GA - 660 Series Graphics Accelerator

- GA-660Plus
- GA-660Plus TV
- GA-660Plus DFP

USER'S MANUAL

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REV. 1.4 First Edition

R-14-01-090914

Chapter 1 User’ s Manual

Chapter 2 ¤ ¤ å ¥ Î
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Chapter 1

User’ s Manual

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September 14, 1999 Taipei, Taiwan

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1. INTRODUCTION

1.1. PREFACE

Welcome to use the **GA-660 Series** 3D/2D graphics accelerator. The **GA-660 Plus** 3D/2D graphics accelerator is an innovative design that delivers a new level of balanced, scalable and sustained 3D performance along with smooth video and great 2D graphics experience.

This manual will take you through the steps in order to properly install the **GA-660Plus** graphics accelerator into your computer. Please note that your computer may differ slightly from the illustrations and screen shots displayed in this manual.

1.2. KEY FEATURES

- **NVIDIA's RIVA TNT2-A**™ high-performance 2D/3D graphics processor.
- 32 or 16MB DRAM with 128-bit interface.
- AGP 2X/4X with sideband addressing.
- Integrated 300MHz RAMDAC.
- Single-pass multi-texturing.
- 32-bit rendering.
- Per-pixel mip-mapping.
- Optimized for Direct3D acceleration.
- Complete DirectX 6.X support.
- Acceleration of full-motion video playback, sustaining 30 frames per second with high quality color resolution.
- Advanced support for Direct Draw.
- Video acceleration for Direct show, MPEG-1, MPEG-2, and Indeo.
- Built-in high quality TV-Out & DFP (660 Plus TV/DFP)

2. HARDWARE INSTALLATION

2.1. UNPACKING

The GA –660Plus package contains the following:

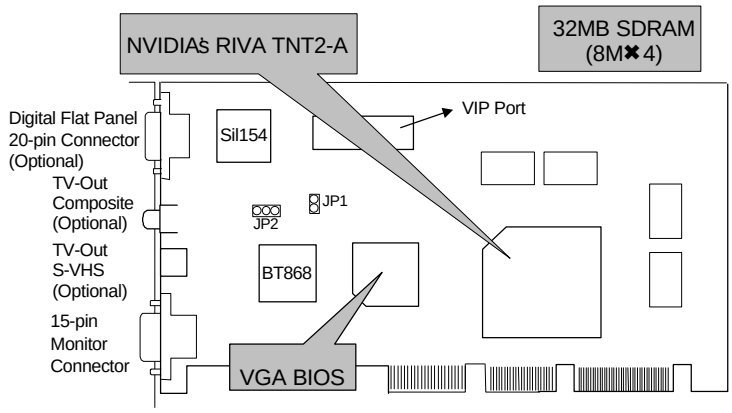
- The **GA-660Plus** graphics accelerator
- This USER'S MANUAL
- One driver CD for Win95 / Win98 ¡ ÐWin NT 4.0 ¡ ÐWin 2000 driver and Utilities

The card contains sensitive electric components, which can be easily damaged by static electricity, so the card should be left in its original packing until it is installed.
Unpacking and installation should be done on a grounded anti-static mat. The operator should be wearing an anti static wristband, grounded at the same point as the anti-static mat.
Inspect the card carton for obvious damage. Shipping and handling may cause damage to your card. Be sure there are no shipping and handling damages on the card before proceeding.

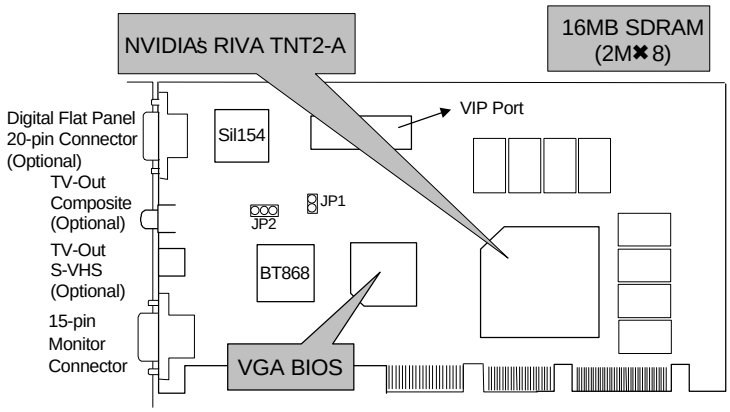
DO NOT APPLY POWER TO YOUR SYSTEM IF IT HAS BEEN DAMAGED ON THE CARD.

2.2. BOARD LAYOUT

GA-660Plus (32MB SDRAM)



GA-660Plus (16MB SDRAM)



2.3. HARDWARE INSTALLATION

1. Shut down the computer.
2. Unplug monitor cable from your computer.
3. Remove your computer' s unit cover, and ground yourself.
4. Remove the screw and slot bracket from the board' s mounting.

Be sure removing the existing graphics card from your system, if you have another graphics card in your system.

5. Pick up the GA-660Plus and remove the plastic sleeve.
6. Press the card firmly into the AGP slot.

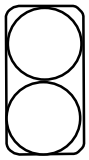
Be sure the metal contacts on the card are indeed seated in the slot.

7. Replace the screw to secure the slot bracket of the GA-660Plus.
8. Replace your computer' s unit cover.
9. Plug your monitor' s 15-pin connector into your GA-660Plus monitor connector.
10. Turn on the power.
11. You can install the driver and utility to your system now.

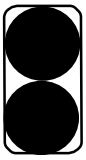
2.3.1 Turbo switch

The GA-660Plus ships with default engine clock speed and memory clock speed. With the turbo switch on-board, the GA-660Plus gives you the option to over clock the engine and memory clock speed to the reliable high speeds and performance.

JP1



Open : Turbo

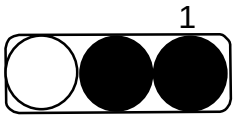


Close : Default

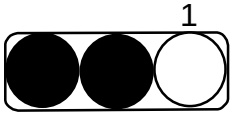
2.3.2 TV switch

The GA-660Plus TV switch provides the setting for NTSC and PAL TV signal format. Please make sure that video card TV signal format is set to the same type or the devices you will be correcting to.

JP2



1-2 close : PAL



2-3 close : NTSC

3. SOFTWARE INSTALLATION

In this manual, we assume that your CD-ROM Drive letter to be Drive D:

3.1. WINDOWS95 OR WIN98 DRIVER AND UTILITIES INSTALLATION

The installation of Windows 95 or Windows 98 drivers is very simple. When you insert the driver CD into your CD-ROM drive, you can see the AUTORUN window (if it does not show up, run **"D:\setup.exe"**). Then you can follow guides to setup your GA-660Plus driver (Please follow the sub-section **3.1.3 "Step By Step Installation"** to install the driver for your GA-660 graphics accelerator.

3.1.1. Operating system requirement

- If your OS is Microsoft Windows ¡ when loading the GA-660Plus drivers for the system, your Windows95 version should be OSR 2.1 or later or Windows 98 Bata3 or later. Please make sure your system has installed or DirectX6 or later.

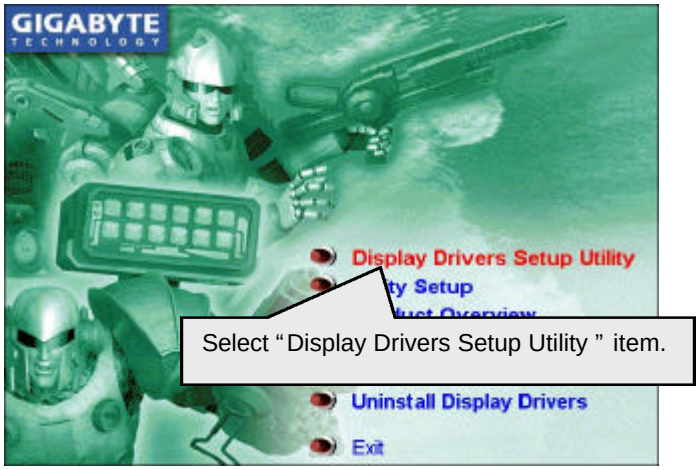
If your windows version is an older version, You must use the **USB supplement update** (make sure the update language is the same with your system language) to upgrade your system to OSR 2.1.

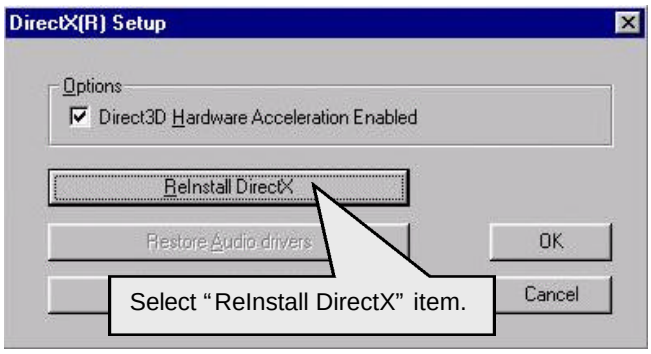
- You can find the **USB supplement update** in the **April 1997 MSDN Disc1\OSR2\USBSUPP**.
- In Windows95, if you install the GA-660Plus drivers for the mainboard which consist of **SIS, ALI** or **VIA** chipsets, please install the appropriate GART.vxd program for that mainboard. Please see the driver CD for appropriate Vgartd file.

3.1.2. DirectX Installation

Install Microsoft DirectX 6.1 to enable 3D hardware acceleration support for Win95/98 to achieve better 3D performence.

Note: For sofeware MPEG support in Win95/98, you must install DirectX first.





Then the DirectX 6.1installation is completed.

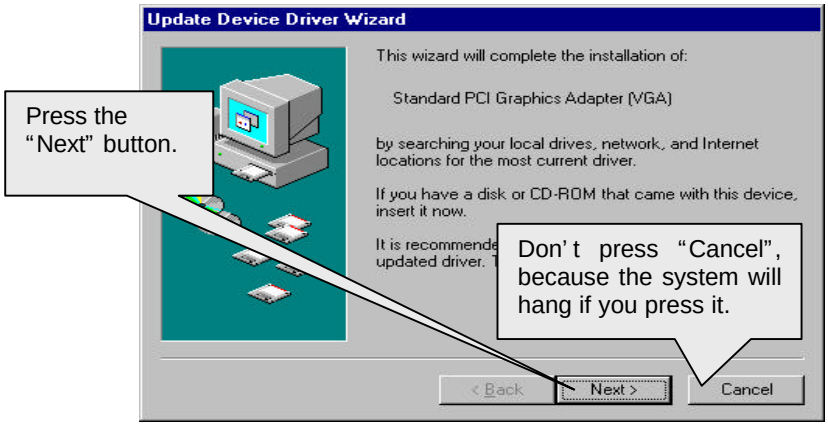
3.1.3. Driver Installation

The following is the step by step installation guide.

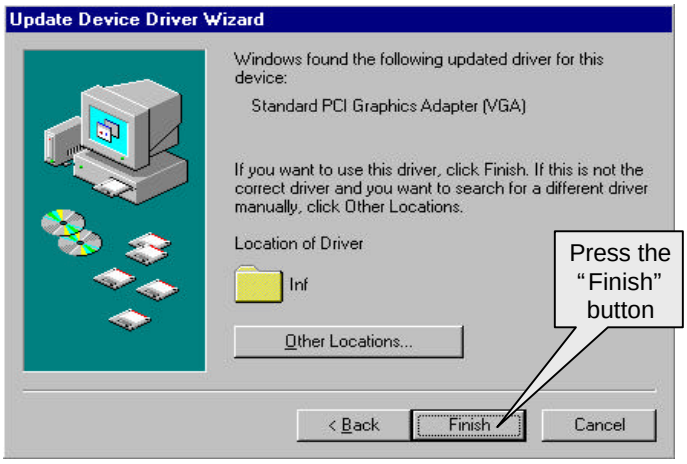
Step 1: New Hardware Found

After GA-660Plus is inserted into your computer at the first time, the windows will automatically detect a new hardware in the system and pop-out a "New Hardware Found" message. Please select "Do not install a driver" and press OK.

Step 2: Update Device Driver Wizard: Standard PCI Graphics Adapter (VGA)



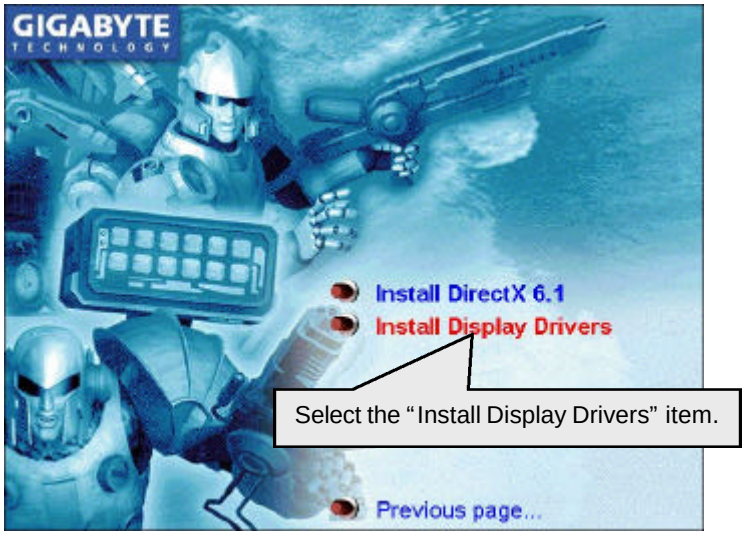
Step 3: Update Device Driver Wizard: Finish



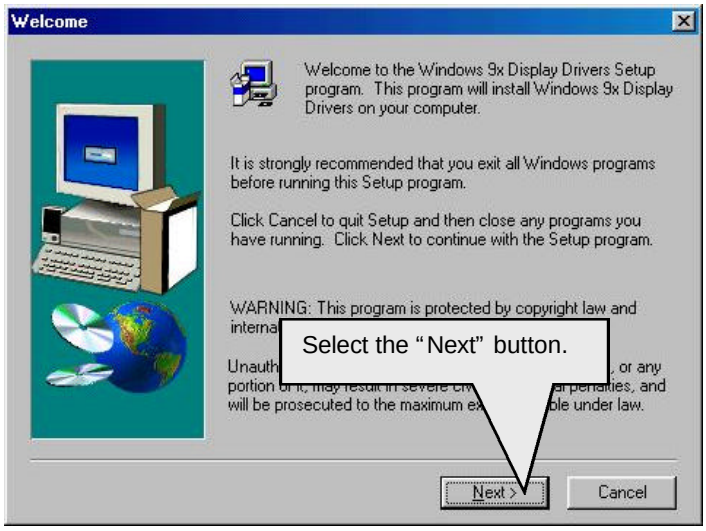
At this time, system will ask for your Windows CD in order to complete the VGA driver installation.
If you don' t have the CD, you can press **C:\Windows\System** directory.

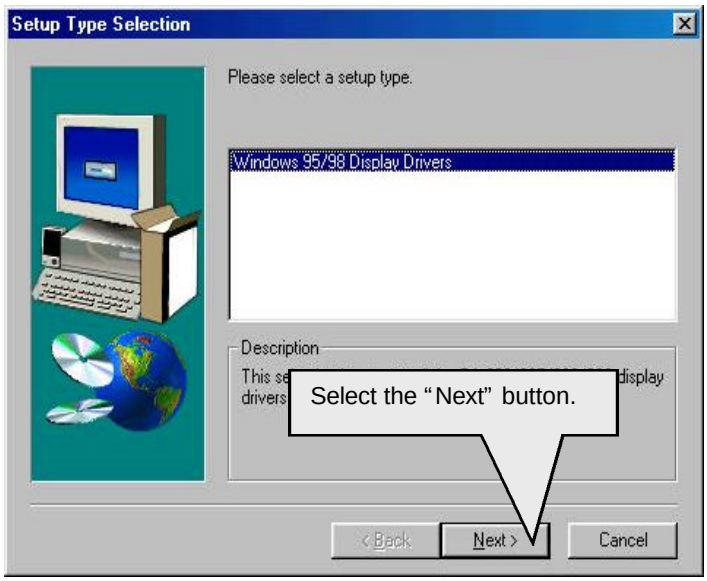
Step 4: System Setting Change

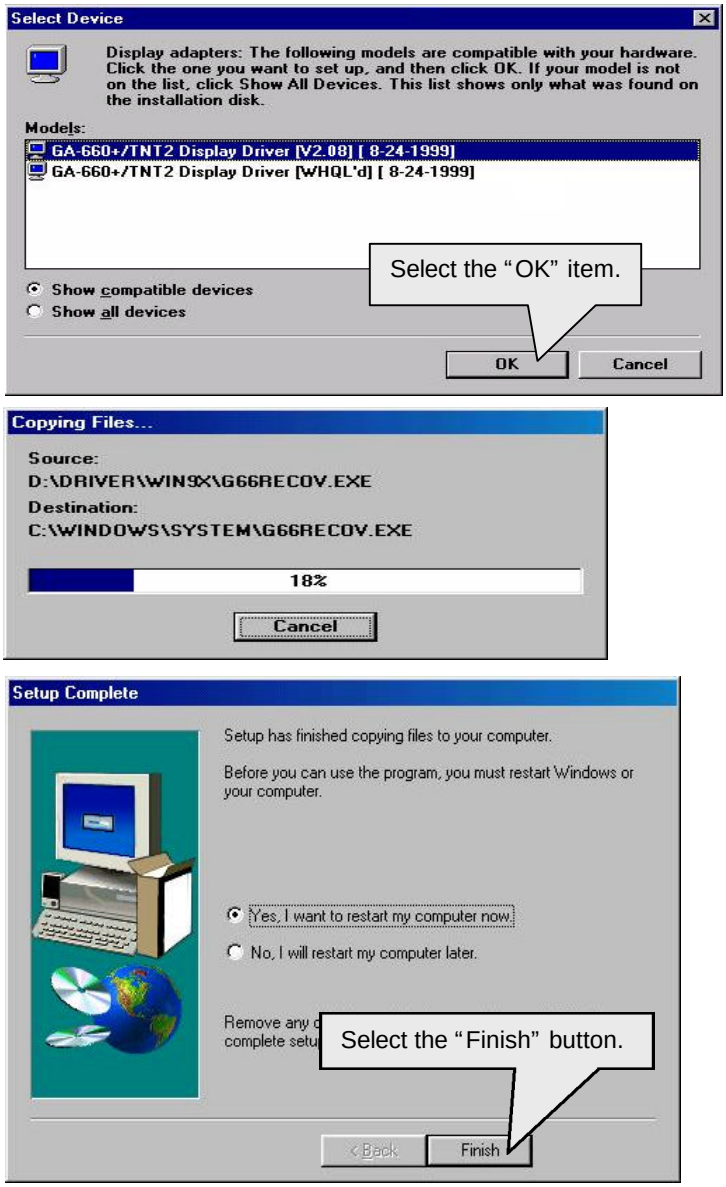
After the system has finished loading, insert the GA-660Plus driver CD disk into your CD-ROM, then you can see the AUTORUN window. If it does not show up, please run **"D:\setup.exe"**.



Step 5: Driver Setup


Welcome
Welcome to the Windows 9x Display Drivers Setup program. This program will install Windows 9x Display Drivers on your computer.
It is strongly recommended that you exit all Windows programs before running this Setup program.
Click Cancel to quit Setup and then close any programs you have running. Click Next to continue with the Setup program.
WARNING: This program is protected by copyright law and
Select the "Next" button.
Next >
Cancel


Setup Type Selection
Please select a setup type.
Windows 95/98 Display Drivers
Description
Select the "Next" button.
< Back
Next >
Cancel


Select Device
Display adapters: The following models are compatible with your hardware. Click the one you want to set up, and then click OK. If your model is not on the list, click Show All Devices. This list shows only what was found on the installation disk.
Models:
GA-660+/TNT2 Display Driver [V2.08] [8-24-1999]
GA-660+/TNT2 Display Driver [WHQL'd] [8-24-1999]
Select the "OK" item.
Show compatible devices
Show all devices
OK
Cancel

Copying Files...
Source:
D:\DRIVER\WIN9X\G66RECOV.EXE
Destination:
C:\WINDOWS\SYSTEM\G66RECOV.EXE
18%
Cancel

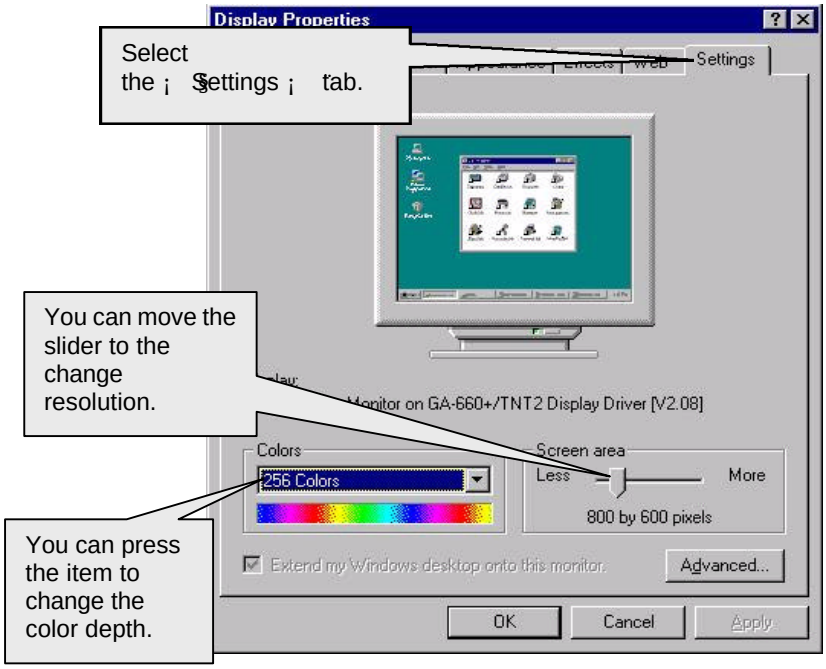
Setup Complete
Setup has finished copying files to your computer.
Before you can use the program, you must restart Windows or your computer.
Yes, I want to restart my computer now.
No, I will restart my computer later.
Select the "Finish" button.
< Back
Finish

3.1.4. Utilities on driver CD

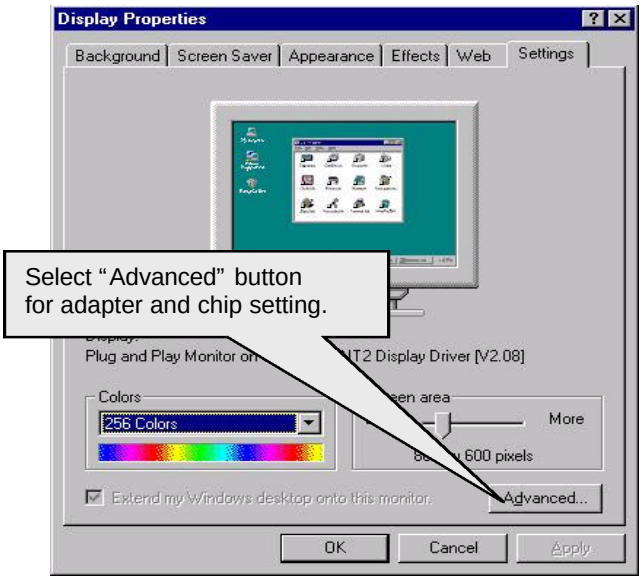
The utilities include software VCD player, Acrobat Reader, Final Reality test program, and other useful utilities. Please browse the driver CD for detail.

3.1.5. Property pages

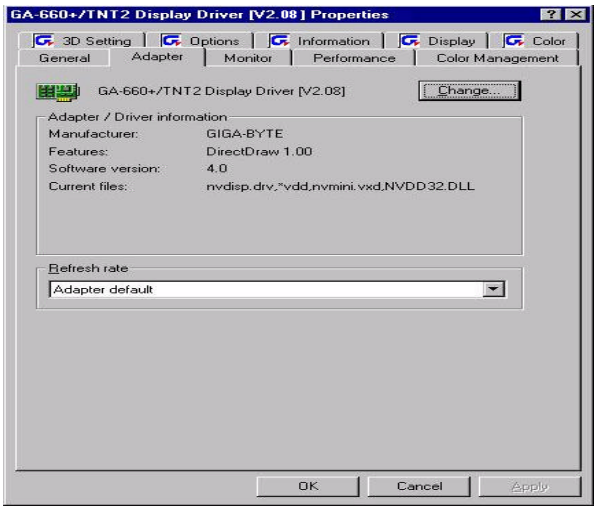
Resolutions and Color depth for windows



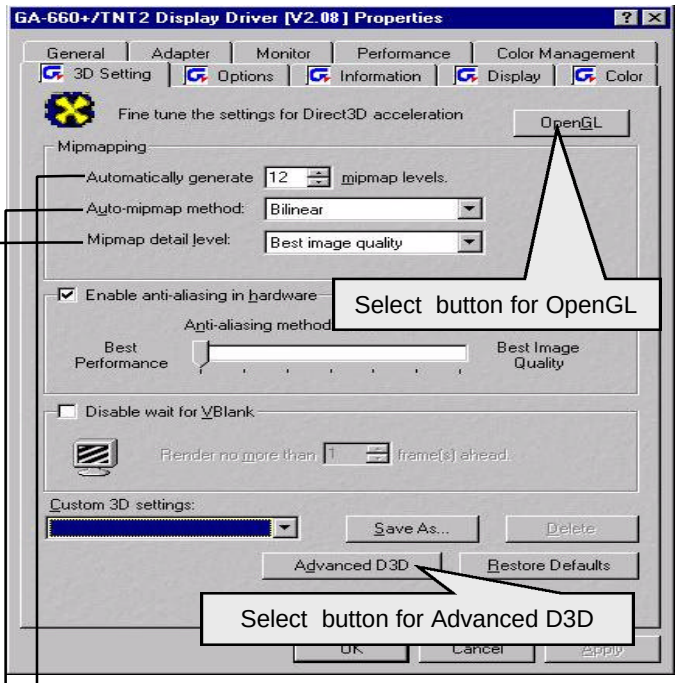
Advanced settings:



Adapter tab:



3D Settings:

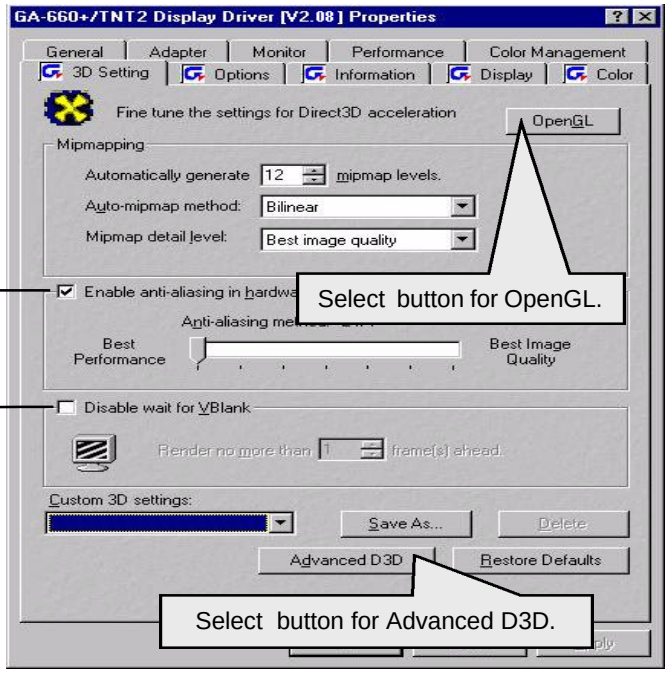


Mipmap levels:
Choose higher mipmap level will increase the performance. If you encounter tearing on screen, please try to lower mipmap level.

Mipmap method:
Choose bilinear for higher performance, trilinear for better quality.

Mipmap detail level:
Choose one item from best image quality to best performance.

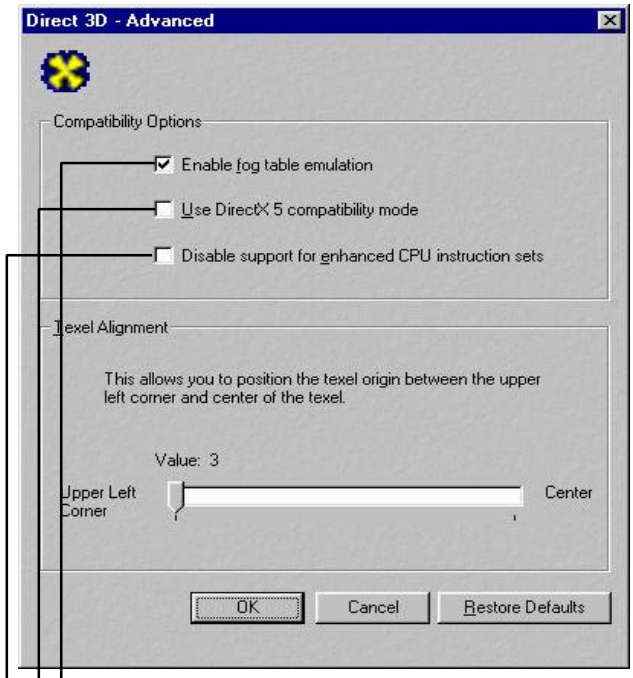
3D Settings: (continued)



Check this to reduce the jagged effect of image.

Clear this item will cause the frame rendering to be synchronized with monitor' s vertical refresh rate. Check this to increase performance but lower image quality.

Direct3D - Advanced :

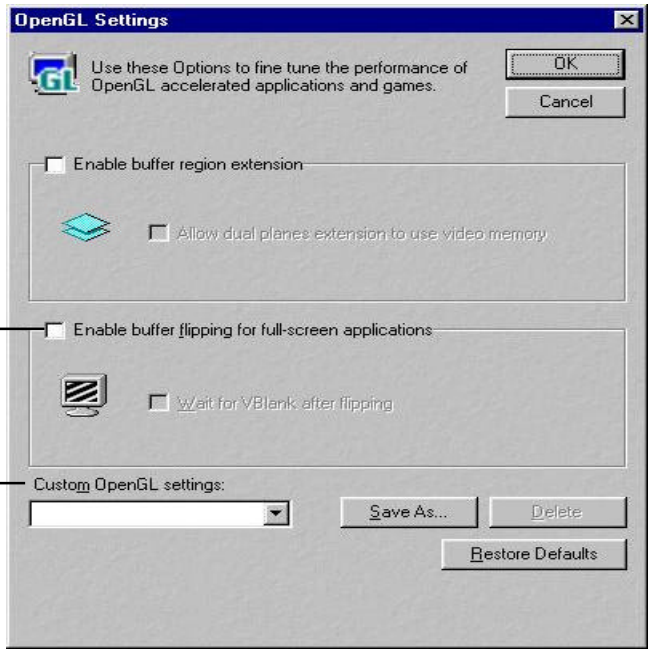


Enable fog table emulation:
Check this for some games do not support Direct3D hardware fog feature.

Check this for some applications do not support DirectX6.

Check this for some applications do not support new CPU instruction set.

OpenGL Settings:



Checking this will improve the performance for full-screen applications.

Save a tweak file for a OpenGL setting and revoke easily without setting again.