

Immersion Case Study: The Haptic Workstation



Figure 1: Haptic Workstation running the "Digital Seating Buck" application.

Polhemus
FASTRAK®
used for
Position/Orientation
Tracking in the VR
Haptic Workstation!

Founded in 1993, Immersion® Corporation develops hardware and software technologies that improve the way people interact with computers. Immersion is revolutionizing the way one interacts with digital devices of all types. Typically in Virtual Reality, one uses two senses when computing — sight and hearing. Immersion's TouchSense™ technology engages a third sense — touch — to give you a more complete, intuitive experience.

The Haptic Workstation is a ground-breaking 3D haptics innovation from Immersion Corporation. It is a fully integrated simulation system providing right and left whole-hand force feedback, immersive 3D viewing, and easy to use CAD model manipulation and interaction software. Immersive 3D viewing is provided by a head-mounted display. The Polhemus FASTRAK® is used to find the position of the head-mounted display in real-time. Immersion offers other hardware solutions where the Polhemus FASTRAK is used to track position and orientation of the users' hands.

The FASTRAK is the industry standard, providing the most accurate electromagnetic motion tracking solution. With an accuracy of .03 inches RMS, 4ms latency, and resolution of .0002 inches per inch, this is the most precise device of its kind.

