

[NVIDIA GeForce FAQ logo](#)

Version 18.9

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Maintained by Christopher Hill (aka Minkus) - [minkus@ntlworld.com](mailto:minkus@ntlworld.com)

[Email contact information and about me](#)



[GeForce FAQ 18.9 in PDF format](#) - thanks to Adam Zucker

[Polish translation of Hardware section](#) : [Polish translation of Software section](#)

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[I want to translate the FAQ!](#)



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The domain name <http://www.geforcefaq.com/> is now working again.

I'm hoping to do a little Perl / SQL coding during this summer to get the FAQ into a database instead of this flat HTML file - should be easier and quicker to update, and there should be some fun features to go with it as well - watch this space!

By the way, if there are any other graphics card companies out there that would like to use the FAQ or parts of it on their websites for technical support, then get in touch. I already have an agreement with one company, [VisionTek](#), which I believe benefits both parties greatly. Make me an offer - free hardware goes down well :)

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Keep visiting - the FAQ gets updated regularly, so long as there's something to update!

This FAQ contains information pertaining to all [NVIDIA](#) GeForce, GeForce2 and GeForce3 based cards, and especially [Creative](#) cards.

A redirector is available, in case this site ever moves to a different server:

<http://go.to/geforcefaq>

If you find this FAQ useful, please consider using your spare processor cycles to help the [Intel-United Devices Cancer Research Project](#). If you do, you can join the GeForce FAQ team by accessing the [team page](#).

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Many thanks to [Gamers-Ammo](#) for hosting the unofficial drivers linked to in this FAQ.

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## What's new in this version?

### [Version History](#)

Added 7.91, 7.97, 8.03, 10.70, 12.41, 12.90 driver links and notes to all driver questions.

Added 12.42, 12.60 driver links to '[What Windows 9x drivers should I use?](#)' question.

Added 12.60 driver link to '[What Windows 2000 drivers should I use?](#)' question.

Added 10.70 driver link to '[What Windows NT 4 drivers should I use?](#)' question.

Added '[I have an Intel D815EEA motherboard and I have various problems with the GeForce. What's up?](#)' question.

Created new '[I cannot set my refresh rate above 75hz under Windows 2000. How can I fix it?](#)' question, clarified the problem, and

added note that you only need to break pin 15 of the monitor cable to fix the problem.

Added ['How far can I overclock my card?'](#) question.

Added WHQL note to ['Coolbits doesn't work or I can only adjust my memory speed. How can I fix it?'](#) question.

Renamed and added NVresume tip to ['When I resume from monitor power saving modes in Windows 9x, I get display corruption and / or instability problems, or my card seems slower than usual. How can I fix it?'](#) question.

Updated ['What different types of GeForce card are available and what are the differences between them?'](#) question with GeForce2 MX-200 and MX-400 and Go family information.

Removed old ELSA 3D glasses question and replaced it with ['Where can I find out more about and troubleshoot the GeForce's support for 3D glasses?'](#) question.

Added Quadro software hack and games players information to ['What is a Quadro and how can I convert my GeForce into a Quadro?'](#) question.

Altered registry files in ['How can I enable or disable AGP Fast Writes?'](#) question to make sure that they work for everyone.

Added ['I get problems with X-Wing Alliance. How can I fix them?'](#) question and added note to 10.50 driver notes.

Added 9x glimp error registry file to ['I can't run any OpenGL programs, but Direct3D programs run fine. How can I fix it?'](#) question.

Added an extra setting to registry files in ['How can I enable AGP4X in the Detonator 5.16+ driver sets on my VIA 133mhz chipset motherboard?'](#) question to make sure they work properly.

Added PC133 RAM tip to ['My PC won't POST \(doesn't display anything when I switch it on\) after I put my GeForce card in. How can I fix it?'](#) question.

Renamed, added 8.xx info and added palletised texture / 12.40 note to ['What is the difference between the 3.xx, 5.xx, 6.xx, 7.xx, 8.xx, 10.xx, 11.xx and 12.xx versions of the drivers?'](#) question and 12.40 driver notes.

Added DirectX 8 tip to ['My GeForce keeps on locking up or drops me back to the desktop during 3D applications. How can I fix it?'](#) question.

Changed ['I have problems with my Super Socket 7 motherboard. How can I fix them?'](#) question and 7.56 / 7.58 driver notes to reflect that the driver version that fixes the problem is 7.56, not 7.58.

Added sound inputs, DirectSound debug level, hardware acceleration level and motherboard drivers tips to ['My sound card crackles or stutters with the GeForce. How can I fix it?'](#) question.

Added SoftICE 4.05 note to ['I have problems running SoftIce on my GeForce. How can I fix it?'](#) question.

Added 16-bit colour tip to ['I have problems with The Sims. How can I fix them?'](#) question.

Added Mandrake 8.0 link to ['What Linux drivers should I use and how do I install them?'](#) question.

Added information about what the feature does to ['How can I enable OpenGL hardware accelerated anti-aliased lines on a non-Quadro card?'](#) question.

Added AGP Aperture Size tip to ['I get texture bleeding, small flashing triangles or corrupted textures. How can I fix it?'](#) question.

Added drivers note to ['I installed DirectX 8 and it caused more problems than it fixed. How can I uninstall it?'](#) question.

Added ['I get problems with Serious Sam. How can I fix them?'](#) question.

Added further Win2K information to ['Where can I get and how do I use NVFlash?'](#) question.

Added more symptoms, clarification of 64MB benchmark test and i815 note to ['What should my AGP Aperture size be set to?'](#) question.

Added second NetMeeting tip to ['I can't run any Direct3D programs, but OpenGL programs run fine. How can I fix it?'](#) question.

Clarified SDRAM / SGRAM in ['How can I tell if my board is SDR or DDR?'](#) question.

Updated link in ['How can I make the TV-OUT display stretch to the full size of my TV, and generally tweak TV-OUT?'](#) question.

Added 12.41 tip and renamed ['I have problems with Shogun: Total War. How can I fix it?'](#) question.

Added Borland warning to ['How can I completely uninstall old NVIDIA GeForce or Creative Labs Annihilator drivers?'](#) question.

Changed the DOS4GW link in ['Where can I get and how do I use NVFlash?'](#) question.

Added BIOS Optimization Guide link to ['What are the recommended BIOS settings for a GeForce?'](#) question.

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## Q. Does the Annihilator or the Annihilator Pro have extra outputs like TV-OUT or DVI?

No, despite what you may have read in reviews. There is only the standard monitor output.

However, Gateway do have an OEM version that does have TV-OUT and DVI. The spec sheet is here:

[http://www.gw2k.com.au/products/specs/spec\\_nVidia\\_32mb\\_GeForce256.asp](http://www.gw2k.com.au/products/specs/spec_nVidia_32mb_GeForce256.asp)

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## Q. Can I connect my hardware DVD decoder to my Annihilator?

If you have a standard 26 pin VMI connector on the DVD decoder you can plug the cable into the left half (near the bracket) of the VIP connector on the Annihilator. However, pins 14/27 will be in the way - you will have to bend them out of the way. **Note that doing this isn't officially supported!**

If you don't want to bend the pins, instead use an internal SCSI connector. The connector is the correct width - connect only the correct half of the SCSI connector to the MPEG card.

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## Q. Are there any newer Video BIOS upgrades for the Annihilator?

- There is one upgrade that has been produced by Creative for the Annihilator Pro. It is available on their website: <http://www.clok.creaf.com/creative/beta/Gbapbios.zip>

The password for the zip file is 'gold'.

This BIOS version is supposed to fix problems with the Annihilator Pro only displaying 16MB of RAM detected on bootup.

- You can also use an NVIDIA reference BIOS: see the ['Where can I get the latest NVIDIA Flash BIOS and which should I use?'](#) question.

Be warned that using the NVIDIA BIOS will void your warranty. Also, check your card's current BIOS version as some cards already have a more up to date BIOS than the NVIDIA BIOS that is available. Check this by rebooting and looking at the screen that comes up before the POST screen - the NVIDIA control panel applet does not give a reliable reading of the CL BIOS version (read the ['How do Creative's BIOS versions differ from NVIDIA's BIOS versions?'](#) question for the reason why).

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## Q. How do Creative's BIOS versions differ from NVIDIA's BIOS versions?

This response was given by William Ball of Creative:

*We have a different versioning convention from NVIDIA. Basically ours is CC.cc.oo.mm.ee and NVIDIA's is CC.cc.mm.ee.oo, where .oo is the OEM revision. So on NVIDIA's control panel or NVFLASH program, the .oo part is displayed last whilst our bootup signon message and the later BlasterControl application would display our convention. So, for our SDR BIOS, the version is displayed as 2.10.1.01.04 (our convention) instead of 2.10.01.04.1 (NVIDIA's convention). This might have led people to believe that we are using a 2.10.01.01 BIOS.*

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## Q. Why can't I set my Virtual Desktop to higher than my monitor's maximum resolution with the Creative drivers?

This is a known limitation of the current Creative drivers. Creative may release a driver set in the future that fixes this problem.

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## Q. The fan on my Annihilator is making a grinding noise. How can I fix it?

Unscrew the fan from the card, and lift it away. Blow away any dust that is around the fan. Then peel back the sticker from the back of the fan (the side you don't usually see) and put a drop of oil in the small metal area that you should be able to see. Replace the fan and put the screws back in (not too tightly). This should stop the grinding and will not invalidate your warranty so long as you don't damage the card.

People often ask what kind of oil to use. While I've heard of people using cooking / vegetable / olive oil, and this doesn't mess up the card, I'd recommend some more 'conventional' oil. Liquid silicon is ideal, and you can not only buy it as oil for RC cars, but also in the form of shoe water proofer! You can also use sewing machine oil from any craft shop. Personally I used 3 in 1 when I got this problem.

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## Q. Why have I only got one overclocking slider with the Creative drivers?

This is a known limitation of the current Creative drivers - the core clock speed can not be adjusted. You can download a utility that will allow you to set both core and memory clock [here](#).

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## Q. What is the difference between an Annihilator and an Annihilator Pro?

## Q. What is the difference between an SDR and a DDR board?

## Q. How can I tell if my board is SDR or DDR?

The Annihilator board has SDR memory: the Pro board has DDR memory. DDR is twice as fast as SDR, and so at high resolutions (1024x768x32 and above) the DDR board is a lot faster than the SDR board.

Note that some DDR cards will have memory listed as running at twice the speed mentioned in the '[What different types of GeForce card are available and what are the differences between them?](#)' question - this is because DDR memory is able to transfer data twice in each clock signal.

The memory on SDR cards will probably have pins on only two sides, as most SDR cards use SDRAM memory. On DDR cards the memory will probably have pins on all four sides, as most DDR cards use SGRAM memory (although ASUS in particular have made cards that do not comply with this rule of thumb!).

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## Q. What different types of GeForce card are available and what are the differences between them?

The following list is with the cheapest and slowest cards first, and the most expensive and fastest cards last.

- GeForce 256 SDR - Runs at 120mhz core / 166mhz memory.
- GeForce 256 DDR - The same as a GeForce 256 SDR, except it uses DDR memory.
- GeForce2 MX-200 - Uses SDR memory, with only a 64-bit addressing mode. Runs at 175mhz core / 166mhz memory.
- GeForce2 MX - May use SDR or DDR memory, but both types produce roughly the same speed because DDR memory is forced to run in 64-bit mode, while SDR memory is still able to run in 128-bit mode. Runs at 175mhz core / 166mhz memory.
- GeForce2 MX-400 - The same as a GeForce2 MX, except it runs at 200mhz core / 166mhz memory.
- GeForce2 GTS (DDR) - Runs at 200mhz core / 166mhz memory.
- GeForce2 Pro (DDR) - The same as a GeForce2 GTS, except it runs at 200mhz core / 200mhz memory.
- GeForce2 Ultra (DDR) - The same as a GeForce2 GTS, except it runs at 250mhz core / 230mhz memory.
- GeForce3 - Runs at 200mhz core / 230mhz memory.

See the '[What is the difference between an SDR and a DDR board?](#)' question for information on SDR and DDR.

The GeForce2 series uses a 0.18 micron manufacturing process instead of the 0.22 micron used in the previous process, meaning less power consumption and heat production. All cards in the series have a second generation T&L engine, can render two textures per pixel instead of just one, have the NSR (NVIDIA Shading Rasterizer) and an HDVP (High Definition Video Processor) for better DVD and HDTV support.

The GeForce2 MX supports 2 monitor outputs for TwinView (two video outputs to two monitors, or one monitor and a flat screen display or TV) on the same card) and Digital Vibrance Control. It has only 2 texture pipelines instead of 4 on the GeForce or GeForce2 GTS, is restricted to a 64 bit memory bus for DDR, and has a less advanced HDVP without support for some high-end modes. In general it does not require a fan on the heatsink.

The GeForce3 uses 0.15 micron manufacturing process. It is a new generation of chip, much faster than the GeForce2, fully DirectX 8 compliant, has the nfiniteFX Engine engine, providing support for vertex and pixel shaders, Lightspeed Memory Architecture for improved memory bandwidth, and High-Resolution Antialiasing (HRAA) support for faster antialiasing support in the form of Quincunx antialiasing. It also supports Digital Vibrance Control.

The GeForce2 Go chips are for integration in laptops - once again, the cheapest and slowest chips first, and the most expensive and fastest cards last.

- GeForce2 Go 100 - Runs at 125mhz core / 166mhz memory, with 16MB of 32bit DDR memory.
- GeForce2 Go 200 - Runs at 143mhz core / 166mhz memory, with 32MB of 64bit DDR memory.
- GeForce2 Go - Runs at 143mhz core / 166mhz memory, with 64MB of 64bit DDR memory or 128bit SDR memory.

The GeForce2 Go is based around the same architecture as the standard GeForce2, with less power consumption produced by a lower core voltage and speed.

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## Q. What is AGP Wizard?

If you have a Creative card, there is a utility called AGP Wizard that will allow you to enable sidebanding as well as Fast Writes and switch between AGP1X/2X/4X. It will **not** work on any other card because it checks the Video BIOS to see if you have a Creative card. You do **not** have to have Creative drivers installed. It is available here:

<http://ftp.ctlsg.creaf.com/files/creative/drivers/3db/agpwizard.exe>

In addition, the Creative official drivers and FastTrax drivers have the functionality of AGP Wizard built in.

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## Q. What is Unified?

### Q. Where can I get Unified?

### Q. Why doesn't my serial number work on the Unified page?

Unified is a Glide wrapper created by Creative, so that you can run 3dfx only games on your non-3dfx card. You can download it from:

<http://www.americas.creative.com/hotgraphics/unified/>

However, it may not accept your serial number (you should try using the one on the actual card that begins with T). If you still can't get it to work, email William Ball ([bball@creativelabs.com](mailto:bball@creativelabs.com)) with your serial number and he will email the files to you.

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## Q. How powerful should my power supply be in order to use the GeForce?

- At least 250 watts is recommended and 300 watts is ideal: however, you may still be able to run it on 230W or lower (I once had a machine that ran on 200W, and I've had a report of someone running on 150W).
- You need a more powerful power supply if you have a more power hungry processor like the Athlon or more peripherals than usual in your system.
- If you have a GeForce2 series card you may not need such a powerful power supply as they consume less power.
- Elsa provides the following power supply recommendations when using a GeForce card and Athlon processor:

- 20A for the +3.3V power.
  - 30A for the +5V power.
  - 165W for the combined +5V/+3.3V power.
- If you think that your power supply may be causing problems, try temporarily unplugging any extra cards, drives, fans and memory sticks that you have and see if that helps with the problem. If it does, you will need to get a more powerful power supply.

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## Q. How can I remove and replace the fan on my GeForce?

## Q. What is a good replacement fan for a GeForce?

- There are some instructions for fan removal in English on the following website:  
<http://home.earthlink.net/~chinmonster/>  
There is a link to the instructions on the first page you read.
- There are some instructions for fan removal in German at the following page:  
<http://www.3dcenter.de/news/geforce-luefter.php3>
- There are really two choices for a replacement fan. Firstly, I recommend the [TennMax Lasagna BGA cooler](#). It doesn't obstruct your first PCI slot, and cools very well, although it is a bit pricey. If the [TennMax](#) cooler is too expensive, try the [ThermalTake Blue Orb cooler](#). It is cheaper than the [TennMax](#) cooler, and also cools very well, but it will obstruct your first PCI slot. I have personally used both coolers and they are both great quality.

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## Q. Does the GeForce support Texture Compression (DXTC/S3TC)?

## Q. Can I use the compressed textures on the second Unreal Tournament CD with my GeForce?

- This information was sent to me by NVIDIA's manager of developer 3D tools and technology:  
*S3's texture compression scheme (S3TC) was licensed to Microsoft who incorporated it into DirectX. It is referred to as DXTC compression in Direct3D. The GeForce supports all five texture compression formats in Direct3D. With the 5.xx (Detonator 2) drivers the GeForce also supports S3TC texture compression in OpenGL.*
- You can use the compressed textures in Unreal Tournament if you download the latest OpenGL renderer. See the '[How can I speed up Unreal Tournament on my GeForce?](#)' question for more information.

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## Q. What should my AGP Aperture size be set to?

## Q. How can I change my AGP Aperture size?

It should be set to half your system RAM if possible, and if not it should be set at some point below or equal to the amount of RAM that you have. However, it is possible to experience speed advantages of 2-3 fps from setting the AGP Aperture size to 256 regardless of the amount of RAM that you have, and there are some games that may have visual problems fixed by setting the AGP Aperture size to 256.

Beware that setting the AGP Aperture size too low (below 32) will actually disable AGP which will cause a speed decrease, although stability problems may be solved - see the '[My GeForce keeps on locking up or drops me back to the desktop during 3D applications. How can I fix it?](#)' question for more information.

There are also some programs that have problems (stuttering, flashing or corrupted textures, blank screens) when the aperture size is set too high. Experiment and see which setting is best for your system and programs.

It's possible that if you set your AGP Aperture size to 256 you will be able to load the 64MB texture test in 3DMark2000 even if you haven't got enough video memory.

You can only change this in your BIOS setup - it may be called something slightly different, so look for a setting that is measured in MB and can be set to values such as 16, 32, 64, 128 and 256. Different motherboards allow different settings - for example, i815 motherboards will not allow you to set the aperture size above 64MB.

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## Q. What are the recommended BIOS settings for a GeForce?

Note that the settings in *italics* may have to be changed in order to maintain stability on some systems. The changes that may have to be made to them are detailed in the instability section, and in particular the ['My GeForce keeps on locking up or drops me back to the desktop during 3D applications. How can I fix it?'](#) question.

The settings described here should provide maximum performance and stability:

- *UC or USWC* - USWC. See ['I have a Video Memory option in my BIOS that I can set to UC or USWC. What should it be set to?'](#) question.
- *Fast Writes* - Enabled.
- *AGP Mode* - 2x or 4x, depending on whether your motherboard supports AGP4X or not.
- *AGP Driving Control* - Auto.
- *AGP Master 1 WS Write* - Enabled.
- *AGP Master 1 WS Read* - Enabled.
- AGP Aperture - see ['What should my AGP Aperture size be set to?'](#) question.
- Assign IRQ to VGA - Enabled.
- Video BIOS Shadow - Disabled.
- Video BIOS Cacheable - Disabled.
- Video RAM Cacheable - Disabled.
- C8000 - xxxxx Shadow - Disabled.
- Peer Concurrency - Enabled.
- Concurrent PCI Host - Enabled.
- PCI Streaming - Enabled.
- VGA Palette Snoop - Disabled.

You can also try these settings if you are having problems:

- Memory hole between 15-16MB - Enabled.

For other BIOS settings, see the excellent BIOS Optimization Guide at Adrian's Rojak Pot here:

[http://www.adriansrojakpot.com/Speed\\_Demonz/BIOS\\_Guide/BIOS\\_Guide\\_Index.htm](http://www.adriansrojakpot.com/Speed_Demonz/BIOS_Guide/BIOS_Guide_Index.htm)

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## Q. I have a Video Memory option in my BIOS that I can set to UC or USWC. What should it be set to?

- Setting this to USWC should increase performance in most cases, but only by a very small amount.
- If this is set to USWC it may cause problems after POST.
- If this is set to UC it may cause lockups after recovering from Standby.
- Creative Labs recommend setting this to UC.
- Overall, it's probably best to try setting it to USWC and then set it to UC if you have problems.

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## Q. How can I use the latest Video BIOS without flashing my Video BIOS?

**WARNING:** This section is really only for people who understand how DOS works. Don't email me asking what conventional memory or TSRs are, how to use EMM386 or LOADHIGH, or for instructions as to how to edit your autoexec.bat file - if you don't know, then this section is too advanced for you.

There is a program called VGABIOS that was written by NVIDIA. It is a TSR program that will load a Video BIOS after you have booted your machine, and use that BIOS instead of the BIOS on your card.

This means that if something goes wrong, all you have to do is remove VGABIOS from your startup files and your old BIOS will be used instead (it is unaffected by the process).

The disadvantage of this is firstly that the program takes up 64KB of memory (oh no!) and secondly that I imagine it is very, very slightly slower.

The program cannot be run under Windows - you must run it either before Windows starts or in MS-DOS mode.

You can download the latest version of this program from the following website:

<http://www.m3dzone.com/zoiah/>

under the Flashing & Dumping / Flashing Tools / TSR-BIOS Tools section, or here:

<http://www.gforcex.com/biostop.htm>

The syntax for the program is 'vgabios -fFILENAME' where **FILENAME** is the name of your video BIOS file. You can put this in your AUTOEXEC.BAT file and load it at bootup.

If you want to save on 64KB of conventional, you can use LOADHIGH (after loading EMM386) to load VGABIOS into the HMA.

There are step-by-step instructions for using VGABIOS available at the following website:

<http://www.m3dzone.com/zoiah/>

under the Flashing & Dumping / Tutorials / How-to use VGABIOS section.

See the '[Where can I get the latest NVIDIA Flash BIOS and which should I use?](#)' question for information on NVIDIA reference Flash BIOS files.

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## Q. Where can I get the latest NVIDIA Flash BIOS and which should I use?

You can download the latest (leaked) NVIDIA GeForce flash BIOS files from the following site:

<http://www.m3dzone.com/zoiah/>

under the Reference / BIOSes / GeForce (256/2 GTS) BIOSes section, or here:

<http://www.gforcex.com/biostop.htm>

Once you get to the site, you will have a number of options as to which Flash BIOS you should download. Here is a short guide (thanks RobRich):

If you have a:	Use
SDR card with no TV-OUT (Creative Labs Annihilator)	SM
SDR card with a Brooktree TV-OUT	BT
SDR card with a Chrontel TV-OUT	CH
DDR card with no TV-OUT (Creative Labs Annihilator Pro)	DDRSM
DDR card with a Brooktree TV-OUT	DDRBT
DDR card with a Chrontel TV-OUT	DDRCH (not available)

If you don't know what TV-OUT chip you have, go into the NVIDIA Control Panel and take a look at the main 'GeForce' tab. There should be a line that says 'TV Encoder Type' - thanks Matthew Manor!

There is also an updated GeForce3 Video BIOS available here:

<http://www.acidhardware.com/cgi-bin/news/ktalk/989480742,40612,.shtml>

**WARNING:** Before you flash your card with the standard NVIDIA BIOS, please note that once you have done so you will **NOT** be able to:

- Install any drivers except the NVIDIA reference drivers.
- Use any other BIOS flashers except the NVIDIA reference BIOS flasher (which will probably mean you can't flash back to your manufacturer's BIOS unless you make a backup beforehand).
- Use AGP Wizard (more information [here](#)) to enable AGP Sidebanding if you have a Creative card.

In addition you will **void your warranty**. Please do **NOT** email your manufacturer if this goes wrong!

For that reason, I would advise **everyone** to make a backup of their original BIOS file before they flash their BIOS. You can use a DOS program called SaveBIOS to do this - just run the program and it will create a VIDBIOS.BIN file. Put this file somewhere safe, and if you ever need to revert back to the old version just use NVFlash with your backup file.

You can download SaveBIOS here:

<http://www.geforcefaq.com/files/savebios.zip>

You can also use WinVidia Dumper to save the BIOS to a file from inside Windows 9x. You can download it from [silicondreamz](#) here:

<http://www.silicondreamz.com/files/WinVDumpBeta2.zip>

If you were silly and didn't take a backup, try the following page:

<http://www.m3dzone.com/zoiah/>

under the BIOS / Manufacture BIOSes section.

See the '[Where can I get and how do I use NVFlash?](#)' question for information on using the NVFlash program that actually flashes the Video BIOS.

You might also want to read the '[How can I use the latest Video BIOS without flashing my Video BIOS?](#)' question.

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## Q. Where can I get and how do I use NVFlash?

NVFlash does not work under Windows 2000. If you want to flash your Video BIOS under Windows 2000, you will need to make a bootdisc on a computer running Windows 9x and boot from that disc to run NVFlash. If you are using NTFS you will have to put all the relevant files that you need to access onto the boot disc before you start as you will be unable to access your hard drive while you are using the boot disc.

If you want to use NVFlash under Windows ME, make sure you install the [Real DOS-Mode Patch for Windows Millennium](#) first.

You might want to read the '[How can I use the latest Video BIOS without flashing my Video BIOS?](#)' question. Be warned that flashing your Video BIOS could quite possibly permanently damage your card, and it is unlikely that any company would be willing to replace the card for free. Having said that, so long as you follow these instructions you should not have any problems. This is **NOT** for beginners.

You can download the NVIDIA Flash program at the following website:

<http://www.m3dzone.com/zoiah/>

Download the latest version under the BIOS / Utilities / NVFlash section, or here:

<http://www.gforcex.com/biostop.htm>

You will also need a copy of DOS4GW - download it here:

<http://www.geforcefaq.com/files/dos4gw.zip>

1. Extract both files to an empty directory, along with the Flash BIOS file that you are going to use (see '[Where can I get the latest NVIDIA Flash BIOS and which should I use?](#)' question).
2. Reboot your PC and when it says 'Starting Windows 9x...' press F8. Select 'Safe Mode Command Prompt'.
3. Switch to the directory where you extracted the files and type: NVFLASH -**FILENAME** where **FILENAME** is the name of the Flash BIOS file you downloaded.

4. Now wait. The screen may go black, but watch the keyboard lights - they will make a pretty pattern to assure you that the system is still working ;)
5. When the process is finished, reboot.

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## Q. My card's Video BIOS is corrupted and I can't use my manufacturer's flash program to restore it. How can I restore it?

- If you cannot get any display, get a PCI graphics card, put it in your system along with the GeForce, and plug your monitor into it. You should now be able to use NVFlash to reflash your GeForce's Video BIOS.
- If you do not have a PCI graphics card spare, create a boot floppy disc on another system (select 'Copy system files' when you format it). Create a file called '*autoexec.bat*' in the main directory of the floppy disc, and put the following line **only** inside:  
*nvflash -p -h -ffilename.ext*  
where **filename.ext** is the name of the BIOS flash file that you are going to use. Also copy nvflash.exe and dos4gw.exe into the main directory of the floppy disc.

Then put the disc in the drive and start the computer. The floppy disc should be read within 30 seconds or so. You should soon notice the keyboard lights going mad - this means that your video BIOS is being flashed. Your computer should reboot when finished, and hopefully your video card will then work.

- If you want to get your original manufacturer's video BIOS back, try using WinAce to open your manufacturer's flash program file and see if you can extract the raw BIOS file from it. You can use NVFlash with this raw BIOS file. This has been tested with ASUS BIOS files.

You can download WinAce at the following website:

<http://www.winace.com>

Otherwise, you will have to find someone else with the same card and ask them to save their Video BIOS using NVFlash and then send you the file.

You can find out more about NVFlash in the '[Where can I get and how do I use NVFlash?](#)' question.

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## Q. Does the GeForce / GeForce2 support flat panel (DVI) correctly?

The GeForce does not support DVI inside the chip itself - it was added with another external chip. This should not cause problems.

The GeForce2 supports DVI in the chip itself - however there appears to be a problem as the chip can and does generate out of band signals. This means that with some displays there is no problem but with others there is.

If the manufacturer uses an external chip for DVI output on a GeForce2 this is not a problem, but be wary of using a GeForce2 card without an external chip with your flat panel display as it may not work.

There is more information on this problem at the following website:

<http://www.riva3d.com/dvi.html>

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## Q. What is a Quadro and how can I convert my GeForce into a Quadro?

The Quadro is a high end version of the GeForce for 3D graphic designers. It costs a lot more and generally comes with more Video RAM. There are some extra features that it supports as well:

- Anti-aliased Lines
- Two-sided Lighting
- Shared Back Buffer
- 3D Window Clipping

- 128 MB Frame Buffer
- Pro App Validation

Note that you can gain the first extra feature (Anti-aliased lines) using a registry file - see the '[How can I enable OpenGL hardware accelerated anti-aliased lines on a non-Quadro card?](#)' question.

In addition, having the extra features has little to no effect on 3D games - if you only play games, don't bother with this stuff :)

- The only physical difference between the GeForce and the Quadro (apart from the extra RAM and a chip that may be of slightly better quality) is that a few resistors are in a different location. It is possible to resolder these resistors to make your GeForce think it is a Quadro.

**WARNING:** If you resolder your resistors then you will **void your warranty**. In addition you could permanently mess up your card if you get it wrong. For gamers there is very little advantage in performing this conversion.

To read more about this operation, see benchmarks before and after, and find out where the all important resistors are and where you should move them to, read the pages on the following website:

[http://www.geocities.com/tnaw\\_xtennis/](http://www.geocities.com/tnaw_xtennis/)

- In addition, recently a software patch has been released that can fool drivers into thinking that you have a Quadro without any soldering. You can download the patch here:  
<http://www.nvworld.ru/downloads/SoftQuadro.ZIP>

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## Q. Will my motherboard work with the GeForce?

There is a list being compiled here:

<http://www.g256.com/guides/geforcecomp.shtml>

If you have a GeForce2 you might want to also read this page:

<http://www.insanehardware.com/articles.php?i=00003>

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## Q. When I install my GeForce I can only set the card to use 640x480 with 16 colours. How can I fix it?

- Make sure that you have 'Assign IRQ to VGA' set in your BIOS setup.
- Make sure that you have uninstalled all old video drivers using the uninstallation programs provided, and also try uninstalling old NVIDIA drivers as described in the '[How can I completely uninstall old NVIDIA GeForce or Creative Labs Annihilator drivers?](#)' question.
- Make sure that you have installed the latest AGP drivers for your motherboard's chipset.
- Make sure that you have the correct monitor drivers installed. If you are using the standard Windows monitor drivers and your monitor does not have specific drivers available, try a different Windows monitor driver.

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## Q. Games stutter with my GeForce. How can I fix it?

- Make sure you have the latest drivers installed.
- Make sure that you have closed all programs before you start the game - press Ctrl-Alt-Delete and select all the programs one by one except 'Explorer' and 'Systray' and click 'End Task'. Even if a program says that it is 'Not Responding' after 20 seconds, you should still be able to close it. If the problem persists, switch off your screensaver and desktop background before starting the game.
- Make sure that you have enough RAM free to run the game - try running a RAM recovery program before starting the game

or putting some more RAM into your system.

- If you are experiencing stuttering with Unreal Tournament or any games that use the Unreal Tournament engine, read the ['How can I speed up Unreal Tournament on my GeForce?'](#) question first.
- The following solution is outlined on this page:  
<http://www.daytonsmisc.com/article1.htm>
  1. Go into the System Control Panel, click on Device Manager, and find your CD/DVD-ROM drive(s) and hard drive(s). Go into each one, click on Settings and tick DMA. This enables UltraDMA.
  2. Make a permanent swap file of 150MB. In the System Control Panel, click on Performance and select Virtual Memory. Select 'Let me select my own virtual memory settings', select the hard drive that you want the swapfile on (the fastest drive) and type 150 in both boxes. Click OK, ignore the warning and restart.
- Make sure that Video BIOS shadowing is disabled in your BIOS.
- If you have a network card installed, try setting the connection type in the Network Control Panel from the automatic sensing option to the type of network that you use (10BaseT / 100BaseT, full / half duplex).
- Make sure that your GeForce card is not sharing any IRQs with another card - the only device that can have the same IRQ is the 'IRQ Holder for PCI Steering'. If you find that the GeForce is sharing an IRQ, try moving the card that it is sharing the IRQ with to another slot.
- If your AGP Aperture is set to 256MB, try changing your AGP Aperture to another value (keep it above 16 as setting it at or below 16 will disable AGP) - see the ['How can I change my AGP Aperture size?'](#) question.
- Try ticking the 'Disable support for enhanced CPU instruction sets' box in the OpenGL tab of the NVIDIA Control Panel applet.
- You may find that switching your desktop colour depth to 256 colours helps with stuttering problems.
- You can try disabling auto-mipmapping in the NVIDIA control panel. This has helped some people with stuttering problems: however, it may result in reduced image quality and overall speed.

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## **Q. All 3D applications are slow on my GeForce. How can I fix it?**

- If you are using a non-Intel chipset based motherboard, make sure you download and install the very latest AGP and other drivers from your chipset manufacturer's or motherboard manufacturer's website.
- If you have a low end CPU, then you may have to upgrade your CPU to make the most out of the GeForce. Only higher end CPUs can take full advantage of the power of the GeForce, despite the T&L engine. In particular, any AMD Super Socket 7 chips in general give poor performance, due to the poor AGP implementations on most Super Socket 7 motherboards.

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## **Q. When I run a 3D application, the screen suddenly goes black (I lose the monitor signal), but the computer doesn't lock up. How can I fix it?**

- Try going into Safe Mode and go to Control Panel / System. Remove all monitor devices listed and let Windows redetect the monitor when it restarts.
- Try changing your refresh rate. See the ['How can I manually set refresh rates and force the refresh rate above 60hz?'](#) question for more details.
- If you have no monitor drivers for your monitor, select 'Plug and Play Monitor' from the (Standard monitor types) section of the monitor drivers list.
- Make sure that you are using a powerful enough power supply. See the ['How powerful should my power supply be in order to use the GeForce?'](#) question for more information.

- Your motherboard may not be supplying enough power to the GeForce - see the ['What's all this with the original GeForce and motherboards not supplying enough power?'](#) question.
- Try forcing AGP1X. Read the ['How can I force AGP1X to be used instead of AGP2X or AGP4X?'](#) question for more information.

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## Q. I have problems with flickering, tearing or polygons in the wrong place in 3D applications. How can I fix it?

- If you have flickering or tearing problems with Quake 3 Arena, make sure you read the ['I get flickering textures in Quake 3 Arena and Windows 9x. How can I fix it?'](#) and ['I get tearing on Quake 3 Arena, whether I set VSYNC on or off. How can I fix this?'](#) questions first.
- If you have any of these problems with Half-Life, make sure you read the ['I get problems with Half-Life. How can I fix them?'](#) question first.
- If you have flickering problems with Rogue Spear, make sure you read the ['I get flickering in Rogue Spear. How can I fix it?'](#) question first.
- If you have tearing problems, try turning up your refresh rate. See the ['How can I manually set refresh rates and force the refresh rate above 60hz?'](#) question for more details.

- If you have tearing problems, try forcing VSYNC off in the NVIDIA control panel.

- Try changing your AGP Aperture to another value (keep it above 16 as setting it at or below 16 will disable AGP) - see the ['How can I change my AGP Aperture size?'](#) question.

- The following tips were provided by Rich Carless:

*If you have tearing problems with any OpenGL programs, go to the OpenGL tab of the NVIDIA control panel and change the 'Buffer flipping mode' option from 'Auto-select' to 'Use block transfer'.*

*If you have polygons in the wrong place in Direct3D programs, go to the Direct3D tab of the NVIDIA control panel and tick 'Enable alternate depth buffering technique'.*

- Try upgrading your Video BIOS to the latest version. You might want to read the ['Where can I get the latest NVIDIA Flash BIOS and which should I use?'](#) question.

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## Q. I have problems with flashing textures. How can I fix it?

- Try changing your AGP Aperture to another value (keep it above 16 as setting it at or below 16 will disable AGP) - see the ['How can I change my AGP Aperture size?'](#) question.
- If you have an option called 'PCI Delay Transaction' in your BIOS, try disabling it.
- Try installing the latest BIOS update for your motherboard. You can get help with finding out what BIOS you need and instructions as to how to flash it at [Wim's BIOS page](#)
- Try reducing the 'PCI Texture Memory Size' setting in the NVIDIA control panel to a lower level.
- If you have a VIA chipset, try disabling AGP4X in your BIOS or using registry files (see the ['How can I enable AGP4X in the Detonator 5.16+ driver sets on my VIA 133mhz chipset motherboard?'](#) question). If disabling it helps, then try reading the ['I have a VIA chipset based motherboard and I can't get AGP4X to work without causing instability. How can I fix it?'](#) question.
- Try connecting your CPU fan to another socket on the motherboard.
- Try reseating all of the components on your motherboard (including power leads and the GeForce).

- Try turning up the I/O voltage of the motherboard in the BIOS by a small amount.
- Make sure that you are using a powerful enough power supply. See the '[How powerful should my power supply be in order to use the GeForce?](#)' question for more information.
- If you are using more than one stick of memory, try taking out all but one of the memory sticks and see if that helps. If it does, you need a more powerful power supply: see the '[How powerful should my power supply be in order to use the GeForce?](#)' question for more information.
- Try using the Detonator 2 (5.xx) series of drivers.
- Try switching on AGP Turbo, turning up the bus speed, or setting your AGP ratio to 1:1, (in that order) - this will put extra strain on the card, but it seems to fix the problem for some people.
- After trying the above, try turning up the bus speed above 100 **and** setting the AGP ratio to 1:1.
- Try forcing AGP1X. Read the '[How can I force AGP1X to be used instead of AGP2X or AGP4X?](#)' question for more information.
- Try turning down the AGP Aperture to 16 or below, if your motherboard supports it - see the '[How can I change my AGP Aperture size?](#)' question. This will disable AGP, but may fix your problem. You can also use DXDiag to disable AGP.

Note that this problem is closely related to the locking up problem - you may also want to try reading the '[My GeForce keeps on locking up or drops me back to the desktop during 3D applications. How can I fix it?](#)' question for more hints. Let me know if any of the hints in the lockup question help with flashing textures and are not already mentioned here, so that I can copy them over.

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## Q. I get texture bleeding, small flashing triangles or corrupted textures. How can I fix it?

- Try changing your AGP Aperture to another value (keep it above 16 as setting it at or below 16 will disable AGP) - see the '[How can I change my AGP Aperture size?](#)' question.
- If you are getting texture problems in Quake 3 Arena, try reading the '[The sky looks blocky and textures have strange colours in Quake 3 Arena with the latest drivers installed. How can I fix this?](#)' question.'
- If you have a RealMagic Hollywood Plus or another DVD decoder card, try taking it out and seeing if that helps. An motherboard that supports ATA66 may also cause these problems in some cases. If this does seem to be the problem, take the DVD card out immediately because some people *appear* to have actually had their GeForce damaged somehow.
- Try reflashing the video card's BIOS with the BIOS supplied from the CD by copying the BIOS files to your hard drive, rebooting, pressing F8 on the Starting Windows 9x screen and selecting 'Safe Mode Command Prompt' and then running the utility. The version is the same as the version currently on your card but it may fix the problem.

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## Q. I get dots all over the screen in some programs. How can I fix it?

- In 2D programs, this may be caused by the Detonator 3 (6.xx) driver sets. Try reverting to the Detonator 2 (5.xx) driver sets.
- In 3D games, these are polygon junctions. You should only be worried if these occur without overclocking.
  - If you have an option in your BIOS called 'Fast CPU Command Decode', try setting it to Normal instead of Fast.
  - If you are playing with a Quake engine based game, try the console command:
    - `/gl_keeptjunctions "1"`
  - Reset all of the options in the NVIDIA control panel to default.
  - Try underclocking your card.

- Try going into 32 bit colour mode instead of 16 bit.
- Replace your card if you can. It is most likely that it is defective.

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## Q. My sound card crackles or stutters with the GeForce. How can I fix it?

- Make sure you have muted all unused sound inputs in the Windows Volume Control application, to make sure that you are not just picking up noise from inside your system.
- Try installing the latest drivers for your sound card.
- Try installing the latest drivers for your motherboard.
- Try installing the latest BIOS update for your motherboard. You can get help with finding out what BIOS you need and instructions as to how to flash it at [Wim's BIOS page](#)
- Make sure that your sound card is not sharing an IRQ with another card. If it is, try moving your sound card to another PCI slot. You may also have to read the ['I have Windows 2000 and all of my devices share the same IRQ, causing problems with my GeForce. How can I fix it?'](#) question.
- If you have a Super Socket 7 motherboard, the registry fix in the ['I have problems with my Super Socket 7 motherboard. How can I fix them?'](#) question may help.
- Try disabling the 'Delayed Transaction' option in your BIOS.
- Try enabling the 1MB memory hole between 15-16MB option in your BIOS.
- If you have a 'PCI Latency Timing', 'CPU-to-PCI Bridge latency' or similar setting in your BIOS, try setting it to 0, or raising it to 64 (the usual setting is 32). This may help in particular on VIA KX133 based motherboards.

If you do not have this option in your BIOS, and you have a VIA MVP3 chipset based motherboard, try putting the following program in your startup folder. It sets the CPU-to-PCI Bridge latency timer to 0. You can download the Windows 9x version of this program here:

<http://koti.mbnet.fi/parru/CPU-to-PCIBridgeLatencyTimerTo0clks.zip>

and the Windows 2000 English version here:

[http://www.deinmeister.de/mvp3\\_zlt\\_e.htm](http://www.deinmeister.de/mvp3_zlt_e.htm)

and the Windows 2000 German version here:

[http://www.deinmeister.de/mvp3\\_zlt.htm](http://www.deinmeister.de/mvp3_zlt.htm)

If you have another chipset on your motherboard, you may be able to use the shareware program TweakBIOS to change the PCI Latency on your soundcard. You can find out more information about this and download it at the following website:

<http://www.miro.pair.com/tweakbios/>

- Try setting the DirectSound Debug Output Level in the DirectX control panel higher - you can get a copy of the DirectX control panel here:  
<http://www.geforcefaq.com/files/dxcpl.zip>
- Under Windows 2000 try altering the hardware acceleration level of your soundcard - you can find the slider in the Sounds and Multimedia control panel under the Audio tab / Advanced for Sound Playback and Sound Recording.
- Try disabling DMA transfers on all of your drives. You can do this under the System control panel by opening each drive in turn and disabling DMA under the 'Settings' tab. This will reduce your drive's performance but may fix the problem.

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## Q. My TV card has problems with the GeForce. How can I fix them?

- Try installing the latest reference drivers. The 5.22+ drivers fix many problems with TV cards and may make the steps below unnecessary.
- The following instructions were provided by Bill Ball from [Creative Labs](#), who got them from NVIDIA:
  1. *Open the Display properties.*
  2. *Go to Settings, Advanced, GeForce/TNT/TNT2/TNT2Ultra, Additional Properties, Overlay Color Control.*
  3. *You can make adjustments or just hit the Default button and hit OK.*
  4. *Close the Display properties.*

*The point of this seemingly useless maneuver is that it creates a registry key that you will need IF you have not opened the Overlay Color Control sheet before. If you have, then just skip the above step.*
  5. *Run Regedit and locate this key:*  
`HKEY_LOCAL_MACHINE\System\CurrentControlSet\Services\Class\Display\000#\NVIDIA\DirectDraw`

*Note: You may have several display entries numbered successively. Usually the last one is the active one, but if you have several that refer to other graphics cards no longer installed, you may want to delete them or run any uninstall for those cards. If you have several referring to your current card and can't figure out which is active, you may want to reboot into Safe Mode, go into Device Manager and remove ALL display driver entries and reboot to reinstall the drivers once.*
  6. *In the active DirectDraw key create a new DWORD entry called 'VideoBusMasterMode' and give it a value of 1.*
  7. *Close regedit and reboot*
  8. *Try the TV card application. NVIDIA says this fixes the ATI TV Wonder and they believe it will fix the Hauppauge and other cards.*
  9. *If not, run regedit again and look for this entry:*  
`HKEY_LOCAL_MACHINE\System\CurrentControlSet\Services\Class\Display\000#\NVIDIA\DirectDraw\OverlayMode`
  10. *Change the value for OverlayMode from 0 through 5, restarting and testing the TV application each time.*
- If this does not help, and you have a card based on the Brooktree BT848 chipset, you can disable Overlay mode until a fix is found by going into the following registry key:  
`HKEY_CLASSES_ROOT\bt848\Force Primary`  
 and changing the default value from 0 to 1.
- Finally, if all else fails, try loading two copies of your TV card application. The second instance of the application may not show the problem. This may be the only way to fix the problem in Windows 2000.

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## Q. I get errors involving a DirectDraw "failure at step 11". How can I fix them?

Try forcing AGP1X - see the '[How can I force AGP1X to be used instead of AGP2X or AGP4X?](#)' question for more information.

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## Q. In the DXDiag Display tab, I get AGP Not Available. How can I fix it?

- Have you got Windows 95? You must have OSR2 and the USB supplement installed.
- Upgrade to Windows 98.

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## Q. I can't run any Direct3D programs, but OpenGL programs run fine. How can I fix it?

- If you have Windows 2000 installed and you use NetMeeting, this may be because you have Remote Desktop Sharing enabled or NetMeeting is started or is improperly shut down. If you close NetMeeting, this should fix the problem. You can read more about this in the following Microsoft Knowledge Base article:  
<http://support.microsoft.com/support/kb/articles/Q260/5/65.ASP>
- Note that this problem still appears sometimes when you are just running NetMeeting without Remote Desktop Sharing enabled. This appears to be an NVIDIA driver issue - you will have to close NetMeeting.

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## Q. I can't run any OpenGL programs, but Direct3D programs run fine. How can I fix it?

- If you previously had another graphics card installed before the GeForce, go to the following registry key using regedit: HKEY\_LOCAL\_MACHINE\Software\Microsoft\Windows\CurrentVersion\OpenGLdrivers and remove any keys except the RIVATNT key.
- Try the following instructions:
  1. Click Start / Run.
  2. Type "win.ini" (without quotes) and press OK.
  3. Search for a line that says "DVA=0" (without quotes).
  4. Add a semicolon (;) before the DVA (The line should now look like this: ";DVA=0" (without quotes))
  5. Save and close the file

If you find this causes more problems, just take out the semicolon. The setting refers to Direct Video Access - apart from that very little is known about it, but it should not cause any problems when enabled.

Note that not everyone has this line, and if there is none you'll have to try another solution.

- If you get a 'GLimp\_EndFrame()-SwapBuffers() failed!' error message when starting OpenGL applications, you can either try using the latest reference drivers or use the fixglimperror.reg registry file under Windows 9x - available here:  
<http://www.geforcefaq.com/files/fixglimperror.reg>
- If you get the same error under Windows 2000, use the fixglimperror2k.reg registry file - available here:  
<http://www.geforcefaq.com/files/fixglimperror2k.reg>
- Try completely uninstalling and reinstalling the drivers according to the '[How can I completely uninstall old NVIDIA GeForce or Creative Labs Annihilator drivers?](#)' question.
- If you have a Tyan Trinity 400 motherboard, try reverting to the BIOS version 1.0.
- Try underclocking your card.
- Try forcing AGP1X. Read the '[How can I force AGP1X to be used instead of AGP2X or AGP4X?](#)' question for more information.

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## Q. OpenGL programs run very slowly or crash in Windows 2000. How can I fix it?

Try downloading and installing the iopagelock.reg registry file - available here:

<http://www.geforcefaq.com/files/iopagelock.reg>

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## Q. I have Windows 2000 and all of my devices share the same IRQ, causing problems with my GeForce. How can I fix it?

This is a 'feature' of Windows 2000 - it uses ACPI in such a way that all devices share the same IRQ, usually 9 or 11. If you don't have problems, then leave it alone, but if you do get problems, use one of the procedures below (note that for Windows 2000 Microsoft [recommends](#) that you disable the PNP OS option in your BIOS before installation):

Note that some people find that disabling ACPI means they lose all power management functions.

- This procedure, submitted by Steve Aucoin, will allow you to disable ACPI without reformatting:
  1. *Disable PNP OS and ACPI in your BIOS, if you can (you may not be able to, and it is not always necessary) - if the option is not available try installing the latest BIOS update for your motherboard. You can get help with finding out what BIOS you need and instructions as to how to flash it at [Wim's BIOS page](#)*
  2. *Reboot. Go to Control Panel - Hardware and double click on My Computer in the hardware manager.*
  3. *You'll see ACPI - get into its properties and click to install another driver. When prompted, look under the Microsoft section and install the "Standard PC" driver.*
  4. *Reboot. At this point Win2k will try and reinstall all devices on your system so install any drivers you are prompted for (have them **all** handy) and reboot. Finalise any drivers you may be prompted for on the 2nd boot and reboot again.*
  5. *With all your drivers re-installed, take a look in hardware manager - and every device should have its own IRQ.*

Be warned that this method is discouraged by Microsoft - see the note at the bottom of [this Knowledge Base article](#).

- You can select not to enable ACPI when you first install Windows 2000 - During the first phase of Setup, at the Setup is inspecting your computer's hardware configuration screen, press the F5 key. You can select 'Standard PC' instead of an ACPI option.
- You can also press F7 during the portion of setup that displays the message to press F6 for adding SCSI drivers. This configures Setup to not try ACPI machine types.
- If for some reason the above procedures doesn't work, follow the following procedure, provided by Aaron Dierking, to disable ACPI from the outset.
  1. *Copy the i386 directory off the Windows 2000 CD onto your hard drive.*
  2. *Go into the i386 directory on your HDD and find the txtsetup.sif. Open it with notepad.*
  3. *Find the [ACPIOptions] section in the file. Below will be a setting for ACPIEnable - set it to 0.*
  4. *Install Windows 2000 using your hard drive copy.*

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## Q. I have an ASUS AGP-V6800 Deluxe card and I have updated my BIOS, but now I have severe problems. What's going on?

This is because older ASUS AGP-V6800 Deluxe cards use 8 Infineon RAM chips, and newer cards of the same model only use 4 Samsung RAM chips, with a different BIOS to go with them (version 2.10.02.10.04). ASUS offer a 'newer' BIOS on their website that enables sidebanding (version 2.10.02.10.02 sba), but this BIOS only works with the 8 chip cards, not the newer 4 chip cards. If you use the sba BIOS on a newer card, you will get display corruption and instability problems.

Jurgen Ludolph has provided me with a copy of the 2.10.02.10.04 BIOS that you can download if you have this problem. It is available here:

<http://www.geforcefaq.com/files/v6800d-2.10.02.10.04.zip>

You will need to use NVFlash to use this BIOS - you can read more about NVFlash in the '[Where can I get and how do I use NVFlash?](#)' question.

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## Q. My PC won't POST (doesn't display anything when I switch it on) after I put my GeForce card in. How can I fix it?

- Make sure that your card is firmly seated in the AGP slot, and clean away any dust in the slot or on the card.
- Make sure that your processor and RAM are firmly seated - you may have dislodged them when you installed the GeForce.
- Try a different monitor. In some rare cases the GeForce simply won't work with a certain monitor. If this is the case, try replacing the GeForce and seeing if that helps.
- Try increasing the I/O voltage of your motherboard to 3.4V in your BIOS setup if your BIOS supports it.
- Try setting the AGP Driving Value setting in your BIOS setup to EA or FF.
- Try installing the latest BIOS update for your motherboard. You can get help with finding out what BIOS you need and instructions as to how to flash it at [Wim's BIOS page](#)
- Try delaying your drives from spinning up for a few seconds if your BIOS supports it.
- If you are using a KVM (Keyboard / Video / Mouse) switch between your GeForce and your monitor, try first connecting the GeForce directly to the monitor. If this helps, try booting the PC when the KVM is pointing at a different monitor.
- If the above solutions don't help, you may find that on motherboards that are only AGP 1.0 compliant you may be able to fix this problem by putting insulating tape over the last pair of contacts on the AGP connector on the GeForce card (the contact furthest from the monitor port, on both sides). This has been tested on the Chaintech 6BTM motherboard.
- If your motherboard has two power supply connectors (AT and ATX), then try connecting the ATX connector instead of the AT. ATX supplies the 3.3V required by AGP cards to run.
- If you are using PC100 RAM, try switching to PC133 RAM.
- Your Video BIOS may be corrupt (this can occasionally occur even on brand new cards). See the '[My card's Video BIOS is corrupted and I can't use my manufacturer's flash program to restore it. How can I restore it?](#)' question for more information on how to reflash it.
- If you have an ABIT K7V motherboard and an ASUS V7700 card, and none of the above tips help, then unfortunately there seems to be a compatibility issue with the two. You'll have to change the card or the motherboard. Contact [Kagemusha](#) if want more information.
- If none of this helps, you may have a dodgy card. Try to get it replaced under warranty.

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## Q. I have an Abit KA7 or ASUS P3V4X and sometimes when I switch my computer on the video card is not detected. How can I fix it?

- If you have a Abit KA7, you will have to return your motherboard to Abit for modification. There is a compatibility problem between this motherboard and certain manufacturer's GeForce2 cards. It will not cost you anything in labour and component charges but you will have to pay for P&P to and from Abit. Contact Abit for more information.
- If you have a ASUS P3V4X, follow the instructions in the '[I have an ASUS P3V4X motherboard and I have instability problems with the GeForce. How can I fix it?](#)' question.
- Switching your monitor on before you switch on your PC may also help with this problem.

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## Q. I (occasionally or always) get less than 32MB of video RAM reported when I first switch on my PC. What's up?

- Try slightly changing your FSB speed.

- Make sure that you are using a powerful enough power supply. See the '[How powerful should my power supply be in order to use the GeForce?](#)' question for more information.
- You can find a link for a BIOS that may fix this problem for the Creative Annihilator Pro in the '[Are there any newer Video BIOS upgrades for the Annihilator?](#)' question.
- You may want to replace the card even if this does help: this problem may also be a bad solder joint on one of the memory chips that causes problems occasionally or all the time.

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## **Q. When I put my GeForce card in my Adaptec AHA-39160 SCSI card doesn't detect any devices. How can I fix it?**

- Try disabling the SCSI BIOS on your card if you don't need it. You only need it enabled if you actually boot off the SCSI device.
- You may need an updated SCSI BIOS for your AHA-39160 card. The version you need is 2.57.2 or later. You can download the BIOS from Adaptec's site.

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## **Q. Windows locks up before it finishes loading, and a thin green line may appear across the top of the screen. How can I fix it?**

- This may be caused by the Backup utility supplied with Windows 9x attempting to detect new tape devices on boot. You can fix it by deleting the files *drvwpqqt.vxd* and *drvwq117.vxd* in the *Windows\System\Iosubsys* directory. If this helps, then search for the string 'TAPEDETECT' in your registry and delete any entries that exist. If you find this causes your tape drive to stop working, you'll have to reinstall Microsoft Backup. You can also simply uninstall Microsoft Backup if you don't use it.
- Try updating the motherboard's BIOS. In particular on some Gigabyte boards based on the VIA KT133 chipset this may fix the problem. See the following page for more information:  
[http://www.giga-byte.com/faq/question/question\\_kt133.htm](http://www.giga-byte.com/faq/question/question_kt133.htm)  
This may also fix the problem on ASUS A7V motherboards - upgrade the BIOS to version 1004C or later.
- You may find that on motherboards that are only AGP 1.0 compliant you may be able to fix this problem by putting insulating tape over the last pair of contacts on the AGP connector on the GeForce card (the contact furthest from the monitor port, on both sides). This has been tested on the Chaintech 6BTM motherboard.
- Try disabling the Windows startup sound.
- Make sure that VSYNC is enabled in the NVIDIA control panel.
- If you have IomegaWare installed, try uninstalling it. If this fixes the problem, just use Iomega Guest.
- Also try reading the '[My GeForce keeps on locking up or drops me back to the desktop during 3D applications. How can I fix it?](#)' question.

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## **Q. I get long (20 second) pauses on bootup or shifted text and huge fonts. How can I fix it?**

Both of these problems may be caused by your monitor. Try another monitor and see if it fixes the problem.

The first problem in particular seems to be caused by non-DDC compliancy. You may also experience a pause when you enter the Output Devices tab in the NVIDIA Control Panel.

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## Q. If I set the GeForce as the primary card in the BIOS, my secondary PCI video card is not detected. How can I fix it?

Check in your C:\CONFIG.SYS file to see if you are loading EMM386.EXE. If you are, remove the line.

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## Q. I have 1GB of RAM, and Windows 9x will not boot. What's up?

- The problem might be fixed by the fix mentioned in the Microsoft Knowledge Base article [here](#).
- This is a known issue with Windows 9x, due to the way in which it accesses memory. Because Windows 2000 uses the NT style of accessing memory, the problem does not occur. The problem only turns up with the GeForce because it is one of the first cards to be 100% true AGP (most other cards still address memory via the PCI bus because developers can design the cards to be cheaper that way). Thanks to Anthony McDowell for explaining this problem to me!

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## Q. I have problems with my Super Socket 7 motherboard. How can I fix them?

- You can disable certain features that cause problems with Super Socket 7 motherboards using the ss7compat1.reg registry file - available here:

<http://www.geforcefaq.com/files/ss7compat1.reg>

If you still get problems, you can disable even more features using the ss7compat2.reg registry file - available here:

<http://www.geforcefaq.com/files/ss7compat2.reg>

You can reenable all features again using the ss7compatoff.reg registry file - available here:

<http://www.geforcefaq.com/files/ss7compatoff.reg>

If these files don't seem to have any effect, you may have to edit them in Notepad and change the 0000 to 0001, or another value. Take a look at the

HKEY\_LOCAL\_MACHINE\System\CurrentControlSet\Services\Class\Display registry key using regedit and find out which number your graphics card is using.

This registry tweak does not work in the latest (5.xx+) drivers.

- If you find that the 6.31+ drivers cause massive slowdowns with your VIA MVP3 based motherboard, try using the 7.56+ drivers, which should fix the problem.

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## Q. I have an Intel i815 based motherboard and 3D performance is very poor. How can I fix it?

Try installing the Intel chipset drivers from:

<http://support.intel.com/support/chipsets/driver.htm>.

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## Q. I have an Intel i820 based motherboard and I have various problems. How can I fix it?

- There is a problem with this chipset and the AGP Fast Writes function of the GeForce which means that 3D applications are actually slower. You can find out more about disabling AGP Fast Writes in the '[How can I enable or disable AGP Fast Writes?](#)' question.

You may not have to switch off Fast Writes in the 5.08+ drivers, especially 5.14+ - the problem seems to be fixed.

- If you are having problems with the i820, and you are using SDRAM memory, you will probably need to get your motherboard and memory replaced, for free, by Intel. See this page for more details:

<http://www.intel.com/support/mth/>

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## Q. I have an Intel i840 based motherboard and I get blue screens. How can I fix it?

Contact your manufacturer for an updated Video BIOS. Creative will certainly be able to supply you with a Video BIOS to fix this problem.

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## Q. I have a VIA chipset based motherboard and I can't get AGP working or I get lockups in Windows 2000. How can I fix it?

- There is a new `viaagp.sys` driver from Microsoft that may fix lockups in Windows 2000. You can get more information and download the driver at the following website:

<http://support.microsoft.com/support/kb/articles/Q261/6/06.asp>

Be warned, however, that installing the AGP component of any VIA 4in1 driver on top of this update will stop it working, as the 4in1 drivers use a file called `viaagp1.sys` instead. You can tell which driver you are using because the Microsoft driver will be called 'Via Tech CPU to AGP Controller' and the VIA driver will be called 'Via CPU to AGP Controller'.

- There is a solution for the AGP disabled problem for the VIA KX133 chipset available at the following website:

<http://www.tomshardware.com/mainboard/00q2/000417/kx133-04.html>

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## Q. I have a VIA chipset based motherboard and I can't get AGP2X or AGP4X working. How can I fix it?

- Make sure that you installed the VIA AGP driver in 'Turbo' mode - otherwise you will be restricted to AGP1X only.
- Make sure that you have AGP2X or AGP4X enabled in the BIOS of your motherboard.
- If you have an ASUS A7V motherboard, the 1004 series of BIOS updates seem to disable AGP4X. Try 1003a or the 1005+ series to enable AGP4X.
- Make sure that you have the latest (leaked) reference drivers installed.
- In addition, make sure you read the '[How can I enable AGP4X in the Detonator 5.16+ driver sets on my VIA 133mhz chipset motherboard?](#)' question.

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## Q. I have a VIA chipset based motherboard and I can't get AGP4X to work without causing instability. How can I fix it?

To enable AGP4X on VIA chipset based motherboards, see the '[How can I enable AGP4X in the Detonator 5.16+ driver sets on my VIA 133mhz chipset motherboard?](#)' question. However, note that AGP4X is disabled on these motherboards because of issues with AGP4X, VIA chipsets and the GeForce2, so these steps may not work for everyone.

- The following instructions were provided by [Gary Shapiro](#):
  1. Check your BIOS setup, usually in the Chipset Features Setup, for something called the AGP Driving Value. This value controls the timing of the AGP driver in Windows. The value you place here can make AGP4X stable. This value is a hex value from 00-FF.
  2. In order to place a value here you might need to change another BIOS setup feature called the AGP Driving Control. This should appear with the AGP Driving Value. Set this to MANUAL if not already. The other option is AUTO.
  3. Try setting this value to DA or EA. Try DA for a VIA Apollo Pro 133A motherboard. On a KT133 motherboard you

might want to try E7.

4. Save your options and reboot your machine. Make sure you are running AGP4X and try some 3D games. Where they might have hung or crashed before they should now be running fine. If not, then go back into the BIOS Setup and try another value. I've found that values that end in an 'A' seem to work the best.

If your BIOS Setup does not have the AGP Driving Value option, there are two programs on the Web that let you modify your BIOS and change this value manually to any value. These programs are called WPCREDIT and WPCRSET. You can find them at the following website:

<http://www.h-oda.com/>

WPCREDIT is used to modify the BIOS on the fly. Any value changed will disappear after you do a cold reboot of your machine. WPCRSET is designed to make the change each time Windows starts up.

I recommend that you use WPCREDIT to try different values and when you get one working use WPCRSET to make it 'permanent'. Keep in mind that a 'wrong' value might cause you to hang or have a corrupted display. You might have to reboot. You might want to use WPCREDIT even though your BIOS Setup has the AGP Driving Value. This might be easier as far as testing goes. Once you get a 'good' value then you can change it in your BIOS Setup without even using WPCRSET.

Go to the following website for detailed instructions on how to use these programs:

<http://viahardware.com/memtweakguide1.shtm>

Once you read the article and are familiar with modifying your BIOS then changing the AGP Driving Value is simple. The Driving Value is located at x'B1'. That's offset Hex, Baker One. Place a DA or EA or any other value that you might want to try here. Once you save the change it takes effect immediately. If it does work for you then you can change your BIOS Setup or use WPCRSET.

If you have an ASUS P3V4X motherboard, there is a special utility that you can use to alter the AGP Driving Value. It is available here:

<http://www.users.bigpond.net.au/slop/beta4w.com>

If you add the line 'beta4w x' to your autoexec.bat, it will set the AGP Driving Value to FF automatically.

- Try setting your memory to run at CAS4 if you have the option, and if not use WPCREDIT to change the two bits associated with CAS latency to 11. This will lead to a drop in memory bandwidth but may allow you to enable the other AGP features.
- If you are running your memory at 100mhz and you have the option to set it to 133mhz, try doing so.
- You can also try setting the PCI texture memory size settings for Direct3D and OpenGL to their maximum settings. Although this setting only appears to be useful for PCI cards, it still may help. However, this fix only works for some people.

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## Q. I have a VIA 133A based motherboard and the amount of video and texture memory is reported incorrectly. How can I fix it?

- Try changing the 'Video Cacheing Mode' setting in your BIOS to UC (Uncacheable) as opposed to UCWC (Uncacheable, Write Combining).
- Try installing the latest BIOS update for your motherboard. You can get help with finding out what BIOS you need and instructions as to how to flash it at [Wim's BIOS page](#)
- Try installing the latest NVIDIA reference drivers. Drivers 5.16+ may fix this problem.
- Try installing the latest VIA AGP drivers.
- Try changing the AGP Aperture size in your BIOS to another value - see the '[How can I change my AGP Aperture size?](#)' question.
- Try using the registry key mentioned in the '[How can I enable AGP4X in the Detonator 5.16+ driver sets on my VIA 133mhz chipset motherboard?](#)' question with the 5.16+ drivers.
- Try disabling the Windows startup logo by either using TweakUI (in the Boot tab, uncheck 'Display splash screen while booting') or editing the c:\msdos.sys file (don't forget to turn off the read only attribute first) and putting 'Logo=0' in the

'[Options]' section.

- Boot to Windows as normal, and once Windows is fully loaded, hold the left SHIFT key and click start, shutdown, then restart. Once you see the message 'Windows is restarting...' you can let go of the SHIFT key. You will now have the correct amount of video and texture memory and will be able to run the 64MB texture test in 3DMark2000 and you will be able to set the AGP aperture size to 256 without crashing.

Unfortunately you will need to perform this step each time you boot up your PC. There is no other known fix.

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## **Q. My 2D image quality is poor (fuzzy, ghosting, smeared bold text). How can I fix it?**

## **Q. I have 2D image quality problems with jittery text. How can I fix it?**

- Make sure that your internal and external power cables are not too close to your GeForce and your monitor signal cable.
- It is possible that this problem only turns up after recovering from your monitor's power saving mode. Try rebooting.
- Try changing the 'Monitor timing' under 'Device Selection' / 'Device Adjustments' / 'Display Timing' in the NVIDIA control panel to first GTF and then DMT.
- Try changing the refresh rate - you may want to try just altering it by 1hz or so by setting up a custom refresh rate to see if the problem goes away. See the '[How can I manually set refresh rates and force the refresh rate above 60hz?](#)' question for more details
- Make sure that there are no electrical devices near your PC and monitor that may be causing interference.
- Try manually adding the following switch to your pstrip.ini in PowerStrip 2.62+:

```
[Options]
ClkDeviation=n
```

where n is an integer between 5 and 1000. If set, the PowerStrip will post-process all mode changes in search of a close, but hopefully more stable refresh rate. A lower n is more likely to reduce jitter but also likely to vary more from the desired refresh rate. Try a value of 250 and work downwards until you arrive at something suitable.

You can download a demo of PowerStrip at the following website:

<http://www.entechtaiwan.com/>

- Try reversing the polarity of the monitor using PowerStrip. You can download a demo of PowerStrip at the following website: <http://www.entechtaiwan.com/>

You may also be able to reverse the polarity of the monitor with [hztool](#) under Windows 9x.

- It may be that your monitor does not have 75 ohm terminators on all unused D-sub and BNC inputs. Some monitors may have a (very small) switch on the back which will allow you to switch this on (one example is the Eizo Flexscan T562). It may have an infinity sign at one end and 75 ohm at the other end. Switch this to 75 ohm.
- If you have BNC inputs to your monitor try buying a lead that will allow you to use them. They must be 75 ohm BNC cables.
- Try using RF chokes on the monitor cable.
- Try using an external VGA signal amplifier between your GeForce and your monitor. There is information on such a buffer at the following website: <http://www.extron.com/product/product.asp?id=p-2da2plus>  
Be warned, however, that these buffers are expensive!
- You might want to read the information on the following website - it details how your card may be poorly designed and give a bad signal: <http://www.geocities.com/porotuner/>
- It could be a dodgy card. Try replacing it if it's still under warranty.
- Try another monitor and cable. This issue seems to turn up especially with Trinitron and DiamondTron monitors, and

unfortunately there is no current fix.

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## Q. My 2D display is corrupted. How can I fix it?

You may also want to read the ['When I resume from monitor power saving modes in Windows 9x, I get display corruption and / or instability problems, or my card seems slower than usual. How can I fix it?'](#) question.

- If you are overclocking, try setting the card back to the default settings and then underclocking. If this helps, you might want to try cooling your card with a more efficient cooler. See the ['What is a good replacement fan for a GeForce?'](#) question for some tips.
- If you are using ASUS drivers and in particular the SmartDoctor's 'Dynamic Chip Cooling' feature, try using the NVIDIA reference drivers.
- If you have a Yamaha chipset based soundcard (these are often used in onboard soundcards), and the corruption is on your Start button and toolbar buttons in particular, try disabling the soundcard / sound chipset. If this fixes the problem, then try using the Yamaha drivers included with Windows ME or Windows 2000 instead of those available on the website. Unfortunately there is no similar fix for the problem under Windows 9x.

If you have a Yamaha DX-XG soundcard, you may be able to just disable the game port and legacy sound system in the Windows System control panel.

- You can also try using the 5.xx series of drivers.
- This may also be caused by a dodgy card - see if you can get it replaced under warranty.

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## Q. My display flickers. How can I fix it?

- Your refresh rate may be too low. Try reading the ['How can I manually set refresh rates and force the refresh rate above 60hz?'](#) question.
- Try going into the troubleshooting tab of the advanced settings of your video card (Windows 2000) or System Control Panel / Performance / Graphics (Windows NT 4) and setting the Hardware Acceleration slider one notch down. This may also make your system faster and more stable, but it is possible that you will not be able to overclock so far.
- This may occur in Windows 2000 when the mouse pointer shadow is enabled. Disable it by going into Control Panel / Mouse / Pointer and deactivating the mouse shadow.
- You may also need to reset your mouse pointer scheme to 'None' in Control Panel / Mouse / Pointer.
- If you have a USB mouse that can be moved to PS/2, try using the PS/2 port instead. It may fix the problem without having to perform any of the above solutions.

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## Q. I get rolling lines with my GeForce2 Ultra. How can I fix it?

This problem appears only in GeForce2 Ultra cards, and looks like electromagnetic interferences with the VGA-output signal. Depending on the resolution and refresh rate, the lines will have different size and look, and may not appear in all resolutions and refresh rates.

Unfortunately there is currently no solid fix, although NVIDIA and several card manufacturers have reproduced the problem and are looking for a solution.

Above all, if you have this problem, **please report it to your card manufacturer**, so that they know this is a real problem that is affecting a lot of people. You might also like to read and post your system specifications to the nV News forum thread [here](#).

In the meantime, you can try the following workarounds:

- Try plugging your monitor power cable into a grounding plug (part # 61-2720 at [RadioShack](#)). This puts the monitor on an isolated ground.
- Try changing the refresh rate that your card is using. You might want to try just changing it by 1hz or so by setting up a custom refresh rate. See the '[How can I manually set refresh rates and force the refresh rate above 60hz?](#)' question for more details.
- You can also try altering the horizontal refresh rate of your card by a few hertz using PowerStrip. You can download a demo of PowerStrip at the following website:  
<http://www.entechtaiwan.com>
- Try changing the resolution that your card is displaying at.
- Try moving the monitor signal cable.
- Make sure that there are no electrical devices near your PC and monitor that may be causing interference.
- If the fan leads on your GeForce are twisted together, try untwisting them.
- Try unplugging the fan on your GeForce card's heatsink. You will need to put in extra cooling measures if you intend to keep your card in this state, such as putting thermal compound between the heatsink and card and using a [Card Cooler](#) or similar.

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## **Q. Why can't I use my software DVD software on the secondary display of my GeForce2 MX?**

This is because the GeForce2 MX does not support hardware overlay on the secondary display, and software DVD programs require this to work.

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## **Q. I have a TwinView setup but when my computer reboots the second display is blank. How can I fix it?**

Read the following article on eVGA.com:

<http://www.evga.com/support/support.ihtml?page=tvfix1.htm>

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## **Q. I have a TwinView setup and I experience mouse lag with Half-Life running in extended desktop mode. How can I fix it?**

This is a known problem and currently there is no known solution. It appears that this only occurs with the latest updates for Half-Life.

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## **Q. I cannot use OpenGL when I have two monitors installed. How can I fix it?**

- Under Windows 9x, this is a known issue with the Microsoft OpenGL driver and systems with more than one monitor, whether TwinView or separate cards. The only way to get round it currently is to disable one of the monitors.
- Under Windows 2000 on TwinView cards, full screen OpenGL will only work on the primary monitor and then only if the secondary monitor is disabled.
- Under Windows 2000 on TwinView cards, windowed OpenGL will work on both monitors.
- Under Windows 2000 on separate cards, full screen OpenGL only works on the primary card and then only if the secondary card is disabled.

- Under Windows 2000 on separate cards, windowed OpenGL usually only works on the primary card. However, if the two graphics cards have the same NVIDIA chipset (e.g. they are both TNT2 cards), the 'Enable advanced multiple monitors' option is available which will allow windowed OpenGL to work on both cards.

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## Q. My GeForce keeps on locking up or drops me back to the desktop during 3D applications. How can I fix it?

If you are getting lockups at startup, make sure you read the ['Windows locks up before it finishes loading, and a thin green line may appear across the top of the screen. How can I fix it?'](#) question first.

There are a number of causes of this:

- Are you overclocking either the GeForce or your processor? If you are, try clocking back to normal and see if it fixes the problem. If it does, you need more cooling.
- Have you assigned an IRQ to VGA in your BIOS? If not, do so.
- Have you got an IRQ conflict with the GeForce and another card? The only device that can have the same IRQ is the 'IRQ Holder for PCI Steering'. If so, try moving the card to another slot (in particular avoid the first PCI slot as this frequently is forced to share an IRQ with the AGP slot) or assigning a different IRQ to that slot in the BIOS.

Note that in Windows 2000 all PCI and AGP cards by default are assigned to the same IRQ. You will need to follow the steps in the ['I have Windows 2000 and all of my devices share the same IRQ, causing problems with my GeForce. How can I fix it?'](#) question if you think that this is the cause of the lockups.

- Are you running a virus checker in the background? Try disabling it.
- If you are using a VIA chipset motherboard and an Athlon processor, then try reading the following guide, which includes most of the relevant tips from below:  
<http://www.teamanarchy.com/writeups.php?idx=986866324>

Other things to try:

- Try turning the 'Hardware acceleration' slider in the System Control Panel's Performance / Graphics section down one notch. This may also increase performance, although it is possible that you will not be able to overclock so far.
- Try installing the latest AGP drivers for your motherboard chipset if you haven't got an Intel motherboard. If you have a VIA board you may have to read the ['I installed the VIA AGP drivers under Windows 2000 but they don't seem to have had any effect \(the names of the devices have not changed\). How can I fix this?'](#) question to check that they are installed correctly.
- Try installing the latest (leaked) drivers.
- Try changing your AGP Aperture in your BIOS to another value (keep it above 16 as setting it at or below 16 will disable AGP) - see the ['How can I change my AGP Aperture size?'](#) question.
- Check that you have the following settings set as follows in your BIOS:
  - Video BIOS Shadow - Disabled
  - Video BIOS Cacheable - Disabled
  - C8000 - xxxxx Shadow - Disabled
  - Peer Concurrency - Enabled
  - Concurrent PCI Host - Enabled
  - PCI Streaming - Enabled
  - VGA Palette Snoop - Disabled
- If you have a line in your CONFIG.SYS file mentioning the UMB386.SYS memory manager, try removing this line.
- Try installing the latest BIOS update for your motherboard. In particular this will help with the Soyo 6VCA motherboard (use BIOS version 2AA5 or later). You can get help with finding out what BIOS you need and instructions as to how to flash it at

[Wim's BIOS page](#)

- Try installing the latest Video BIOS update for your GeForce. You could also try using an NVIDIA reference BIOS (if you are feeling brave): see the ['Where can I get the latest NVIDIA Flash BIOS and which should I use?'](#) question.
- Make sure that old drivers are cleaned out by using the method described in the question: 'How can I completely uninstall old NVIDIA or Creative Labs GeForce drivers?'
- If you are using CAS3 memory at CAS2 or in any other way running memory over specifications, try resetting it back to defaults. This setting may also be called 'Memory Timing' in your BIOS - set it to the highest nanoseconds setting. You might also want to try using each of your memory sticks on its own in turn and see if it is an issue with one particular memory stick - sometimes poor quality memory only causes problems when you have a high performance AGP card.
- Try installing the Intel chipset drivers from:  
<http://support.intel.com/support/chipsets/driver.htm> for **all** versions of Windows 9x.
- If you have an Athlon processor and you are running Windows 2000, read the following article in Microsoft's Knowledge Base:  
<http://support.microsoft.com/support/kb/articles/Q270/7/15.ASP>  
There is an easy to use registry file available on AMD's website:  
[http://www.amd.com/products/cpg/athlon-duron/amd\\_win2k\\_patch.html](http://www.amd.com/products/cpg/athlon-duron/amd_win2k_patch.html)  
However, note that performing this step may reduce performance. If it causes problems with PowerStrip, try upgrading to the latest version of PowerStrip.
- If you have a VIA chipset based motherboard and you are running Windows 2000, read the ['I have a VIA chipset based motherboard and I can't get AGP working or I get lockups in Windows 2000. How can I fix it?'](#) question.
- If you have a 'PCI Latency Timing', 'CPU-to-PCI Bridge latency' or similar setting in your BIOS, try setting it to 0, or raising it to 64 (the usual setting is 32). This may help in particular on VIA KX133 based motherboards.

If you do not have this option in your BIOS, and you have a VIA MVP3 chipset based motherboard, try putting the following program in your startup folder. It sets the CPU-to-PCI Bridge latency timer to 0. You can download the Windows 9x version of this program here:

<http://koti.mbnet.fi/parru/CPU-to-PCIBridgeLatencyTimerTo0clks.zip>

and the Windows 2000 English version here:

[http://www.deinmeister.de/mvp3\\_zlt\\_e.htm](http://www.deinmeister.de/mvp3_zlt_e.htm)

and the Windows 2000 German version here:

[http://www.deinmeister.de/mvp3\\_zlt.htm](http://www.deinmeister.de/mvp3_zlt.htm)

If you have another chipset on your motherboard, you may be able to use the shareware program TweakBIOS to change the PCI Latency on your soundcard. You can find out more information about this and download it at the following website:

<http://www.miro.pair.com/tweakbios/>

- If you have an 'AGP Driving Control' setting in your BIOS, try switching it to 'BA' or another value instead of 'Auto'.
- This problem may be caused by installing DirectX 8. Try uninstalling it as mentioned in the ['I installed DirectX 8 and it caused more problems than it fixed. How can I uninstall it?'](#) question.
- If you have a VIA chipset, try disabling AGP4X in your BIOS or using registry files (see the ['How can I enable AGP4X in the Detonator 5.16+ driver sets on my VIA 133mhz chipset motherboard?'](#) question). If disabling it helps, then try reading the ['I have a VIA chipset based motherboard and I can't get AGP4X to work without causing instability. How can I fix it?'](#) question.
- If you have a VIA chipset, you may also want to try **enabling** AGP4X in your BIOS - read the ['How can I enable AGP4X in the Detonator 5.16+ driver sets on my VIA 133mhz chipset motherboard?'](#) question as well.
- Try turning off VSYNC in the NVIDIA control panel.
- It is possible that this is caused by bus collisions. Try following these steps provided by William Ball from Creative Labs:

*1. Disable non-essential add-in devices except video one at a time in Device Manager. For example:*

- Network card
- Sound card
- TV card
- Scanner interface

2. See if lock up behavior is resolved. If not, physically remove the add-in cards and run the game again.

3. Once you get a stable platform, start re-installing/re-enabling devices.

- If you have an LX based motherboard or an early revision of your motherboard, read the '[What's all this with the original GeForce and motherboards not supplying enough power?](#)' question in this FAQ.
- If you think that your motherboard is not supplying your GeForce with enough power, try the tip mentioned on this web page: <http://www.systemlogic.net/articles/00/8/agpstability/>  
The page provides instructions on how to power your GeForce's fan from the motherboard, reducing the power required by the GeForce.
- If you have an Athlon motherboard, read the '[What's all this with the GeForce and the Athlon?](#)' question in this FAQ.
- If you have Super Socket 7 based motherboard, read the '[I have problems with my Super Socket 7 motherboard. How can I fix them?](#)' question in this FAQ.
- Make sure that there is adequate cooling for your GeForce, your AGP chipset and your processor. You can see if overheating is the problem by leaving your case lid off and using a desk fan to blow inside the case. If this helps, you may need to buy a better fan for the GeForce (see the '[What is a good replacement fan for a GeForce?](#)' question), underclock the GeForce, or get better case / CPU cooling. **This is a particular problem with AMD chips - they generate much more heat than Intel chips.**
- If you have an Athlon motherboard, try disabling Super Bypass in your BIOS setup or using the Chipid program available here: <http://www.slota.com/files/chipid.zip>
- If you have an ASUS card and are running the SmartDoctor utility, try disabling it. In addition, if you have an ASUS card and a VIA chipset motherboard, try getting another make of GeForce, such as a Leadtek.
- If your network card has a boot BIOS and the ability to disable it, try disabling it.
- Try disabling Advanced Power Management in the System Control Panel.
- Try connecting your CPU fan to another socket on the motherboard.
- Try reseating all of the components on your motherboard (including power leads and the GeForce).
- Try turning up the I/O voltage of the motherboard in the BIOS by a small amount if your BIOS supports it.
- Try switching on AGP Turbo in your BIOS, turning up the Front Side Bus speed slightly, or setting your AGP ratio to 1:1 (in that order) - this will put extra strain on the card, but it seems to fix the problem for some people.
- If you have memory that isn't rated for the Front Side Bus speed that you are running at, or if you have unbranded (low quality) memory, you might want to try replacing or taking out the slower / unbranded memory and see if it fixes your problem. If you only have unbranded memory, then try running it at a lower speed (e.g. 100 instead of 133).
- Make sure that you are using a powerful enough power supply. See the '[How powerful should my power supply be in order to use the GeForce?](#)' question for more information.
- If you are using more than one stick of memory, try taking out all but one of the memory sticks and see if that helps. If it does, you need a more powerful power supply: see the '[How powerful should my power supply be in order to use the GeForce?](#)' question for more information.
- Try going into the System Control Panel, Device Manager, System Devices, Direct Memory Access Controller, and changing the Access Restrictions (on the Settings Tab) to restrict DMA transfers to memory below 16MB.
- If you are using a slotket card to connect a socketed processor to a slot motherboard, try getting a different, better quality

slotket.

- If you are using CAS3 memory, and can get access to some CAS2 memory, try using that instead (you will have to set your BIOS to use CAS2).
- Try disabling AGP Fast Writes. Read the '[How can I enable or disable AGP Fast Writes?](#)' question for more information.
- Try forcing AGP1X. Read the '[How can I force AGP1X to be used instead of AGP2X or AGP4X?](#)' question for more information.
- If you have enabled AGP sidebanding with AGP Wizard or with an updated Video BIOS, try disabling it again. This may help, but will reduce performance slightly.
- Try turning down the AGP Aperture to 16 or below, if your motherboard supports it - see the '[How can I change my AGP Aperture size?](#)' question. This will disable AGP, but may fix your problem. You can also use DXDiag to disable AGP.

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## Q. What's all this with the GeForce and the Athlon?

The GeForce has stability problems when using Athlon motherboards based on AMD's chipset and AGP2X, due to 'poor filtering on the AGP strobe line'. AMD have released a new version of their motherboard chipset which fixes this problem and this is now being implemented into motherboards. NVIDIA have released drivers (3.62 onwards) that will disable AGP2X if an Athlon motherboard with an AMD chipset is detected.

However, some system configurations do not display this instability, and on these motherboards you can use the athlon2xon.reg registry file to force AGP2X - available here:

<http://www.geforcefaq.com/files/athlon2xon.reg>

In Windows 2000 you can use the athlon2xonw2k.reg registry file to force AGP2X - available here:

<http://www.geforcefaq.com/files/athlon2xonw2k.reg>

This will enable the AGP2X support no matter what motherboard and chip you have. Creative have also released a utility called AGP Wizard which enables you to force AGP2X support on any motherboard - see the '[What is AGP Wizard?](#)' question in this FAQ for more details.

If you have problems after enabling this, you will have to manually remove the registry key:

1. Run Regedit.
2. Go to HKEY\_LOCAL\_MACHINE\Software\NVIDIA Corporation\Global\System for Windows 9x or HKEY\_LOCAL\_MACHINE\SYSTEM\ControlSet001\Services\nv4\Device0 for Windows 2000.
3. Delete the value named '*EnableIrongate2x*'.

**WARNING:** The registry file may not work if you have a 64MB Prophet II card. It seems that AGP2X is disabled in the video BIOS for Athlons with that card. In addition you may not be able to use AGP2X if you have the Athlon AGP sidebanding hack enabled as well in the 5.xx+ drivers.

I received the following information from from Louis-Philippe Dubrule:

*For the IronGate based motherboards (AMD's 750 chipset), in order to be able to use AGP2X reliably you need one that has the 751 IronGate Stepping 5 chipset (or later). One sign of this is if the board supports the "SuperBypass" function or not.*

*You should always be able to use AGP2X if your motherboard is based on another non-AMD IronGate chipset, such as the VIA 133mhz chipsets.*

However, it is still possible that you will not be able to enable AGP2X on a Stepping 5+ motherboard without problems.

The 5.22+ drivers may help AGP2X instability problems for Athlon users.

Don't worry yourself too much about being able to enable AGP2X as the performance increase from AGP1X to AGP2X is only minimal, and even then the increase is only significant in games that have to use AGP memory in order to run - most games can simply load all their textures into the on board video RAM, in which case you will only see a speedup when the textures are loaded initially at the start of the game.

All users with AMD chipset based motherboards should also install AMD's latest AGP Miniport Driver. You can get download it at the following webpage:

<http://www.amd.com/products/cpg/bin/>

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## Q. What's all this with the original GeForce and motherboards not supplying enough power?

- Some motherboards do not meet the AGP 2.0 specification, which means that they do not supply enough power to the GeForce card. In the case of LX and BX motherboards this is because they use linear voltage regulators which do not supply enough power. This can cause instability problems. It also appears that it can cause TV-OUT to stop working (see the '[TV-OUT is greyed out on my TV-OUT capable GeForce. How can I fix it?](#)' question). Unfortunately the only way to see if your motherboard will work is to try it out, or ask if anyone has your motherboard and can successfully use the GeForce on it. It is also possible that a BIOS update will be able to fix this problem.

The GeForce2 series does not have this problem to such an extent because it uses a 0.18 micron architecture that requires less power.

If your motherboard supports being able to increase the I/O voltage of the motherboard in the BIOS, you can also increase this value slightly to fix the problem.

You may also be able to help this problem by forcing AGP1X. See the '[How can I force AGP1X to be used instead of AGP2X or AGP4X?](#)' question for more information.

You may be able to fix this by removing some of your PCI cards if you have a lot installed.

Since the LX motherboards are the ones which have the problem most, below there is a list of LX motherboards that WILL work with the GeForce (although it's not definitive). Below that is a list of LX, BX and Via 133 motherboards that MAY exhibit problems - if you can add to any of these lists, please email me.

LX motherboards that **can** support the GeForce:

- Intel AL440LX
- Biostar M6TLA
- AOpen AX6L (with BIOS update)
- QDI Legend I (with BIOS update)
- QDI Legend V (with BIOS update)
- Shuttle Hot 637 (with BIOS update)

LX motherboards that **cannot** support the GeForce:

- QDI say that all of their LX motherboards will not officially support the GeForce.
- Abit LX6 (there is a fix for the Abit LX6, but it requires rewiring. See the '[How can I get my Abit LX6, ASUS P2L97 or Gigabyte 6BXC, 6BXE or BX2000 working with the GeForce?](#)' question in this FAQ)
- ASUS P2L97 revision 1.05 and earlier (there is a fix for the ASUS P2L97, but it requires rewiring. See the '[How can I get my Abit LX6, ASUS P2L97 or Gigabyte 6BXC, 6BXE or BX2000 working with the GeForce?](#)' question in this FAQ)
- MicroStar MSI-6111

BX motherboards that **cannot** support the GeForce:

- Gigabyte 6BA, 6BXC, 6BXE, BX2000 (there may be a solution for this depending on the revision of your motherboard. See the '[Will my Gigabyte 6BA, 6BXC, 6BXE or BX2000\(+\) work with the GeForce?](#)' question in this FAQ)

AMD 751 motherboards that **cannot** support the GeForce:

- FIC SD11 revision 1.6 and earlier

Via Apollo Pro motherboards that **cannot** support the GeForce:

- Gigabyte GA-6VXE

Via 133 motherboards that **cannot** support the GeForce:

- Transcend AVD-1 (early revisions)
- You may find that on motherboards that are only AGP 1.0 compliant you may be able to fix this problem by putting insulating tape over the last pair of contacts on the AGP connector on the GeForce card (the contact furthest from the monitor port, on both sides). This has been tested on the Chaintech 6BTM motherboard.

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## Q. I have an Intel D815EEA motherboard and I have various problems with the GeForce. What's up?

Unfortunately it seems that this motherboard has various issues with the GeForce, including display corruption and instability. The only advice I can give at the moment is to bug Intel to try and find out what's wrong - these problems don't occur on other i815 motherboards - and don't buy one of these motherboards if you have the choice.

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## Q. Will my Gigabyte 6BA, 6BXC, 6BXE or BX2000(+) work with the GeForce?

Yes, so long as you have the revision which have 'Voodoo3' jumpers. If you close these jumpers (put a jumper block over them) the card should work. If it does not have these jumpers, the motherboard does not meet the AGP specification - see the '[What's all this with the GeForce and early LX / BX / Via 133 motherboards?](#)' question for more information.

The GeForce2 series does not have this problem because it uses a 0.18 micron architecture that requires less power.

This is a table of the revisions that do or do not have the 'Voodoo3' jumpers, kindly provided by Clay Pot:

Model	Version	Jumper?	Jumper location
6BA	2.9 and below	No	
	3.0 and above	Yes	JP11, JP12
6BXC	1.9 and below	No	
	2.0 and above	Yes	JP12, JP13
6BXE	1.9 and below	No	
	2.0 and above	Yes	JP18, JP19
BX2000(+)	1.0	No	
	1.1 and above	Yes	JP20, JP21

If you have a 6BXA, you will have to replace the board for a later revision, as there are no revisions with the 'Voodoo3' jumper.

If you have any of the other boards, you can perform some rewiring - see the '[How can I get my Abit LX6, ASUS P2L97 or Gigabyte 6BXC, 6BXE or BX2000 working with the GeForce?](#)' question.

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## Q. How can I get my Abit LX6, ASUS P2L97 or Gigabyte 6BXC, 6BXE or BX2000 working with the GeForce?

You may get lockups with these motherboards due to the fact that they may not operate according to the AGP specification - see the '[What's all this with the GeForce and early LX / BX / Via 133 motherboards?](#)' question for more information. You may not get this problem with your motherboard however - if your card is operating properly there is no need to perform the following step!

The GeForce2 series does not have this problem because it uses a 0.18 micron architecture that requires less power.

There are some websites that have details as to how to get the motherboards working, with some rewiring... of course, this will invalidate your motherboard's warranty - **use it as a last resort only!**

The rewiring will mean that the linear voltage regulator that causes the problems is bypassed. The instructions may be for getting a Voodoo3 or TNT to work - however, the same solution will also work for the GeForce.

If this solution messes up your system, it's your problem.

- The fix for the Abit LX6 is available here:  
<http://hem.fyristorg.com/redtop/>

The ASUS P2L97 only has this problem in revision 1.05 and any earlier revisions.

- The fix for the ASUS P2L97 is available here:  
<http://www.asus.com.tw/products/Techref/Misc/rivatnt-rework.html>

For the Gigabyte motherboards, you may only need to set some jumpers - see the '[Will my Gigabyte 6BA, 6BXC, 6BXE or BX2000 work with the GeForce?](#)' question in this FAQ. Otherwise, each of the pages on this German website has one picture of the motherboard, and one picture of the underside of the motherboard and the pins you must connect.

All three of these solutions have been confirmed to work.

- The fix for the BX2000 is available here:  
<http://www.nickles.de/artikel/html/27.htm>
- The fix for the 6BXC is available here:  
<http://www.nickles.de/artikel/html/29.htm>
- The fix for the 6BXE is available here:  
<http://www.nickles.de/artikel/html/28.htm>

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## **Q. I have an ASUS K7M, A7V or Abit BE6-II motherboard and I have instability or tearing problems with the GeForce. How can I fix it?**

- Thanks to Markus Weissmann who told me about this solution from Creative Labs:

*The ASUS K7M has a jumper for selecting the I/O-voltage, which is set to 3.4V by default. Set this to 3.31V (since this is the 'official' voltage for video cards). On the K7M this jumper is on the upper right side, a jumper-block with 4 pins.*

- The ASUS A7V runs at 3.56V by default. Try changing this to 3.31V or 3.35V.
- This is also true of the Abit BE6-II, which is set to have an I/O voltage of 3.5V by default. Try changing this to 3.31V.
- However, for some people the reverse may be true - increasing the voltage or leaving it at the default may fix the problem.

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## **Q. I have an ASUS P3C-2000 motherboard, and I experience problems in 3D applications when the system is heavily loaded. How can I fix it?**

This information was mailed to me by a Creative representative, and the information is straight from ASUS:

*This problem was not found with systems built with 133MHz FSB CPUs. Neither was it observed with other AGP 4X capable graphics controllers such as the Matrox G400 and S3 Savage4. But for a 100MHz/100MHz CPU FSB/SDRAM configuration, the problem would only occur in AGP 4X mode and some P3C-2000 motherboards. To fix it, enable the reserved test mode by moving the JP5 jumper to the 2-3 pins on the motherboard whenever applicable. The test mode is designed to increase the noise margin and most systems were proved in our lab to workaround this problem in the test mode. If the test mode can not solve this problem, please contact us directly.*

It is also possible to fix this with an extra capacitor on the motherboard, and as such in the later production versions of the board there is no longer a problem. You can tell if your board has been altered if it's version number is '1.12.' - the dot at the **end** of the version number indicates that it has been fixed (and of course any versions after '1.12.' will have been fixed too).

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## Q. I have an ASUS P3V4X motherboard and I have instability problems with the GeForce. How can I fix it?

- Try using the 1003 BIOS instead of any later versions.
- Make sure you read the ['I have a VIA chipset based motherboard and I can't get AGP4X to work without causing instability. How can I fix it?'](#) question.
- There is also a modification that you can make to your board to fix the problem. See the following website for more details: [http://www.btinternet.com/~p3v4x/vr\\_mod.htm](http://www.btinternet.com/~p3v4x/vr_mod.htm)

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## Q. How can I get my ASUS P5A working with my GeForce?

- Try disabling USB in your BIOS if you don't use it. It may help solve your problems.
- These instructions were provided by Daniel Cowdery:

*The following is a step by step manual to prepare your ASUS P5A Motherboard for the GeForce. If followed **exactly** these should work. **Do not overclock with this card!** . The P5A, especially in the older revisions, creates AGP noise feedback when overclocking the board. There is no fix for this (other than a new motherboard).*

### 1. Download and install the following files:

*The latest Flash BIOS for this board from the ASUS website:*

<http://www.asus.com/>

*From the following website:*

<http://www.ali.com.tw/eng/support/driver.shtml>

*download and install the latest version of the following files:*

- AGP driver for Win95 OSR2.1/98SE
- IDE driver for Win95/98/NT

### *Extras - caution*

- AGP Utility - Used to adjust the features of the AGP port. Will cause **major** issues if used improperly - **use at your own risk** (for you overclockers out there)
- IDE Utility - Great utility to use to make sure UDMA is working. Very safe, and easy to use. Must have the newest IDE drivers mentioned above.

### 2. Alter the hardware to adjust the voltage of your motherboard. Note that **this step may not be necessary for some people** - try out the card at this point and if you still have problems, then do this step.

*You must alter two jumper settings - VIO1 (set AGP voltage to 3.6) and OFTEST (10% voltage increase across the board):*

*VIO1 is directly right of the DIMM chipset if your CPU were at the top of the board, IO and serial ports facing left. OFTEST is directly below the VID jumpers. The VID jumpers are located to the right of the VIO jumpers. A diagram is provided below. Place jumpers on the "\*" indicated bridge.*

D			
I	-	VIO1-	
M	*1	1	
M	*2	2	
-	3	3	-VID (ignore)-
C			123
H		-BF (ignore)-	123
I		123	123
P		123	

3. Make sure your GeForce is running the latest drivers.

4. Make sure your card is fully seated in the AGP slot.

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## Q. How can I enable the overclocking utility in NVIDIA's drivers?

## Q. How can I enable the VSYNC changing area of the NVIDIA control panel?

- For Windows 9x drivers, use the coolbits.reg registry file to enable them - available here: <http://www.geforcefaq.com/files/coolbits.reg>
- For Windows 2000 driver versions 5.13 and later, use the coolbitsw2k.reg registry file to enable them - available here: <http://www.geforcefaq.com/files/coolbitsw2k.reg>

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## Q. How can I overclock in Linux?

Use NVClock - you can download a copy here:

<http://www.evil3d.net/products/nvclock/>

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## Q. How far can I overclock my card?

Different cards can be overclocked by different amounts, depending on how good the card's fan is, how good the case ventilation is, whether there are RAM heatsinks attached and so on. In addition some cards simply can't overclock as far as other cards because they're all slightly different due to the manufacturing process. I can't tell you how far your card will overclock - just follow these guidelines:

1. Add an extra 5mhz or so to the current clock speed.
2. Use a program like [3DMark](#) to 'stress test' the card by running the tests 3 or 4 times.
3. If you see visual corruption or the system crashes during the test, you've overclocked too far. Take yourself back down 5mhz - this is how far you can overclock.
4. If the test ran correctly with no problems, go back to step 1.

If you overclock bit by bit, as described above, it is very unlikely that you will damage your card. If after this process you find that your card is crashing more often, take it down another 5mhz or so until it stops crashing.

Don't forget that you may be able to increase the core speed more than the memory, or the memory speed more than the core. In general increasing the memory speed will have a greater effect on speed than increasing the core speed.

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## Q. Coolbits doesn't work or I can only adjust my memory speed. How can I fix it?

- Coolbits is disabled in various driver sets. You can fix this by copying the nvcpl.dll and nvqtwk.dll files from the nearest version of the drivers that does not disable Coolbits into your Windows\System folder - for example, to fix 3.76, you can copy the files from the 3.77 drivers.
- Apart from this, Coolbits works in all Windows 9x driver sets. For the Windows 2000 drivers you need versions 5.13 and above for it to work, and a different registry file. See the ['How can I enable the overclocking utility in NVIDIA's drivers?'](#) question for more information.

- Note that if drivers are WHQL certified (generally you can see this in the file name) it is unlikely that Coolbits will work as Microsoft refuse to pass drivers that allow you to disable VSYNC.
- If you are using the latest Creative driver sets, and cannot alter the core speed, add a DWORD value named GrfxClock to the following registry key:  
HKEY\_LOCAL\_MACHINE\System\CurrentControlSet\Services\Class\Display\0000\DEFAULT  
with a value of your choice (the value must be in **hexadecimal**. You can use Calculator in scientific mode to convert between hex and decimal).

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## Q. Why can't I overclock higher than (insert speed here) when others are clocking much higher?

- The range of overclocking available on the NVIDIA reference drivers by default is larger than the default range of the Creative drivers.
- You can alter the range of the overclocking slider in the Creative drivers by double clicking on the end of the slider.
- You can alter the range of the overclocking sliders in the ASUS drivers using the following utility:  
<ftp://ftp.tuapse.ru/Hardware/Asus/VGA/NVidia/AsusRc.zip>  
You can download a copy locally here:  
<http://www.geforcefaq.com/files/asusrc.zip>
- You can use the following file, provided by [Juris "3Dman" Perkons](#) to alter the range of the NVIDIA control panel's overclocking slider under Windows 9x:  
<http://www.geforcefaq.com/files/gespeed.zip>
- You can use the following file, provided by [Levi "Caleb\\_2" Weiss](#) to alter the range of the NVIDIA control panel's overclocking slider under Windows 2000:  
<http://www.geforcefaq.com/files/gespeedw2k.zip>
- DDR memory is nominally clocked at twice the speed of SDR memory: therefore it is possible to overclock higher.

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## Q. How can I increase speed and stability for my GeForce in general?

- Always install the latest chipset / AGP drivers for your motherboard's chipset.
- You can overclock the card using the NVIDIA drivers as described in the '[How can I enable the overclocking utility in NVIDIA's drivers?](#)' question in this FAQ for a speed boost: however this may harm stability.
- This tip to improve stability was taken from the following page, where you can read more information on it:  
<http://members.prestige.net/geforce/Settings.htm>  
Try turning the 'Hardware acceleration' slider in the System Control Panel's Performance / Graphics section down one notch - although note that this may prevent you from overclocking so far.
- Here is a tip for a speed increase from BJ:
  1. Right-click on My Computer icon on your Desktop, then left-click on Properties. Navigate to Device Manager and double-click on Computer. Under "View Resources" you will find a list of IRQs, each with description of the device that's using it. Note the IRQ number used by your GeForce.
  2. Navigate to Start > Run and type sysedit. Find the [386enh] Section in the System.ini file and add irq[n]=4096 under it, where [n] is the IRQ number of your GeForce and 4096 is the amount of RAM you want to reserve in bytes (e.g. "irq10=4096"). I recommend using 4096, however you can experiment with different values if you want. Save changes in the file, exit and reboot for changes to take effect.

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## Q. Where can I download demos to show off my GeForce?

- The following page contains links to NVIDIA's demos:  
<http://www.nvidia.com/Demos>
- The following page contains links to NVIDIA's technical demos, including source code:  
<http://www.nvidia.com/marketing/developer/devrel.nsf/TechnicalDemosFrame?OpenPage>

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## Q. What Windows 9x drivers should I use?

There are a number of driver sets that you can use:

- Firstly, there are Creative's driver sets. These only work on Creative cards. These are available on Creative's site, and although they may be out of date they have been more extensively tested and have a more advanced control panel that looks better, allows one click access, and has the AGP options from AGP Wizard built in.

Currently they are based on NVIDIA's 6.50 reference drivers and are available from:

[http://www.clok.creaf.com/creative/drivers/3db/3db9xDrv\\_650.zip](http://www.clok.creaf.com/creative/drivers/3db/3db9xDrv_650.zip)

You must also download the BlasterControl application, currently at version 4.28.05, from:

<http://www.clok.creaf.com/creative/drivers/3db/BC42805.exe>

In addition, Creative now supply FastTrax drivers that are basically the NVIDIA reference drivers with a more advanced control panel that allows one click access and has the AGP options from AGP Wizard built in. They are not tested like the official driver sets are - however, they are more up to date. Note that you should **not** uninstall your previous driver set before installing them.

Currently they are based on NVIDIA's 6.34 reference drivers and are available from:

[http://www.clok.creaf.com/creative/beta/FastTrax\\_Win9X\\_v634a.exe](http://www.clok.creaf.com/creative/beta/FastTrax_Win9X_v634a.exe)

The official FastTrax website is here:

<http://www.americas.creative.com/graphics/fasttrax/>

- Secondly, there are NVIDIA's reference drivers. There are generally a few versions available: one (or two) official versions and some leaked versions that are not officially supported but may be faster or have more features than the official drivers (and may also be slower and have less features).

[Detonator \(3.xx - 4.xx series\) drivers](#)

[Detonator 2 \(5.xx series\) drivers](#)

[Detonator 3 \(6.xx - 11.xx series\) drivers](#)

- 12.00 - These drivers have been leaked and are available here:  
<http://www.gamers-ammo.com/NVIDIA/WIN9X/win-9x-me-1200.zip>  
The '[The Overlay Color Control tab of the NVIDIA control panel is greyed out. How can I enable it?](#)' question applies to these and all later drivers.
- 12.10 - These drivers have been leaked and are available here:  
<http://www.gamers-ammo.com/NVIDIA/WIN9X/W9X-1210.zip>
- 12.20 - These drivers have been leaked and are available here:  
<http://www.gamers-ammo.com/NVIDIA/WIN9X/W9X-1220.zip>
- 12.40 - These drivers have been leaked and are available here:  
<http://www.gamers-ammo.com/NVIDIA/WIN9X/W9X-1240.zip>  
Release notes for these drivers are available [here](#).  
Palettized textures appear to be fixed in these and all following drivers.
- 12.41 - These drivers are the latest officially released drivers and are available at NVIDIA's site:  
<http://www.nvidia.com/view.asp?PAGE=drivers>

Release notes for these drivers are available [here](#).

These drivers will cause Coolbits to stop working. See the '[Coolbits doesn't work or I can only adjust my memory speed. How can I fix it?](#)' question for information on how to fix this.

- 12.42 - These drivers have been leaked and are available here:  
<http://www.gamers-ammo.com/NVIDIA/WIN9X/W9X-1242.zip>
- 12.60 - These drivers have been leaked and are available here:  
<http://www.gamers-ammo.com/NVIDIA/WIN9X/W9X-1260.zip>
- 12.90 - These drivers have been leaked and are available here:  
<http://www.gamers-ammo.com/NVIDIA/WIN9X/W9X-1290.zip>

Which set should you use? If you can't live without the BlasterControl, stick with Creative's drivers. Otherwise use the NVIDIA drivers. It's really up to you if you use the latest leaked drivers or not - you'll have to benchmark them on your system to see if they have any advantages.

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## Q. What Windows 2000 drivers should I use?

There are a number of driver sets that you can use:

- Firstly, there are Creative's driver sets. These only work on Creative cards.  
These are available on Creative's site, and although they may be out of date they have been more extensively tested and have a more advanced control panel that looks better, allows one click access, and has the AGP options from AGP Wizard built in.

Currently they are based on NVIDIA's 6.34 reference drivers and are available from:

[http://www.clok.creaf.com/creative/drivers/3db/3db2kdrv\\_634.exe](http://www.clok.creaf.com/creative/drivers/3db/3db2kdrv_634.exe)

You must also download the BlasterControl application, currently at version 4.28.05, from:

<http://www.clok.creaf.com/creative/drivers/3db/BC42805.exe>

In addition, Creative now supply FastTrax drivers that are basically the NVIDIA reference drivers with a more advanced control panel that allows one click access and has the AGP options from AGP Wizard built in. They are not tested like the official driver sets are - however, they are more up to date. Note that you should **not** uninstall your previous driver set before installing them.

Currently they are based on NVIDIA's 6.34 reference drivers and are available from:

[http://www.clok.creaf.com/creative/beta/FastTrax\\_Win2K\\_v634a.exe](http://www.clok.creaf.com/creative/beta/FastTrax_Win2K_v634a.exe)

The official FastTrax website is here:

<http://www.americas.creative.com/graphics/fasttrax/>

- Secondly, there are NVIDIA's reference drivers.  
There are generally a few versions available: one (or two) official versions and some leaked versions that are not officially supported but may be faster or have more features than the official drivers (and may also be slower and have less features).

Note that it seems that all Windows 2000 drivers have the following issues at the moment:

- You will not be able to enable SMP in Quake 3 Arena without Quake 3 Arena crashing. Read the '[How can I get SMP working with Quake 3 Arena under Windows 2000?](#)' question for information on how to fix this.
- You will not be able to enable TV-OUT without a reboot in these drivers. Read the '[How can I enable TV-OUT in Windows 2000 \(and without a reboot\)?](#)' question.
- The refresh rates available in high resolutions do not go as high as those in the Windows 9x drivers.

Also note that many of the notes for the drivers in the '[What Windows 9x drivers should I use?](#)' question also apply to these drivers.

[Detonator \(3.xx & 4.xx series\) drivers](#)

[Detonator 2 \(5.xx series\) drivers](#)

[Detonator 3 \(6.xx - 11.xx series\) drivers](#)

- 12.00 - These drivers have been leaked and are available here:  
<http://www.gamers-ammo.com/NVIDIA/WIN2K/win-2k-1200.zip>
- 12.10 - These drivers have been leaked and are available here:  
<http://www.gamers-ammo.com/NVIDIA/WIN2K/W2K-1210.zip>  
These drivers may cause problems with the QuickTweak utility and Color Correction tab.
- 12.20 - These drivers have been leaked and are available here:  
<http://www.gamers-ammo.com/NVIDIA/WIN2K/W2K-1220.zip>
- 12.40 - These drivers have been leaked and are available here:  
<http://www.gamers-ammo.com/NVIDIA/WIN2K/W2K-1240.zip>  
Release notes for these drivers are available [here](#).
- 12.41 - These drivers are the latest officially released drivers and are available at NVIDIA's site:  
<http://www.nvidia.com/view.asp?PAGE=drivers>  
Release notes for these drivers are available [here](#).  
These drivers will cause Coolbits to stop working. See the '[Coolbits doesn't work or I can only adjust my memory speed. How can I fix it?](#)' question for information on how to fix this.
- 12.60 - These drivers have been leaked and are available here:  
<http://www.gamers-ammo.com/NVIDIA/WIN2K/W2K-1260.zip>
- 12.90 - These drivers have been leaked and are available here:  
<http://www.gamers-ammo.com/NVIDIA/WIN2K/W2K-1290.zip>

Which set should you use? If you can't live without the BlasterControl, stick with Creative's drivers. Otherwise use the NVIDIA drivers. It's really up to you if you use the latest leaked drivers or not - you'll have to benchmark them on your system to see if they have any advantages.

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## Q. What Windows NT 4 drivers should I use?

There are a number of driver sets that you can use:

- Firstly, there are Creative's driver sets. These only work on Creative cards.  
These are available on Creative's site, and although they may be out of date they have been more extensively tested and have a more advanced control panel that looks better, allows one click access, and has the AGP options from AGP Wizard built in.

Currently they are based on NVIDIA's 6.34 reference drivers and are available from:

[http://www.clok.creaf.com/creative/drivers/3db/3dbnt4drv\\_634.exe](http://www.clok.creaf.com/creative/drivers/3db/3dbnt4drv_634.exe)

You must also download the BlasterControl application, currently at version 4.28.05, from:

<http://www.clok.creaf.com/creative/drivers/3db/BC42805.exe>

- Secondly, there are NVIDIA's reference drivers.  
There are generally a few versions available: one (or two) official versions and some leaked versions that are not officially supported but may be faster or have more features than the official drivers (and may also be slower and have less features).

Note that many of the notes for the drivers in the '[What Windows 9x drivers should I use?](#)' question also apply to these drivers.

[Detonator \(3.xx & 4.xx series\) drivers](#)

[Detonator 2 \(5.xx series\) drivers](#)

[Detonator 3 \(6.xx - 12.xx series\) drivers](#)

- 12.00 - These drivers have been leaked and are available here:  
<http://www.gamers-ammo.com/NVIDIA/WINNT/win-nt-1200.zip>

- 12.10 - These drivers have been leaked and are available here:  
<http://www.gamers-ammo.com/NVIDIA/WINNT/NT4-1210.zip>
- 12.20 - These drivers have been leaked and are available here:  
<http://www.gamers-ammo.com/NVIDIA/WINNT/NT4-1220.zip>
- 12.40 - These drivers have been leaked and are available here:  
<http://www.gamers-ammo.com/NVIDIA/WINNT/NT4-1240.zip>  
Release notes for these drivers are available [here](#).
- 12.41 - These drivers are the latest officially released drivers and are available at NVIDIA's site:  
<http://www.nvidia.com/view.asp?PAGE=drivers>  
Release notes for these drivers are available [here](#).  
These drivers will cause Coolbits to stop working. See the '[Coolbits doesn't work or I can only adjust my memory speed. How can I fix it?](#)' question for information on how to fix this.
- 12.90 - These drivers have been leaked and are available here:  
<http://www.gamers-ammo.com/NVIDIA/WINNT/NT4-1290.zip>

Which set should you use? If you can't live without the BlasterControl, stick with Creative's drivers. Otherwise use the NVIDIA drivers. It's really up to you if you use the latest leaked drivers or not - you'll have to benchmark them on your system to see if they have any advantages.

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## Q. What Linux drivers should I use and how do I install them?

- There are a few very extensive articles on setting up NVIDIA drivers on different Linux distributions at the following website:  
<http://www.evil3d.net/articles.shtml>
- There is a walkthrough for installing NVIDIA drivers on Mandrake 8.0 at the following website:  
[http://www.littlewhitedog.com/reviews\\_other\\_00022.asp](http://www.littlewhitedog.com/reviews_other_00022.asp)
- If you have problems, try downloading and running the following diagnostic script:  
[http://www.geforcefaq.com/files/nv\\_check.sh](http://www.geforcefaq.com/files/nv_check.sh)
- In addition, there is an FAQ for the NVIDIA XFree 4.0 drivers available at the following location:  
<http://www.mcdownloads.com>

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## Q. What BeOS drivers should I use?

You can download the 2000.09.30 Unified NVIDIA driver from the following website:

<http://www.bebits.com/app/1622>

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## Q. How can I find out what version of the drivers I am currently using?

The most reliable method is the information provided by the NVIDIA control panel - see the '[How do I get to the NVIDIA control panel and what should I set the settings to?](#)' question.

At the bottom of the main control panel screen there will be a box labelled 'Driver Version Information'. All of the files should have the same version number. The last three characters of the version number are the driver version number - just divide the number by 100. (e.g. 650 = 6.50).

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## Q. What is the difference between the 3.xx, 5.xx, 6.xx, 7.xx, 8.xx, 10.xx, 11.xx and 12.xx versions of the drivers?

The 3.xx versions of the drivers are the first set of NVIDIA's unified drivers to officially support the GeForce.

The 5.xx versions of the drivers support S3TC and palettized textures in OpenGL and full scene antialiasing (FSAA) (in OpenGL, and in Direct3D as well in the 5.22+ drivers). However, for some people they also cause lockups when they load Windows, so that some people simply cannot use them yet. They are also faster than the 3.xx drivers in most cases.

The 6.xx versions of the drivers are faster and have a new NVIDIA control panel with extra FSAA options and information, and extra support for the GeForce2 MX. However, they may cause problems for some people.

The 7.xx versions of the drivers are optimised for DirectX 8 and add support for palettized textures in Direct3D up to version 7.49. In 7.50+ the drivers are optimised for DirectX 7 and palettized textures support is gone.

It is currently unknown that new features the 8.xx series introduced.

The 10.xx versions are optimised for DirectX 8, add support for palettized textures in Direct3D, add native support for 3D glasses, simplify the antialiasing options in the NVIDIA control panel and support the GeForce3.

The 11.xx and 12.xx versions add support for anisotropic filtering - see the '[How can I enable and change the quality of anisotropic filtering?](#)' question for more information. Palettized texture support appears to be fixed from versions 12.40 onwards.

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## Q. How can I completely uninstall old NVIDIA GeForce or Creative Labs Annihilator drivers?

- This is the standard advice from Creative on removing old drivers:
  1. Run any uninstall from Add/Remove Programs. These frequently are not totally thorough but should be done anyway.
  2. After you reboot, delete these files if found:
    - In C:\Windows\System: nv\*.\*, bc\*.\*, bls\*.\*, 3dbg\*.\* (the latter 3 only apply to Creative drivers - also note that you should be careful not to delete certain Borland C++ files like BC450RTL.DLL. Check in the file properties to see if they are Creative files.)
    - In C:\Windows\Inf: drvdata.bin, drvidx.bin, 3dbg\*.inf, nv\*.inf
    - In C:\Windows\Inf\Other: 3dbg\*.inf, nv\*.inf
  3. Run regedit and delete the following:
    - HKEY\_LOCAL\_MACHINE\SOFTWARE\Creative Tech\Blaster Control 4.0
    - HKEY\_LOCAL\_MACHINE\SOFTWARE\NVIDIA Corporation
    - HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Controls Folder\Device\shellx\PropertySheetHandlers\Blaster Control 4.0
    - HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Controls Folder\Device\shellx\PropertySheetHandlers\NVTweak  
(look under Controls Folder\Display as well as Device keys here for Blaster Control or NVTweak keys)
    - HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Run  
(look for bcdetect or NVInitialize entries on the right side and delete them but not the whole Run key. Also, check the RunOnce key for the same entries)
    - HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\OpenGLdrivers  
(delete the RIVATNT entry on the right side)
- There is a program called NVCleaner available which can automatically remove all files and registry entries. You can download the latest version at the author's website:

<http://www.btinternet.com/~bobruck/download.html>

- Alternatively, you can use the following batch file, created by Chris Ivarson, which will delete just the relevant files automatically (this only works if you use the NVIDIA reference drivers):

<http://www.geforcefaq.com/files/cleaninstall.zip>

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## Q. How do I get to the NVIDIA control panel and what should I set the settings to?

From Windows 98 and 98SE, the method to get to the control panel is:

Start / Settings / Control Panel / Display / Settings / Advanced...

The control panel consists of a number of tabs which have the NVIDIA logo on them.

You can find out what each setting does by right clicking on it and clicking 'What's This?'.

For most systems, the default settings are the best, but if you want to try tweaking them then give the following tweak guide a try - the settings in the control panel are covered in the guide as well as other settings:

<http://www.tweak3d.net/tweak/geforce/>

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## Q. How can I force AGP1X to be used instead of AGP2X or AGP4X?

There are a number of methods:

- Some BIOSes support forcing AGP1X in the BIOS setup.
- If you have a VIA chipset motherboard, installing the AGP drivers in 'Normal' mode instead of 'Turbo' mode will force AGP1X.
- If you have a Creative card you can use AGP Wizard. Read more about this in the '[What is AGP Wizard?](#)' question.
- You can use the forceagp1xon.reg registry file to force AGP1X in Windows 9x - available here:  
<http://www.geforcefaq.com/files/forceagp1xon.reg>  
If you want to go back to auto detection of the AGP rate, you can use the forceagp1xoff.reg registry file - available here:  
<http://www.geforcefaq.com/files/forceagp1xoff.reg>  
Note that these registry keys may not work with the 10.xx drivers.
- You can use the forceagp1xonw2k.reg registry file to force AGP1X in Windows 2000 - available here:  
<http://www.geforcefaq.com/files/forceagp1xonw2k.reg>  
If you want to go back to auto detection of the AGP rate, you can use the forceagp1xoffw2k.reg registry file - available here:  
<http://www.geforcefaq.com/files/forceagp1xoffw2k.reg>  
Note that these registry keys may not work with the 10.xx drivers.
- Finally, you can use [PowerStrip](#).

Note that forcing AGP1X from AGP2X or AGP4X may help with some problems such as instability, but will reduce performance slightly in certain 3D applications.

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## Q. How can I enable or disable AGP Fast Writes?

Note that in order to enable fast writes both your motherboard and your graphics card must support it. All GeForce cards support Fast Writes, but not all motherboard chipsets do. In particular the various versions of the Intel i815 chipset do **not** support Fast Writes.

There are a number of methods:

- Some BIOSes support enabling and disabling AGP Fast Writes in the BIOS setup. If you have a Tyan Trinity 400 motherboard, you must use BIOS version 1.0 as in later versions Tyan have removed the Fast Writes option in the BIOS.
- If you have a Creative card you can use AGP Wizard. Read more about this in the '[What is AGP Wizard?](#)' question.
- You can use the fwoff.reg registry file to disable AGP Fast Writes in Windows 9x - available here: <http://www.geforcefaq.com/files/fwoff.reg>  
If you ever want to switch Fast Writes back on, you can use the fwon.reg registry file - available here: <http://www.geforcefaq.com/files/fwon.reg>
- You can use the fwoffw2k.reg registry file to disable AGP Fast Writes in Windows 2000- available here: <http://www.geforcefaq.com/files/fwoffw2k.reg>  
If you ever want to switch Fast Writes back on, you can use the fwonw2k.reg registry file - available here: <http://www.geforcefaq.com/files/fwonw2k.reg>

Disabling Fast Writes may help with instability problems but may also cause 3D applications to run slower.

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## Q. How can I enable AGP Sidebanding?

- **Before you read this question:** Don't worry too much if you can't get AGP sidebanding enabled. There's only about 1-2fps in it and it can cause instability.
- If you have a Creative card, there is a utility called AGP Wizard that you can use to enable AGP sidebanding. You can read more about it in the following question: '[What is AGP Wizard?](#)'.
- In the 3.69 and later drivers you can use the athlonsbaon.reg registry file to enable sidebanding on Athlon motherboards only - available here: <http://www.geforcefaq.com/files/athlonsbaon.reg>  
If you have problems after enabling this, use the athlonsbaoff.reg registry file to disable it again - available here: <http://www.geforcefaq.com/files/athlonsbaoff.reg>

**WARNING:** The registry file may not work if you have a 64MB Prophet II card. It seems that AGP sidebanding is disabled in the video BIOS for Athlons with that card. In addition you may not be able to use AGP Sidebanding if you have the Athlon AGP2X hack enabled as well in the 5.xx drivers.

- If you have an ASUS card, you can download a special Flash BIOS file that will enable sidebanding from the ASUS website.
- If you really like living dangerously, it is possible to use a program called BIOSMOD to change your BIOS file before you flash it so that sidebanding is enabled. However, this will **invalidate your warranty**, and could in theory mess up your card. Don't email me or your manufacturer's technical support for more information or if it messes up your card!

If that hasn't scared you off, take a look at this page:

<http://www.m3dzone.com/zoiah/>

under the BIOSMOD / Tutorials / How to disable/enable SBA (Sideband addressing) on a GeForce section.

Once again, this is for experienced users only.

- The sidebanding registry hack (involving the DISABLEAGPSIDEBAND key) that is being spread around is fake and does not work.

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## Q. How can I enable OpenGL hardware accelerated anti-aliased lines on a non-Quadro card?

OpenGL hardware accelerated anti-aliased lines is a features that is only likely to be useful to people that use professional 3D modelling applications. It is unlikely that gamers will find this feature very useful, as it only speeds up the rendering of wireframe models.

The following registry key was found by Stefano G:

- You can enable OpenGL hardware accelerated anti-aliased lines in Windows 9x using the nv15alineson.reg registry file - available here:

<http://www.geforcefaq.com/files/nv15alineson.reg>

If this file don't seem to have any effect, you may have to edit it in Notepad and change the 0000 to 0001, or another value. Take a look at the

HKEY\_LOCAL\_MACHINE\System\CurrentControlSet\Services\Class\Display registry key using regedit and find out which number your graphics card is using.

If you find this causes problems, you can disable the setting again using the nv15alinesoff.reg registry file - available here:

<http://www.geforcefaq.com/files/nv15alinesoff.reg>

- You can enable OpenGL hardware accelerated anti-aliased lines in Windows 2000 using the nv15alinesw2k.reg registry file - available here:

<http://www.geforcefaq.com/files/nv15alinesonw2k.reg>

If you find this causes problems, you can disable the setting again using the nv15alinesoff.reg registry file - available here:

<http://www.geforcefaq.com/files/nv15alinesoffw2k.reg>

- Unfortunately there does not seem to be a way to get this to work under Windows NT 4.

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## **Q. What is the status of 2D stretched sprite smoothing in the latest drivers?**

## **Q. What is the status of auto mip-mapping in the latest drivers?**

## **Q. Can I force a 16-bit z-buffer in the latest drivers?**

- They are all currently disabled, although there may be drivers released later that will support them.
- In the case of 2D stretched sprite smoothing, this appears to have been disabled since the 5.xx drivers. You can see the effects of this in games like G-Police (beacons) and some SNES emulators.

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## **Q. How can I easily enable and change the quality of antialiasing?**

- As of the 6.xx+ drivers, you can enable and specify the FSAA quality directly from the NVIDIA control panel.
- There are a couple of free programs to enable you to both enable FSAA only when you run certain programs (RunAA) and to easily set the FSAA settings from the task tray (GeForceAASet) available to download at the following website: <http://www.geocities.com/mastercoco/files.htm>

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## **Q. What do the different antialiasing options mean?**

- In the 10.xx+ drivers, there are just four antialiasing options:
  - Off (no antialiasing)
  - 2x
  - Quincunx Antialiasing(tm) - GeForce3 only
  - 4x

The further down the list, the higher the quality of the antialiasing but the greater the slowdown. Quincunx will also cause the image to be slightly more blurry than the other two methods, but will roughly give 4x quality with 2x performance.

- In the pre 10.xx drivers, there were more options:
  - For OpenGL there are three options to pick from:

- 1.5 x 1.5
- 2 x 2 [LOD bias]
- 2 x 2
- For Direct3D there are eight options to pick from:
  - 1 x 2
  - 2 x 2 (low detail)
  - 2 x 2
  - 2 x 2 (special)
  - 3 x 3 (low detail)
  - 3 x 3
  - 4 x 4 (low detail)
  - 4 x 4
- The higher the two numbers, the better the quality of the antialiasing, the more memory required and the greater the slowdown.
- The [LOD bias] and (low detail) options mean that mipmaps are stored at the resolution that the game is actually displayed at - otherwise mipmaps are stored at the resolution that the image is processed at, which makes the image sharper, but also requires more memory and will cause a slight slowdown.
- The (special) option means that a special filtering algorithm is used that yields better image quality, but is slightly slower.

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## Q. How can I enable and change the quality of anisotropic filtering?

Anisotropic filtering makes textures that are far off appear less blurry and helps to eliminate 'texture aliasing' where textures appear to shimmer in the middle distance.

The 11.xx+ drivers enable anisotropic filtering, and provide a control panel option in OpenGL, but the code in the 11.01 control panel is buggy and doesn't work.

In the final 12.xx driver release enabling anisotropic filtering should be provided for in the NVIDIA control panel: in the mean time you can use registry files to force anisotropic filtering in all 3D applications:

- You can use the anis(xx)tap.reg registry files to force the different levels of anisotropic filtering for both Direct3D and OpenGL under Windows 9x - available here:

<http://www.geforcefaq.com/files/anis16tap.reg>

<http://www.geforcefaq.com/files/anis32tap.reg>

<http://www.geforcefaq.com/files/anis64tap.reg>

You can use the anisoff.reg registry file to stop the effect of these keys - available here:

<http://www.geforcefaq.com/files/anisoff.reg>

If these files don't seem to have any effect, you may have to edit them in Notepad and change the 0000 to 0001, or another value. Take a look at the HKEY\_LOCAL\_MACHINE\System\CurrentControlSet\Services\Class\Display registry key using regedit and find out which number your graphics card is using.

- You can use the anis(xx)tapw2k.reg registry files to force the different levels of anisotropic filtering for both Direct3D and OpenGL under Windows 2000 - available here:

<http://www.geforcefaq.com/files/anis16tapw2k.reg>

<http://www.geforcefaq.com/files/anis32tapw2k.reg>

<http://www.geforcefaq.com/files/anis64tapw2k.reg>

You can use the anisoffw2k.reg registry file to stop the effect of these keys - available here:

<http://www.geforcefaq.com/files/anisoffw2k.reg>

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## Q. How can I enable AGP4X in the Detonator 5.16+ driver sets on my VIA 133mhz chipset motherboard?

- AGP4X is disabled on these motherboards because of issues with AGP4X, VIA chipsets and the GeForce2. The registry files below may cause problems if you have a GeForce2. If you do get these problems, try reading the ['I have a VIA chipset based motherboard and I can't get AGP4X to work without causing instability. How can I fix it?'](#) question.

- Many thanks to PJ who discovered this registry key.

In the 5.16 and later drivers in Windows 9x you can use the viaagp4xon.reg registry file to enable AGP4X on VIA 133mhz chipset motherboards only - available here:

<http://www.geforcefaq.com/files/viaagp4xon.reg>

If you have problems after enabling this, use the viaagp4xoff.reg registry file to disable it again - available here:

<http://www.geforcefaq.com/files/viaagp4xoff.reg>

- Many thanks to Joe Meheski who discovered this registry key.

In the 5.16 and later drivers in Windows 2000 you can use the viaagp4xonw2k.reg registry file to enable AGP4X on VIA 133mhz chipset motherboards only - available here:

<http://www.geforcefaq.com/files/viaagp4xonw2k.reg>

If you have problems after enabling this, use the viaagp4xoffw2k.reg registry file to disable it again - available here:

<http://www.geforcefaq.com/files/viaagp4xoffw2k.reg>

- If you are using AGP2X mode because AGP4X creates instability, make sure you also force AGP2X in your computer's BIOS as well as using the drivers for maximum stability during bootup.
- You may need the VIA 4.03+ AGP drivers installed to use the above files.
- You may also need to read the ['I have a VIA chipset based motherboard and I can't get AGP2X or AGP4X working. How can I fix it?'](#) question.

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## Q. What are these Simpsons related registry keys that I just found (Bart, Homer, Krusty & Marge)?

They're all to do with the overclocking tab that is enabled in the NVIDIA control panel with Coolbits (see the ['How can I enable the overclocking utility in NVIDIA's drivers?'](#) question for information on Coolbits). They are stored in the

HKEY\_LOCAL\_MACHINE\System\CurrentControlSet\Services\Class\Display\0000\NVIDIA\NVTweak\Hardware registry key and are set when you first tick the 'Allow clock frequency adjustments' box in the NVIDIA control panel and are asked to restart.

Marge sets whether the panel is enabled or not, and the rest are all to do with the actual values and ranges of the overclocking sliders.

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## Q. How can I manually set refresh rates and force the refresh rate above 60hz?

You should be able to adjust refresh rates for the current display resolution and colour depth using the Display control panel under the 'Adaptor' settings. On most drivers 'Optimal' is the best setting, but some drivers do not pick the optimal refresh rates correctly and set the refresh rate to 60hz. You can tell this because your display will flicker. You can use the following tips to change all of the refresh rates easily:

(Note that under Windows 2000 there is a separate problem that means you cannot set your refresh rates above 75hz. See the ['I cannot set my refresh rate above 75hz under Windows 2000. How can I fix it?'](#) question for more information and fixes for the problem.)

- Make sure that you have the latest drivers installed for your monitor.

- For Windows 9x, use [hztool](#) to adjust the rates manually to the ones you use. You can also set up custom refresh rates with this tool.
- For Windows 2000, use the [Windows 2000 NVidia Refresh Rate Fix](#) program to adjust the rates manually to the ones you use.
- For Direct3D games in Windows 2000, you can also run DXDiag, click on 'More Help', click 'Override...' and type in your desired refresh rate.
- For Quake 3 Arena you can simply type the following commands at the console:
  - /r\_displayrefresh "x"
  - /vid\_restart

where x is the desired refresh rate (e.g. 75)

- You can also use PowerStrip to manually set refresh rates - you can download a demo of PowerStrip at the following website: <http://www.entechtaiwan.com/>

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## Q. How can I enable TV-OUT in Windows 2000 (and without a reboot)?

- You can use the tvoutw2k.reg registry file to enable TV-OUT in Windows 2000 - available here: <http://www.geforcefaq.com/files/tvoutw2k.reg>
- The TVTool program has been recently updated to work with Windows 2000 and will allow you to enable TV-OUT without a reboot. You can read more about it in the '[How can I make the TV-OUT display stretch to the full size of my TV, and generally tweak TV-OUT?](#)' question.

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## Q. How can I make the TV-OUT display stretch to the full size of my TV, and generally tweak TV-OUT?

- If you have a card with a Brooktree TV chipset, download TVTool, and if you have a card with a Chrontel TV chipset, download TVCC2000. Both of these utilities are available at the following website <http://www.tvtool.de/>
- There is more information and support for TV-OUT available at the following website: <http://www.stereovision.net/toxicx/tvout.htm>

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## Q. Where can I find out more about and troubleshoot the GeForce's support for 3D glasses?

There is an unofficial NVIDIA stereoscopic driver support page at the following page: <http://www.stereovision.net/articles/nvidiastereo/nvidiastereo.htm>

There is a tweak page for the stereoscopic driver at the following page: <http://www.stereovision.net/articles/nvidiastereo/nvidiastereotweak.htm>

For more links and information, see [Stereovision.net](#).

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## Q. I cannot set my refresh rate above 75hz under Windows 2000. How can I fix it?

In Windows 2000 for some drivers some people cannot set the refresh rate above 75hz even if they use the NVIDIA Refresh Rate Fix program. It appears that some monitors do not send DDC information correctly, and these drivers use the DDC information to set refresh rates - Philips monitors are fine but other makes like Iiyama are not. The following fixes help for some people but not others:

- You may be able to fix this by installing your monitor as a 'Default Monitor' in Windows instead of using the specific drivers.
- You may be able to fix the problem by leaving your monitor off until Windows has finished loading, stopping Plug and Play from detecting the monitor.
- If your monitor supports BNC inputs, try plugging your monitor in using these instead. This will disable the Plug and Play support that seems to be causing the problems.
- You can try physically removing pin 15 from your D-SUB monitor connector. This will have the same effect as using a BNC cable as this pin is used for Plug and Play support. You will, of course, almost certainly void your monitor's warranty by doing this. The pins on the cable are numbered as following:

```
+-----+
 \   1  2  3  4  5  /
 \   6  7  8  9 10 /
 \  11 12 13 14 15/
 +-----+
```

If you don't want to pull apart your monitor's signal cable, get a monitor signal extension cable and take out those pins instead. This may cause degraded 2D display because the longer lead will allow for more interference.

- You can also use PowerStrip to manually set refresh rates - you can download a demo of PowerStrip at the following website: <http://www.entechtaiwan.com/>
- Ideally there should be a switch in the drivers to turn off using DDC information to set refresh rates - if anyone knows of such a switch, let me know.

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## Q. When I resume from monitor power saving modes in Windows 9x, I get display corruption and / or instability problems, or my card seems slower than usual. How can I fix it?

- Thanks to Jarhead for pointing out this problem.

In the 6.47+ drivers under Windows 9x only, there is an issue for *some* (not all) systems when using monitor power saving modes. On these systems, if you allow the monitor to go into standby mode, the drivers may try to reapply any overclocking settings **ON TOP** of your current settings when the monitor resumes from the power savings mode. This causes display corruption and instability, and can seriously damage your card if the card is used in this overclocked state for a long period of time.

For the most part, this only affects people that are actually overclocking with Coolbits, but it has been reported to happen even if Coolbits is not enabled.

To see if your system is affected by this problem, perform the following steps, taken from [this VC News post](#):

- Right click on your desktop, click Properties / Screensaver / Settings / Power Schemes, and set your monitor to shut off within 1 minute. Sit back and allow Windows to shut off your monitor. Wait about a minute and then move the mouse a little to wake the system up.
- If you can see display corruption or the computer crashes, you have got the problem. Do not enable the monitor power savings modes or go into Standby mode on this system.
- If you are using Coolbits to overclock, and the system does not display any problems after you perform this test, check the NVIDIA hardware options tab to see if the overclock setting you have previously made is still there. If it is, then the

bug does not affect you.

- If you are not using Coolbits to overclock, and the system does not display any problems after you perform this test, wait for the power saving mode to kick in and then move the mouse 5 or so times more and see if you then get the problem. If you do not then it is almost certain that the bug does not affect you.

This problem is eliminated for some after version 6.50, **but not for others**. You should test your system before enabling monitor power saving modes.

- Alternatively, you may find that when you come out of power saving modes your 3D card seems slower because the clock speed has not been restored correctly. If this is the case, you can use NVresume to reset your clock speed when you come out of power saving modes - just put it in your Startup group. You can download NVresume from the following website:  
<http://www.entechtaiwan.com>

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## **Q. The Overlay Color Control tab of the NVIDIA control panel is greyed out. How can I enable it?**

This is by design in the latest driver sets. The Overlay Color Control tab is only enabled when you actually have an overlay in use. To enable the controls, run a video (AVI or Quicktime) or a DVD in the background while the control panel is open.

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## **Q. I installed DirectX 8 and it caused more problems than it fixed. How can I uninstall it?**

There is a DirectX Uninstaller available at the following site:

<http://www.ebrink.com/dxun/Direct.htm>

Note that some of the problems relating to DirectX 8 may be fixed when you use the drivers optimised for DirectX 8 - 10.xx onwards.

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## **Q. Why I can't enable hardware acceleration in PowerDVD 3.0 under Windows 2000?**

This information is taken from the PowerDVD 3.0 readme file:

*For most display chips and integrated chipsets, Hardware Motion Compensation and Subpicture Alpha blending is only available for most display cards under Windows 98 and Windows ME due to Windows 2000 driver limitations. Under Windows 2000, only SiS630 (integrated chipset) and SiS300 (display chip) are supported.*

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## **Q. When I install the 5.xx series of drives Windows 9x locks up at the bootup screen. How can I fix it?**

Make sure your GeForce is not sharing an IRQ with any other devices. If you find that it is, try either moving the device into another PCI slot, or reassigning the PCI IRQs in the BIOS. In particular, the first PCI slot is frequently forced to share an IRQ with the AGP slot.

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## **Q. I get 'Out Of Memory' errors although I have plenty of RAM installed. How can I fix it?**

- There is a solution for this problem (which is more likely to occur with AGP graphics cards and large amounts of memory) in the following Microsoft Knowledge Base article:

<http://support.microsoft.com/support/kb/articles/q253/9/12.asp>

- Note however that this may also be caused by incorrect virtual memory settings - if in doubt, allow Windows to manage your virtual memory settings.

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## **Q. How can I stop the 'Render no more than x frame(s) ahead' option from resetting to zero when 'Vertical Sync' is set to 'Always Off'?**

This is a known bug with the current NVIDIA control panel. Every time that you enter the 'More Direct3D' dialog the value is reset to zero, even though your original value is still displayed.

To fix this, you have to set the value **every time** you enter the 'More Direct3D' dialog, even if it seems that the value displayed is correct. Hopefully NVIDIA will fix this bug soon.

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## **Q. I have downloaded some drivers and they have an nvalm.inf file instead of an nvagp.inf file. I can't get them to install properly. What's up?**

Drivers with this file generally support languages other than English in the NVIDIA control panel.

- If you have trouble installing them try uninstalling your old drivers using the method described in the '[How can I completely uninstall old NVIDIA GeForce or Creative Labs Annihilator drivers?](#)' question before you install the new drivers.
- Otherwise, just replace the nvaml.inf file with the nvagp.inf file from the nearest set of drivers that you can find.

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## **Q. I installed the VIA AGP drivers under Windows 2000 but they don't seem to have had any effect (the names of the devices have not changed). How can I fix this?**

If you find that even after installing the VIA 4in1 drivers your devices are still called AMD devices, follow these steps:

1. Go to Control Panel, System, and select your AMD AGP-to-CPU Device.
2. Choose Update Drivers, select 'Have Disc'.
3. Select the place where you unzipped the AGP 4in1 drivers, and then select the Win2K subdirectory. You can ignore any warnings.
4. Reboot the computer. You should see that the device is now called VIA AGP-to-CPU.

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## **Q. I get a blue screen of death when I close Windows ME. How can I fix it?**

Note that these solutions may not fix the problem for everyone.

- This problems should be fixed in drivers 6.49 and above.
- If you have an Intel based machine and are using the 6.xx+ drivers, you may be able to fix this problem by using the intelcompaton.reg registry file - available here:  
<http://www.geforcefaq.com/files/intelcompaton.reg>  
You can disable this option again by using the intelcompatoff.reg registry file - available here:  
<http://www.geforcefaq.com/files/intelcompatoff.reg>

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## Q. TV-OUT is greyed out on my TV-OUT capable GeForce. How can I fix it?

- Make sure you have plugged in and switched on the TV before you boot the computer.
- Thanks to Roger Sheppard for this suggestion:

*The GeForce needs to see a real 75 ohms AV input. However, not all TVs have this, and some have a switch labelled 'Terminate' next to the AV inputs to turn the 75 ohms off to allow more than one TV to be connected. If you are having this problem, especially with a smaller or portable TV, then try another TV to see if this is a problem, or check for a 'Terminate' switch.*

- According to ASUS this may also be a problem caused by motherboards using a linear voltage regulator that does not supply enough voltage to the GeForce, and therefore there is not enough voltage to maintain TV-OUT. Read the '[What's all this with the original GeForce and motherboards not supplying enough power?](#)' question for more information and possible fixes.

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## Q. I get errors involving desk.cpl. How can I fix them?

- Delete any .DLL files whose names begin with 'Nvrs' in your Windows\System directory.
- You may have too many display properties tabs installed. Use DPSclean to remove some entries. You can download DPSclean from the following website:  
<http://www.entechtaiwan.com>

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## Q. I get crashes involving DDHELP.EXE. How can I fix them?

- This may be caused by a corrupt installation of DirectX. Try reinstalling it.
- You should also try installing the Detonator 3 (6.xx) or later drivers.

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## Q. I get horizontal lines when I watch certain DivX ;- ) movies under Windows 2000. How can I fix it?

This is a known problem with the Detonator 2 (5.xx) drivers. Try using the Detonator 3 (6.xx) or later drivers.

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## Q. I cannot view videos in overlay mode if they are wider than 704 pixels horizontally. What's going on?

This is a known problem with the current drivers, and there is no current way of fixing it.

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## Q. What games work and don't work with the GeForce?

There is a list being compiled here:

<http://www.daytonsmisc.com/geforce.htm>

If you have any games not currently included on the list that do / do not work, email the author:

[sal@ispchannel.com](mailto:sal@ispchannel.com)

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## Q. I get flashing menus in various games. How can I fix it?

This may occur in games like Battlezone 2, Urban Chaos, Trespasser and Deer Hunter 4.

- The 6.50 drivers and DirectX 8 may fix this problem.
- Try using the Detonator 2 series of drivers (5.xx). These may fix the problem.

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## Q. I have problems with Shogun: Total War. How can I fix it?

- Use the 12.41+ driver sets. If these driver sets still don't work, the following website contains other Shogun troubleshooting tips:  
<http://erado.totalwar.org>
- You may also be able to fix any problems by starting Shogun: Total War in windowed mode. You can do this with the following steps provided by Steve Evest:
  1. Right click on the shortcut that you launch the game from.
  2. Click Properties.
  3. Click the shortcut tab.
  4. Where it says  
*"C:\Program Files\Total War\Shogun - Total War\Shogun.exe"* (note it may be in a different folder)  
change it so it says  
*"C:\Program Files\Total War\Shogun - Total War\Shogun.exe" /deb*

The game will now run in a window, although battle sequences run slower.

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## Q. I have problems with The Sims. How can I fix them?

- Make sure that you have the latest game patch and latest drivers for your GeForce.
- Try setting your desktop colour depth to 16-bit before starting the game.
- If you have WinDVD, read and apply the fix mentioned in the '[When I try to play MPEG files with Windows Media Player I get out-of-sync sound/green bars/too large playback. I have WinDVD installed. How can I fix it?](#)' question.

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## Q. I get various visual problems with Dagoth Moor Zoological Gardens with Windows 2000. Can I fix them?

Unfortunately in the current drivers there are some issues with Dagoth Moor Zoological Gardens. There is no current known fix.

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## Q. I get an orange screen with Dagoth Moor Zoological Gardens. How can I fix it?

- Make sure Fog Table Emulation is switched on in the Direct3D section of the NVIDIA control panel, as outlined in the DMZG FAQ.
- Make sure you are using the latest drivers.

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## Q. I get flickering in Rogue Spear. How can I fix it?

Check that you have all the settings in the '[What are the recommended BIOS settings for a GeForce?](#)' question are set correctly.

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## Q. Wizards & Warriors is too dark in the dungeons. How can I fix it?

Read the following page, download the patch and change the command line in the way mentioned:

<http://www.heuristicpark.com/techhelp.htm>

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## Q. I have problems with Diablo 2. How can I fix them?

- Disabling the Perspective mode and 3D sound in the game options greatly enhances the game performance
- The 7.78 drivers are the best performers for the game, at least for MVP3 users - they fix the slowdown problems and work perfectly in Direct3D mode.
- Try the DirectDraw 2D mode if the game is not booting correctly, or if the game is too slow or skipping frames.

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## Q. I have problems with Midtown Madness 1 or 2. How can I fix them?

- Make sure you have the latest patch installed:  
Midtown Madness 1:  
[http://download.microsoft.com/download/midtownmad/Patch/1.2/W9XNT4/EN-US/midtown1\\_patch\\_aspac.exe](http://download.microsoft.com/download/midtownmad/Patch/1.2/W9XNT4/EN-US/midtown1_patch_aspac.exe)  
Midtown Madness 2:  
<http://download.microsoft.com/download/midtownmad2/Patch/1.01/W9X2K/EN-US/mm2pat.EXE>
- To fix stuttering graphics in Midtown Madness 1, install the latest drivers. Drivers 5.13+ will fix this problem.
- If you get graphic corruption in Midtown Madness 1, switch off the pedestrians (this should be fixed by the patch mentioned above).

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## Q. I get what looks like missing polygons on the wheels and seat of the bike in Motocross Madness. How can I fix it?

This is a known bug and NVIDIA are looking into it.

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## Q. Microsoft Baseball 2000 quits or crashes when I run it. How can I fix it?

There is a Microsoft Knowledge Base article about this problem [here](#).

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## Q. I have problems with Need for Speed 5: Porsche. How can I fix them?

- Try NVIDIA's latest (leaked) reference drivers. In particular 6.18 may help with speed and instability problems.
- Make sure that the Direct3D settings in the NVIDIA control panel are set to defaults. In particular, 'Enable fog table emulation' should be enabled.
- Try setting your Windows colour depth to 16-bit colour instead of 32-bit.

- If you get lockups, try the following tips, in the Options/Graphics/Advanced Settings dialog:
  - Switch off lens flare
  - Switch headlights to vertex

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## Q. How can I enable mipmapping in Rollcage Stage 2 on my GeForce3?

Unfortunately, at the moment you will have to install the card as a GeForce2 inside Windows if you want mipmapping to work.

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## Q. What Glide wrapper works best with UltraHLE and the GeForce?

GI2ide works best with the GeForce. You can download it from:

<http://www.n64emu.com>

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## Q. I get texture corruption in Populous 3. How can I fix it?

Setting the texture alignment in the NVIDIA control panel to 0 may help the problem.

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## Q. I get horizontal lines in Final Fantasy 8. How can I fix them?

Install the latest patch for Final Fantasy 8.

The US English version is available here:

<ftp://ftp.ea.com/pub/ea/patches/ff8/FF8SgeaNVPatch.zip>

The UK English version is available here:

[ftp://ftp.eidos.de/pub/uk/final\\_fantasy\\_8/patches/FF8EidosEngNVPatch.zip](ftp://ftp.eidos.de/pub/uk/final_fantasy_8/patches/FF8EidosEngNVPatch.zip)

The French version is available here:

[ftp://ftp.eidos.de/pub/fr/final\\_fantasy\\_8/patches/FF8EidosFreNVPatch.zip](ftp://ftp.eidos.de/pub/fr/final_fantasy_8/patches/FF8EidosFreNVPatch.zip)

The German version is available here:

[ftp://ftp.eidos.de/pub/de/final\\_fantasy\\_8/Patches/FF8EidosGerNVPatch.zip](ftp://ftp.eidos.de/pub/de/final_fantasy_8/Patches/FF8EidosGerNVPatch.zip)

The Spanish version is available here:

[ftp://ftp.eidos.de/pub/es/final\\_fantasy\\_8/patches/FF8EidosSpaNVPatch.zip](ftp://ftp.eidos.de/pub/es/final_fantasy_8/patches/FF8EidosSpaNVPatch.zip)

The Italian version is available here:

[ftp://ftp.eidos.de/pub/it/final\\_fantasy\\_8/FF8EidosItaNVPatch.zip](ftp://ftp.eidos.de/pub/it/final_fantasy_8/FF8EidosItaNVPatch.zip)

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## Q. I get problems with Star Trek: Armada. How can I fix them?

- The 5.22+ drivers fix many problems with Armada.
- There is more information on these problems and possible solutions on the following page:  
<http://www.activision.com/support/faq/448.html>

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## Q. I get problems with X-Wing Alliance. How can I fix them?

If you get problems with white textures, use the 10.50+ drivers.

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## Q. I get problems with Serious Sam. How can I fix them?

- Make sure that you have the latest patch for Serious Sam installed.
- If you get clipping problems in the game, try setting 'gfx\_iDepthBits' to '24' at the console.
- Try using the 6.50 drivers instead of the latest drivers if you get problems with slowdowns or texture corruption.

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## Q. I get very poor performance with Deus Ex. How can I fix it?

- Try installing the Direct3D Beta patch for Deus Ex. You can download it here - instructions for installation are included in the file:  
<http://www.deusex.com/downloads/dxd3d.zip>
- If this does not help, this may be caused by having both 32-bit colour and high texture detail enabled. Disable one of these to fix the problem for now.

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## Q. I get screen corruption with Deus Ex. How can I fix it?

The 6.xx series of drivers and the 7.xx before 7.52 all cause problems with Deus Ex in Direct3D mode. Try switching to a later set and see if this fixes the problem.

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## Q. I get problems in Messiah, especially when enabling T&L. How can I fix them?

- Install the latest patch and run Messiah with the -p command line switch.
- If you want to use T&L support, currently you must set 'Character Texture Resolution (AGP)' to 'Medium'.

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## Q. I get problems with No One Lives Forever. How can I fix them?

- Make sure you have the latest patch installed.
- Try ticking the 'Enable alternative depth buffering technique' box in the Direct3D tab of the NVIDIA control panel.

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## Q. I get problems with Half-Life. How can I fix them?

- Make sure you have the latest patch for Half-Life.
- Make sure you have the very latest drivers installed. The 5.13+ drivers fix the missing textures problem, the 5.16+ drivers fix problems with flashing in shadowy areas and the 5.22+ drivers fix problems with slow loading times.
- Make sure you run Half-Life at a resolution below the current desktop resolution.
- Try changing the Buffer Flipping Mode in the OpenGL tab of the NVIDIA control panel to 'Block Transfer'.
- If you get blurry text in Direct3D mode, try moving the Texture Alignment slider in Advanced Direct3D options in the

NVIDIA control panel to the 0 position.

- If you're using OpenGL (recommended), try using Direct3D, and vice versa.
- Try flashing your GeForce card's Video BIOS with the latest version (you may have to use the NVIDIA reference BIOS). This may fix problems with green pixels being displayed instead of grey. You may want to read the ['Where can I get the latest NVIDIA Flash BIOS and which should I use?'](#) question in this FAQ.

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## Q. Half-Life is too dark. How can I fix it?

- If the brightness and gamma controls in the NVIDIA control panel don't work, try adding the command line parameter `-3dfxgamma` to your Half-Life shortcut.
- If you use OpenGL, create a folder in your game directory called `'hw'` (so that it looks like `'c:\sierra\half-life\cstrike\hw'` or similar), and then create a file inside that called `'opengl.cfg'` with the following contents:

```
GAMMA 5
TEXGAMMA 2
LIGHTGAMMA 2
```

These values can be altered to change the brightness levels.

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## Q. When I join a game or start a LAN game in Half-Life I never enter the game. How can I fix it?

This problem only occurs when you enable the console using the `-console` command line switch.

You can fix it by changing the Buffer Flipping Mode in the OpenGL tab of the NVIDIA control panel to 'Block Transfer'.

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## Q. Quake is very dark. How can I fix it?

- Download the following file and put it in your Quake/Id1 directory:  
<http://www.geforcefaq.com/files/pak2.pak>  
The above file was created with idGamma - you can download it and make a file with different settings if you want. It is available here:  
<http://www.g256.com/idgamma/>
- You can also try using the unofficial GLQuake update which also adds features like fog and smoother animation. It is available here:  
<http://www.quake3stuff.com/glquake/>

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## Q. Players 'phase' while I play Quake 1. How can I fix it?

If you find that players are visible one frame and then not visible the next at certain points in the game, there are a few possible solutions:

- Go into the NVIDIA control panel's OpenGL tab and set 'Buffer flipping mode' to 'Use block transfer'.
- Go into the NVIDIA control panel's OpenGL tab and set 'Vertical Sync' to 'Always Off'.

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## Q. When I ALT-TAB while playing Quake 1, I get problems. How can I fix it?

- Make sure you play Quake 1 with the same resolution as your desktop. This means that if you are running your desktop at 1024x768 at 32 bpp, start Quake up with this command line:  
*glqwcl.exe -width 1024 -height 768 -bpp 32*
- You can also try right-clicking on the task bar, selecting Properties and unchecking 'Always on top'.

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## Q. Quake 2 is very dark. How can I fix it?

Type these three commands at the console:

- `/set intensity "2.0"`
- `/set gl_modulate "2.5"`
- `/vid_restart`

If you don't like these settings, try:

- `/set intensity "1.0"`
- `/set gl_modulate "4.0"`
- `/vid_restart`

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## Q. When I use my GeForce in Quake 2 my ping rises dramatically. How can I fix it?

You need to limit your framerate - the GeForce is too fast and is causing your system to be swamped. Use the following console command:

- `/cl_maxfps x`

where x is a value around which your framerate will be limited to. Try values from 30 to 60.

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## Q. How can I get the best possible image quality from Quake 3 Arena?

Firstly, adjust all settings to High Quality in the menu options of Quake 3 Arena, and then set Geometry Detail to High and Texture Detail to the extreme right hand side.

These settings were suggested by John Carmack in order to make the best use of the GeForce - type them in the console:

- `/r_lodBias -2` // don't use lower detail models.
- `/r_subdivisions 1` // lots more triangles in curves.
- `/r_lodCurveError 10000` // don't drop curve rows for a long time.
- `/vid_restart`

If you want to undo these settings, just select a geometry detail level inside the game.

- `/r_stencilbits 8` // enable the 8 bit stencil buffer.
- `/vid_restart`
- `/cg_shadows 2` // enable stencil shadows.

If you want to undo these settings, set `cg_shadows` back to 1.

However, the shadows options may slow you down quite significantly - they're not recommended if you're into huge 20 player frag fests!

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## Q. How can I get SMP working with Quake 3 Arena under Windows 2000?

- Thanks to lazerus and BankZ on the [BP6.com](http://BP6.com) messageboard for this solution:

*Change your Quake 3 shortcut to read the following:*

```
cmd.exe /c start /realtime C:\PROGRA~1\QUAKEI~1\QUAKE3.EXE +set r_smp 1
```

*If you have installed Quake 3 in an alternative directory you should of course alter this to fit.*

- Note that if you have the ASUS drivers installed, they may cause choppiness in SMP mode. Use the NVIDIA reference drivers instead.

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## Q. On some levels in Quake 3 Arena I get severe slowdowns with all of the settings maxed out. How can I fix this?

- Turn down the texture colour depth to 16-bit or slide the texture detail slider down one notch. There's not quite enough memory to store all the textures in the video memory on certain levels, such as Q3DM6, Q3DM9, Q3DM11 and Q3DM15.
- The following tip was provided by Korhan Uran:

*As an alternative to this, if you don't mind editing console variables manually, type the following into the console:*

- `/r_texturebits 24`
- `/vid_restart`

*This will turn texture colour depth to 24-bit which will not affect image quality but will reduce video memory requirements.*

- Switching the AGP Aperture size to 256 helped some people to reduce the problem in some levels. See the '[What should my AGP Aperture size be set to?](#)' question for more information.
- If you use the latest drivers then you do not have to do either of these things as S3TC support in OpenGL is implemented, which means that all the textures can fit in Video RAM.

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## Q. The sky looks blocky and textures have strange colours in Quake 3 Arena with the latest drivers installed. How can I fix this?

This is a by-product of the S3TC support in the latest drivers. Basically the S3TC format used by default in Quake 3 Arena (DXTC1) forces textures to be in 16-bit colour instead of 32-bit.

- The following registry key was found by Unwinder:

In the 6.47+ drivers, you can use the s3tcqualityon.reg registry file to force all OpenGL applications to use DXTC3 compression instead of DXTC1 - available here:

<http://www.geforcefaq.com/files/s3tcqualityon.reg>

If you get problems, you can reenable DXTC1 compression using the s3tcqualityoff.reg registry file - available here:

<http://www.geforcefaq.com/files/s3tcqualityoff.reg>

If these files don't seem to have any effect, you may have to edit them in Notepad and change the 0000 to 0001, or another value. Take a look at the

HKEY\_LOCAL\_MACHINE\System\CurrentControlSet\Services\Class\Display registry key using regedit and find out which number your graphics card is using.

The Windows 2000 equivalent files are available here:

<http://www.geforcefaq.com/files/s3tcqualityonw2k.reg>

<http://www.geforcefaq.com/files/s3tcqualityoffw2k.reg>

There is more information on this fix available here:

<http://www.gamebasement.com/pages/home.asp?nav=articles&id=58>

- If you do not use the 6.47+ drivers, you can fix the problem in Quake 3 Arena only by forcing the game to use DXTC3 compression instead of DXTC1. You can read more about this and download a patch at the following website:  
<http://www.gamebasement.com/pages/home.asp?nav=articles&id=38>

There is a page in German with the same information at the following website:

<http://www.3dcenter.de/artikel/2000/10-26a.php3>

- You can disable S3TC in Quake 3 Arena using the following console commands:
  - /r\_ext\_compress\_textures 0
  - /vid\_restart

but be warned that this will cause the problems described in the '[On some levels in Quake 3 Arena I get severe slowdowns with all of the settings maxed out. How can I fix this?](#)' question.

- If you type in the following command to the console it may help to reduce the effects of S3TC on the sky:
  - /r\_overbrightbits 0
  - /vid\_restart

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## Q. Quake 3 Arena looks very dark in Windows 2000. How can I fix it?

- The Quake 3 Arena 1.25 patch and above should fix this problem. If it doesn't you can also try the fixes below.
- Type the following command at the console:
  - /r\_ignorehwgamma 1
  - /vid\_restart

and see if it helps.

- You can also try the following:
  - /r\_ignorehwgamma 0
  - /r\_overbrightbits 0
  - /vid\_restart

This should mean that the brightness slider works as usual.

- If that doesn't help, try typing the following commands at the console:
  - /r\_mapoverbrightbits x
  - /vid\_restart

where x is a value from 2 to 3.

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## Q. Some of the textures in Diamond's special S3TC level 'dmmq3dm3' for Quake 3 Arena are white. How can I fix this?

Install the latest drivers from NVIDIA. Driver versions 5.13+ fix this problem.

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## Q. I get flickering textures in Quake 3 Arena and Windows 9x. How can I fix it?

Type the following at the console:

- /r\_ext\_compiled\_vertex\_array 0

- /vid\_restart

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## Q. I get tearing on Quake 3 Arena, whether I set VSYNC on or off. How can I fix this?

- Use the 3.76 drivers or later. These may fix the problem.
- This solution was provided by Chas Proffitt:

*Delete your q3config.cfg file and let Quake 3 Arena rebuild it. You will lose all your settings but this may help!*

- If this doesn't help, enable VSYNC in the NVIDIA control panel and try typing:
  - /r\_swapinterval 1at the console. This may slow you down.

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## Q. How can I speed up Unreal Tournament on my GeForce?

- There are a number of Direct3D and OpenGL interfaces for Unreal Tournament that you can try in order to get better performance:
  - The latest OpenGL renderer (which supports the high resolution DXTC textures on the second CD) is available here: <http://unreal.epicgames.com/files/opengldrv.zip>  
You will need to add some settings to the OpenGLDrv setting of your UnrealTournament.ini file:

```
[OpenGLDrv.OpenGLRenderDevice]
RefreshRate=75
DetailTextures=1
UseTrilinear=1
UseS3TC=1
UseTNT=0
LODBias=0
UseMultiTexture=1
UsePalette=1
UseAlphaPalette=0
Translucency=1
VolumetricLighting=1
ShinySurfaces=1
Coronas=1
HighDetailActors=1
MaxAnisotropy=0
AlwaysMipmap=0
UsePrecache=0
SupportsLazyTextures=0
```
  - The 4.25 patch includes a new d3ddrv.dll. Unfortunately if you install the 4.20 or 4.25 patch you cannot use pre 4.20 d3ddrv.dll files, unless you replace d3ddrv.int with a copy from a previous version of UT.
  - The 1.8b d3ddrv.dll which may help performance with the 4.25 patch is available here: [http://unreal.epicgames.com/files/d3d\\_18b/d3ddrv.dll](http://unreal.epicgames.com/files/d3d_18b/d3ddrv.dll)
  - The 0.8 d3ddrv.dll includes a new 'UseLocalTextures' switch in the Direct3D preferences. Switching this to 'True' may speed up performance (it forces all textures to be loaded into video memory on the card only). It is available here: [http://unreal.epicgames.com/files/d3d\\_08/d3ddrv.dll](http://unreal.epicgames.com/files/d3d_08/d3ddrv.dll)
  - The 4.13 patch includes the 0.7 d3ddrv.dll. It is also available here: <http://unreal.epicgames.com/files/d3ddrv.dll>
  - The 0.6 d3ddrv.dll is available here:

[http://unreal.epicgames.com/files/d3d\\_06/d3ddrv.dll](http://unreal.epicgames.com/files/d3d_06/d3ddrv.dll)

- The d3ddrv.dll that was included with the 4.05b patch is available here:  
[http://unreal.epicgames.com/files/d3d\\_405b/d3ddrv.dll](http://unreal.epicgames.com/files/d3d_405b/d3ddrv.dll)

All the files go in your UnrealTournament\System directory.

- Try using OpenGL instead of Direct3D and vice versa.
- The 6.11+ drivers may help with Unreal Tournament Direct3D performance.
- Try disabling Precaching. Use the tilde key to bring up the console and then type in 'Preferences'. Select Renderer / Direct3D / Precache and set it to False.
- Here are a few tips from [3DSL](#):

*First you will need to use the coolbits.reg registry file - read the '[How can I enable the overclocking utility in NVIDIA's drivers?](#)' question for more information.*

1. Use the latest NVIDIA reference drivers.
2. Download the latest patch for UT from:  
<http://unreal.epicgames.com>
3. In Display Properties => NVIDIA Control Panel => Direct3D Settings => More Direct3D
  - a. Set 'PCI Texture Memory Size' to 63 (assuming you have 128MB of RAM).
  - b. Tick 'Disable vertical sync'.
  - c. Set 'Render no more than x frames ahead' to 5.

- In addition there is an excellent Unreal Tournament tweak guide available here:  
<http://www.3dspotlight.net/tweaks/ut/>

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## Q. I get mouse lag in Unreal Tournament. How can I fix it?

- Make sure you have the latest chipset drivers for your motherboard installed, in particular the VIA 4in1 drivers.
- Perform the 'Disable vertical sync' instructions mentioned in the '[How can I speed up Unreal Tournament on my GeForce?](#)' question. You may also find that enabling VSYNC actually fixes mouse lag.
- You may also need to use a different d3ddrv.dll (try version 0.8), as described in the '[How can I speed up Unreal Tournament on my GeForce?](#)' question.
- Try using 16-bit colour mode instead of 32-bit colour mode.
- Try searching for 'unreal' in your registry - if you find an entry under 'Mouse\Exceptions', remove it.

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## Q. The menu text in Unreal Tournament is distorted. How can I fix it?

In the GeForce Direct3D options, reset the Texture Alignment back to 3.

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## Q. If I turn on precaching in Unreal Tournament it crashes. How can I fix this?

- Download the latest patch for UT from:  
<http://unreal.epicgames.com>
- This possible solution was provided by Jarhead:

*Try uninstalling ALL Unreal engine based games and then reinstalling UT. If this helps, you can try uninstalling all Unreal games, then installing them one by one, but with UT last. The problem appears to be with UT using the original Unreal D3D engine instead of it's own vastly updated engine, and installing UT last will stop this if it is your problem - however, this solution doesn't work for everyone, and if it doesn't you'll have to turn off precaching until another solution is found.*

- If none of these help, read the ['My GeForce keeps on locking up or drops me back to the desktop during 3D applications. How can I fix it?'](#) question in this FAQ.
- Try disabling Precaching - you may even get a performance gain. Use the tilde key to bring up the console and then type in 'Preferences'. Select Renderer / Direct3D / Precache and set it to False.
- If this still doesn't help, it is very likely that the problem is with your motherboard - one motherboard in particular that shows this problem is the ASUS P3B-F, revision 1.03. and below. There is no current solution to this problem except to replace the motherboard. ASUS will replace your motherboard with a revision 1.04, which does not have the problem, but it may take some time.

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## Q. What DVD software can I use with my GeForce?

You can use any DVD software with the GeForce, but some software supports the GeForce's DVD acceleration features (Motion Compensation - MC) so that CPU utilisation is reduced while the DVD is playing.

- PowerDVD 2.55 supports the GeForce's MC. A demo version can be downloaded at the following website, which now does support MC:  
<http://www.3dsl.com>
- WinDVD 2000 also supports GeForce MC, but you have to enable it in the registry. Go to:  
<http://www.inmatrix.com>  
to download DVD Genie, a program which will allow you to enable the MC support easily. You can download a demo of WinDVD 2000 at this website:  
<http://www.intervideo.com>

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## Q. When I enable Hardware Acceleration in PowerDVD the image quality falls. How can I fix it?

Select the 'Force Weave' option instead of 'Auto Select' in Configuration/Video/Video Mode.

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## Q. When I enable Hardware Acceleration in PowerDVD it either crashes or gives me an error message. How can I fix it?

- Try the latest (leaked) NVIDIA reference drivers.
- Make sure that you are using PowerDVD 2.55 build 0620, as this fixes problems with PowerDVD Hardware Acceleration.
- Try disabling Fast Writes. You can read more about how to do this in the ['How can I enable or disable AGP Fast Writes?'](#) question.

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## Q. DVD playback seems slow with my ALI chipset based motherboard. How can I fix it?

Download the AGP Utility from the following page:

<http://www.ali.com.tw/eng/support/driver.shtml>

and set the following settings:

- Write allocation enabled without holes
- K6 features mask to 3
- GAT to 1 (not 2)
- AGP2X and sidebanding enabled
- Write combining enabled

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## **Q. Is there an update available for the WinDVD software supplied with the Annihilator?**

Yes, there is an update to take the WinDVD supplied to version 1.3.5 (this is equivalent to WinDVD 2000).

The US English patch is available here:

<http://www.clok.creaf.com/creative/drivers/3db/wdvd135.exe>

However, be warned that this patch disables S/PDIF support.

The UK English patch is available here:

<ftp://ftp.europe.soundblaster.com/pub/creative/patches/wdvdeng.exe>

The French patch is available here:

<ftp://ftp.europe.soundblaster.com/pub/creative/patches/wdvdfrn.exe>

The German patch is available here:

<ftp://ftp.europe.soundblaster.com/pub/creative/patches/wdvdger.exe>

The Spanish patch is available here:

<ftp://ftp.europe.soundblaster.com/pub/creative/patches/wdvdspn.exe>

The Italian patch is available here:

<ftp://ftp.europe.soundblaster.com/pub/creative/patches/wdvdita.exe>

The Dutch patch is available here:

<ftp://ftp.europe.soundblaster.com/pub/creative/patches/wdvdut.exe>

The Norwegian patch is available here:

<ftp://ftp.europe.soundblaster.com/pub/creative/patches/wdvdnor.exe>

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## **Q. When I try to play MPEG files with Windows Media Player I get out-of-sync sound/green bars/too large playback. I have WinDVD installed. How can I fix it?**

This solution was provided by X-Default User-X:

*What you have to do is rename, delete, or unregister (your choice) the two \*.ax files in the Program Files\InterVideo directory. The files should be named:*

- *iviaudio.ax*
- *ivivideo.ax*

*You can unregister the files easily by using DVD Genie, available to download here:*

<http://www.inmatrix.com>

*These are DirectShow filters that allow Windows Media player to play DVDs (provided you know how to enable it via a registry hack) and MPEG2 VOB files. They were primarily designed for the few DVD games out there that use MPEG2 videos for their cut scenes. For some reason, they also take the task of playing regular MPEG1 files when the original filters that come with Windows Media Player 6.4 are more than adequate.*

*Registering/unregistering DirectShow filters will not affect WinDVD's ability to play DVD movies.*

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## **Q. When I start Microsoft Expedia Streets and Trips 2000 or Microsoft Autoroute Express 2000 (Europe and Great Britain), my computer hangs. How can I fix it?**

There is a Microsoft Knowledge Base article about the Expedia problem, which appears to also cover Autoroute, [here](#).

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## **Q. I have problems running SoftIce on my GeForce. How can I fix it?**

Any problems should be resolved by upgrading to SoftICE version 4.05 or later. If this is not possible, try using the 5.xx series of Detonator drivers.

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## **Q. Why does my 3DMark2000 score drop by about 200 when I install drivers based on 3.62 and above?**

Dynamic lighting is enabled in the 3.62 and above drivers, which looks much nicer but is slower. Look at the rockets in the helicopter demo - they light up the ground as they pass in 3.62+.

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## **Q. Why can't I run the 64MB texture test in 3DMark2000, even when I've got enough memory?**

- Try installing the latest drivers.
- Make sure you have as much main memory free as possible before running the test - disk caches and programmes running in the background may take up memory that the test requires.
- Try setting the AGP Aperture size to 128MB or above (try 256MB) and see if that helps. You can find out to do this in the ['How can I change my AGP Aperture size?'](#) question.

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