



User Guide

NVIDIA SLI How to Build an SLI System

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How to Build an SLI System

NVIDIA® SLI™ (Scalable Link Interface) is a revolutionary technology that allows two NVIDIA SLI graphics cards to work together to deliver incredible 3D graphics performance. To assist the do-it-yourself community, NVIDIA is providing this guide on how to set-up an NVIDIA SLI system.

Note: This guide assumes basic knowledge of how to build or upgrade a PC. If you do not feel comfortable with this level of Knowledge, please see to our list of where to buy pre-built NVIDIA SLI systems, or refer to other resources on how to build or upgrade a PC

Building an SLI System

Determine Component and Operating System Needs

To build an NVIDIA SLI system, you are going to need the following components:

- ❑ An NVIDIA SLI-Ready certified motherboard (All certified motherboards are shipped with an SLI Connector)
- ❑ Two NVIDIA SLI-Ready certified graphics cards
- ❑ An NVIDIA SLI-Ready power supply*
- ❑ Microsoft® Windows® XP operating system

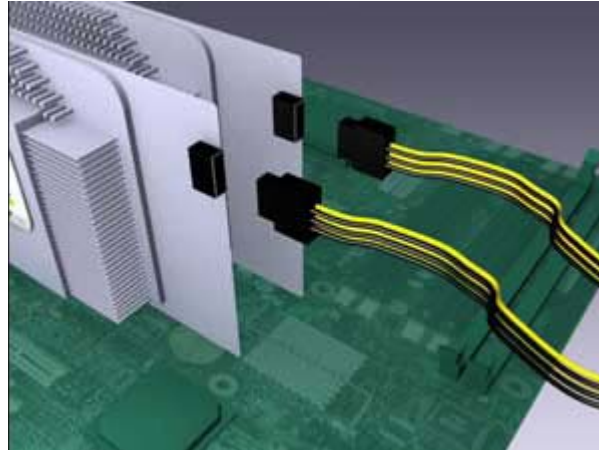
For a complete list of certified components, go to <http://www.slizone.com/content/slizone/build.html>.

While NVIDIA recommends an SLI-Ready power supply, the following table provides some general power supply recommendations based on testing performed in the NVIDIA SLI validation lab.

NVIDIA SLI System Type	Minimum Recommended PCI Express Power Supply
High-End: GeForce 6800 Ultra	500W–550W, +12V @ 30A
Mid-Range: GeForce 6800 GT or 6800	420W–480W, +12V @ 25A
Entry-Level: GeForce 6600 GT	350W–420W, +12V @ 20A

If the power supply specifies two 12V windings (i.e. 12V1 and 12V2), add these numbers together to check against the specifications described above.

For systems with the 6800 Ultra or 6800 GT, please make sure the power supply also contains PCI Express auxiliary power supply connectors. If your power supply does not have a PCI Express auxiliary connector (6-pin connector), please contact your graphics board partner for a HDD-to-PCI Express power adaptor.



The NVIDIA SLI power supply recommendations are based on the following test configurations:

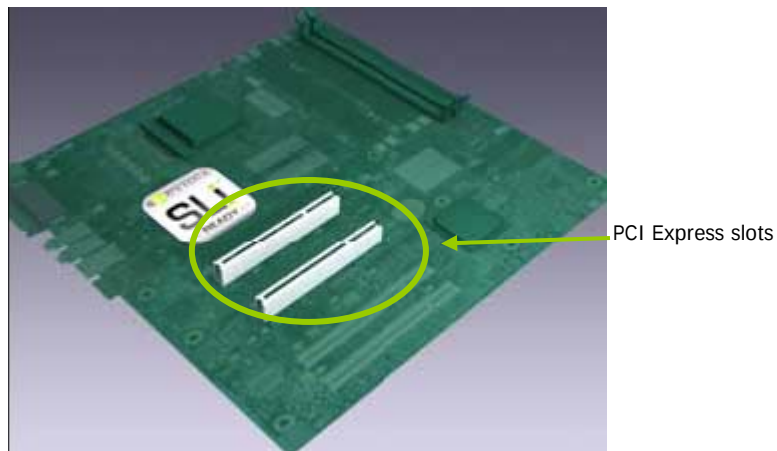
- ❑ **High-End NVIDIA SLI Configuration:**
 - Dual GeForce 6800 Ultra Graphics cards
 - Athlon 64 939-pin CPU or Intel Xeon
 - Two or more HDD, including RAID 0,1, 0+1 or 5 configurations
 - Two optical drives
 - PCI sound card
- ❑ **Mid-Range NVIDIA SLI Configuration:**
 - Dual GeForce 6800 or GeForce 6800 GT Graphics cards
 - Athlon 64 939-pin CPU
 - Single HDD
 - Two optical drives
 - PCI sound card
- ❑ **Entry-Level NVIDIA SLI configuration:**
 - Dual GeForce 6600 GT Graphics cards
 - Athlon 64 939-pin CPU
 - Single HDD
 - One optical drive

For a list of certified power supplies, go to <http://www.slizone.com/content/slizone/build.html>.

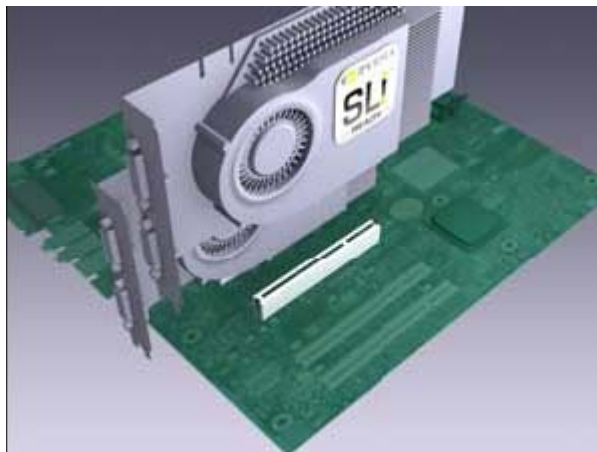
Install Your NVIDIA SLI-Ready Parts

Now that you have obtained the necessary NVIDIA SLI-Ready parts, it is time to configure the system. Use the following procedure to build your NVIDIA SLI-Ready PC system:

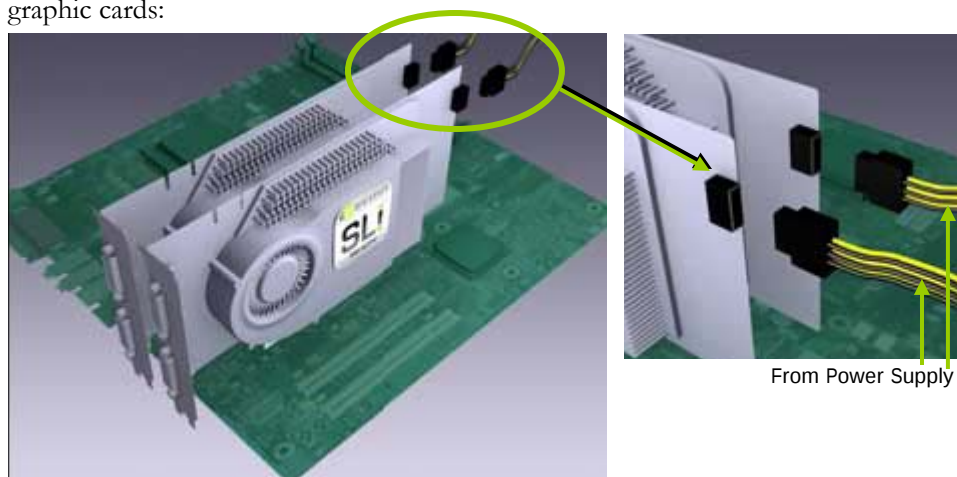
1. Install the NVIDIA SLI-Ready Motherboard (per instructions in the motherboard manual):



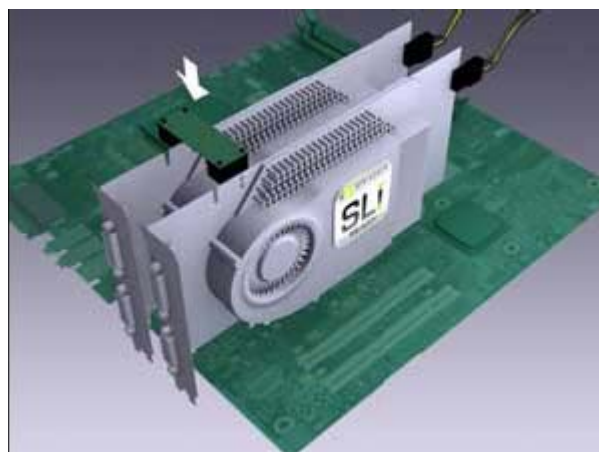
2. Install both of the NVIDIA SLI-Ready graphics cards. Each card comes with an installation guide. Use those instructions to install the graphics cards onto your motherboard.



3. Connect the PCI Express supplementary power connectors to each of the graphic cards:

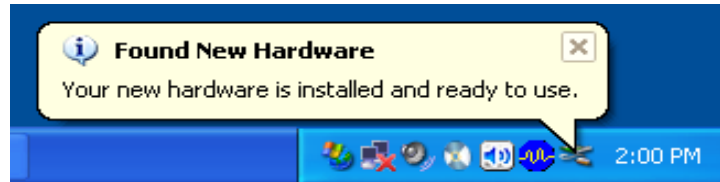


4. Install the NVIDIA SLI connector across the two graphics cards as shown below. Each SLI-Ready graphics card has an SLI 'finger' on the upper side of the card.



Install NVIDIA SLI Software

Upon power up, the operating system recognizes the new NVIDIA SLI-Ready components and displays the **Found New Hardware** message.

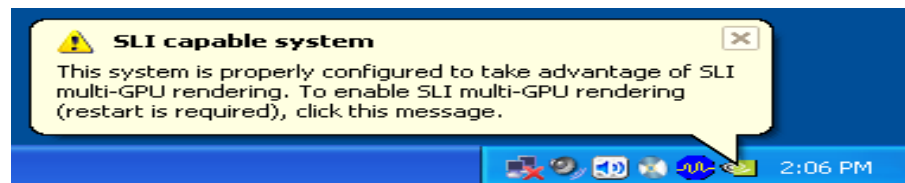


Your motherboard shipped with a set of drivers that you must install. Once these drivers are installed, reboot your system.

As part of the NVIDIA Unified Driver Architecture, NVIDIA drivers include a full set of controls for SLI systems.

Go to <http://www.slizone.com/content/slizone/drivers.html> and download the latest SLI graphics drivers.

With the new drivers installed, reboot your system. After this reboot, the following SLI capable system message displays to let you know that your hardware and software components have been installed properly.



Click on this message to enable your NVIDIA SLI.

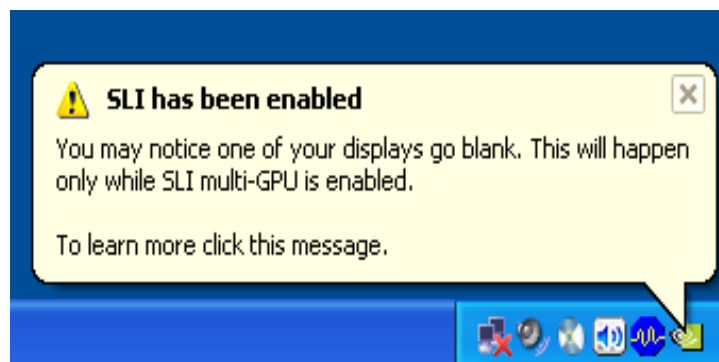
Enable NVIDIA SLI

At this point, you need to enable NVIDIA SLI. You can do this either by clicking on the **SLI capable system** balloon or by going to the appropriate tab on the display control panel settings to display the following screen (note that the screen name will reflect the name of the graphics card you have used in your system).



Make sure the **Enable SLI multi-GPU** box is checked. Click **OK** to enable the multi-GPU mode.

The system reboots to apply the setting and display the following message upon reboot:



Congratulations on your new NVIDIA SLI-Ready PC system.

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