

This option is used to turn fog table emulation on or off.

Direct3D specifies that a display adapter capable of D3D hardware acceleration should be able to implement either vertex fog or table fog. Some games do not correctly query the D3D hardware capabilities and expect table fog support. Choosing this option will ensure that such games will run properly on your NVidia graphics processor.

This option allows you to disable the newer DirectX features of the drivers.

Some games written for earlier versions of DirectX may not run properly with DirectX versions 6 or 7 installed and their support enabled in the drivers. Selecting this option forces the drivers to run in DirectX 5 compatibility mode so that older games will run correctly.

Use this option if you wish to run certain older games that do not start or do not run as they should.

Forces the hardware to automatically adjust the depth of its Z-buffer to the depth that the application requests.

Normally, you will want to keep this option enabled, unless your work absolutely requires a specific Z-buffer depth. If this option is disabled, any application whose working Z-buffer depth does not match that of the current hardware configuration will not run.

Enables an alternate technique for depth buffering.

This lets the hardware use a different mechanism for depth buffering in 16 bit applications. Enabling this setting can produce higher quality rendering of 3D images.

Enables the NVidia logo in Direct3D.

Enabling this setting will display the NVidia logo in the lower corner of the screen while running Direct3D applications.

Your NVidia graphics processor can automatically generate mipmaps to increase the efficiency of texture transfers across the bus and provide higher application performance.

However, some applications may not display correctly when auto-generated mipmaps are enabled. To correct any problems, reduce the number of automatically generated mipmap levels until the images are properly displayed. Reducing the number of mipmap levels can often eliminate texture misalignment or "seaming" (at the expense of some performance).

Allows you to select the auto-mipmapping method used by the graphics processor.

You can select either the bilinear or the 8-tap anisotropic mipmapping method, whereby the bilinear method generally provides better performance, while the anisotropic method generally produces a higher quality image.

Allows you to adjust the LOD (Level of Detail) bias for mipmaps.

A lower bias will provide better image quality, while a higher bias will increase application performance. You can choose from five preset bias values, varying from "Best Image Quality" to "Best Performance".



A list of the custom settings (or "tweaks") you have saved. Selecting an item from the list will activate the setting. To apply the setting, choose the "OK" or "Apply" button.

Lets you save the current settings (including those set in the "More Direct3D" dialog) as a custom "tweak". Saved settings will then be added to the adjacent list.

Once you have found the optimal settings for a particular Direct3D game, saving the settings as a custom tweak allows you to quickly configure Direct3D before starting the game and eliminates the need to set each of the options individually.

Deletes the custom setting currently selected in the list.

Restores all settings to their default values.

Displays a dialog which allows you to customize additional Direct3D settings.

This option changes the hardware texture addressing scheme for texels (texture elements).

Changing these values will change where texel origin is defined. The default values conform to the Direct3D specifications. Some software may expect the texel origin to be defined elsewhere. The image quality of such applications will improve if the texel origin is redefined. Use the slider control to adjust the texel origin anywhere between the upper left corner and the center of the texel.

This allows the graphics processor to utilize up to the specified amount of system memory for texture storage (in addition to the memory installed on the display adapter itself).

**Note:** The maximum amount of system memory that can be reserved for texture storage is calculated based on the amount of physical RAM installed in your computer. The more system RAM, the higher the value you will be able to set.

This setting applies only to PCI display adapters (or AGP display adapters running in PCI compatibility mode).

Select this option to disable vertical sync.

Also known as "disabling VSYNC", this allows an image to be immediately rendered to the screen without waiting to be synchronized to the vertical retrace of the monitor. This allows for frame rates higher than the refresh rate of your monitor, but may produce visual artifacts and tearing resulting in reduced image quality.



This option allows you to limit the number of frames the CPU can prepare before they are processed by the graphics chip when vertical sync is disabled.

In some cases, the higher the number of pre-rendered frames allowed, the greater the "input lag" may be in response to devices such as joysticks, gamepads or keyboards.

Reduce this value if you experience a noticeable delay in response to the input devices connected to your computer while playing games.

Allows the drivers to use the OpenGL extension **GL\_KTX\_buffer\_region**.

This can increase application performance in 3D modeling applications that support this extension.

Allows the use of local video memory when the GL\_KTX\_buffer\_region extension is enabled.

However, if there are less than 8 MB of local video memory available, dual planes extension support will not be enabled.

This setting has no effect if the "Enable buffer region extension" option above is disabled.

Allowing fast linear-mipmap-linear filtering will provide increased application performance at the expense of some image quality.

In many cases, a loss of image quality may not be noticeable, so you may wish to take advantage of the extra performance gained by enabling this feature.

This option allows OpenGL to use anisotropic filtering for improved image quality.

Select this option to disable driver support for enhanced instructions used by certain CPUs.

Some CPUs support additional 3D instructions that complement your NVidia graphics processor and improve performance in 3D games or applications. This option allows you to disable support for these additional 3D instructions in the drivers. This can be useful for performance comparisons or for troubleshooting.

This option determines whether textures of a specific color depth should be used by default in OpenGL applications.

**Use desktop color depth** will always use textures of the color depth at which your Windows desktop is currently running.

The **Always use 16 bpp** and **Always use 32 bpp** options will force the use of textures of the specified color depth, regardless of your desktop settings.

This option determines the buffer flipping mode for full-screen OpenGL applications.

You can select from the block transfer method, the page flip method or auto-select. Auto-select allows the driver to determine the best method based on your hardware configuration.



This option lets you specify how vertical sync is handled in OpenGL.

**Always off** will always disable vertical sync in all OpenGL applications.

**Off by default** will keep vertical sync disabled, unless an application specifically requests that it be enabled.

**On by default** will keep vertical sync enabled, unless an application specifically requests that it be disabled.

Lets you save the current settings as a custom "tweak". Saved settings will then be added to the adjacent list.

Once you have found the optimal settings for a particular OpenGL application, saving the settings as a custom tweak allows you to quickly configure OpenGL before starting the program and eliminates the need to set each of the options individually.

The slider controls allow you to adjust the brightness, contrast or gamma values for the selected color channel.

The color correction controls help you to compensate for variations in luminance between a source image and its output on a display device. This is useful when working with image processing applications to help provide more accurate color reproduction of images (such as photographs) when they are displayed on your monitor.

Also, many 3D-accelerated games may appear too dark to play. Increasing the brightness and/or gamma value equally across all channels will make these games appear brighter, making them more playable.

Allows you to select the color channel controlled by the sliders. You can adjust the red, green or blue channels individually or all three channels at once.

A graphical representation of the color curve. This curve will change in real time as you adjust the contrast, brightness or gamma.

Selecting this option will automatically restore the color adjustments you have made here when Windows is restarted.

**Note:** If your computer is running on a network, the color will be adjusted after you have logged on to Windows

A list of the custom color settings you have saved. Selecting an item from the list will activate the setting.

Lets you save the current color settings as a custom setting. Saved settings will then be added to the adjacent list.



Deletes the custom color setting currently selected in the list.

Restores all color values to the hardware factory settings.

Allows you to select your monitor timing mode:

**Auto-Detect** allows Windows to receive the proper timing information directly from the monitor itself. This is the default setting. Note that some older monitors may not support this feature.

**General Timing Formula** or **GTF** is a standard used by most newer hardware.

**Discrete Monitor Timings** or **DMT** is an older standard still in use on some hardware. Enable this option if your hardware requires DMT.

Adds the NVidia QuickTweak icon to the Windows taskbar.

The icon allows you to apply any of the custom Direct3D, OpenGL or color settings "on the fly" from a convenient popup menu. The menu also contains items for restoring default settings and accessing the Display Properties dialog.

Allows you to choose the icon used to represent the QuickTweak utility in the Windows taskbar.

Select the icon you want displayed from the list. Then choose "OK" or "Apply" to update the icon in the taskbar.

Closes this dialog and retains the changes you made so that they will take effect when you choose the "OK" or "Apply" button in the "Additional Properties" dialog.

Lets you determine which mouse button will bring up the menu when taskbar icon is clicked.

Turns confirmation messages on or off.

Check this option if you do not want confirmation messages to be displayed when you load a 3D configuration from the taskbar menu.



Select this option if you want the taskbar menu to be displayed with a 3D effect.

These options allow you to determine the placement of the image on your flat panel display when running at resolutions lower than the maximum resolution supported.

Use the arrow buttons to adjust the position of the desktop on your monitor.

Resets the desktop to its default position for the current resolution and refresh rate.

These options allow you to select the output display device (monitor, digital flat panel or TV, depending on which devices your display adapter supports) .

Opens a window where you can customize the settings for the active display device.

Indicates the current format and country settings used for TV output.

Opens a window where you can specify a particular TV output format.



This list allows you to select the TV output format based on the country where you live.

**Note:** If your country is not in the list, you should select the country closest to your location.

Makes the selected format the power-up default.

When starting up the computer with only a TV attached to the display adapter, this option ensures that all screen messages displayed during the boot process will be output in the proper format supported by your television.

Lets you specify the type of output signal sent to the TV.

If you have the proper connector cable, S-Video out will generally provide a higher quality output than Composite video out. If you are not sure which type of signal you should specify, choose the **Auto-select** setting.

Use the arrow buttons to adjust the position of the desktop on the TV.

**Note:** If the TV picture becomes scrambled or goes blank due to overadjustment, simply wait 10 seconds. The picture will automatically return to its default position. Then you can begin your adjustments again. Once you have positioned the desktop where you want it, you must press the "OK" or "Apply" button to save the settings before the 10 second interval has elapsed.

Resets the desktop to its default position on the TV for the current resolution.

Use these controls to adjust the brightness and saturation of the TV image.

Use these controls to adjust the brightness and contrast of the TV image.

Use this control to adjust the amount of flicker filter you want applied to the TV signal.

It is recommended that you turn off the flicker filter completely for DVD movie playback from a hardware decoder.



Sets the screen resolution and color depth for output to the TV.

Use these controls to adjust the quality of video or DVD playback on your monitor.

You can independently control the brightness, contrast, hue and saturation to achieve optimal image quality when playing back videos or DVD movies on your computer.

Allows you adjust the core and memory clock frequencies of your NVidia graphics processor.

Sets the core clock speed of your NVidia graphics processor.

Indicates the core clock speed in megahertz.

Sets the clock speed of the memory interface on your display adapter.

Indicates the clock speed of the memory interface in megahertz.

Tests the new clock frequency settings for stability before applying.

**Note:** You must test any new settings that differ from the manufacturer's defaults before they can be permanently applied.



Selecting this option will ensure that any changes you make to the clock frequencies are applied automatically each time Windows starts.

**Note:** You can bypass the automatic clock setting at startup by holding down the <Ctrl> key while Windows is starting. If your computer is connected to a network, hold down the <Ctrl> key immediately after you have logged on to Windows.

Resets all clock adjustment capabilities and forces a redetection of the graphics hardware before the controls can be reenabled.

It is recommended that you perform a reset any time you flash the BIOS of your display adapter with an updated BIOS image.

