

# New 3-D research technology unveiled

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The University of Idaho today unveiled the new home for an IQ Station, state-of-the-art technology that allows faculty, student and staff researchers to see images in 3-D.

The IQ Station is a 3-D data modeling box that converts large complex datasets into interactive images. The user has a hand-held device that lets him or her manipulate the 3-D images and see them from different perspectives. The 3-D glasses are synchronized with the projectors to assure that the viewer sees the correct image.

The IQ Station uses a 3-D, 72-inch Mitsubishi DLP display and optical tracking system by NaturalPoint, and relies on a high-end computer to run Vrui, a virtual reality software developed by University of California-Davis that performs the 3-D rendering.

The IQ Station was given to the University of Idaho by the Idaho National Laboratory and the Center for Advanced Energy Studies. CAES is an energy research partnership between the INL, University of Idaho, Boise State University and Idaho State University. INL modeled the technology after the Cave Automatic Virtual Environment – or CAVE™. CAVE was first developed at the University of Illinois at Chicago, and is both an analytical and educational tool for 3-D visualization that has been applied to a number of research areas.

“We are excited to provide students and professors with a chance to visualize research in a way that may not be possible inside the classroom,” said Jack McIver, vice president of research and economic

development at the University of Idaho. “The IQ Station also provides researchers with the chance to work collaboratively with Boise State University and Idaho State University.”

INL also has given similar systems to Boise State University and Idaho State University.

The IQ Station helps researchers learn more in areas of engineering design, manufacturing, medicine, architecture, marketing, geophysical exploration, astrophysics, chemistry, atmospheric science, ecology, microphysics and hazardous material handling.

“We need more students who can work in energy research and visualization careers and use the tools we provide them to pursue those careers,” said Oren Hester, deputy director at the Center for Advanced Energy Studies. “The IQ Station is another tool to add to the tool box of the strong modeling capabilities that already exist at the University of Idaho.”

The Q is an abbreviation for quad, with the four features inherent to the tool being inexpensive, interactive, immersive and interface.

The IQ Station is available upon request during normal business hours at the University of Idaho Library.

Provided by University of Idaho

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