Technical Brief

NVIDIA nView® Display Management Software

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nView Display Management Software

Introduction

NVIDIA® nView® Display Management Software delivers maximum flexibility for single or multi-display setups, providing unprecedented end-user control of the desktop experience for increased productivity. NVIDIA's nView leverages NVIDIA Quadro® graphics processing units (GPUs), making it easy for you to set up multiple monitors, manage a variety of different desktops, and run multiple windows and applications simultaneously.

Anyone who has ever used a system with multiple or large screen monitors can attest to the increased productivity and efficiency that comes with increased screen real estate. Multimedia users, designers, game and software developers, and anyone who runs multiple applications and multiple application windows can benefit from nView software.

The key capabilities of nView software include:

- **Setup Wizard—**easily configure multiple displays
- **Extended Taskbar—**extend your Windows taskbar across all your displays (even if they are at different resolutions - *under Windows Vista only*)
- **Gridlines—**divide your monitors into sub-screens for more efficient use of your screen real estate
- **Profiles—**create standard configurations for different types of users within your organization or different monitor configurations that you frequently use
- **Virtual Desktops—**create, customize, and switch between different desktops for specific jobs, and get rid of clutter completely. For example, you can set up one desktop for office applications and web surfing, another for CAD, and yet another for multimedia.

So if you use multiple monitors or a single, large display, nView can increase your productivity and make your workflow more efficient.

This technical brief provides an overview of the features nView software gives you. For detailed information on how to use nView and its features, please consult the *nView User's Guide*, available for download from the NVIDIA Web site.

Figure 1. Common Multiple Display Environments

nView for Windows Vista

Beginning with NVIDIA driver version 178.46, nView supports Windows Vista.

Windows Vista support is available only with Quadro hardware. nView for Windows XP will continue to function with NVIDIA's GeForce® hardware.

Software Features

Setup Wizard

The first challenge with using multiple monitors is setting up and configuring your displays. nView provides a setup wizard that assists you in configuring your displays quickly and correctly. The wizard helps you set up the most commonly used nView features through intuitive menus. Each step of the way, it prompts you with text, diagrams, and pictures to configure nView to meet your particular needs.

Figure 2: nView Setup Wizard

Multiple Display Modes

nView lets you choose between four different display modes for setting up and running multiple monitors (see Figure 3):

- **Single**—single monitor mode
- **DualView**—each display is independent and can be configured individually
- **Span**—your displays are combined into a single desktop that spans all the displays
- **Clone**—all the monitors are identical, displaying the same information.

Whatever your requirements for multiple displays, nView has a mode to meet your needs.

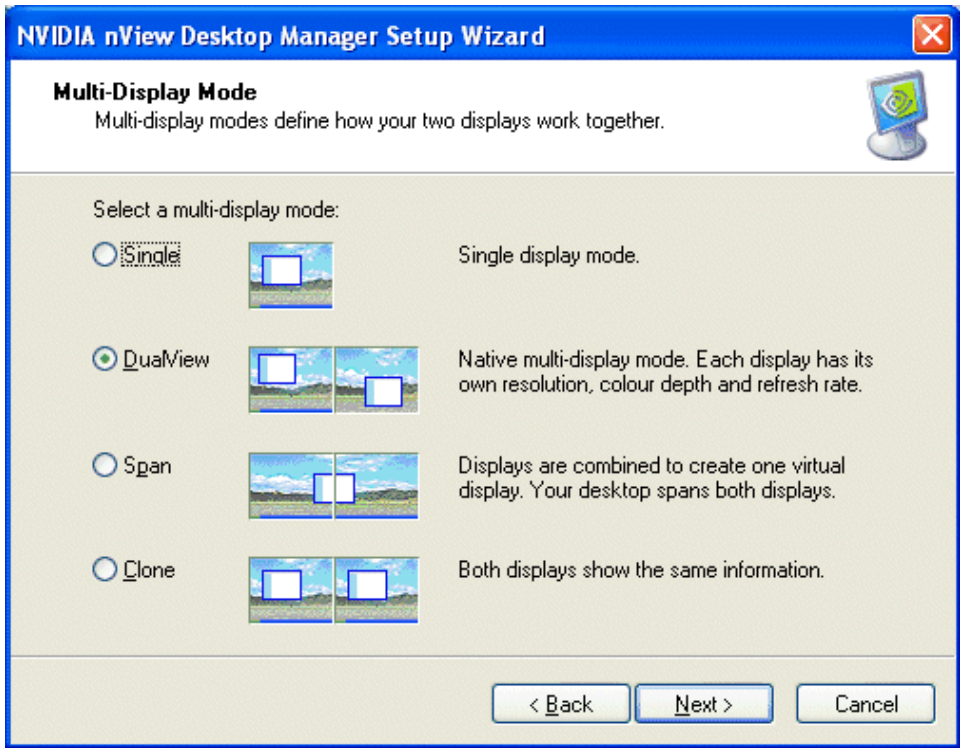

Figure 3. Multi-Display Modes

Window and Dialog Box Management

Once you've selected your display mode, nView gives you full control over repositioning dialog boxes and application windows, letting you create and maintain the ideal workspace.

With nView, you can move dialog boxes onto a specific display, to the mouse cursor, or have them appear on the same display as the application window (see

Figure 4). You no longer have to put up with dialog boxes that appear in random monitors or are split between two monitors.

Application and window management gives you control over where your applications appear. nView lets you control each window through system menu extensions, giving you quick access to multiple desktop integration, individual application settings, window move functions, and application specific extensions (see Figure 4).

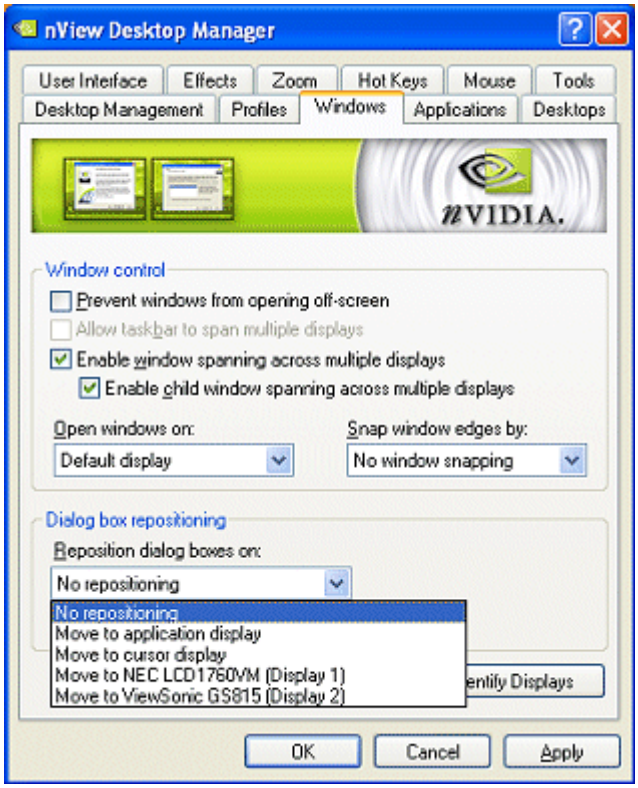

Figure 4. Windows and Dialog Box Management

Virtual Desktops

While application and windows management helps you visually organize your desktop, your workspace can still become cluttered if you have too many windows open at once. nView solves this by allowing you to create up to 32 individually named desktops.

You can create a desktop for different categories of work. Each desktop is fully customizable, allowing you to change the desktop name, choose the background and look and feel of the desktop, and control what applications are available on each desktop. Switching between desktops is a snap, using either the nView taskbar icon or hot keys.

For example, a financial trader could have a trading desktop, an Internet desktop, and a word processing desktop. Her trading software and MS Excel might launch only on the trading desktop, Internet Explorer on the Internet desktop, and MS Word on the word processing one. Email and instant messaging might be set to launch onto any of the three. Furthermore, dialog boxes for the trading software might be set to appear wherever the mouse cursor is, ensuring the she doesn't miss a trade because she was working on a different desktop at the moment the trade came in.

A software engineer, on the other hand, might want to prevent his email and instant messaging software from opening on his coding desktop, ensuring that he isn't distracted by incoming email while he's working heads down amidst his code.

nView stores desktop settings on a per-user basis, rather than on a global basis. So if different people use the same system, they each can have their own desktops configured just the way they like them.

Profiles

Large organizations that deploy thousands of systems often use disk images to make system setup and technical support easier for the IT department. nView's profiles feature lets an IT department easily install thousands of nView-enabled systems with a few standard configurations (for example, one for each department) and no additional end-user setup (see Figure 5).

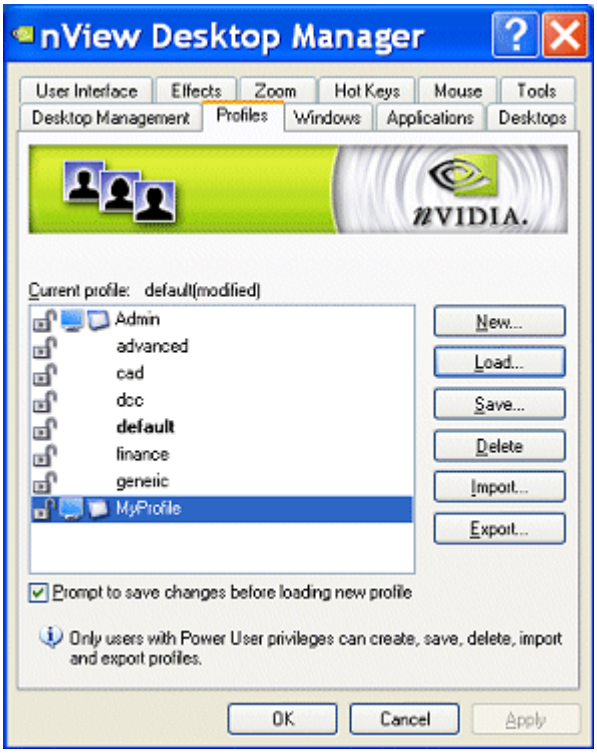

Figure 5: Profiles Control

But even if you're not part of a large organization, you can benefit from the profiles feature if you frequently change your monitor setup. If, for example, you have a notebook that you sometimes run docked with a second monitor and sometimes run standalone, you can set up a profile for each configuration. In this case, you can set up two profiles on your system, a docked version and an undocked version with different settings. When you switch configuration (for example, dock or undock your notebook computer), you can load the desired configuration with a single keystroke.

Application-Specific Configuration

In addition to multiple desktops and profiles, nView lets you individually configure each application you use. You can set an application to always appear on a particular monitor or to prevent it from spanning across multiple displays. You can have the dialog boxes associated with that application configured separately from others.

Hot Keys

nView has a straightforward configuration utility that lets you associate every nView action to a keyboard hot key. Setting up hot keys is as easy as selecting the nView action, pressing the keystrokes, and saving the new hot key.

Whether it is managing windows, changing desktops, or using zoom features, nView's hot keys let you maximize your productivity by controlling common actions with single keystrokes.

Gridlines

nView's gridlines feature allows you to define virtual regions on any or all of your displays and reposition and maximize your windows and dialog boxes to these regions instead of the monitor as a whole.

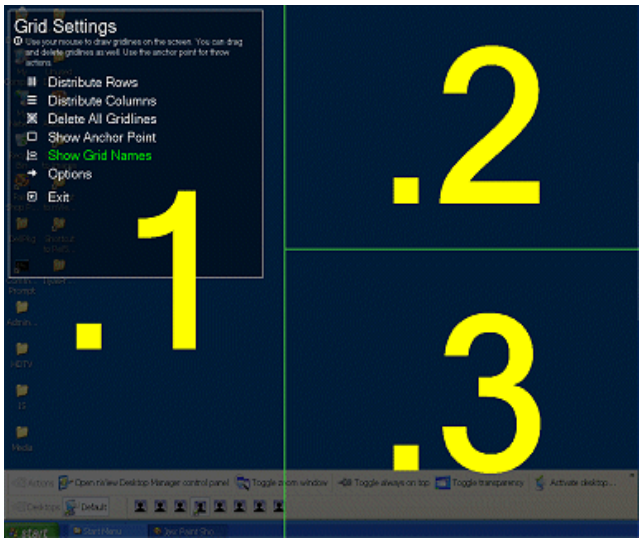

Figure 6: Gridlines

Gridlines are particularly useful if you have one or more very large displays, like a 24 or 30-inch monitor and habitually work with multiple application windows open at the same time. With gridlines you can establish up to ten of these regions if you are using a Quadro card or up to four if you have a GeForce GPU.

Extended Taskbar

If you are using multiple displays in either the span or DualView modes, you can extend the Windows taskbar across all of the displays.

There are a few differences between the way Extended Taskbar works under Windows Vista vs. Windows XP. When the taskbar is extended to two or more displays:

1. Under Windows XP, the taskbar behaves as no different as when nView is disabled. Under Windows Vista, the applications open in a display are shown in the taskbar for that display.
2. Under Windows XP, all displays need to be at the same resolution. Under Windows Vista, users are not limited to keeping the same resolution on all displays.

Conclusion

NVIDIA nView technology is the pinnacle of advanced display functionality and performance. It allows you to easily setup and customize your display o meet your individual needs. With nView, taking advantage of the increased productivity and efficiency that only a multi-display setup can provide is a snap.

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