

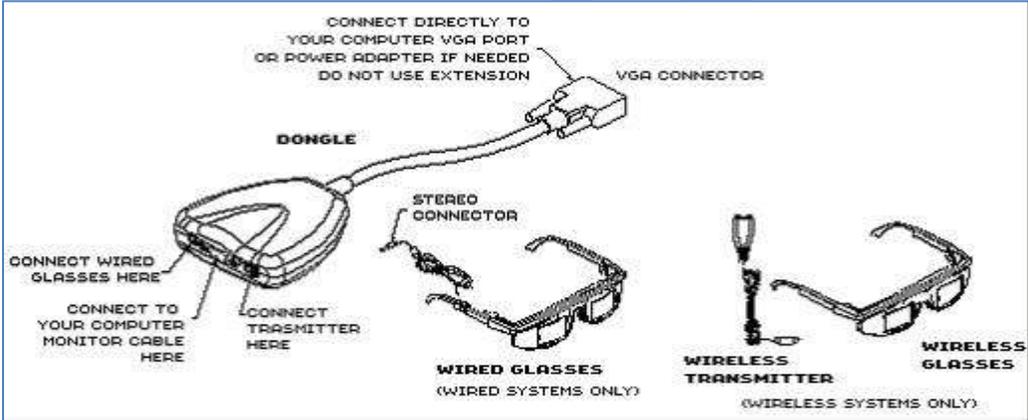
X3D Software For Converting Games and Videos to 3D, Neotek Educational Sampler CD and TriD software for Playing 3D Videos all work with this system and are a free download from www.3dtv.jp

Note: X3d shutter glasses are identical to 3DTV Model X shutter glasses.

GETTING STARTED

Installing your Extreme 3D System Hardware

Follow the steps below to install the PC System hardware.

STEP 1	Shut down your computer and the power to the monitor.
STEP 2	On the back of your computer, locate the place where the monitor is connected and gently disconnect the cable.
STEP 3	Connect the dongle directly into the monitor port and connect the monitor cable into the dongle. The dongle is now situated between the computer's monitor port and the monitor [cable].
	
STEP 4	Using the graphic above as a guide, do one of the following: If you have wired Glasses, connect them to the dongle by plugging the Mini stereo connector into the dongle. If you have wireless Glasses (an optional alternative), attach the wireless transmitter to the connector on the right side of the dongle. Use the adhesive-backed Velcro included with the hardware to attach the other end of the transmitter to the top of your PC monitor, so that it will point directly at the Glasses when they are worn.
STEP 5	Turn on your computer and your monitor. The computer should start normally. Note: If your screen is black after turning it on, check to see if your computer's video card is an older model that is non-VESA compliant. If it is, then you need to upgrade your video card to a VESA compliant model or order a power adapter.

INSTALLING YOUR SOFTWARE

The Installation CD includes the following software:

- X3D Desktop Controller: software used to operate the Extreme 3D Systems and to display various 3D formats.

- NVIDIA Detonator Driver: enhances the performance of the NVIDIA based graphics accelerator/video card
- NVIDIA Stereo Driver: enables the stereo properties of your NVIDIA graphics accelerator/video card.

STEP 1	Installing the Extreme 3D System software.
STEP 2	Make sure your X3D-Glasses are connected.
STEP 3	<p>If you have anti-virus software running on your computer, temporarily disable it before starting the Extreme 3D system software installation.</p> <p>Note: You must disable anti-virus software for the NVIDIA driver portion of the installation to work properly.</p> <p>Insert the X3D installation CD into your CD-ROM player. The installer should following:</p> <ul style="list-style-type: none"> • Double-click on My Computer. • In My Computer, double-click on your CD-ROM drive (often D: or E:). • In the CD-ROM drive window, double-click on the file called setup.exe . <p>Note: If you have Windows 2000 or XP, you may require special administrator privileges to install software applications.</p>
STEP 4	<p>Follow the step-by-step instructions provided by the installer.</p> <p>Note: While running the NVIDIA portion of the X3D software installation, you might be prompted to turn off antivirus software. If you have already disabled it, as instructed in step 3 above, you may ignore that prompt.</p> <p>When the installation is complete, the software opens automatically, and the X3D Controller icon (shown below) appears in the Windows System Tray near the system clock. Note - Application will automatically load into your system tray upon startup.</p>

ACTIVATING THE X3D-GLASSES

To activate the X3D Driver, do the following

STEP 1	<p>Your X3D-Glasses must receive a signal from the X3D driver in order to work. To turn the driver on do the following: Click on the X3D Controller icon in your System Tray (the part of your taskbar near the clock) to display the shortcut menu; then select the desired 3D setting (Interleaved, Page Flip, or Over-Under).</p>
STEP 2	<p>Click On the X3D Controller icon again and do one of the following, to turn on the stereo driver: If Page Flip or Over-Under mode is selected, choose the Stereo-On/Resync command. If Interleaved mode is selected, choose either Stereo-Normal or Stereo-Reverse . (When the lenses start flickering, the X3D-Glasses are activated.)</p>

Wired X3D-Glasses

If your X3D-Glasses are wired, they will turn on automatically, provided that they are plugged in securely.

Wireless X3D-Glasses (optional)

If your wireless X3D-Glasses have an On button inside the bridge between the left and right lenses, hold the glasses directly in front of the transmitter and press the On button.

Note:

The glasses must be pointed at the transmitter while pressing the on button, to complete the connection between the transmitter and the glasses. If your wireless X3D-Glasses do not have an On button, they will turn on automatically when they're are opened. In order for the wireless X3D-Glasses to work, there cannot be any obstruction between the glasses and the wireless transmitter on your monitor.

Checking Your Computer System

Follow the instructions below to check your computer's operating system, hardware, and system features.

To check the version of Windows and the amount of RAM you have, do the following:

1. On your Windows Desktop, right-click on the My Computer icon.
2. From the shortcut menu, choose Properties and then System.

System information is listed in the General tab.

To check the amount of hard disk space available, do the following:

1. On your Windows desktop, double-click on the My computer icon.
2. Right-click on the letter for your hard drive (usually c:)
3. From the shortcut menu, choose properties. The amount of available hard disk space, called "Free space," is listed on the General tab.

To see if the nVIDIA graphics accelerator card is installed, do the following:

1. Right-click on any empty area of your Windows Desktop.
2. From the shortcut menu, choose Properties.
3. In the Display Properties dialog box, click on the Settings tab.

The graphics card name is located under the Display label, which is under the image of the computer monitor. The display name references your type of monitor, first, followed by the word "on" and the name of the graphics card you are using.

Example: If your display name is "SONY CPD-G420S on NVIDIA GeForce3 Ti 200," then the graphics card you are using is "NVIDIA GeForce3 Ti 200." Enter this name in the Contact a Technical Support Representative form.

To check the speed of your CD-ROM:

Most CD-ROM speeds are listed on the front of the CD-ROM tray (a number, which refers to the speed, followed by "x").

Selecting nVIDIA Card Settings

Follow the instructions below to select the proper settings for 3D viewing and gaming.

1. Right-click on any empty area of your Windows Desktop.
2. From the shortcut menu, choose Properties.
3. In the Display Properties dialog box, click on the Settings tab.
4. In the bottom right corner of the Settings tab, click the Advanced button to display your monitor Properties dialog box.
5. If your nVIDIA card is installed properly, you will see the Stereo Properties tab in the monitor Properties dialog box.
Click on the Stereo Properties tab and select the following options:

Under Stereo Enable Mode, select Enabled by Hotkey.

Under Stereo Type, select Page Flipped.

Under Stereo Separation, drag the slider until the text box underneath it reads between and 20%.

Note: When you first start using the X3D shutter glasses, you will probably want very little stereo separation. As you become familiar with them you might want to increase the separation in small increments, to enhance the 3D.

Under Stereo Gamma Setting drag the slider until the text box next to it displays a number between 1.2 and 1.3. Note: The Gamma setting controls the brightness of your monitor. If the brightness controls on your monitor display panel enable you to select a specific numeric value for brightness, it is a good idea to match it with the number you select for the Gamma setting in the Stereo Properties tab.

6. Click the Stereo Setup & Test button to display the corresponding dialog box; then select the following options:

Under Bit Depth, select the 32 bits per pixel option. For information about checking game configurations, see [Viewing and Adjusting nVIDIA Game Configurations](#).

Under Monitor Size, drag the slider until the text box next to it displays the size of the PC monitor you are using.

Under Resolution, drag the slider until the text box next to it reads 1024 x 768. Notes:

Some games require a different resolution than 1024 x 768. When playing games with the PC Viewing System, select the resolution for the specific game you are playing.

The resolution you select should auto-select the same resolution for your monitor display properties. If for some reason this does not happen, change the resolution for your monitor display properties to match this one in the Stereo Setup & Test dialog box. For instructions, see [Adjusting Your Display Settings](#).

If your monitor supports it, under Stereo Refresh Rate, drag the slider until the text box next to it reads 120 Hz (85 Hz is recommended and 120 Hz is optimal for monitors that support those settings). WARNING! Do not select a higher refresh rate than your monitor can support; if you do, it can damage your monitor. Note: The refresh rate you select should auto-select the same refresh rate for your monitor display properties. If for some reason this does not happen, change the refresh rate for your monitor display properties to match this one in the Stereo Setup & Test dialog box. For instructions, see [Adjusting Your Display Settings](#).

Under Miscellaneous Options, uncheck the Always use Stereo Refresh Rate check

box, so that it is blank.

7. Click the Set Rate For All Resolutions button to save your selections and return to the Stereo Properties tab in the monitor Properties dialog box.

If the Set Rate For All Resolutions button is grayed out, you will need to change at least one option in the above screen to have the button enabled.

8. (Optional: Hotkeys) If you want use keyboard combinations ("hotkeys") to control the stereo driver while viewing in 3D, click the Additional Properties button on the Stereo Properties tab to display the Advanced Stereo Properties dialog box. Here you can view the default hotkeys for turning your driver on and off, increasing or decreasing the 3D effect, and so forth.

To change any of the default hotkeys: Click inside the New Hot Key text box and then press and hold down the keys you want to use until the key combination appears in the text box. Then, click the Set button next to the setting for which you want to use the new hotkey.

9. (Optional: Gaming/Laser Sight) If you plan to play 3D games that involve a laser sight, go to the Advanced Stereo Properties dialog box, as instructed in step 8 above and select the On for Configured Games option in the Laser Sight section.

Note: If you are playing a game and you can't see your laser site after completing step 9, then drag the Transparency slider to the left to set a lower transparency.

10. If you performed step 8 and/or 9, click OK to return to the Stereo Properties tab in the monitor Properties dialog box. Otherwise, skip to the next step.
11. In the monitor Properties dialog box, click the tab that has the name of your graphics accelerator card on it (for example, if you have the GeForce3 Ti 200 Graphic Card, then that is exactly what will appear on the tab). Then, click the Additional Properties button to display the Additional Properties dialog box.

Note: The graphics accelerator product name tab in this step only comes with the newer graphics accelerator cards. If you don't have this tab on your system, skip to step 16.

12. In the Additional Properties dialog box, click the 3D Antialiasing Settings tab. Select the Manually select the antialiasing mode option; then, underneath that option, select Off (no antialiasing).
13. Click the OpenGL Settings tab; inside the tab, click the Restore Defaults button.
14. Click the Direct3D Settings tab; inside the tab, click the Restore Defaults button.

Note: The Restore Defaults button will not be available unless you previously selected non-default settings inside the Direct3D tab. If it is not available, the proper settings are already selected and you can skip to the next step.

15. Click OK in the Additional Properties dialog box to save your selections and return to the Monitor Properties dialog box.
16. Click OK in the Monitor Properties dialog box to return to the Display Properties dialog box.
17. Click OK in the Display Properties dialog box to exit and complete this procedure.

Do I need a particular kind of monitor to play 3D movies and view 3D images?

Yes. Currently the Extreme 3D Systems require a regular CRT monitor (tube type monitor that is most commonly sold with PCs). It is recommended that you use a monitor that supports a refresh rate of 85Hz or higher.

Note: CRT monitors are available with flat screen display. These monitors will work with all of the Extreme 3D Systems. Other flat screen monitors, such as LCD monitors, will not work with Extreme 3D Systems at this time.

Adjusting Your Monitor's Display Settings

For the optimal X3D experience, follow the instructions below to set the screen resolution, color, and refresh rate for your PC monitor.

1 Right-click on any empty area of your Windows Desktop.

2 From the shortcut menu, choose Properties.

3 In the Display Properties dialog box, click on the Settings tab.

4 In the Screen area of the Settings tab, drag the slider to the left or right to set the screen resolution you prefer (800 x 600 or 1024 x 768 are most common).

Note: The resolution you select should auto-select the same resolution for your accelerator card stereo properties. If for some reason this does not happen, change the resolution for your stereo properties to match this one in the Settings tab. For instructions, see selecting Nvidia card settings.

5 In the Colors drop-down list of the Settings tab, select High Color (32 bit) or higher.

Note: If you are viewing content in PC Gateway or TV Gateway, you must choose 16 bits per pixel; otherwise, the software will not work. Some games require higher settings, such as 24 or 32 bit.

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

7 Find the Refresh rate drop-down list. On some systems, it appears in the lower-right corner of the Settings tab. If an Advanced button appears there instead, click on it; then click the Adapter tab.

8 If your monitor supports it, choose 85Hz from the Refresh rate drop-down list. If you know your monitor supports refresh rates higher than 85 MHz, you can select up to 120Hz. If that option is not available in the drop-down list, or if you are unsure about which refresh rates your monitor supports, select Optimal.

WARNING! Do not select a higher refresh rate than your monitor can support; if you do, it can damage your monitor.

Note: The refresh rate you select should auto-select the same refresh rate for your accelerator card stereo properties. If for some reason this does not happen, change the refresh rate for your stereo properties to match this one in the Adapter tab. For instructions, see selecting Nvidia card settings.

9 Click OK; if a warning message appears, click Yes.

10 In the next dialog box that appears, follow the instructions and then click OK. Your screen will now turn off and on quickly.

11 If your display looks normal, click Yes in the next dialog box.

12 If you accessed the Refresh rate from the Advanced button in the Settings tab, Click OK in the video card Properties dialog box to return to the Display

Properties dialog box. Then, click OK to close the Display Properties dialog box.

Is there an Extreme 3D System for Macintosh?

Not currently.

Extreme 3D Systems-Technical FAQ

Common Troubleshooting Questions

Why does my screen look darker than usual? How can I brighten it?

When you turn on 3D from the X3D Controller menu, your X3D-Glasses shutter with each lens alternately darkening and lightening, in order to produce the 3D effect. This lowers the overall brightness of your screen display. To compensate for this, you can adjust the brightness by changing the stereo gamma setting in the Stereo Properties tab. For instructions on how to adjust that setting, see [Selecting NVIDIA Card Settings](#).

Why is my screen flickering? How can I minimize it?

A certain amount of flickering is considered to be normal, but if the flickering you see appears to be too strong, it could be from any of the following conditions:

Your monitor refresh rate may be set too low. Ideally the refresh rate should be set at 85 Hz or above. For instructions on how to change your monitor's refresh rate, see [Adjusting Your Display Settings](#) and [Selecting NVIDIA Card Settings](#).

You might need to adjust the brightness and contrast of your PC monitor.

Adjusting these two monitor settings gives you the best picture with the least amount of flicker. You can adjust the brightness by changing the stereo gamma setting on the Stereo dialog box (see [Selecting NVIDIA Card Settings](#)).

Your NVIDIA graphics accelerator/video card settings may be incorrect. To access your NVIDIA card settings and select the correct ones for the Extreme 3D System, see [Selecting NVIDIA Card Settings](#).

The lights in the room may be too bright. Flickering is exacerbated by bright lights, particularly fluorescent overhead lights, which may be operating at the same frequency as your PC monitor. 3D viewing is best achieved in an environment that has relatively dim lighting. It is also important to move your monitor screen away from any light source that causes glare on the screen.

Why is my screen blank/black after installing the Extreme 3D System?

Some older video cards are non-VESA compliant and will not work with our system, as is . If your video card is non-VESA compliant, you can either replace it with a VESA compliant PC video card or contact Technical Support to order a power adapter, which enables non-VESA video cards to work with the Extreme 3D System.

What can I do if don't I see any 3D effect or if 3D images look odd or blurry?

If you don't see images in 3D or if 3D images look distorted or blurry, there are a number of possibilities:

Your X3D driver may not be turned on. Some 3D content, such as that available from X3D Technologies, turns the driver on and off automatically when you view 3D images. When your driver is on, you will notice your screen darken.

If this does not happen, you need to turn the driver on manually by clicking the X3D Controller icon in your Windows System tray (the part of your Taskbar that is near the clock)and selecting Stereo-On/Resync (for Page Flip and Over/Under 3D mode) or Stereo-Normal or Stereo-Reverse (for Interleaved mode).

You may need to adjust your alignment. Some Interleaved 3D images are formatted in reverse , meaning that the left and right eye views are switched. When this happens, images appear as if the background is trying to jump in front of the foreground of the picture. To correct this problem, click the X3D Controller icon and select Stereo-Reverse from the Controller menu.

Your Extreme 3D System might not be installed or set up, properly. First, make sure that your X3D-Glasses and other hardware components are plugged in securely. If you have wireless X3D-Glasses, make sure the batteries do not need to be replaced (see Battery Information for Wireless X3D-Glasses).

Check the Extreme 3D System installation manual and user guide, to make sure your system is set up correctly.

The stereo driver for your NVIDIA graphics accelerator/video card may not be installed. To check this, follow steps 1 - 4 in the document [Selecting NVIDIA Card Settings](#) . If you do not see the Stereo Properties tab in the Monitor Properties dialog box that means your stereo driver is not installed; you can install it from the Extreme 3D System installation CD.

Your NVIDIA graphics accelerator/video card settings may be incorrect. To access your NVIDIA card settings and select the correct ones for the Extreme 3D System, see all the steps in the document [Selecting NVIDIA Card Settings](#) .

The lights in the room may be too bright. Turn off or dim ambient lighting in the room and move your monitor away from any light source that may cause glare on the screen.

Often, 3D images appear much more clearly when you eliminate additional light in this way.

You might need to clean your X3D-Glasses. Most of the time when people view 3D images with glasses, they are looking through their own fingerprints, which blur the image and diminish the 3D effect. It is important to wipe off the fingerprints inside and outside your X3D-Glasses with a tissue, every time you use them.

The image you are viewing may not be a 3D image. To view images in 3D, they must be modeled in 3 dimensions. The most common format for use with the X3D-Glasses is Interleaved.

For more information about 3D formats that work with X3D-Glasses, see [X3D Viewing Methods](#) .

Note: If you are using the X3D-Glasses with X3D PC Gateway or X3D TV Gateway , it is not necessary to view actual 3D media because both software products convert images from 2D to 3D on-the-fly.

What can I do if the 3D images have too little or too much depth?

You can adjust the amount of stereo separation (depth of 3D) by dragging the Stereo Separation slider on the Stereo Properties tab. For instructions on how to access this, see [Selecting NVIDIA Card Settings](#) . You can also adjust the depth by pressing the default keyboard combination (hotkey) for stereo separation that comes with your stereo driver. (Usually, this is Ctrl+F3 to decrease depth and Ctrl+F4 to increase depth.) See [Selecting NVIDIA Card Settings](#) for instructions on how to view and change hotkeys.

How can I avoid or address eyestrain/headaches?

Under normal operating conditions and in the absence of certain specific medical conditions, the Extreme 3D System is perfectly safe to use for any duration that you would normally use your PC monitor.

To minimize the potential of eyestrain, adjust your PC monitor's refresh rate to the highest possible setting that your monitor supports. For instructions on how to do that, see [Adjusting Your Display Settings](#) .

You can also avoid eyestrain by making sure that your NVIDIA card settings are correct - particularly the Stereo Separation setting, which, for most people, should not be greater than 20% . This is particularly helpful when you first begin using the X3D-Glasses. To access and select the recommended NVIDIA card settings, see [Selecting NVIDIA Card Settings](#) .

What can I do if my screen is flickering, but I am no longer viewing stereoscopic content?

Your driver did not turn off automatically when you stopped viewing 3D content. To turn it off manually, click on the [X3D Controller icon](#) in your Windows System tray (the part of your Taskbar that is near the clock) and select Stereo-Off from the shortcut menu.