



# **Wicked3D *featuring* Voodoo<sup>2</sup>**

## ***INSTALLATION GUIDE***

***INSTALLATIONSANLEITUNG***

***GUIDE D'INSTALLATION***

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YOU ACKNOWLEDGE THAT YOU HAVE READ THIS AGREEMENT, UNDERSTAND IT AND AGREE TO BE BOUND BY ITS TERMS AND CONDITIONS.

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## INTRODUCTION

The Wicked3D featuring Voodoo<sup>2</sup> is a 64-bit, state-of-the-art, 3D-only graphics accelerator. It is built with the Voodoo<sup>2</sup> Graphics chipset – the hottest 3D technology from 3Dfx Interactive – and ultra-fast EDO DRAM. This combination produces the most realistic 3D ever seen on a PC, and will give you the most eye-popping, gut-wrenching, heart-pounding gaming experience on or off this planet!

With full 3D API support including 3Dfx Interactive's GLIDE, Microsoft's Direct3D, id software's GameGL, Criterion's Renderware, and Argonaut's BRender, any game will run at speeds faster than you could imagine. As games get increasingly more complex, the Wicked3D will continue to render them quickly and painlessly, while other "mortal" 3D cards will merely slow down to a crawl, ruining your gaming experience.

This guide provides you with the all the information you need to install and operate your Wicked3D featuring Voodoo<sup>2</sup> product.

## BEFORE YOU BEGIN

The following files on the Wicked3D featuring Voodoo<sup>2</sup> Installation CD-ROM contain important information, which may not have been ready in time for inclusion in this manual.

README.TXT – Text file which contains the latest information about your Wicked3D featuring Voodoo<sup>2</sup> drivers and software.

CONTACT.TXT – Text file that contains addresses, telephone numbers, and e-mail addresses of Wicked3D Board Co.'s worldwide support locations.

LAYOUT.TXT – Text file which contains the layout and structure of the directories and files on the Wicked3D featuring Voodoo<sup>2</sup> Installation CD-ROM.

Before starting on the installation of the Wicked3D featuring Voodoo<sup>2</sup>, it is very important that you read the following sections:

- **DOCUMENT CONVENTIONS**
- **WHAT YOU GET**
- **SYSTEM REQUIREMENTS**
- **STATIC ELECTRICITY AND YOUR Wicked3D featuring Voodoo<sup>2</sup>**

## DOCUMENT CONVENTIONS

The following conventions are used throughout this guide.

### **Example**

<CAPITALS IN BRACKETS>

Lucida Sans Unicode

*Arial Italics*

***Arial Bold Italics***

**Courier**

### **Description**

Specifies a keyboard key. "+" symbol between keys specifies a key combination.

Indicates program names, menu options, and standard controls.

Useful tip. Important point to observe.

Caution statements. Take particular care to read these instructions.

Represents a command to be entered by the user.

## WHAT YOU GET

- Wicked3D featuring Voodoo<sup>2</sup> in an Anti-static Bag
- Video Pass-through Cable
- SLI Cable
- Installation Guide
- Installation CD-ROM
- Registration Card

## SYSTEM REQUIREMENTS

The following are the minimum system requirements for the Wicked3D featuring Voodoo<sup>2</sup>:

- A 90MHz Intel Pentium (or compatible) processor
- 16 MB of system memory (RAM)
- Empty PCI slot (PCI spec 2.1 compliant)
- A 4x CD-ROM drive
- SVGA graphics adapter with 2MB of memory
- 4 MB hard disk space
- MS-DOS 5.0, Microsoft Windows 9x, or Windows NT 4.0 operating system

## STATIC ELECTRICITY AND YOUR Wicked3D featuring Voodoo<sup>2</sup>

As with all computers and computer components, the Wicked3D featuring Voodoo<sup>2</sup> is very sensitive to static electricity. To keep the possibility of electrostatic discharge to a minimum, please observe the following precautions:

- Turn off power to your computer when installing the Wicked3D featuring Voodoo<sup>2</sup> card.
- Touch the grounded metal chassis of your computer (to drain off any static electricity) before touching the Wicked3D featuring Voodoo<sup>2</sup>.
- Do not wear wool or polyester clothing.
- Work in an area with a relative humidity of at least 50 percent.
- Do not remove the Wicked3D featuring Voodoo<sup>2</sup> from its anti-static bag until you are ready to perform the installation.
- Handle the Wicked3D featuring Voodoo<sup>2</sup> as little as possible, and by the edges only. Avoid touching PCI connector contacts.

## PREPARING YOUR COMPUTER

If you are replacing a Voodoo Graphics card (Diamond Monster 3D, Orchid Righteous 3D, Canopus Pure 3D, Guillemot Maxi Gamer 3D, etc.), you will need to remove the drivers from Windows, shut down your computer, then remove the old hardware. The Wicked3D featuring Voodoo<sup>2</sup> will not work in a system with an older Voodoo Graphics card.

The Wicked3D featuring Voodoo<sup>2</sup> will work with Voodoo Rush-based cards (Jazz Adrenaline Rush 3D, Intergraph Intense 3D Voodoo, Hercules Stingray 128/3D, etc.), as you will still use that card for 2D graphics. The Voodoo Rush card will still render Direct3D applications in a window.

If you are installing the Wicked3D featuring Voodoo<sup>2</sup> as your system's first 3Dfx Voodoo card, proceed to **Installing the Hardware**.

### Removing Voodoo Graphics Drivers from Windows 95, Windows 98, or Windows NT 4.0

- 1) From your Windows desktop, highlight the My Computer icon, right-click it with your mouse, then select Properties from the menu that appears. This brings up the System Properties window.
- 2) Click on the Device Manager tab, and then find the Sound, video and game controllers entry.
- 3) Expand the Sound, video and game controllers entry by clicking on the "+" next to it. This will list all of the entries in this category.
- 4) Find the entry appropriate for your Voodoo Graphics card. In this example, we are removing the *Diamond Monster 3D's* device driver.
- 5) Select the correct entry by clicking on it with your mouse, highlight it, then click on Remove.
- 6) The Confirm Device Removal dialog box will appear. Click on OK.
- 7) The device driver has been successfully removed. Close the System Properties window.
- 8) At this time you will also need to remove entries (if any) related to the Voodoo Graphics card from your AUTOEXEC.BAT file. To edit this file, go to the Start menu, then to Run..., type `sysedit` in the text box, then click OK.
- 9) This will bring up the System Configuration Editor, with the AUTOEXEC.BAT file being in the active window. Look for any lines that start with:  
    `SET SST_`  
    `SET SST96_`  
    `SET FX_GLIDE_`  
and delete them, as they are not used by your new Wicked3D featuring Voodoo<sup>2</sup>.
- 10) Save your changes by choosing Save from the File menu.
- 11) Close the System Configuration Editor by choosing Exit from the File menu.
- 12) Finally, you will need to shut down your computer by selecting Shut Down... from the Start menu. Turn off your computer. Continue with the next step, **INSTALLING THE HARDWARE**.

## INSTALLING THE HARDWARE

**WARNING:** To avoid the chance of electric shock to yourself, and damage to your computer and components, we strongly recommend disconnecting the power supply cord from both your computer and monitor during the installation process. Also please review the section titled *STATIC ELECTRICITY AND YOUR WICKED3D*, found earlier in this manual.

- 1) Turn off your PC, disconnect the power cord, then remove the case, cover, or access panel.
- 2) If you are removing a Voodoo Graphics card, do this now. Disconnect the video pass-through cable and the monitor cable from the outside first. Unscrew and remove the Voodoo Graphics card, noting which slot it was in.
- 3) Gently but firmly, insert the Wicked3D featuring Voodoo<sup>2</sup> into an empty PCI bus slot until it is fully seated in the slot connector. (If you removed a Voodoo Graphics card, place the Wicked3D in the same slot you took the Voodoo Graphics card out of.) ***The Wicked3D featuring Voodoo<sup>2</sup> should not be forced into place. If it does not fit properly, remove it and try again.***
- 4) Verify the card is fully seated in the PCI slot. Secure the Wicked3D featuring Voodoo<sup>2</sup>'s bracket to the PC case using the screw or fastener provided with your PC.
- 5) Disconnect your monitor cable from your SVGA 2D graphics card and connect it to the topmost (rightmost in tower case) connector (VGA-out) on the Wicked3D featuring Voodoo<sup>2</sup>'s bracket.
- 6) Install the provided VGA pass-through cable between your SVGA 2D graphics card and the lower (leftmost in tower case) connector (VGA-in) on the Wicked3D featuring Voodoo<sup>2</sup>'s bracket.
- 7) Close your computer's case, reattach the power supply cords, and turn on your PC and monitor. You should see the normal boot display (BIOS message, memory count, etc.). ***If the display is scrambled or blank, or if your system beeps or makes other unusual noises, power down your PC. Verify that the Wicked3D featuring Voodoo<sup>2</sup> and your SVGA 2D graphics card are properly seated in their slots; that the cards are attached to the computer case with screws; and that the pass-through cable and monitor cable are correctly installed and screwed down tight. All connections must be secure.***
- 8) The hardware installation is complete. Proceed by booting into Windows and installing the Wicked3D featuring Voodoo<sup>2</sup>'s drivers as outlined in the appropriate section for your operating system.

## INSTALLING THE DRIVERS IN WINDOWS 95 / 98

Upon successfully installing the Wicked3D featuring Voodoo<sup>2</sup> hardware, you may use the following installation procedure to install the Wicked3D featuring Voodoo<sup>2</sup> software in Windows 95 or Windows 98.

- 1) Start Windows 95/98. Upon entering the operating system, Windows will detect that new hardware was found.
- 2) If you are operating Windows 98, you will receive a "Add New Hardware Wizard" dialogue box. If you are operating Windows 95, you will receive a "Update Device Driver Wizard" dialogue box. There will be a message telling you that "This wizard searches for new drivers for PCI Multimedia Video Device". Keep clicking the Next button. Ignore the dialogue which asks you to place a directory path to the driver location. Continue to click the Next button until Window states it did not install a driver for this device. Click the Finish button. *Note: If you have an SLI configuration, step 2 will be performed a second time.*
- 3) Once in the Windows operating system: From the Start menu, choose Run..., then Browse. Double-click on your CD-ROM drive, then the WIN95 directory, then on SETUPEX.EXE. Once you have been returned to the RUN dialog box, click on OK. *Note: If you downloaded the driver as an update, you will need to specify the path where you placed the SETUPEX.EXE file.*
- 4) You will receive a popup dialogue box "InstallShield Self-extracting EXE" on title bar. The message reads "This will install Wicked3D featuring Voodoo<sup>2</sup>. Do you wish to continue?" Click the Yes button.
- 5) InstallShield will extract setup files to your hard drive. After doing so, you will receive the "Software License Agreement" dialogue box. Read the Software License Agreement. Click the Yes button to accept the terms and continue the installation procedure. *Note: Clicking the NO button will terminate the setup program.*
- 6) You will then receive a "Medical Warning" dialogue box. Carefully Read the WickedVision™ Medical Warning. Click the YES button to accept the terms and continue the installation procedure. *Note: Clicking the NO button will terminate the setup program.*
- 7) You will proceed to the "Wicked3D Setup" dialogue box. The message will inform you that "This Setup program will install the Metabyte Wicked3D Software on your computer." You will be presented with options to install stereoscopic support. Choose the options you wish to install by placing a check mark next to them. *Note: Direct3D stereoscopic support is integrated into the Direct3D driver. Therefore, no option for Direct3D stereoscopic support is available (it's installed automatically!).*
- 8) After making your selections, click the Install button to continue. The setup program will proceed to install the software for the Wicked3D featuring Voodoo<sup>2</sup> card.

- 9) After the necessary files are installed, you will receive a "Setup Complete" dialogue box. You may choose to review the README file for the latest information on the software release. Click the Finish button.
- 10) Reboot your computer for the driver installation to be complete.
- 11) ***Congratulations! You are now ready to experience the ultimate in 3D gaming!***

## INSTALLING THE DRIVERS IN WINDOWS NT 4.0

Windows NT 4.0 has neither the plug and play nor Direct3D acceleration features of Windows 95 or Windows 98, so the installation process is a little different. Only the Glide API drivers will be installed, allowing you to play 32-bit games written specifically for the Glide API, in the Windows NT 4.0 operating system. Some Windows 95 games will not run under Windows NT 4.0 due to the use of Windows 95-specific API calls. Please contact the game publisher for more information on using Windows NT.

***The setup program requires the user to be logged in with an account that has Administrator privileges. If an account has insufficient permission, the 3Dfx device services will not be installed.***

- 1) From the Start menu, choose Run..., then Browse. Double-click on your CD-ROM drive, then the WINNT40 directory, then on SETUP.EXE. Once you have been returned to the Run dialog box, click on OK.
- 2) The InstallShield interface will guide you through a step-by-step installation. Please follow the on-screen instructions, and read the license agreement, instructions, and warnings.
- 3) After the files for Microsoft's COMCTL32.DLL Update have been copied, you will be asked to restart your computer. Select NO.
- 4) The InstallShield interface will tell you when setup is complete. Remove all disks from your floppy drives, and click Finish.
- 5) Restart your computer to complete the driver installation.
- 6) ***Congratulations! You are now ready to experience the ultimate in 3D gaming!***

## Metabyte Wicked 3D Display Property Sheet

The Metabyte Wicked3D Display Property Sheet allows you to customize the Metabyte Wicked3D featuring Voodoo<sup>2</sup> boards features for your use. With the availability of Metabyte's Re2Flex technology, you can specify custom resolutions and refresh rates to get the most out of your board/monitor configuration. You may also customize settings for your Direct3D, Glide, and OpenGL applications. If your board is equipped with WickedVision<sup>TM</sup>, you can use this page to customize your stereoscopic support.

### RE2FLEX

Metabyte's Re2Flex technology gives you complete control over your gaming resolutions and refresh rates in compatible Direct3D, QuakeGL, and Glide titles. (Note: Not all Direct3D titles allow for custom resolutions and refresh rates). The Re2Flex section of the Metabyte Wicked3D Display Properties Tab allows you to adjust your gaming environment.

### Custom Resolutions

Metabyte's Re2Flex technology allows you to customize the resolution of your 3D environment in increments of 1 pixel vertical and 1 pixel horizontal (providing your 3D application is capable of accepting a custom mode). The range of selectable modes starts at 320x200. You may select up to 1024x672 with one Wicked3D featuring Voodoo<sup>2</sup>, and 1024x1024 with two cards (Too<sup>2</sup> Wicked configuration, also known as SLI configuration).

***Warning: Different monitors have different mode capabilities. Use the Test Mode button to test custom modes before using in actual games.***

The Resolution slider bar located on the main Metabyte Wicked3D display property sheet will allow you to select from a group of pre-defined modes - 512x384, 640x400, 640x480, 800x600, 1024x672, 1024x768\*, and 1024x1024\*. Perform the following procedure to add a custom resolution:

\*These modes available with Too<sup>2</sup> Wicked configuration only.

- 1) Click on the Add Resolution button. This will bring you to the Custom Resolution Control Center.
- 2) There are two possible ways to select the resolution.
  - a. Type in the desired width and height values in the Input Desired Resolution. You may also increment and decrement the values using the arrows on the sides of the input windows. *Note: The Wicked3D bitmap will change in size to reflect the values indicated.*

- b. Place your mouse cursor on the lower right corner of the Wicked3D bitmap. The mouse pointer will change to a diagonal resize cursor. You can resize the bitmap to reflect the desired resolution. *Note: The numbers in the Input Desired Resolution fields will change as you resize this image.*
- 3) When the desired resolution has been reached, select Add. The new resolution will be added to the list of available resolutions. The new resolution will have the word "custom" next to it to indicate it is user specified.
- 4) Click the OK button to return to the main Metabyte Wicked3D display property sheet.

You may now select the new mode using the Resolution slider bar. *Note: You can have a total of 14 modes, including the standard modes.*

If you would like to remove a custom mode, use the following procedure:

1. Click on the Add Resolution button. This will bring you to the Custom Resolution Control Center.
2. Select the resolution you would like to remove. (*Note: You may NOT remove the predefined modes. Only modes marked "(custom)" may be removed.*)
3. Click on the Delete button.
4. Click the OK button to return to the main Metabyte Wicked3D display property sheet.

## Custom Refresh Rates

Metabyte's Re2Flex technology also allows you to customize the refresh rates used in your 3D environment in 1 Hz increments. You may select a refresh rate using any of the following methods:

- Moving the slider bar to the desired refresh rate.
- Typing in the desired refresh rate in the refresh rate window.
- Using the increment and decrement arrow buttons on the side of the refresh rate window.

**Warning: Different monitors have different mode capabilities. Use the Test Mode button to test custom modes before using in actual games. If you get a blank screen, or the image is incorrect, reduce the refresh rate then test again.**

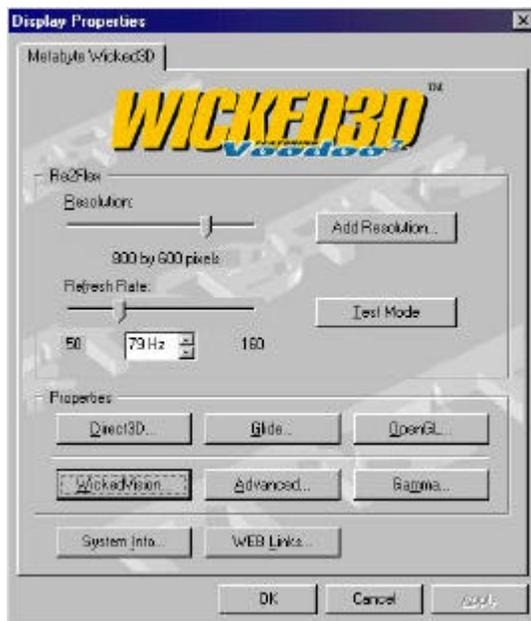


Figure 1: Metabyte Wicked3D Display Properties sheet.



Figure 2: Custom Resolution Control Center

## Testing a mode

It is important to test a mode prior to saving your mode configuration. Using the Test Mode feature will assure you the mode is safe to use in your 3D environment. When you click the Test Mode button, you will get the following dialogue box:

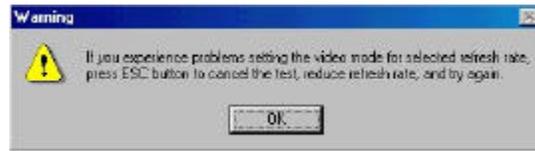


Figure 3: Test Mode warning dialogue box

After clicking OK, you should get a screen, which the letters spelling "Wicked3D" will float around. The mode you are testing will appear at the bottom right corner of the test screen. If the mode is not centered, we recommend you use your monitor controls to adjust the image. If your monitor does not have this capability, you may use the software controls provided in the test screen to adjust the image.

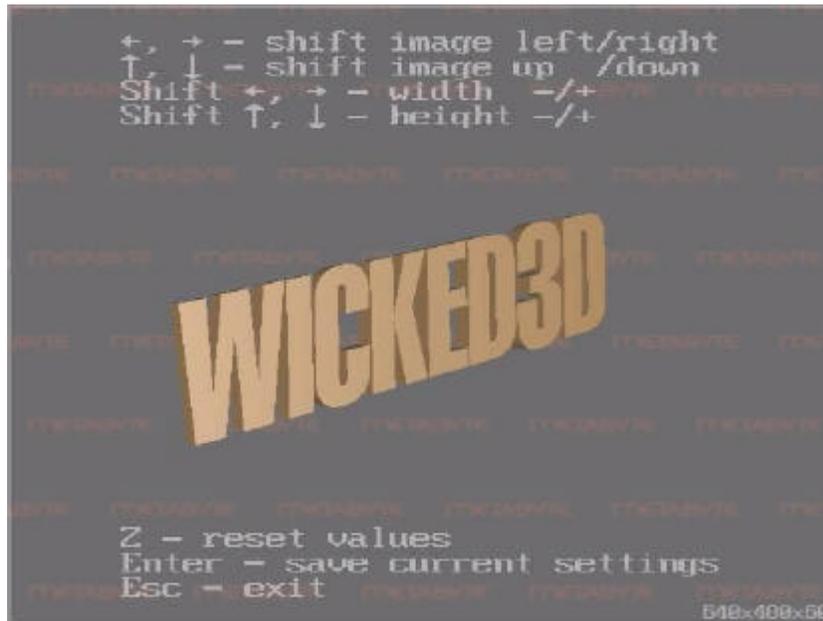


Figure 4: Test Mode screen.

Once you have verified the desired mode works correctly, hit the <Esc> key. If the mode does not display properly, lower the refresh rate and try the test again.



Figure 5: Test Mode exit warning

## Direct3D Properties

### Settings Tab

#### Direct3D Advanced Options

Allows you to manipulate a couple of 3D features supported by your Wicked3D featuring Voodoo<sup>2</sup> product, which are supported by some (but not all) Direct3D applications.

#### Enable Anti-Aliasing

Anti-aliasing reduces the "jaggies" in certain game polygons, thereby providing cleaner visuals. Anti-aliasing is enabled by default. Disable this option if you experience problems with your Direct3D applications.

#### Force trilinear texture filtering

Use this checkbox to force the Wicked3D featuring Voodoo<sup>2</sup> to render using trilinear filtering for D3D applications that use mipmapping and bilinear filtering. If supported, you will get smoother visual images. Disable this option if you experience problems with your Direct3D applications.

#### Don't sync buffer swaps to monitor refresh rate

Use this checkbox to allow games to run at the fastest framerate possible, ignoring the limit imposed by the monitor's refresh rate.

*Note: When the framerate is faster than the refresh rate, the application data is being updated faster than the monitor is putting it on the screen. In some instances where a lot of data is being processed (i.e. the rendering of lots of polygons and textures in a high-speed environment), your image may have the appearance of "tearing". This is not a driver or board issue; it is a side effect of the application being updated faster than the monitor can refresh the screen.*

#### Video Mode selection

This section allows you to override the resolution selection of your Direct3D applications. Once the Force selected video mode capability is enabled, you must set a hot key to turn on this function in the Keyboard Controls section of WickedVision™ Properties sheet.

#### Use mode selection in game

When this option is selected, the mode selection is performed in the Direct3D application.

#### Force selected video mode

When this option is selected, the mode specified by the Video Mode slider bar will override the mode selected by the Direct3D application.

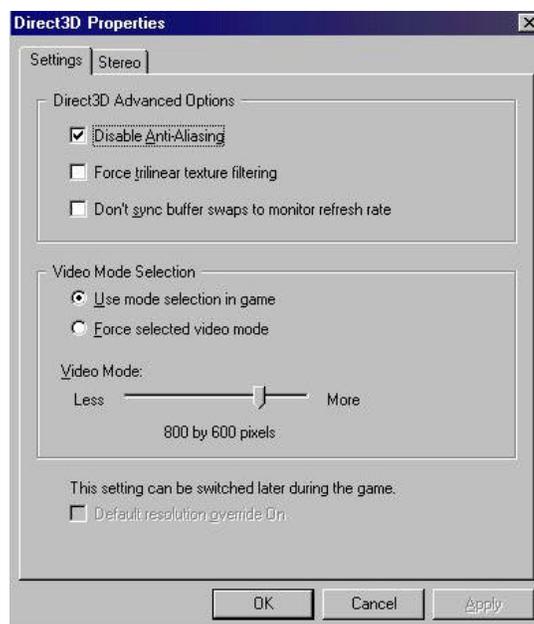


Figure 6: D3D Properties, Settings tab

## **Video Mode**

Allows you to select the mode you wish to use with your Direct3D application. You must select Force selected video mode to use this feature. You must also set a hot key to toggle Resolution override located in the Keyboard Controls section of WickedVision™ Properties sheet.

## **Default resolution override On**

Sets the mode selected in Video Mode to be applied to all Direct3D applications by default.

## **Stereo Tab**

### **Default Stereo On**

Use these radio buttons to select whether or not to enable stereoscopic support by default. Enable stereo support only if you have WickedVision™ Eyewear.

### **Enable advanced stereo controls**

This selection allows you to manipulate the Zero stereo separation distance and Depth Gap Correction settings. These default settings should be fine for most applications.

### **Zero stereo separation distance**

This setting may be used to set the closest point of the closest object to zero stereo separation. An example of when an adjustment may be appropriate would be if the gun or heads up display (HUD) is "sticking out" of the screen, when it should be "inside" the screen. *Note: Do not adjust this setting unless you are sure that the application you are using requires this adjustments.*

### **2D Objects Detection**

Sets the minimum depth coordinate of a 3D object. Objects with a depth coordinate of a lesser value are treated as 2D objects, and are not displayed with stereo separation.

*Note: Do not adjust this setting unless you are sure that the application you are using requires this adjustment.*

### **Ignore Partial Clear**

The "Partial Clear" function is a 2D instruction that clears a portion of the Direct3D screen to display a separate Direct3D window (i.e. a rear-view mirror in a racing game). Since this "Partial clear" is a 2D function, it may not appear correctly in stereo. Ignoring the "Partial Clear" causes the second Direct3D image to be overlaid on to of the first, causing the image to appear correctly in stereo.

*Note: Do not adjust this setting unless you are sure that the application you are using requires this adjustment.*

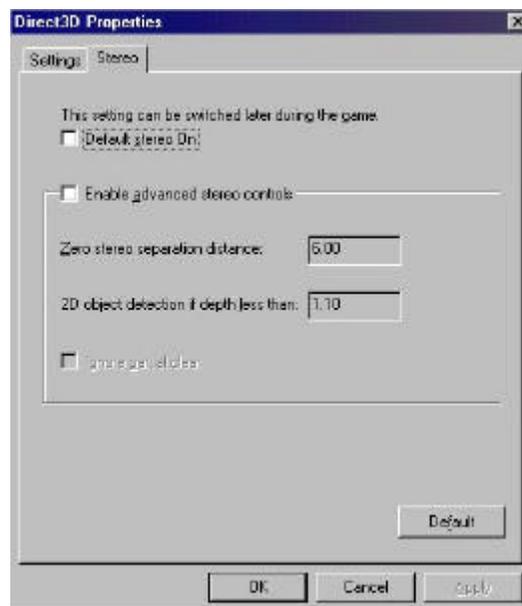


Figure 7: D3D Properties, Stereo tab

## Glide Properties

### Settings Tab

#### **Original Glide Advanced Options**

This section allows you to manipulate specific features within your Glide environment. Not all Glide applications support these features.

#### **Force mipmap dithering**

Turns on mipmapping dithering for Glide applications. Can result in higher visual quality.

#### **Limit texture memory to 2MB**

Use this checkbox if you experience problems with certain older Glide games.

#### **Force triple color buffering**

Enables triple buffering for Glide applications. This can result in a frame rate increase, however some games that expect only double buffering can experience graphics flashing.

#### **Don't sync buffer swaps to monitor refresh rate**

Use this checkbox to allow games to run at the fastest framerate possible, ignoring the limit imposed by the monitor's refresh rate.

*Note: When the framerate is faster than the refresh rate, the application data is being updated faster than the monitor is putting it on the screen. In some instances where a lot of data is being processed (i.e. the rendering of lots of polygons and textures in a high-speed environment), your image may have the appearance of "tearing". This is not a driver or board issue; it is a side effect of the application being updated faster than the monitor can refresh the screen.*

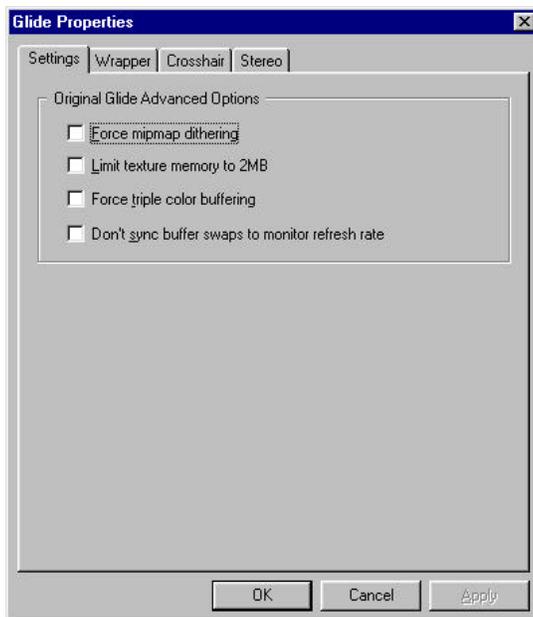


Figure 8: Glide Properties, Settings tab

## Wrapper Tab

### Video Mode Selection

With Re2Flex, you can override a game's built-in resolution controls, allowing you to run in custom resolutions up to 1024x1024. To enable this feature, select the Force selected video mode radio button and select the desired resolution using the Video Mode slider bar. To use the game's built-in resolution controls, select the Use mode selection in game radio button.

*Note: In order to select a custom resolution, you must have added the custom resolution in the Custom Resolution Control Center.*

### Original Glide Options

This section allows you to enable Re2Flex and WickedVision™ in Glide games. Choose the Use Glide Wrapper for Glide Games radio button to enable these features. To disable these features, select Use Original Glide. The Original Glide Path should point to GLIDE2X.ORG, located in the directory where the Wicked3D software is installed

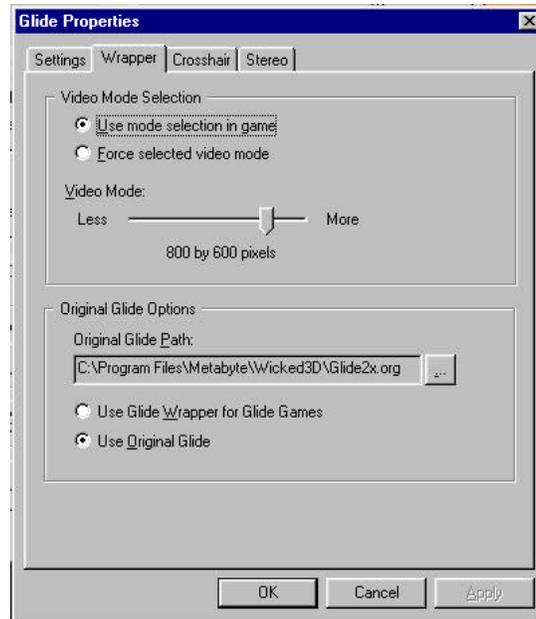


Figure 9: Glide Properties, Wrapper tab

## Crosshair Tab

A stereo-correct crosshair as well as a dynamic laser sight has been implemented to provide a unique experience in Glide-based first person shooters.

*Note: This feature only works when our "wrapper" is running. If you are playing a game, which DOES NOT require a crosshair (such as a "race car" game,) you need to turn off the crosshair by selecting Off in the Image section of this tab.*

### Image

Choose Off for use the game's built-in targeting device. Select Cross for a stereo-correct crosshair or Laser for a dynamic laser sight targeting device.

### Size

Selects the size of the crosshair or laser sight. Values larger than 100 specify a 3D crosshair that changes its size depending on the distance to the objects being targeted.

### Shift X

Use to correct aiming for non-centered gun in first-person shooter type games.

### Shift Y

Use to correct aiming for non-centered gun in first-person shooter type games.

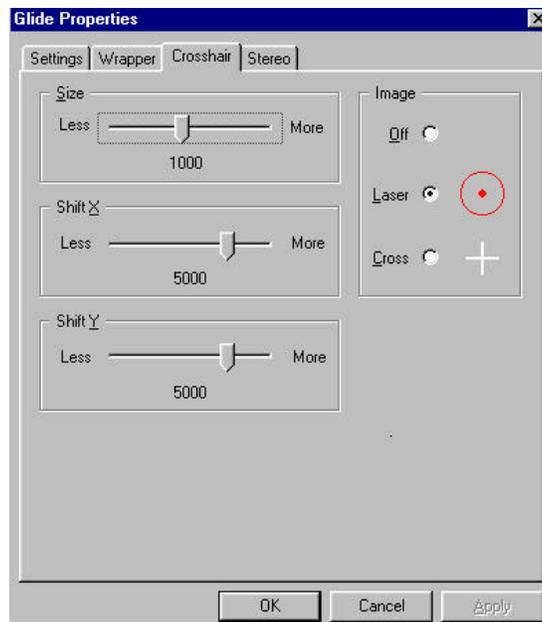


Figure 10: Glide Properties, Crosshair tab

## Stereo Tab

### Stereo Enabled/Disabled

Use these radio buttons to select whether or not to enable stereo support. Enable stereo support only if you have WickedVision™ Eyewear.

### Enable advanced stereo controls

This selection allows you to manipulate the Zero stereo separation distance and Depth Gap Correction settings. These default settings should be fine for most applications.

### Zero stereo separation distance

This setting may be used to set the closest point of the closest object to zero stereo separation. An example of when an adjustment may be appropriate would be if the gun or heads up display (HUD) is "sticking out" of the screen, when it should be "inside" the screen. *Note: Do not adjust this setting unless you are sure that the application you are using requires this adjustment.*

### Depth Gap Correction

Includes:

- Gap start
- Correction
- Reduced stereo separation

These settings may be used to "compress" distance on a portion of the Z-axis to correct instances where objects are closer or further than they should appear.

*Note: Do not adjust these settings unless you are sure that the application you are using requires these adjustments.*

### 2D Objects Detection

Sets the minimum depth coordinate of a 3D object. Objects with a depth coordinate of a lesser value are treated as 2D objects, and are not displayed with stereo separation.

*Note: Do not adjust this setting unless you are sure that the application you are using requires this adjustment.*

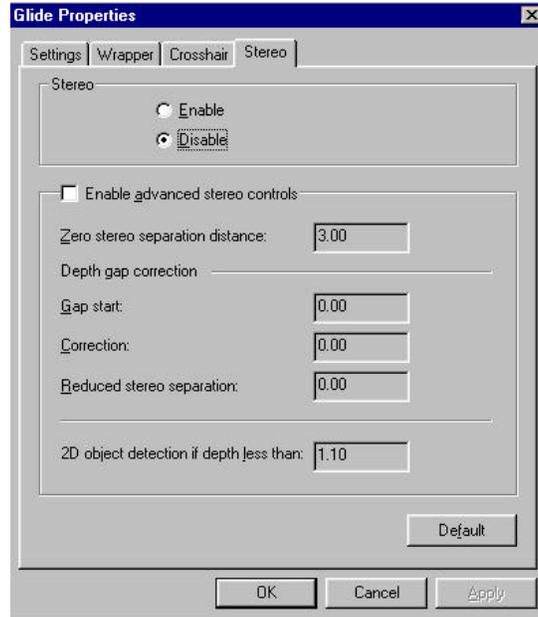


Figure 11: Glide Properties, Stereo tab

## OpenGL Properties

### Installing the Metabyte OpenGL Wrapper

The Metabyte Open GL wrapper must be manually installed. In the C:\Program Files\Metabyte\Wicked3d directory, there are 3 files pertaining to OpenGL

OpenGL32.ORG – Backup copy of the original OpenGL

OpenGL32.WRP – Backup copy of the Metabyte OpenGL Wrapper

OpenGL32.DLL – Metabyte OpenGL Wrapper

To install the OpenGL wrapper, copy C:\Program Files\Metabyte\Wicked3d\OpenGL32.DLL to the game directory you wish to use it with. (i.e. C:\Quake2) To reinstate the original version of OpenGL, copy C:\Program Files\Metabyte\Wicked3d\OpenGL32.ORG to your game directory.

## Settings Tab

### Video Mode Selection

With Re2Flex, you can override a game's built-in resolution controls, allowing you to run in custom resolutions up to 1024x1024. To enable this feature, select the Force selected video mode radio button and select the desired resolution using the Video Mode slider bar. To use the game's built-in resolution controls, select the Use mode selection in game radio button.

*Note: You must add the desired custom resolutions in the Custom Resolution Control Center prior to their availability in Video Mode Selection.*

### Additional Gamma Correction

Settings for software gamma correction. Use to change the display brightness of games.

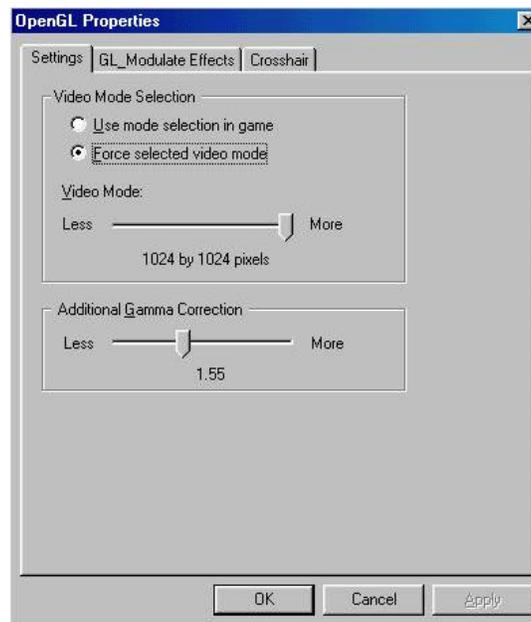


Figure 12: OpenGL Properties, Settings tab

## GL Modulate Effects Tab

### **More Gamma Correction**

Use this slider bar to change the brightness of objects in a game. (Can be used to make opponents easier to spot!) Set this value to 1 leaves objects at the same gamma level as the rest of the environment. Setting this value to less than 1 will make objects darker. Setting this value to greater than 1 will make objects brighter.

### **Animate**

Step - Setting this value to anything other than 1 will cause the objects in a game to flash. The greater distance from the value of 1, the greater the amplitude of the flashing effects.

Frequency - Frequency of the animated gamma correction.

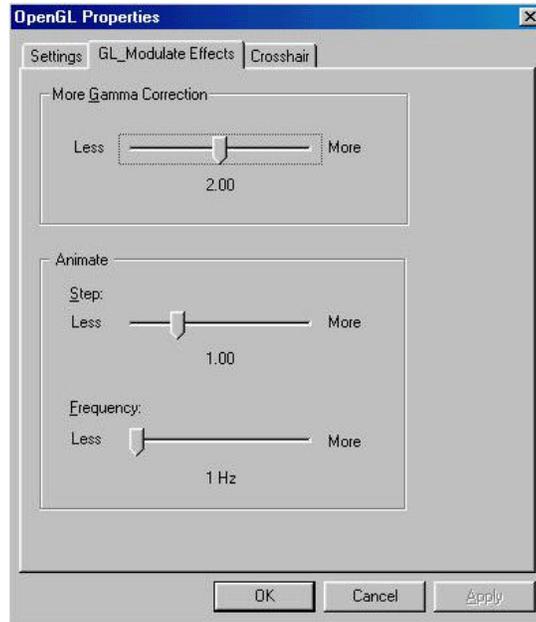


Figure 13: OpenGL Properties, GL\_Modulate Effects tab

## Crosshair Tab

A stereo-correct crosshair as well as a dynamic laser sight has been implemented to provide a unique experience in GL-based first person shooters.

*Note: This feature only works when our "wrapper" is running. If you are playing a game, which DOES NOT require a crosshair (such as a "race car" game,) you need to turn off the crosshair by selecting Off in the Image section of this tab.*

### Image

Choose Off for use the game's built-in targeting device. Select Cross for a stereo-correct crosshair or Laser for a dynamic laser sight targeting device.

### Size

Selects the size of the crosshair or laser sight. Values larger than 100 specify a 3D crosshair that changes its size depending on the distance to the objects being targeted.

### Target Highlight

Additional gamma correction for objects being targeted by the crosshair.

### Shift X

Use to correct aiming for non-centered gun in first-person shooter type games.

### Shift Y

Use to correct aiming for non-centered gun in first-person shooter type games.

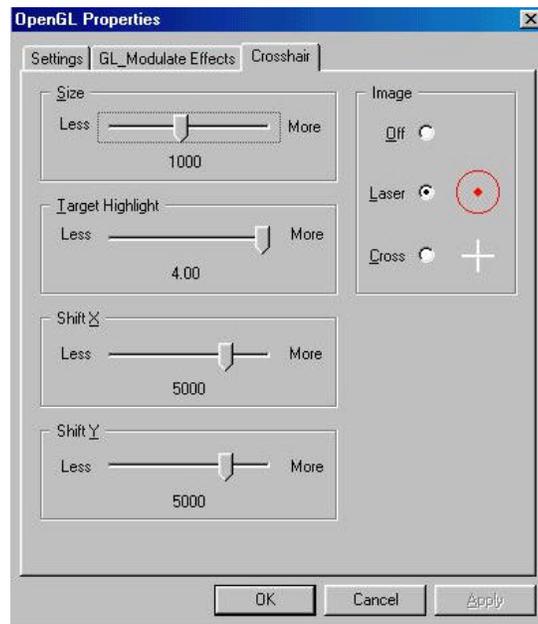


Figure 14: OpenGL Properties, Crosshair tab

## WickedVision™ Settings Tab

### Video Mode

Use this slider bar to select the mode that you want to test in stereo. If you want to try custom modes, you must first add the custom mode using the Custom Resolution Control Center.

*Note: Selecting a resolution using this slider bar will not select the actual resolution for the game. The game resolution is controlled by the Re2Flex slider bar (when enabled).*

### Monitor Size

Move the slider bar to set the size of your monitor. This setting determines the pixel separation between the left and right eye images. (You can use the dynamic adjustments to fine-tune the settings during gameplay.)

### Reduced Stereo Separation

Given the selected monitor size, 100% stereo separation will give the most accurate, ideal stereo image. However, you may find that 100% separation is too much for your eyes, causing you to see double. Use the Reduced Stereo Separation slider bar to reduce the separation to a level that is comfortable to your eyes.

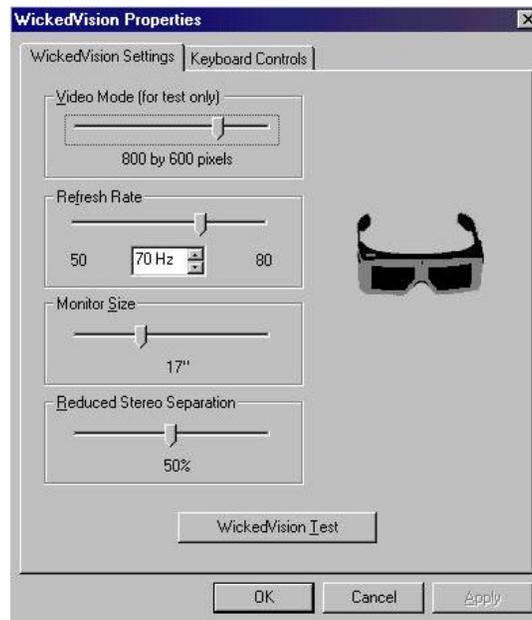


Figure 15: WickedVision™ Properties, WickedVision™ Settings tab

### WickedVision™ Test

Use the WickedVision™ Test screen to fine tune your stereo and screen settings. The current mode is displayed on the lower right hand corner of the screen. Use the <U> and <D> keys to adjust the vertical separation so that the text is readable. Use the <O> and <P> keys to adjust the stereo separation to suit your preference. The wider the stereo separation, the more depth you will see. However, if you see "double", reduce the separation to a comfortable amount for your eyes. Use the arrow keys to adjust the position of the screen. Hold down shift and press the arrow keys to change the size of the screen. Press <Enter> or <Z> to save these screen settings. The vertical separation and stereo separation values are saved when you exit the Stereo Test. Press <R> to reset the stereo hardware, in case you see separate top and bottom images. Press <Y> to toggle stereo On/Off.



Figure 16: WickedVision™ Test warning



Figure 17: WickedVision™ Test screen

Press <T> to bring up the Depth Perception Test. You should see a row of 5 stars, each progressively "deeper" into the monitor from left to right.



Figure 18: WickedVision™ Depth Perception test

Press <Shift+T> to see the Eyes Test to verify that you can indeed see stereo images. If you can see a square within the middle left side of the larger square, you can see stereo images correctly. There are various reasons why you would not be able to see the square; however, it is best to consult a physician. Press <Shift+T> again to exit the Eyes Test.

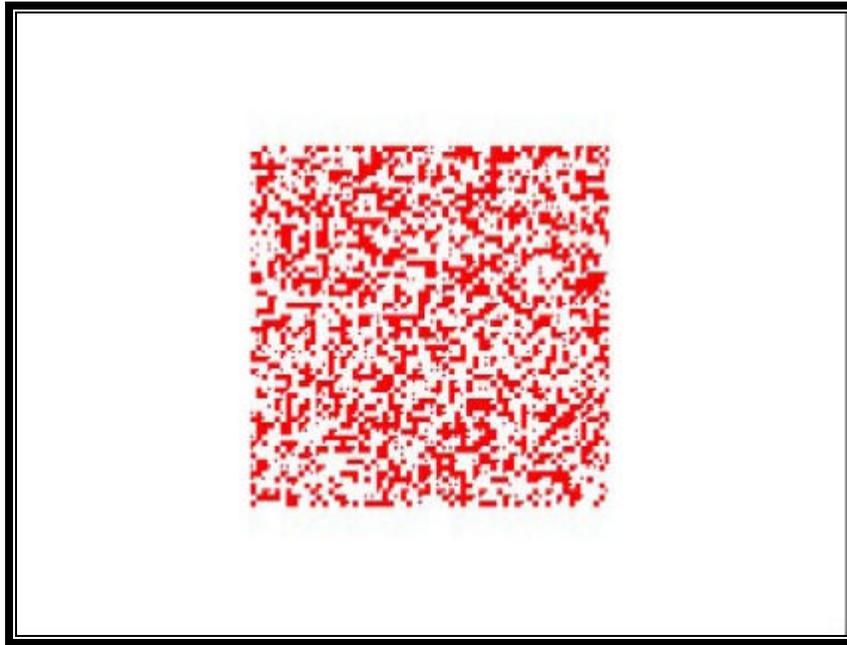


Figure 19: WickedVision™ Eye test

Press the <Esc> key to exit the Stereo Test screen. You will receive the following dialogue box warning you to make adjustments to your settings if the video mode was not properly displayed. Using incorrect settings in a 3D game or application may result in a loss of monitor sync, which will leave the screen blank or unreadable.



Figure 20: WickedVision™ Test exit warning

## Keyboard Controls Tab

The Keyboard Controls tab allows you to define "hot keys" that will allow you to adjust and reset stereo separation within a game. Select the function for which you want to define a key, and enter the key in the box on the right. Note that you can enter a combination of keys using <Alt>, <Ctrl>, and/or <Shift>. Hold down the modifier key(s) and press the key to be defined. This gives you the ability to configure key combinations, which aren't in use by the game itself.

### Reset Stereo

Use this function to reset stereo separation if your monitor stops producing a stereo image (by switching to another windows application, for example).

### Less/More Stereo Separation

Use these functions to dynamically reduce/increase the stereo separation within the game.

### Less/More Vertical Separation

Use these functions to reduce/increase the vertical separation between the images. The easiest way to correct vertical separation is to align text on the screen so that there is no vertical separation.

### Toggle Stereo

Use this to toggle stereo on/off within a game. You can use this function to switch back and forth between stereo and non-stereo to view items that are illegible in stereo. Works only with Direct3D games.

### Toggle Separation

Use this function to toggle the stereo separation between none and the amount that you have set. This is useful if the game has small text that is illegible in stereo.

### Toggle Resolution Override

Sets a hot key to toggle the resolution override in Direct3D applications. This key takes effect only if Force selected Video Mode is chosen in the **Direct3D Properties**.

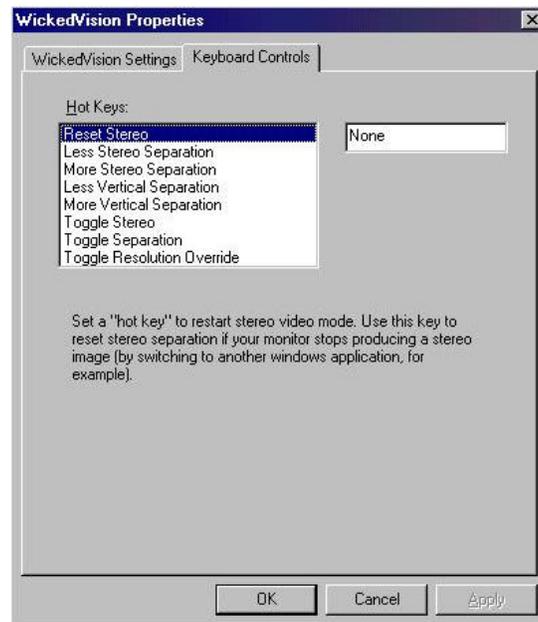


Figure 21: WickedVision™ Properties, Keyboard Controls tab

## Advanced Properties

### Clock Speed

Use the clock speed slider bar to set the speed of your Wicked3D featuring Voodoo<sup>2</sup>. The default clock speed is 92MHz. Raise or lower this clock setting depending on the tolerance of your system and the game. ***Setting the clock speed above 95 MHz (the red zone on the slider bar) may greatly increase the probability of artifacts on your screen, and lock-ups. We recommend you use this option at your discretion, only if you have a well-cooled system or cooling fan for the processor on your Wicked3D card.***

### Disable SLI

Click this checkbox to disable Two<sup>2</sup> Wicked mode (SLI / two card configuration) if a game is having problems with SLI mode.

### Enhance Desktop

This checkbox allows you to add a C©©L background to your desktop.

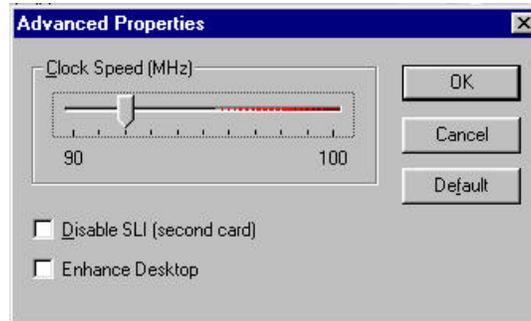


Figure 22: Advanced Properties

## Gamma Correction

The gamma correction slider bars allow you to adjust the red, green, and blue gamma settings in your 3D applications.

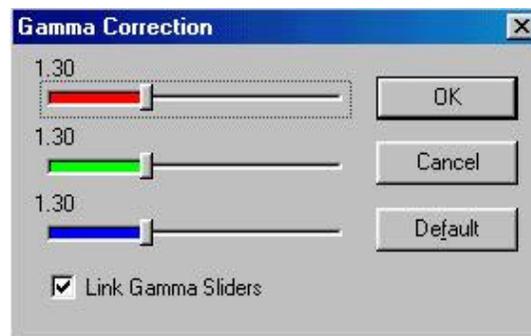


Figure 23: Gamma Correction

## System Info

This section contains information on your Wicked3D subsystem. This information is especially useful if you experience a technical issue with your Wicked3D featuring Voodoo<sup>2</sup> product. It will help our technical support department determine if your hardware is properly detected, and whether the driver components are current.

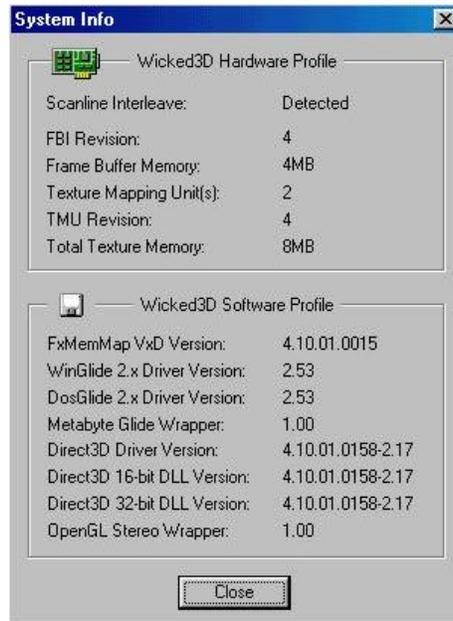


Figure 24: System Info

## Metabyte Wicked3D Useful Links

This section contains web site and email addresses for our online resources.

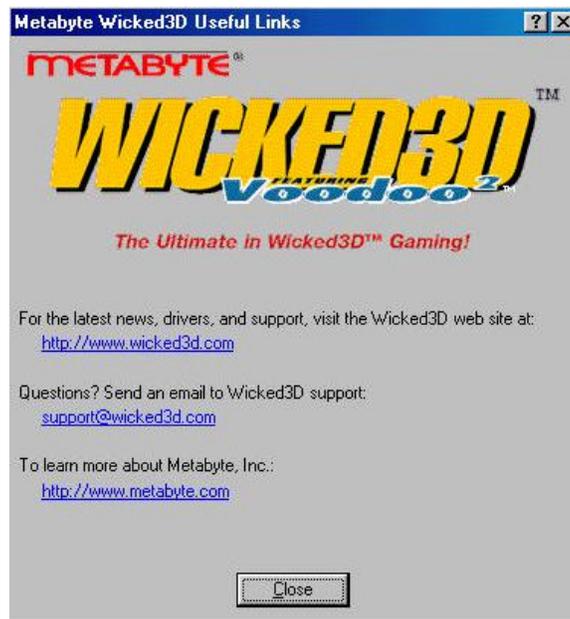


Figure 25: Metabyte Wicked3D Useful Links

## TECHNICAL INFORMATION

### Jumper Settings

- There are no jumpers on the board

### I/O Ports And Memory Locations

#### Memory-mapped Address Space

- xx000000-xx3FFFFFF
- xx400000-xx7FFFFFF
- xx800000-xxFFFFFFF

*Note: These memory addresses are assigned by Windows when installing the drivers and cannot be changed.*

### ROM BIOS

- There is no ROM BIOS on the board

### I/O Locations

- There are no I/O addresses used by the board

## General Hardware Information

### Chipset

- 3Dfx Interactive Voodoo<sup>2</sup> Graphics
- 1 Pixelfx<sup>2</sup> chip
- 2 Texelfx<sup>2</sup> chips

### Memory

- 25ns (100MHz) EDO DRAM

*Note: Some boards may have memory labeled as 28ns. This memory is bin-sorted at 25ns.*

### Connectors

- 34 pin (male) Scan-Line Interleave (SLI)
- 15 pin (male) VGA IN connector
- 15 pin (female) VGA OUT connector

### Bus

- PCI 2.1 compliant

## 3D FEATURES

### 3D Rendering Features

- Triangle-based raster engine with Gouraud shading
- 16-bit integer and floating-point Z-buffering with biasing
- Full hardware setup of triangle parameters
- Automatic back-face culling
- Support for multi-triangle strips and fans
- Transparency and chroma-key with dedicated color mask
- Alpha blending on source and destination pixels
- Sub-pixel and sub-texel correction to 0.4 x 0.4 resolution
- 24-bit color dithering to native 16-bit RGB buffer using a 4x4 or 2x2 ordered dither matrix
- Per-pixel atmospheric fog and haze effects
- Polygon-edge anti-aliasing

### 3D Texture Mapping Features

- Perspective-corrected (divide-per-pixel) 3D texture mapping
- Texture mapping and filtering through point-sampled, bilinear, trilinear, and MIP mapped filters
- RGB modulation/addition/blending combines texture and shading data
- Texture compositing for multi-texture special effects
- Supports 14 input formats for texture maps
- 8-bit palette textures with full-speed bilinear filtering
- Texture compression through proprietary narrow-channel YAB format
- Per-pixel level-of-detail (LOD) MIP mapping with biasing and clamping

## Wicked3D Mailing List

Do you wish to be automatically notified of software updates and other important information pertaining to your Metabyte Wicked3D featuring Voodoo<sup>2</sup>? If so, you can subscribe to the Metabyte Wicked3D featuring Voodoo<sup>2</sup> mailing list. To subscribe, send an email to [majordomo@wicked3d.com](mailto:majordomo@wicked3d.com). No subject is required, just place the following text in the body of the message:

subscribe w3dv2

You will receive a message confirming your subscription to the list. If you do not receive this confirmation message, please contact [support@wicked3d.com](mailto:support@wicked3d.com) for assistance.

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## RETURN MERCHANDISE AND SERVICE

If you suspect that there is a defect in the material or workmanship of this PRODUCT, you should contact the person or company from which you purchased it. That person or company may be able to solve the problem and if not, will be able to contact us for technical assistance or repair. If it is determined that the PRODUCT must be returned to METABYTE, INC. for repair or replacement, a Return Merchandise Authorization (RMA) number must be obtained from METABYTE'S Technical Support Department before it is returned. Each returned item must have a separate RMA number.

The following rules apply to all returned items:

1. The PRODUCT must be returned either in its original packaging or in other packaging which is appropriate for the PRODUCT and the manner of shipment, and the RMA number must be displayed prominently on the outside of each such package.
2. If a PRODUCT is determined to be ineligible for warranty service, the customer will be notified before any further action is taken with the PRODUCT.
3. METABYTE, INC. will not be responsible for any loss or damage to property shipped with the RMA PRODUCT not originally sold by METABYTE, INC. (e.g., coprocessor chips, peripheral boards, memory modules, enclosures, power supplies or any other accessories or attached items.).
4. Any item returned to METABYTE, INC. without a valid RMA number will be returned to the shipper.

Products shipped to METABYTE, INC. must be shipped or mailed at the shipper's risk, with freight prepaid to the appropriate address below.

### Mailing and Shipping Address

United States, Canada and International Returns:

Metabyte, Inc.  
The Wicked3D Board Company  
39350 Civic Center Drive  
Suite #200  
Fremont, CA 94538  
<http://www.wicked3d.com>

Europe:

Metabyte, Inc.  
European Service Center  
Unit 4, Shannon Industrial Estate  
Shannon, Co. Clare  
Republic of Ireland

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## Technical Support

Technical support, to assist you in resolving problems with METABYTE products, is now available through METABYTE'S Technical Support Department.

**In the U.S.A.**, the Technical Support Department can be reached by telephone by

Phone: (510) 494-9700 , Fax: (510) 494-9167.

Current hours of operation are from 8:00 A.M. through 5:00 P.M. Pacific Standard Time (PST), Monday through Friday, excluding holidays. Email: [support@wicked3d.com](mailto:support@wicked3d.com)

**In Europe**, the Technical Support Department can be reached by telephone by phone. (Please visit our website for local technical support Phone numbers)

Current hours of operation are from 8:00 A.M. through 5:00 P.M. Greenwich Mean Time (GMT), Monday through Friday, excluding holidays. Email: [support@wicked3d.com](mailto:support@wicked3d.com)

METABYTE, INC. will make reasonable efforts to address compatibility problems, which may arise with respect to the third party products, but should not be responsible for the compatibility of its products with the products of any third party. Customers are advised to verify each product's compatibility with their installation before committing to any particular procurement plan.