

vnode Cluster Intro

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vnode Cluster

- Dual 3.0 GHz Intel Xeon EM64 CPU
- 8 GB Main RAM
- NVIDIA 6800 or 7800 GPU with 512 MB RAM
- Gigabit Ethernet and Infiniband

vnode Cluster

- 12 compute nodes (no display)
- 15 LCD display wall nodes
- 1 workstation node with keyboard, optical mouse, two gyroscopic mice, and single LCD
- 1 login node

And...

- 5x5 tiled display wall of 24", 1920x1200 LCDs (50 Megapixels)

Useful Software

- NVIDIA Cg for GPU programming
- Chromium for running OpenGL programs on the tiled display (and general OpenGL stream manipulation)

Applications

- Visualization of large data
- Large visualization of data
- Coupled CPU/GPU computing
- Computational steering

Coming Soon(?)

- Large, fast, persistent storage system
- NVIDIA 8800 GPU with native support for general purpose stream computation
- Stereoscopic displays

Participants

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vnnode Cluster

- Project page:
<http://www.umiacs.umd.edu/research/GPU/>
- Cluster manual:
<http://www.umiacs.umd.edu/research/parallel/vnnode-toc.html>