

## **Mixed Reality Training and** Mission Rehearsal Solutions

Dignitas Technologies is one of the small business leaders in our industry producing low-cost, lightweight, integrated mixed reality solutions for individual & collective training, simulation and mission rehearsal. Our research and development with virtual (VR) and augmented reality (AR) head set technologies, and other multimodal user interfaces, provide effective point of need solutions. Our solutions are extensible, transparent, easily integrated with other applications (i.e. adaptive learning, complex synthetic environments) and migratable to mobile applications.

## **Software-centric Immersive Virtual Environments (SIVE)**



- Combines AR, VR, motion tracking, depth sensing, hand tracking, 3D models with existing simulation systems and low-cost COTS hardware for a comprehensive solution.
- Interface modalities range from a simple web-based UI to a complex AR/VR interface through a mixed hardware capability to provide flexibility to meet training needs, available hardware, and trainee preference.

## **Training Simulators**

- Dignitas is the lead implementer of US Army Synthetic Training Environment (STE) Reconfigurable Virtual Collective Trainer (RVCT) 's M1A2 System Enhancement Package (SEP) v2 and M2A3 solutions, with co-developer role on STRYKER. RVCT is directly leveraging Dignitas' SIVE program which provides multiple interface modalities for lightweight, point of need crew positions.
- Our simulators use different multimodal user interfaces to enable more accurate representation of different tasks (e.g. Trainee needs accurate switches and controls to rely on switch position/feedback during operation).
- Dignitas also incorporates MR to provide realistic training simulators for construction and maintenance tasks.

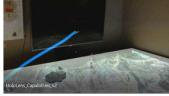




## **ARES Collaborative Mission Planning & Rehearsal**



- Dignitas distributed interactive visualization tool enable real-time collaborative training, mission planning, briefing, command and control, and after-action review.
- Uses Microsoft's HoloLens. Once connected to a server, it can be used to display and interact with a physical or virtual sand table through the use of gestures.
- Can also be used to augment the physical sand table and floor projection experience by overlaying information which allows for layers shown at a height that is above the physical surface.





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