

NORTHWESTERN UNIVERSITY INSTALLS VIDEO WALL WITH JVC 3D HD MONITORS FOR VISUALIZATION OF MOLECULAR IMAGING DATA

JVC Professional Products Company, a division of JVC Americas Corp., today announced that Northwestern University is using 25 JVC GD-463D10U 46-inch 3D LCD HD monitors to create a video wall display for visualization of detailed scientific data. The 5x5 video wall, which can provide presentations for up to 35 people, is located in the lobby of the Silverman Hall for Molecular Therapeutics and Diagnostics, which was built for the Chemistry of Life Processes Institute and opened last year.



Professor Tom Meade, director of the Center for Advanced Molecular Imaging (CAMI) research facility within the institute, said the video wall is an integral part of the center's mission to acquire, visualize, and interpret data from magnetic resonance imaging (MRI), fluorescence and bioluminescence imaging, and other technologies within a single facility. He said the ability to display such large amounts of information (a technique known as volume rendering) in high detail allows scientists to observe and interpret data they would have never seen otherwise.

According to Matt McCrory, lead visualization engineer, Northwestern University, a projector-based system was not an option due to space restrictions, and the original plan to create a high-resolution tile display did not include 3D. However, after he tested a single 3D display with his own volume rendering software, he decided 3D would benefit CAMI's advanced visualization efforts.

McCrorry researched a variety of manufacturers, but said only JVC delivered the high-resolution 3D imaging and thin bezels (for a tighter installation) he required. The JVC GD-463D10U monitor also features an integrated Xpol polarizing filter, so it uses inexpensive polarized (passive) glasses to produce flicker-free 3D HD images. As a result, McCrorry did not have to sync all 25 screens or invest in dozens of pairs of expensive active shutter glasses. "With JVC's passive solution, that whole challenge just disappeared," he said. "It made life a lot easier."

The installation was completed in late March by Roscor Corporation, which is based in Mount Prospect, Ill. While the panels are angled at the top and bottom of the display to maximize the 3D field of view, the video wall was not designed to be an immersive environment. "This is more about allowing a roomful of people to see the same 3D canvas," McCrorry explained. "The 3D effects work really well."

The video wall displays close to 52 megapixels – more than six times the resolution of Digital IMAX – and is driven by a system of NVIDIA Quadro Plex graphics cards, which are powered by a cluster of Linux-based computers and managed through Equalizer middleware (developed under Open Source). With some help from Northwestern's University Academic and Research Technology Department, McCrorry plans to develop a suite of iPad applications that will allow scientists and other presenters to easily adjust the data displayed on the JVC monitors.

"The JVC is a very bright, very vivid display. So far, they've been performing really well," said McCrorry. "It's hard to even imagine there being a better monitor right now for this kind of application."