

## **Multi-GPU FAQ**

### **What is Multi-GPU Technology?**

NVIDIA's revolutionary combination of multiple professional GPUs to increase the visualization and computing horsepower of your system. Introduced in 2011 through Maximus which combined the visual power of a Quadro with the compute power of a Tesla, Multi-GPU systems intelligently allocate your GPU resources to applications as needed. Maximus remains a subset of Multi-GPU technology.

### **How can I benefit from Multiple GPUs?**

Whether you design cars, render scenes with millions of polygons, or work with large models for seismic interpretation, a Multi-GPU system will significantly increase the performance you have available, and will cut these processing and computing times into a fraction of what would be accomplished with CPUs or even single GPUs.

### **Can the GeForce Titan be used as part of a multiple professional GPU system?**

The GeForce Titan is part of the GeForce lineup and therefore is not part of the Professional Solutions lineup. Multi-GPUs are specific to NVIDIA's professional lineup, which undergoes a different level of testing and QA to ensure it is compatible with all professional applications.

### **How many applications support multiple GPUs?**

Multiple GPUs are currently supported by over 40 applications with several additional applications in the pipeline.

### **How are NVIDIA's Multi-GPU systems different from the multiple GPUs offered in the new Mac Pro?**

NVIDIA's Multi-GPU systems are scalable solutions which can be used with any number of NVIDIA professional solutions. The Mac Pro uses 2 GPUs, but they cannot be swapped for more powerful GPUs nor can additional GPUs be added. An NVIDIA Multi-GPU system is only limited by the form factor and power supply of your system.

### **Are there any tools which support Multi-GPU systems?**

Each individual application will deal with multiple GPUs differently. However, NVIDIA has designed intelligent Multi-GPU utility tools which shows gpu usage, allows you to toggle memory modes from Error Correcting Code (ECC on), to ECC off, and allows you to dedicate some or all of your GPUs to specific applications, amongst many other features.

### **Can I build my own Multi-GPU system?**

Absolutely! We have tutorials on our website at [www.nvidia.com/multi-gpu](http://www.nvidia.com/multi-gpu) which provides a step by step video.

#### **Where can I buy a Maximus Multi-GPU system?**

Many OEMs sell Maximus systems, including Dell, HP, Lenovo, Boxx, Supermicro, Safeharbor, Microway, XI, Exxact, Acer, and many more.

#### **What is the QA process for Multi-GPUs?**

Multiple GPU configurations go through the same rigorous process as all of NVIDIA professional GPUs to ensure maximum reliability and compatibility for your mission critical applications.

#### **Can I mix GPUs from different architectures?**

Fermi based GPUs should only be used with Fermi based GPUs. While mixing with newer architectures should work, it is not supported. For Kepler and newer architectures such as Maxwell, the mixing of architectures is supported.

#### **How is Multi-GPU technology different from SLI?**

Quadro GPUs configured in SLI are physically attached together with an SLI ribbon and provide two features that are quite different from Multi-GPU Technology. First, SLI allows dual GPU systems to synchronize the display outputs of the two GPUs for tear-free displays using MOSAIC technology. Second, SLI can scale up graphics performance (anti-aliasing, split frame rendering, alternate frame rendering) for certain applications . Learn more here: <http://www.nvidia.com/object/quadro-sli-technology.html>

#### **Where can I learn more about NVIDIA Multi-GPU Technology?**

Please visit our webpage at [www.nvidia.com/multi-gpu](http://www.nvidia.com/multi-gpu) for more information.