QUANTUM3D®
Technology for Solutions

ExpeditionDI®

Immersive Dismounted Infantry Training Platform

Immersive Training.... Anywhere

"It's time...to do for infantry training what we've done across other domains … the technology is available now"

-----General James N. Mattis, Commander, U.S. Joint Forces Command

Quantum3D - The Pioneer and Leader

- Continuous development of ExpeditionDI since 2003
- The only man-wearable immersive solution to have been in use for actual training, since 2007
- Validated through three independent user assessments

Saving Lives

Nearly 40%[1] of infantry fatalities occur during just the first three months of deployment. The most dangerous time for war fighters is when they are in a new environment while learning in actual combat, and the only path to improved safety is with more and even better training beforehand. ExpeditionDI gives war fighters the needed training.

Imagine the power of completely immersing war fighters in realistic, hands-on exercises where they can see, hear, move, and interact with the field and each other, while being able to review and learn from their performance in a non-lethal setting:

- Exercise tactical and ethical decision making
- Communicate, move, and fight as a team
- Rehearse missions using the very latest imagery and intelligence

The ExpeditionDI Difference

ExpeditionDI is a self-contained, man-wearable fully-immersive simulator which features a correlated motion and input system that enables soldiers to advance through and interact with a virtual environment using their natural instinct and reflex reactions. The system responds to body movement and presents the correct view according to that movement, providing a realistic, active three-dimensional training experience.

With this platform, war fighters are not simply looking at a simulation on a distant, detached screen. Instead, they become an integral part of a simulated world which completely surrounds them. For example, as trainees move their heads, their full view of the world sweeps and tilts as it would in reality. When they drop to a knee, the system detects this and lowers their point of view accordingly. They see their virtual weapons move correctly in concert with their physical motion as they engage targets, and they hear position-accurate sounds of the tactical environment as well as their communication devices. All of which creates the highest-quality immersive training experience, deployable in theater, allowing warfighters ***to train the way they fight and fight the way they train, any time, any place.***

[1] Source: Tristan Plank, Scott Scheff and Angelia Sebok, "First 100 Days of Deployment Critical to Soldier Survivability", National Defense Magazine, May 2010

Anatomy of an ExpeditionDI Warrior

Preparation is everything. ExpeditionDI trains war fighters for any conceivable mission and environment.

NEW — ### Wearable Computer Pack

An integrated solution; processes all graphics and simulation in a self-contained platform. Rugged enough to withstand severe abuse in the field.

Head Motion Tracker

Just as in the real world, a turn of the head delivers a new view.

Audio Headset

Delivers surround sound and IP radio. Microphone supports realistic tactical communicatons during training exercise and voice recording for after-action review (AAR).

NEW — ### Head Mounted Display

OLED displays create a crisp and fully immersive high-fidelity (1280x1024) view of the virtual world.

Load-Bearing Vest

Integrates and supports the system's components. Provides a realistic combat feel.

Weapon Subsystem

Realistic shape, weight, and feel. Weapon aiming is natural, and fully coordinated with the war fighter's head and body positions.

Body Posture Tracker

ExpeditionDI knows the user's posture; standing, crouching, or prone.

Wireless Capability

No cables. No wires. Allows each warrior complete freedom of movement. Essential for group exercises.

Squad Kit

A complete package for group training and mission rehearsal.

Open Architecture Platform

Supports a variety of simulation software:
- VBS2 from Bohemia Interactive
- SVS from Advanced Interactive Systems
- RealWorld from Total Immersion and DARPA
- Any software can be integrated with ExpeditionDI SDK

Windows XP Embedded · **intel** · **NVIDIA Quadre FX** · CE · FC · c MET ®

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