

Chapter 2 Hardware Installation

Congratulation on the purchase of your new graphics accelerator card! You are now the owner of a state-of-the-art video adapter that offers features and functionality equal to, and beyond any other in its VGA class.

System Requirements

The minimum system requirements for installing the graphics card are as follows:

- a personal computer with a Pentium, Pentium II, Pentium III or compatible microprocessor and at least 8MB of memory
- a VGA analog monitor supporting a minimum 60Hz vertical refresh rate
- an available AGP or PCI bus slot
- a CD-ROM drive

Features

- NVIDIA 256Bit High Performance GeForce256 GPU.
- Integrated Transform and Lighting (T&L).
- Support 32/64MB SDR/DDR Video Memory (Optional).
- Support TV out and DVI Interface for LCD Panel (Optional).
- 350MHz RAMDAC, Max. Resolution support 2048x1536.
- Single-Chip GPU (Graphics Processing Unit).
- 15 million polygons per second.
- 480 million pixels per second.
- Independent Pipelined QuadEngine.
- AGP 4X with Fast Writes.
- High-Quality HDTV Processor.
- 256-Bit 2D Rendering Engine.

Software Support

- Microsoft Windows 95/98/2000
- Microsoft Windows NT4.0
- DirectX7.0 above
- OpenGL ICD
- OS/2

Static electricity can severely damage electronic parts. Take these precautions:

- ☞ ***Before touching any electronic parts, drain the static electricity from your body. You can do this by touching the internal metal frame of your computer while***

it's unplugged.

- ☞ *Don't remove a card from the anti-static container it shipped in until you're ready to install it. When you remove a card from your computer, place it back in its container.*
- ☞ *Don't let your clothes touch any electronic parts.*
- ☞ *When handling a card, hold it by its edges, and avoid touching its circuitry.*

Before You Begin

Before you proceed further, make sure your computer system meets the peripheral requirements and switch to the standard VGA display driver.

Prepare Your Computer for Installation

Prior to working on your computer, make sure the power of the computer and any related equipment is turned off.

Select a Vacant Expansion AGP (PCI) Slot

Most computers have a combination of AGP, PCI and ISA expansion slots. AGP slots are usually made from plastic of a contrasting brown color (beige color), and are shorter than other slots in your computer. Your system manual should identify the AGP or PCI slots, as appropriate for your model. Plugging your Graphic card into an incorrect slot could damage the card, your computer, or both. Do not try to force a card into a slot that does not accommodate it, as it is probably the wrong slot.

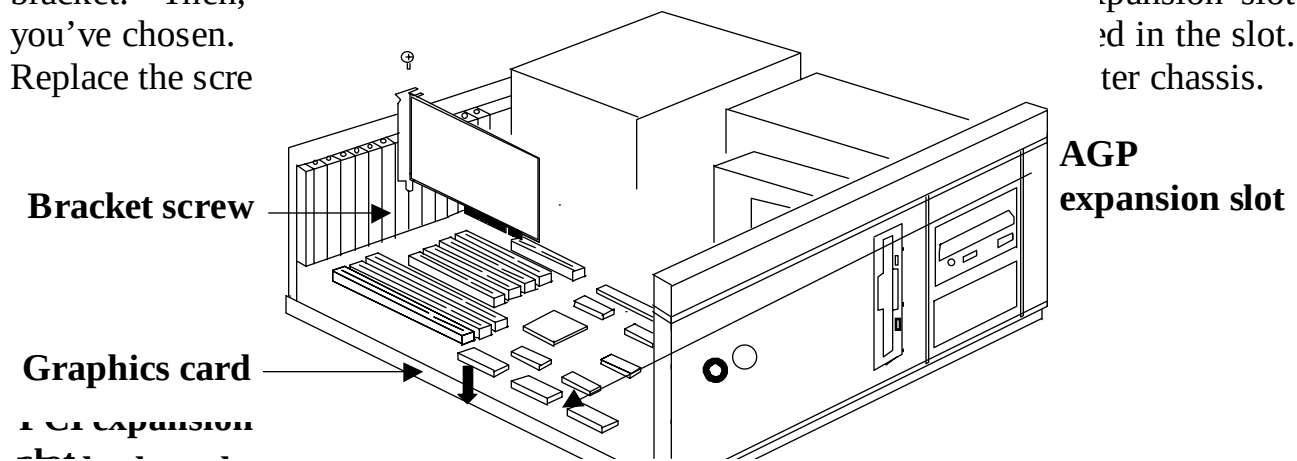


AGP vs. PCI vs. ISA expansion slots

Insert your Graphic Card

Remove the cover for the slot you intend to use and save the screw for the mounting bracket. Then, pick up the Graphic card and position it over the expansion slot you've chosen.

Replace the screw

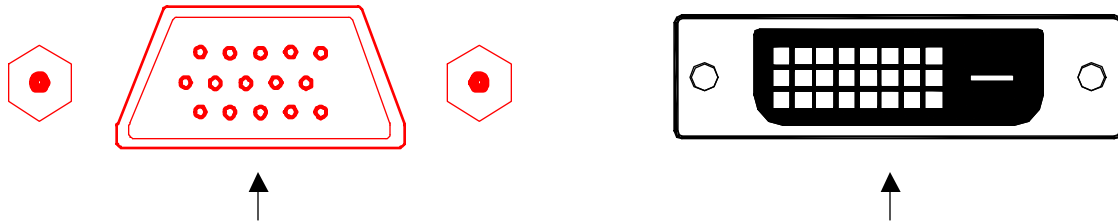


Chapter 3 Software Installation

Connect the monitor/LCD

Connect the Monitor/DVI/TV

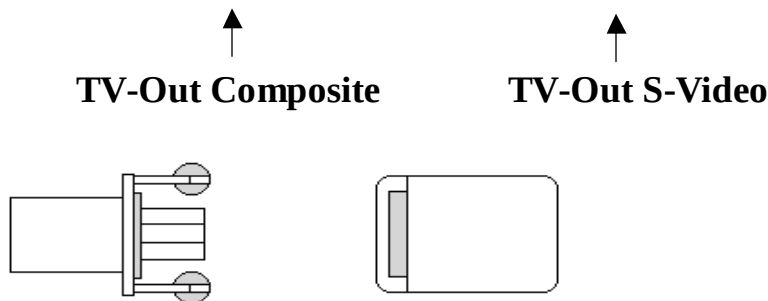
Plug your monitor/DVI/TV cable into the monitor/DVI/TV connector on your



Monitor Connector (Blue)

DVI Host Receptacle Connector

Graphic card. Make sure the other end of the monitor/DVI/TV cable is properly connected to your monitor/DVI/TV.



TV-Out Composite

TV-Out S-Video

- ☞ *Before installing the Display driver, make sure your Windows 95/98/NT was installed in VGA mode and functions properly.*
- ☞ *For Windows 95 systems, please install DirectX before attempting to use the MPEG Movie Player.*
- ☞ *To use an AGP graphics card with NT4.0, you may need to re-install NT with Service Pack 3 (SP3) or later version before installing the AGP card.*
- ☞ *If you are running Windows NT4.0, please note that some drivers are not compatible with earlier releases of Windows NT. Consult your dealer or local support to ensure you have the most recent releases for Windows NT and the drivers.*

Before You Begin

If your system is running Windows 95/98/NT, the **New Hardware Found** dialog box will appear after restart. Select **Driver from disk provided by hardware manufacturer**, click **OK**, then follow all on-screen instructions. If the **New**

Hardware Found dialog box does not appear, follow the instructions below.

Setup VGA Mode

Click the right mouse button anywhere on the Windows 95/98/NT desktop and select **Properties** from the pop-up menu that appears on screen. Select **Settings** **Change Display Type** (For OSR2 users, please select **Settings** **Advanced Properties**. For Windows 98 users, please select **Settings** **Advanced**. For Windows NT users, please select **Setting** **Display Type**) and then click the **[Change]** button for Adapter Type. When the **Select Device** dialog box appears on the screen, please select **[Standard display types]** from the manufacturers list and select **Standard Display Adapter (VGA)** from the list of models then click **OK**.

Install Software Driver

1. Turn on your computer and start Windows 95/98/NT.
2. Insert the **Driver CD** into your CD-ROM drive.
3. Click the **Start** button on the task bar and then select **Run** button.
4. Type **D:\Cdsetup.exe** **[Enter]** in the Run dialog box (where **D:** is the location of your CD-ROM drive).
5. The **Expertool VGA Installation** dialog box will appear on the screen, please click **“Continue”** button and follow the instructions on screen to complete installation.
6. Final, restart your computer to allow the changes to take effect.

Windows 95/98/NT Display Properties

Windows 95/98/NT allows you to select resolution, color depth, refresh frequency and font size using the standard Windows 95/98/NT Display Properties screen, which can be accessed by right clicking anywhere on the Windows 95/98/NT desktop, and then selecting **Properties** from the pop-up menu that appears on screen.

Chapter 4 Display Properties for Windows

These pictures in this chapter are only for Win98 reference.

☞ *If the Color Correction doesn't appear, please adjust the color palette to high color or true color.*

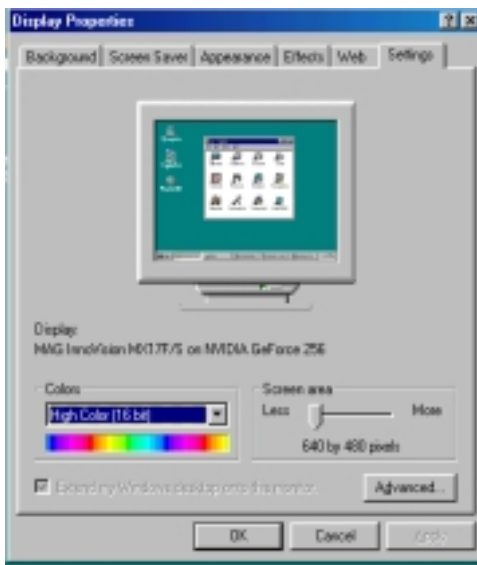


Figure 4-1



Figure 4-2

Click the right mouse button anywhere on the Windows desktop and select **Properties** from the pop-up menu that appears on screen. In **Display Properties** dialog box, for Win95, please select **GeForce256** item. For Win98, please select **Settings** **Advanced** button then choose **GeForce 256** item as Figure 4-2. Then

click **Additional Properties** button, the **Additional GeForce 256 Properties dialog box** will appear. In the **Additional GeForce 256 Properties** dialog box, select **Color Correction** item as Figure 4-3.

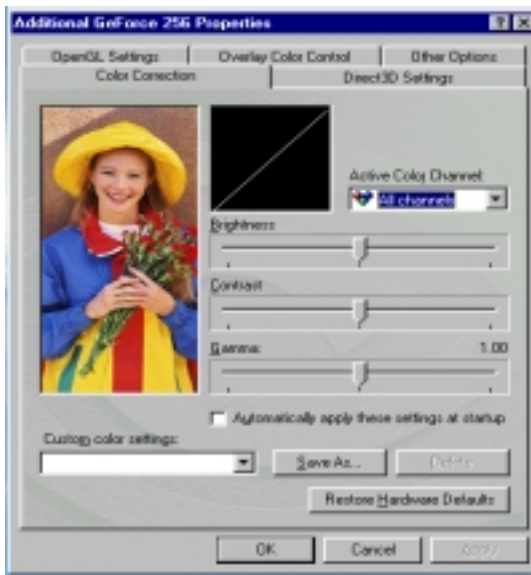


Figure 4-3

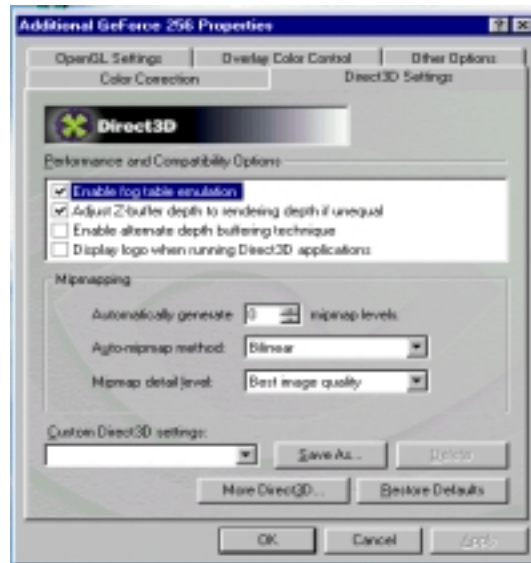


Figure 4-4

(As Figure 4-3)

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

Brightness/Contrast/Gamma: The slider controls allow you to adjust the brightness, contrast or gamma values for the selected color channel.

Automatically apply these settings at startup check box: Selecting this option will automatically restore the color adjustments you have made here when Windows is restarted.

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

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

Delete: Delete the custom color setting currently selected in the list.

Restore Hardware Defaults: Restore all color values to the hardware factory settings.

(As Figure 4-4)

Performance and Compatibility Options: This option is used to turn fog table emulation on or off.

Automatically generate mipmap levels: The NVIDIA graphics processor automatically generate mipmaps to increase the efficiency of texture transfers across the bus and provide higher application performance.

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

Mipmap detail level: Allows you to adjust the LOD (Level of Detail) bias for mipmaps. A lower bias will provide better image quality, while a higher bias will increase application performance.

Custom Direct3D settings list: A list of the custom settings (or "tweaks") you have saved. Selecting an item from the list will activate the setting. To apply the setting, choose the "OK" or "Apply" button.

More Direct3D: Display a dialog which allows you to customize additional Direct3D settings.

Restore Defaults: Restores all settings to their default values.

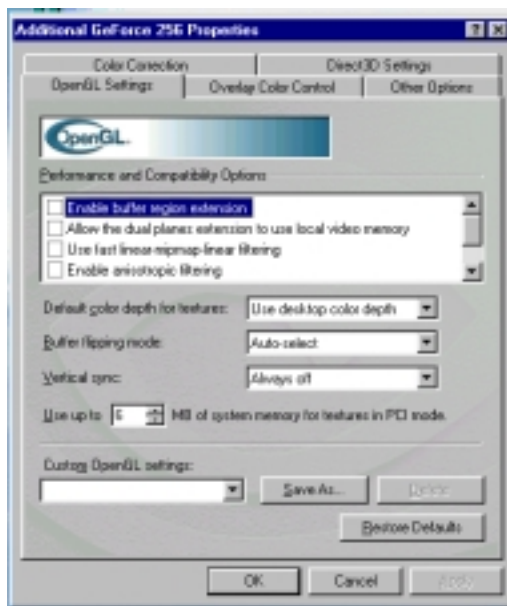


Figure 4-5

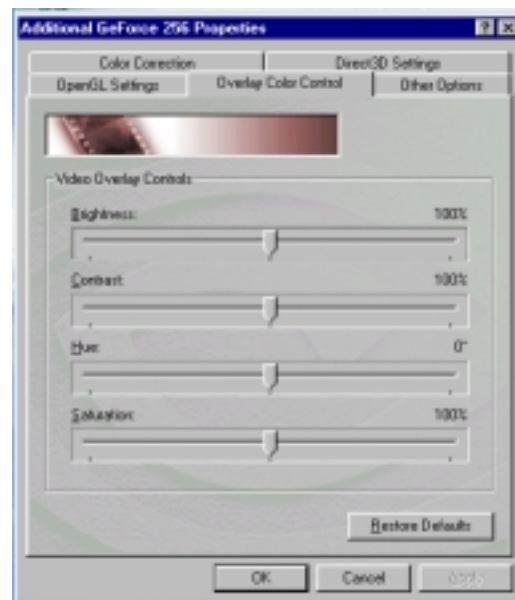


Figure 4-6

(As Figure 4-5)

Performance and Compatibility Options: Allowing fast linear-mip-linear filtering provide in increased application performance at the expense of some image quality.

Default color depth for textures: This option determines whether textures of a

specific color depth should be used by default in OpenGL applications.

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

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

Use up to MB of system memory for textures in PCI mode: This allows the graphics processor to utilize up to the specified amount of system memory for texture storage [in addition to the memory installed on the display adapter itself.]

This setting applies only to PCI display adapters [or AGP display adapters running in PCI compatibility mode.]

(As Figure 4-6)

Video Overlay Controls: Use these controls to adjust the quality of video or DVD playback on your monitor. You can independently control the brightness, contrast, hue and saturation to achieve optimal image quality when playing back videos or DVD movies on your computer.



Figure 4-7

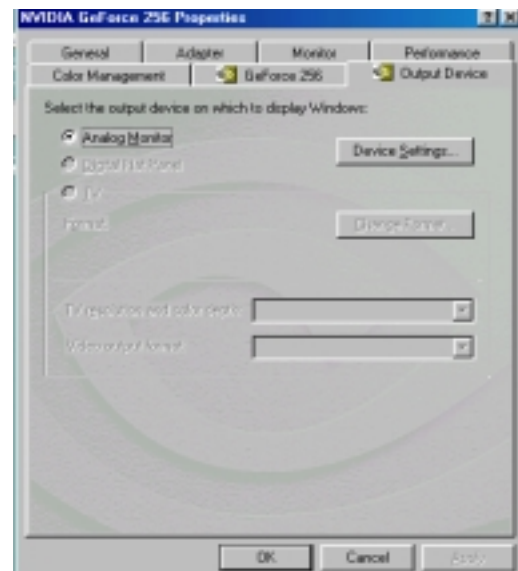


Figure 4-8

(As Figure 4-7)

Monitor Timing: Allows you to select your monitor timing mode.

Auto-Detect [let Windows determine the proper mode]: Allows Windows to receive the proper timing information directly from the monitor itself. This is the default setting. Note that some older monitors may not support this feature.

General Timing Formula (GTF): It's a standard used by most newer hardware.

Discrete Monitor Timings (DMT): It's an older standard still in use on some hardware. Enable this option if your hardware requires DMT.

Display the Quick Tweak icon in the taskbar check box: Adds the NVIDIA Quick Tweak icon to the Windows taskbar. The icon allows you to apply any of the custom Direct3D, OpenGL or color settings "on the fly" from a convenient pop up menu.

The menu also contains items for restoring default settings and accessing the Display Properties dialog.

Select taskbar icon: Allows you to choose the icon used to represent the Quick Tweak utility in the Windows taskbar. Select the icon you want displayed from the list. Then choose "OK" or "Apply" to update the icon in the taskbar.

(As Figure 4-8)

In **NVIDIA GeForce 256 Properties** dialog box, select **Output Device** item. These options in this dialog box allow you to select the output display devices [monitor, digital, panel or TV, depending on which devices your display adapter supports.]

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

TV resolution and color depth: To set the resolution and color depth for TV.

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

As Figure 4-8, select **Device Settings** button, the **Output Device Settings** dialog box will appear. In the **Output Device Settings** dialog box, you can use the arrow buttons to adjust the position of the desktop on your monitor.

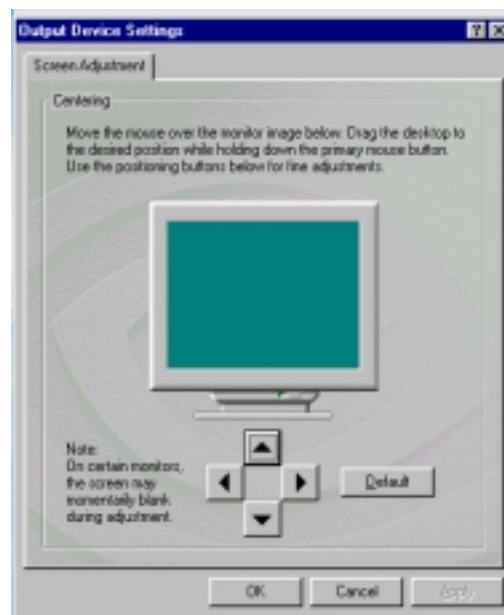


Figure 4-9

Chapter 5 Expertool for Windows

- ☞ *For maximum compatibility and flexibility, the Expertool utility can be loaded and unloaded dynamically. Notice: Many features which by the Expertool and only available when Expertool was activated.*
- ☞ *These pictures in this chapter are only for Win98 reference.*

Expertool is a display control and desktop enhancement utility for Windows 95/98/NT, specially designed and optimized for use with your graphics accelerator. You should think of Expertool as a kind of supplementary “**device driver**” which works in conjunction with your accelerator’s display driver.

Installation

Expertool will automatically install when you use the Setup program under Windows 95/98/NT (refer to Chapter 3). Once installed, it can be activated by selecting **Programs Expertool Expertool** (Figure 5-1) or clicking on the “**Expertool**” (Figure 5-3) icon in the System tray to show the Expertool Properties on your screen. (Figure 5-2)

Uninstall

1. Click **Close** button to close Expertool. (Figure 5-2)
2. Then click **Start** button on the task bar and select **Settings Control Panel Add/Remove Programs**.
3. Choice **Expertool** item for Install/Uninstall and click the **Add/Remove** button.
4. Click **OK** to uninstall Expertool.

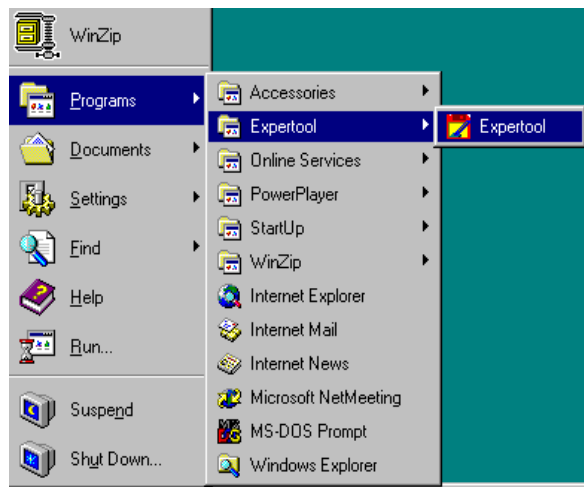


Figure 5-1



Figure 5-2



Figure 5-3