WAVE

WIDE-AREA VISUALIZATION ENVIRONMENT (WAVE) SYSTEM

Students and researchers from any discipline can explore the pyramids of Giza or the cosmos, map historic structures or the nanostructures within the human brain, work out big-data projects with CERN or the folding of proteins, or rehearse Shakespeare performances with people in England — all without ever leaving Merced — by building 3-D visualizations on the WAVE.

The WAVE allows research to share a virtual environment connected by a high-speed network for collaborative science and scholarship.

THE SYSTEM FEATURES:

- 20 4K OLED 3-D TV monitors in a half-pipe configuration;
- 10 rendering nodes with two GTX 1080 Founder's Cards (one for each screen means a total of 20);
- Intel dual-link 520 SFP+ Converged Network Interfaces, running a 10G subnet for internode communication;
- AR-Tracker advanced real-time tracking for human interaction;
- A head node and FIONA DTN with Mellanox ConnectX®-5 dual-port adapters;
- A Layer 1 path to UC Merced/CENIC edge;
- A Cubix GPU Expansion Chassis with additional 8 GPUs supporting RDMA;
- An 11.2 Dolby Atmos© System for immersive sound and perceptualization; and
- More than $100,000 worth of content production equipment, including drones, cameras, audio and software

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