

# Force are Drivers NVIDIA Control Panel Quick Start Guide

Driver Release 167/169 for Windows NVIDIA Corporation

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User's Guide

### CHAPTER

# INTRODUCTION

This *quick start* is addressed to users of the NVIDIA<sup>®</sup> Control Panel software. This guide focuses on getting you up and running with your NVIDIA software.

For technical details on the features and benefits of the NVIDIA Control Panel software and details about supported products, drivers, and other software, refer to the NVIDIA web page — www.nvidia.com.

This chapter discusses the following major topics:

- "About the NVIDIA Control Panel" on page 2
- "Getting Support and Information" on page 4

# About the NVIDIA Control Panel

Welcome to the NVIDIA Control Panel, designed for Microsoft<sup>®</sup> Windows<sup>®</sup> XP and Windows Vista. You can use NVIDIA Control Panel to control your NVIDIA hardware and access other NVIDIA software installed on your system.

## **NVIDIA Driver Controls**

#### Overview

In addition to setting up basic display configurations such as display resolution, refresh rate, and multiple display use, you can:

- Tune your 3D settings with real-time preview to maximize performance or image quality
- Customize how 3D applications work in your system
- Adjust your screen colors and contrast
- Set custom timings
- Control video image settings
- Change your HDTV format
- Control your notebook system power using PowerMizer
- Control special workstation features such as Frame Synchronization.

#### Feature Differences from the Classic Control Panel

The following are features that were available in the NVIDIA classic control panel, but which are *not* available in the new NVIDIA Control Panel:

- Creating/Importing Color Profiles
- High Resolution Scalable Desktop
- MultiView Display Mode (for NVIDIA Quadro NVS graphics cards)
- Video Zoom
- Edge Blending
- nView Desktop Manager

nView Desktop Manager is available as a separate applet for Windows XP only.

## Other NVIDIA Software Applications

If installed, other NVIDIA software that you can access from the NVIDIA Control Panel includes:

- NVIDIA nTune<sup>TM</sup>
- NVIDIA MediaShield<sup>TM</sup>
- NVIDIA Network Access Manager

See the respective user documentation for information about these applications and instructions on how to use them.

# Getting Support and Information

# Online Help

- To open the online help, either :
  - Press **F1** on your keyboard, or
  - Select **Help** from the NVIDIA Control Panel menu bar and then select **NVIDIA Control Panel Help**.
- To access help by using a keyword, click the **Index** button.
- To search the help, click the **Search** button.

Also, when a setting is disabled (grayed out) and you place the cursor on the setting, the User Assistance area indicates the reason it is disabled.

# Technical Support

To access the NVIDIA Technical Support web page go the following web address:

http://www.nvidia.com/page/support.html

# System Information

You can get detailed information about your system and the NVIDIA Control Panel configuration as well as version and copyright information.

- To view copyright and version information about the NVIDIA Control Panel: From the **Help** menu, select **About NVIDIA Control Panel**.
- To view detailed system information:

From the **Help** menu, select **System Information** and click on any of the tabs in the System Information dialog box.

CHAPTER

# System Requirements and Driver Installation

This chapter lists the system requirements for installing the NVIDIA ForceWare Release 167/169 graphics driver, and provides installation instructions. It contains the following major sections:

- "Hardware and Software Support" on page 6
- "Installing Your NVIDIA ForceWare Graphics Driver Under Windows XP" on page 8
- "Installing Your NVIDIA ForceWare Graphics Driver Under Windows Vista" on page 11

# Hardware and Software Support

This section lists the

- Supported Operating Systems
- Supported NVIDIA Products
- Supported Languages

# Supported Operating Systems

Release 167/169 NVIDIA ForceWare Graphics drivers are available for the following Microsoft<sup>®</sup> Windows<sup>®</sup> operating systems:

- Windows XP Media Center Edition 2005 Update Rollup 2
- Windows XP Media Center Edition 2005
- Windows XP Media Center Edition 2004
- Windows XP Professional
- Windows XP Home Edition
- Windows XP Professional x64 Edition
- Windows Server 2003 x64 Edition
- Windows Vista Home Basic
- Windows Vista Home Premium
- Windows Vista Business
- Windows Vista Enterprise Edition
- Windows Vista Ultimate

# Supported NVIDIA Products

Refer to the release notes and NVIDIA driver download site for the list of products supported by the driver version that you have installed on your computer.

## Supported Languages

The Release 167/169 NVIDIA ForceWare Graphics Driver supports the following languages in the NVIDIA Control Panel:

English (USA)	German	Portuguese (Euro/Iberian)
English (UK)	Greek	Russian
Arabic	Hebrew	Slovak
Chinese (Simplified)	Hungarian	Slovenian
Chinese (Traditional)	Italian	Spanish
Czech	Japanese	Spanish (Latin America)
Danish	Korean	Swedish
Dutch	Norwegian	Thai
Finnish	Polish	Turkish
French	Portuguese (Brazil)	

# Installing Your NVIDIA ForceWare Graphics Driver Under Windows XP

## Before You Begin

- If you do not have System Administrator access privileges, it is assumed that the appropriate person with System Administrator access in your organization will set up and install the NVIDIA graphics driver software on your computer.
- The installation process copies all necessary files for operation into the appropriate directories.
- The NVIDIA Control Panel system files are copied to your Windows\System directory.

#### System Requirements

NVIDIA Control Panel requires the following minimum system configuration:

- A 600 megahertz (MHz) processor, such as an Intel Pentium III, Advanced Micro Devices (AMD) Athlon, or equivalent processor
- 128 megabytes (MB) of RAM
- The minimum hard disk space requirement for each operating system are listed in Table 2.1, and Table 2.2:

#### Table 2.1 Hard Disk Space Requirements—English

<b>Operating System</b>	Minimum Hard Disk Space
Windows XP (32-bit editions)	46.7 MB
Windows XP (64-bit editions)	46.7 MB

Table 2.2 Hard Disk Space Requirements—Full International Package

Operating System	Minimum Hard Disk Space
Windows XP (32-bit editions)	73.9 MB
Windows XP (64-bit editions)	83.9 MB

To optimize the performance of the NVIDIA Control Panel, the following system requirements are recommended:

- A 1.5 gigahertz (GHz) processor, such as an Intel Pentium 4, an AMD Athlon XP 1500+, or equivalent processor
- 256 megabytes (MB) of RAM
- An Internet connection

# System Requirement for NVIDIA SLI Technology (Advanced Users)

If you are an advanced user of graphics and hardware and want to use NVIDIA SLI technology, your system must have the following key hardware components:

- An SLI-ready motherboard that supports a PCI Express chipset and dual x16 connectors for two NVIDIA PCI Express graphics cards
- Two NVIDIA-based SLI-ready graphics cards that are identical in terms of GPU.

See http://www.slizone.com/page/slizone\_learn.html for other graphics card requirements.

One NVIDIA SLI Connector

#### Uninstalling the NVIDIA Display Driver—Windows XP

**Note:** It is highly recommended that you follow the steps in this section to completely uninstall the NVIDIA Display Driver software before updating to a new version of the software.

To uninstall the nView software, follow these steps:

- 1 From the Windows taskbar, click **Start > Settings > Control Panel** to open the Control Panel window.
- 2 Double-click the Add/Remove Programs item.
- **3** Click the **NVIDIA Display Driver** item from the list.
- 4 Click Change/Remove.
- **5** Click **Yes** to continue.

A prompt appears asking whether you want to delete all of the saved nView profiles.

• If you click **Yes**, all of the nView software and all of your saved profiles will be deleted.

• If you click **No**, the nView software is removed, but the profile files are saved in the Windows\nView directory on your hard disk.

Your system now restarts.

# Installing the NVIDIA ForceWare Graphics Drivers—Windows XP

- **1** Follow the instructions on the NVIDIA .com web site driver download page to locate the appropriate driver to download, based on your hardware and operating system.
- **2** Click the driver download link.
- **3** The license agreement dialog box appears.
- **4** Click **Accept** if you accept the terms of the agreement, then either open the file or save the file to your PC and open it later.

Opening the EXE file launches the NVIDIA InstallShield Wizard.

**5** Follow the instructions in the NVIDIA InstallShield Wizard to complete the installation.

# Installing Your NVIDIA ForceWare Graphics Driver Under Windows Vista

## Before You Begin

- If you do not have System Administrator access privileges, it is assumed that the appropriate person with System Administrator access in your organization will set up and install the NVIDIA graphics driver software on your computer.
- The installation process copies all necessary files for operation into the appropriate directories.
- If you have previously installed NVIDIA nTune, NVIDIA recommends that you uninstall nTune before installing this driver. After the driver install is complete, you can reinstall NVIDIA nTune.
- The NVIDIA Control Panel system files are copied to your Windows\System directory.

#### System Requirements

NVIDIA Control Panel requires the following minimum system configuration:

- A 600 megahertz (MHz) processor, such as an Intel Pentium III, Advanced Micro Devices (AMD) Athlon, or equivalent processor
- 128 megabytes (MB) of RAM

To optimize the performance of the NVIDIA Control Panel, the following system requirements are recommended:

- A 1.5 gigahertz (GHz) processor, such as an Intel Pentium 4, an AMD Athlon XP 1500+, or equivalent processor
- 256 megabytes (MB) of RAM
- An Internet connection

# System Requirement for NVIDIA SLI Technology (Advanced Users)

If you are an advanced user of graphics and hardware and want to use NVIDIA SLI technology, your system must have the following key hardware components:

- An SLI-ready motherboard that supports a PCI Express chipset and dual x16 connectors for two NVIDIA PCI Express graphics cards
- Two NVIDIA-based SLI-ready graphics cards that are identical in terms of GPU.

See http://www.slizone.com/page/slizone\_learn.html for other graphics card requirements.

One NVIDIA SLI Connector

#### Minimum Hard Disk Space

- The hard disk space requirement for Windows Vista 32 bit is minimum 34.4 MB for English-only, and 62 MB for International.
- The hard disk space requirement for Windows Vista 64 bit is minimum 48.3 MB for English-only, and 75.8 MB for International.

# Installing the NVIDIA ForceWare Graphics Drivers–Windows Vista

#### **Installation Instructions**

- **1** Follow the instructions on the NVIDIA .com Web site driver download page to locate the appropriate driver to download, based on your hardware and operating system.
- **2** Click the driver download link.
- **3** The license agreement dialog box appears.
- **4** Click **Accept** if you accept the terms of the agreement, then either open the file or save the file to your PC and open it later.
- **5** Extract the zip files to a temporary folder on your PC.
- **6** Open the NVIDIA driver installation .EXE file to launch the NVIDIA InstallShield Wizard.
- **7** Follow the instructions in the NVIDIA InstallShield Wizard to complete the installation.
- **Note:** After the driver installation, Windows may default to 16-bpp color and disable the Desktop Window Manager (DWM). To work around this issue, set the color to 32-bpp and then reboot the PC.

Chapter 2 System Requirements and Driver Installation



# UNDERSTANDING THE NVIDIA CONTROL PANEL

This chapter describes the NVIDIA Control Panel in the following sections:

- "Opening and Closing the New NVIDIA Control Panel" on page 16
- "About the NVIDIA Control Panel Interface" on page 17

# Opening and Closing the New NVIDIA Control Panel

- You can open the NVIDIA Control Panel in several ways:
  - Right-click the Windows XP or Windows Vista desktop, then click **NVIDIA Control Panel** from the context menu, or

#### For Windows XP

• From the Windows **Start** menu, select **Control Panel**, then in the **Control Panel** window, double-click on the NVIDIA Control Panel icon.



NVIDIA Control Panel

#### For Windows Vista

• From the *Classic View* of the Windows Vista Control Panel, click the NVIDIA Control Panel icon, or



NVIDIA Control Panel

- From the *Control Panel Home* view of the Windows Vista Control Panel, click **Additional Options** and then click **NVIDIA Control Panel** from the Additional Options page.
- To close the NVIDIA Control Panel,
  - From the File menu, select Exit, or
  - Click the **Close** box in the upper right corner of the program window.

# About the NVIDIA Control Panel Interface

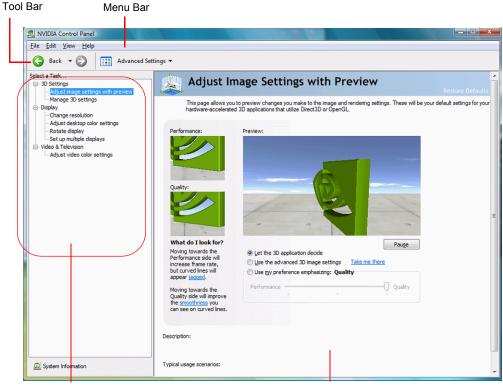
The NVIDIA Control Panel provides an easy-to-use interface for managing your system.

When you start the program for the first time, the NVIDIA Control Panel opens to the first page listed in the navigation tree. On subsequent visits, the control panel reopens to the last page visited. The NVIDIA Control Panel user interface consists of these main areas, as shown in Figure 3.1 and Figure 3.2:

- Main Task Area
- Select a Task (Navigation tree)
- Menu bar
- Toolbar .

Menu Bar Tool Bar 🔜 NVIDIA Control Panel File Edit View Help 🕣 Back 👻 🐑 🛛 🎹 Advanced Settings 🗸 Select a Task... Adjust Image Settings with Preview Manage 3D settings This page allows you to preview changes you make to the image and rendering settings. These will be your default settings for your hardware-accelerated 3D applications that utilize Direct3D or OpenGL. -Monitor temperature levels 🚊 Display Move CRT screen position Preview: erformance: Change resolution Adjust desktop color settings Rotate display Manage custom resolutions Run multiple display wizard Set up multiple displays - Video & Television Adjust video color settings Modify full-screen video options Workstation View system topology Synchronize displays Adjust edge overlap What do I look for? Pause Moving towards the Performance side will • Let the 3D application decide Ouse the advanced 3D image settings Take me there increase frame rate, but curved lines will appear jagged. OUse my preference emphasizing: Quality Quality Moving towards the Quality side will improve the <u>smoothness</u> you can see on curved lines. Description: Select a Task Pane Typical usage scenarios: System Information Control Panel Main Task Area

Figure 3.1 NVIDIA Control Panel Home Page–Windows XP



Select a Task Pane

Control Panel Main Task Area

Figure 3.2 NVIDIA Control Panel Home Page–Windows Vista

#### Using the Main Task Area

The main task area, in the right pane, displays the application task pages. This area of the screen is where you will focus most of your attention as you use the NVIDIA Control Panel to accomplish your goals. You can access specific pages using the navigatin tree in the *Select a Task* pane.

# Using the Select a Task Pane

The navigation tree in the *Select a Task* pane shows all the primary NVIDIA Control pages that are installed on your system.

The pages are grouped according to the same categories that existed in the previous version of the NVIDIA Control Panel.

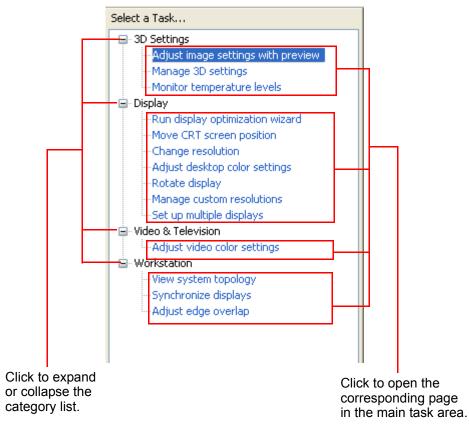


Figure 3.3 NVIDIA Control Panel Select a Task pane

# Using the Tool Bar

The *Toolbar* provides quick back and forth navigation between pages, and also lets you choose a view setting.

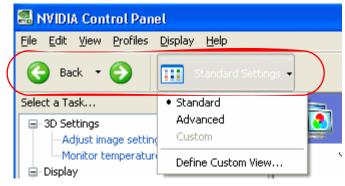


Figure 3.4 Toolbar

#### Using the Navigation Buttons

The back and forward buttons let you navigate sequentially among pages that you have visited.

You can also navigate directly to a previously visited page by clicking the list arrow next to the back button. The drop-down menu lists all the previously visited pages in the queue. Click the page that you want.

#### Working with Views

The currently selected view determines what options are available. There are three available views:

- Standard
- Advanced
- Custom

Most commands are available for both Standard and Advanced views. However, some options are available only if the Advanced view is selected before opening the application category page. Also, task page options may different depending on the selected view. If the command you're looking for is not displayed, return to the home page, select a different view, and return to the task page.

To change the view:

• From the View menu, select Standard, Advanced, or Custom.

**Note:** For the Custom command to be available, you must define a custom view as described in the following section.

#### **Defining Custom Views**

You can customize NVIDIA Control Panel to display only the application category pages you want to see and use.

To specify which the pages to display:

- 1 Select **View > Define Custom View...** or for quicker access, use the toolbar if you have it enabled.
- **2** On the **Create Custom View** page, for each application category that appears, select (check) the check boxes for the pages that you want to view and click **OK**.
- **3** To leave the Custom View mode, select either **Standard** or **Advanced** from the **View** menu or for quicker access, use the toolbar if you have it enabled.
- **4** To switch back to your custom view, select **Custom**.

## Using the Menu Bar

The *Menu bar* contains standard Windows menus and menus specific to the NVIDIA Control Panel, such as the View and Profiles menus.

Menus that are available on the menu bar may vary, depending on the NVIDIA Control Panel category (such as, Display, Mobile, 3D Settings, or other category) you are using.

#### File Menu

Commands related to printing, applying changes, and exiting the program are available on the **File** menu.

Table 3.1	File Menu	Commands
-----------	-----------	----------

File Menu Command	Description
Print	Print the current task page.
Print Preview	Preview the page before sending it to the printer.
Print Setup	Open the Print Setup dialog box to adjust your printer properties.
Exit	Close the NVIDIA Control Panel program.

#### Edit Menu

Commands related to cutting, copying, pasting, and selecting items are available on the **Edit** menu.

Table 3.2 Edit Menu Commands

Edit Menu Command	Description
Cut	Cut the selected text and place in the clipboard.
Сору	Copy the selected text and place in the clipboard.
Paste	Paste the text currently in the clipboard to the location of the Windows cursor.
Select All	Select all items on the current page.

#### View Menu

Commands related to viewing the various pages in the NVIDIA Control Panel application modules are available on the **View** menu.

Table 3.3 View Menu Commands

View Menu Command	Description
Standard	Select to view and access the majority of commonly used and simpler tasks in the NVIDIA Control Panel applications. When the <b>Standard</b> command appears with a check mark, this means that the Standard view is currently active on your NVIDIA Control Panel active.
Advanced	Select to view and access certain complex tasks in the NVIDIA Control Panel applications. These tasks often require some advanced experience using graphics hardware and software (drivers). When the <b>Advanced</b> command appears with a check mark, this means that the Advanced view is currently active on your NVIDIA Control Panel.
Custom	Select to choose a custom view. This command appears on the <b>View</b> menu <i>only</i> if you have used the <b>Define Custom Views</b> command to customize showing/ hiding specific screens.
Define Custom View	To see only those application pages you want to see and use based on the application modules (Display, 3D Settings, etc.) that are installed on your system, select <b>Define Custom Views</b> from the View menu.
Add Desktop Context Menu	This is selected by default, and adds the NVIDIA Control Panel menu item to the desktop context menu.
Show Notification Tray Icon	(Windows XP only) Select to show the NVIDIA Control Panel notification tray icon in the Windows taskbar notification area. Clicking the NVIDIA Control Panel notification icon offers a quick way to configure key NVIDIA Control Panel settings.

#### Help Menu

Commands related to accessing help, system information, and copyright and version information are available on the **Help** menu.

 Table 3.4
 Help Menu Commands

Help Menu Command	Description
NVIDIA Control Panel Help	Access the NVIDIA Control Panel online help.
System Information	View detailed information about your system and the NVIDIA Control Panel configuration.
About NVIDIA Control Panel	View NVIDIA Control Panel version and copyright information.

#### Category-Specific Menus

Thes menus appear only when certain category pages are open.

#### **Profiles Menu**

Commands related to saving, loading, and deleting profiles are available on the **Profiles** menu.

Table 3.5	Profiles	Menu	Commands
-----------	----------	------	----------

Profiles Menu Command	Description
Load	Load a profile of display settings you have previously saved. Click to open the Load Desktop Profile dialog box and select a .nvp file.
Save	Save the current configuration to a profile file. Click to open the Save Desktop Profile and enter a name and path for the .nvp file.
Delete	Delete a profile. Click to open the Delete Desktop Profile dialog box and locate a profile to delete.

#### Display Menu

This menu item appears only when a Display category page is open.

Commands related to your displays are available on the **Display** menu.

Table 3.6	Display	Menu	Commands
-----------	---------	------	----------

Display Menu Command	Description
Identify Displays	Select to identify the displays configured with your system.

#### 3D Settings Menu

This menu item appears only when a 3D Settings category page is open.

Table 3.73D Settings Menu Commands

Display Menu Command	Description
Show SLI Visual Indicators	Select to verify that SLI rendering is enabled and working.

#### Workstation Menu

This menu item appears only when a Workstation category page is open.

#### Table 3.8 Workstation Menu Commands

Display Menu Command	Description
Refresh View	Select to refresh the graphical representation of the displays and graphics cards installed on your system.

# CHAPTER

# ACCOMPLISHING NVIDIA CONTROL PANEL TASKS

This chapter provides instructions on how to use the NVIDIA Control Panel to accomplish common tasks. It contains the following sections:

- Starting the NVIDIA Control Panel
- Accomplishing NVIDIA Control Panel Tasks
- Note: For Windows Vista Several features are currently under development for Windows Vista and are not yet supported in the NVIDIA Control Panel. Consult the release notes for the latest list of unsupported features.

# Starting the NVIDIA Control Panel

**1** Launch the NVIDIA Control Panel:

#### Under Windows XP:

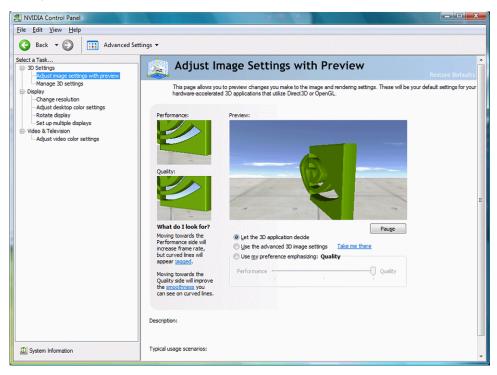
- Right-click the Windows desktop, then click **NVIDIA Control Panel** from the context menu, or
- From the Windows **Start** menu, select **Control Panel**, then in the **Control Panel** window, double-click the NVIDIA Control Panel icon.



#### **Under Windows Vista:**

- Right-click the Windows desktop, then click **NVIDIA Control Panel** from the context menu, or
- a Click the Start icon, then from the Start menu click Control Panel.
- **b** From the *Classic View* of the Windows Vista Control Panel, click the NVIDIA Control Panel icon, or

From the *Control Panel Home* view of the Windows Vista Control Panel, click **Additional Options** and then click **NVIDIA Control Panel** from the Additional Options page.



The categories that appear in the *Select a Task* pane depend on which NVIDIA software is installed on your system. For example, the Mobile category is not available on desktop systems.

**2** From the navigation tree in the *Select a Task* pane, click one of the links to open a specific task page.

Each category in the navigation tree lists different tasks that you can accomplish, and each task page provides instructions on how to accomplish what you want. Move the cursor over listed options to see a description and typical usage scenario for that option.

Detailed instructions for each task are also available through the online help.

# Accomplishing NVIDIA Control Panel Tasks

## Guide to Locating Tasks

Table 4.1 lists the page in the NVIDIA Control Panel where you can find controls for accomplishing various graphics driver tasks.

Feature	NVIDIA Control Panel Category - Page	Notes
Advanced Timings	Display - Manage Custom Resolutions	Not available with Windows Vista
Antialiasing	3D Settings - Manage 3D Settings	
Application Profiles	3D Settings - Manage 3D Settings	
Color Depth	Display - Change Resolution	
Custom Timings	Display - Manage Custom Resolutions	Not available with Windows Vista
Desktop Color Settings	Display - Adjust Desktop Color Settings	
Driver Settings	3D Settings - Manage 3D Settings	
Edge Blending	Workstation - Adjust Edge Overlap	Available only with NVIDIA Quadro FX cards under Windows XP. Not available with Windows Vista.
Frame Synchronization	Workstation - Synchronize Displays	Available only with NVIDIA Quadro G-Sync cards under Windows XP. Not available with Windows Vista.
Full-screen video mirror	Video & Television - Modify Full-Screen Video Options	Not available with Windows Vista. Not available with GeForce 8 Series GPUs or later.
HDTV Setup	Video & Television - Change the Signal or HD Format	
Multi-display configuration	Display - Set Up Multiple Dislays	
nView Clone Mode	Display - Set Up Multiple Displays	
nView Span Modes	Display - Set Up Multiple Displays	Not available with Windows Vista
NVRotate	Display - Rotate Display	
Performance and Quality Settings	3D Settings - Adjust Image Settings with Preview	

**Table 4.1** Graphics Driver Tasks in the NVIDIA Control Panel

Feature	NVIDIA Control Panel Category - Page	Notes
PowerMizer	Mobile - Change PowerMizer Settings	Available only with notebook computers. Not available with Windows Vista.
Refresh Rate Settings	Display - Change Resolution	
Resolution Settings	Display - Change Resolution	
Screen Position on CRT	Display - Move CRT Screen Position	
Screen Position on TV	Video & Television - Adjust Screen Size and Position	Not available with Windows Vista
SDI (Graphics to SDI Output)	Workstation - Send Graphics to SDI Output	Available only with NVIDIA Quadro FX SDI cards under Windows XP. Not available with Windows Vista
SLI Configuration	2D Sottings Sot SLI	
SEI Comiguration	3D Settings - Set SLI Configuration	
Temperature Settings	Performance	Requires nTune 5.05
TV Setup	Video & Television - Change the Signal or HD Format	
Video Color Settings	Video & Television - Adjust Video Color Settings	
Overclocking	Performance	Requires nTune 5.05

Table 4.1	Graphics Driver Tasks in the NVIDIA Control Panel
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# Overview of the Categories

This section provides an overview of the NVIDIA Control Panel categories.

- "Using the Display Category Pages" on page 30
- "Using the Video & Television Category Pages" on page 31
- "Using the 3D Settings Category Pages" on page 31
- "Using the Mobile Category Pages" on page 32
- "Using the Workstation Category Pages" on page 32

#### Using the Display Category Pages

Note: For Windows Vista – Support for some features under Windows Vista is in development and may not be available with your ForceWare graphics driver version. Consult the release notes for the latest list of unsupported features.

The actual tasks available on your system depend on your system hardware, such as the number and type of displays connected. Use the Display category pages to:

- Run the wizard to optimize your display configuration
- Change the display resolution
- Change the scaling on your flat panel display
- Adjust color settings
- Rotate the display
- Adjust custom timings (available under Advanced View)
- Configure multiple displays, including Spanning or Clone modes.

Note: Spanning modes will not be available under Windows Vista.

#### Using the Video & Television Category Pages

#### Notes for Windows Vista

- Under Windows Vista, this page appears only when a TV is connected and enabled using the **Display** category **Change display configuration** page.
- Support for some features under Windows Vista is in development and may not be available with your ForceWare graphics driver version. Consult the release notes for the latest list of unsupported features.

The actual tasks available on your system depend on your system hardware, such as whether or not you have a TV connected. Use the Video & Television page to:

- Adjust your television picture quality and video color settings for the best possible viewing in its environment
- Enable full screen video mirroring so that you can view full screen video content on one display while the other display has the smaller video window with visible controls
- Change the position and size of the desktop/video to best fit your television or HDTV (high definition television) screen
- Change the signal format to use for your standard television or HDTV as well as change country-specific signal or the HDTV format

#### Using the 3D Settings Category Pages

**Note: For Windows Vista** – Support for some features under Windows Vista is in development and may not be available with your ForceWare graphics driver version. Consult the release notes for the latest list of unsupported features.

The actual tasks available on your system depend on your system hardware, such as whether or not you have an SLI-ready system. Use the 3D Settings page to:

- Change the image and rendering settings of your 3D applications and games that utilize Direct3D and OpenGL technology
- Assign specific 3D settings to a game so that these settings automatically load when a game is launched (available under Advanced view)
- Set up your SLI or multi-GPU configuration

**Note:** GPU temperature monitoring and GPU overclocking features are not included in the 3D Settings page in Release 95 and later. To use this functionality you must install NVIDIA nTune software.

#### Using the Mobile Category Pages

The Mobile category is available if the NVIDIA software is installed on a notebook computer.

Note: The Mobile page is not available under Windows Vista.

The actual tasks available depend on which features are included with your notebook system. Use the Mobile page to extend your notebook computer's battery life using :

- NVIDIA PowerMizer technology
- NVIDIA SmartDimmer technology

#### Using the Workstation Category Pages

The Workstation category is available if you have an NVIDIA Quadro FX graphics card installed.

**Note: For Windows Vista** – Workstation features under Windows Vista are in development and may not be available with your ForceWare graphics driver version. Consult the release notes for the latest list of unsupported features.

The actual tasks available depend on which NVIDIA Quadro FX product you have installed. Use the Workstation page to:

- Synchronize your displays using frame sync or genlock technology
- View a graphical representation of the displays and graphics cards installed on your system.
- Manage serial digital interface (SDI) output (requires NVIDIA Quadro FX SDI solution.)
- Overlap the edges of adjacent displays.

Note: Edge Blending will not be available under Windows Vista.