



Oshkosh Corporation

As a recognized designer and builder of the world's toughest specialty trucks, truck bodies, and access equipment, the Oshkosh Corporation provides utility solutions for modern Armed Forces organizations that use ruggedized vehicles day in and day out. As a part of their continued support and mission to meet the needs of their customers, the Oshkosh Corporation Training Center offers world-class training on the vehicles they manufacture. That inventory includes the HEMTT (Heavy Equipment Medium Tactical Truck) M978 Tanker, a fuel servicing truck designed to refuel tactical vehicles and assets in forward operating locations.

This vehicle proved to be a major training challenge for the training center for two critical reasons. First, for environmental and safety reasons, the center cannot use a tanker truck with actual fuel to teach students. Second, vehicles are only on loan for use at the center, therefore they cannot pump an inert material (such as water) through a tanker truck. As a result, the training curriculum for the tanker involved a deck of 300 PowerPoint slides and an instructor lead lecture over the course of 2-days. Student surveys revealed they were not engage and did not feel comfortable with the material. Based on this feedback, the center's management took action to improve their customer's experience.

"Before we implemented the HEMTT Tanker VTT into our training, we would spend about 2 to 3 hours in a classroom and then the rest of the day would be a review of what was taught. After that time was spent, there wasn't much time left nor did the students feel ready for physical training. With this module we were able to cut the instruction time in half and put the learning experience in the student's hands simultaneously," said Derek Kraege, an instructor at Oshkosh.

Oshkosh consulted DiSTI to envision and develop an advanced interactive training application to address their areas of concern. Through meetings and discussions with the center's manager and senior instructors, Oshkosh and DiSTI identified the requirements for a HEMTT M978 Virtual Task Trainer (VTT). The primary goal of the application was to engage the students in an immersive interactive 3D environment solidifying the theory and procedures for the tanker operations.

DiSTI utilized GL Studio and Replic8 technology to produce the comprehensive VTT for Oshkosh. DiSTI created the trainer's virtual environment by merging Oshkosh CAD data of the fuel system with an existing 3D model of the HEMTT. Replic8 provided the lesson framework and Java-based rendering environment allowing the content to run easily on the center's computers and laptops.

The finished application combines the capabilities of the interactive 3D virtual environment and interactive schematics of the fuel, hydraulic, and electrical systems delivering a comprehensive solution to the students. The VTT eliminates the PowerPoint charts allowing the instructor to lead the students, each with their own copy of the software, through the lesson objectives in only a few hours. Student surveys reveal that the new training is working and students feel well prepared when they get their hands on the actual truck.