 16.231805] checking TSC synchronization [CPU#0 -> CPU#1]: passed.
[ 16.251815] Brought up 2 CPUs
[ 16.251838] CPU0 attaching sched-domain:
[ 16.251841]   domain 0: span 03
[ 16.251842]   groups: 01 02
[ 16.251846] CPU1 attaching sched-domain:
[ 16.251848]   domain 0: span 03
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[ 16.251849] groups: 02 01
[ 16.252098] net_namespace: 64 bytes
[ 16.252108] Booting paravirtualized kernel on bare hardware
[ 16.252587] Time: 14:09:38 Date: 08/30/08
[ 16.252619] NET: Registered protocol family 16
[ 16.252821] EISA bus registered
[ 16.252827] ACPI: bus type pci registered
[ 16.254196] PCI: PCI BIOS revision 3.00 entry at 0xf0031, last bus=5
[ 16.254198] PCI: Using configuration type 1
[ 16.254215] Setting up standard PCI resources
[ 16.259616] ACPI: EC: EC description table is found, configuring boot EC
[ 16.390533] ACPI: Interpreter enabled
[ 16.390537] ACPI: (supports S0 S3 S4 S5)
[ 16.390556] ACPI: Using IOAPIC for interrupt routing
[ 16.390829] Error attaching device data
[ 16.390874] Error attaching device data
[ 16.397991] ACPI: EC: GPE = 0x19, I/O: command/status = 0x66, data = 0x62
[ 16.397994] ACPI: EC: driver started in poll mode
[ 16.398350] ACPI: PCI Root Bridge [PCI0] (0000:00)
[ 16.399531] ACPI: PCI Interrupt Routing Table [_SB_.PCI0._PRT]
[ 16.407690] ACPI: PCI Interrupt Link [LNKA] (IRQs 3 4 5 7 *10 11 12 14 15)
[ 16.407847] ACPI: PCI Interrupt Link [LNKB] (IRQs 3 4 5 *7 10 11 12 14 15)
[ 16.408000] ACPI: PCI Interrupt Link [LNKC] (IRQs 3 *4 5 7 10 11 12 14 15)
[ 16.408152] ACPI: PCI Interrupt Link [LNKD] (IRQs *3 4 5 7 10 11 12 14 15)
[ 16.408304] ACPI: PCI Interrupt Link [LNKE] (IRQs 3 4 5 7 10 *11 12 14 15)
[ 16.408455] ACPI: PCI Interrupt Link [LNKF] (IRQs 3 4 *5 7 10 11 12 14 15)
[ 16.408607] ACPI: PCI Interrupt Link [LNKG] (IRQs 3 4 5 7 10 11 12 14 *15)
[ 16.408759] ACPI: PCI Interrupt Link [LNKH] (IRQs 3 4 5 7 10 11 12 14 15) *0, disabled.
[ 16.408924] Linux Plug and Play Support v0.97 (c) Adam Belay
[ 16.408958] pnp: PnP ACPI init
[ 16.408968] ACPI: bus type pnp registered
[ 16.411354] pnp: PnP ACPI: found 12 devices
[ 16.411356] ACPI: ACPI bus type pnp unregistered
[ 16.411361] PnPBIOS: Disabled by ACPI PNP
[ 16.411609] PCI: Using ACPI for IRQ routing
[ 16.411613] PCI: If a device doesn't work, try "pci=routeirq". If it helps, post a report
[ 16.439761] NET: Registered protocol family 8
[ 16.439764] NET: Registered protocol family 20
[ 16.439797] hpet0: at MMIO 0xfed00000, IRQs 2, 8, 0
[ 16.439802] hpet0: 3 32-bit timers, 14318180 Hz
[ 16.440847] AppArmor: AppArmor Filesystem Enabled
[ 16.443614] Time: tsc clocksource has been installed.
[ 16.443624] Switched to high resolution mode on CPU 0
[ 16.443753] Switched to high resolution mode on CPU 1
[ 16.456613] system 00:06: ioport range 0x290-0x297 has been reserved
[ 16.456617] system 00:06: ioport range 0xc00-0xc05 has been reserved
[ 16.456619] system 00:06: ioport range 0xd00-0xd05 has been reserved
[ 16.456622] system 00:06: ioport range 0x480-0x48f has been reserved
[ 16.456625] system 00:06: ioport range 0x4d0-0x4d1 has been reserved
[ 16.456627] system 00:06: ioport range 0x800-0x87f has been reserved
[ 16.456630] system 00:06: ioport range 0x880-0x8ff has been reserved
[ 16.456633] system 00:06: ioport range 0xc00-0xc7f could not be reserved
[ 16.456636] system 00:06: ioport range 0x2000-0x20fe has been reserved
[ 16.456639] system 00:06: iomem range 0xffff8000-0xffffffff has been reserved
[ 16.456642] system 00:06: iomem range 0xffb80000-0xffbfffff has been reserved
[ 16.456645] system 00:06: iomem range 0xffee0000-0xffefffff has been reserved
[ 16.456648] system 00:06: iomem range 0xfed10000-0xfed3ffff has been reserved
[ 16.456656] system 00:09: ioport range 0x250-0x253 has been reserved
[ 16.456659] system 00:09: ioport range 0x256-0x25f has been reserved
[ 16.456662] system 00:09: iomem range 0xfec00000-0xfec00fff has been reserved
[ 16.456665] system 00:09: iomem range 0xfee00000-0xfef00fff could not be reserved
[ 16.456671] system 00:0a: iomem range 0xe0000000-0xfffffff has been reserved
[ 16.456678] system 00:0b: iomem range 0x0-0x9ffff could not be reserved
[ 16.456681] system 00:0b: iomem range 0xc0000-0xcffff could not be reserved
[ 16.456683] system 00:0b: iomem range 0xe0000-0xfffff could not be reserved
[ 16.456686] system 00:0b: iomem range 0x100000-0x7fffff could not be reserved
[ 16.456689] system 00:0b: iomem range 0xe0000000-0xfffffff could not be reserved
[ 16.487126] PCI: Bridge: 0000:00:01.0
[ 16.487129] IO window: d000-dfff
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[ 16.487135] MEM window: fde00000-fdefffff
[ 16.487140] PREFETCH window: c0000000-cfffffff
[ 16.487145] PCI: Bridge: 0000:00:06.0
[ 16.487146] IO window: disabled.
[ 16.487152] MEM window: fdf00000-fdffffff
[ 16.487156] PREFETCH window: disabled.
[ 16.487161] PCI: Bridge: 0000:00:07.0
[ 16.487164] IO window: e000-ffff
[ 16.487169] MEM window: fe000000-febfffff
[ 16.487174] PREFETCH window: de000000-dfffffff
[ 16.487188] PCI: Setting latency timer of device 0000:00:01.0 to 64
[ 16.487217] PCI: Setting latency timer of device 0000:00:06.0 to 64
[ 16.487241] PCI: Setting latency timer of device 0000:00:07.0 to 64
[ 16.487255] NET: Registered protocol family 2
[ 16.524631] IP route cache hash table entries: 32768 (order: 5, 131072 bytes)
[ 16.524887] TCP established hash table entries: 131072 (order: 8, 1048576 bytes)
[ 16.525660] TCP bind hash table entries: 65536 (order: 7, 524288 bytes)
[ 16.526264] TCP: Hash tables configured (established 131072 bind 65536)
[ 16.526268] TCP reno registered
[ 16.536791] checking if image is initramfs... it is
[ 17.252998] Freeing initrd memory: 7321k freed
[ 17.253232] Simple Boot Flag at 0x71 set to 0x1
[ 17.253948] audit: initializing netlink socket (disabled)
[ 17.253970] audit(1220105378.484:1): initialized
[ 17.254235] highmem bounce pool size: 64 pages
[ 17.256331] VFS: Disk quotas dquot_6.5.1
[ 17.256411] Dquot-cache hash table entries: 1024 (order 0, 4096 bytes)
[ 17.256564] io scheduler noop registered
[ 17.256567] io scheduler anticipatory registered
[ 17.256569] io scheduler deadline registered
[ 17.256581] io scheduler cfq registered (default)
[ 17.315360] Boot video device is 0000:01:00.0
[ 17.315499] PCI: Setting latency timer of device 0000:00:06.0 to 64
[ 17.315568] assign_interrupt_mode Found MSI capability
[ 17.315617] Allocate Port Service[0000:00:06.0:pcie00]
[ 17.315734] PCI: Setting latency timer of device 0000:00:07.0 to 64
[ 17.315801] assign_interrupt_mode Found MSI capability
[ 17.315845] Allocate Port Service[0000:00:07.0:pcie00]
[ 17.316102] isapnp: Scanning for PnP cards...
[ 17.669699] isapnp: No Plug & Play device found
[ 17.697401] Real Time Clock Driver v1.12ac
[ 17.697660] hpet_resources: 0xfed00000 is busy
[ 17.697719] Serial: 8250/16550 driver $Revision: 1.90 $ 4 ports, IRQ sharing enabled
[ 17.699026] RAMDISK driver initialized: 16 RAM disks of 65536K size 1024 blocksize
[ 17.699099] input: Macintosh mouse button emulation as /devices/virtual/input/input0
[ 17.699210] PNP: PS/2 Controller [PNP0303:PS2K,PNP0f03:PS2M] at 0x60,0x64 irq 1,12
[ 17.701080] i8042.c: Detected active multiplexing controller, rev 1.1.
[ 17.702007] serio: i8042 KBD port at 0x60,0x64 irq 1
[ 17.702012] serio: i8042 AUX0 port at 0x60,0x64 irq 12
[ 17.702015] serio: i8042 AUX1 port at 0x60,0x64 irq 12
[ 17.702017] serio: i8042 AUX2 port at 0x60,0x64 irq 12
[ 17.702020] serio: i8042 AUX3 port at 0x60,0x64 irq 12
[ 17.728295] mice: PS/2 mouse device common for all mice
[ 17.728421] EISA: Probing bus 0 at eisa.0
[ 17.728433] Cannot allocate resource for EISA slot 2
[ 17.728458] EISA: Detected 0 cards.
[ 17.728462] cpuidle: using governor ladder
[ 17.728463] cpuidle: using governor menu
[ 17.728567] NET: Registered protocol family 1
[ 17.728602] Using IPI No-Shortcut mode
[ 17.728641] registered taskstats version 1
[ 17.728743] Magic number: 4:368:183
[ 17.728779] hash matches device ttyr9
[ 17.728867] BIOS EDD facility v0.16 2004-Jun-25, 0 devices found
[ 17.728869] EDD information not available.
[ 17.729104] Freeing unused kernel memory: 368k freed
[ 17.760387] input: AT Translated Set 2 keyboard as /devices/platform/i8042/serio0/input/input1
[ 18.978284] fuse init (API version 7.9)
[ 19.019258] ACPI: SSDT 77FBE390, 0244 (r1 PmRef Cpu0Ist 3000 INTL 20051117)
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[ 19.019538] ACPI: SSDT 77FBE670, 05FF (r1 PmRef Cpu0Cst      3001 INTL 20051117)
[ 19.020050] Monitor-Mwait will be used to enter C-1 state
[ 19.020053] Monitor-Mwait will be used to enter C-2 state
[ 19.020164] ACPI: CPU0 (power states: C1[C1] C2[C2])
[ 19.020423] ACPI: SSDT 77FBE2C0, 00C8 (r1 PmRef Cpu1Ist      3000 INTL 20051117)
[ 19.020686] ACPI: SSDT 77FBE5E0, 0085 (r1 PmRef Cpu1Cst      3000 INTL 20051117)
[ 19.021376] ACPI: CPU1 (power states: C1[C1] C2[C2])
[ 19.022658] ACPI: EC: non-query interrupt received, switching to interrupt mode
[ 19.024163] ACPI: Thermal Zone [THRM] (59 C)
[ 19.265441] SCSI subsystem initialized
[ 19.306464] libata version 3.00 loaded.
[ 19.321713] ACPI: PCI Interrupt 0000:00:05.0[A] -> GSI 17 (level, low) -> IRQ 16
[ 19.321746] ACPI: PCI interrupt for device 0000:00:05.0 disabled
[ 19.335179] pata_sis 0000:00:02.5: version 0.5.2
[ 19.341951] scsi0 : pata_sis
[ 19.343369] scsi1 : pata_sis
[ 19.343942] ata1: PATA max UDMA/133 cmd 0x1f0 ctl 0x3f6 bmdma 0xffe0 irq 14
[ 19.343945] ata2: PATA max UDMA/133 cmd 0x170 ctl 0x376 bmdma 0xffe8 irq 15
[ 19.344125] usbcore: registered new interface driver usbfs
[ 19.344155] usbcore: registered new interface driver hub
[ 19.344853] usbcore: registered new device driver usb
[ 19.346405] ohci_hcd: 2006 August 04 USB 1.1 'Open' Host Controller (OHCI) Driver
[ 19.666967] ata1.00: ATAPI: Optiarc DVD RW AD-5540A, 2.63, max UDMA/33
[ 19.838958] ata1.00: configured for UDMA/33
[ 19.839020] ata2: port disabled. ignoring.
[ 19.840092] scsi 0:0:0:0: CD-ROM          Optiarc DVD RW AD-5540A  2.63 PQ: 0 ANSI: 5
[ 19.840241] ACPI: PCI Interrupt 0000:00:03.3[C] -> GSI 22 (level, low) -> IRQ 17
[ 19.840261] ehci_hcd 0000:00:03.3: EHCI Host Controller
[ 19.840597] ehci_hcd 0000:00:03.3: new USB bus registered, assigned bus number 1
[ 19.840641] ehci_hcd 0000:00:03.3: debug port 1
[ 19.840659] ehci_hcd 0000:00:03.3: irq 17, io mem 0xfddfd000
[ 19.851551] ehci_hcd 0000:00:03.3: USB 2.0 started, EHCI 1.00, driver 10 Dec 2004
[ 19.851723] usb usb1: configuration #1 chosen from 1 choice
[ 19.851749] hub 1-0:1.0: USB hub found
[ 19.851755] hub 1-0:1.0: 8 ports detected
[ 19.955696] ACPI: PCI Interrupt 0000:00:03.0[A] -> GSI 20 (level, low) -> IRQ 18
[ 19.955724] ohci_hcd 0000:00:03.0: OHCI Host Controller
[ 19.955761] ohci_hcd 0000:00:03.0: new USB bus registered, assigned bus number 2
[ 19.955777] ohci_hcd 0000:00:03.0: irq 18, io mem 0xfdddf000
[ 20.012637] usb usb2: configuration #1 chosen from 1 choice
[ 20.012667] hub 2-0:1.0: USB hub found
[ 20.012676] hub 2-0:1.0: 4 ports detected
[ 20.103160] Driver 'sr' needs updating - please use bus_type methods
[ 20.107279] sr0: scsi3-mmc drive: 24x/24x writer cd/rw xa/form2 cdda tray
[ 20.107284] Uniform CD-ROM driver Revision: 3.20
[ 20.107344] sr 0:0:0:0: Attached scsi CD-ROM sr0
[ 20.112565] sr 0:0:0:0: Attached scsi generic sg0 type 5
[ 20.114586] ACPI: PCI Interrupt 0000:00:03.1[B] -> GSI 21 (level, low) -> IRQ 19
[ 20.114606] ohci_hcd 0000:00:03.1: OHCI Host Controller
[ 20.114635] ohci_hcd 0000:00:03.1: new USB bus registered, assigned bus number 3
[ 20.114651] ohci_hcd 0000:00:03.1: irq 19, io mem 0xfdddf000
[ 20.172579] usb usb3: configuration #1 chosen from 1 choice
[ 20.172608] hub 3-0:1.0: USB hub found
[ 20.172616] hub 3-0:1.0: 4 ports detected
[ 20.194448] usb 1-1: new high speed USB device using ehci_hcd and address 2
[ 20.274650] sata_sis 0000:00:05.0: version 1.0
[ 20.274669] ACPI: PCI Interrupt 0000:00:05.0[A] -> GSI 17 (level, low) -> IRQ 16
[ 20.274677] sata_sis 0000:00:05.0: Detected SiS 1183/966/966L/968/680 controller in PATA mode
[ 20.274777] scsi2 : sata_sis
[ 20.274839] scsi3 : sata_sis
[ 20.275449] ata3: PATA max UDMA/133 cmd 0xc800 ctl 0xc400 bmdma 0xb800 irq 16
[ 20.275453] ata4: PATA max UDMA/133 cmd 0xc000 ctl 0xbc00 bmdma 0xb808 irq 16
[ 20.438606] ata3.00: ATA-8: ST9250827AS, 3.AAA, max UDMA/133
[ 20.438612] ata3.00: 488397168 sectors, multi 16: LBA48 NCQ (depth 0/32)
[ 20.454597] ata3.00: configured for UDMA/133
[ 20.622300] scsi 2:0:0:0: Direct-Access  ATA          ST9250827AS      3.AA PQ: 0 ANSI: 5
[ 20.622399] scsi 2:0:0:0: Attached scsi generic sgl type 0
[ 20.630609] Driver 'sd' needs updating - please use bus_type methods
[ 20.630719] sd 2:0:0:0: [sda] 488397168 512-byte hardware sectors (250059 MB)
```

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[ 20.630733] sd 2:0:0:0: [sda] Write Protect is off
[ 20.630736] sd 2:0:0:0: [sda] Mode Sense: 00 3a 00 00
[ 20.630754] sd 2:0:0:0: [sda] Write cache: enabled, read cache: enabled, doesn't support DPO or FUA
[ 20.630812] sd 2:0:0:0: [sda] 488397168 512-byte hardware sectors (250059 MB)
[ 20.630823] sd 2:0:0:0: [sda] Write Protect is off
[ 20.630825] sd 2:0:0:0: [sda] Mode Sense: 00 3a 00 00
[ 20.630842] sd 2:0:0:0: [sda] Write cache: enabled, read cache: enabled, doesn't support DPO or FUA
[ 20.630846] sda: sda1 sda2 <<6>usb 1-1: configuration #1 chosen from 1 choice
[ 20.695696] sda5 >
[ 20.695834] sd 2:0:0:0: [sda] Attached SCSI disk
[ 20.989410] Attempting manual resume
[ 20.989414] swsusp: Resume From Partition 8:5
[ 20.989416] PM: Checking swsusp image.
[ 20.989588] PM: Resume from disk failed.
[ 21.043640] kjournald starting. Commit interval 5 seconds
[ 21.043655] EXT3-fs: mounted filesystem with ordered data mode.
[ 29.093566] sis190 Gigabit Ethernet driver 1.2 loaded.
[ 29.093604] ACPI: PCI Interrupt 0000:00:04.0[A] -> GSI 19 (level, low) -> IRQ 20
[ 29.093618] PCI: Setting latency timer of device 0000:00:04.0 to 64
[ 29.093632] 0000:00:04.0: Read MAC address from APC.
[ 29.128451] pci_hotplug: PCI Hot Plug PCI Core version: 0.5
[ 29.143647] 0000:00:04.0: Realtek PHY RTL8201 transceiver at address 1.
[ 29.276808] input: PC Speaker as /devices/platform/pcspkr/input/input2
[ 29.438465] input: Power Button (FF) as /devices/virtual/input/input3
[ 29.468549] ACPI: Power Button (FF) [PWRF]
[ 29.468701] input: Power Button (CM) as /devices/virtual/input/input4
[ 29.500526] ACPI: Power Button (CM) [PWRB]
[ 29.500610] input: Sleep Button (CM) as /devices/virtual/input/input5
[ 29.532527] ACPI: Sleep Button (CM) [SLPB]
[ 29.532620] input: Lid Switch as /devices/virtual/input/input6
[ 29.534075] ACPI: Lid Switch [LID]
[ 29.548668] asus-laptop: Asus Laptop Support version 0.42
[ 29.549071] asus-laptop: T12C model detected
[ 29.639479] 0000:00:04.0: Using transceiver at address 1 as default.
[ 29.671739] 0000:00:04.0: SiS 191 PCI Gigabit Ethernet adapter at f890ac00 (IRQ: 20), 00:1e:8c:7f:48:fa
[ 29.671744] eth0: GMII mode.
[ 29.671750] eth0: Enabling Auto-negotiation.
[ 29.703521] shpchp: Standard Hot Plug PCI Controller Driver version: 0.4
[ 29.900711] ACPI: AC Adapter [AC0] (on-line)
[ 30.036587] ACPI: Battery Slot [BAT0] (battery present)
[ 30.508311] input: Video Bus as /devices/LNXSYSTM:00/device:00/PNP0A03:00/device:0c/LNXVIDEO:00/input/input1
[ 30.544198] ACPI: Video Device [VGA] (multi-head: yes rom: no post: no)
[ 30.565177] ath_hal: module license 'Proprietary' taints kernel.
[ 30.571252] ath_hal: 0.9.18.0 (AR5210, AR5211, AR5212, RF5111, RF5112, RF2413, RF5413)
[ 30.792518] wlan: 0.9.4
[ 30.832262] ath_pci: 0.9.4
[ 30.832354] ACPI: PCI Interrupt 0000:02:00.0[A] -> GSI 16 (level, low) -> IRQ 21
[ 30.832370] PCI: Setting latency timer of device 0000:02:00.0 to 64
[ 30.857647] wifi%d: unable to attach hardware: 'Hardware revision not supported' (HAL status 13)
[ 30.857691] ACPI: PCI interrupt for device 0000:02:00.0 disabled
[ 30.927129] Linux video capture interface: v2.00
[ 31.016230] uvcvideo: Found UVC 1.00 device USB2.0 UVC PC Camera (174f:8a12)
[ 31.026399] ACPI: PCI Interrupt 0000:00:0f.0[A] -> GSI 18 (level, low) -> IRQ 22
[ 31.026435] PCI: Setting latency timer of device 0000:00:0f.0 to 64
[ 31.059004] uvcvideo: Failed to query (135) UVC control 1 (unit 0) : -32 (exp. 26).
[ 31.256104] Synaptics Touchpad, model: 1, fw: 6.2, id: 0x3aa0b4, caps: 0xa04713/0x200000
[ 31.294793] input: SynPS/2 Synaptics TouchPad as /devices/platform/i8042/serio4/input/input8
[ 31.528195] usbcore: registered new interface driver uvcvideo
[ 31.528201] USB Video Class driver (v0.1.0)
[ 32.539434] lp: driver loaded but no devices found
[ 32.720495] Adding 5695000k swap on /dev/sda5. Priority:-1 extents:1 across:5695000k
[ 33.272152] EXT3 FS on sda1, internal journal
[ 34.563206] ip_tables: (C) 2000-2006 Netfilter Core Team
[ 34.981462] No dock devices found.
[ 36.364189] NET: Registered protocol family 10
[ 36.364504] lo: Disabled Privacy Extensions
[ 41.975833] apm: BIOS version 1.2 Flags 0x03 (Driver version 1.16ac)
[ 41.975838] apm: disabled - APM is not SMP safe.
[ 42.159987] ppdev: user-space parallel port driver
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[ 42.270987] audit(1220105403.987:2): type=1503 operation="inode_permission" requested_mask="a::" denied_mask=
[ 43.648932] ADDRCONF(NETDEV_UP): eth0: link is not ready
[ 43.797765] Bluetooth: Core ver 2.11
[ 43.798173] NET: Registered protocol family 31
[ 43.798180] Bluetooth: HCI device and connection manager initialized
[ 43.798186] Bluetooth: HCI socket layer initialized
[ 43.816446] Bluetooth: L2CAP ver 2.9
[ 43.816455] Bluetooth: L2CAP socket layer initialized
[ 43.888108] Bluetooth: RFCOMM socket layer initialized
[ 43.888134] Bluetooth: RFCOMM TTY layer initialized
[ 43.888138] Bluetooth: RFCOMM ver 1.8
[ 53.672016] eth0: mii ext = 0000.
[ 53.687985] eth0: mii lpa = 41e1 adv = 01e1.
[ 53.687995] eth0: link on 100 Mbps Full Duplex mode.
[ 53.692326] ADDRCONF(NETDEV_CHANGE): eth0: link becomes ready
[ 54.227816] eth0: mii ext = 0000.
[ 54.243810] eth0: mii lpa = 41e1 adv = 01e1.
[ 54.243819] eth0: link on 100 Mbps Full Duplex mode.
[ 55.935754] NET: Registered protocol family 17
[ 141.702932] CPU0 attaching NULL sched-domain.
[ 141.702944] CPU1 attaching NULL sched-domain.
[ 141.728670] CPU0 attaching sched-domain:
[ 141.728675]   domain 0: span 03
[ 141.728678]     groups: 01 02
[ 141.728682] CPU1 attaching sched-domain:
[ 141.728683]   domain 0: span 03
[ 141.728685]     groups: 02 01
```