MONSTER FUSION

USER'S GUIDE

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1   **ABOUT MONSTER FUSION**

Monster Fusion is for every PC user who wants to boost his PC with 3D graphics power for nearly all current 3D action games. Based on the 3Dfx Banshee technology, it offers superior 3D acceleration with excellent picture quality and highest frame rates. In supporting Direct3D™, Glide™ and OpenGL®, the most distributed gaming APIs, it guarantees maximum compatibility for upcoming games and ensures long-lasting investment for the PC system. Monster Fusion guarantees easy installation (add-on design).

- **MONSTER FUSION FEATURES AND SPECIFICATIONS**

- **MONSTER FUSION PERFORMANCE (200MHZ PENTIUM SYSTEM)**

MONSTER FUSION FEATURES AND SPECIFICATIONS

- Fast 2D Acceleration

    - Smooth realistic video

- Advanced 3D Features

    - 3D Hardware acceleration for over 60 frames per second gameplay

    - Single-pass bilinear and trilinear filtering for even, crisply defined surfaces —no blockiness!

    - Per pixel Mip and texture mapping for realistic display and amazing detail of textured and layered objects

    - Full hardware triangle setup to accelerate 3D renderings

    - Floating-point 16-bit Z-buffering with biasing for precision depth and layered object display

    - Alpha blending, anti-aliasing, Gouraud shading, and bump mapping

- **Superior gameplay in up to1600x1200 with Z-buffer.** Displays objects more efficiently resulting in remarkable improvements in speed, detail, and clarity

- **Accelerates Glide, Direct3D, and OpenGL**, with over 200 games supported

Monster Fusion Performance (on 200MHz Pentium)

- **3Dfx Banshee Chipset**. Packs the highest quality 3D gaming with groundbreaking 128-bit 2D power.

- **True 128-bit 2D Acceleration**. Lets you maneuver through complex presentations, business software, spreadsheets, and the Web with scorching speed.

- **Full Hardware Acceleration of Windows**.

- **16 MB of SDRAM for unparalleled** ultra high resolution gaming performance.

- **Stunning Resolution**. Displays graphics in resolutions up to 1600x1200 with razor-sharp detail and crystal clarity.

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HOW TO USE THIS MANUAL

For your convenience, this online User's Guide has been formatted as a PDF file. This format gives you great flexibility in how you want to use this documentation. If you like, you can easily print this manual so that you can access it off-line; it will look like any standard document complete with Table of Contents and page numbers.

This manual may display with slightly-reduced magnification in your Reader. If you experience any difficulty reading certain image files online, use the Reader's Zoom feature and increase the magnification to about 133%.

MANUAL CONVENTIONS

You Monster Fusion User's Guide is organized in a standard, familiar way. A few icons are used to point out important information:

This icon marks useful tips or important operational notes.

This icon is a warning about possible electrical/software hazards or problems.

Hypertext links are active inside this manual. If you are reading this manual online, place your mouse cursor over the Table of Contents entries or main headings. If the hand icon changes to a pointing index finger, simply click and you will move to that place in the document. Some email or World Wide Web addresses inside this manual may be active as well. Go directly to a Web or FTP site, or email program simply by clicking on an active link.

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INSTALLING MONSTER FUSION

To install your Monster Fusion, you need to first install the hardware and then the software drivers and utilities provided on the installation CD.

- **INSTALLING THE MONSTER FUSION HARDWARE**

- **INSTALLING THE MONSTER FUSION SOFTWARE**

INSTALLING THE MONSTER FUSION HARDWARE

Warning! To avoid accidental electric shock, be sure to shut your computer down and unplug the power cord before starting the following procedures. To protect your Monster Fusion card from damage due to static electrical discharge, ground yourself by touching the power supply box inside your computer.

Before you install your Monster Fusion PCI or AGP board, it is recommended that you set your display driver to Standard VGA before you shut down your computer and then remove your legacy (PCI, VLB, or ISA) VGA card.

Setting the Standard VGA Driver in Windows 98

1. Select **Start > Settings > Control Panel > Display**. The **Display Properties** dialog appears.

2. Choose the **Settings** tab and click on the **Advanced** button.

3. Click on the **Adapter** tab and click on the **Change** button. The **Update Device** Wizard appears.

4. Click **Next** and select **Display a list…**

5. Click **Next** and select **Show all Hardware**. Click on **Standard Display Adapter Types** and select **Standard Display Adapter (VGA)**.

6. Click **Next**.

7. If a warning dialog appears, asking whether you want to use this driver, click **Yes**. Then click **Next**.

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8. Windows asks you if you want to restart your computer. Click No.

9. Shut down your computer. You are now ready to remove your old graphics card and install your new Monster Fusion board.

Setting the Standard VGA Driver in Windows 95

To set your display to Standard VGA:

1. From the Start menu, go to Start > Settings> Control Panel, then double-click on Display. The Display Properties sheet appears.

2. Click on the Settings tab, then press the Advanced Properties button.

3. Click on the Adapter tab, the press the Change button. The Select Device window appears.

4. Click on the Show All Devices bullet. Under Manufacturers, select (Standard Display Types). Under Models, select Standard Display Adapter (VGA).

5. Click on Apply , then click on OK in all windows to close and accept the changes.

6. Shut down your computer. You are now ready to remove your old graphics card and install your new Monster Fusion board.

Setting the Standard VGA Driver in Windows NT 4.0

To set your display to Standard VGA:

1. From the Start menu, go to Start > Settings > Control Panel, then double click on Display. The Display Properties sheet appears.

2. Click on the Settings tab, then click the Display Type button.

3. Under Adapter Type, click on the Change button. The Change Display window appears.

4. Under Manufacturers, select Standard Display Types. Under Display, choose VGA Compatible Display Adapter.

5. Click on OK. You may need to insert your Windows NT 4.0 CD-ROM.

6. Click on Close and OK to accept the changes.

7. Shut down your computer. You are now ready to remove your old graphics card and install your new Monster Fusion board.

ⓘ Note—You must have Service Pack 3 loaded for the AGP version of Monster Fusion to operate properly under Windows NT 4.0. Service Pack 3 is available from Microsoft's web page, www.microsoft.com.

After you have completed the steps above and removed your old graphics card, you can continue with the procedures below to install your Monster Fusion board.

Installing Your Monster Fusion PCI or AGP Board

The Monster Fusion cards come in either AGP or PCI versions. Install the version you purchased according to the following directions.

1. With the power off, remove your computer cover and locate the AGP or PCI slot.

2. Remove the screw attached to the bracket cover and remove the bracket plate.

3. Before handling the Monster Fusion card, ground yourself by touching the power supply box inside your computer.

4. Position your card directly above the AGP or PCI slot as illustrated below. AGP and PCI cards are designed to fit only one way. Be sure your card is properly aligned.

5. Insert your Monster Fusion card firmly into the AGP or PCI slot. Care should be taken to press it evenly and snugly into its slot. **Do not forc**e.

6. Once you are certain your Monster Fusion card is installed properly in its slot, secure it to the computer frame with the screw you removed in step 2.

7. Connect your VGA monitor cable to the 15-pin socket on your Monster Fusion card.

8. Secure your computer cover and reboot your computer.

Continue with the software installation for your operating system in the following sections.

QUICK START SOFTWARE INSTALLATION

Now that you have installed the Monster Fusion hardware and rebooted your computer, complete the software installation the easy way using Diamond's Quick Start program. This section applies to Windows 98/95 and Windows NT 4.0. This is the easiest way to load the accelerated Diamond drivers for your new board.

Running Diamond's Quick Start CD

To make installing your video card easy and intuitive under Windows 98, 95, or NT 4.0, Diamond has provided an installation utility that can be run from the Diamond Quick Start CD-ROM.

The Diamond CD automatically determines which operating system you are running and installs the appropriate drivers for that operating system.

Notes— (1) If you are running Windows NT 4.0, you must have **Service Pack 3** loaded for the AGP version of Monster Fusion to operate properly. **Service Pack 3** is available from Microsoft's web page (www.microsoft.com). (2) To receive the full benefits of the **AGP version** of the Monster Fusion board under Windows 95, you must be running Windows 95 OSR2 (version 4.00.950 B) that has been updated with the **USB OSR2.1** supplement on an Intel AGP motherboard. Check the Windows 95 **Device Manager** to see if you have the USB supplement installed. If not, contact your computer manufacturer for more information on how to properly update your system.

1. Insert the Diamond Quick Start CD into your CD-ROM drive.

2. If your CD-ROM "auto-run" is not enabled, click **Start> Run** and type **X:\start.exe** where **X** is your CD-ROM drive.

3. The Quick Start program will start automatically and identify your operating system to install the correct drivers.

4. From the **Quick Start Welcome** screen, click **Continue**.

5. To begin installation, click the **Installation** button.

6. Choose either **Standard**, **Custom**, or **Minimal** installations according to your needs (see page 10 for more information on these installation choices). Click **Next**.

7. Be sure to read the ReadMe text and click **Next**. You should get a message stating that all drivers and applets have been installed.

8. You will be given a choice of drivers to install, including any additional software that may be provided with your board.

9. Once your drivers have been copied, you will be prompted to reboot your computer. Choose **Finish**.

WINDOWS 98 SOFTWARE INSTALLATION

This section covers the installation of your Monster Fusion software and drivers under Windows 98. Use this procedure if you did not run Quick Start utility (see page 6) on your installation CD, or if you want to install specific software components.

After Windows 98 reboots, it detects your Monster Fusion card and gives the message that new hardware was found. It then compiles a driver database. The **Add New Hardware** Wizard appears and displays the message **This Wizard searches for new drivers for: Standard PCI Graphics Adapter (VGA)**. When you receive this message:

1. Click **Next**. The Wizard then asks **what do you want to do?**

2. Select **Display list of all the drivers…** and click **Next**.

3. Select **Show Compatible Hardware** and click **Have disk…**

4. Insert the Monster Fusion installation CD and type **X:\Win9x\drivers** (where **X** is the letter of your CD ROM drive). Click **OK**.

5. Click **OK** again and then click **Next**.

Note—If you are prompted to keep or replace existing files, keep the *newer* files.

WINDOWS 95 SOFTWARE INSTALLATION

This section covers the installation of your Monster Fusion software and drivers under Windows 95. Use this procedure if you did not run the Quick Start utility (see page 6) on your installation CD, or if you want to install specific software components.

Note—Depending upon the version of Windows 95 you are using (either W950 or OSR2), you will see a different installation Wizard user interface. Verify your version of Windows 95 by clicking on **Start > Settings > Control Panel**. Double-click on **System**. The designation 4.00.950 B indicates you are using OSR2. Follow the instructions for the operating system you are using below.

Windows 95 (version 4.00.950 A)

Use the following procedure for Windows 95 if you did not run the Quick Start utility on the installation CD, or if you want to install specific software components.

1. As Windows 95 boots, it informs you that a new **PCI VGA Compatible Display Adapter** has been found. Make sure your installation CD has been loaded on your CD-ROM drive, then install the drivers.

2. Click the **Select from a list of alternative drivers** button. A **Select Device** window appears.

3. Click on the **Show all devices** radio button. Under **Manufacturers**, choose **(Standard Display types)**; under **Models**, choose **Standard Display Adapter (VGA)** if you have not already done so according to the instructions on page 5.

4. Windows notifies you that you must restart your computer for changes to take effect.

After your computer reboots, insert the Monster Fusion Installation CD into your CD-ROM. The Monster Fusion introduction screen should appear. Now install the Monster Fusion drivers.

Note—If your CD ROM is set to "auto-run," it will guide you to the installation page. If not, then click **Start > Run** and type x:\Start.exe (where "x" is the letter of your CD ROM drive). Once the installation page appears, click **Installation** and then click **Diamond Drivers**. The appropriate drivers are installed. Follow the rest of the prompts. After the drivers are installed, your system automatically reboots.

1. Click on **Installation**.

2. Choose either **Standard**, **Custom**, or **Minimal** installations according to your needs (see page 10 for more information on these installation choices). Click **Next**.

3. Be sure to read the ReadMe text and click **Next**. You should get a message stating that all drivers and applets have been installed.

4. Click on **Finish**.

5. Your computer will restart.

After your computer reboots, you may be placed into the InControl Tools setup menu (depending upon which installation option you chose in step 2 above). Follow this easy setup to configure the video display to your preferences.

Windows 95 OSR2 (version 4.00.950 B)

Use the following procedure for Windows 95 if you did not run the Quick Start utility on the installation CD, or if you want to install specific software components.

Important—To receive the full benefits of the AGP version of the Monster Fusion board under Windows 95, you must be running Windows 95 OSR2 (version 4.00.950 B) that has been updated with the **USB OSR2.1** supplement on an Intel AGP motherboard. Check the Windows 95 **Device Manager** to see if you have the USB supplement installed. If not, contact your computer manufacturer for more information on how to properly update your system.

1. After you install the video card in the system and power on, Windows 95 informs you that it has discovered a new **PCI VGA-Compatible Display Adapter** and prompts you to install the drivers. Select **Do not install a driver** and click **OK**.

2. Select **Cancel** on the message box that states your display adapter is not configured properly. Select **Cancel** again when the **Settings** file tab opens.

3. Right-click on **My Computer** and select **Properties**. Then select the **Device Manager** tab.

4. Double-click **Other Devices**, highlight the **PCI VGA-Compatible Display Adapter** and click **Properties**.

5. Select the **Driver** tab and click the **Change Driver** button.

6. Scroll through the **Hardware Type** list until you find **Display Adapters**. Highlight **Display Adapters** and click **OK**.

7. Highlight **Standard Display Types** and select **OK**, to accept the **Standard Display Adapter (VGA)**, if you have not already done so according to the instructions on page 5.

8. Click **OK** to install the Standard Display Adapter (VGA) Driver.

9. When Windows 95 prompts you to restart the computer, click **Yes**.

Once Windows 95 restarts, insert the Quick Start CD into your CD-ROM drive, and continue with the following instructions:

1. If your CD-ROM drive is set to "auto-run," the Quick Start utility will automatically start. Select **Quit**. From the **Start Menu**, select the **Run…** dialog box and type **X:\Win9x\Install.exe** (where **X:** is the letter of your CD-ROM drive).

2. Click **Here** for optional command line switch options that you can use when installing the Diamond Windows 95 display drivers. Once the Diamond Setup Wizard dialog box appears, you will be able to review the ReadMe file or continue on with the installation by selecting **Next**.

3. From this point, the Setup Wizard will take over and lead you through the rest of the installation. The Setup Wizard will now check for Diamond components installed in your computer. Click **Next** to proceed.

4. A dialog box will appear that shows the path where InControl Tools 98 will be installed. The default path is: **C:\Program Files\Diamond**. Select **Next** or change the path as necessary. The next dialog box selects the installation type. There are three installation choices: **Minimal**, **Full**, or **Custom**. They are defined as follows:

   Minimal: Installs only the Diamond Monster Fusion Display Driver.

   Standard: Installs the Diamond Monster Fusion Display Driver and InControl Tools 98.

   Custom: Allows installation of either the Diamond Monster Fusion Display Driver or InControl Tools 98. At the minimum, the Diamond Monster Fusion Display Driver must be installed during a first-time installation.

6. If **Custom Setup** was selected, a dialog box appears allowing selection of various items. Select the items to be installed by clicking on them with the left mouse button. When finished, click **Next** to continue. At the **Select Files To Be Copied** dialog box, click **Next** to begin the file copying process. After the files have been copied, click on **Finish** to complete the installation. Windows requests you to restart your computer.. Click on **Yes** to restart the computer.

Notes— (1) Monster Fusion is compatible with Monster 3D, Monster 3D II, and MEGAMONSTER configurations. (2) Games that use Direct3D or have been accelerated for 3D*fx*'s Glide™ standard will automatically recognize Monster Fusion.

WINDOWS NT 4.0 SOFTWARE INSTALLATION

Now that you have installed the Monster Fusion hardware and rebooted your computer, complete your installation using the directions that follow. Use these instructions if you are unable to run the Quick Start program as described on page 6.

ⓘ **Note**—If you are running Windows NT 4.0, you must have **Service Pack 3** loaded for the AGP version of Monster Fusion to operate properly. Service Pack 3 is available from Microsoft's web page (www.microsoft.com).

Manual Software Installation for Windows NT 4.0

Use this procedure if you did not run the Quick Start utility (see page 6), or if you need to install only the video drivers or want to do a manual install.

1. Once NT 4.0 restarts, insert the Quick Start CD into your CD-ROM drive.

2. When the Quick Start utility automatically starts, select **Quit**. From the **Start Menu**, select the **Run...** dialog box and type **X:\NT4\Install.exe** (where **X:** is the letter of your CD-ROM drive).

3. A dialog box will appear containing the path where InControl Tools will be installed. The default path is: **C:\Program Files\Diamond**. Select **Next** or change the path as necessary. The next dialog box selects the installation type. There are three installation choices: **Minimal**, **Full**, or **Custom**. They are defined as follows:

Minimal:	Installs only the Diamond Monster Fusion Display Driver.
Standard:	Installs the Diamond Monster Fusion Display Driver and InControl Tools 98.
Custom:	Allows installation of either the Diamond Monster Fusion Display Driver or InControl Tools 98. At the minimum, the Diamond Monster Fusion Display Driver must be installed during a first-time installation.

6. Once the Diamond Setup Wizard dialog box appears, select the desired country or language for InControl Tools. You will be able to review the ReadMe file or continue on with the installation by selecting **Next**.

If **Custom Setup** was selected, a dialog box appears allowing selection of either drivers and InControl tools, or just the drivers. Select the items to be installed by clicking on them with the left mouse button. When finished, click **Next** to continue. At the **Select Files To Be Copied** dialog box, click **Next** to begin the file copying process. After the files have been copied, you click **Next** to complete the installation. NT 4.0 will now restart the computer.

ⓘ **Notes**— (1) Monster Fusion is compatible with Monster 3D, Monster 3D II, and MEGAMONSTER configurations. (2) Games that use Direct3D or have been accelerated for 3D*fx*'s Glide™ standard will automatically recognize Monster Fusion.

USING MONSTER FUSION UNDER DOS

To use Monster Fusion under DOS you do not have to install any additional drivers. Games written to take advantage of specific 3D APIs, or games that have been specifically accelerated for the 3D*fx* Voodoo2 chipset, should function properly.

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MONSTER FUSION DISPLAY UTILITIES

As part of its Windows 9x drivers, Monster Fusion installs an additional property page to your **Display** control panel called **Monster Fusion**. The Monster Fusion display utility provides options for determining how Monster Fusion displays information on your monitor while you are playing 3D games.

This chapter describes the features and changes you can make using the Monster Fusion Display Utilities.

- **OPENING THE MONSTER FUSION DISPLAY UTILITIES**
- **MONSTER FUSION DISPLAY UTILITIES CONTROL FUNCTIONS**

OPENING THE MONSTER FUSION DISPLAY UTILITIES

Make custom adjustments to your monitor's display settings using the Monster Fusion utilities property page. These tools help you maximize your gaming enjoyment by optimizing certain video and 3D effects.

To open the Monster Fusion display utilities:

1. Double-click on **My Computer**. When the window opens, scroll or browse until you see the **Control Panel** folder.

2. Double-click on **Control Panel**. When this window opens, scroll or browse until you see the **Display** icon.

3. Double-click on **Display**. The **Display Properties** sheet appears.

4. Click on the **Monster Fusion** tab. The Monster Fusion property page is displayed

5. You can now make custom changes to your video display.

MONSTER FUSION DISPLAY UTILITIES CONTROL FUNCTIONS

When the Monster Fusion display utilities property sheet is visible, you will see several slider controls and buttons. Refer to the Monster Fusion display utilities image above, while reading the descriptions of each control's function.

Diamond 3D
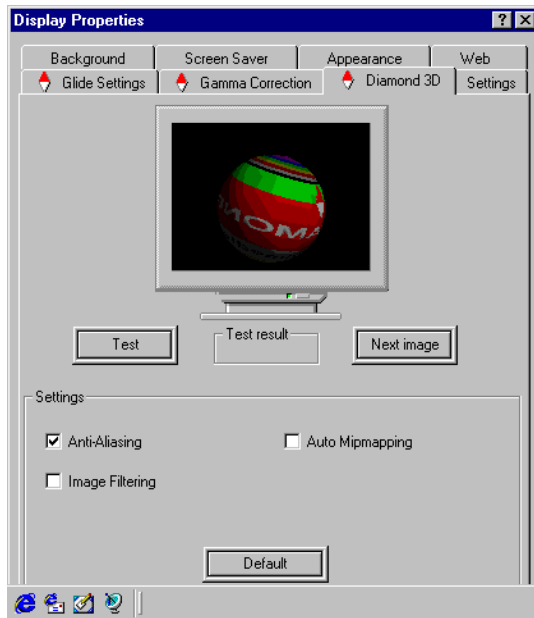
Anti-Aliasing

Improves image quality by smoothing jagged edges of objects. Some reduction in system performance may occur when selected.
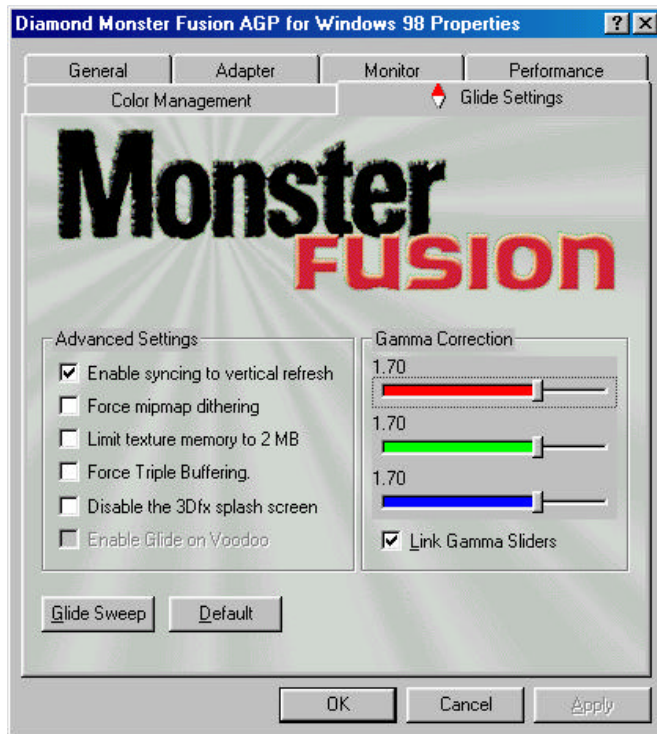
Auto Mipmapping

May improve performance by reducing the quantity of data sent to the renderer.

Image Filtering

Improves quality by filtering the final image before displaying it. Some reduction in system performance may occur when selected.

Glide Settings

Advanced Settings

This dialog offers advanced checkbox settings for Monster Fusion when running Glide Applications. Each checkbox is described in greater detail below.

Warning! These settings are for experienced users. Selecting these options may cause problems with some games and hardware configurations.

Enable Syncing to Vertical Refresh

When selected, Glide applications will synchronize buffer swaps with the vertical retrace signal of the monitor. Rendering performance may increase when this option is disabled; however, visual tearing may occur.

Force Mipmap Dithering

When selected, this option will increase performance of Glide applications utilizing trilinear filtering but may decrease rendering quality.

Limit Texture Memory to 2 MB

When selected, Glide applications will limit the use of texture memory to 2 mega-bytes. This option provides compatibility for some older games but may cause others to fail.

Force Triple Buffering

When selected, Glide applications will utilize three rendering buffers instead of two. This option may improve performance by sacrificing available texture memory and screen resolution.

Disable the 3Dfx Splash Screen

When selected, user will no longer see the spinning 3Dfx logo which precedes all Glide applications. Note that Windows must be restarted for this option to take effect.

Gamma Correction

Use Gamma Correction to change the brightness levels used by Glide applications. Some applications may appear too dark or too bright. Each of the gamma sliders controls brightness levels for red, green, and blue as they appear in Glide applications running on Monster Fusion. Manually adjust each of the sliders, apply, and test with your application until you achieve the brightness you want. Moving sliders to the left decreases brightness; to the right increases brightness.

Link Gamma Sliders

Select this checkbox to chain all three of the sliders together so that adjusting one slider adjusts them all.

Glide Sweep

Glide Sweep searches the hard drive for instances of Glide that are located outside of the Windows\System directory and removes them. This action alleviates errors associated with older incompatible versions of Glide that were shipped with some applications. Glide Sweep should be run whenever a new Glide supported program is loaded.
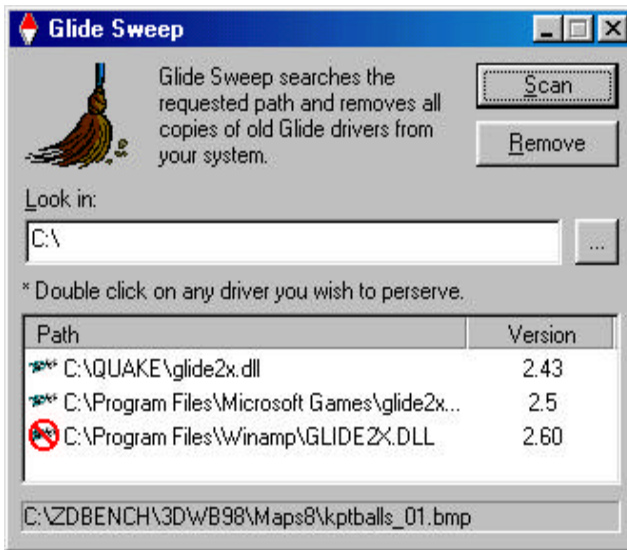
Note—Glide Sweep doesn't actually delete the extra copies of Glide but instead renames them from *glide2x.dll* to *glide2x.dmm*. Glide Sweep makes note of any changes in a log file named *glideswp.log* located in the "Windows\Diamond\Fusion" directory.

Look in

Field for entering the path to search for copies of Glide. The path may also be altered by selecting the browse button.

Browse Button

Select the path to search for copies of Glide. The path may also be directly entered by typing it into the "Look in" field.

Display Window

Displays the location and version of all copies of Glide found in the requested path. You may disable removal of any copy of Glide by simply clicking on the icon preceding the path. Any copy of glide with the not 🚫 symbol will not be removed.

Status Window

Displays the name and path of each file being scanned. Displays "done" when the scan is complete.

Scan

Starts the scanning process. The scanning process can be stopped by pressing the "Abort" button.

Abort

The abort button discontinues the scanning process. The "Abort" button is only displayed when scanning is in progress.

Remove

Removes all files displayed in the "Display Window" which have not been disabled.

5 REMOVING MONSTER FUSION

To remove the Monster Fusion, be sure to do at least the following:

1. Remove the Diamond software. Click **Start** > **Settings** > **Control Panel** > **Add/Remove Programs**.

2. Click on either **Diamond Component Uninstall** or **Uninstall InControl Tools 98**.

3. Shut your computer down and disconnect the power cord from the electrical outlet.

4. Remove the computer case as outlined in the hardware installation instructions in Chapter 2.

5. Ground yourself by touching the power supply box.

6. Now, simply reverse the hardware installation procedures from Chapter 3 and replace the VGA cable with your regular graphics card.

Note—The Monster Fusion software drivers may remain on your system with no negative effect after you have removed the hardware.
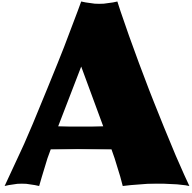
A CONTACTING DIAMOND

CUSTOMER SERVICE

If you want to get updates and news on Diamond Multimedia products, please complete the product registration card and mail it in today. For questions or information regarding Diamond Multimedia Systems products, please use any of the following:

U.S. mail: Diamond Multimedia Systems, Inc.
                    7101 Supra Drive SW, Albany OR 97321

Sales info: 1-800-4-MULTIMEDIA

Telephone: 800-468-5846

FAX: 408-325-7408

Web Site: www.diamondmm.com

TECHNICAL SUPPORT

If you need assistance, contact us by phone at 541-967-2450, or you can FAX or e-mail to the addresses below to get help.

FTP Site: ftp.diamondmm.com

FAX on-demand: 800-380-0030

World Wide Web   www.diamondmm.com

European Web Site: www.diamondmm.de

European FTP Site: ftp.diamondmm.de

Product Support E-Mail: techsupt@diamondmm.com

Developer Relations: developer@diamondmm.com

Visit the Diamond Multimedia web site for the latest software updates and DVD technical specifications.

FAQs

Frequently Asked Questions and their answers may be found at the Diamond Multimedia Web site.

B TROUBLESHOOTING

WINDOWS 9X

If you experience a problem using Monster Fusion under Windows 9x, there are three possible causes of your problem:

- Your game is incompatible with Monster Fusion or the 3D*fx* chipset.

- Monster Fusion is not properly installed.

- Monster Fusion drivers are not correctly installed.

DOS

If you are experiencing problems using Monster Fusion under DOS, there are two possible causes of your problem:

- Your game is incompatible with Monster Fusion or the 3D*fx* chipset.

- Monster Fusion is not properly installed.

Your Game is Incompatible with Monster Fusion or the 3D*FX* Chipset

Monster Fusion supports the following 3D APIs:

Windows 95

- Microsoft Direct3D

- 3D*fx* WinGlide

- OpenGL

DOS

- 3D*fx* DOS Glide

Although Monster Fusion supports more games than any other graphics card, the game you are playing may not support one or more of these 3D API's. Thus, your game will not be able to recognize Monster Fusion and will not take advantage of it. Check with the appropriate game publisher about obtaining a version that will support any of the above API's.

Monster Fusion Drivers are not Correctly Installed

Check your Monitor Fusion Control Panel to determine if all the drivers are installed properly. The System Information dialog will list each driver and its version number. If a driver is missing, try re-installing the drivers.

MONSTER FUSION DISPLAY MODES

Resolution	Depth	60Hz	65Hz	70Hz	72Hz	75Hz	85Hz	100Hz	120Hz	160Hz	200Hz
640 x 480	256	♦				♦	♦	♦	♦	♦	♦
	65k	♦				♦	♦	♦	♦	♦	♦
	16M	♦				♦	♦	♦	♦	♦	♦
800 x 600	256	♦				♦	♦	♦	♦	♦	♦
	65k	♦				♦	♦	♦	♦	♦	♦
	16M	♦				♦	♦	♦	♦	♦	♦
1024 x 768	256	♦				♦	♦	♦	♦		
	65k	♦				♦	♦	♦	♦		
	16M	♦				♦	♦	♦	♦		
1152 x 864	256	♦				♦	♦	♦	♦		
	65k	♦				♦	♦	♦	♦		
	16M	♦				♦	♦	♦	♦		
1280 x 1024	256	♦				♦	♦	♦			
	65k	♦				♦	♦	♦			
	16.7M	♦				♦	♦	♦			
1600 x 1200	256	♦	♦	♦	♦	♦	♦				
	65k	♦	♦	♦	♦	♦	♦				
	16.7M	♦	♦	♦	♦	♦	♦				

ⓘ **Notes**—Z-buffer supports up to 800 x 600; colors are 24-bit dithered to 16-bit RGB (65k colors). All modes listed above are within the BIOS.

C

WINDOWS 98 MULTIPLE MONITOR SUPPORT

The multimonitor feature that operates on Windows 98 lets a single machine connect to multiple display adapters and monitors, and use independent desktop displays. This feature requires a display driver that supports the multimonitor environment. The multimonitor feature can be used for the following purposes:

- Desktop publishing

- Presentations: Multimonitor display can be used to prepare and deliver presentations

- Games: Navigator and status can be displayed on separate monitors

- Business: Several applications can be displayed by tasks on different monitors

- Monitor matrix display: Up to nine monitors (3x3) can be used to create a mammoth display.

MULTIMONITOR SYSTEM REQUIREMENTS

Following are requirements for the multimonitor feature:

- The main requirement for multiple monitor support is drivers that support it. Some video drivers included in the operating system will have this support. The secondary card requires theses drivers. The primary driver can use any driver that is compatible with the chipset of the card.

- You must have enough slots free in the system

SETTING UP MULTIPLE MONITOR SUPPORT

Follow the steps below to set up the multimonitor feature:

1. Set up the first display adapter in slot 1 and install the display adapter drivers. Your primary card must have the highest priority. (which ever card displays POST [Power On Self Test] and DOS is the primary display adapter.)

2. Once the first card is set up, shut down the system, install the second card, and boot up. The system will find the second display adapter and install the drivers.

3. Reboot the system. On bootup, while the Splash screen is showing, the second monitor will initialize. It will show you the information about the card BIOS and tell you…**Windows has successfully initialized this display adapter.** To extend the desktop to this monitor, go to your **Display Properties** and then to the **Settings** tab…

4. Once booted up to Windows, go to the Display Properties and then the **Settings** tab. You will see a picture of two monitors (the primary is labeled 1 and the secondary is labeled 2).

5. Click on the second monitor and check the box at the bottom that says…"**Extend my Windows desktop onto this monitor.**"

6. Then click **Apply**.

7. You should now have both monitors working. You can now set the resolution, color palette, refresh rate, and acceleration of each card independently. Please refer to the **Tips and Troubleshooting for Multimonitor Support** below.

TIPS AND TROUBLESHOOTING FOR MULTIMONITOR SUPPORT

Q: Why won't the second display adapter initialize as described in step 3 of setup?

Check the Device Manager. Make sure that both adapters are listed and conflict free. If you see a problem with the secondary display adapter, check its properties. On the general tab, under Device Status , it will most likely tell you that the display drivers do not support multiple display adapters. If it does, try getting updated drivers for the device that are multimonitor compliant. If you are using Windows 98 drivers for the device, then it may be a limitation of the hardware and the card may require that it be the primary display adapter.

Q: Why won't my screen saver display between both monitors?

The screen saver you are using does not support multiple monitors. Try built-in screen savers, such as the Flying Windows or any of the 3D screen savers.

Q: Why won't the task bar extend over both screens?

The task bar is only displayed on one monitor, which is the correct method of operation.

Q: Why is D3D not accelerated on the second display adapter?

This problem is a known issue and is a limitation of either Windows 98 or the motherboard. Diamond has verified this problem on a Socket 7 with a 430TX chipset, a Socket 5 with the FX chipset, and a Pentium II with the 440LX chipset, all with the same results. Diamond was running D3D Tunnel test in a window. When you drag it to the other monitor, the FPS is reduced an average of 75% (from 60fps to 21fps).

Q: AGP is not the primary adapter. Why not?

This problem is a limitation of the motherboard. Your primary adapter is whatever card has the highest bus priority, if you get POST out of the PCI card and not the AGP card. Contact the motherboard manufacturer for possible solutions.

Q: Why does the S3 Vision 986/868 card say that the drivers do not support multiple monitor support?

This problem is a limitation of the hardware. These cards must be the primary card, which also means that you cannot have more than one of these cards in your system.

Q: How many adapters can you have in one system?

Diamond has gotten three to work fine. Microsoft has had eleven in one system at one time, claiming that if all the hardware is compatible, you use Windows 98 drivers, and you have the resources and slots, you can have as many as you want.

D

3D DICTIONARY

3D

Three-dimensional

3DR

3D software interface (3D-API) from Intel, supporting Microsoft's GDI DDI, DCI and 3D-DDI

ADI

AutoDesk Device Interface

API - APPLICATION PROGRAMMERS INTERFACE

An API is a series of software commands used by programmers to implement a specific set of instructions, such as the creation of 3D graphics, and make those instructions available to other programs or to make specific functions of your operating system, such as Direct3D, available to an application.

Alpha blending

Creating transparent materials with the help of additional information for each pixel.

Analog

Continuously varying electronic signal to reproduce information. Compare digital.

Analog Display

Monitor that uses variable color control voltages to display a very large number of colors but requires very few inputs.

ANSI

American National Standards Institute.

Anti-aliasing

Interpolating the colors of neighboring pixels to avoid jagged edges.

Artifacts

Blurred or "blocky" portions of degraded image quality in a digital video.

ASCII

American Standards Committee on Information Interchange. A standard used by IBM and compatible computers to represent numbers and characters in binary form.

Bandwidth

Required capacity for the data volume and transmission rate.

Bi-linear sampling/filtering

A combination of four colors in a single 3D image used to improve that image's resolution.

BIOS

Stands for Basic Input-Output System. Code in your computer's ROM (Read Only Memory) that provides the power-on self test and other operating functions.

Bits per pixel

Number of bits used to represent the color information of a pixel.

Blitter

Fast memory transfer in the graphics board without using the CPU(e.g., used for moving parts of the invisible screen).

BMP (Windows Bitmap)

This format enables Microsoft Windows to display images on devices with similar capabilities in a consistent way. Save pictures in this format if you wish to continue to process them later under Windows.

BNC connector

Standardized connector with a bayonet socket, used for connecting a graphics board to a monitor with separate R(ed), G(reen) and B(lue) inputs.

Booting/Booting Up

Starting the computer. There are two types. Warm booting is accomplished by simultaneously pressing the CTRL/ALT/DEL keys and can occur only when the computer is running. A cold boot requires activation of the ON/OFF switch.

Brightness

Brightness of an image is determined by the amount of light emitted by it. No light (black) therefore means 'no brightness,' whereas pure white light means 'maximum brightness.'

Burst mode

Fastest data transfer mode in which a large burst of pure data is transferred in one block.

Bus master

PCI bus slots must have bus master capability. This means PCI extension boards may move data very fast via the PCI bus without using the CPU (similar to direct memory access).

Bus system

System of parallel data lines to transfer information between individual system components, especially to expansion boards (e.g. PCI bus).

CGA

IBM Color Graphics Adapter, one of the first color graphics standards. Either 320x200 pixels with four colors or 640x200 pixels with two colors can be displayed.

Chrominance

Portion of a video signal, which corresponds to color values and includes information about hue and saturation. This color component essentially complements the brightness or luminance component of a color video picture.

Clipping

Limiting the drawing area to any rectangular area by cutting its edges.

Color Display

Type of monitor capable of displaying information in color. It is often called an RGB (red, green, blue) monitor, referring to the signals needed to drive it.

Contrast

The contrast of an image is the difference between light and dark. A contrast-intensive image is one that contains strong transitions from light to dark. A contrast-weak image contains transitions that are hardly noticeable.

CPU

Central Processing Unit, which is the main processor chip of a computer (e.g., Pentium).

D/A converter (DAC)

Converts digital input signal to analog output signal(e.g., image data in the display memory of the graphics board is converted to video signal for the monitor to display).

DDC (Display Data Channel)

The VESA Display Data Channel provides a serial data channel between the monitor and the graphics card - if both, monitor, and graphics card support DDC and the monitor data cable includes the additional DDC wire. DDC support automatically transfers monitor data (e.g., type, name, maximum horizontal frequency, timing definitions) to the graphics card. The graphics card may also send instruction to the monitor via the DDC line. There are different DDC standards: DDC1, DDC2B, and DDC2AB.

Default Mode

Capabilities, resolutions, and display mode that the system operates with when you start your computer.

Delta frame

Frame containing only the data that has actually changed since the last frame. Delta frames are an efficient means of compressing image data. Compare key frame.

Depth cueing

Changing the color and brightness of a 3D image as it moves, relevant to the viewer. Color becomes less bright as the image moves away, brighter as it moves closer.

Digital

(1) Method of representing sound or other waves as a series of binary numbers. (2) Tuning method for radios in which the desired frequency is set by digital calculation. (3) Numeric display of information. Compare analog.

Digital Display

Also called TTL. A type of monitor that switches signals ON or OFF to determine display color. Types of digital displays include the IBM Enhanced Color Display or Monochrome Display.

Digitize

Process of turning an analog signal into digital data.

Digitizer

Input device in the CAD area, used for scanning printed graphics or drawings, i.e. converting them to digital computer graphics.

Direct3D

3D software interface (3D-API) from Microsoft for Windows 95 and Windows NT. Uses DirectDraw.

DirectColor

Generic term for TrueColor, RealColor and HiColor. Color information is passed directly to the D/A converter instead of being translated by a look-up table. Therefore, full color information must be saved for each pixel.

DirectX

Interactive media technologies for Windows 95 and Windows NT. Allows the development of high-performance interactive applications by extending to the developers the full performance of the underlying hardware. Includes the DirectDraw, Direct3D, DirectSound, DirectInput, and DirectPlay APIs.

Dither

Process of representing a color by mixing dots of closely related colors.

Dithering

Substituting combinations of colors you do have for colors that you don't. For example, if your computer is only capable of displaying 256 colors and you load an image that use 65,000 colors, your computer will create substitutes for the colors you don't have by combining the colors that you do. The color quality of a dithered image is inferior to a non-dithered image.

DMA

Direct memory access, a method of data transfer where information is transferred directly between system components without the help of the CPU.

Double Buffering

Also called page flipping. The display buffer has double size. The next image can be drawn in the part of the display buffer which is invisible at first. When it is ready, this part will be displayed, and in the other part the next image will be prepared. With this technique animations and games look more realistic than with a simple single buffer.

DPMS

Display Power Management Signaling; this is the VESA standard that allows energy-saving operation of monitors.

DRAM

Dynamic Random Access Memory; memory for read and write operations that is non-permanent.

Driver

Part of a software program that interacts with a particular piece of equipment in your computer system (i.e. video boards, printers, and keyboards). Drivers are often loaded by your config.sys at system boot.

EEPROM

Electrically Erasable Programmable Read Only Memory; used like a ROM permanent memory chip, but can be programmed and erased to replace DIP switches and jumpers on new graphics boards.

EGA

IBM Enhanced Graphics Adapter, which allows 640 x 350 pixels with 16 colors.

Enhanced Color Display (ECD)

IBM Enhanced Color Display capable of 640 x 350 resolution.

Expansion Board

Device used to expand a computer's capability.

Expansion Slot

Electrical connection within the computer used for the addition of Expansion Boards.

Feature connector

Also called VGA output connector; 26-pin connector for connecting expansion boards to a graphics board using a flat cable.

Filter

Special effect applied to a video clip or image to alter its appearance. Filters can also correct problems involving color balance or brightness and contrast.

Fixed Frequency Monitor

Analog monitor that can only sync to a very narrow range of scan frequencies at certain resolutions and refresh rates.

Fog

Fading effect that depends on an object's distance from the viewer.

Frames Per Second (FPS)

A measurement of how often information in a video or animation file is updated on your screen, or how many frames of motion you see in a given second. Movies and television shows are shown at 24fps.

fps

Frames per second. Measurement unit for the frame rate.

Frame

Single video image.

Frame Rate

Number of images shown per time unit. Software videos have a fixed frame rate. When playing back the actual frame rate achieved can differ to the rate defined in the video considerably.

Frame size

Width and height of a frame expressed in pixels.

Frequency

Number of samples per second in a sound or video file. The higher the frequency, the better the quality of the sound or video.

Glide ™

Specialized gaming API developed by 3Dfx

GLINT

3D processor from 3Dlabs.

Graphics accelerator

Device the purpose of which is to increase speed in performance-demanding graphical environments.

Grayscales

Grayscale image consists of different shades of gray (like a black-and-white photograph). This normally means that 254 different grayscales plus black and white (= 256) are used.

H-Sync

Length of the horizontal synchronization pulse for a monitor, given in microseconds.

Hardware Triangle Setup

3D pictures are computed of small triangles for a better 3D look. These triangles are either generated by software via the CPU or by hardware acceleration for faster rendering.

Heidi

AutoDesk's Heidi Development Kit helps developing graphics intensive software, especially the drawing and display portion of the programming, such as render, pan, zoom, etc.

Hercules Graphics Card (HGC)

Video adapter that provides bit mapped single color graphics.

Hexadecimal Notation

A base-16 numbering system that uses numbers and letters. The hexadecimal sequence begins: 1 2 3 4 5 6 7 8 9 A B C D E F, then 10, 11 etc.

HiColor

Designates 15 bits per pixel or 16 bpp graphics mode, i.e. 32,768 or 65,536.

Hoops

3D software interface (3D-API) from Ihaca Software.

Horizontal Frequency

Rate at which a monitor displays each scan line, usually measured in kilohertz (kHz). The value must be set depending on the operating limits of the monitor in order not to damage it.

Hue

Synonym for color.

I/O Port

Input/Output port. An address used to access a hardware device.

Indexed 16 and 256 Color Images

Indexed color images contain a color table in the file. This table lists all the colors that could be used in the file. An indexed 16-colour image contains a table with 16 color entries (4 bits) whereas an indexed 256 color image 256 colors are listed (8bits). Other colors can be simulated in a way similar to using grayscales in a black-and-white image, by simply positioning the pixels in varying densities. The eye then sees color mixtures that are not actually in the color table. You can transform images into indexed color images in order to load them into programs such as Windows Paintbrush, or just to see them on monitors that can only display 256 or 16 colors.

Interlaced Display

Monitor that refreshes every other scan line (odd or even) every other pass of the screen. Thus, higher graphics resolution is possible, but more flickering occurs than with non-interlaced monitors which refresh the entire screen (every scan line) every pass of the screen.

Interrupt Request (IRQ)

Signal used by a device, such as a mouse, to inform the CPU that it is present and functioning and to trigger certain procedures.

Jumper

Small plastic plug that fits over a pair of pins. When the plug straddles two pins it makes an electrical connection. The computer makes decisions based on whether the connection is made or not. A group of jumper pins is called a jumper block.

Kbps

Kilobits per second, a quantity for measuring transmission speeds.

Line Drawing

This is a hardware function of the graphics processor chip. Only the starting and ending coordinates of a line are supplied by the CPU. The rest of the work drawing the line is then done by the graphics processor.

Luminance

Portion of a video signal corresponding to brightness value -essentially the black-and-white foundation of a color video picture.

MDA

IBM Monochrome Display Adapter.

Monochrome Display

Monitor that displays information in one color only; sometimes called a black & white display.

Morphing

Special effect in which one shape is gradually transformed into another.

Multi-frequency Monitor

Type of monitor that supports a wide range of horizontal scanning frequencies and vertical refresh frequencies. This type of monitor accepts inputs from many different video display adapters.

OpenGL™

3D software interface (3D API) for Windows NT and Windows 95, licensed from Microsoft and based on Iris GL from Silicon Graphics. The OpenGL gaming sub-set is part of the OpenGL instructions.

Palette

Selection of colors from which to choose. Your board provides as many as 16.7 million simultaneous colors from a palette of 16.7 million. This capability is sometimes referred to as **True Color**.

TrueColor

It is believed that the human eye can discern no more than 16.7 million colors.

PCI bus

Peripheral Component Interconnect bus; system of parallel data lines to transfer information between individual system components, especially to expansion boards.

Peripheral Equipment

Auxiliary equipment connected to a computer (e.g. monitor, printer, keyboard, etc.).

Photo mapping

Overlaying a photo image on a 3D object, so that the photo takes the shape of that object.

Pixel

Short for picture element; the smallest field displayed on the monitor; could be compared to the dots which form images in photos printed in newspapers. Also called pel.

Pixel clock

Also called pixel frequency. Number of pixels drawn per second in MHz (million pixels per second). The values are either fixed or freely programmable.

Pixel depth

Also called color depth. Number of bits of color information per pixel. A system using eight bits per pixel can display 256 colors. A system using 16 bits per pixel can display 65,536 colors. A system using 24 bits per pixel can display over 16.7 million colors. Twenty-four bit color is often called true color because the human eye can distinguish among approximately six million different colors, or fewer than are available in a 24-bit color system. 24 bits means 8 bit for each RGB. With 32 bit pixel depth 8 bits are used in addition for an Alpha Channel.

Polygon Fill

Special hardware (chip) routine used to fill polygons with pixel information.

Primary Display

Monitor that is active when you power on your system.

PS/2 Display Adapter

IBM VGA board for Industry Standard Architecture (AT bus) computers.

Rasterization

Transformation of a 2D object into a 3D object.

Ray tracing

One way of rendering a picture. The computer computes the path of a light ray from the light source to the objects (from which the ray reflects), and further to the observer. It does calculation for every pixel on the monitor. This is a very intensive calculation, but the results are worth it.

RAM

Random Access Memory; memory that can be read from and written to.

RealColor

Normally designates a 15 bits per pixel or 16 bpp graphics mode, i.e. 32,768 or 65,536 colors.

Refraction

Bending of light when it passes through another substance.

Refresh rate

Vertical refresh rate in Hz indicates how many full images per second are displayed on the monitor. The higher the refresh rate, the less the display will flicker.

Rendering

Process of displaying an object with shading effects to yield a more natural three-dimensional appearance.

Resolution

Number of pixels displayed in horizontal and vertical direction on the monitor. The higher the resolution, the crisper and sharper the images appear.

RGB 8Color

RGB8 color file types are 3 bit types in which each pixel may have one of 8 colors. The RGB8 color images are automatically transformed into indexed 16 color images whereby the 8 colors are retained, but space for further 8 colors is created. It is not possible to transform an existing file into an RGB8 color file type.

RGB Color Model

Monitors use additive mixing of the three basic colors -- red, green, and blue -- to create images on the screen with an infinite number of colors. Image data is therefore processed via data for RGB color combinations. The combinations of the three basic colors create a color model whose origin is the color black and the opposite value is the color white.

RGB TrueColor

RGB stands for red - green - blue. All the colors that are used in this file are created by mixing parts of the three basic colors. The parts of the three basic colors can be varied in 256 steps. If you mix all these colors together, a total of 16.7 million possible color combinations is attainable (3x8 bits = 24 bits, 2 to the power of 24 = 16.7 million). Since the human eye can not tell the differences between color hues from about this level, such an image is termed **TrueColor** (i.e., as in real life).

ROM

Read Only Memory; memory space in your computer for storing permanent operating instructions. It cannot be written to.

Saturation

Amount of gray in a color determining the intensity and purity of a color. A color with a high saturation value is optically very intensive. A color with a low saturation value appears weak (i.e., with less color content).

Scaling

Transformation of image data to different sizes.

Shading (flat, Gouraud, Phong)

Shading or rendering is a way to define the colors on curved surfaces to give an object a natural appearance. To achieve this, the surfaces are subdivided into many small triangles. The three most important 3-D shading methods differ in the algorithm used to apply to these triangles:

- **Flat shading**: In this simplest method, each triangle gets one single color, resulting in a faceted appearance of the surface.

- **Gouraud shading**: The color shades on a triangle are calculated by interpolating the vertex colors, resulting in a smooth appearance of the surface.

- **Phong shading**: The color shades on a triangle are calculated by interpolating the vertex colors, additionally regarding the normal vector at each triangle (i.e. its orientation in space).

Single screen

DOS screen and high-resolution graphics screen appear on the same monitor.

Stencil

Special information for each pixel, whether and how it is drawn and redrawn.

Sync

Stable condition that exists when two repetitive events maintain a constant time relationship; your monitor is in sync with the signals from your board when the display is correct and stable.

Texture mapping

Wrapping a bitmap around an object, including perspective correction; for example, a wallpaper on a wall or a wood texture on furniture. A video can also be used as texture map.

Transparent/Translucent

An image that you can partially see through.

Trilinear MIP-mapping

The texture map is stored at several levels of detail in a structure called MIP-map. You compute the texture coordinates and the exact level of detail. This computation gives you the two closest levels of detail available in the MIP-map. In each one you perform a bilinear interpolation, and then a linear interpolation between the two levels (that's why it's called trilinear). High-end graphics workstation (like SGI Reality Engine) use trilinear MIP-mapping.

TrueColor

Ability to display 16.7 million simultaneous colors (24 or 32 bits per pixel). Color information saved in display memory is not translated by look-up table, but passed directly to the D/A converter. Thus full color information must be saved for each pixel. It is believed that the human eye can discern no more than 16.7 million colors. See **Palette**.

V-Sync

Length of the vertical synchronization pulse for a monitor, given in microseconds.

Variable Frequency Display (VFD)

Monitor that is capable of displaying a wide range of resolutions through it's ability to sync to a wide range of horizontal and vertical scan frequencies.

Vertex

A point that marks the intersection of two or more edges of a polygon or other graphics object.

Vertical Frequency

Rate at which the monitor screen is refreshed. Usually measured in hertz (Hz).

VESA

Video Electronics Standard Association; consortium for the standardization of computer graphics.

VGA

IBM Video Graphics Adapter with a standard resolution of 640 x 480 with16 colors.

Video mapping

The same as texture mapping. For video mapping, the texture is applied to an animation or a video clip.

VRAM

Video Random Access Memory; memory chip for fast graphics boards.

YUV Color Palette

The image information of individual frames is comprised of a brightness part and 2 color parts. The color part is calculated by evaluating the difference to the brightness value. This method was first utilized in television technology.

Z-Buffer

3-D depth information (position in the third dimension) for each pixel.

Zooming

Increased display of an image section.
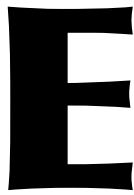
E | TRADEMARK COPYRIGHT AND WARRANTY INFORMATION

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related system configuration in which the Monster Fusion interfaces. Proof of purchase will be required before any warranty consideration by Diamond occurs.
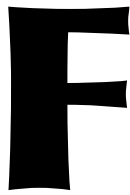
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This warranty applies only to this product, and is governed by the laws of the State of California.

F

This device has been tested to comply with the FCC standards for home or office use.

Operation is subject to the following two conditions:

This device may not cause harmful interference, and

This device must accept any interference received, including interference that may cause undesired operation.

This device complies with Part 15 of the FCC Rules.

This device also complies to CE Certification pursuant to EN55022:1994-08/A1:1995-05 class B

FCC ID # FTUPCI12184M

This equipment generates and uses radio frequency energy and if not installed and used properly, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

Reorient the receiving antenna

Relocate the computer with respect to the receiver

Move the computer away from the receiver

Plug the computer into a different outlet so that computer and receiver are on different branch circuits

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful: How to Identify and Resolve Radio and TV Interference Problems.

This booklet is available from the
U.S. Government Printing Office,
Washington DC 20402,
Stock No. 004-000-00345-4.

To meet FCC requirements: "SHIELDED CABLE(S) and POWER CORDS MUST BE USED TO CONNECT THE DEVICE TO A PERSONAL COMPUTER OR OTHER CLASS B DEVICE ACCORDING TO FCC 15.838D." ANY CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY THE PARTY RESPONSIBLE FOR COMPLIANCE COULD VOID THE USERS AUTHORITY TO OPERATE THIS EQUIPMENT."

G | DECLARATION OF CONFORMITY

We, the Responsible Party

Diamond Multimedia Systems, Inc.

2880 Junction Avenue

San Jose, CA 95134

declare that the product

Monster Fusion

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