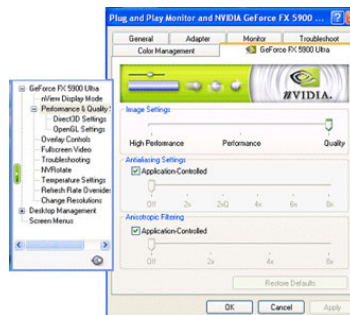


nVidia Graphics Cards:

This section assumes you have the latest nVidia Forceware graphics drivers, which are currently at version 53.03 at the time of this writing. If you don't, you can download the latest version [here](#).

To access the AA and AF settings you must go to Start>Control Panel>Display Properties>Settings and click the Advanced button. This brings up the nVidia Display Properties box, wherein you can adjust all your graphics settings. For full details of what each setting does see [this document](#).

The AA/AF settings will be found under the tab which has your particular graphics card's name (e.g. "GeForce FX 5900 Ultra"). The Antialiasing and Anisotropic Filtering settings you choose here will apply to both OpenGL and Direct3D games (basically that means all games).



Antialiasing

Under the Antialiasing settings area, if the "Application Controlled" box is ticked, then the level of Antialiasing used in each game is determined by the Antialiasing settings in that particular game. If a game has no options for Antialiasing in the in-game menus, then Antialiasing will not be used (i.e. the default is Off, or 0x). If a game does have options to set AA in-game, you can adjust those settings and they will take effect only when you run that particular game, and will not apply to any other game or application. That means you can set different levels of Antialiasing for each game.

If the "Application Controlled" box is unticked, a range of options will be ungreyed on the slider bar beneath it. If you select Off, then no Antialiasing will be used in any games, regardless of their in-game settings.

If you select 2x, or higher, then this level of Antialiasing will be forced upon all games and applications. Note that the higher the level of AA chosen, the greater the [performance](#) penalty, but the smoother the jagged lines become. Note also that the 2xQuincunx method of Antialiasing (denoted by 2xQ) is almost as good as 4xAA, but with a lesser performance hit. If certain Antialiasing modes are not available to you, that is because your particular graphics card is not capable of using them.

Finally, if you choose 2xAA in the control panel for example, and then set 2xAA in a particular game, this will not result in a "combined" Antialiasing of 4xAA. The game will only use 2xAA as forced by the setting in the nVidia Control Panel.

Anisotropic Filtering

The use of the Anisotropic Filtering options is much the same as the Antialiasing options described above. Just as with Antialiasing, there is a performance penalty for each successively higher level of AF used.

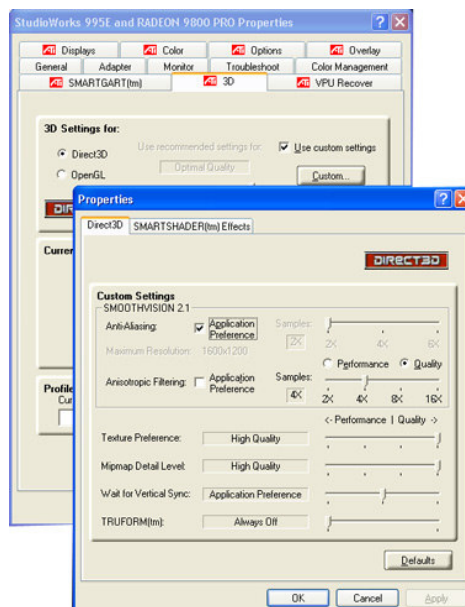
ATi Graphics Cards:

This section assumes you have the latest ATi Catalyst graphics drivers, which are currently at version 3.10 at the time of this writing. If you don't, you can download the latest version [here](#). It's also very important that you install the ATi Control Panel so you can access these settings as well as a range of other useful ones. For more details on correct installation and setup of the Catalysts, refer to my recent [ATi Catalyst Installation Guide](#).

To access the AA and AF settings you must go to Start>Control Panel>Display Properties>Settings and click the Advanced button. This brings up the ATi Display Properties box, wherein you can adjust all your graphics settings.

The AA/AF settings will be found under the 3D tab. There are separate settings for Direct3D and OpenGL-based games under this tab. You will have to check each game's documentation to determine whether it runs under OpenGL or Direct3D. Generally speaking, most games run under Direct3D, but games such as Quake3, Jedi Academy, Knights of the Old Republic, the Wolfenstein/Enemy Territory series and Call of Duty for example run in OpenGL. Note further that with almost all games you cannot choose which mode it will run under – games are programmed to run under either Direct3D or OpenGL, not both.

To access the advanced AA/AF settings you will first need to select either the Direct3D or OpenGL item, tick the "Use custom settings" box, then click the Custom button. Since both Direct3D and OpenGL sections have the same options for AA/AF settings, I will only cover them once here, but bear in mind that the settings under the Direct3D section will have no impact whatsoever on OpenGL games, and vice versa.



Antialiasing

Under the Antialiasing settings area, if the "Application Preference" box is ticked, then the level of Antialiasing used in each particular game is determined by the Antialiasing settings in that game. If a game has no options for Antialiasing in the in-game menus, then Antialiasing will not be used (i.e. the default is Off or 0x). If a game does have options to set AA in-game, you can adjust those settings and they will take effect only when you run that particular game, and will not apply to another other game or application.

For ATI cards, the only way to turn Off Antialiasing by default is to tick the Application Preference box. There is no "0x" setting, so if the box is unticked then Antialiasing is operating at the very least at 2x level.

If the Application Preference box is unticked and you select 2x, or higher, then this level of Antialiasing will apply to all games and applications. Note that the higher the level of AA chosen, the greater the performance penalty, but the smoother the jagged lines become (and perhaps more blurry also). Maximum Antialiasing available for ATi cards is 6x.

Finally if you choose 2xAA in the control panel for example, and then set 2xAA in a particular game, this will not result in a "combined" Antialiasing of 4xAA. The game will only use 2xAA as forced by the setting in the ATi Control Panel.

Anisotropic Filtering

The use of the Anisotropic Filtering options is much the same as the Antialiasing options described above. Just as with Antialiasing, there is a performance penalty for each successively higher level of AF used.

For ATi cards, the only way to turn Off Anisotropic Filtering by default is to tick the Application Preference box. There is no "0x" setting, so if the box is unticked then Anisotropic Filtering is operating at the very least at 2x level.