Abstract

Many research areas can benefit from an interactive visualization of the massive amounts of data produced. Instead of reviewing spreadsheets and graphs, an immersive experience with direct manipulation of data may elicit a greater understanding of previously unseen spatial and temporal characteristics. The CACS Virtual Reality Lab under the direction of Dr. Christoph Borst has recently installed a 3D display and motion tracking system in Oliver Hall. The Visbox HD-13 consists of a rear-projected display measuring thirteen feet across and having 1920x1080 resolution per eye. Several applications have already been developed by VR Lab students in conjunction with UL Lafayette Geology and Civil Engineering faculty and the LINC Lab in CACS. This presentation will concentrate on software toolkits available to the application programmer, an overview of the display hardware configuration, and the motion tracking capabilities used for interaction. Further information regarding basic VR programming and data processing capabilities will also be covered.