

Immersive Virtual Reality Research at Calit2

Abstract:

Immersive virtual reality has matured to a point where it can be used as a serious research tool in various scientific disciplines. This seminar talk will give an overview of the visualization technologies we use at Calit2 to create and display virtual environments. We are going to cover the StarCAVE, one of the most advanced virtual reality systems; the Varrier, which is the largest, head-tracked auto-stereoscopic display in the world; and the HiperSpace, one of the highest resolution tiled display walls in the world. In addition to display hardware, this seminar talk will cover the software we use to create and display 3D models on these cluster-based systems, and how we interact with the data using 3D interaction devices.

Bio:

Jurgen Schulze is a Project Scientist at the California Institute for Telecommunications and Information Technology in San Diego, and a lecturer in the computer science department of UCSD. He received his doctorate degree in computer science from the University of Stuttgart, Germany, and a M.S. degree in computer science from the University of Massachusetts at Dartmouth. After his graduation he conducted postdoctoral research with Professor Andries van Dam at Brown University and with Professor Thomas DeFanti at the University of California San Diego. His major research interests are scientific visualization in virtual environments, human-computer interaction, real-time volume rendering, and graphics algorithms on programmable graphics hardware.

Enquiries: Rob Gray, Message Lab, email: rob.gray@infotech.monash.edu.au