ABSTRACT

Real-time, interactive generation of high-quality images for Virtual Reality applications has been a challenge from the very beginning. In this talk I will highlight some of the issues involved in doing this, both from a hardware technological point of view in terms of display technology, but primarily with a focus on the required software technologies for making high quality imagery available and usable. The talk will also cover some example projects from my 20 years in working on interactive and immersive VR and AR applications, and some ideas of where interesting future problems lie.

BIOGRAPHY

Dirk Reiners is a Faculty member in the Center for Advanced Computer Studies at the University of Louisiana at Lafayette. His research focuses on software systems and applications for interactive 3D graphics, ranging from low-level systems like scenegraphs to high-level applications in Visualization and Training. He is the project lead of the OpenSG scenegraph system, one of the most advanced scenegraph systems available today. He has a Master and a PhD in Computer Graphics from the Technical University of Darmstadt, and worked for more than 10 years at the Fraunhofer Institute for Computer Graphics, the largest Computer Graphics research center in the world, on issues related to Virtual and Augmented Reality, mostly for the German car companies. He is a member of IEEE, ACM and Eurographics.