

Title: The ARC Display: An Augmented Reality Visualization Center

Authors: Felix G. Hamza-Lup, Larry Davis, and Jannick P. Rolland

Contact Information:

Jannick Rolland
School of Optics/CREOL
University of Central Florida
P.O. Box 162700
4000 Central Florida Blvd.
Orlando, FL 32816-2700
Phone: (407) 823-6870
FAX: (407) 823-6880
Email: jannick@odalab.ucf.edu

Abstract:

We shall demonstrate a deployable, augmented reality visualization environment called the ARC Display. The ARC Display system consists of a curved, retroreflective wall, a head-mounted projective display (HMPD), a commercially available optical tracking system, and a Linux-based PC. The demonstration will show high-resolution 3D medical models from varying viewpoints, the superimposition of real and virtual objects, and a remote collaborative application. Furthermore, the demonstration will introduce members of the research community to the possibility of visualization with the ARC Display.

Keywords: ARC Display, HMPD, Augmented Reality, Visualization

Storyboard: A storyboard is provided in separate document.

Equipment: Two laptop computers, an optical tracker and a tripod, a HMPD with its required equipment, and the ARC Display.

**The ARC Display:
An Augmented Reality
Visualization Center**
ISMAR '02 Demo



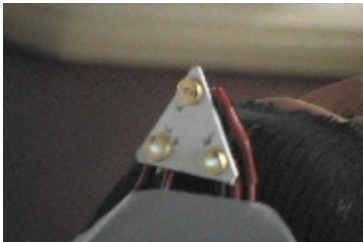
Introduction: The ARC Display system is summarized for the participants



Details about the ARC wall are given



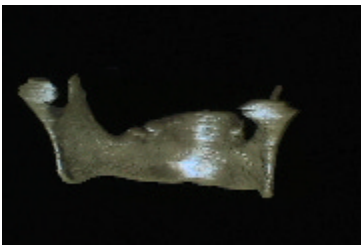
The HMPD operation is described to the participant



The tracking system specifications are detailed



The computer specifications are detailed



Display High Resolution Models in the ARC system



Demonstrate a remote, collaborative application within the ARC system