



***Scaling Resolution with
the Quadro SVS Platform***

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It's All About the Detail



- **Scale in physical size and shape to see detail with context**
 - See lots of data all at once and let your eyes and brain process it all
 - Control centers, flight simulators, data exploration

- **Scale the pixels per inch to see detail within a fixed size**
 - Increase the realism of the images by making the pixels smaller than the eye can see
 - Virtual Prototyping, flight simulators, data exploration

Scaling Size

See detail in context to have better insight into your data.

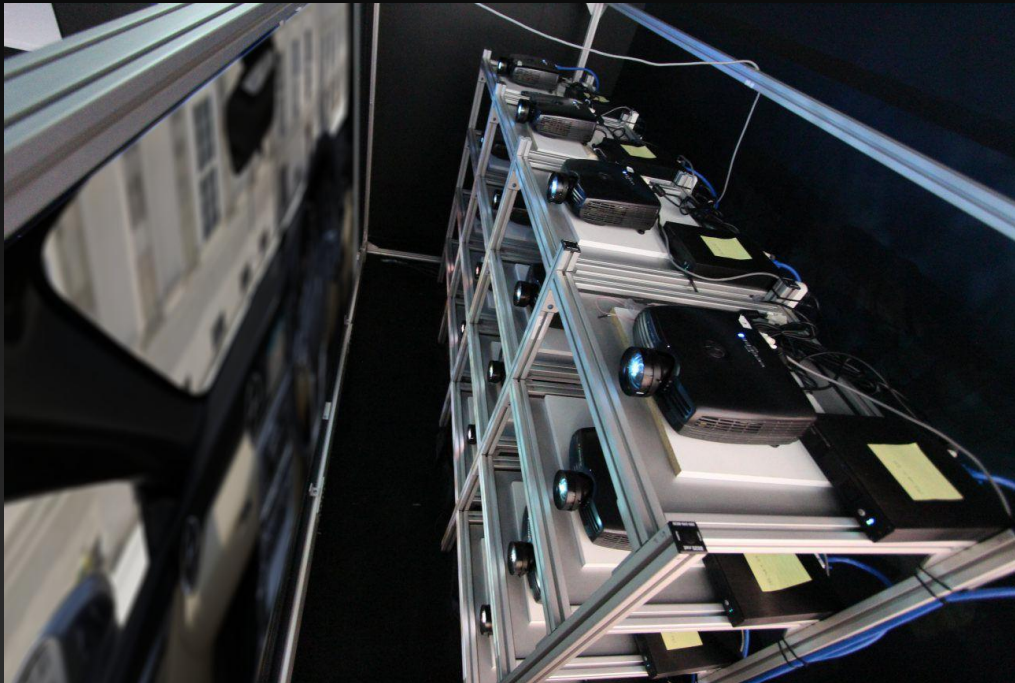
Scale a single application across up to 16 displays or projectors and synchronize multiple nodes into a visualization cluster.



Scaling Detail

Realism requires resolution - scale any application across up to 16 displays from just one system using 4 independent display outputs of Quadro K5000 and Quadro Sync

Scale even further with a visualization cluster of systems built upon Quadro Sync



20MPixel - 16 Projector

10MPixel - 8 Projector

4MPixel - 1 Projector

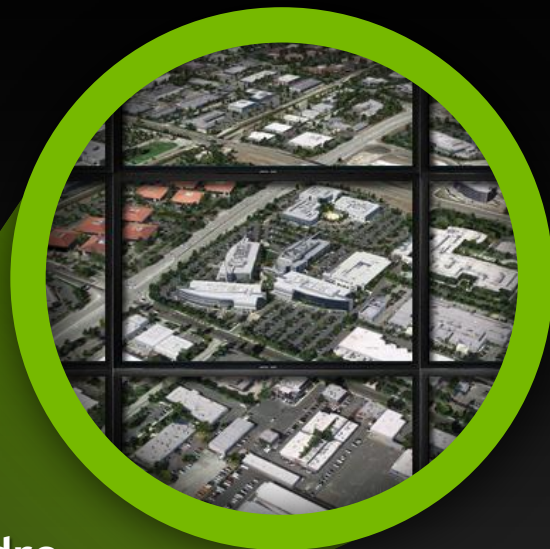
- 16 HD projector, 20MPixel, wall display
- One system with 4 Quadro K5000's & Quadro Sync



Quadro
Kepler



Quadro
Sync



Quadro
Mosaic

Quadro SVS

Quadro K5000



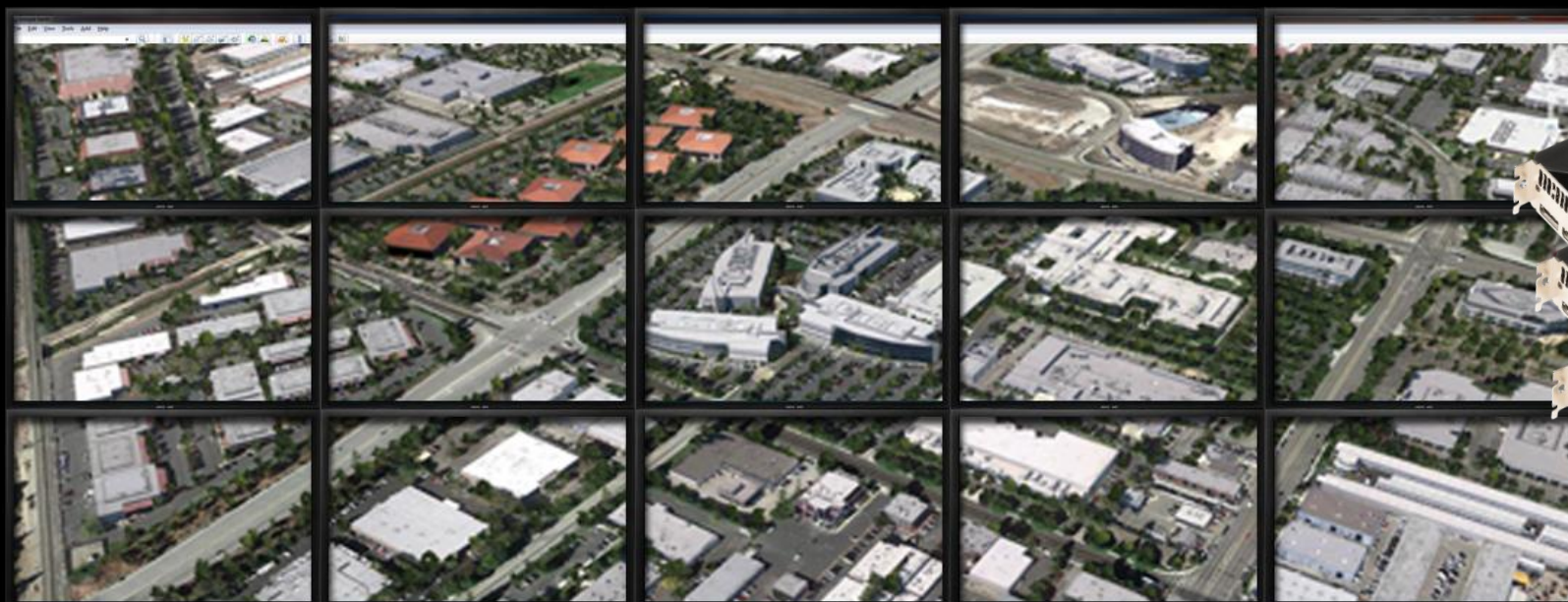
Without Mosaic

Independent Displays



Without Mosaic

Independent Displays



Quadro Mosaic



- **Seamless, Tear-Free Displays**
- **Projector Overlap**
- **Warp & Blend API**
- **Active and Passive Stereo Support**

- **Windows 7 & Linux**
- **XP support limited to 2 displays per GPU**

Up to ____ Displays or Projectors	With This GPU Configuration...
4	Single Quadro K5000
8	Dual Quadro K5000 In an SLI certified workstation -- Or -- Any system with a Quadro Sync board
12	3 Quadro K5000 + Quadro Sync
16	4 Quadro K5000 + Quadro Sync

Quadro Sync



- **Synchronize up to 4 Quadro Kepler GPUs and up to 16 displays or projectors per system**
- **Enable Advanced Quadro Mosaic on up to 16 displays or projectors in any system**
- **Windows Management Instrumentation (WMI) configuration and management for Windows based visualization clusters***



*R313 Display Driver required

What does Sync do



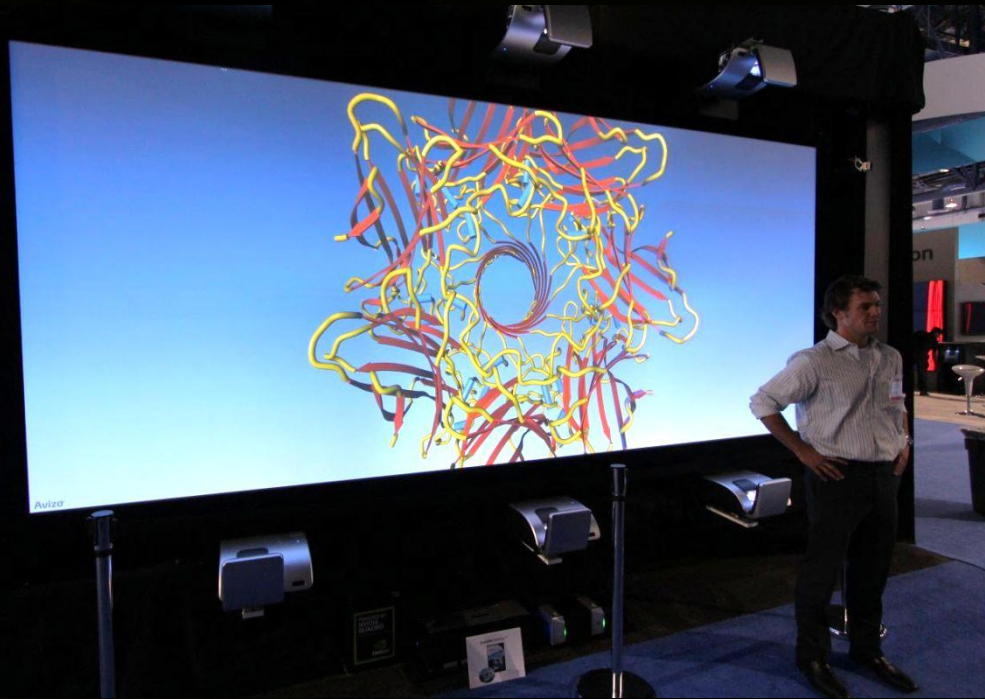
Synchronize Multiple Displays

- Align the scan out of multiple displays, GPU's, and systems
- Maintain Stereo alignment between multiple systems
- Synchronize to an internal or external timing source

Co-ordinate Buffer Swaps

- HW based swap synchronization within a node or between clusters
- Prevent tearing and image misalignment

Warp & Blend Engine



- **API for Geometry, Intensity and Black Offset on each physical display**
- **Adjustments are applied to the full desktop image**
- **Compatible with Mosaic and overlap**
- **No incremental latency**
- **Windows 7 available now
Linux later this year**

Improved Collaboration in the Meeting Room

Projector Based



- **GPU:** Single Quadro K5000, K6000
- **SW:** NVIDIA Warp & Blend API compatible SW like Scalable Desktop
- **Data Input:** GPUDirect For Video enabled capture boards for low latency interaction with captured sources



- See detail in context of the big picture
- When two people are looking at two apps, put both up next to each other
- Space for local applications, remote applications and video conferencing, all visible at the same time

Improved Collaboration in the Meeting Room

Display Based



- **GPU:** Single Quadro K5000, 6000
- **SW:** nView for Windows placement
- **Data Input:** GPUDirect For Video enabled capture boards for low latency interaction with captured sources



- Show all the options at the same time
- When two people are looking at two apps, put both up next to each other
- Space for local applications, remote applications and video conferencing, all visible at the same time

Life Size “Retina Displays”



- Visualize at life size with life like resolution
- Show multiple applications to bring the right data to the decision
- Any application, even PowerPoint will work on the large display surface
- 8 Projectors up to 2560x1600 resolution
- GPUs:
 - SLI Certified Workstation: 2x Quadro K5000 or 6000 in SLI
 - Other System: 2x Quadro K5000, 6000 + Quadro Sync
- SW: Warp & Blend API Compatible projector blending like Scalable Desktop

Control Displays



- **Scale the display to the size of the task**
- **Any application, in its normal place, or full screen**
- **3D Performance for Google Earth or other 3D apps**



- **32 Panels with a DVI splitters on input**
- **4 Quadro K5000 or K6000 and Quadro Sync**
 - External chassis or system with 4 PCI slots
- **SW: nView for application placement**

Visualization Clusters



- Support multiple view frusta spread across multiple machines in a cluster and/or multiple gpus in a system
- Combine with Mosaic to scale from HD to 4K with the same node count

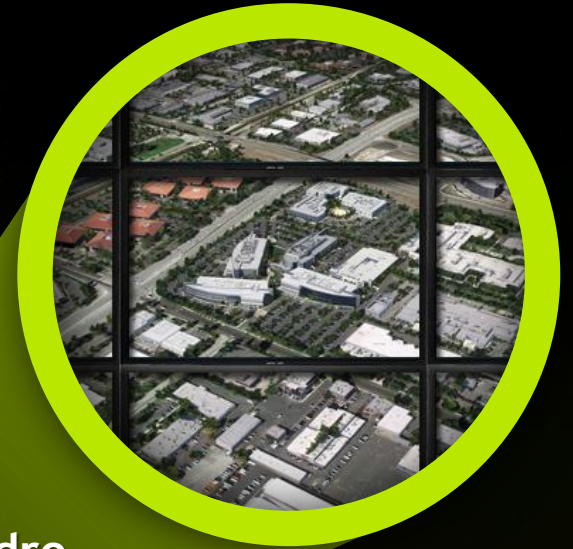




Quadro
Kepler



Quadro
Sync



Quadro
Mosaic

Quadro SVS



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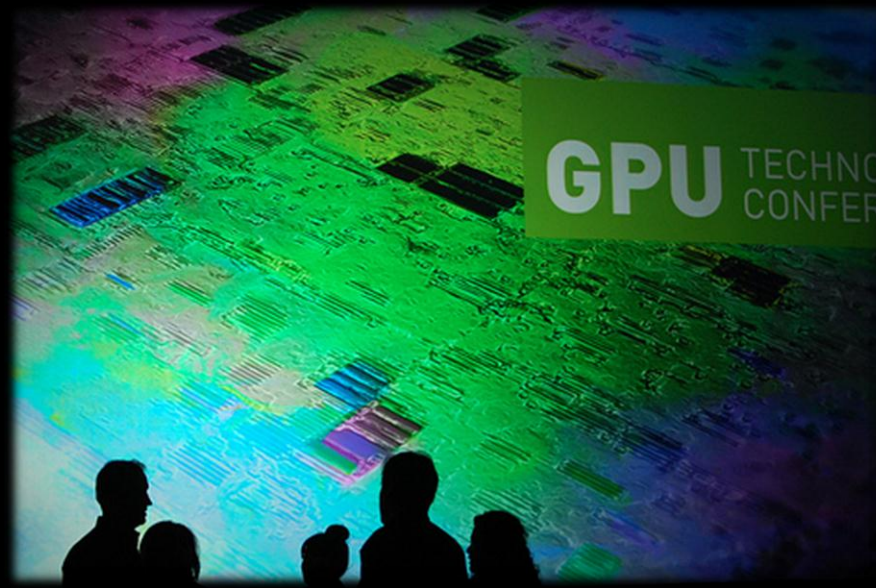
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