Cinematic Computing for Every User

GeForce FX 5200/5500/5600/5700/5900 Series
User's Manual

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Getting Ready

Package Contents

- GeForce FX 5200 / 5600 / 5700 / 5900 board
- Software CD
- General Guide/Quick Installation Guide
- AV cable (Optional for TV output)
- S-video cable (Optional for TV output)
- S-video-AV cable (Optional)
- VIVO cable with HDTV support (Optional)
- DVI to VGA adapter (Optional)

Do not have the VIVO cable connected with the AV cable and S-video cable simultaneously. Connect only the cable for currently desired input source for the video to be displayed correctly.
Getting Ready

Board Layout

1. DVI Connector (Optional)
2. VIVO or TV Out Connector (Optional)
3. VGA Connector
4. Bus Connector

Note: The actual board appearance may differ from the diagrams.

Features

- Powered by the NVIDIA GeForce FX GPU - Graphics Beyond Imagination
- CineFX 2.0 Engine for GeForce FX 5700 and GeForce FX 5900/ CineFX Engine for GeForce FX 5200/5500/5600 - Enables stunning, cinematic-quality special effects along with advanced programmability
- Intellisample Technology - Delivers higher image quality through anti-aliasing at frame rates that rival aliased modes
- nView Multi-display Technology - Empower user with maximum flexibility in display options and control
- AGP 8X - Utilizes the latest system interface technology with up to 2.1GB/sec bandwidth
- Microsoft® DirectX® 9.0 and OpenGL® 1.4 Optimizations and Support
- Video-in/Video-out function support (optional)
Hardware Installation

Step 1
Shut down the computer; unplug all the cables and electrical cords; and remove the cover from the computer chassis.

Step 2
Locate the AGP bus expansion slot on your system mainboard and remove the cover if there is one.

OR

If there is an existing VGA card, remove the old card by loosening the mounting bracket and pulling the card off the slot.

Step 3
Position the new card over the AGP slot. Insert the bus connector in the slot and gently press the bus connector down.

WARNING: INSERTING YOUR CARD INTO THE WRONG TYPE OF SLOT CAN DAMAGE YOUR CARD, YOUR COMPUTER, OR BOTH.
WARNING: Be sure to close the plastic clips at the ends of the DIMM slots before installing the video card into the AGP slot. Otherwise, the clips may block the parts at the back of the video card, and will possibly damage the card, as the photo shown below.

Do not leave the clips open before installing the video card.

Step 4
Fasten the mounting bracket to the chassis.
### Hardware Installation

**Step 5**
Put the cover back on the computer. Plug the cord into the matched connector of the graphic card according to what kind of monitor you have.

**Step 6**
Reconnect all the cables and cords.

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**A Note for the Fan**
If the heat dissipation device provided is a fan, it is subject to damage if not properly handled. It is important not to put pressure on the axle. A shifted axle may shorten the fan's lifespan.

Do not handle the fan by the axle.

**Before Installing the Driver**
The product package contains the Software Pack CD. Please read the Readme.txt file for the latest information about the software before proceeding with the driver installation.
Before Driver Installation

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

To uninstall the NVIDIA Display Driver software, follow these steps:

Step 1 From the Windows taskbar, click Start > Settings > Control Panel to open the Control Panel windows.

Step 2 Double click the Add/Remove Programs item.

Step 3 Click the NVIDIA Windows Display Drivers item from the list.

Step 4 Click Change/Remove.

Step 5 Click Yes to continue.

Step 6 Restart your system.
Quick Driver Installation

Windows XP/2000/ME/98

We highly recommend Windows XP/2000/ME/98 users to use quick driver installation. Windows NT 4.0 users please install the driver manually.

Step 1
Insert the software pack CD into the CD-ROM drive.

Step 2
The Autorun screen will display on the screen. Select Driver Install by clicking on it.

Step 3
A dialog box tells you it is ready to install the driver. Click Next.

Step 4
Windows is installing the driver. A dialog box appears showing the progress.

Step 5
If a warning message appears, click Continue Anyway.

Step 6
When it is finished, a dialog box asks you if you want to restart your computer. Tick Yes and click Finish.

**Step 1** As you logon to Windows, the system tells you there is a new hardware found. Click on the balloon or wait for a few seconds.

**Step 2** Insert the software CD into your CD-ROM drive.

**Step 3** The *Found New Hardware* dialog box appears. Tick *Install from a list...* Then click *Next*.

**Step 4** Another dialog box appears. Tick *Include this location...* And type in X:\Drivers\WinXP_2K (assuming X: is your CD-ROM drive) or browse for it. Then click *Next*.

**Step 5** The dialog box with a list of graphics products appears. Select the model of your purchase.

**Step 6** The system will then start searching for the software you specified.

**Step 7** If a message warning you about the compatibility appears, click *Continue Anyway*.

**Step 7** If the system fails to locate certain files for the driver, the *Insert Disk* dialog box will appear. Click *OK* and give the driver location again as previously stated.

**Step 8** The installation begins and a dialog box appears showing you the progress.

**Step 9** When the installation is completed, a dialog box appears to tell you so. Click *Finish*. 
Step 1
Right click on the desktop and a pop-up menu appears on the screen. Then click on Properties.

Step 2
The Display Properties dialog box appears. Click on Settings. Another dialog box appears, then click on Advanced.

Step 3
Click on Adapter to bring up the Adapter dialog box. Then click Change.

Step 4
Update Device Driver Wizard dialog box appears. Click Next.

Step 5
Select Display a list of all the drivers ... Then click Next.

Step 6
Click Have Disk to prompt for a directory specified by you.

Step 7
The Install From Disk dialog box appears.

Step 8
Place the Software Pack CD in your CD-ROM drive.

Step 9
Type in X:\Drivers\WinME_98 or browse for it. (Assuming X: is the CD-ROM drive) Then click OK.

Step 10
The Select Device dialog box appears with a list of models. Select the model of your purchase. And then click OK.

Step 11
If a warning message appears, click Yes.

Step 12
A dialog box tells you Windows is ready to install the driver. Click Next.

Step 13
A dialog box appears after the driver is installed successfully. Click Finish.

Step 14
Windows will ask you if you want to restart your computer. Click Yes.
BEFORE INSTALLING THE DISPLAY DRIVER UNDER Windows NT 4.0, PLEASE MAKE SURE YOU HAVE INSTALLED THE Windows NT 4.0 SERVICE PACK 6 OR LATER VERSION.

Step 1 
Reboot the system and select "Windows NT 4.0 (VGA)" from the Boot Menu List.

Step 2 
Right click on the desktop, a fly-out appears on the screen. Click on Properties.

Step 3 
The Display Properties dialog box appears. Click the Settings tab. And then click the Display Type button.

Step 4 
The Display Type dialog box appears. Click Change.

Step 5 
The Change Display dialog box appears. Click on Have Disk to install from a specified disk.

Step 6 
The Install From Disk dialog box appears.

Step 7 
Insert the Software Pack CD into the CD-ROM drive.

Step 8 
Type in the field X:\Drivers\WinNT40 or browse for it. (X: being the CD-ROM drive) Then Click OK.

Step 9 
The Change Display dialog box reappears with a list of models. Select the model of your purchase. And then click OK.

Step 10 
A dialog box appears asking if you want to install the selected driver. Click Yes.

Step 11 
The System Settings Change dialog box appears prompting you to restart your computer. Click Yes.

After logging on Windows NT, the "Invalid Display Setting" applet will appear on your screen. It only appears when you use a display driver for the first time. You should then determine how you want the display to appear by choosing a resolution, color palette, refresh rate, etc. You can also use the "TEST" button to verify whether the monitor supports the specified resolution and refresh rate.
Software Settings

Display Properties-Overview

Calling up the Display Properties Settings Panel

Display properties related to the graphics adapter are all under the Settings tab as shown in the figure below.

1. Right-click on the display desktop to open a pop-up menu.
2. Click the Properties option to call up the 5-tabbed Display Properties setup panel. It is under the Themes tab initially.
3. Click the Settings tab to switch to the Settings panel.
What Settings Panel Does

The Settings panel contains two major parts of settings:

1. **Screen Settings**, including resolution and color depth settings, with a preview window.

2. **Advanced Settings**, accessed by clicking the Advanced button as shown in the figure below.

- **Geforce FX 5700 VE** is used as the example throughout the manual.
Software Settings

Resolution and color depth of your display can be set on the Settings panel (see Page 11). You can also extend your screen to the second device and set its resolution separately using this panel.

To extend the desktop

Call up the Settings panel as described in Page 11, the preview window shows you have two display devices connected to your computer, the one(s) in use is in solid blue and white, and the unused one is blurred. In the figure to the right, device 1 is in use, and device 2 is not.

To extend your desktop to a second device, click the screen 2 Icon to highlight it (Step 1). Then check the check box on the bottom (Step 2). The result will be as in the second figure. Screen 1 is the primary screen; and 2, the extended screen.

Desktop Arrangement

You can move either screen icons freely and arrange them in any fashion (see the second figure from the top).

In addition, the resolution of either screen can be changed individually; simply click on one of the screens in the preview window and drag the resolution sliding knob to your desired resolution.

Identify button

Click this button on the bottom of the Settings panel to display on your primary screen a big 1a, and the extended, 1b, as in the figure below, for identification.
**Refresh Rate**

We recommend you set the refresh rate to 85 Hz to reduce the flickering of the screen. If 85Hz is unavailable, use the default value.
Software Settings

Settings — Advanced settings
- Model-specific Settings
  (GeForce FX 5700 VE)
- nView Display Mode
- Performance and Quality Settings
- Overlay Controls
- Desktop Utilities
- NVRotate

nView Display Mode — p. 16

Performance and Quality Settings — p. 21
Includes Direct3D and OpenGL settings.
3 Overlay Controls

These controls are used to adjust video quality such as brightness, contrast, hue and saturation.

4 Desktop Management

Allow you to set up the Media Center Taskbar Utility and Desktop manager.

5 NVRotate

6 Temperature Setting
1. **Display**

The drop-down list includes all available display output devices on your system (see the figure below).

To set one of the devices as the primary display, select that device from the drop-down list and then check **Make this the primary display**.

You can also disable auto-panning on the secondary device by checking the second check box.

2. **Device Settings**

Click this button to open a popup menu that includes settings for output devices. See page 18 for details.
What is nView?

*nView* is a multi-display technology developed by NVIDIA, which is built into the latest GeForce series video cards. *nView* supports a wide variety of multi-display modes, offering users maximum flexibility. It also allows you to set independent resolution, color depth, and refresh rate on a per display basis.

*nView is only available for models with dual video output ports.*
Software Settings

Settings — Advanced settings
▶ Model-specific Settings
  (GeForce FX 5700 VE)
▶ nView Display Mode
▶ Device Settings (Standard Mode)

1 Select Output Device
   Click this option to select a device from its submenu.

2 Color Correction
   This dialogue box allows you to adjust color using slider controls.
### Screen Adjustment

Click the arrow icons to adjust the position of the screen on your monitor.

Click **Display Timing** to call up the panel as the figure below.

#### Display Timing

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

**Discrete Monitor Timings (DMT)**

DMT is an older standard still in use on some hardware. Check this option if your hardware uses DMT.

#### Select TV Format

Click this button to bring the **Select TV Format** menu and select a TV standard used in your country from the list. The system will then set the TV format accordingly.
Under multi-display modes, click this option to open the Device Selection (see the last page).

**Primary Display**

Under multi-display modes, you can click this option (unavailable in Standard mode) to set the selected device (highlighted in the preview window) as the primary display device.
Direct3D Settings

Allows you to adjust the performance and compatibility options and mipmapping for your Direct3D games.

Performance & Compatibility Options
This field offers options that change the performance and the compatibility of your Direct3D games.

Mipmap detail level
A lower bias provides better image quality; a higher bias increases performances of the applications. You can choose from five preset bias values.

PCI Texture Memory Size
Allows you to specify the maximum size of PCI texture heap. Increasing this value on PCI systems with sufficient memory may greatly improve the performance of some Direct3D applications. For performance reasons, this utility does not allow you to set more than half the available system memory as reported by Windows.

Custom Direct3D settings
Allows you to save the current settings as a custom "tweak". Saved settings will be added to the adjacent list. Once you have found the optimal settings for a particular Direct3D before starting the program and eliminates the need to set each option individually.

The PCI Texture Memory Size is unavailable for systems using a AGP bus.
Software Settings

Settings — Advanced settings
► Model-specific Settings
  (GeForce FX 5600)
  Performance and Quality Settings
  ► OpenGL settings

OpenGL Settings

Allows you to adjust the performance and compatibility options of your OpenGL application.

Multi-Display Hardware Acceleration

This option determines advanced rendering options when using multiple displays. The options include: Single-Display Mode, nView Clone/Span Mode, and Multi-Device Compatibility Mode.

Note that Multi-display hardware acceleration options do not apply when using nView Multiview mode in Windows NT 4.0.

Default color depth for textures

This setting item allows you to select the default Color depth for textures.

Custom OpenGL settings

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

Vertical Sync

Select the type of vertical synchrony.

Buffer flipping mode

Turns on page flipping for full-screen OpenGL applications which may improve their performance. If this is disabled, OpenGL will use a bit block transfer to flip from the back buffer to the front buffer.
NVRotate

Controls the display view to suit different viewing directions of the display devices.

- **Landscape (0 degree rotation)**
- **Portrait (90 degree rotation)**
- **Inverted Portrait (270 degree rotation)**
- **Inverted Landscape (180 degree rotation)**