

SEE THE BIG PICTURE NVIDIA® QUADRO® PLEX SCALABLE VISUALIZATION SOLUTIONS

In today's competitive environment, realistic visual interpretation of information across high-resolution displays and projectors is critical for making timely business decisions. Historically, given the complexity in development and maintenance, high-resolution display implementations were confined to mission-critical applications and environments.

Now with the introduction of NVIDIA® Quadro® Plex scalable visualization solutions, deploying an ultra high-resolution, multi-display collaboration environment is both simple and economical.

Professionals can now visualize massive 3D models and large data sets across ultra high-resolution displays including power walls and 4K monitors and projectors using Quadro Plex scalable visualization solutions.

In the past, building a high-resolution visualization system was an expensive and cumbersome endeavor, requiring proprietary hardware or PC clusters with custom software to run in a multi-display configuration. Each application running on the cluster had to be customized to ensure that it could span across multiple displays, without any image tearing

or artifacts. Due to this difficulty, many standard applications, such as Microsoft PowerPoint or Windows Media Player, could not run across multiple display channels.

Quadro Plex scalable visualization solutions solve these problems. Simply comprised of one or more Quadro Plex systems connected to a single PC or server, and

capable of displaying up to 72 megapixels across sixteen displays, these solutions can also deliver immersive 3D stereoscopic experiences. With Quadro Plex scalable visualization solutions, any application can now run seamlessly across multiple displays without software customization or performance degradation.

TURNKEY HIGH-RESOLUTION, VISUALIZATION DISPLAY SOLUTIONS

Quadro Plex scalable visualization solutions provide the flexibility to be set up with any certified PCI Express® x16 platform and is certified on the industry's leading professional applications. The optional rack mount kit enables Quadro Plex systems to be installed within any standard 19" rack environment¹ and only take up 3U of vertical space.

VISUALIZE MASSIVE 3D MODELS AND DATA SETS

Providing advanced interactivity and realism of the most demanding applications and data sets, Quadro Plex systems feature dual Quadro 6000 GPUs for a combined 12 GB of graphics memory. Scale performance even further by connecting two Quadro Plex systems, with a total 24 GB of memory, to a single workstation. The NVIDIA® Complex acceleration engine maintains interactivity for large scenes as they exceed the limits of a single GPU, allowing massive data sets to be explored without having to work piecemeal. The Complex engine maintains productivity with extremely large scenes by harnessing the full memory and highly scalable performance of multiple GPUs within Quadro Plex visual computing systems.

FLEXIBLE SOLUTION DRIVES MANY DISPLAY CONFIGURATIONS

Quadro Plex scalable visualization solutions provide flexibility to create environments based on a wide range of needs - from a single 4K display or projector to a sixteen display configuration.



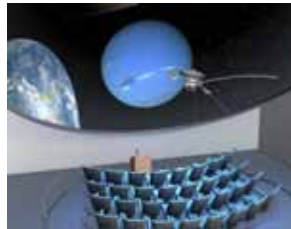
Sample: Eight display configuration from dual Quadro Plex 2200 D2 systems

EASY DEPLOYMENT ACROSS MANY ENVIRONMENTS

Professionals can construct affordable collaboration and interpretation environments throughout an enterprise and gain faster time to insight.



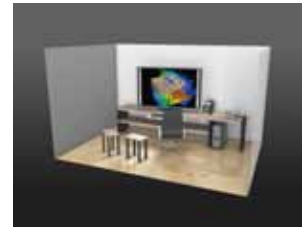
CONTROL ROOM



PLANETARIUM



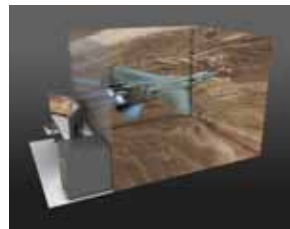
CONFERENCE ROOM



COLLABORATION ROOM



RESEARCH ROOM



CAVE



AUDITORIUM

NVIDIA® QUADRO® PLEX SCALABLE VISUAL SOLUTIONS: FEATURES AND BENEFITS

FEATURES	BENEFITS
Span Any Application Across Multiple Displays	NVIDIA® SLI® Mosaic technology enables the operating system (OS) and any application to transparently scale across up to eight display channels. In this mode, it is invisible to the application that multiple Quadro GPUs are driving the displays; the system automatically presents to the OS a single large resolution display and handles the complexity of synchronizing the multiple GPUs and display channels.
Industry's Largest Graphics Memory	With 12 GB of graphics memory, Quadro Plex delivers high throughput for interactive visualization of large models, and high-performance for real-time processing of large textures and frames, while enabling the highest quality and highest resolution full-scene antialiasing (FSAA).
NVIDIA CUDA Parallel Computing Architecture	NVIDIA® CUDA™ is a revolutionary parallel computing architecture for NVIDIA Quadro GPUs enabling breakthrough parallel processing performance in areas such as interactive ray tracing, finite element analysis, video and image processing, and computational fluid dynamics.
NVIDIA® Application Acceleration Engines	Highly optimized software modules, NVIDIA application acceleration engines enable developers to supercharge their products with high performance capabilities. When combined with Quadro FX solutions, these acceleration engines unleash advanced creative and investigative possibilities for professionals.

DISPLAY SOLUTION	OVERVIEW	DISPLAY INPUTS	BENEFITS
4K Panels	A smaller footprint solution for high-resolution visualization	2 DVI Channels	Support for one dedicated Quadro GPU per panel for ultimate application performance
		4 DVI Channels	Support for 10-bit color and active 3D stereo on select 4K panels
4K Projection	A high-resolution solution that delivers advanced visualization across a larger display area. May require a larger space to accommodate the distance of the projector to the wall.	4 DVI Channels	Support for 10-bit and higher color and active 3D stereo with 120Hz on select projectors
3 HD Projectors	A multiple projector solution used in various combinations to deliver a larger display area and additional aspect ratios	3 DVI Channels	Support for design reviews such as automotive styling
4 HD Projectors		4 DVI Channels	An alternative method of driving 4K visualization
6 HD Projectors		6 DVI Channels	Used in simulators with six sides or control rooms to get additional aspect ratios
2 4K Projectors		8 DVI Channels	Used in unique environments for additional aspect ratios
8 HD Projectors		8 DVI Channels	
4 4K Projectors		16 DVI Channels	
16 HD Projectors		16 DVI Channels	

SUPPORTED PLATFORMS

- > NVIDIA® Quadro® Plex compatible system
- > Microsoft Windows XP, Windows 7 (64-bit and 32-bit)
- > Linux (64-bit and 32-bit)

NVIDIA QUADRO GPU ARCHITECTURE

- > 6 GB graphics memory per GPU
- > 128-bit color precision (IEEE fp32 bit per component)
- > 3D volumetric texture support
- > Fully programmable GPU (OpenGL4.0/DirectX11)
- > Shader Model 5.0
- > NVIDIA® CUDA™ architecture - 448 parallel processing cores per GPU

DISPLAY RESOLUTION SUPPORT

- > Analog displays up to 2560x1600 @ 60Hz
- > Dual-link DVI-I outputs – each is capable of driving digital displays at resolutions up to 2560x1600 @ 60Hz
- > Native support for Sony 4K SXRD, JVC, and Barco large venue projector
- > Frame synchronization via Quadro G-sync

PRODUCT DETAILS

- > Quiet operation (40dB) suitable for office environment
- > Connects to host via cabling to a low power PCI Express x16 adapter card
- > Optional rack mount kit

To learn more about NVIDIA Quadro, go to www.nvidia.com/quadroplex/svs

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