

STRYKER BATTLE DAMAGE ASSESSMENT AND REPAIR TRAINING SOLUTION DEVELOPED AND DEPLOYED WITHIN 90 DAYS OF CONTRACT

NGRAIN works with the Army Training Support Center, C² Technologies, Camber Corporation, and CollabWorx to enable the U.S. Army to respond rapidly to meet new mission critical training requirements.

BACKGROUND

With today's increased pace of operations, the U.S. Army faces a number of training challenges. Perhaps most critical is the need to respond rapidly to new training requirements identified in the field. One area of mission critical importance is that of Battle Damage Assessment and Repair (BDAR).

The Army Training and Doctrine Command (TRADOC), which is responsible for training soldiers in the Active Army, Army National Guard, and Army Reserve Forces, is leveraging a Mobile Training Team to provide training to soldiers around the world. The Mobile Training Team is responsible for training soldiers in the field without disrupting military operations, enabling soldiers to receive instructional materials in immediate response to newly identified training needs.

CHALLENGE

As a result of feedback from the field, Stryker BDAR training and certification needed to be conducted with each soldier prior to being deployed in field operations. For the first phase of training and certification, the Army focused on training soldiers on BDAR tasks for the Stryker tire. This was particularly challenging for the Army as the number of BDAR instructors are limited while the brigade's soldiers are located in several locations in the United States, as well as deployed in Iraq. TRADOC and the Army Training Support Center (ATSC) needed to address this training requirement as quickly as possible.

When assessing the options for training delivery, ATSC quickly identified that it could not depend on the traditional process for developing computer-based courseware. They needed to

deliver the training within 90 days, yet computer-based courseware development typically took 12 to 18 months to complete. The alternative was to deliver the training in Iraq via instructor-led classes. However, this would limit soldiers' access to the training and create scheduling difficulties. Also, due to the large amount of instructor travel this would require, soldiers would have fewer opportunities to interact with instructors. The Mobile Training Team instructors would only be onsite during the specific block of training time, and would not be able to address questions following the training session. These unanswered questions could lead to mistakes in the field.

SOLUTION

With these challenges in mind, TRADOC reviewed several alternative solutions and ultimately decided to complete a 90 calendar day rapid development project using NGRAIN's interactive 3D solution in conjunction with a self-paced computer training component and CollabWorx' secure real-time collaboration platform.

Using NGRAIN interactive 3D representations of the Stryker vehicle as the center point of the training solution, ATSC blended self-paced, computer-based training with collaborative, web-based instruction, turning the Mobile Training team into a *Virtual* Mobile Training Team.

The first segment of the training was divided into four standalone lessons, each of which soldiers complete at their own pace either via the web or CD-ROM. The lessons deliver scenario-based instruction, allowing soldiers to interact with the

Stryker vehicle in the NGRAIN 3D environment.



Self-paced learning on BDAR via CD-ROM

The second segment of the training consists of a live session with Virtual Mobile Training Team instructors, which is accessible via the CollabWorx web-based interface. Soldiers schedule one-on-one collaborative sessions with instructors. During the collaborative session, the instructor presents a scenario to the soldier, and the soldier performs the Battle Damage Assessment and Repair actions he/she has learned. Throughout the session, both instructor and soldier use the NGRAIN interactive 3D Stryker and its 3D components to illustrate points and show procedures.



Collaborative web session between instructor and soldier

IMPLEMENTATION

A critical project objective was to develop and deliver the training solution within 90 calendar days, providing soldiers with access to the potentially life-saving training as soon as possible. ATSC awarded the contract to Camber under the DLXXI contract. ATSC, Camber, C² Technologies Inc., NGRAIN and Collabworx worked closely together to achieve

the objectives of this project under a rapid development timeline of 90 days from contract award.

“The NGRAIN team worked with us as a partner, providing exceptional training, mentoring, and support,” said Jim Threlfall, Deputy Division Manager of C² Technologies and project manager on this project. “The resulting courseware, which was developed within 90 calendar days and has already been field tested in Camp Victory, Iraq, Fort Benning and Aberdeen Proving Ground, is enabling soldiers to get the latest information and techniques to survive on the battlefield.”

The Stryker BDAR courseware, developed by C² Technologies, consists of NGRAIN interactive 3D objects, Macromedia Flash content and rich media. The courseware was deployed via Collabworx over the Army network and is being used by soldiers in Mobile Training Classrooms in Iraq, with instructors located at Army installations in the United States.

RESULTS

The NGRAIN solution has been deployed at Camp Victory, Iraq and Aberdeen Proving Ground and Fort Benning in the United States, with immediate benefits:

- Proving that task-based interactive 3D-enhanced training content can be developed within 90 calendar days in response to new training requirements from the field
- Delivering mission critical battle damage and assessment training to soldiers in the field that allows virtual hands-on practice
- Reducing the need for instructors to travel, while providing soldiers with anytime, anywhere access to training content and instructors
- Improving the effectiveness of the training by immersing soldiers in a scenario-based simulated environment
- Increasing soldier confidence in their ability to perform Battle Damage Assessment and Repair tasks

Contact army@ngrain.com for more information about this project.

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