



X3D™ Viewing System User Guide

You are now ready to begin viewing extreme 3D content! X3D viewing is best when ambient light is dimmed or turned off (particularly fluorescent lighting). Your X3D viewing experience is better without ambient light because you'll notice less flicker and have a more enjoyable and immersive X3D viewing experience. Begin by opening a 3D image you would like to view. The image could be a CD-ROM, one of the thousands of 3D photos, slideshows or videos at www.3dworld.com, one of your own 3D photos or video games or any other 3D content*.

**X3D Viewing Systems work with interlaced, page-flip and over-under formatted 3D content. They cannot be used to view anaglyph images. For more information, go to <http://www.3dworld.com/about/stereo.asp>*

USING THE X3D CONTROLLER

The X3D controller is located in your system tray. The System Tray is the part of the Taskbar that contains your system clock.



X3D Controller Icon

The controller allows you to adjust your alignment, and display various 3D formats.

Right-clicking on the X3D controller icon enables you to select the viewing mode (normal or reverse) and one of the 3D formats - interleaved, page-flip or over-under.

Normal and Reverse ("On")

The normal and reverse selections both act as "on" buttons for your X3D driver. The most common setting is Normal. If you are viewing 3D images in interleaved mode, you may need to choose Reverse instead, to adjust the 3D alignment for your specific computer. For more information, see #2C in the troubleshooting section.

3D FORMATS

Interlaced/ Interleaved

Interlaced /Interleaved is the most common mode for stereo viewing. All of the 3D content on the 3D World Website is presented in interlaced format. An interlaced image, viewed without 3D glasses, will look "striped" and horizontally offset.

Page-Flip

Page-Flip is an advanced option that displays full-resolution images in rapid succession. Most 3D gaming uses page-flipping mode. Page-flipping requires an advanced graphics card, like those sold with most new systems.

Over-Under

Over-Under mode works by interlacing an image "on-the-fly". This mode requires specific monitor/video settings and is not recommended for novice users.

For more information, see <http://www.3dworld.com/about/stereo.asp>

ADJUSTING YOUR DISPLAY SETTINGS

When using the X3D glasses, it is normal to see flickering. This means they are working. To reduce the perception of flickering, set the refresh rate to a higher speed by following the steps below.

STEP 1

Right-click on any empty area of your desktop. Select "Properties" from the bottom of the pull-down menu.

STEP 2

In the Display Properties dialog box, click on the "Settings" tab. Drag the screen area slider to the setting you prefer (800 x 600 and 1024 x 768 are the most common). From the colors drop-down list, select High Color (16 bit) or higher.

STEP 3

Set the refresh rate by doing the following:

Make sure the proper driver is installed for your video card.

If there is a refresh rate menu on the lower right of the "Settings" panel:

- Set the refresh rate to between 85Hz - 120Hz (higher is better).
- If that option is not available, set the refresh rate to "Optimal".
- Click the "OK" button to exit from the control panel.

If there is an "Advanced" button:

- Click on it to open up the video card properties dialog box.
- Select the "Monitor" tab and set the refresh rate to between 85Hz - 120Hz (higher is better). If that option is not available, set it to "Optimal".
- In the next dialog box that appears, click "Yes". Click "OK" in the video card properties dialog box; then click "OK" in the Display Properties dialog box to save your settings and exit.

Note: if your display looks abnormal or is uncomfortable to view, repeat Steps 1 - 3, selecting different screen area resolutions, color settings, and/or refresh rates until your display looks normal.

-In the next dialog box that appears, click "Yes" if your display looks normal. Click on the "OK" button of the "Video Card Properties" panel and then click the "OK" button on the "Display Properties" panel to exit.

Congratulations, you are now ready to enjoy X3D!

For special customizations or if you are experiencing problems, please read the "Troubleshooting" section

TROUBLESHOOTING

1. Monitor is black/Monitor has no power

Some older monitors require an additional power adaptor which is available from 3D World at no additional cost.

To obtain a power adapter, submit a request to X3D Technologies Customer Service at www.3dworld.com/about/custus.asp. Please include name, place of purchase and shipping address in your e-mail. (Allow 7-10 days for delivery).

2. Images don't look 3D/ Images look odd

There are several possibilities:

- a. Your driver may not be turned on. To turn the driver on manually, right-click the X3D controller icon in your System Tray (the part of the taskbar near the system clock). Choose "Normal" or "Reverse" to turn the driver on and "Off" to turn it off.
- b. The image you are looking at may not be 3D. Images must be formatted for stereo viewing. The most common format for use with shutter glasses, such as the X3D Viewing Systems, is interleaved. Other formats include anaglyph, over-under and page-flip. For a full explanation of stereo formats, go to <http://www.3dworld.com/about/stereo.asp>
- c. You may need to adjust your 3D alignment. Some computer configurations display images in "reverse", meaning the left and right eye views are switched. Images that are "reversed" will appear as if the background is trying to jump in front of the foreground. If you see this, switch from Normal to Reverse or vice-versa.

d. The NVIDIA™ stereo driver may not be installed. To check this, do the following:

- Click the Start button on your taskbar.
- Choose "settings"
- Choose "control panel"
- Double-click the Display icon

You should see a "Stereo Properties" tab in the Display Properties dialog box. If there is no Stereo Properties tab, then the NVIDIA drivers are not installed correctly. See "Configuring the NVIDIA 3D Stereo Driver" in the "3D Gaming with the X3D Viewing System" section of your manual.

3. How do I reduce screen flicker?

Screen flicker is caused by a low refresh rate on your monitor. X3D recommends a minimum of 85Hz refresh rate when viewing 3D content. See "Adjusting Your Display Settings" for instructions on how to increase your monitor's refresh rate.

4. Why is my screen dark?

When viewing in interlaced or over/under 3D modes, every other line of your screen is "blanked out" (appears black), thus lowering the overall brightness by half. Changing your monitor's brightness setting will brighten your display. You can also adjust the gamma settings in the Stereo Properties tab of the video card properties dialog box.

For instructions on how to adjust this setting, see "Configuring the NVIDIA 3D Stereo Driver" in the "3D Gaming with the X3D Viewing System" section of this manual.

5. What else can I use my glasses with?

You can use your X3D Viewing System to view the world's largest collection of 3D images and video, which you can find at the 3D World Website, www.3dworld.com. You can also play thousands of 3D game demos online or purchase 3D CD-ROMs and other content available from 3D World. Visit our Website for more information.

Further Questions

For additional information visit <http://www.3dworld.com>.

**IF YOU EXPERIENCE A PROBLEM, NO NEED TO RETURN YOUR SYSTEM,
WE CAN WALK YOU THROUGH IT.**

CALL: 1-800-206-7446 (M-F, 8 AM - 5 PM EST) or EMAIL: customerservice@3dworld.com.

3D Gaming

With the X3D Viewing System

The following software is required to play games in stereoscopic 3D with your X3D Viewing System:

- Microsoft™ Direct X 8.1 (Probably already installed on your PC)
- NVIDIA™ Detonator Driver (CD-ROM included with 3D Viewing System)
- NVIDIA Stereo Driver (CD-ROM included with 3D Viewing System)

Check the configuration of your computer to make sure it meets the hardware requirements for gaming in 3D:

- PC running Windows XP, if you are running 98/2000/Me additional installs may be required
- CRT monitor (works best with a refresh rate of 85 or above)
- 3D accelerator card using chipsets from one of the following NVIDIA product families:
 - GeForce™ (including any GeForce 256, GeForce2 and GeForce3 products)
 - GeForce2 Go™ products require an external monitor that meets the requirements for page-flip stereo viewing
 - Quadro™ (including any Quadro2 products)

INSTALLING MICROSOFT DIRECT X 8.1

It is suggested that software be installed in this sequence:

STEP 1

If not already pre-installed, download the Direct X 8.1 (or higher version) install from the Microsoft website: <http://www.microsoft.com> or from the 3D World website: <http://www.3dworld.com/custsupp.asp>

STEP 2

Double click on the file you just downloaded to install Direct X and follow the step-by-step instructions provided by the installer.

STEP 3

Install and run the X3D software on the included CD-ROM . The Software includes the X3D Viewing System Controls and the NVIDIA drivers.

CONFIGURING THE NVIDIA 3D STEREO DRIVER

The NVIDIA 3D Stereo Driver has many customizable parameters that can be adjusted to achieve the best possible 3D effect; as well as fix anomalies that may occur with games that do not have built-in stereo support. In addition, it allows you to adjust the force of the 3D effect for each game, which helps alleviate possible eyestrain.

STEP 1

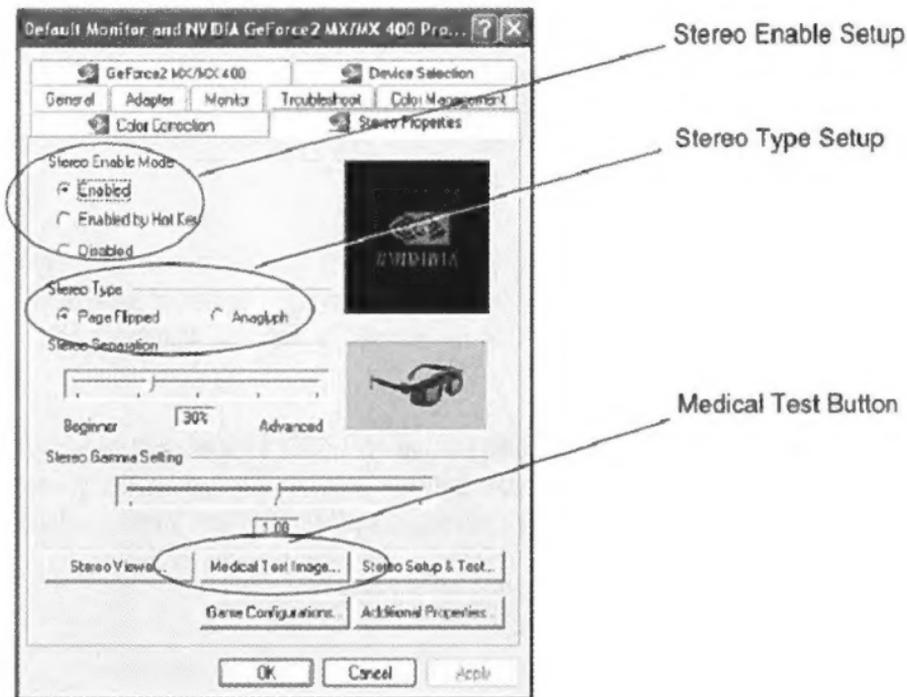
Right-click on any empty area on your desktop. Select "Properties" from the shortcut menu.

STEP 2

Click on the "Settings" tab of the Display Properties dialog box. On the "Settings" tab, click on the "Advanced" button.

STEP 3

Click on the "Stereo Properties" tab. The Stereo Properties for your NVIDIA driver will appear on the tab, as shown below.



The Stereo Properties tab contains a variety of customizable options:

Stereo Enable Mode: adjusts how the stereo driver will be activated -- automatically or by "Hot Keys".

Stereo Type: choose the type* of stereoscopic imaging -"page flipped" is used for gaming

Stereo Separation: adjusts the amount of separation between the left and right eye. The greater the separation, the more profound the 3D effect will be (start at 20%).

Stereo Gamma Setting: controls the brightness of the display. (start at 1.20)

Medical Test Image: displays a stereoscopic image to verify that the driver is functioning properly and that you have the ability to see stereo imagery.

Stereo Set up and Test: enables you to adjust the refresh rate and resolution of your monitor.

Game Configurations: the hotkeys (keyboard shortcut keys) which adjust the stereo parameters such as screen depth, convergence, and back plane position to optimize the 3D effect for each game.

*For more information on stereo formats, see the "All About 3D" section at <http://www.3dworld.com>

TROUBLESHOOTING

X3D PC GAMING VIEWER

1. 3D image has too little or too much depth

Use Ctrl+F3 on your keyboard to decrease depth and Ctrl+F4 to increase depth.

2. Why can I not see my laser sight?

Follow the steps in the "Configuring the NVIDIA 3D Stereo Driver" section to be sure that the Stereo Enable Mode is enabled and that the Laser Sight option is on. This problem could also be caused because the laser sight transparency is set too high. You can adjust the transparency level in the "Additional Properties" section of the Stereo Properties Control Panel.

3. Why is my laser sight not in 3D?

NVIDIA has a 3D laser sight that can be used instead of the standard sight in many games. Refer to the NVIDIA card user's manual.

4. How do I reduce screen flicker?

Screen flicker is caused by too low a refresh rate on your monitor. 3D World recommends a minimum of 85 Hz when viewing 3D content. Refer to "Adjusting Your Display Settings" in the "X3D Viewing System User's Guide" for instructions on how to increase refresh rate.

5. Why is my screen dark?

When viewing in interleaved or over/under 3D modes, every other line of your screen is "blacked out" (appears black), thus lowering the overall brightness by half. Adjusting the Gamma Settings (monitor brightness) will brighten your display. You can also adjust the gamma setting in the Stereo Properties tab of the video card properties dialog box. For instructions on how to adjust, see "Configuring the NVIDIA 3D Stereo Driver".

6. I am experiencing eyestrain/headaches.

This is usually caused by too much separation between the left and right eye view. You can address this problem by reducing the Stereo Separation under the Stereo Properties tab or by using the system hotkeys assigned to this feature. To access the Stereo Properties tab, follow the instructions in "Configuring the NVIDIA 3D Stereo

7. Can I customize my hotkeys?

Yes, the hotkeys (keyboard shortcut keys) are customizable by game. Hotkeys can be customized from the Stereo Properties tab of the video card properties dialog box. Follow the steps in the "Configuring the NVIDIA 3D Stereo Driver" section of this guide; then click on the "Additional Properties" button.

8. What games work well?

NVIDIA has rated over five hundred games. The list can be viewed in the Stereo Properties tab of the video card properties dialog box. To access this list, follow the steps in the "Configuring the NVIDIA 3D Stereo Driver" section of this guide; then click on the "Additional Properties" button.

9. What else can I use these glasses with?

Your X3D Viewing System can be used to view the world's largest collection of 3D images and video, which you can find at the 3D World Website, www.3dworld.com. You can also play thousands of 3D game demos online or purchase 3D CD-ROMs and other offline content available from 3D World. Visit our website for more information.

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