

VIA and NVIDIA

Source: <http://linux.derkeiler.com/Mailing-Lists/Kernel/2004-01/3715.html>

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Date: 01/14/04

To: Linux Kernel Mailing List <linux-kernel@vger.kernel.org>

Date: Wed, 14 Jan 2004 13:53:45 -0500

I have an NVidia Videocard with a VIA KT333 chipset motherboard..

i am about to burst.. i am tried just about every bug-fix, workaround and hack, written everywhere in the internet.. to get the Nvidia driver to work on my machine. NV works fine.

i've been trying this for 6months and finally caving and think that it has to be Linux's VIA support. which i've read there are some problems.

I am willing to present all information needed.. but this is the post i've posted all over NVIDIA boards:

The screen used to go black, and flicker blue once, and stop responding. number lock works... i can SSH into machine to get logs.. if i try and kill X it crashes the machine hard... complete lock out...

when i run ps aux i can see X is running 99% of CPU

All the options enabled in XFConfig attached have been added and removed (when options are removed the flicker happens.. if not... I now get a screen with ASCII printed.. just junk.. no flicker.)

I have:

Athlon XP 2200

Soyo Ultra Platinum, KT333

PNY GeForce 3 Ti200

Crucial 512 DDR-333

ALL tested kernels (2.4.22+, 2.6.x)

ALL distributions (Fedora, Redhat, Debian)

I have tested with following kernel options on and off:

ACPI/APM

Fb-Nvidia/Riva

Pre-empt

AGPART

i attached my XFConfig, XFree86.log and .config(2.6.0)

i am almost certain it is linux.. because the cards work on windows machines perfect. and i have tried a few cards on this linux machine the same happens.

also, most people who have the problems i described.... they get fixed with the OPTIONS that i have on my XF86Config. i have tested them all on and off.

i would like to see linux do 3d.. one day. :o)...thanks in advance, i love the work you guys do and hope to contribute in the future..

–eddie

The Log is attached below and this is my XFConfig File:

```
# XFree86 4 configuration created by redhat-config-xfree86
```

```
Section "ServerLayout"
Identifier "single head configuration"
Screen 0 "Screen0" 0 0
InputDevice "Mouse0" "CorePointer"
InputDevice "Keyboard0" "CoreKeyboard"
InputDevice "DevInputMice" "AlwaysCore"
EndSection
```

```
Section "Files"
```

```
# RgbPath is the location of the RGB database. Note, this is the name of the
# file minus the extension (like ".txt" or ".db"). There is normally
# no need to change the default.
# Multiple FontPath entries are allowed (they are concatenated together)
# By default, Red Hat 6.0 and later now use a font server independent of
# the X server to render fonts.
RgbPath "/usr/X11R6/lib/X11/rgb"
FontPath "unix:/7100"
EndSection
```

```
Section "Module"
Load "dbe"
Load "extmod"
# Load "fbdevhw"
Load "glx"
# Load "record"
```

```
Load "freetype"
Load "type1"
EndSection
```

```
Section "InputDevice"
```

```
# Specify which keyboard LEDs can be user–controlled (eg, with xset(1))
# Option "Xleds" "1 2 3"
# To disable the XKEYBOARD extension, uncomment XkbDisable.
# Option "XkbDisable"
# To customise the XKB settings to suit your keyboard, modify the
# lines below (which are the defaults). For example, for a non–U.S.
# keyboard, you will probably want to use:
# Option "XkbModel" "pc102"
# If you have a US Microsoft Natural keyboard, you can use:
# Option "XkbModel" "microsoft"
#
# Then to change the language, change the Layout setting.
# For example, a german layout can be obtained with:
# Option "XkbLayout" "de"
# or:
# Option "XkbLayout" "de"
# Option "XkbVariant" "nodeadkeys"
#
# If you'd like to switch the positions of your capslock and
# control keys, use:
# Option "XkbOptions" "ctrl:swapcaps"
# Or if you just want both to be control, use:
# Option "XkbOptions" "ctrl:nocaps"
#
Identifier "Keyboard0"
Driver "keyboard"
Option "XkbRules" "xfree86"
Option "XkbModel" "pc105"
Option "XkbLayout" "us"
EndSection
```

```
Section "InputDevice"
```

```
Identifier "Mouse0"
Driver "mouse"
Option "Protocol" "IMPS/2"
Option "Device" "/dev/psaux"
Option "ZAxisMapping" "4 5"
Option "Emulate3Buttons" "no"
EndSection
```

```
Section "InputDevice"
```

```
# If the normal CorePointer mouse is not a USB mouse then
# this input device can be used in AlwaysCore mode to let you
# also use USB mice at the same time.
```

```
Identifier "DevInputMice"  
Driver "mouse"  
Option "Protocol" "IMPS/2"  
Option "Device" "/dev/input/mice"  
Option "ZAxisMapping" "4 5"  
Option "Emulate3Buttons" "no"  
EndSection
```

```
Section "Monitor"  
Identifier "Monitor0"  
VendorName "Monitor Vendor"  
ModelName "Quantex TE1564M – Super View 1280"  
HorizSync 31.5 – 82.0  
VertRefresh 50.0 – 90.0  
Option "dpms"  
EndSection
```

```
Section "Device"  
Identifier "Videocard0"  
Driver "nvidia"  
VendorName "Videocard vendor"  
BoardName "NVIDIA GeForce 3 (generic)"  
Option "ReqAGPRate" "4"  
Option "NvAgp" "0"  
Option "ConnectedMonitor" "CRT"  
Option "IgnoreDisplayDevices" "DFP, TV"  
Option "IgnoreEDID"  
Option "DPMS"  
EndSection
```

```
Section "Screen"  
Identifier "Screen0"  
Device "Videocard0"  
Monitor "Monitor0"  
DefaultDepth 24  
SubSection "Display"  
Depth 16  
Modes "1280x1024"  
EndSubSection  
SubSection "Display"  
Depth 24  
Modes "1280x1024"  
EndSubSection  
EndSection
```

```
#Section "DRI"  
# Group 0  
# Mode 0666  
#EndSection
```

XFree86 Version 4.3.0 (Fedora Core 1: 4.3.0–42)
Release Date: 15 August 2003
X Protocol Version 11, Revision 0, Release 6.6
Build Operating System: Linux 2.4.21–2.ELsmp i686 [ELF]
Build Date: 24 October 2003
Build Host: porky.devel.redhat.com

Before reporting any problems, please make sure you are using the most recent XFree86 packages available from Red Hat by checking for updates at <http://rhn.redhat.com/errata> or by using the Red Hat Network up2date tool. If you still encounter problems, please file bug reports in the XFree86.org bugzilla at <http://bugs.xfree86.org> and/or Red Hat bugzilla at <http://bugzilla.redhat.com>

Module Loader present

OS Kernel: Linux version 2.6.1 (eddie@cobaltdhcpd226.hampshire.edu) (gcc version 3.3.2 20031022 (Red Hat Linux 3.3.2–1)) #2 Fri Jan 9 17:58:09 EST 2004 P

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/XFree86.0.log", Time: Fri Jan 9 18:07:23 2004

(==) Using config file: "/etc/X11/XF86Config"

(==) ServerLayout "single head configuration"

(**) |-->Screen "Screen0" (0)

(**) |-->Monitor "Monitor0"

(**) |-->Device "Videocard0"

(**) |-->Input Device "Mouse0"

(**) |-->Input Device "Keyboard0"

(**) Option "XkbRules" "xfree86"

(**) XKB: rules: "xfree86"

(**) Option "XkbModel" "pc105"

(**) XKB: model: "pc105"

(**) Option "XkbLayout" "us"

(**) XKB: layout: "us"

(==) Keyboard: CustomKeycode disabled

(**) |-->Input Device "DevInputMice"

(**) FontPath set to "unix:/7100"

(**) RgbPath set to "/usr/X11R6/lib/X11/rgb"

(==) ModulePath set to "/usr/X11R6/lib/modules"

(—) using VT number 7

(WW) Open APM failed (/dev/apm_bios) (No such device)

(II) Module ABI versions:

XFree86 ANSI C Emulation: 0.2

XFree86 Video Driver: 0.6

XFree86 XInput driver : 0.4

XFree86 Server Extension : 0.2

XFree86 Font Renderer : 0.4

- (II) Loader running on linux
- (II) LoadModule: "bitmap"
- (II) Loading /usr/X11R6/lib/modules/fonts/libbitmap.a
- (II) Module bitmap: vendor="The XFree86 Project"
compiled for 4.3.0, module version = 1.0.0
Module class: XFree86 Font Renderer
ABI class: XFree86 Font Renderer, version 0.4
- (II) Loading font Bitmap
- (II) LoadModule: "pcidata"
- (II) Loading /usr/X11R6/lib/modules/libpcidata.a
- (II) Module pcidata: vendor="The XFree86 Project"
compiled for 4.3.0, module version = 1.0.0
ABI class: XFree86 Video Driver, version 0.6
- (II) PCI: Probing config type using method 1
- (II) PCI: Config type is 1
- (II) PCI: stages = 0x03, oldVal1 = 0x80010044, mode1Res1 = 0x80000000
- (II) PCI: PCI scan (all values are in hex)
- (II) PCI: 00:00:0: chip 1106,3099 card 1106,3099 rev 00 class 06,00,00 hdr 00
- (II) PCI: 00:01:0: chip 1106,b099 card 0000,0000 rev 00 class 06,04,00 hdr 01
- (II) PCI: 00:0c:0: chip 10ec,8139 card 1799,5000 rev 10 class 02,00,00 hdr 00
- (II) PCI: 00:0e:0: chip 1106,3038 card 0925,1234 rev 50 class 0c,03,00 hdr 80
- (II) PCI: 00:0e:1: chip 1106,3038 card 0925,1234 rev 50 class 0c,03,00 hdr 80
- (II) PCI: 00:0e:2: chip 1106,3104 card 0925,1234 rev 51 class 0c,03,20 hdr 80
- (II) PCI: 00:10:0: chip 13f6,0111 card 10fd,a706 rev 10 class 04,01,00 hdr 00
- (II) PCI: 00:11:0: chip 1106,3147 card 1106,3147 rev 00 class 06,01,00 hdr 80
- (II) PCI: 00:11:1: chip 1106,0571 card 1106,0571 rev 06 class 01,01,8a hdr 00
- (II) PCI: 00:11:2: chip 1106,3038 card 0925,1234 rev 23 class 0c,03,00 hdr 00
- (II) PCI: 00:11:3: chip 1106,3038 card 0925,1234 rev 23 class 0c,03,00 hdr 00
- (II) PCI: 01:00:0: chip 10de,0201 card 1462,5103 rev a3 class 03,00,00 hdr 00
- (II) PCI: End of PCI scan
- (II) Host–to–PCI bridge:
- (II) Bus 0: bridge is at (0:0:0), (0,0,1), 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: 0x000c (VGA_EN is set)
- (II) Bus 1 non–prefetchable memory range:
[0] –1 0 0xd4000000 – 0xdbffffff (0x8000000) MX[B]
- (II) Bus 1 prefetchable memory range:
[0] –1 0 0xdc000000 – 0xe3ffffff (0x8000000) MX[B]
- (II) PCI–to–ISA bridge:
- (II) Bus –1: bridge is at (0:17:0), (0,–1,–1), BCTRL: 0x0008 (VGA_EN is set)
- (–) PCI:*(1:0:0) nVidia Corporation NV20 [GeForce3 Ti 200] rev 163, Mem @ 0xd4000000/24, 0xdc000000/26, 0xe0000000/19
- (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 0xffe00000 – 0xffffffff (0x200000) MXB
- [1] –1 0 0x00100000 – 0x3fffffff (0x3ff00000) MX[B]E(B)
- [2] –1 0 0x000f0000 – 0x000fffff (0x10000) MX[B]
- [3] –1 0 0x000c0000 – 0x000effff (0x30000) MX[B]
- [4] –1 0 0x00000000 – 0x0009ffff (0xa0000) MX[B]
- [5] –1 0 0x0000ffff – 0x0000ffff (0x1) IX[B]
- [6] –1 0 0x00000000 – 0x000000ff (0x100) IX[B]

(II) PCI Memory resource overlap reduced 0xd0000000 from 0xd3ffffff to 0xcfffffff

(II) Active PCI resource ranges:

- [0] –1 0 0xe5001000 – 0xe50010ff (0x100) MX[B]
- [1] –1 0 0xe5000000 – 0xe50000ff (0x100) MX[B]
- [2] –1 0 0xd0000000 – 0xcfffffff (0x0) MX[B]O
- [3] –1 0 0xe0000000 – 0xe007ffff (0x80000) MXB
- [4] –1 0 0xdc000000 – 0xdfffffff (0x4000000) MXB
- [5] –1 0 0xd4000000 – 0xd4ffffff (0x1000000) MXB
- [6] –1 0 0x0000e800 – 0x0000e81f (0x20) IX[B]
- [7] –1 0 0x0000e400 – 0x0000e41f (0x20) IX[B]
- [8] –1 0 0x0000e000 – 0x0000e00f (0x10) IX[B]
- [9] –1 0 0x0000dc00 – 0x0000dcff (0x100) IX[B]
- [10] –1 0 0x0000d800 – 0x0000d81f (0x20) IX[B]
- [11] –1 0 0x0000d400 – 0x0000d41f (0x20) IX[B]
- [12] –1 0 0x0000d000 – 0x0000d0ff (0x100) IX[B]

(II) Active PCI resource ranges after removing overlaps:

- [0] –1 0 0xe5001000 – 0xe50010ff (0x100) MX[B]
- [1] –1 0 0xe5000000 – 0xe50000ff (0x100) MX[B]
- [2] –1 0 0xd0000000 – 0xcfffffff (0x0) MX[B]O
- [3] –1 0 0xe0000000 – 0xe007ffff (0x80000) MXB
- [4] –1 0 0xdc000000 – 0xdfffffff (0x4000000) MXB
- [5] –1 0 0xd4000000 – 0xd4ffffff (0x1000000) MXB
- [6] –1 0 0x0000e800 – 0x0000e81f (0x20) IX[B]
- [7] –1 0 0x0000e400 – 0x0000e41f (0x20) IX[B]
- [8] –1 0 0x0000e000 – 0x0000e00f (0x10) IX[B]
- [9] –1 0 0x0000dc00 – 0x0000dcff (0x100) IX[B]
- [10] –1 0 0x0000d800 – 0x0000d81f (0x20) IX[B]
- [11] –1 0 0x0000d400 – 0x0000d41f (0x20) IX[B]
- [12] –1 0 0x0000d000 – 0x0000d0ff (0x100) IX[B]

(II) OS–reported resource ranges after removing overlaps with PCI:

- [0] –1 0 0xffe00000 – 0xffffffff (0x200000) MXB
- [1] –1 0 0x00100000 – 0x3fffffff (0x3ff00000) MX[B]E(B)
- [2] –1 0 0x000f0000 – 0x000fffff (0x10000) MX[B]
- [3] –1 0 0x000c0000 – 0x000effff (0x30000) MX[B]
- [4] –1 0 0x00000000 – 0x0009ffff (0xa0000) MX[B]
- [5] –1 0 0x0000ffff – 0x0000ffff (0x1) IX[B]
- [6] –1 0 0x00000000 – 0x000000ff (0x100) IX[B]

(II) All system resource ranges:

- [0] –1 0 0xffe00000 – 0xffffffff (0x200000) MXB
- [1] –1 0 0x00100000 – 0x3fffffff (0x3ff00000) MX[B]E(B)
- [2] –1 0 0x000f0000 – 0x000fffff (0x10000) MX[B]
- [3] –1 0 0x000c0000 – 0x000effff (0x30000) MX[B]
- [4] –1 0 0x00000000 – 0x0009ffff (0xa0000) MX[B]

```

[5] -1 0 0xe5001000 - 0xe50010ff (0x100) MX[B]
[6] -1 0 0xe5000000 - 0xe50000ff (0x100) MX[B]
[7] -1 0 0xd0000000 - 0xcfffffff (0x0) MX[B]O
[8] -1 0 0xe0000000 - 0xe007ffff (0x80000) MX[B](B)
[9] -1 0 0xdc000000 - 0xdfffffff (0x4000000) MX[B](B)
[10] -1 0 0xd4000000 - 0xd4ffffff (0x1000000) MX[B](B)
[11] -1 0 0x0000ffff - 0x0000ffff (0x1) IX[B]
[12] -1 0 0x00000000 - 0x000000ff (0x100) IX[B]
[13] -1 0 0x0000e800 - 0x0000e81f (0x20) IX[B]
[14] -1 0 0x0000e400 - 0x0000e41f (0x20) IX[B]
[15] -1 0 0x0000e000 - 0x0000e00f (0x10) IX[B]
[16] -1 0 0x0000dc00 - 0x0000dcff (0x100) IX[B]
[17] -1 0 0x0000d800 - 0x0000d81f (0x20) IX[B]
[18] -1 0 0x0000d400 - 0x0000d41f (0x20) IX[B]
[19] -1 0 0x0000d000 - 0x0000d0ff (0x100) IX[B]

```

```

(II) LoadModule: "dbe"
(II) Loading /usr/X11R6/lib/modules/extensions/libdbe.a
(II) Module dbe: vendor="The XFree86 Project"
    compiled for 4.3.0, module version = 1.0.0
    Module class: XFree86 Server Extension
    ABI class: XFree86 Server Extension, version 0.2
(II) Loading extension DOUBLE-BUFFER
(II) LoadModule: "extmod"
(II) Loading /usr/X11R6/lib/modules/extensions/libextmod.a
(II) Module extmod: vendor="The XFree86 Project"
    compiled for 4.3.0, module version = 1.0.0
    Module class: XFree86 Server Extension
    ABI class: XFree86 Server Extension, version 0.2
(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
(II) Loading extension XFree86-DGA
(II) Loading extension DPMS
(II) Loading extension FontCache
(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: "fbdevhw"
(II) Loading /usr/X11R6/lib/modules/linux/libfbdevhw.a
(II) Module fbdevhw: vendor="The XFree86 Project"
    compiled for 4.3.0, module version = 0.0.2
    ABI class: XFree86 Video Driver, version 0.6
(II) LoadModule: "glx"
(II) Loading /usr/X11R6/lib/modules/extensions/libglx.so

```

- (II) Module glx: vendor="NVIDIA Corporation"
compiled for 4.0.2, module version = 1.0.5328
Module class: XFree86 Server Extension
ABI class: XFree86 Server Extension, version 0.1
- (II) Loading extension GLX
- (II) LoadModule: "record"
- (II) Loading /usr/X11R6/lib/modules/extensions/librecord.a
- (II) Module record: vendor="The XFree86 Project"
compiled for 4.3.0, module version = 1.13.0
Module class: XFree86 Server Extension
ABI class: XFree86 Server Extension, version 0.2
- (II) Loading extension RECORD
- (II) LoadModule: "freetype"
- (II) Loading /usr/X11R6/lib/modules/fonts/libfreetype.a
- (II) Module freetype: vendor="The XFree86 Project"
compiled for 4.3.0, module version = 2.0.2
Module class: XFree86 Font Renderer
ABI class: XFree86 Font Renderer, version 0.4
- (II) Loading font FreeType
- (II) LoadModule: "type1"
- (II) Loading /usr/X11R6/lib/modules/fonts/libtype1.a
- (II) Module type1: vendor="The XFree86 Project"
compiled for 4.3.0, module version = 1.0.2
Module class: XFree86 Font Renderer
ABI class: XFree86 Font Renderer, version 0.4
- (II) Loading font Type1
- (II) Loading font CID
- (II) LoadModule: "nvidia"
- (II) Loading /usr/X11R6/lib/modules/drivers/nvidia_drv.o
- (II) Module nvidia: vendor="NVIDIA Corporation"
compiled for 4.0.2, module version = 1.0.5328
Module class: XFree86 Video Driver
- (II) LoadModule: "mouse"
- (II) Loading /usr/X11R6/lib/modules/input/mouse_drv.o
- (II) Module mouse: vendor="The XFree86 Project"
compiled for 4.3.0, module version = 1.0.0
Module class: XFree86 XInput Driver
ABI class: XFree86 XInput driver, version 0.4
- (II) NVIDIA XFree86 Driver 1.0-5328 Wed Dec 17 13:56:09 PST 2003
- (II) NVIDIA Unified Driver for all NVIDIA GPUs
- (II) Primary Device is: PCI 01:00:0
- (--) Assigning device section with no busID to primary device
- (--) Chipset NVIDIA GPU found
- (II) resource ranges after xf86ClaimFixedResources() call:
 - [0] -1 0 0xffe00000 - 0xffffffff (0x200000) MXB
 - [1] -1 0 0x00100000 - 0x3fffffff (0x3ff00000) MX[B]E(B)
 - [2] -1 0 0x000f0000 - 0x000fffff (0x10000) MX[B]
 - [3] -1 0 0x000c0000 - 0x000effff (0x30000) MX[B]
 - [4] -1 0 0x00000000 - 0x0009ffff (0xa0000) MX[B]
 - [5] -1 0 0xe5001000 - 0xe50010ff (0x100) MX[B]
 - [6] -1 0 0xe5000000 - 0xe50000ff (0x100) MX[B]

```

[7] -1 0 0xd0000000 - 0xcfffffff (0x0) MX[B]O
[8] -1 0 0xe0000000 - 0xe007ffff (0x80000) MX[B](B)
[9] -1 0 0xdc000000 - 0xdfffffff (0x4000000) MX[B](B)
[10] -1 0 0xd4000000 - 0xd4ffffff (0x1000000) MX[B](B)
[11] -1 0 0x0000ffff - 0x0000ffff (0x1) IX[B]
[12] -1 0 0x00000000 - 0x000000ff (0x100) IX[B]
[13] -1 0 0x0000e800 - 0x0000e81f (0x20) IX[B]
[14] -1 0 0x0000e400 - 0x0000e41f (0x20) IX[B]
[15] -1 0 0x0000e000 - 0x0000e00f (0x10) IX[B]
[16] -1 0 0x0000dc00 - 0x0000dcff (0x100) IX[B]
[17] -1 0 0x0000d800 - 0x0000d81f (0x20) IX[B]
[18] -1 0 0x0000d400 - 0x0000d41f (0x20) IX[B]
[19] -1 0 0x0000d000 - 0x0000d0ff (0x100) IX[B]

```

(II) resource ranges after probing:

```

[0] -1 0 0xffe00000 - 0xffffffff (0x200000) MX[B](B)
[1] -1 0 0x00100000 - 0x3fffffff (0x3ff00000) MX[B]E(B)
[2] -1 0 0x000f0000 - 0x000fffff (0x10000) MX[B]
[3] -1 0 0x000c0000 - 0x000effff (0x30000) MX[B]
[4] -1 0 0x00000000 - 0x0009ffff (0xa0000) MX[B]
[5] -1 0 0xe5001000 - 0xe50010ff (0x100) MX[B]
[6] -1 0 0xe5000000 - 0xe50000ff (0x100) MX[B]
[7] -1 0 0xd0000000 - 0xcfffffff (0x0) MX[B]O
[8] -1 0 0xe0000000 - 0xe007ffff (0x80000) MX[B](B)
[9] -1 0 0xdc000000 - 0xdfffffff (0x4000000) MX[B](B)
[10] -1 0 0xd4000000 - 0xd4ffffff (0x1000000) MX[B](B)
[11] 0 0 0x000a0000 - 0x000affff (0x10000) MS[B]
[12] 0 0 0x000b0000 - 0x000b7fff (0x8000) MS[B]
[13] 0 0 0x000b8000 - 0x000bffff (0x8000) MS[B]
[14] -1 0 0x0000ffff - 0x0000ffff (0x1) IX[B]
[15] -1 0 0x00000000 - 0x000000ff (0x100) IX[B]
[16] -1 0 0x0000e800 - 0x0000e81f (0x20) IX[B]
[17] -1 0 0x0000e400 - 0x0000e41f (0x20) IX[B]
[18] -1 0 0x0000e000 - 0x0000e00f (0x10) IX[B]
[19] -1 0 0x0000dc00 - 0x0000dcff (0x100) IX[B]
[20] -1 0 0x0000d800 - 0x0000d81f (0x20) IX[B]
[21] -1 0 0x0000d400 - 0x0000d41f (0x20) IX[B]
[22] -1 0 0x0000d000 - 0x0000d0ff (0x100) IX[B]
[23] 0 0 0x000003b0 - 0x000003bb (0xc) IS[B]
[24] 0 0 0x000003c0 - 0x000003df (0x20) IS[B]

```

(II) Setting vga for screen 0.

(II) Loading sub module "vgahw"

(II) LoadModule: "vgahw"

(II) Loading /usr/X11R6/lib/modules/libvgahw.a

(II) Module vgahw: vendor="The XFree86 Project"

compiled for 4.3.0, module version = 0.1.0

ABI class: XFree86 Video Driver, version 0.6

(**) NVIDIA(0): Depth 24, (---) framebuffer bpp 32

(==) NVIDIA(0): RGB weight 888

(==) NVIDIA(0): Default visual is TrueColor

(==) NVIDIA(0): Using gamma correction (1.0, 1.0, 1.0)

(**) NVIDIA(0): Option "NvAGP" "0"

Linux–Kernel: VIA and NVIDIA

```
(**) NVIDIA(0): Option "IgnoreEDID"  
(**) NVIDIA(0): Option "ConnectedMonitor" "CRT"  
(**) NVIDIA(0): Option "IgnoreDisplayDevices" "DFP, TV"  
(**) NVIDIA(0): Use of AGP disabled per request  
(**) NVIDIA(0): Ignoring EDIDs  
(**) NVIDIA(0): ConnectedMonitor string: "CRT"  
(-- ) NVIDIA(0): Linear framebuffer at 0xDC000000  
(-- ) NVIDIA(0): MMIO registers at 0xD4000000  
(II) NVIDIA(0): NVIDIA GPU detected as: GeForce3 Ti 200  
(-- ) NVIDIA(0): VideoBIOS: 03.20.00.18.19  
(-- ) NVIDIA(0): VideoRAM: 65536 kBytes  
(II) NVIDIA(0): Using ConnectedMonitor string "CRT-0"  
(-- ) NVIDIA(0): Display device CRT-0: maximum pixel clock at 8 bpp: 350 MHz  
(-- ) NVIDIA(0): Display device CRT-0: maximum pixel clock at 16 bpp: 350 MHz  
(-- ) NVIDIA(0): Display device CRT-0: maximum pixel clock at 32 bpp: 350 MHz  
(II) NVIDIA(0): Not probing EDIDs.  
(II) NVIDIA(0): Monitor0: Using hsync range of 31.50–82.00 kHz  
(II) NVIDIA(0): Monitor0: Using vrefresh range of 50.00–90.00 Hz  
(II) NVIDIA(0): Clock range: 12.00 to 350.00 MHz  
(II) NVIDIA(0): Not using default mode "1024x768" (bad mode clock/interlace/doublescan)  
(II) NVIDIA(0): Not using default mode "512x384" (bad mode clock/interlace/doublescan)  
(II) NVIDIA(0): Not using default mode "1280x960" (hsync out of range)  
(II) NVIDIA(0): Not using default mode "640x480" (hsync out of range)  
(II) NVIDIA(0): Not using default mode "1280x1024" (hsync out of range)  
(II) NVIDIA(0): Not using default mode "640x512" (hsync out of range)  
(II) NVIDIA(0): Not using default mode "1600x1200" (hsync out of range)  
(II) NVIDIA(0): Not using default mode "800x600" (hsync out of range)  
(II) NVIDIA(0): Not using default mode "1600x1200" (hsync out of range)  
(II) NVIDIA(0): Not using default mode "800x600" (hsync out of range)  
(II) NVIDIA(0): Not using default mode "1600x1200" (hsync out of range)  
(II) NVIDIA(0): Not using default mode "800x600" (hsync out of range)  
(II) NVIDIA(0): Not using default mode "1792x1344" (hsync out of range)  
(II) NVIDIA(0): Not using default mode "896x672" (hsync out of range)  
(II) NVIDIA(0): Not using default mode "1792x1344" (hsync out of range)  
(II) NVIDIA(0): Not using default mode "896x672" (hsync out of range)  
(II) NVIDIA(0): Not using default mode "1856x1392" (hsync out of range)  
(II) NVIDIA(0): Not using default mode "928x696" (hsync out of range)  
(II) NVIDIA(0): Not using default mode "1856x1392" (hsync out of range)  
(II) NVIDIA(0): Not using default mode "928x696" (hsync out of range)  
(II) NVIDIA(0): Not using default mode "1920x1440" (hsync out of range)  
(II) NVIDIA(0): Not using default mode "960x720" (hsync out of range)  
(II) NVIDIA(0): Not using default mode "1920x1440" (hsync out of range)  
(II) NVIDIA(0): Not using default mode "960x720" (hsync out of range)  
(II) NVIDIA(0): Not using default mode "1400x1050" (hsync out of range)  
(II) NVIDIA(0): Not using default mode "700x525" (hsync out of range)  
(II) NVIDIA(0): Not using default mode "1920x1200" (hsync out of range)  
(II) NVIDIA(0): Not using default mode "960x600" (hsync out of range)  
(II) NVIDIA(0): Not using default mode "1920x1440" (hsync out of range)  
(II) NVIDIA(0): Not using default mode "960x720" (hsync out of range)  
(II) NVIDIA(0): Not using default mode "2048x1536" (hsync out of range)  
(II) NVIDIA(0): Not using default mode "1024x768" (hsync out of range)
```

Linux–Kernel: VIA and NVIDIA

(II) NVIDIA(0): Not using default mode "2048x1536" (hsync out of range)
(II) NVIDIA(0): Not using default mode "1024x768" (hsync out of range)
(II) NVIDIA(0): Not using default mode "2048x1536" (bad mode clock/interlace/doublescan)
(II) NVIDIA(0): Not using default mode "1024x768" (hsync out of range)
(II) NVIDIA(0): Not using default mode "1600x1200" (width too large for virtual size)
(II) NVIDIA(0): Not using default mode "1600x1200" (width too large for virtual size)
(II) NVIDIA(0): Not using default mode "1400x1050" (width too large for virtual size)
(II) NVIDIA(0): Not using default mode "1400x1050" (width too large for virtual size)
(II) NVIDIA(0): Not using default mode "1400x1050" (width too large for virtual size)
(WW) NVIDIA(0): Not using mode "1152x768":
(WW) NVIDIA(0): horizontal sync start (1178) not a multiple of 8
(WW) NVIDIA(0): Not using mode "576x384":
(WW) NVIDIA(0): horizontal sync start (589) not a multiple of 8
(WW) NVIDIA(0): Not using mode "360x200":
(WW) NVIDIA(0): horizontal sync start (378) not a multiple of 8
(**) NVIDIA(0): Validated modes for display device CRT-0:
(**) NVIDIA(0): Default mode "1280x1024": 135.0 MHz, 80.0 kHz, 75.0 Hz
(**) NVIDIA(0): Default mode "1280x1024": 108.0 MHz, 64.0 kHz, 60.0 Hz
(**) NVIDIA(0): Default mode "1280x960": 108.0 MHz, 60.0 kHz, 60.0 Hz
(**) NVIDIA(0): Default mode "1152x864": 121.5 MHz, 77.5 kHz, 85.1 Hz
(**) NVIDIA(0): Default mode "1152x864": 108.0 MHz, 67.5 kHz, 75.0 Hz
(**) NVIDIA(0): Default mode "1024x768": 94.5 MHz, 68.7 kHz, 85.0 Hz
(**) NVIDIA(0): Default mode "1024x768": 78.8 MHz, 60.1 kHz, 75.1 Hz
(**) NVIDIA(0): Default mode "1024x768": 75.0 MHz, 56.5 kHz, 70.1 Hz
(**) NVIDIA(0): Default mode "1024x768": 65.0 MHz, 48.4 kHz, 60.0 Hz
(**) NVIDIA(0): Default mode "832x624": 57.3 MHz, 49.7 kHz, 74.6 Hz
(**) NVIDIA(0): Default mode "800x600": 56.3 MHz, 53.7 kHz, 85.1 Hz
(**) NVIDIA(0): Default mode "800x600": 49.5 MHz, 46.9 kHz, 75.0 Hz
(**) NVIDIA(0): Default mode "800x600": 50.0 MHz, 48.1 kHz, 72.2 Hz
(**) NVIDIA(0): Default mode "800x600": 87.8 MHz, 81.2 kHz, 65.0 Hz (D)
(**) NVIDIA(0): Default mode "800x600": 40.0 MHz, 37.9 kHz, 60.3 Hz
(**) NVIDIA(0): Default mode "800x600": 81.0 MHz, 75.0 kHz, 60.0 Hz (D)
(**) NVIDIA(0): Default mode "800x600": 36.0 MHz, 35.2 kHz, 56.2 Hz
(**) NVIDIA(0): Default mode "700x525": 77.9 MHz, 81.5 kHz, 74.8 Hz (D)
(**) NVIDIA(0): Default mode "700x525": 75.5 MHz, 77.0 kHz, 70.0 Hz (D)
(**) NVIDIA(0): Default mode "700x525": 61.0 MHz, 64.9 kHz, 60.0 Hz (D)
(**) NVIDIA(0): Default mode "640x512": 67.5 MHz, 80.0 kHz, 75.0 Hz (D)
(**) NVIDIA(0): Default mode "640x512": 54.0 MHz, 64.0 kHz, 60.0 Hz (D)
(**) NVIDIA(0): Default mode "640x480": 36.0 MHz, 43.3 kHz, 85.0 Hz
(**) NVIDIA(0): Default mode "640x480": 31.5 MHz, 37.5 kHz, 75.0 Hz
(**) NVIDIA(0): Default mode "640x480": 31.5 MHz, 37.9 kHz, 72.8 Hz
(**) NVIDIA(0): Default mode "640x480": 25.2 MHz, 31.5 kHz, 60.0 Hz
(**) NVIDIA(0): Default mode "640x480": 54.0 MHz, 60.0 kHz, 60.0 Hz (D)
(**) NVIDIA(0): Default mode "720x400": 35.5 MHz, 37.9 kHz, 85.0 Hz
(**) NVIDIA(0): Default mode "640x400": 31.5 MHz, 37.9 kHz, 85.1 Hz
(**) NVIDIA(0): Default mode "576x432": 60.8 MHz, 77.5 kHz, 85.2 Hz (D)
(**) NVIDIA(0): Default mode "576x432": 54.0 MHz, 67.5 kHz, 75.0 Hz (D)
(**) NVIDIA(0): Default mode "640x350": 31.5 MHz, 37.9 kHz, 85.1 Hz
(**) NVIDIA(0): Default mode "512x384": 47.2 MHz, 68.7 kHz, 85.0 Hz (D)
(**) NVIDIA(0): Default mode "512x384": 39.4 MHz, 60.1 kHz, 75.1 Hz (D)
(**) NVIDIA(0): Default mode "512x384": 37.5 MHz, 56.5 kHz, 70.1 Hz (D)

Linux–Kernel: VIA and NVIDIA

```
(**) NVIDIA(0): Default mode "512x384": 32.5 MHz, 48.4 kHz, 60.0 Hz (D)
(**) NVIDIA(0): Default mode "416x312": 28.6 MHz, 49.7 kHz, 74.7 Hz (D)
(**) NVIDIA(0): Default mode "400x300": 28.1 MHz, 53.7 kHz, 85.3 Hz (D)
(**) NVIDIA(0): Default mode "400x300": 24.8 MHz, 46.9 kHz, 75.1 Hz (D)
(**) NVIDIA(0): Default mode "400x300": 25.0 MHz, 48.1 kHz, 72.2 Hz (D)
(**) NVIDIA(0): Default mode "400x300": 20.0 MHz, 37.9 kHz, 60.3 Hz (D)
(**) NVIDIA(0): Default mode "400x300": 18.0 MHz, 35.2 kHz, 56.3 Hz (D)
(**) NVIDIA(0): Default mode "320x240": 18.0 MHz, 43.3 kHz, 85.2 Hz (D)
(**) NVIDIA(0): Default mode "320x240": 15.8 MHz, 37.5 kHz, 75.0 Hz (D)
(**) NVIDIA(0): Default mode "320x240": 15.8 MHz, 37.9 kHz, 72.8 Hz (D)
(**) NVIDIA(0): Default mode "320x240": 12.6 MHz, 31.5 kHz, 60.1 Hz (D)
(**) NVIDIA(0): Default mode "320x200": 15.8 MHz, 37.9 kHz, 85.3 Hz (D)
(**) NVIDIA(0): Default mode "320x175": 15.8 MHz, 37.9 kHz, 85.3 Hz (D)
(II) NVIDIA(0): Virtual screen size determined to be 1280 x 1024
(==) NVIDIA(0): DPI set to (75, 75)
(II) Loading sub module "fb"
(II) LoadModule: "fb"
(II) Loading /usr/X11R6/lib/modules/libfb.a
(II) Module fb: vendor="The XFree86 Project"
        compiled for 4.3.0, module version = 1.0.0
        ABI class: XFree86 ANSI C Emulation, version 0.2
(II) Loading sub module "ramdac"
(II) LoadModule: "ramdac"
(II) Loading /usr/X11R6/lib/modules/libramdac.a
(II) Module ramdac: vendor="The XFree86 Project"
        compiled for 4.3.0, module version = 0.1.0
        ABI class: XFree86 Video Driver, version 0.6
(--) Depth 24 pixmap format is 32 bpp
(II) do I need RAC? No, I don't.
(II) resource ranges after preInit:
    [0] 0 0 0xe0000000 – 0xe007ffff (0x80000) MX[B]
    [1] 0 0 0xdc000000 – 0xdfffffff (0x4000000) MX[B]
    [2] 0 0 0xd4000000 – 0xd4ffffff (0x1000000) MX[B]
    [3] –1 0 0xffe00000 – 0xffffffff (0x200000) MX[B](B)
    [4] –1 0 0x00100000 – 0x3ffffff (0x3ff00000) MX[B]E(B)
    [5] –1 0 0x000f0000 – 0x000ffff (0x10000) MX[B]
    [6] –1 0 0x000c0000 – 0x000effff (0x30000) MX[B]
    [7] –1 0 0x00000000 – 0x0009ffff (0xa0000) MX[B]
    [8] –1 0 0xe5001000 – 0xe50010ff (0x100) MX[B]
    [9] –1 0 0xe5000000 – 0xe50000ff (0x100) MX[B]
    [10] –1 0 0xd0000000 – 0xcfffffff (0x0) MX[B]O
    [11] –1 0 0xe0000000 – 0xe007ffff (0x80000) MX[B](B)
    [12] –1 0 0xdc000000 – 0xdfffffff (0x4000000) MX[B](B)
    [13] –1 0 0xd4000000 – 0xd4ffffff (0x1000000) MX[B](B)
    [14] 0 0 0x000a0000 – 0x000affff (0x10000) MS[B](OprD)
    [15] 0 0 0x000b0000 – 0x000b7fff (0x8000) MS[B](OprD)
    [16] 0 0 0x000b8000 – 0x000bffff (0x8000) MS[B](OprD)
    [17] –1 0 0x0000ffff – 0x0000ffff (0x1) IX[B]
    [18] –1 0 0x00000000 – 0x000000ff (0x100) IX[B]
    [19] –1 0 0x0000e800 – 0x0000e81f (0x20) IX[B]
    [20] –1 0 0x0000e400 – 0x0000e41f (0x20) IX[B]
```

Linux–Kernel: VIA and NVIDIA

```
[21] -1 0 0x0000e000 - 0x0000e00f (0x10) IX[B]
[22] -1 0 0x0000dc00 - 0x0000dcff (0x100) IX[B]
[23] -1 0 0x0000d800 - 0x0000d81f (0x20) IX[B]
[24] -1 0 0x0000d400 - 0x0000d41f (0x20) IX[B]
[25] -1 0 0x0000d000 - 0x0000d0ff (0x100) IX[B]
[26] 0 0 0x000003b0 - 0x000003bb (0xc) IS[B](OprU)
[27] 0 0 0x000003c0 - 0x000003df (0x20) IS[B](OprU)
```

(II) NVIDIA(0): Setting mode "1280x1024"

```
#
# Automatically generated make config: don't edit
#
CONFIG_X86=y
CONFIG_MMU=y
CONFIG_UID16=y
CONFIG_GENERIC_ISA_DMA=y

#
# Code maturity level options
#
CONFIG_EXPERIMENTAL=y
CONFIG_CLEAN_COMPILE=y
CONFIG_STANDALONE=y
CONFIG_BROKEN_ON_SMP=y

#
# General setup
#
CONFIG_SWAP=y
CONFIG_SYSVIPC=y
CONFIG_BSD_PROCESS_ACCT=y
CONFIG_SYSCTL=y
CONFIG_LOG_BUF_SHIFT=14
CONFIG_IKCONFIG=y
CONFIG_IKCONFIG_PROC=y
# CONFIG_EMBEDDED is not set
CONFIG_KALLSYMS=y
CONFIG_FUTEX=y
CONFIG_EPOLL=y
CONFIG_IOSCHED_NOOP=y
CONFIG_IOSCHED_AS=y
CONFIG_IOSCHED_DEADLINE=y

#
# Loadable module support
#
CONFIG_MODULES=y
CONFIG_MODULE_UNLOAD=y
```

```

CONFIG_MODULE_FORCE_UNLOAD=y
CONFIG_OBSOLETE_MODPARM=y
# CONFIG_MODVERSIONS is not set
CONFIG_KMOD=y

#
# Processor type and features
#
CONFIG_X86_PC=y
# CONFIG_X86_VOYAGER is not set
# CONFIG_X86_NUMAQ is not set
# CONFIG_X86_SUMMIT is not set
# CONFIG_X86_BIGSMP is not set
# CONFIG_X86_VISWS is not set
# CONFIG_X86_GENERICARCH is not set
# CONFIG_X86_ES7000 is not set
# CONFIG_M386 is not set
# CONFIG_M486 is not set
# CONFIG_M586 is not set
# CONFIG_M586TSC is not set
# CONFIG_M586MMX is not set
# CONFIG_M686 is not set
# CONFIG_MPENTIUMII is not set
# CONFIG_MPENTIUMIII is not set
# CONFIG_MPENTIUM4 is not set
# CONFIG_MK6 is not set
CONFIG_MK7=y
# CONFIG_MK8 is not set
# CONFIG_MELAN is not set
# CONFIG_MCRUSOE is not set
# CONFIG_MWINCHIP6 is not set
# CONFIG_MWINCHIP2 is not set
# CONFIG_MWINCHIP3D is not set
# CONFIG_MCYRIXIII is not set
# CONFIG_MVIAC3_2 is not set
# CONFIG_X86_GENERIC is not set
CONFIG_X86_CMPXCHG=y
CONFIG_X86_XADD=y
CONFIG_X86_L1_CACHE_SHIFT=6
CONFIG_RWSEM_XCHGADD_ALGORITHM=y
CONFIG_X86_WP_WORKS_OK=y
CONFIG_X86_INVLPG=y
CONFIG_X86_BSWAP=y
CONFIG_X86_POPAD_OK=y
CONFIG_X86_GOOD_APIC=y
CONFIG_X86_INTEL_USERCOPY=y
CONFIG_X86_USE_PPRO_CHECKSUM=y
CONFIG_X86_USE_3DNOW=y
# CONFIG_HPET_TIMER is not set
# CONFIG_HPET_EMULATE_RTC is not set
# CONFIG_SMP is not set

```

```

CONFIG_PREEMPT=y
# CONFIG_X86_UP_APIC is not set
CONFIG_X86_TSC=y
CONFIG_X86_MCE=y
# CONFIG_X86_MCE_NONFATAL is not set
# CONFIG_TOSHIBA is not set
# CONFIG_I8K is not set
CONFIG_MICROCODE=y
CONFIG_X86_MSR=y
CONFIG_X86_CPUID=y
# CONFIG_EDD is not set
# CONFIG_NOHIGHMEM is not set
CONFIG_HIGHMEM4G=y
# CONFIG_HIGHMEM64G is not set
CONFIG_HIGHMEM=y
# CONFIG_HIGHPT is not set
# CONFIG_MATH_EMULATION is not set
CONFIG_MTRR=y
CONFIG_HAVE_DEC_LOCK=y

#
# Power management options (ACPI, APM)
#
CONFIG_PM=y
# CONFIG_SOFTWARE_SUSPEND is not set
# CONFIG_PM_DISK is not set

#
# ACPI (Advanced Configuration and Power Interface) Support
#
CONFIG_ACPI=y
CONFIG_ACPI_BOOT=y
CONFIG_ACPI_INTERPRETER=y
CONFIG_ACPI_SLEEP=y
CONFIG_ACPI_SLEEP_PROC_FS=y
CONFIG_ACPI_AC=m
CONFIG_ACPI_BATTERY=m
CONFIG_ACPI_BUTTON=m
CONFIG_ACPI_FAN=m
CONFIG_ACPI_PROCESSOR=m
CONFIG_ACPI_THERMAL=m
CONFIG_ACPI_ASUS=m
CONFIG_ACPI_TOSHIBA=m
# CONFIG_ACPI_DEBUG is not set
CONFIG_ACPI_BUS=y
CONFIG_ACPI_EC=y
CONFIG_ACPI_POWER=y
CONFIG_ACPI_PCI=y
CONFIG_ACPI_SYSTEM=y
# CONFIG_ACPI_RELAXED_AML is not set

```

```
#
# APM (Advanced Power Management) BIOS Support
#
CONFIG_APM=y
# CONFIG_APM_IGNORE_USER_SUSPEND is not set
# CONFIG_APM_DO_ENABLE is not set
# CONFIG_APM_CPU_IDLE is not set
# CONFIG_APM_DISPLAY_BLANK is not set
CONFIG_APM_RTC_IS_GMT=y
CONFIG_APM_ALLOW_INTS=y
CONFIG_APM_REAL_MODE_POWER_OFF=y
```

```
#
# CPU Frequency scaling
#
# CONFIG_CPU_FREQ is not set
```

```
#
# Bus options (PCI, PCMCIA, EISA, MCA, ISA)
#
CONFIG_PCI=y
# CONFIG_PCI_GOBIOS is not set
# CONFIG_PCI_GODIRECT is not set
CONFIG_PCI_GOANY=y
CONFIG_PCI_BIOS=y
CONFIG_PCI_DIRECT=y
# CONFIG_PCI_LEGACY_PROC is not set
CONFIG_PCI_NAMES=y
# CONFIG_ISA is not set
# CONFIG_MCA is not set
# CONFIG_SCx200 is not set
# CONFIG_HOTPLUG is not set
```

```
#
# Executable file formats
#
CONFIG_BINFMT_ELF=y
CONFIG_BINFMT_AOUT=y
CONFIG_BINFMT_MISC=y
```

```
#
# Device Drivers
#
```

```
#
# Generic Driver Options
#
```

```
#
# Memory Technology Devices (MTD)
#
```

```
# CONFIG_MTD is not set

#
# Parallel port support
#
# CONFIG_PARPORT is not set

#
# Plug and Play support
#
# CONFIG_PNP is not set

#
# Block devices
#
CONFIG_BLK_DEV_FD=m
# CONFIG_BLK_CPQ_DA is not set
# CONFIG_BLK_CPQ_CISS_DA is not set
# CONFIG_BLK_DEV_DAC960 is not set
# CONFIG_BLK_DEV_UMEM is not set
# CONFIG_BLK_DEV_LOOP is not set
# CONFIG_BLK_DEV_NBD is not set
CONFIG_BLK_DEV_RAM=y
CONFIG_BLK_DEV_RAM_SIZE=4096
CONFIG_BLK_DEV_INITRD=y
# CONFIG_LBD is not set

#
# ATA/ATAPI/MFM/RLL support
#
CONFIG_IDE=y
CONFIG_BLK_DEV_IDE=y

#
# Please see Documentation/ide.txt for help/info on IDE drives
#
# CONFIG_BLK_DEV_HD_IDE is not set
CONFIG_BLK_DEV_IDEDISK=y
CONFIG_IDEDISK_MULTI_MODE=y
# CONFIG_IDEDISK_STROKE is not set
CONFIG_BLK_DEV_IDECD=y
# CONFIG_BLK_DEV_IDETAPE is not set
CONFIG_BLK_DEV_IDEFLOPPY=y
CONFIG_BLK_DEV_IDESCSI=y
# CONFIG_IDE_TASK_IOCTL is not set
# CONFIG_IDE_TASKFILE_IO is not set

#
# IDE chipset support/bugfixes
#
# CONFIG_BLK_DEV_CMD640 is not set
```

```

CONFIG_BLK_DEV_IDEPCI=y
# CONFIG_IDEPCI_SHARE_IRQ is not set
# CONFIG_BLK_DEV_OFFBOARD is not set
CONFIG_BLK_DEV_GENERIC=y
# CONFIG_BLK_DEV_OPTI621 is not set
# CONFIG_BLK_DEV_RZ1000 is not set
CONFIG_BLK_DEV_IDEDMA_PCI=y
# CONFIG_BLK_DEV_IDEDMA_FORCED is not set
CONFIG_IDEDMA_PCI_AUTO=y
# CONFIG_IDEDMA_ONLYDISK is not set
# CONFIG_IDEDMA_PCI_WIP is not set
CONFIG_BLK_DEV_ADMA=y
# CONFIG_BLK_DEV_AEC62XX is not set
# CONFIG_BLK_DEV_ALI15X3 is not set
# CONFIG_BLK_DEV_AMD74XX is not set
# CONFIG_BLK_DEV_CMD64X is not set
# CONFIG_BLK_DEV_TRIFLEX is not set
# CONFIG_BLK_DEV_CY82C693 is not set
# CONFIG_BLK_DEV_CS5520 is not set
# CONFIG_BLK_DEV_CS5530 is not set
# CONFIG_BLK_DEV_HPT34X is not set
# CONFIG_BLK_DEV_HPT366 is not set
# CONFIG_BLK_DEV_SC1200 is not set
# CONFIG_BLK_DEV_PIIX is not set
# CONFIG_BLK_DEV_NS87415 is not set
# CONFIG_BLK_DEV_PDC202XX_OLD is not set
# CONFIG_BLK_DEV_PDC202XX_NEW is not set
# CONFIG_BLK_DEV_SVWKS is not set
# CONFIG_BLK_DEV_SIIIMAGE is not set
# CONFIG_BLK_DEV_SIS5513 is not set
# CONFIG_BLK_DEV_SLC90E66 is not set
# CONFIG_BLK_DEV_TRM290 is not set
CONFIG_BLK_DEV_VIA82CXXX=y
CONFIG_BLK_DEV_IDEDMA=y
# CONFIG_IDEDMA_IVB is not set
CONFIG_IDEDMA_AUTO=y
# CONFIG_DMA_NONPCI is not set
# CONFIG_BLK_DEV_HD is not set

#
# SCSI device support
#
CONFIG_SCSI=y
CONFIG_SCSI_PROC_FS=y

#
# SCSI support type (disk, tape, CD-ROM)
#
CONFIG_BLK_DEV_SD=y
# CONFIG_CHR_DEV_ST is not set
# CONFIG_CHR_DEV_OSST is not set

```

```

CONFIG_BLK_DEV_SR=y
# CONFIG_BLK_DEV_SR_VENDOR is not set
CONFIG_CHR_DEV_SG=y

#
# Some SCSI devices (e.g. CD jukebox) support multiple LUNs
#
CONFIG_SCSI_MULTI_LUN=y
# CONFIG_SCSI_REPORT_LUNS is not set
# CONFIG_SCSI_CONSTANTS is not set
# CONFIG_SCSI_LOGGING is not set

#
# SCSI low–level drivers
#
# CONFIG_BLK_DEV_3W_XXXX_RAID is not set
# CONFIG_SCSI_ACARD is not set
# CONFIG_SCSI_AACRAID is not set
# CONFIG_SCSI_AIC7XXX is not set
# CONFIG_SCSI_AIC7XXX_OLD is not set
# CONFIG_SCSI_AIC79XX is not set
# CONFIG_SCSI_ADVANSYS is not set
# CONFIG_SCSI_MEGARAID is not set
# CONFIG_SCSI_SATA is not set
# CONFIG_SCSI_BUSLOGIC is not set
# CONFIG_SCSI_CPQFCTS is not set
# CONFIG_SCSI_DMX3191D is not set
# CONFIG_SCSI_EATA is not set
# CONFIG_SCSI_EATA_PIO is not set
# CONFIG_SCSI_FUTURE_DOMAIN is not set
# CONFIG_SCSI_GDTH is not set
# CONFIG_SCSI_IPS is not set
# CONFIG_SCSI_INIA100 is not set
# CONFIG_SCSI_SYM53C8XX_2 is not set
# CONFIG_SCSI_QLOGIC_ISP is not set
# CONFIG_SCSI_QLOGIC_FC is not set
# CONFIG_SCSI_QLOGIC_1280 is not set
# CONFIG_SCSI_DC395x is not set
# CONFIG_SCSI_NSP32 is not set
# CONFIG_SCSI_DEBUG is not set

#
# Multi–device support (RAID and LVM)
#
# CONFIG_MD is not set

#
# Fusion MPT device support
#
# CONFIG_FUSION is not set

```

```
#
# IEEE 1394 (FireWire) support (EXPERIMENTAL)
#
# CONFIG_IEEE1394 is not set

#
# I2O device support
#
# CONFIG_I2O is not set

#
# Networking support
#
CONFIG_NET=y

#
# Networking options
#
CONFIG_PACKET=y
CONFIG_PACKET_MMAP=y
CONFIG_NETLINK_DEV=y
CONFIG_UNIX=y
# CONFIG_NET_KEY is not set
CONFIG_INET=y
CONFIG_IP_MULTICAST=y
# CONFIG_IP_ADVANCED_ROUTER is not set
# CONFIG_IP_PNP is not set
# CONFIG_NET_IPIP is not set
# CONFIG_NET_IPGRE is not set
CONFIG_IP_MROUTE=y
CONFIG_IP_PIMSM_V1=y
CONFIG_IP_PIMSM_V2=y
# CONFIG_ARPD is not set
# CONFIG_INET_ECN is not set
CONFIG_SYN_COOKIES=y
# CONFIG_INET_AH is not set
# CONFIG_INET_ESP is not set
# CONFIG_INET_IPCOMP is not set

#
# IP: Virtual Server Configuration
#
# CONFIG_IP_VS is not set
# CONFIG_IPV6 is not set
# CONFIG_DECNET is not set
# CONFIG_BRIDGE is not set
CONFIG_NETFILTER=y
# CONFIG_NETFILTER_DEBUG is not set

#
# IP: Netfilter Configuration
```

```

#
CONFIG_IP_NF_CONNTRACK=y
CONFIG_IP_NF_FTP=m
CONFIG_IP_NF_IRC=m
CONFIG_IP_NF_TFTP=m
CONFIG_IP_NF_AMANDA=m
CONFIG_IP_NF_QUEUE=m
CONFIG_IP_NF_IPTABLES=y
CONFIG_IP_NF_MATCH_LIMIT=m
CONFIG_IP_NF_MATCH_IPRANGE=m
CONFIG_IP_NF_MATCH_MAC=m
CONFIG_IP_NF_MATCH_PKTTYPE=m
CONFIG_IP_NF_MATCH_MARK=m
CONFIG_IP_NF_MATCH_MULTIPORT=m
CONFIG_IP_NF_MATCH_TOS=m
CONFIG_IP_NF_MATCH_RECENT=m
CONFIG_IP_NF_MATCH_ECN=m
CONFIG_IP_NF_MATCH_DSCP=m
CONFIG_IP_NF_MATCH_AH_ESP=m
CONFIG_IP_NF_MATCH_LENGTH=m
CONFIG_IP_NF_MATCH_TTL=m
CONFIG_IP_NF_MATCH_TCPMSS=m
CONFIG_IP_NF_MATCH_HELPER=m
CONFIG_IP_NF_MATCH_STATE=m
CONFIG_IP_NF_MATCH_CONNTRACK=m
CONFIG_IP_NF_MATCH_OWNER=m
CONFIG_IP_NF_FILTER=y
CONFIG_IP_NF_TARGET_REJECT=m
CONFIG_IP_NF_NAT=y
CONFIG_IP_NF_NAT_NEEDED=y
CONFIG_IP_NF_TARGET_MASQUERADE=m
CONFIG_IP_NF_TARGET_REDIRECT=m
CONFIG_IP_NF_TARGET_NETMAP=m
CONFIG_IP_NF_TARGET_SAME=m
# CONFIG_IP_NF_NAT_LOCAL is not set
# CONFIG_IP_NF_NAT_SNMP_BASIC is not set
CONFIG_IP_NF_NAT_IRC=m
CONFIG_IP_NF_NAT_FTP=m
CONFIG_IP_NF_NAT_TFTP=m
CONFIG_IP_NF_NAT_AMANDA=m
CONFIG_IP_NF_MANGLE=m
CONFIG_IP_NF_TARGET_TOS=m
CONFIG_IP_NF_TARGET_ECN=m
CONFIG_IP_NF_TARGET_DSCP=m
CONFIG_IP_NF_TARGET_MARK=m
CONFIG_IP_NF_TARGET_CLASSIFY=m
CONFIG_IP_NF_TARGET_LOG=m
CONFIG_IP_NF_TARGET_ULOG=m
CONFIG_IP_NF_TARGET_TCPMSS=m
CONFIG_IP_NF_ARPTABLES=m
CONFIG_IP_NF_ARPFILTER=m

```

```

CONFIG_IP_NF_ARP_MANGLE=m

#
# SCTP Configuration (EXPERIMENTAL)
#
CONFIG_IPV6_SCTP__=y
# CONFIG_IP_SCTP is not set
# CONFIG_ATM is not set
# CONFIG_VLAN_8021Q is not set
# CONFIG_LLC2 is not set
# CONFIG_IPX is not set
# CONFIG_ATALK is not set
# CONFIG_X25 is not set
# CONFIG_LAPB is not set
# CONFIG_NET_DIVERT is not set
# CONFIG_ECONET is not set
# CONFIG_WAN_ROUTER is not set
# CONFIG_NET_FASTROUTE is not set
# CONFIG_NET_HW_FLOWCONTROL is not set

#
# QoS and/or fair queueing
#
# CONFIG_NET_SCHED is not set

#
# Network testing
#
# CONFIG_NET_PKTGEN is not set
CONFIG_NETDEVICES=y

#
# ARCnet devices
#
# CONFIG_ARCNET is not set
# CONFIG_DUMMY is not set
# CONFIG_BONDING is not set
# CONFIG_EQUALIZER is not set
# CONFIG_TUN is not set
# CONFIG_ETHERTAP is not set

#
# Ethernet (10 or 100Mbit)
#
CONFIG_NET_ETHERNET=y
CONFIG_MII=y
# CONFIG_HAPPYMEAL is not set
# CONFIG_SUNGEM is not set
# CONFIG_NET_VENDOR_3COM is not set

#

```

```
# Tulip family network device support
#
# CONFIG_NET_TULIP is not set
# CONFIG_HP100 is not set
CONFIG_NET_PCI=y
# CONFIG_PCNET32 is not set
# CONFIG_AMD8111_ETH is not set
# CONFIG_ADAPTEC_STARFIRE is not set
# CONFIG_B44 is not set
# CONFIG_DGRS is not set
# CONFIG_EEPRO100 is not set
# CONFIG_E100 is not set
# CONFIG_FEALNX is not set
# CONFIG_NATSEMI is not set
# CONFIG_NE2K_PCI is not set
# CONFIG_8139CP is not set
CONFIG_8139TOO=m
# CONFIG_8139TOO_PIO is not set
# CONFIG_8139TOO_TUNE_TWISTER is not set
CONFIG_8139TOO_8129=y
# CONFIG_8139_OLD_RX_RESET is not set
# CONFIG_SIS900 is not set
# CONFIG_EPIC100 is not set
# CONFIG_SUNDANCE is not set
# CONFIG_TLAN is not set
# CONFIG_VIA_RHINE is not set
```

```
#
# Ethernet (1000 Mbit)
#
# CONFIG_ACENIC is not set
# CONFIG_DL2K is not set
# CONFIG_E1000 is not set
# CONFIG_NS83820 is not set
# CONFIG_HAMACHI is not set
# CONFIG_YELLOWFIN is not set
# CONFIG_R8169 is not set
# CONFIG_SIS190 is not set
# CONFIG_SK98LIN is not set
# CONFIG_TIGON3 is not set
```

```
#
# Ethernet (10000 Mbit)
#
# CONFIG_IXGB is not set
# CONFIG_FDDI is not set
# CONFIG_HIPPI is not set
# CONFIG_PPP is not set
# CONFIG_SLIP is not set
```

```
#
```

```
# Wireless LAN (non-hamradio)
#
# CONFIG_NET_RADIO is not set

#
# Token Ring devices
#
# CONFIG_TR is not set
# CONFIG_NET_FC is not set
# CONFIG_RCPCI is not set
# CONFIG_SHAPER is not set

#
# Wan interfaces
#
# CONFIG_WAN is not set

#
# Amateur Radio support
#
# CONFIG_HAMRADIO is not set

#
# IrDA (infrared) support
#
# CONFIG_IRDA is not set

#
# Bluetooth support
#
# CONFIG_BT is not set

#
# ISDN subsystem
#
# CONFIG_ISDN_BOOL is not set

#
# Telephony Support
#
# CONFIG_PHONE is not set

#
# Input device support
#
CONFIG_INPUT=y

#
# Userland interfaces
#
CONFIG_INPUT_MOUSEDEV=y
```

```
CONFIG_INPUT_MOUSEDEV_PSAUX=y
CONFIG_INPUT_MOUSEDEV_SCREEN_X=1024
CONFIG_INPUT_MOUSEDEV_SCREEN_Y=768
# CONFIG_INPUT_JOYDEV is not set
# CONFIG_INPUT_TSDEV is not set
# CONFIG_INPUT_EVDEV is not set
# CONFIG_INPUT_EVBUG is not set

#
# Input I/O drivers
#
# CONFIG_GAMEPORT is not set
CONFIG_SOUND_GAMEPORT=y
CONFIG_SERIO=y
CONFIG_SERIO_I8042=y
CONFIG_SERIO_SERPORT=y
# CONFIG_SERIO_CT82C710 is not set
# CONFIG_SERIO_PCIPS2 is not set

#
# Input Device Drivers
#
CONFIG_INPUT_KEYBOARD=y
CONFIG_KEYBOARD_ATKBD=y
# CONFIG_KEYBOARD_SUNKBD is not set
# CONFIG_KEYBOARD_XTKBD is not set
# CONFIG_KEYBOARD_NEWTON is not set
CONFIG_INPUT_MOUSE=y
CONFIG_MOUSE_PS2=y
# CONFIG_MOUSE_PS2_SYNAPTICS is not set
# CONFIG_MOUSE_SERIAL is not set
# CONFIG_INPUT_JOYSTICK is not set
# CONFIG_INPUT_TOUCHSCREEN is not set
# CONFIG_INPUT_MISC is not set

#
# Character devices
#
CONFIG_VT=y
CONFIG_VT_CONSOLE=y
CONFIG_HW_CONSOLE=y
# CONFIG_SERIAL_NONSTANDARD is not set

#
# Serial drivers
#
# CONFIG_SERIAL_8250 is not set

#
# Non–8250 serial port support
#
```

```
CONFIG_UNIX98_PTYS=y  
CONFIG_UNIX98_PTY_COUNT=2048
```

```
#  
# I2C support  
#  
# CONFIG_I2C is not set
```

```
#  
# I2C Algorithms  
#
```

```
#  
# I2C Hardware Bus support  
#
```

```
#  
# I2C Hardware Sensors Chip support  
#  
# CONFIG_I2C_SENSOR is not set
```

```
#  
# Mice  
#  
CONFIG_BUSMOUSE=y  
# CONFIG_QIC02_TAPE is not set
```

```
#  
# IPMI  
#  
# CONFIG_IPMI_HANDLER is not set
```

```
#  
# Watchdog Cards  
#  
# CONFIG_WATCHDOG is not set  
# CONFIG_HW_RANDOM is not set  
# CONFIG_NVRAM is not set  
# CONFIG_RTC is not set  
# CONFIG_GEN_RTC is not set  
# CONFIG_DTLK is not set  
# CONFIG_R3964 is not set  
# CONFIG_APPLICOM is not set  
# CONFIG_SONYPI is not set
```

```
#  
# Ftape, the floppy tape device driver  
#  
# CONFIG_FTAPE is not set  
CONFIG_AGP=y  
# CONFIG_AGP_ALI is not set
```

```
# CONFIG_AGP_ATI is not set
# CONFIG_AGP_AMD is not set
# CONFIG_AGP_AMD64 is not set
# CONFIG_AGP_INTEL is not set
# CONFIG_AGP_NVIDIA is not set
# CONFIG_AGP_SIS is not set
# CONFIG_AGP_SWORKS is not set
CONFIG_AGP_VIA=y
# CONFIG_DRM is not set
# CONFIG_MWAVE is not set
# CONFIG_RAW_DRIVER is not set
# CONFIG_HANGCHECK_TIMER is not set
```

```
#
# Multimedia devices
#
# CONFIG_VIDEO_DEV is not set
```

```
#
# Digital Video Broadcasting Devices
#
# CONFIG_DVB is not set
```

```
#
# Graphics support
#
CONFIG_FB=y
# CONFIG_FB_CYBER2000 is not set
# CONFIG_FB_IMSTT is not set
# CONFIG_FB_VGA16 is not set
# CONFIG_FB_VESA is not set
CONFIG_VIDEO_SELECT=y
# CONFIG_FB_HGA is not set
CONFIG_FB_RIVA=y
# CONFIG_FB_MATROX is not set
# CONFIG_FB_RADEON is not set
# CONFIG_FB_ATY128 is not set
# CONFIG_FB_ATY is not set
# CONFIG_FB_SIS is not set
# CONFIG_FB_NEOMAGIC is not set
# CONFIG_FB_3DFX is not set
# CONFIG_FB_VOODOO1 is not set
# CONFIG_FB_TRIDENT is not set
# CONFIG_FB_VIRTUAL is not set
```

```
#
# Console display driver support
#
CONFIG_VGA_CONSOLE=y
# CONFIG_MDA_CONSOLE is not set
CONFIG_DUMMY_CONSOLE=y
```

```
# CONFIG_FRAMEBUFFER_CONSOLE is not set

#
# Logo configuration
#
# CONFIG_LOGO is not set

#
# Sound
#
CONFIG_SOUND=y

#
# Advanced Linux Sound Architecture
#
CONFIG_SND=y
CONFIG_SND_SEQUENCER=y
# CONFIG_SND_SEQ_DUMMY is not set
CONFIG_SND_OSSEMUL=y
CONFIG_SND_MIXER_OSS=y
CONFIG_SND_PCM_OSS=y
CONFIG_SND_SEQUENCER_OSS=y
# CONFIG_SND_VERBOSE_PRINTK is not set
# CONFIG_SND_DEBUG is not set

#
# Generic devices
#
# CONFIG_SND_DUMMY is not set
# CONFIG_SND_VIRMIDI is not set
# CONFIG_SND_MTPAV is not set
# CONFIG_SND_SERIAL_U16550 is not set
# CONFIG_SND_MPU401 is not set

#
# PCI devices
#
# CONFIG_SND_ALI5451 is not set
# CONFIG_SND_AZT3328 is not set
# CONFIG_SND_CS46XX is not set
# CONFIG_SND_CS4281 is not set
# CONFIG_SND_EMU10K1 is not set
# CONFIG_SND_KORG1212 is not set
# CONFIG_SND_NM256 is not set
# CONFIG_SND_RME32 is not set
# CONFIG_SND_RME96 is not set
# CONFIG_SND_RME9652 is not set
# CONFIG_SND_HDSP is not set
# CONFIG_SND_TRIDENT is not set
# CONFIG_SND_YMFPCI is not set
# CONFIG_SND_ALS4000 is not set
```

```
CONFIG_SND_CMIPCI=y
# CONFIG_SND_ENS1370 is not set
# CONFIG_SND_ENS1371 is not set
# CONFIG_SND_ES1938 is not set
# CONFIG_SND_ES1968 is not set
# CONFIG_SND_MAESTRO3 is not set
# CONFIG_SND_FM801 is not set
# CONFIG_SND_ICE1712 is not set
# CONFIG_SND_ICE1724 is not set
# CONFIG_SND_INTEL8X0 is not set
# CONFIG_SND_SONICVIBES is not set
# CONFIG_SND_VIA82XX is not set
# CONFIG_SND_VX222 is not set

#
# ALSA USB devices
#
# CONFIG_SND_USB_AUDIO is not set

#
# Open Sound System
#
# CONFIG_SOUND_PRIME is not set

#
# USB support
#
CONFIG_USB=y
CONFIG_USB_DEBUG=y

#
# Miscellaneous USB options
#
CONFIG_USB_DEVICEFS=y
# CONFIG_USB_BANDWIDTH is not set
# CONFIG_USB_DYNAMIC_MINORS is not set

#
# USB Host Controller Drivers
#
CONFIG_USB_EHCI_HCD=y
CONFIG_USB_OHCI_HCD=y
CONFIG_USB_UHCI_HCD=y

#
# USB Device Class drivers
#
# CONFIG_USB_AUDIO is not set
# CONFIG_USB_BLUETOOTH_TTY is not set
# CONFIG_USB_MIDI is not set
# CONFIG_USB_ACM is not set
```

```
CONFIG_USB_PRINTER=y
CONFIG_USB_STORAGE=y
# CONFIG_USB_STORAGE_DEBUG is not set
# CONFIG_USB_STORAGE_DATAFAB is not set
# CONFIG_USB_STORAGE_FREECOM is not set
# CONFIG_USB_STORAGE_ISD200 is not set
# CONFIG_USB_STORAGE_DPCM is not set
# CONFIG_USB_STORAGE_HP8200e is not set
# CONFIG_USB_STORAGE_SDDR09 is not set
# CONFIG_USB_STORAGE_SDDR55 is not set
# CONFIG_USB_STORAGE_JUMPSHOT is not set

#
# USB Human Interface Devices (HID)
#
CONFIG_USB_HID=y
CONFIG_USB_HIDINPUT=y
# CONFIG_HID_FF is not set
CONFIG_USB_HIDDEV=y
# CONFIG_USB_AIPTEK is not set
# CONFIG_USB_WACOM is not set
# CONFIG_USB_KBTAB is not set
# CONFIG_USB_POWERMATE is not set
# CONFIG_USB_XPAD is not set

#
# USB Imaging devices
#
# CONFIG_USB_MDC800 is not set
# CONFIG_USB_SCANNER is not set
# CONFIG_USB_MICROTEK is not set
# CONFIG_USB_HPUSBSCSI is not set

#
# USB Multimedia devices
#
# CONFIG_USB_DABUSB is not set

#
# Video4Linux support is needed for USB Multimedia device support
#

#
# USB Network adaptors
#
# CONFIG_USB_CATC is not set
# CO
```