



ForceWare Graphics Drivers ***Release 173 Notes***

Version 175.97
for Windows XP

NVIDIA Corporation
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CHAPTER

1

INTRODUCTION TO *RELEASE 173 NOTES*

This edition of *Release 173 Notes* describes the Release 173 ForceWare Graphics Drivers for Microsoft® Windows® XP. NVIDIA provides these notes to enable add-in-card (AIC) producers and original equipment manufacturers (OEMs) to monitor performance improvements and bug fixes in each documented version of the driver.

Structure of the Document

This document is organized in the following sections:

- [“Changes in the Release 173 Driver for Windows XP” on page 3](#) gives a summary of changes, and fixed and open issues in this version.
- [“The Release 173 Driver for Windows XP” on page 83](#) describes the NVIDIA products and languages supported by this driver, the system requirements, and how to install the driver.
- [“Mode Support for Windows” on page 95](#) lists the default resolutions supported by the driver.
- [“High Definition Audio Driver for Windows” on page 99](#) describes the HD audio driver for supported GPUs.

Changes in this Edition

This edition of the *Release 173 Notes* for Windows XP includes information about NVIDIA ForceWare graphics driver version 175.97, and lists changes made to the driver since version 173.59. These changes are discussed beginning with the chapter [“Changes in the Release 173 Driver for Windows XP” on page 3](#).

CHAPTER

2

CHANGES IN THE RELEASE 173 DRIVER FOR WINDOWS XP

This chapter describes open issues for version 175.97, and resolved issues and driver enhancements for versions of the Release 173 driver up to version 175.97. The chapter contains these sections:

- “Version 175.97 Highlights” on page 6
- “Changes in Version 175.97” on page 7
- “Changes in Version 175.95” on page 8
- “Changes in Version 175.91” on page 10
- “Changes in Version 175.90” on page 11
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- “Changes in Version 173.65” on page 67
- “Changes in Version 173.62” on page 69
- “Not NVIDIA Issues” on page 71
- “Known Product Limitations” on page 74

Version 175.97 Highlights

This section provides highlights of version 175.97 of the NVIDIA Release 173 Driver.

What's New in This Release

- Added product support for the following NVIDIA products:
 - GeForce 9800 GX2
 - GeForce 9800 GTX
 - GeForce 9600 GT
 - GeForce 8300
 - GeForce 8200
 - GeForce 8100/NVIDIA nForce 720a
 - NVIDIA nForce 730a
- Added the following new Pure Video HD features for the GeForce 9600 GT, GeForce 9800 GX2, and GeForce 9800 GTX:
 - Dynamic Contrast Enhancement
 - Dynamic Blue, Green & Skin Tone Enhancements
 - Dual-Stream Decode Acceleration¹
- NVIDIA Control Panel *Adjust Video Color Settings* page: Moved the Edge Enhancement, Noise Reduction, and Inverse Telecine controls to the new *Adjust Video Image Settings* page.

What's New in Version 175.97

Resolved Issues for Windows Vista

See [“Changes in Version 175.97” on page 7](#) for a list of resolved issues.

1. Users will require updated software from third-party movie players to experience the new Dual-Stream decode acceleration.

Changes in Version 175.97

This section lists the changes made and issues resolved since driver version 175.95.

- [“Fixed Issues–Windows XP 32-bit”](#) on page 7

Fixed Issues–Windows XP 32-bit

Single-GPU Issues

- 433700 MCP78: Dynamic contrast/color enhancement options are not available in the NVIDIA Control Panel Adjust video color settings.

The DCCE feature had been hidden erroneously.

- 427464 Quadro FX 4600/4500: 3280x2048 is not supported with single Dual Link connection.

Removed a resolution restriction.

- 426327 NVIDIA Control Panel, G86M: With LVDS+TV connected, the Adjust screen size and position page Apply/Cancel buttons disappear when the screen size is at the maximum.

Control panel variables were not initialized properly.

Changes in Version 175.95

This section lists the changes made and issues resolved since driver version 175.91.

- “Fixed Issues–Windows XP 32-bit” on page 8
- “Fixed Issues–Windows XP 64-bit” on page 8

Fixed Issues–Windows XP 32-bit

Single-GPU Issues

- 427017 MCP7A: WHQL DTM6475(WLK 1.1) Update Surface test fails.
Fixed a regression caused by a memory management change.
- 427015 MCP7A: WHQL DTM6475(WLK 1.1) Set Render Target test fails.
Fixed a regression caused by a memory management change.
- 427013 MCP7A: WHQL DTM6475(WLK 1.1) Lost Devices - Resource Management DirectX 8 and Lower tests fail.
Fixed a regression caused by a memory management change.
- 427008 MCP7A: WHQL DTM6475(WLK 1.1) Color Fill Test fail with 1800 failures.
Fixed a regression caused by a memory management change.
- 427005 MCP7A: WHQL DTM6475(WLK 1.1) Auto Generation Mip Map test fails.
Fixed a regression caused by a memory management change.

Fixed Issues–Windows XP 64-bit

Single-GPU Issues

- 427017 MCP7A: WHQL DTM6475(WLK 1.1) Update Surface test fails.
Fixed a regression caused by a memory management change.

- 427015 MCP7A: WHQL DTM6475(WLK 1.1) Set Render Target test fails.
Fixed a regression caused by a memory management change.
- 427013 MCP7A: WHQL DTM6475(WLK 1.1) Lost Devices - Resource Management DirectX 8 and Lower tests fail.
Fixed a regression caused by a memory management change.
- 427008 MCP7A: WHQL DTM6475(WLK 1.1) Color Fill Test fail with 1800 failures.
Fixed a regression caused by a memory management change.
- 427005 MCP7A: WHQL DTM6475(WLK 1.1) Auto Generation Mip Map test fails.
Fixed a regression caused by a memory management change.

Changes in Version 175.91

This section lists the changes made and issues resolved since driver version 175.90.

- “Fixed Issues–Windows XP 32-bit” on page 10

Fixed Issues–Windows XP 32-bit

Single-GPU Issues

- 427801 G84: The NVIDIA Control Panel->Change resolution and color quality bars become grayed out in Spanning mode and the secondary display goes blank.

The filter for HTDVs was being applied inappropriately.

- 425248 G73: HD formats are not able to be set for DVI connections.

Revised the mode filtering process to allow HD formats.

Changes in Version 175.90

This section lists the changes made and issues resolved since driver version 175.87.

- [“Fixed Issues–Windows XP 32-bit”](#) on page 11

Fixed Issues–Windows XP 32-bit

Single-GPU Issues

- 430169 MCP77, notebook: Display is corrupted after resuming from sleep and then opening the NVIDIA Control Panel.
Fixed a regression in the memory handling code.
- 425163 G84: The Control Panel->"Adjust image settings with preview" page becomes corrupt after previewing a 3D screen saver.
Fixed by making sure all application surfaces are updated properly when a full-screen is closed.
- 412536 Quadro FX 4600: Vega Prime - display rendering is unstable and lags.
Fixed a frame-handling issue.
- Module: NVIDIA Control Panel, G86M: With LVDS +DVI connected in Clone mode, clicking the "Change Resolution" Restore Defaults link sets the resolution to 800x600.
Fixed an error in the mode filtering process when setting the default resolution.

Multi-GPU Issues

- 335858 [SLI], G92/G84: Mad Mode Mike - severe flickering occurs (the rendering model lights only every other frame).
Corrected a typo in the code that prevented data from being sent to the second GPU.

Changes in Version 175.87

This section lists the changes made and issues resolved since driver version 175.86.

- [“Fixed Issues–Windows XP 32-bit”](#) on page 12

Fixed Issues–Windows XP 32-bit

Single-GPU Issues

- 429234 NVIDIA Control Panel: The Resize HDTV controls do not work.

Fixed a regression that affected the connected-display and active-display lags.

- 425926 G96M/G96M: DisplayPort display is blank when playing a DVD using Cyberlink or WindDVD.

Fixed incorrect DisplayPort addressing.

- 423678 G94M: The mouse cursor disappears when the DisplayPort display resumes from hibernate mode.

Make sure to restore the cursor when turning on the monitor.

- 419866 Roxio Video Editing - the application experiences degraded performance when using the StretchRect() function.

Improved the driver's efficiency in handling the StretchRect() function.

Changes in Version 175.86

This section lists the changes made and issues resolved since driver version 175.85.

- “Fixed Issues–Windows XP 32-bit” on page 13
- “Fixed Issues–Windows XP 64-bit” on page 13

Fixed Issues–Windows XP 32-bit

Single-GPU Issues

- 403183 G98M: HD formats are not applied through the Run television setup Wizard with HD-DVI.

Fixed the code so that the HD values are applied to the external display.

Fixed Issues–Windows XP 64-bit

Single-GPU Issues

- 427841 G8x: WHQL DTM 6475 GDI Alpha Blend Stretch PerIPixel (32-bit) test fails on both Monitor 1 and 2.

The color format was not being set properly on the video memory surface.

- 403183 G98M: HD formats are not applied through the Run television setup Wizard with HD-DVI.

Fixed the code so that the HD values are applied to the external display.

Changes in Version 175.85

This section lists the changes made and issues resolved since driver version 175.81.

- “Fixed Issues–Windows XP 32-bit” on page 14
- “Fixed Issues–Windows XP 64-bit” on page 14

Fixed Issues–Windows XP 32-bit

Single-GPU Issues

- NB9M, NB9P: Black screens, system hangs, and blue-screen crashes occur while running S3, S4 and reboot stress tests overnight.
Added time delays to fix driver contention between two different modules for a shared resource.
- 428287 Viewperf 9/Viewperf 10 with Catia viewset - Dr. Watson error entries appear.
Fixed a regression that resulted in a corrupt OpenGL graphics context pointer.
- 426717 NV3x Quadro: The display driver does not work correctly with most ISV applications.
Fixed a problem with the lighting validation.
- 425228 NVIDIA Control Panel, G92M: 576p or 480p cannot be set if the interlaced versions are set for component HDTV.
Fixed a regression that caused the driver to not recognize that a different timing was requested.

Fixed Issues–Windows XP 64-bit

Single-GPU Issues

- 428287 Viewperf 9/Viewperf 10 with Catia viewset - Dr. Watson error entries appear.
Fixed a regression that resulted in a corrupt OpenGL graphics context pointer.

Changes in Version 175.81

There were no fixed issues report in version 175.81 for Windows XP.

Changes in Version 175.80

There were no fixed issues report in version 175.80 for Windows XP.

Changes in Version 175.76

There were no fixed issues report in version 175.76 for Windows XP.

Changes in Version 175.75

This section lists the changes made and issues resolved since driver version 175.70.

- “Fixed Issues–Windows XP 32-bit” on page 16
- “Fixed Issues–Windows XP 64-bit” on page 17

Fixed Issues–Windows XP 32-bit

Single-GPU Issues

- 420854 NVIDIA Control Panel, G94: No confirmation dialog box appears after making changes on any control panel page except the "Set SLI configuration" page.

Fixed a miscommunication between the control panel and the driver.

- 407575 G70: Assassin's Creed (DirectX 9) - hitching occurs in the "Present_Room" game level.

Fixed an issue in the shader compiler.

Multi-GPU Issues

- 422266 [SLI], NVIDIA Control Panel: SLI mode cannot be enabled.

Fixed a regression caused by a previous change in the SLI-enabling code.

- 419692 [SLI], NVIDIA Control Panel, G80: Simultaneous changing and then restoring the program settings for any application profile causes the settings to disappear.

Parameters were being overwritten by mistake.

- 418640 [SLI], G84: Blue-screen crash occurs when playing an H.264 Blu-ray disc with WinDVD/PowerDVD after enabling SLI mode.

Fixed an issue with video error recovery in SLI mode.

Fixed Issues—Windows XP 64-bit

Single-GPU Issues

- 420854 NVIDIA Control Panel, G94: No confirmation dialog box appears after making changes on any control panel page except the "Set SLI configuration" page.

Fixed a miscommunication between the control panel and the driver.

Changes in Version 175.70

This section lists the changes made and issues resolved since driver version 175.63.

- “Fixed Issues–Windows XP 32-bit” on page 18
- “Fixed Issues–Windows XP 64-bit” on page 19

Fixed Issues–Windows XP 32-bit

Single-GPU Issues

- 414497 NVIDIA Control Panel, G71M: With LVDS+DVI connected in Dualview mode, the Resize HDTV desktop page does not work for 576p and 480p.

Fixed the device detection controls to support 576p and 480p in the Resize HDTV Desktop page.

- 412674 Quadro FX 1700: Clients do not see the server application when using Live Meeting 2005.

Implemented a workaround to accommodate the application accessing a primary surface after unlocking it.

- 412648 MCP77, Notebook: WHQL WinXP32/64 DTM 6475 R173_00 - GDI: Check Resolution test fails

Fixed a regression that resulted in a false modeset failure.

- 403218 NVIDIA Control Panel, G92: Adjust Video Image Settings slider is not disabled for the secondary Clone mode display.

Make sure all video color page controls are disabled for the secondary Clone display.

Multi-GPU Issues

- 413981 [SLI], G80: The display driver crashes when enabling SLI with TV connected to the slave GPU.

Fixed a regression caused by a previous change in mode-verification.

Fixed Issues—Windows XP 64-bit

Single-GPU Issues

- 412648 MCP77, Notebook: WHQL WinXP32/64 DTM 6475 R173_00 - GDI: Check Resolution test fails

Fixed a regression that resulted in a false modeset failure.

Changes in Version 175.63

There are no fixed issues to report in this driver version for Windows XP.

Changes in Version 175.62

This section lists the changes made and issues resolved since driver version 175.61.

- [“Fixed Issues–Windows XP 32-bit” on page 21](#)

Fixed Issues–Windows XP 32-bit

Single-GPU Issues

- 414550 G73M: There is either no video or corrupted video when using S-Video.

The driver was erroneously treating the connection as an HDTV.

Changes in Version 175.61

This section lists the changes made and issues resolved since driver version 175.60.

- [“Fixed Issues–Windows XP 32-bit”](#) on page 22

Fixed Issues–Windows XP 32-bit

Single-GPU Issues

- 418058 G92: Gamma settings remain applied even after clicking Cancel.

The code to update the gamma settings was relying on an inappropriate flag to determine whether to perform the update.

- 414459 NVIDIA Control Panel, G71M: With LVDS+VGA+HD DVI connected, the "Run television setup wizard" link appears.

Removed the link for LVDS+DVI_CRT, as this is not supported by the Wizard.

- 395577 G92: Dynamic Contrast Enhancement and Color Enhancement do not work.

Changed the method of determining appropriate surfaces for applying dynamic contrast and color enhancement.

Changes in Version 175.60

This section lists the changes made and issues resolved since driver version 175.57.

- [“Fixed Issues–Windows XP 32-bit”](#) on page 23

Fixed Issues–Windows XP 32-bit

Single-GPU Issues

- 414484 NVIDIA Control Panel, G71M: With LVDS + DVI connected in Dualview mode, the NVIDIA Control Panel navigation pane links are not refreshed to reflect changes in HD formats.

The control panel was not detecting the changes in HD formats.

- 413518 G94: Dynamic contrast enhancements and color enhancements don't work after changing the resolution.

The video decoder instance was not being detected properly.

- 393222 Quadro NVS 290: Poor performance on Java-based application.

Fixed by using an appropriate software rendering path.

Changes in Version 175.57

This section lists the changes made and issues resolved since driver version 175.56.

- [“Fixed Issues–Windows XP 32-bit” on page 24](#)
- [“Fixed Issues–Windows XP 64-bit” on page 25](#)

Fixed Issues–Windows XP 32-bit

Single-GPU Issues

- 416525 G71: When changing the brightness using the NVIDIA Control Panel, HD video becomes completely white at 88% brightness and black at 15% brightness.

Make sure gamma processing is not performed twice.

- 414976 G94: VMR7 Faroudja Flag and Faroudja Pendulum tests fail deinterlacing with Windows Media Player 11.

In VMR mode the active fields were not being reset properly, resulting in incorrect deinterlacing.

- 380492 G71: The "Back" button on the Run display optimization wizard->Flat Panel page is inactive.

The state of the button was not updated for the second page of the Wizard.

- 303238 NVIDIA Control Panel, G86M: With an HDTV (via component-out) as the secondary Clone mode display, none of the HD formats except for 480i and 480p can be set using the "Change the signal or HD format" page.

HD modes were being filtered out of the list of available modes.

Multi-GPU Issues

- 400888 [SLI], G86: Half-Life 2 (and other applications) - tearing occurs when in-game V-Sync is enabled.

Fixed an issue with correctly locking the GPUs under SLI mode.

Fixed Issues—Windows XP 64-bit

Single-GPU Issues

- 380492 G71: The "Back" button on the Run display optimization wizard->Flat Panel page is inactive.

The state of the button was not updated for the second page of the Wizard.

- 303238 NVIDIA Control Panel, G86M: With an HDTV (via component-out) as the secondary Clone mode display, none of the HD formats except for 480i and 480p can be set using the "Change the signal or HD format" page.

HD modes were being filtered out of the list of available modes.

Multi-GPU Issues

- 400888 [SLI], G86: Half-Life 2 (and other applications) - tearing occurs when in-game V-Sync is enabled.

Fixed an issue with correctly locking the GPUs under SLI mode.

Changes in Version 175.56

This section lists the changes made and issues resolved since driver version 175.55.

- [“Fixed Issues–Windows XP 32-bit”](#) on page 26

Fixed Issues–Windows XP 32-bit

Single-GPU Issues

- 414955 NVIDIA Control Panel, G73M: Color quality goes to 8-bit (lowest) after setting 720p HD format and then resizing the desktop via component-out.

Fixed by restoring the previous bit-depth instead of falling back to 8-bit if no maximum supported bit depth is determined.

Changes in Version 175.55

This section lists the changes made and issues resolved since driver version 175.51.

- [“Fixed Issues–Windows XP 32-bit” on page 27](#)

Fixed Issues–Windows XP 32-bit

Single-GPU Issues

- 373125 NVIDIA Control Panel, G86M: The user cannot set 1080i HD format on HDTV component-out when the VGA is the primary Dualview display.

The current bit depth was not supported for that resolution. Fixed by setting the maximum bit depth that is supported by the GDI mode list for the requested resolution.

Multi-GPU Issues

- 410435 [SLI], NVIDIA Control Panel, G92M: 3DMark06, AquaMark - the AFR visual indicator is displayed when SFR SLI Performance mode is set.

The path to the application profile data was incorrect.

Changes in Version 175.51

There were no fixed issues to report in version 175.51.

Changes in Version 175.50

This section lists the changes made and issues resolved since driver version 174.92.

- [“Fixed Issues–Windows XP 32-bit”](#) on page 29

Fixed Issues–Windows XP 32-bit

Single-GPU Issues

- 399773 G72M: The screen goes blank after resuming from Standby/Hibernate mode.

Fixed the method of turning displays on/off during standby/resume cycles.

- 399597 Notebook, MCP77: WHQL DTM 6475 XP/Vista - red screen underflows occur on several DTM tests.

Fixed a frame buffer memory handling bug.

- 397348 NVIDIA Control Panel, G84: Color settings are not disabled on the secondary Clone mode display.

Corrected the UI to conform to the policy that color settings are not supported on a per-display basis.

Fixed Issues–Windows XP 64-bit

- 399597 Notebook, MCP77: WHQL DTM 6475 XP/Vista - red screen underflows occur on several DTM tests.

Fixed a frame buffer memory handling bug.

Changes in Version 174.92

This section lists the changes made and issues resolved since driver version 174.91.

- [“Fixed Issues–Windows XP 32-bit”](#) on page 30

Fixed Issues–Windows XP 32-bit

Single-GPU Issues

- 400434 NVIDIA Control Panel, MCP77: HD formats are not getting applied from the Run Multiple Display Wizard when connected via HDMI-DVI.

Classic control panel methods of adding and applying custom modes were being used.

Multi-GPU Issues

- 370896 [SLI]: RFE to enable 3-way SLI configurations by default.
3-way SLI configurations are now supported automatically for supported hardware.

Changes in Version 174.91

This section lists the changes made and issues resolved since driver version 174.90.

- “Fixed Issues–Windows XP 32-bit” on page 31
- “Fixed Issues–Windows XP 64-bit” on page 31

Fixed Issues–Windows XP 32-bit

Single-GPU Issues

- 412577 Rainbow Six Vegas 2 - there is corruption in the game with Control Panel forced MSAA.

Fixed the antialiasing override setting in the control panel.

- 404826 NVIDIA Control Panel, G92 (P790): The control panel windows goes black for a couple of seconds after making a change and then canceling the change.

Fixed the method of destroying and creating pages in the UI.

- 399030 NVIDIA Quadro FX 3700: Performance regression with uploads and readbacks compared with Release 169.32.

Graphics contexts were being duplicated unnecessarily.

- 375765 G86M: Opening Advanced Settings from View Wireless Networks page causes explorer to crash.

The nView code was locking processes unnecessarily.

- 335320 MCP51: WHQL DTM 6417 WinXPSP2 - bugcheck D5 occurs when enabling the driver verifier.

Make sure to refresh the EDID buffer after reading it.

Fixed Issues–Windows XP 64-bit

- 390793 NVIDIA Control Panel: After changing the color depth to 8-bpp and then back to 32-bpp, when changing the resolution the monitor icon in the "Apply changes" dialog box is 8-bpp.

Fixed a bug in how the icon was selected for the dialog box.

Changes in Version 174.90

This section lists the changes made and issues resolved since driver version 174.82.

- [“Fixed Issues–Windows XP 64-bit”](#) on page 32

Fixed Issues–Windows XP 64-bit

Multi-GPU Issues

- 391870 [SLI], G92: 3D Pipes screensaver - there is flickering and patches of corruption when using SLI SFR mode.

Fixed flickering of the SLI visual indicator by unlocking the surface as needed in order to draw the visual indicator properly.

Changes in Version 174.84

There were no fixed issues to report in driver version 174.84.

Changes in Version 174.82

This section lists the changes made and issues resolved since driver version 174.81.

- “Fixed Issues–Windows XP 32-bit” on page 34
- “Fixed Issues–Windows XP 64-bit” on page 34

Fixed Issues–Windows XP 32-bit

Single-GPU Issues

- 391359 NVIDIA Control Panel, G96: The Adjust television color settings->Gray Border check box state is not saved across display changes.
The TV border setting was not getting updated during the display switch.
- 346072 MCP67M: The screen turns black after selecting the “Use NVIDIA scaling with fixed-aspect ratio” option and then applying the change.
The driver needed to turn the panel back on after changing the scaling.

Multi-GPU Issues

- 404190 [SLI], 2xG92: Adobe Premiere Pro CS3 - the application crashes when the application window is moved around.
Fixed an SLI incompatibility issue with video applications.

Fixed Issues–Windows XP 64-bit

Single-GPU Issues

- 346072 MCP67M: The screen turns black after selecting the “Use NVIDIA scaling with fixed-aspect ratio” option and then applying the change.
The driver needed to turn the panel back on after changing the scaling.

Changes in Version 174.81

This section lists the changes made and issues resolved since driver version 174.80.

- [“Fixed Issues–Windows XP 32-bit” on page 35](#)
- [“Fixed Issues–Windows XP 64-bit” on page 36](#)

Fixed Issues–Windows XP 32-bit

Single-GPU Issues

- 406935 NVIDIA Control Panel, G92: Online crash analysis error occurs when running the Television Setup wizard with a DVI-to-DVI connection.

Fixed a regression that resulted in a bug in the code that sets the TV format.

- 402912 NVIDIA Control Panel, SDI: LED icons and text are corrupted in the System Topology page.

Fixed the method of drawing the context menu and LED graphics.

- 401997 G92M-MXM: There is no display signal for any display (VGA/DVI/DP) after loading the driver.

Interrupts from the DP hardware were disabled erroneously.

- 400144 NVIDIA Control Panel, G92: The Resize HDTV desktop option is missing when using an HDMI connection.

Expose the Resize HDTV option whenever the TV format is set to an HD format.

- 388313 NVIDIA Control Panel, G94,G98,G80,G96: With the TV S-Video as secondary Dualview display, after switching to single-display (DVI) and then back to Dualview mode, the TV color settings go to zero.

The color settings for the secondary display were getting overwritten when switching to single-display mode.

Fixed Issues—Windows XP 64-bit

Multi-GPU Issues

- 402964 [SLI], G92, Quadro: OpenGL applications become unresponsive with SLI mode enabled.

Fixed a multi-GPU rendering issue.

Changes in Version 174.80

This section lists the changes made and issues resolved since driver version 174.73.

- [“Fixed Issues–Windows XP 32-bit”](#) on page 37

Fixed Issues–Windows XP 32-bit

Multi-GPU Issues

- 373945 [SLI], G80: Sid Meier's Railroads! - the system crashes when in-game antialiasing is switched between '8x' and 'none' at 1024x768 resolution.

Fixed a bug properly locking GPUs in SLI mode.

Changes in Version 174.73

This section lists the changes made and issues resolved since driver version 174.71.

- “Fixed Issues–Windows XP 32-bit” on page 38
- “Fixed Issues–Windows XP 64-bit” on page 38

Fixed Issues–Windows XP 32-bit

Single-GPU Issues

- 399838 MCP78: The desktop becomes corrupt when moving the CRT screen position.
Fixed the viewport code to process the entire screen.
- 373477 G80: HalfLife2-Episode2–corruption occurs at the top of screen if the torch near the door is activated using the [F] key.

Surface data was not getting cleared properly.

- 368431 NVIDIA Control Panel, G73M: No confirmation pop-up message appears when switching from Dualview mode to single-display mode.

Fixed the method of retrieving display state information after switching from Dualview to single-display mode.

Fixed Issues–Windows XP 64-bit

Single-GPU Issues

- 373477 G80: HalfLife2-Episode2 - corruption occurs at the top of screen if the torch near the door is activated using the [F] key.

Surface data was not getting cleared properly.

Changes in Version 174.71

This section lists the changes made and issues resolved since driver version 174.70.

- “Fixed Issues–Windows XP 32-bit” on page 39
- “Fixed Issues–Windows XP 64-bit” on page 40

Fixed Issues–Windows XP 32-bit

Single-GPU Issues

- 407270 InstallShield screens are not localized.
Fixed copying/linking bugs in the InstallShield code.
- 405163 Quadro Workstation Stereo: Active stereo window content flickers when the window is dragged.
Code for handling window dragging in passive stereo was being applied to active stereo.
- 399838 MCP78: The desktop becomes corrupt when moving the CRT screen position.
Fixed the viewport code to process the entire screen.
- 360574 NVIDIA Control Panel, G80: After selecting the 'Component-high definition television' connector option for HDTV, the setting reverts back to Auto detect.
Fixed the method of determining with connector options to make available in the control panel.
- 355047 NVIDIA Control Panel, G84: The NVIDIA Control Panel hangs and remains permanently minimized after switching from Dualview mode to Clone mode from the secondary monitor.
The control panel window was being left outside of the display boundaries. Fixed by repositioning the control panel window to always be in view.

Fixed Issues—Windows XP 64-bit

Single-GPU Issues

- 407270 InstallShield screens are not localized.

Fixed copying/linking bugs in the InstallShield code.

- 403717 Quadro FX 3700, Workstation: Autodesk Opticore Realizer 2008 hangs when running the application on the secondary Dualview display.

A single-threading semaphore was being used in a multi-threaded application.

Changes in Version 174.70

This section lists the changes made and issues resolved since driver version 174.60.

- “Fixed Issues–Windows XP 32-bit” on page 41
- “Fixed Issues–Windows XP 64-bit” on page 42

Fixed Issues–Windows XP 32-bit

Single-GPU Issues

- 404102 NVIDIA Control Panel: A dialog box appears stating "The Parameter is incorrect" whenever a key is pressed from the Manage 3D Settings page.
Fixed an incorrectly initialized parameter in the navigation code.
- 401579 G84, Workstation: ProE Wildfire 2.0 - graphics corruption occurs after zooming.
A vertex array state was not being invalidated properly.
- 395895 NV43: Frame drops and then a blue-screen crash occurs when while playing an H.264 Blu-ray disc title using PowerDVD.ormat followed by BSOD.
Fixed an issue in the video processing code.
- 390215 G80: Windows Presentation Foundation - blue-screen crash occurs when running the application while rendering 3D.
Bindings to primitive contexts were being lost during mode sets.
- 389220 G96M: Audio playback at 44.1khz experiences occasional audio drop outs.
Fixed an issue with the HD audio code.
- 385844 G86: Hitman Blood Money - the game crashes to the desktop while changing resolutions.
Fixed a memory mapping issue.

Multi-GPU Issues

- 400244 [SLI], G96: Crysis - the system crashes at resolution 1280x1024 and with 8x antialiasing enabled.

DirectX devices were not getting invalidated properly.

Fixed Issues—Windows XP 64-bit

Single-GPU Issues

- 392076 Quadro FX 4600: Maya SPECapc - the system hangs or PCIe completion time-out error occurs.

Fixed an incorrect memory index pointer.

Changes in Version 174.60

This section lists the changes made and issues resolved since driver version 174.52.

- “Fixed Issues–Windows XP 32-bit” on page 43
- “Fixed Issues–Windows XP 64-bit” on page 43

Fixed Issues–Windows XP 32-bit

Single-GPU Issues

- 399362 MCP78: While playing an HD video with PIP, the video flashes when Dynamic Contrast Enhancement is enabled from the control panel.
Fixed the method of handling video work surfaces for multiple streams.
- 398688 There is a color strip on the right of full-screen video playback with WinDVD when Horizontal Span mode is enabled.
Fixed an alignment issue with some source video surfaces.
- 378896 G71, Quadro FX 5500: Multi-display options are missing in the NVIDIA Control Panel Setup Multiple Display page.
Fixed a regression that prevented non-DDC monitors from being detected.

Multi-GPU Issues

- 403296 [SLI], NVIDIA Control Panel: There is no SLI option in the NVIDIA Control Panel.
Fixed a regression in the Hybrid SLI code that resulted in the SLI page being hidden.

Fixed Issues–Windows XP 64-bit

Multi-GPU Issues

- 403296 [SLI], NVIDIA Control Panel: There is no SLI option in the NVIDIA Control Panel.
Fixed a regression in the Hybrid SLI code that resulted in the SLI page being hidden.

Changes in Version 174.52

This section lists the changes made and issues resolved since driver version 174.51.

- [“Fixed Issues–Windows XP 32-bit”](#) on page 44

Fixed Issues–Windows XP 32-bit

Single-GPU Issues

- 400392 NVIDIA Control Panel, MCP77M: The LCD turns green when applying 1080i to the HDMI using the "Run Multiple Display Wizard".

The HD mode was getting applied to the wrong display output.

- 400362 G73M: The GPU clocks are set to Balanced mode even when the system is idle.

Mode limitations were getting applied inappropriately.

- 396885 G71: Hue setting changes are not preserved on DVD video playback in Windows Media Player 11 in Overlay mode.

Some video attributes were getting applied twice.

- 380334 NVIDIA Control Panel, G86: Changes made in the "Adjust screen size" page do not take effect dynamically.

Fixed a regression that caused the driver to set the display to native mode instead of custom mode.

Fixed Issues–Windows XP 64-bit

Single-GPU Issues

- 380334 NVIDIA Control Panel, G86: Changes made in the "Adjust screen size" page do not take effect dynamically.

Fixed a regression that caused the driver to set the display to native mode instead of custom mode.

Changes in Version 174.51

This section lists the changes made and issues resolved since driver version 174.50.

- “Fixed Issues–Windows XP 32-bit” on page 45

Fixed Issues–Windows XP 32-bit

Single-GPU Issues

- 397335 NVIDIA Control Panel, G98: Resolution changes are not preserved after switching from Single to Dualview and then back to Single display mode.

Fixed by making sure resolution changes are updated properly.

- 390804 NVIDIA Control Panel, G71: The default color quality is set to 16 bpp.

16-bpp was being set erroneously while setting the optimal resolution.

Changes in Version 174.50

This section lists the changes made and issues resolved since driver version 174.43.

- [“Fixed Issues–Windows XP 32-bit”](#) on page 46

Fixed Issues–Windows XP 32-bit

Single-GPU Issues

- 385360 G80, G92: Warlord - the driver stops responding randomly during the game.

Fixed a regression affecting DirectX queries.

Changes in Version 174.43

This section lists the changes made and issues resolved since driver version 174.42.

- “Fixed Issues–Windows XP 32-bit” on page 47
- “Fixed Issues–Windows XP 64-bit” on page 47

Fixed Issues–Windows XP 32-bit

Single-GPU Issues

- 397748 MCP68: The HDDVD overlay is not visible, although audio is present.
A memory handle was not being passed appropriately.
- 390798 Workstation: SPECviewperf9 - performance regression.
Fixed an issue in the vertex handling code.

Fixed Issues–Windows XP 64-bit

Single-GPU Issues

- 396438 NVIDIA Control Panel, G73: The desktop is resized even when clicking Cancel after making changes on the “Resize HDTV desktop” page.
The “changed” status of the page was getting lost after clicking Cancel.

Changes in Version 174.42

This section lists the changes made and issues resolved since driver version 174.41.

- [“Fixed Issues–Windows XP 32-bit”](#) on page 48

Fixed Issues–Windows XP 32-bit

Single-GPU Issues

- 354220 NVIDIA Control Panel, G73: Signal formats and HD formats are not listed if Treat as HDTV is enabled for the secondary Clone mode display.

The driver was not generating the mode list correctly under Clone mode.

Changes in Version 174.41

This section lists the changes made and issues resolved since driver version 174.40.

- “Fixed Issues–Windows XP 32-bit” on page 49
- “Fixed Issues–Windows XP 64-bit” on page 49

Fixed Issues–Windows XP 32-bit

Single-GPU Issues

- 391386 P358 QuadroPlex Model IV, G-Sync: Framelock demo in SLI (SFR) mode at 1280 X 720 @ 120 Hz displays half-screen corruption.
SLI was not being configured correctly for G-Sync boards.
- 369613 G73M: HDTV display via component becomes blank when changing resolution while in 576p HD format.
Fixed the method of determining the proper mode for 576i/p formats.

Fixed Issues–Windows XP 64-bit

Multi-GPU Issues

- 396942 [SLI], G73: Crysis - the SLI visual indicator is not visible.
The application profile was not getting applied.

Changes in Version 174.40

This section lists the changes made and issues resolved since driver version 174.32.

- “Fixed Issues–Windows XP 32-bit” on page 50
- “Fixed Issues–Windows XP 64-bit” on page 50

Fixed Issues–Windows XP 32-bit

Single-GPU Issues

- 397682 G92: The display goes black after installing the driver.
Fixed a regression that resulted in the I2C bus not getting reset properly, causing display detection failure.
- 396105 G70: Unreal Engine 3 - the foliage present in the Terrain layer setup causes corruption in the scene rendering.
The driver was not selecting vertex streams properly.

Fixed Issues–Windows XP 64-bit

Single-GPU Issues

- 397682 G92: The display goes black after installing the driver.
Fixed a regression that resulted in the I2C bus not getting reset properly, causing display detection failure.

Changes in Version 174.32

This section lists the changes made and issues resolved since driver version 174.31.

- [“Fixed Issues–Windows XP 32-bit”](#) on page 51

Fixed Issues–Windows XP 32-bit

Single-GPU Issues

- 396424 G71: Blue-screen crash occurs while dragging the Windows Media Player 11 window to the secondary Dualview display when playing a WMV9 HD file.

The decoder was pointing to a surface that had been destroyed.

- 393693 Workstation: Under Dualview mode, OpenGL applications crash - Softimage, Maya, SolidWorks, I-DEAS, Solid Edge.

Fixed unclipped backbuffer memory.

Multi-GPU Issues

- 387682 [SLI], G96: Medieval:Total War 2 - the application hangs intermittently.

Fixed an issue with a reference counter in multi-GPU systems.

Changes in Version 174.31

This section lists the changes made and issues resolved since driver version 174.30.

- “Fixed Issues–Windows XP 32-bit” on page 52

Fixed Issues–Windows XP 32-bit

Single-GPU Issues

- 396469 NVIDIA Control Panel, G94: repeatedly changing the display resolution, the control panel crashes with the message "NVIDIA Control Panel Application,1.5.1200.04".

Fixed by initializing the monitor name buffer instead of appending the monitor name each time to avoid a buffer overrun.

- 385480 G84M: Blank screen with blue line of corruption occurs when the system is rebooted in single mode HDMI at resolutions above 1440x900.

Fixed by using consistent methods of calculating timings for interlaced modes.

Changes in Version 174.30

This section lists the changes made and issues resolved since driver version 174.20.

- [“Fixed Issues–Windows XP 32-bit” on page 53](#)
- [“Fixed Issues–Windows XP 64-bit” on page 53](#)

Fixed Issues–Windows XP 32-bit

Single-GPU Issues

- 395396 NVIDIA Control Panel, G8x, G9x: The Resize HDTV desktop page becomes corrupted after clicking "Resize Desktop".
HD settings were being applied inappropriately.
- 394953 NVIDIA Control Panel: Unable to uncheck "Treat as HDTV" on the "Manage custom resolutions" page.
Fixed a regression that resulted in the HD-over-DVI parameter always set as true.
- 356732 NVIDIA Control Panel: If the Resize HDTV Desktop page is opened after another page, the panning slider disappears.
Fixed a conflict that occurred because of redrawing the control while setting the range.

Multi-GPU Issues

- 367078 [SLI], G84M: Fear Extraction Point - during the game's first video, the background flickers black.
Fixed the method of counting shadow volumes.

Fixed Issues–Windows XP 64-bit

- 395415 NVIDIA Control Panel, G80: On the Manage 3D Settings->Global Settings page, many 3D settings show only the "ON" option for most Workstation application profiles.
Predefined setting values were not being added properly.

- 356732 NVIDIA Control Panel: If the Resize HDTV Desktop page is opened after another page, the panning slider disappears.

Fixed a conflict that occurred because of redrawing the control while setting the range.

Changes in Version 174.20

This section lists the changes made and issues resolved since driver version 174.13.

- [“Fixed Issues–Windows XP 32-bit” on page 55](#)
- [“Fixed Issues–Windows XP 64-bit” on page 55](#)

Fixed Issues–Windows XP 32-bit

Single-GPU Issues

- 389443 G7xGL, NV40/43GL: Catbench 2004 R18 0- there is a performance drop with driver 169.61.
Out of memory limits were not being handled properly.
- 373105 NVIDIA Control Panel: Gamma settings are not getting applied on the video or preview image area.
Obsolete escape calls were being made.
- 346150 DisplayPort interoperability with HDMI needed: Do not output HDMI to be output unless it connected via DP2HDMI dongle.
Added a check for DP2DVI dongle before enabling HDMI.

Multi-GPU Issues

- 390173 [SLI], G92, G80: DirectX 9 applications show corruption when Enhanced/Override AA is set in the NVIDIA Control Panel.
Fixed an issue tracking which processes are accessing the surface in SLI mode.

Fixed Issues–Windows XP 64-bit

- 392076 Quadro FX 4600: Maya SPECapc - the system hangs or PCI-e completion time-out occurs.
Fixed a memory allocation issue.

Changes in Version 174.13

This section lists the changes made and issues resolved since driver version 174.11.

- [“Fixed Issues–Windows XP 32-bit”](#) on page 56

Fixed Issues–Windows XP 32-bit

Single-GPU Issues

- 389190 G92: When playing HD DVD VC1 content with PowerDVD and CheckDualDXVACaps=1, the display crashes.
Fixed the use of buffers for SD and HD decoders.
- 388818 NVIDIA Control Panel, G94: With TV connected in Dualview mode, the "Adjust video color settings" page contrast and saturation setting values go to zero when switching back to Dualview mode from DVI single-display mode.
The settings for the secondary display were getting set to zero unnecessarily when switching to single display mode on the primary display.
- 384250 NVIDIA Control Panel, G98M: With (HDTV)DVI+DP Clone mode displays, HD format changes are not getting applied to the secondary display (DP).
Make sure the HD format is applied to both displays, not just the primary.
- 313593 G80: Unreal Tournament 2004 - there is some stuttering in the game.
Fixed a bug in the shader compiler.

Changes in Version 174.11

This section lists the changes made and issues resolved since driver version 174.10.

- [“Fixed Issues–Windows XP 32-bit” on page 57](#)

Fixed Issues–Windows XP 32-bit

Single-GPU Issues

- 392032 G94: Serious Sam II The Second Encounter v 1.05 - the system hangs during the game.

Fixed an issue with video memory.

- 389447 Quadro FX 5500: Maya 6.5 - there is a performance drop with the 169.61 driver.

Fixed a regression that caused a relative performance drop on older cards with SDDR memory.

- 383957 OpenGL: The NVIDIA Control Panel "High Quality" Texture filtering setting does not work with OpenGL applications.

Quality Enhancement settings for OpenGL were not being implemented.

- 383677 Quadro FX 5600: SolidWorks2008 SP0 - there is corruption when Zoom in/out with Appearance Callout and RealView Graphics is active.

Fixed an issue with rendering to the back buffer.

Changes in Version 174.10

This section lists the changes made and issues resolved since driver version 174.00.

- [“Fixed Issues–Windows XP 32-bit”](#) on page 58

Fixed Issues–Windows XP 32-bit

Single-GPU Issues

- 391199 G94: Frame drops occur when playing a DVD in nView Spanning modes.
Fixed an issue with overlay timings in Spanning modes.
- 386850 G80/98: Star Wars Knights of the Old Republic 2 - the game crashes upon launch.
Fixed a bug in the vertex program code.
- 374715 MCP78: Blue-screen crash occurs when open a folder while playing a video using Windows Media Player.
The GPU was not being locked properly during a data transfer operation.
- 368854 NVIDIA Control Panel, GeForce 8800 GTS: It takes nearly five seconds to show contents on the "Manage 3D Settings" page.
Implemented a more efficient method of initializing the profiles in the Manage 3D Settings.
- 367397 Quadro FX 5600: ICEM Surf - with soft shadows enabled, the shadows on one Dualview display are rendered incorrectly.
Fixed an issue with texture-sharing between the Dualview displays.
- 243365 GeForce 7950 GX2: Pirates of the Caribbean: The Legend of Jack Sparrow - there are glowing edges when AA is enabled.
Fixed a compatibility issue with the game's use of HDR rendering in windowed mode.

Multi-GPU Issues

- 374300 [SLI], G92: After enabling SLI mode, a blue-screen crash occurs if SLI mode is disabled and then re-enabled after resuming from Standby or Hibernate mode.

Fixed a bug initializing the SLI-enabled GPUs after resuming from Standby or Hibernate modes.

Fixed Issues—Windows XP 64-bit

- 389845 G98: Windows Media Player 11 freezes and then crashes when playing a video in full-screen nView Clone mode.

Fixed an issue with overlay timings in Clone mode.

Changes in Version 174.00

This section lists the changes made and issues resolved since driver version 173.91.

- [“Fixed Issues–Windows XP 32-bit”](#) on page 60

Fixed Issues–Windows XP 32-bit

Single-GPU Issues

- 384026 MCP79: The system hangs when playing a video and some Direct3D applications at the same time.

Fixed a pixel shader texture issue.

Changes in Version 173.91

This section lists the changes made and issues resolved since driver version 173.90.

- “Fixed Issues–Windows XP 32-bit” on page 61

Fixed Issues–Windows XP 32-bit

Single-GPU Issues

- 388406 G92M: 3DMark06/05/03/01 - corruption occurs after 3DMark is launched.

The active GPU was not being identified correctly.

- 388253 C77/MCP78: Random flashes of corruption occur with most DirectX applications on default launch.

Fixed a regression caused by a change in handling DDI calls.

- 383477 G98M PowerDVD: Blu-ray playback fails at 1080i and is choppy at 720p.

The resource manager was not being notified of HD content.

Changes in Version 173.90

This section lists the changes made and issues resolved since driver version 173.80.

- “Fixed Issues–Windows XP 32-bit” on page 62
- “Fixed Issues–Windows XP 64-bit” on page 64

Fixed Issues–Windows XP 32-bit

Single-GPU Issues

- 384957 NVIDIA Control Panel: After setting the color depth to 16-bpp and then clicking the Resize HDTV Desktop button, the color depth changes to 32-bit.

The color depth value was incorrectly hard-coded as 32-bit for HD modes.

- 384477 G92: Call of Duty 4 - corruption occurs when antialiasing is set using the NVIDIA Control Panel Override AA control.

Fixed an issue with the control panel antialiasing.

- 383673 Making changes in Edge enhancement causes jaggies while playing Ono-Mayumi HD DVD using WinDVD.

Edge enhancement was being applied to interleaved content erroneously.

- 383285 G98: There is no video when playing Ono Mayumi HD DVD and The Bourne Supremacy using PowerDVD or WinDVD.

Fixed an issue with video encryption management.

- 383242 NVIDIA Control Panel, G84M: It is possible to run the Television Setup Wizard and change modes while playing a DVD or video file.

The TV setup wizard was not checking the display-change-inhibit flag.

- 383204 [SLI], G80: Serious Sam II - the system crashes when the application is launched at high settings.

Fixed the method of tracking GPUs during SLI mode rendering.

- 382849 Video playback color brightness swings to extreme values when the Dynamic Contrast Enhancement or Color Enhancement option is checked in the Adjust Video Color Settings page.

Fixed a bug in implementing the color value algorithm.

- 382175 G71: Assassin's Creed (DirectX 9) - blue-screen crash occurs when loading into the "Flashback Paradise" map.

Fixed an issue with the real-time shader compiler

- 381737 NVIDIA Control Panel: With HDTV connected via HDMI, the "Adjust TV screen size and position" controls do not work.

The controls apply to analog displays and should not have been available for HD over DVI.

- 381468 NVIDIA Control Panel: The gamma values in video playback are not reverted when the Restore Defaults is clicked in the Adjust Video Color settings page.

The video adjustment controls were getting disabled inappropriately.

- 379977 Workstation: Shade9 - the mouse cursor is corrupted.

The GDI and OpenGL were not getting synchronized.

- 379566 G94M: WHQL DTM 6417 R173_00 XP32/64 D3D-OpenGL Scenario (32-bit) test times out.

Fixed a regression caused by a change in an OpenGL thread handling function.

- 376881 NVIDIA Control Panel, Notebook: The control panel crashes if launched after hot-plugging an external CRT.

Fixed an issue in the control panel loading code.

- 375143 NVIDIA Control Panel, G71: After rotating the secondary Dualview display, the display switches the primary display's rotated position after switching to Clone mode and then clicking No at the confirmation dialog box.

Fixed the logic for rotating the secondary Dualview display.

- 374290 NVIDIA Quadro FX 370/1700, 30" monitor: The display is corrupted after installing the driver.

Fixed a display timing setup issue that prevented the GPU from driving dual-link monitors right after driver installation.

- 374211 LunaSage - color is corrupted while playing the game.

Fixed an issue in the vertex buffer handling code.

- 363663 G86M (NVIDIA Quadro NVS 135M): The screen turns black when using Microsoft Live Meeting.

Implemented a workaround to accommodate the application accessing a primary surface after unlocking it.

- 156069 NVIDIA Control Panel, NV44: Changes made in the overscan shift for HDTV aren't saved across system reboots.

The driver was not saving the overscan shift timings.

Multi-GPU Issues

- 373054 [SLI], G92M: Prince of Persia The Two Thrones - the top left quarter of the screen is corrupted when using the 'look' feature.

Fixed a texture synchronization issue under SLI mode.

Fixed Issues—Windows XP 64-bit

Single-GPU Issues

- 383291 G71: Blue-screen crash occurs when the Television Setup wizard is run in Dualview mode while playing a video file.

Fixed a NULL pointer in the video code.

- 379977 Workstation: Shade9 - the mouse cursor is corrupted.

The GDI and OpenGL were not getting synchronized.

- 379566 G94M: WHQL DTM 6417 R173_00 XP32/64 D3D-OpenGL Scenario (32-bit) test times out.

Fixed a regression caused by a change in an OpenGL thread handling function.

Changes in Version 173.80

This section lists the changes made and issues resolved since driver version 173.65.

- [“Fixed Issues–Windows XP 32-bit”](#) on page 65
- [“Fixed Issues–Windows XP 64-bit”](#) on page 66

Fixed Issues–Windows XP 32-bit

Single-GPU Issues

- 383423 The NVIDIA Control Panel crashes when selecting a global profile.
Fixed a bug in the global profiles iteration code.
- 383194 2xG92, NVIDIA Control Panel: The Manage 3D Settings ->Program Settings page “Restore” button is disabled.
The code for getting the default state for each setting was removed by mistake.
- 379803 G92, G86, NVIDIA Control Panel: In Spanning mode. the control panel crashes when clicking the 'Change flat panel scaling' link after clicking the 'Change resolution link'.
Fixed the sequence of processing Spanning mode conditions with display mode changes.
- 378342 Notebook, MCP78: There is image corruption when playing HD DVD using Cyberlink.
Fixed an issue getting video surface information.
- 374791 NVIDIA Control Panel, Quadro FX SDI: The Apply button does not appear on the "Send graphics to SDI output" page after changing the nView mode selection a couple of times.
The nView Mode setting was not taken into account when determining whether a change had been made.
- 369104 G84M: Crysis - the game freezes when launched at 1920x1200 resolution.
A vertex buffer was not getting updated properly.

- 361046 G73, NVIDIA Control Panel: When attempting to rotate the display on a monitor connected via the DVI-to-VGA cable at 72/75 Hz refresh rate, the display goes to 8-bpp and doesn't rotate.

The native resolution at the given refresh rate is not supported on the rotated display. Fixed by alerting the user to change the resolution/refresh rate accordingly before rotating.

Multi-GPU Issues

- 383429/383071 [SLI], G92: There is no display after installing the 173.65 driver and then rebooting the system.

Fixed a regression that resulted in a black screen when booting into SLI mode.

- 381765 [SLI], G92, NVIDIA Control Panel: The Apply button does not appear when checking or clearing the 'Use inverse telecine' check box.

A video-state-change flag was not being set properly.

Fixed Issues—Windows XP 64-bit

Single-GPU Issues

- 379803 G92, G86, NVIDIA Control Panel: In Spanning mode, the control panel crashes when clicking the 'Change flat panel scaling' link after clicking the 'Change resolution link'.

Fixed the sequence of processing Spanning mode conditions with display mode changes.

Changes in Version 173.65

This section lists the changes made and issues resolved since driver version 173.62.

- “Fixed Issues–Windows XP 32-bit” on page 67
- “Fixed Issues–Windows XP 64-bit” on page 68

Fixed Issues–Windows XP 32-bit

Single-GPU Issues

- 379021 NVIDIA Control Panel, Quadro G-Sync: The Server display does not give an error status on topology view page if we change the frequency of house sync signal while the topology view page is kept open.

Implemented code to dynamically track the incoming sync signal and report status.

- 378929 NVIDIA Control Panel, Quadro G-Sync, QuadroPlex Model I: There is corruption in the G-Sync Status section of the View System Topology page.

UI controls for other features were appearing at the wrong time.

- 375142 NVIDIA Control Panel, System Update: After clicking 'Get Updates' from the systray icon, the NVIDIA Control Panel closes and then reopens.

Do not terminate the control panel in this case.

- 374935 MCP78: 32-bit color quality is not available in the NVIDIA Control Panel 'Change Resolution' option.

The driver was failing to retrieve all the mode information.

- 363627 MCP68, G98/96: In Horizontal Spanning mode, there is corruption on the second display when playing an MPEG2 SD file.

Implemented support for horizontal scaling in Horizontal Spanning mode.

- 359951 Quadro FX 4600: Cinema 4D application freezes when attempting to rotate an object.

Fixed a bug in the flip code.

Fixed Issues—Windows XP 64-bit

Single-GPU Issues

- 374935 MCP78: 32-bit color quality is not available in the NVIDIA Control Panel 'Change Resolution' option.

The driver was failing to retrieve all the mode information.

Changes in Version 173.62

This section lists the changes made and issues resolved since driver version 173.59.

- “Fixed Issues–Windows XP 32-bit” on page 69
- “Fixed Issues–Windows XP 64-bit” on page 70

Fixed Issues–Windows XP 32-bit

Single-GPU Issues

- 380003 NVIDIA Control Panel: After changing a 3D application from the Manage 3D settings->Global settings->Global presets page and then clicking Cancel, the application profile still changes.

The Global preset was being saved inappropriately.

- 379901 NVIDIA Control Panel, G71: Changes made in the "Adjust Video color settings" page do not revert after clicking Cancel" when in a multimonitor mode.

Changed the method of setting the Adjust Video Color Settings and Adjust Video Image Settings pages when changes are made.

- 379806 G73M: Blue-screen crash occurs upon connecting DVI, when the VGA and LVDS are already in Clone mode.

Fixed the IRQ handling when reading the EDID of the hot-plugged DVI connection.

- 379767 G98M, Direct3D: D3D Query Conformance Test has occlusion count and timestamp failures.

Fixed a regression that created a pointer to an incorrect memory location.

- 379723 G86M: Blue-screen crash occurs after rotating to 180 degrees and then restarting the system.

A video registry was erroneously being read as unicode instead of binary.

- 376084 NVIDIA Control Panel, Quadro FX SDI, Send Graphics to SDI output page: The signal selection drop-down list flickers.

The dialog was erroneously being updated continuously.

- 375081 Notebook: Blue-screen crash occurs when switching to the KHS 2500X Projector.

Insufficient space was allocated for the monitor descriptor string.

- 371787 Notebook: The mouse pointer displays abnormally after going to lid-close standby, undocking, opening the lid, then resuming from standby.

The cursor information was not getting updated properly.

- 356684 NVIDIA Control Panel, GeForce 6100/6150: In Dualview mode, the control panel crashes after changing the "Adjust desktop color settings" using the graph tab and then switching the Billboard application to full-screen mode.

Do not attempt to access an uninitialized pointer variable.

Fixed Issues—Windows XP 64-bit

Single-GPU Issues

- 379901 NVIDIA Control Panel, G71: Changes made in the "Adjust Video color settings" page do not revert after clicking Cancel" when in a multimonitor mode.

Changed the method of setting the Adjust Video Color Settings and Adjust Video Image Settings pages when changes are made.

- 379767 G98M, Direct3D: D3D Query Conformance Test has occlusion count and timestamp failures.

Fixed a regression that created a pointer to an incorrect memory location.

- 379723 G86M: Blue-screen crash occurs after rotating to 180 degrees and then restarting the system.

A video registry was erroneously being read as unicode instead of binary.

- 378114 NVIDIA Control Panel, G80: Checking the "Show only programs found on this computer" check box empties the Feature Setting list.

The call to populate the Feature Setting list was not being made.

Not NVIDIA Issues

This section lists issues that are not due to the NVIDIA driver.

- [“Application Issues” on page 71](#)

Application Issues

- HQV DVD playback is bobbing when running in overlay mode.

This is not an NVIDIA bug, but rather an issue with the Intervideo decoder in WinDVD 8.

- During DVD and HD DVD/Blu-ray playback, a white screen may appear over video when toggling from windowed to full-screen mode.

This issue was reported in driver v96.94 as an NVIDIA driver issue, but now appears to be an application issue with PowerDVD. NVIDIA is working with the application developer to provide a fix.

- Sims 2–“Smooth Edges (AA)” option is not available with Release 100 drivers.[272477]

This occurs because of an incorrect driver version check in the application.

NVIDIA has worked around this issue in the operating system by changing the way the driver version is reported to this application.

- Warhammer 40k Dawn of War (all versions) does not run with Release 100 drivers.[273154]

This occurs because of an incorrect driver version check in the application.

NVIDIA has worked around this issue in the operating system by changing the way the driver version is reported to this application.

- S.T.A.L.K.E.R. Shadow of Chernobyl: This application is not compatible with the *Override any application setting* or *Enhance the application setting* antialiasing modes from the NVIDIA Control Panel Manage 3D Settings page.

Please use the in-game antialiasing options.

- Splinter Cell Double Agent crashes when loading a single player game.[270517]

This is an application issue. You can work around this issue by creating a shortcut to launch the game as follows:

- 1 Navigate to the game install directory, then change to the sub-folder

\SCDA-Offline\system.

- 2 Create a shortcut to splintercell4.exe.
 - 3 Add "-ll" to the command line of the shortcut.
 - 4 Use this shortcut to launch the single player version of the game.
- HQV DVD playback is bobbing when running in overlay mode.[272289]

This is not an NVIDIA bug, but rather an issue with the Intervideo decoder in WinDVD 8.

- Age of Empires 3: Setting application to 1600x1200 with shader quality set to 'very high' causes menus and game to become corrupted.

This issue can be fixed by installing the v1.07 game patch.

- Company of Heroes: Dark transparent band appears when running the in-game performance test.

This is an application issue and can be reproduced on NVIDIA GeForce 7900 and ATI Radeon X1950 GPUs.

- Elder Scrolls 4 Oblivion: Running at 2560x1600 with NVIDIA Enhanced Application mode 16xQ, extremely rare 1-2 second pauses occur during some fighting. [262685]

This appears to be an application issue in how large textures are created during the in-game fighting.

- Far Cry: Water reflection on Archive level is not correct. [253431]

This appears to be an application issue. NVIDIA is working with the application developer to try to patch their application

- Half-Life 2 Lost Coast: GeForce 8800 GTX fog looks different than GeForce 7900 GTX fog, and dynamic shadows look solid black. [262215]

The GeForce 8800 GTX image quality matches the Microsoft Reference Rasterizer. This issue may affect other Half-Life 2 based engines such as Counter-Strike Source and Half-Life Episode 1. NVIDIA is working with the application developer to try to patch their application.

- Half-Life 2 Lost Coast: Color corruption occurs in the video stress test after changing the display mode.

This is a known application issue.

- Half-Life 2 Episode One: Gravity Gun has z-fighting problems on certain portions of the gun. [263505]
- Quake4: Random pauses occur during gameplay. [260029]

This appears to be an application issue that affects testing on Quake4 with dual-core optimizations turned on. Turning off the SMP value in Quake4 eliminates this problem.

- During DVD and HD DVD/Blu-ray playback, a white screen may appear over video when toggling from windowed to full-screen mode.[263449]

This issue was reported in driver v96.94 as an NVIDIA driver issue, but now appears to be an application issue with PowerDVD. NVIDIA is working with the application developer to provide a fix.

- Age of Empires 3: Vertical sliver appears near the right side of the intro videos. [221738]
- Battlefield 1942 hangs after playing for a few minutes.[265230]

This is an application issue with dual-core CPUs.

Known Product Limitations

This section describes problems that will not be fixed. Usually, the source of the problem is beyond the control of NVIDIA. Following is the list of problems and where they are discussed in this document:

- “Full-screen Video Mirror not Supported on GeForce 8 Series and Later GPUs” on page 75
- “GeForce 6 and 7 Series Cards Cannot Output Interlaced Signals in SLI Mode” on page 75
- “Image Sharpening Control not Available with GeForce 8 Series and Later GPUs” on page 75
- “Display Output Selection not Available on “Bridgeless” SLI” on page 75
- “SLI Connector Requirement on NVIDIA Quadro SLI Cards” on page 76
- “DVD Playback Issues with Dual NVIDIA Quadro NVS Cards” on page 76
- “DirectX Fails When Detaching/Reattaching Displays in Dualview Mode” on page 76
- “OpenGL Viewport Scaling Problem in Horizontal Span Mode” on page 76
- “Video Playback in nView Clone and Span Modes” on page 77
- “Applying Workstation Application Profiles” on page 77
- “No Antialiasing of 3DMark03 Image Quality Screen Captures” on page 78
- “Medal of Honor Under Windows XP / Windows 2000” on page 78
- “Windows XP/2000 Issue with Settings Tab Monitor Positioning” on page 79
- “Antialiasing Problems With Certain Applications” on page 79
- “Poor Quality S-Video Output on Some TVs” on page 80
- “AGP and PCI-E Programs May Hang With AMD K7 and K8 Processors” on page 80
- “Desktop Manager Does Not Re-Center Logon Screen” on page 81
- “Issues with Video Mirror–Windows XP/2000” on page 81

Full-screen Video Mirror not Supported on GeForce 8 Series and Later GPUs

Full-screen video mirroring is not supported on graphics cards based on the GeForce 8 series and later GPUs.

Compliance with Microsoft's Certified Output Protection Protocol (COPP) for content-protected media has prompted NVIDIA to remove this feature for all video.

GeForce 6 and 7 Series Cards Cannot Output Interlaced Signals in SLI Mode

- **Problem**

Rendering problems and instability occur when outputting interlaced modes (480i, 576i and 1080i) over the Y Pr Pb component and DVI outputs.

- **Explanation**

This is a hardware limitation in SLI mode only and cannot be fixed via a driver update.

- **Resolution**

Due to this issue, starting in driver version 162.18 in Windows Vista, the driver will automatically disable SLI mode when using the 480i, 576i and 1080i modes over all connectors on the GeForce 6 and 7 series GPUs.

To re-enable SLI mode, you must choose a non-interlaced output mode and reboot your computer.

- GeForce 8 series GPUs do not have this hardware limitation and you can output all HDTV interlaced and progressive scan outputs in SLI mode.
- The 480p, 576p, 720p, and 1080p progressive scan modes do not have this issue in SLI mode and are not affected by this change.

Image Sharpening Control not Available with GeForce 8 Series and Later GPUs

With GeForce 8 Series and later graphics cards, the **Image sharpening** slider on the NVIDIA Control Panel-> Display->Adjust Desktop Color Settings page is grayed out.

This control is intentionally disabled because image sharpening is not supported on GeForce 8 series and later GPUs.

Display Output Selection not Available on "Bridgeless" SLI

On graphics cards that can operate in SLI mode without the SLI connector (such as the GeForce 6600), you cannot select which monitor to display the output. On the SLI display property page, the option box to select the output display is not available.

SLI Connector Requirement on NVIDIA Quadro SLI Cards

The SLI connector that links two SLI cards is needed for proper SLI operation. However, the connector can be removed if you do not intend to enable SLI mode. If you remove the connector, then you must make sure that SLI mode is disabled from the NVIDIA control panel. Enabling SLI mode without the SLI connector installed will result in video corruption.

DVD Playback Issues with Dual NVIDIA Quadro NVS Cards

With both AGP and PCI NVIDIA Quadro NVS cards installed in the system, when attempting to play DVDs in full-screen mode on the display connected to the PCI card, the screen is blank.

This is not an NVIDIA bug, but rather a problem with older point releases of PowerDVD and WinDVD.

DirectX Fails When Detaching/Reattaching Displays in Dualview Mode

This problem can be duplicated as follows:

- 1 Enable both displays in Dualview mode.
- 2 Detach monitor 2 and apply settings.
- 3 Reattach monitor 2 and apply settings.

DirectX runtime fails on monitor 1.

This is not an NVIDIA bug, but a limitation in the operating system where DirectX does not enumerate the second device. DirectX can be restored to both displays by rebooting the system

OpenGL Viewport Scaling Problem in Horizontal Span Mode

With nView Horizontal Span mode enabled, when opening an OpenGL model in a viewport, the model image is scaled too large to fit in the viewport. The problem occurs with such applications as Maya 5.0 and 3D Studio MAX 4.26.

This is not an NVIDIA bug, but a limitation in the application's ability to properly maintain the aspect ratio in Horizontal Span mode.

Video Playback in nView Clone and Span Modes

- **Problem**

With nView Clone or Span mode enabled, video playback appears on only one display under the following conditions:

- Under nView Clone mode, when full-screen video mirror is not used.
- Under nView Span mode, when full-screen video mirror is not used and the video is positioned to span across both monitors.

- **Explanation**

With applications that render using the hardware overlay—such as DirectX applications—the default driver behavior is to enable the hardware overlay when nView Clone or Span mode is enabled.

Because the driver supports only one hardware overlay, the video appears on only one display.

Applying Workstation Application Profiles

- **Application Profiles Should be Used**

The workstation application profiles are software settings used by the NVIDIA Display Drivers to provide optimum performance when using a selected application. The profile also works around known application issues and bugs.

If there is an available setting for an application, it should be used, otherwise incorrect behavior or reduced performance is likely to occur.

- **Applying Application Profiles**

If you make a configuration change while the application is open, you must exit and then re-open the application for the change to take effect.

When an application is running it does not receive notification of configuration changes.

No Antialiasing of 3DMark03 Image Quality Screen Captures

- **Problem**

After enabling antialiasing from the NVIDIA Properties page, 3DMark03 screen captures—obtained using the application’s screen capture function—might not be antialiased.

- **Explanation**

This is not an NVIDIA bug, but rather a result of different methods used to render antialiased images.

Depending on a combination of factors, the driver may take advantage of the NVIDIA hardware’s ability to bypass the front buffer while rendering an antialiased image. In this case, the front buffer does not contain antialiased data, so if an application takes data from the front buffer—as is the case with 3DMark03’s Image Quality screen captures—then the resulting image is not antialiased.

To accommodate applications that request use of the front buffer, the NVIDIA software can provide the antialiased data in a buffer to the application. Since this negates the advantages of the NVIDIA hardware capability, this support is enabled only when antialiasing is enabled within the application, and not from the NVIDIA control panel.

In all cases when antialiasing is enabled, screen images as well as screen captures obtained using the Print Screen key are always antialiased.

Medal of Honor Under Windows XP / Windows 2000

- **Problem**

The Electronic Arts game Medal of Honor uses a hard coded buffer to parse the OpenGL extension string. This can cause a system crash under Windows XP and Windows 2000.

- **Workaround**

NVIDIA has implemented Medal of Honor application detection to work around this extension string crash.

Windows XP/2000 Issue with Settings Tab Monitor Positioning

- **Problem**

In the Windows **Display Properties > Settings** tab, the secondary monitors cannot be positioned directly above monitor #1 without snapping horizontally to a position diagonal to monitor #1.

- **When the Problem Occurs**

The problem occurs when four monitors are connected to the graphics adapter card, but only two of them are enabled.

- **Cause and Workaround**

This is a Microsoft—not an NVIDIA—bug, and there is no workaround to correct the positioning of the monitor icons. However, the actual positioning of the displays on the desktop can be corrected using the nView Desktop Manager window as follows:

- 1 Under the Tools tab in the Desktop Manager windows, make sure Automatically Align Displays is checked.
- 2 In the Settings tab, position the appropriate monitor icon above monitor #1, then click **Apply**.

The mouse cursor movement between monitor desktops will correspond to a vertical orientation of the monitors, even though the monitor icons in the Settings tab are diagonal to each other.

Note: This will be the case even if the monitor icons are deliberately positioned diagonal to each other.

Antialiasing Problems With Certain Applications

Antialiasing in the NVIDIA Direct3D driver requires each new frame to be rendered from scratch. This requirement adversely affects applications that render only that portion of the content that has changed since the last frame. A common symptom of this problem is geometric structures that incorrectly disappear and re-appear as the scene shifts.

Poor Quality S-Video Output on Some TVs

NVIDIA drivers differentiate an S-video TV from a composite TV by searching for 75-Ohm loads on the chrominance and luminance lines. If the driver detects only one such load, it assumes that it has a composite TV and drives both chroma and luma onto that line. This approach allows both types of TV to display in color.

Unfortunately, some S-video TVs do not apply the correct load to both lines, causing the driver to detect an S-video TV as a composite. The driver, in turn, sends the lower quality signal to the S-video TV. To work around this problem, use the Control Panel to override the **Auto-select** feature. This can be done following these steps:

- 1 In the **Settings** tab of the **Display Properties** Control Panel, click **Advanced**.
- 2 In the **nView** tab, click **Device Settings** and click **Select Output Device**.
- 3 In the **Device Selection** tab, click the **TV** option.
- 4 Change the **Video output format** to **S-video**.

AGP and PCI-E Programs May Hang With AMD K7 and K8 Processors

- **Issue**

Microsoft® Windows® 2000 and Windows XP systems using AMD K7 and K8 processors can hang when an AGP or PCI-E program is used.

- **Root Cause**

There is a known problem with Microsoft® Windows® 2000 and Windows XP systems using AMD K7 and K8 CPUs that results in the Microsoft operating system allocating overlapping 4M cached pages with 4k write-combined pages. This condition results in undefined behavior and data corruption, and is explicitly disallowed by the AMD CPU manual.

This problem can affect any device driver in the system that allocates write-combined system memory, but is usually most easily reproduced with graphics drivers since graphics drivers generally make heavy use of write-combined system memory for performance reasons.

- **Resolution**

Microsoft has a knowledge base article on the issue, the text of which is unfortunately quite outdated. While the article only mentions Windows 2000, AGP, and K7, both the root cause and resolution also apply to Windows 2000 or Windows XP, AGP or PCI-E, and AMD K7 or K8. The article can be found at <http://support.microsoft.com/?id=270715>.

The issue is resolved by applying an operating system registry key as described in the referenced article that instructs the Microsoft operating system to not use the 4M pages, thus avoiding the conflict.

The registry key is automatically applied by installation of the latest NVIDIA nForce platform driver package (including 4.57 SMBUS or later). It is imperative for the package to be installed or for the registry key to be applied

before the NVIDIA graphics driver or any other device drivers are installed. The registry key takes effect only after an operating system reboot.

Desktop Manager Does Not Re-Center Logon Screen

On Windows XP multi-display systems that are set to nView Span mode, the Windows logon screen is centered on the extended desktop. This usually causes it to be split across two displays, which users may find annoying. Although users can normally use the Desktop Manager to restrict a window's appearance to one display, security restrictions in the operating systems prevent this in the case of the logon screen.

Issues with Video Mirror—Windows XP/2000

Table 2.1 lists current known issues with NVIDIA Video Mirror functionality.

Table 2.1 Known Issues with Video Mirror

Video Mirror is not yet implemented for applications using Video Port Extensions (VPE).
If Video Mirror is enabled but a full-screen display does not appear, one of the following problems may have occurred:
Video Mirror can only function when overlay is being used. The video player may not be able to create an overlay if another application is using the overlay, or the desktop display resolution is too high. You can lower the desktop resolution, pixel depth, or refresh rate.
Video Mirror requires some extra memory to run. Try closing other DirectX or OpenGL applications that may be running.
You may need to close and restart your video application for Video Mirror enabling or disabling to take effect.
Some video players that cannot detect the presence of Video Mirror stop playing if they are minimized or completely obscured by another window. For example, Media Player can exhibit this problem.

CHAPTER

3

THE RELEASE 173 DRIVER FOR WINDOWS XP

This chapter covers the following main topics:

- “Hardware and Software Support” on page 83
- “Driver Installation” on page 89
- “NVIDIA Driver History” on page 92

Hardware and Software Support

Supported Operating Systems

This Release 173 driver includes drivers designed for the following Microsoft® operating systems:

- Microsoft Windows® XP
 - Windows XP Media Center Edition 2005 Update Rollup2
 - Windows XP Media Center Edition 2005
 - Windows XP Media Center Edition 2004
 - Windows XP Professional
 - Windows XP Home Edition
 - Windows XP Professional x64 Edition

Supported NVIDIA Products

Table 3.1 and Table 3.2 list the NVIDIA GPUs supported by this Release 173 driver.

Table 3.1 Supported NVIDIA Consumer Products

Product	Windows XP 32-bit	Windows XP Professional x64
GeForce 9800 GX2	X	X
GeForce 9800 GTX	X	X
GeForce 9600 GT	X	X
GeForce 8800 GTX	X	X
GeForce 8800 GTS 512	X	X
GeForce 8800 GTS	X	X
GeForce 8800 GT	X	X
GeForce 8600 GTS	X	X
GeForce 8600 GT	X	X
GeForce 8500 GT	X	X
GeForce 8400 GS	X	X
GeForce 8400	X	X
GeForce 8300 GS	X	X
GeForce 8300	X	X
GeForce 8200	X	X
GeForce 8100/NVIDIA nForce 720a	X	X
NVIDIA nForce 720a	X	X
GeForce 7950 GX2 (PCI-E)	X	X
GeForce 7950 GT (PCI-E)	X	X
GeForce 7900 GTX (PCI-E)	X	X
GeForce 7900 GTO (PCI-E)	X	X
GeForce 7900 GT (PCI-E)	X	X
GeForce 7900 GS (PCI-E)	X	X
GeForce 7800 GTX 512 (PCI-E)	X	X
GeForce 7800 GTX (PCI-E)	X	X
GeForce 7800 GT (PCI-E)	X	X
GeForce 7800 GS (AGP and PCI-E)	X	X
GeForce 7600 GT (PCI-E)	X	X
GeForce 7600 GS (AGP and PCI-E)	X	X
GeForce 7500 LE (PCI-E)	X	X
GeForce 7300 GT (PCI-E)	X	X
GeForce 7300 SE (PCI-E)	X	X
GeForce 7300 LE (PCI-E)	X	X
GeForce 7300 GS (PCI-E)	X	X
GeForce 7100 GS (PCI-E)	X	X
GeForce 6800 (AGP and PCI-E)	X	X
GeForce 6800 XT (AGP and PCI-E)	X	X
GeForce 6800 XE (AGP and PCI-E)	X	X
GeForce 6800 Ultra (AGP and PCI-E)	X	X
GeForce 6800 LE (AGP and PCI-E)	X	X
GeForce 6800 GT (AGP and PCI-E)	X	X

Table 3.1 Supported NVIDIA Consumer Products (continued)

Product	Windows XP 32-bit	Windows XP Professional x64
GeForce 6800 GS (AGP and PCI-E)	X	X
GeForce 6700 XL (PCI-E)	X	X
GeForce 6610 XL (PCI-E)	X	X
GeForce 6600 VE (AGP and PCI-E)	X	X
GeForce 6600 LE (AGP and PCI-E)	X	X
GeForce 6600 GT (AGP and PCI-E)	X	X
GeForce 6600 (AGP and PCI-E)	X	X
GeForce 6500 (PCI-E)	X	X
GeForce 6200 LE (PCI-E)	X	X
GeForce 6200SE with TurboCache (PCI-E)	X	X
GeForce 6200 with TurboCache (PCI-E)	X	X
GeForce 6200 (AGP and PCI-E)	X	X
GeForce 6150 LE	X	X
GeForce 6150 nForce 430	X	X
GeForce 6100 nForce 430	X	X
GeForce 6100 nForce 405	X	X
GeForce 6100 nForce 400	X	X
GeForce 6100 nForce 420	X	X
GeForce PCX 5900	X	X
GeForce PCX 5750	X	X
GeForce PCX 5300	X	X
GeForce FX 5950 Ultra	X	X
GeForce FX 5900ZT	X	X
GeForce FX 5900XT	X	X
GeForce FX 5900 Ultra	X	X
GeForce FX 5900	X	X
GeForce FX 5800 Ultra	X	X
GeForce FX 5800	X	X
GeForce FX 5700VE	X	X
GeForce FX 5700LE	X	X
GeForce FX 5700 Ultra	X	X
GeForce FX 5700	X	X
GeForce FX 5600XT	X	X
GeForce FX 5600SE	X	X
GeForce FX 5600 Ultra	X	X
GeForce FX 5600	X	X
GeForce FX 5500	X	X
GeForce FX 5200LE	X	X
GeForce FX 5200 Ultra	X	X
GeForce FX 5200	X	X
GeForce FX 5100	X	X

Table 3.2 Supported NVIDIA Workstation Products

Product	Windows XP 32-bit	Windows XP Professional x64
NVIDIA Quadro FX 5600	X	X
NVIDIA Quadro FX 5500 SDI	X	X
NVIDIA Quadro FX 5500	X	X
NVIDIA Quadro FX 4600	X	X
NVIDIA Quadro FX 4500 X2	X	X
NVIDIA Quadro FX 4500	X	X
NVIDIA Quadro FX 4500 SDI	X	X
NVIDIA Quadro FX 4400	X	X
NVIDIA Quadro FX 4400G	X	X
NVIDIA Quadro FX 4000	X	X
NVIDIA Quadro FX 4000 SDI	X	X
NVIDIA Quadro FX 3700	X	X
NVIDIA Quadro FX 3500	X	X
NVIDIA Quadro FX 3450	X	X
NVIDIA Quadro FX 3400	X	X
NVIDIA Quadro FX 3000	X	X
NVIDIA Quadro FX 3000G	X	X
NVIDIA Quadro FX 2000	X	X
NVIDIA Quadro FX 1500	X	X
NVIDIA Quadro FX 1400	X	X
NVIDIA Quadro FX 1300	X	X
NVIDIA Quadro FX 1100	X	X
NVIDIA Quadro FX 1000	X	X
NVIDIA Quadro FX 700	X	X
NVIDIA Quadro FX 600	X	X
NVIDIA Quadro FX 570	X	X
NVIDIA Quadro FX 560	X	X
NVIDIA Quadro FX 550	X	X
NVIDIA Quadro FX 540	X	X
NVIDIA Quadro FX 500	X	X
NVIDIA Quadro FX 370	X	X
NVIDIA Quadro FX 350	X	X
NVIDIA Quadro FX 330	X	X
NVIDIA Quadro NVS 440	X	X
NVIDIA Quadro NVS 400	X	X
NVIDIA Quadro NVS 290	X	X
NVIDIA Quadro NVS 285 PCI-E	X	X
NVIDIA Quadro NVS 280 PCI	X	X
NVIDIA Quadro NVS 280	X	X
NVIDIA Quadro NVS 280 SD	X	X
NVIDIA Quadro NVS 210s	X	X

Table 3.2 Supported NVIDIA Workstation Products (continued)

Product	Windows XP 32-bit	Windows XP Professional x64
NVIDIA Quadro NVS 50 PCI	X	X
NVIDIA Quadro NVS with AGP8X	X	X

Supported Languages

The Release 173 ForceWare Graphics Drivers supports the following languages in the main driver 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)	

Driver Installation

System Requirements

The hard disk space requirement is minimum 62.9 MB for English-only, and 79 MB for International.

Installation Instructions

Before You Begin

- **If NVIDIA nTune is already installed**

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 nTune.

- 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 nView system files are copied to your **Windows\System** directory.
- nView Desktop Manager Profile files (*.tvp) are saved in the **Windows\Nview** directory.

Depending on the version of the NVIDIA driver previously installed, profiles may also be located in the **Documents and Settings\All Users\Application Data\NView_Profiles** directory.

- As part of the install process, an uninstall is registered in your system.
- Under Windows XP, the NVIDIA driver is installed in “Dualview mode” display. However, note that the second display is not activated by default, but must be enabled.

Preserving Settings Before Upgrading Your Software

Before uninstalling or installing software, you can preserve your nView Desktop Manager and/or NVIDIA Display settings by using the nView Desktop Manager Profiles features.

Note: Follow the steps below and/or refer to the *NVIDIA nView Desktop Manager User's Guide* for details. Under Windows XP/2000 and Windows NT 4.0, you must have, at least, **Power User** access privileges in order to create or save a profile. (Refer to Windows Help if you need an explanation of Power User access rights.)

Follow the steps below and/or refer to the *NVIDIA nView Desktop Manager User's Guide* for details.

- 1 Open the nView Desktop Manager Profiles page (Figure 4.1).
- 2 To preserve your current settings, you can use either the **Save** or the **New** option from the nView Desktop Manager Profiles page:
 - If you want to overwrite the currently loaded profile with your changed settings, use the **Save** option. Notice that a warning message indicates that you are about to overwrite the selected profile.
 - If you want to retain the currently loaded profile and want to save your changed settings to a new file, click the **New** option. Enter a name and description of the profile in the New Profile dialog box. For example, you can name this profile **My Settings**.
- 3 If you are an “advanced” user and want to customize certain settings in the saved profile, click **Advanced** << to expand the dialog box (Figure 4.2).
- 4 To customize the settings, you can select or clear any of the settings check boxes.
- 5 Click **Save** to return to the main Profiles page.

If you created a new profile, you will see the name of the newly created profile in the profiles list.

If you overwrote a current profile, the same profile name is retained in the list.

Note: nView Desktop Manager profile (.tvp) files are saved in the **Windows\nView** directory. Depending on the version of the NVIDIA driver previously installed, profiles may also be saved in the **Documents and Settings\All Users\Application Data\ nView_Profiles** directory.

- 6 Now you can uninstall your current driver for a driver upgrade.
- 7 After you restart your computer following an NVIDIA new driver install, you can easily load the saved profile from the Profiles page of nView Desktop Manager.

About Using Saved Profiles in Another Computer

You can easily use any saved profile (.tvp file in the **Windows\nView** directory) from one computer and use it in another computer, if you want. You'll need to copy it to the **Windows\nView** directory of a computer that has the NVIDIA ForceWare graphics display driver, etc. installed properly. Then

this profile can be loaded from another computer from the nView Desktop Manager Profiles page just as it can from your original computer.

Uninstalling the NVIDIA Display Driver Software

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

- 1** Open Setup.exe to launch the NVIDIA InstallShield Wizard.
- 2** Follow the instructions in the NVIDIA InstallShield Wizard to complete the installation.

NVIDIA Driver History

Release 173 is the latest NVIDIA driver available. [Table 3.1](#) contains a summary of some previous driver releases and the versions associated with them. Some versions listed may not have been released outside of NVIDIA..

Table 3.1 NVIDIA Drivers for Windows

Driver	Name	Versions	Comments
Release 173	ForceWare	173.55, 173.56, 173.58, 173.59, 173.62, 173.65, 173.80, 173.90, 173.91, 174.00–174.11, 174.13, 174.20, 174.30–174.32, 174.40–174.43, 174.50–175.97	
Release 169	ForceWare	169.00–167.05, 169.07–169.09, 169.11, 169.14, 169.15, 169.18, 169.19, 169.21, 169.23, 169.24, 169.26	
Release 167	ForceWare	167.00–167.04, 167.10, 167.20, 167.21, 167.25, 167.26, 167.30–167.32, 167.35–167.38, 167.40–167.44	
Release 163	ForceWare	163.00, 163.10, 163.12, 163.20–163.50, 163.51	
Release 100	ForceWare	101.70, 158.32, 160.04, 160.06	
Release 95	ForceWare	96.94, 95.97, 97.02, 97.44, 97.92, 97.94	
Release 90	ForceWare	91.28, 91.31, 91.33, 91.36, 91.37, 91.45, 91.47	
Release 80	ForceWare	81.67, 84.26, 81.82, 81.84, 81.85, 81.87, 81.94, 81.95, 81.98, 82.12, 82.14, 83.40, 84.12, 84.20, 84.21, 84.25, 84.43	

Table 3.1 NVIDIA Drivers for Windows (continued)

Driver	Name	Versions	Comments
Release 75	ForceWare	77.37, 77.56 77.72, 77.76, 77.77, 78.01, 78.05	
Release 70	ForceWare	71.84, 71.89	
Release 65	ForceWare	66.77, 66.93, 67.02, 67.03, 67.66	
Release 60	ForceWare	61.76, 61.77	
Release 55	ForceWare	56.64, 56.72, 57.30	
Release 50	ForceWare	52.16, 53.04	
Release 40	Detonator FX	44.03–45.xx	
Release 40	Detonator 40	40.60–44.02	
Release 35	Detonator 35	35.60–37.80	
Release 25	Detonator 25	26.00–32.90	
Release 20	Detonator XP	21.83–23.xx	
Release 10	Detonator 3 v1x.xx	10.00–17.xx	

APPENDIX



MODE SUPPORT FOR WINDOWS

This chapter details the Windows modes supported by the Release 173 driver for NVIDIA products. It contains these sections:

- “General Mode Support Information” on page 96
- “Modes Supported by TV Encoders” on page 98

General Mode Support Information

Default Display Modes

The NVIDIA graphics driver includes a standard list of display modes that are supported by default. These modes are listed in the file `modes.txt` which is included in the OEM driver package.

Figure A.1 gives an example of how to read the mode information presented in the file `modes.txt`.

	Resolution	Color Depth	Refresh Rates
Example entry:	1024 x 768	32 60 70 72 75 85 100 120	140 144 150 170 200

Meaning:

Resolution:	1024 x 768
Color depth:	32 bpp
Refresh rates:	60 Hz, 70 Hz, 72 Hz, 75 Hz, 85 Hz, 100 Hz, 120 Hz, 140 Hz, 144 Hz, 150 Hz, 170 Hz, and 200 Hz

Figure A.1 Mode Format

Note:

- An “i” next to the refresh rate indicates an interlaced refresh rate.
- Horizontal spanning modes of 3840x1080 and above, and vertical spanning modes of 1920x2160 and above generally require at least 32 MB of video memory at 32 bpp.

Additional Display Modes

The actual modes available depend on the capabilities of the display. In addition, the NVIDIA graphics driver has a “dynamic EDID detection” capability and will make available *additional* modes that are listed in the display EDID, provided the graphics hardware can support it.

The NVIDIA graphics driver also supports the high resolutions available with the displays listed in [Table A.1](#) as well as the non-standard modes listed in [Table A.2](#).

Table A.1 Modes Supported for High Resolution Displays

Display	Maximum Resolution	Hardware Requirements
Apple 30" Cinema HD Display (Dual link DVI)	2560x1600 @ 60 Hz	• All GeForce 7 series GPUs and later • GeForce 6800 Ultra 512 • GeForce 6800 with 512 MB • All high-end NVIDIA Quadro FX graphic solutions.
Dell WFP 3007 (Dual Link DVI)	2560x1600 @ 60 Hz	
HP LP3065 dual-link DVI flat panel	2560x1600 @ 60Hz.	

Table A.2 Non-standard Modes Supported

Resolution
1680 x 1050
1366 x 768

Modes Supported by TV Encoders

Table A.3 and Table A.4 list the NTSC, PAL, and HDTV TV-Out modes supported by the NVIDIA driver.

Table A.3 Mode Support for S-Video and Composite Out

Resolution	Bit depth	Comments
320x200	8, 16, 32	DirectDraw mode; not selectable as a Windows desktop
320x240	8, 16, 32	DirectDraw mode; not selectable as a Windows desktop
640x400	8, 16, 32	DirectDraw mode; not selectable as a Windows desktop
640x480	8, 16, 32	
720x480	8, 16, 32	Overscans (for video)
720x576	8, 16, 32	Overscans (for video)
800x600	8, 16, 32	
1024x768	8, 16, 32	Conexant 25871 only

Table A.4 Mode Support for Component YPrPb Out and DVI Out

Resolution	Comments
480i (SDTV)	Supported on graphics boards with Conexant 875 or Philips 7108 TV encoders and compatible connectors, and compatible GeForce 6 Series and GeForce 7 Series GPUs.
480p (EDTV)	
720p (HDTV)	
1080i (HDTV)	
576i (PAL)	
576p (PAL)	

The driver supports manual overscan correction for component and DVI outputs. See the *ForceWare Graphics Driver User's Guide* for instructions on how to use the overscan correction features in the control panel.

APPENDIX

B

HIGH DEFINITION AUDIO DRIVER FOR WINDOWS

The NVIDIA HD Audio driver complies with the Intel® High Definition Audio (“Azalia”) Specification. The HD Audio driver supports the audio portion of HDMI outputs on select NVIDIA GPUs.

Hardware and Operating System Support

Hardware Requirements

The NVIDIA HD Audio driver requires a system with an NVIDIA HD Audio codec and an HD Audio controller.

- **NVIDIA HD Audio Codec**

The following NVIDIA GPUs and chipsets contain the NVIDIA HD Audio codec.

- G96
- G94
- G98
- MCP7x

- **HD Audio Controller**

The following hardware contains an HD Audio controller.

- NVIDIA chipset (MCP7x)

- Compatible motherboard that includes an HD Audio controller and HD Audio header (for use with discrete NVIDIA GPUs)

Supported Operating Systems

- Windows Vista 32-bit
- Windows Vista 64-bit
- Windows XP x86 (requires prior installation of the Microsoft Hotfix described in KB article [888111](#))
- Windows XP x64 (requires prior installation of the Microsoft Hotfix described in KB article [888111](#))

About the Driver

Installation

The HD Audio driver installs automatically when you install the graphics driver as long as it detects the presence of the HD Audio link, either from a system with a supporting NVIDIA chipset, or from the HD Audio cable connection between the graphics card and the motherboard.

About the Driver

- Once installed, the driver appears as an Audio Controller in the Windows Device Manager.
- In Windows XP, there is no master volume control or mute control in the Windows Speaker control panel.

Releases

Version 1.00.00.28

Included beginning with graphics driver version 175.95.

Changes and Fixed Issues

- There is no image on the HDMI or DVI output.

Fixed the HDA reinitialize.

Version 1.00.00.27

Included beginning with graphics driver version 175.86.

Changes and Fixed Issues

- MCP78/MCP72: There is no display when HDCP is used.

Fixed an issue with the AudioInfoFrame initialization, and audio protection.

Version 1.00.00.26

Changes and Fixed Issues

- MCP79/MCP77/G94/G94M: Various HD video problems occur when HDA is enabled, such as slow playback or display flashing.

Fixed HDCP handling. Also enabled 6 channel support.

Version 1.00.00.25

Changes and Fixed Issues

- MCP78: Blue-screen crash occurs when playing WMV files and then switching audio tracks.

Fixed a memory addressing issue.

Version 1.00.00.23

Changes and Fixed Issues

- Fixed DTM RTM failures.
- MCP77/78/79/7A: When playing Blu-ray disk or HD Media, HDMI HD audio switches to SPDIF sporadically.
Fixed issues in the content-protection code.
- MCP79/MCP77 - Playing Audio with HDCP enabled results in unsolicited responses sent from the codec to the audio driver. .

Version 1.00.00.20

Initial release of the NVIDIA HD Audio driver