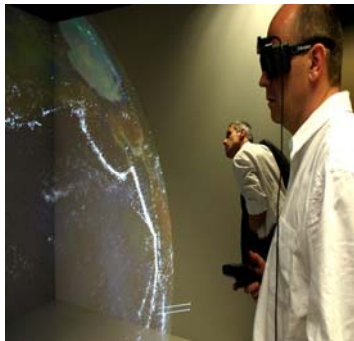


Otellini Visualization Laboratory At UC Davis Tahoe Environmental Research Center

The Otellini Visualization Lab, located at the prestigious Tahoe Environmental Research Center (TERC) will be a state-of-the-art facility and the centerpiece of our efforts to both understand the complexities of Lake Tahoe and to educate and inspire the next generation of scientists and engineers.

This public science education lab will be a computer simulation and visualization laboratory utilizing state-of-the-art numerical simulation and visualization resources developed at UC Davis and collaborating institutions. The lab will 1) assist and advance the work of UC Davis researchers and other collaborators, 2) house tools for presenting and manipulating very large datasets, and 3) present scientific data in revolutionary ways to provide students and the public with a better understanding of complex issues. The laboratory, which will be immediately visible from the Great Hall of the Education Center, will receive maximum exposure and will work in conjunction with the other educational displays located within the education center.



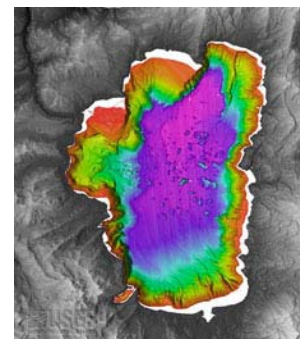
Computer simulation and data visualization offer a method for seeing the unseen. They enrich the process of scientific discovery and foster profound and unexpected insights. In many fields, they revolutionize the way that scientists do science. The goal of visualization is to leverage existing scientific methods by providing new scientific insight through visual methods.

At the Otellini Visualization Lab visitors will don 3-D glasses to explore under the water, under the earth, and around the watershed. Besides providing an educational exhibit for the public, these tools could also provide rapid response to wildfires or contaminant spills in the lake.

We plan to highlight existing geoscience datasets in 3-D for visitors, researchers and students, including:

- Detailed surface topography
- Lake Tahoe bathymetry
- Seismic fault zones
- Lake habitat zones

Visitors, researchers and students will also be able to run 3-D models of limnological processes, as well as models that will demonstrate visually the effects of changing pollutant loading to the lake, changes in weather, etc. We are also excited about the prospect of including new “virtual” technologies, such as Highly Immersive Visualization Environments that are designed to give the user an immersive virtual working environment in which to display, to analyze, and to discuss geographic features.



Lake Tahoe Bathymetry