

Slow 2d performance in X / opera / nvidia drivers

Source: <http://unix.derkeiler.com/Mailing-Lists/FreeBSD/questions/2006-01/msg00822.html>

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 - *Date:* Tue, 10 Jan 2006 16:04:55 -0600
-

```
gimpy# uname -a
FreeBSD gimpy.tcbug.org 5.4-RELEASE-p8 FreeBSD 5.4-RELEASE-p8 #9: Fri
Jan 6 20:26:44 CST 2006
jpaetzel@xxxxxxxxxxxxxxxxxx:/usr/obj/usr/src/sys/GIMPY i386
```

dmesg attached

Xorg config attached

Kernel config attached

I've been having terrible 2d performance with opera (linux-opera and native 8.51 and 9.0) using the nvidia drivers. When I windowshade it and then restore it there is a sizeable delay while it redraws the window. If I rapidly shade and restore the window my idle CPU time goes to 0% and mp3 playback will occasionally skip.

The problem first started when Opera 8 was released, I hoped that further releases would address it but so far that has not been the case. Any suggestions for a fix welcome.

(Yes, I have been seeking support on opera.com but this feels like a FreeBSD mis-configuration of some sort on my end. :)

--

Thanks,

Josh Paetzel

```
Copyright (c) 1992-2005 The FreeBSD Project. Copyright (c) 1979, 1980, 1983, 1986, 1988, 1989, 199
The Regents of the University of California. All rights reserved.
FreeBSD 5.4-RELEASE-p8 #9: Fri Jan 6 20:26:44 CST 2006
jpaetzel@xxxxxxxxxxxxxxxxxx:/usr/obj/usr/src/sys/GIMPY
ACPI APIC Table: <A M I OEMAPIC >
Timecounter "i8254" frequency 1193182 Hz quality 0
CPU: AMD Athlon(tm) 64 Processor 3500+ (2202.84-MHz 686-class CPU)
Origin = "AuthenticAMD" Id = 0x20ff2 Stepping = 2
Features=0x78bfbff<FPU,VME,DE,PSE,TSC,MSR,PAE,MCE,CX8,APIC,SEP,MTRR,PGE,MCA,CMOV,PAT,PSE36,CLFL
AMD Features=0xe0500000<NX,AMIE,LM,DSP,3DNow!>
real memory = 1073414144 (1023 MB)
avail memory = 1036673024 (988 MB)
MADT: Forcing active-low polarity and level trigger for SCI
```

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```
ioapic0 <Version 0.3> irqs 0-23 on motherboard
npx0: <math processor> on motherboard
npx0: INT 16 interface
acpi0: <A M I OEMRSDT> on motherboard
acpi0: Power Button (fixed)
Timecounter "ACPI-safe" frequency 3579545 Hz quality 1000
acpi_timer0: <24-bit timer at 3.579545MHz> port 0x808-0x80b on acpi0
cpu0: <ACPI CPU> on acpi0
pcib0: <ACPI Host-PCI bridge> port 0xcf8-0xcff on acpi0
pci0: <ACPI PCI bus> on pcib0
pcib1: <ACPI PCI-PCI bridge> at device 1.0 on pci0
pci1: <ACPI PCI bus> on pcib1
nvidia0: <GeForce 6600 GT> mem 0xfa000000-0xfaffffff,0xe0000000-0xefffffff,0xfb000000-0xfbffffff
pcm0: <Creative EMU10K1> port 0xa400-0xa41f irq 16 at device 9.0 on pci0
pcm0: <eMicro EM28028 AC97 Codec>
pci0: <network, ethernet> at device 10.0 (no driver attached)
xl0: <3Com 3c905-TX Fast Etherlink XL> port 0xb400-0xb43f irq 19 at device 14.0 on pci0
miibus0: <MII bus> on xl0
nsphy0: <DP83840 10/100 media interface> on miibus0
nsphy0: 10baseT, 10baseT-FDX, 100baseTX, 100baseTX-FDX, auto
xl0: Ethernet address: 00:60:97:d8:ad:bd
atapci0: <VIA 6420 SATA150 controller> port 0xb800-0xb8ff,0xc000-0xc00f,0xc400-0xc403,0xc800-0xc803
ata2: channel #0 on atapci0
ata3: channel #1 on atapci0
atapci1: <VIA 8237 UDMA133 controller> port 0xfc00-0xfc0f,0x376,0x170-0x177,0x3f6,0x1f0-0x1f7 at
ata0: channel #0 on atapci1
ata1: channel #1 on atapci1
uhci0: <VIA 83C572 USB controller> port 0xd800-0xd81f irq 21 at device 16.0 on pci0
usb0: <VIA 83C572 USB controller> on uhci0
usb0: USB revision 1.0
uhub0: VIA UHCI root hub, class 9/0, rev 1.00/1.00, addr 1
uhub0: 2 ports with 2 removable, self powered
uhci1: <VIA 83C572 USB controller> port 0xe000-0xe01f irq 21 at device 16.1 on pci0
usb1: <VIA 83C572 USB controller> on uhci1
usb1: USB revision 1.0
uhub1: VIA UHCI root hub, class 9/0, rev 1.00/1.00, addr 1
uhub1: 2 ports with 2 removable, self powered
uhci2: <VIA 83C572 USB controller> port 0xe400-0xe41f irq 21 at device 16.2 on pci0
usb2: <VIA 83C572 USB controller> on uhci2
usb2: USB revision 1.0
uhub2: VIA UHCI root hub, class 9/0, rev 1.00/1.00, addr 1
uhub2: 2 ports with 2 removable, self powered
uhci3: <VIA 83C572 USB controller> port 0xe800-0xe81f irq 21 at device 16.3 on pci0
usb3: <VIA 83C572 USB controller> on uhci3
usb3: USB revision 1.0
uhub3: VIA UHCI root hub, class 9/0, rev 1.00/1.00, addr 1
uhub3: 2 ports with 2 removable, self powered
ehci0: <VIA VT6202 USB 2.0 controller> mem 0xf9e00000-0xf9e000ff irq 21 at device 16.4 on pci0
usb4: waiting for BIOS to give up control
usb4: timed out waiting for BIOS
usb4: EHCI version 1.0
usb4: companion controllers, 2 ports each: usb0 usb1 usb2 usb3
usb4: <VIA VT6202 USB 2.0 controller> on ehci0
usb4: USB revision 2.0
uhub4: VIA EHCI root hub, class 9/0, rev 2.00/1.00, addr 1
uhub4: 8 ports with 8 removable, self powered
umass0: Jabil Circuit Seagate External Drive, rev 2.00/2.40, addr 2
isab0: <PCI-ISA bridge> at device 17.0 on pci0
isa0: <ISA bus> on isab0
acpi_button0: <Power Button> on acpi0
acpi_button1: <Sleep Button> on acpi0
atkbd0: <Keyboard controller (i8042)> port 0x64,0x60 irq 1 on acpi0
```

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```
atkbd0: <AT Keyboard> irq 1 on atkbd0
kbd0 at atkbd0
fdc0: <floppy drive controller (FDE)> port 0x3f7,0x3f0-0x3f5 irq 6 drq 2 on acpi0
fd0: <1440-KB 3.5" drive> on fdc0 drive 0
ppc0: <Standard parallel printer port> port 0x378-0x37f irq 7 on acpi0
ppc0: Generic chipset (NIBBLE-only) in COMPATIBLE mode
ppbus0: <Parallel port bus> on ppc0
plip0: <PLIP network interface> on ppbus0
lpt0: <Printer> on ppbus0
lpt0: Interrupt-driven port
ppi0: <Parallel I/O> on ppbus0
sio0: configured irq 4 not in bitmap of probed irqs 0
sio0: port may not be enabled
sio0: <16550A-compatible COM port> port 0x3f8-0x3ff irq 4 flags 0x10 on acpi0
sio0: type 16550A
pmtimer0 on isa0
orm0: <ISA Option ROMs> at iomem 0xcf000-0xd2fff,0xc0000-0xcefff on isa0
sc0: <System console> at flags 0x100 on isa0
sc0: VGA <16 virtual consoles, flags=0x300>
sio1: configured irq 3 not in bitmap of probed irqs 0
sio1: port may not be enabled
vga0: <Generic ISA VGA> at port 0x3c0-0x3df iomem 0xa0000-0xbffff on isa0
ums0: Logitech USB-PS/2 Optical Mouse, rev 2.00/13.20, addr 2, iclass 3/1
ums0: 4 buttons and Z dir.
ugen0: Logitech Camera, rev 1.00/1.00, addr 2
Timecounter "TSC" frequency 2202838273 Hz quality 800
Timecounters tick every 10.000 msec
ad0: 114473MB <WDC WD1200JB-00GVC0/08.02D08> [232581/16/63] at ata0-master UDMA100
ad1: 190782MB <WDC WD2000JB-00GVA0/08.02D08> [387621/16/63] at ata0-slave UDMA100
atal-master: DMA limited to UDMA33, non-ATA66 cable or device
acd0: DVDR <SONY DVD RW DW-Q30A/YYS1> at atal-master UDMA33
ad3: 114473MB <WDC WD1200JB-00GVA0/08.02D08> [232581/16/63] at atal-slave UDMA100
ad4: 238475MB <WDC WD2500KS-00MJB0/02.01C03> [484521/16/63] at ata2-master SATA150
cd0 at atal bus 0 target 0 lun 0
cd0: <SONY DVD RW DW-Q30A YYS1> Removable CD-ROM SCSI-0 device
cd0: 33.000MB/s transfers
cd0: Attempt to query device size failed: NOT READY, Medium not present
da0 at umass-sim0 bus 0 target 0 lun 0
da0: <Seagate External Drive > Fixed Direct Access SCSI-0 device
da0: 40.000MB/s transfers
da0: 95396MB (195371568 512 byte sectors: 255H 63S/T 12161C)
Mounting root from ufs:/dev/ad0s2a
```

Section "ServerLayout"

```
Identifier      "X.org Configured"
Screen         "Screen0"
InputDevice    "Mouse0" "CorePointer"
InputDevice    "Keyboard0" "CoreKeyboard"
```

EndSection

Section "Files"

```
RgbPath        "/usr/X11R6/lib/X11/rgb"
ModulePath     "/usr/X11R6/lib/modules"
FontPath       "/usr/X11R6/lib/X11/fonts/misc/"
FontPath       "/usr/X11R6/lib/X11/fonts/TTF/"
FontPath       "/usr/X11R6/lib/X11/fonts/Speedo/"
FontPath       "/usr/X11R6/lib/X11/fonts/Type1/"
FontPath       "/usr/X11R6/lib/X11/fonts/CID/"
FontPath       "/usr/X11R6/lib/X11/fonts/75dpi/"
FontPath       "/usr/X11R6/lib/X11/fonts/100dpi/"
```

EndSection

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```
Section "Module"
    Load "extmod"
    Load "glx"
    Load "dri"
    Load "dbe"
    Load "record"
    Load "xtrap"
    Load "speedo"
    Load "type1"
    Load "freetype"
EndSection

Section "InputDevice"
    Identifier "Keyboard0"
    Driver "keyboard"
EndSection

Section "InputDevice"
    Identifier "Mouse0"
    Driver "mouse"
    Option "Protocol" "auto"
    Option "Device" "/dev/sysmouse"
    Option "ZAxisMapping" "4 5"
EndSection

Section "Monitor"
    Identifier "Monitor0"
    VendorName "VSC"
    ModelName "0"
    HorizSync 12 - 90.0
    VertRefresh 30.0 - 120.0
EndSection

Section "Device"
    Identifier "Card0"
    Driver "nvidia"
    VendorName "nvidia"
    Option "NvAGP" "1"
    BoardName "6600GT"
    Option "TwinView"
    Option "SecondMonitorHorizSync" "31-82"
    Option "SecondMonitorVertRefresh" "55-120"
    Option "TwinViewOrientation" "LeftOf"
    Option "MetaModes" "1280x1024, 1280x1024; 1280x1024, NULL"
    Option "ConnectedMonitor" "crt,crt"
EndSection

Section "Screen"
    Identifier "Screen0"
    Device "Card0"
    Monitor "Monitor0"
    DefaultColorDepth 24
    SubSection "Display"
        Depth 24
        Modes "1280x1024"
    EndSubSection
EndSection

#
# GENERIC -- Generic kernel configuration file for FreeBSD/i386
```

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```
#
# For more information on this file, please read the handbook section on
# Kernel Configuration Files:
#
#   http://www.FreeBSD.org/doc/en\_US.ISO8859-1/books/handbook/kernelconfig-config.html
#
# The handbook is also available locally in /usr/share/doc/handbook
# if you've installed the doc distribution, otherwise always see the
# FreeBSD World Wide Web server (http://www.FreeBSD.org/) for the
# latest information.
#
# An exhaustive list of options and more detailed explanations of the
# device lines is also present in the ../../conf/NOTES and NOTES files.
# If you are in doubt as to the purpose or necessity of a line, check first
# in NOTES.
#
# $FreeBSD: src/sys/i386/conf/GENERIC,v 1.413.2.13 2005/04/02 16:37:58 scottl Exp $

machine          i386
cpu              I686_CPU
ident            GIMPY

# To statically compile in device wiring instead of /boot/device.hints
#hints           "GENERIC.hints"           # Default places to look for devices.

options          SCHED_4BSD                # 4BSD scheduler
options          INET                      # InterNETworking
options          INET6                     # IPv6 communications protocols
options          FFS                       # Berkeley Fast Filesystem
options          SOFTUPDATES               # Enable FFS soft updates support
options          UFS_ACL                   # Support for access control lists
options          UFS_DIRHASH               # Improve performance on big directories
options          MD_ROOT                   # MD is a potential root device
options          NFSCLIENT                 # Network Filesystem Client
options          NFSSERVER                 # Network Filesystem Server
options          NFS_ROOT                   # NFS usable as /, requires NFSCLIENT
options          MSDOSFS                   # MSDOS Filesystem
options          CD9660                    # ISO 9660 Filesystem
options          PROCFS                    # Process filesystem (requires PSEUDOFBS)
options          PSEUDOFBS                 # Pseudo-filesystem framework
options          GEOM_GPT                   # GUID Partition Tables.
options          COMPAT_43                 # Compatible with BSD 4.3 [KEEP THIS!]
options          COMPAT_FREEBSD4          # Compatible with FreeBSD4
options          SCSI_DELAY=15000         # Delay (in ms) before probing SCSI
options          KTRACE                     # ktrace(1) support
options          SYSVSHM                   # SYSV-style shared memory
options          SYSVMSG                   # SYSV-style message queues
options          SYSVSEM                   # SYSV-style semaphores
options          _KPOSIX_PRIORITY_SCHEDULING # POSIX P1003_1B real-time extensions
options          KBD_INSTALL_CDEV         # install a CDEV entry in /dev
options          AHC_REG_PRETTY_PRINT     # Print register bitfields in debug
# output.  Adds ~128k to driver.
options          AHD_REG_PRETTY_PRINT     # Print register bitfields in debug
# output.  Adds ~215k to driver.
options          ADAPTIVE_GIANT           # Giant mutex is adaptive.

device           apic                      # I/O APIC

# Bus support.  Do not remove isa, even if you have no isa slots
device          isa
device          pci
```

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```
# Floppy drives
device          fdc

# ATA and ATAPI devices
device          ata
device          atadisk          # ATA disk drives
device          ataraid          # ATA RAID drives
device          atapicd          # ATAPI CDROM drives
options         ATA_STATIC_ID    # Static device numbering
device          atapicam

# SCSI peripherals
device          scbus            # SCSI bus (required for SCSI)
device          ch                # SCSI media changers
device          da                # Direct Access (disks)
device          sa                # Sequential Access (tape etc)
device          cd                # CD
device          pass              # Passthrough device (direct SCSI access)
device          ses              # SCSI Environmental Services (and SAF-TE)

# atkbd0 controls both the keyboard and the PS/2 mouse
device          atkbd            # AT keyboard controller
device          atkbd            # AT keyboard
device          psm              # PS/2 mouse

device          vga              # VGA video card driver

device          splash            # Splash screen and screen saver support

# syscons is the default console driver, resembling an SCO console
device          sc

# Enable this for the pcvt (VT220 compatible) console driver
#device         vt
#options        XSERVER          # support for X server on a vt console
#options        FAT_CURSOR       # start with block cursor

#device         agp              # support several AGP chipsets

# Floating point support - do not disable.
device          npx

# Power management support (see NOTES for more options)
#device         apm
# Add suspend/resume support for the i8254.
device          pmtimer

# Serial (COM) ports
device          sio              # 8250, 16[45]50 based serial ports

# Parallel port
device          ppc
device          ppbus            # Parallel port bus (required)
device          lpt              # Printer
device          plip             # TCP/IP over parallel
device          ppi              # Parallel port interface device
#device         vpo              # Requires scbus and da

# If you've got a "dumb" serial or parallel PCI card that is
```

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```
# supported by the puc(4) glue driver, uncomment the following
# line to enable it (connects to the sio and/or ppc drivers):
#device          puc

# PCI Ethernet NICs that use the common MII bus controller code.
# NOTE: Be sure to keep the 'device miibus' line in order to use these NICs!
device          miibus          # MII bus support
device          fxp             # Intel EtherExpress PRO/100B (82557, 82558)
device          xl              # 3Com 3c90x ('`Boomerang'`, ``Cyclone'`)

# Pseudo devices.
device          loop            # Network loopback
device          mem             # Memory and kernel memory devices
device          io              # I/O device
device          random          # Entropy device
device          ether           # Ethernet support
device          sl              # Kernel SLIP
device          ppp             # Kernel PPP
device          tun             # Packet tunnel.
device          pty             # Pseudo-ttys (telnet etc)
device          md              # Memory "disks"
device          gif             # IPv6 and IPv4 tunneling
device          faith           # IPv6-to-IPv4 relaying (translation)

# The `bpf' device enables the Berkeley Packet Filter.
# Be aware of the administrative consequences of enabling this!
# Note that 'bpf' is required for DHCP.
device          bpf            # Berkeley packet filter

# USB support
device          uhci            # UHCI PCI->USB interface
device          ohci            # OHCI PCI->USB interface
device          ehci            # EHCI PCI->USB interface (USB 2.0)
device          usb             # USB Bus (required)
#device          udbp           # USB Double Bulk Pipe devices
device          ugen            # Generic
device          uhid            # "Human Interface Devices"
device          ukbd            # Keyboard
device          ulpt            # Printer
device          umass           # Disks/Mass storage - Requires scbus and da
device          ums             # Mouse
device          urio            # Diamond Rio 500 MP3 player
device          uscanner        # Scanners
```

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