

# Commercialization of ARTag : Millenium-3 Engineering

*ARTag* is a fiducial marker system allowing robust camera positioning for AR overlays, providing reliable and lighting-immune registration of 3D graphics with a live video image with no need for additional positioning hardware. Two promising applications are soon to be offered to industry; table-top systems with hand-held systems where users "look through" tablet PC's or PDA's, and *Magic Mirror* setups where many people can see augmentations on a projection screen of imagery looking back at themselves.

Both these systems are being demo'd at the ISMAR'06 demo session.

## 1 Table-Top Applications



Figure 1: *3D visualization of data, with modes for cut-away and labelling.*

## 2 Magic Mirror

Visitors stand in front of a rear projection screen and look at an image of themselves produced by a video camera looking back at them (the camera image will be flipped horizontally to resemble a real mirror effect). They play with several objects and clothing items covered with ARTag markers and see 3D augmentations on themselves. The augmentation content can be switched between themes, thus assigning different content to the same marker-ed objects..

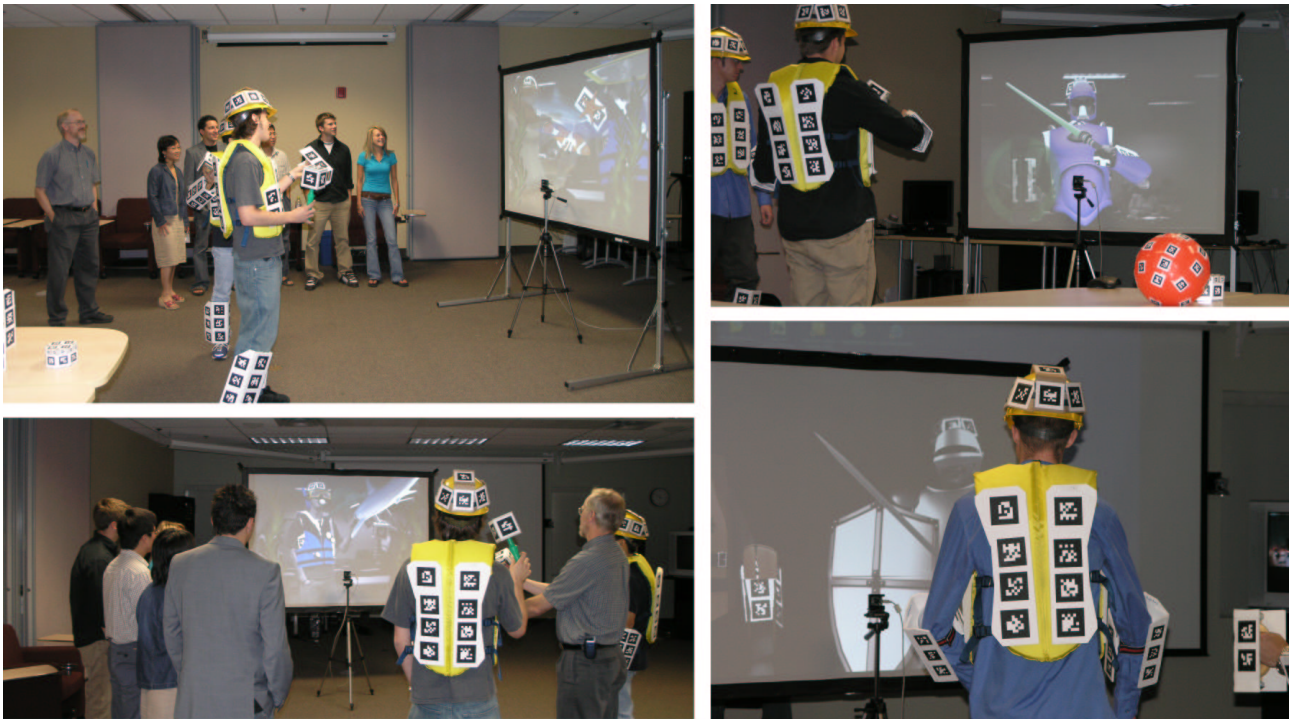


Figure 2: *The Magic Mirror system allows users and onlookers to experience and enjoy AR without needing a private PDA or tablet.*

Both these systems are being demo'd at the ISMAR'06 demo session.

The ARTag 3D model rendering and visualization systems come as an OpenGL SDK for Windows and Linux, and are useful for scenarios such as museum exhibits, industrial design, and architecture visualization whereas 2D augmentation overlays with PDA's or wearable displays would find uses with repair or assembly technicians.