



InVeris' Simulation-Based Embedded Training Software Package

Flexible design for flexible training solutions

The InVeris Training Solutions Simulation-Based Embedded Training Software Package, the first of its kind ET collective training solution distributed en masse to an Army, is installed in the Stryker Armoured Vehicle (IAV), supporting the US Army Brigade Combat Training requirement. The innovative software has been in-service for 12 years on the Stryker for the Remote Weapons Station (RWS), Mobile Gun System (MGS) and a third solution has been developed for the Antitank Guided Missile (ATGM) variant.

It provides simultaneous training with multiple networked Embedded Training Systems, with the potential to connect to an Instructor Operator Station (IOS) through a Distributed Interactive Simulation (DIS) and High Level Architecture (HLA) compliant connection, either wirelessly or through a wired network.

The Embedded Trainer allows the weapon station operator to safely practice skills and drills in a simulated environment, while providing computer-assisted training, automated performance monitoring, feedback and recording. It can train all the members of a detachment — Driver, Gunner, Detachment Commander — in a collective training session, providing a range of simulation exercises.

The highest degree of innovation for the highest level of readiness

Militaries across the globe are incorporating advanced computers and lifelike digital imagery to allow portable combat trainers for their soldiers. Military training programs incorporating this technology include the US Army's Stryker combat vehicle and the Land Warrior soldier-sensor and communications system. Both programs incorporate "embedded trainers," or training capabilities built into a combat platform for use in garrison or when operationally deployed, enabling Commanders at all levels with the training tools necessary to retain a high level of readiness of perishable skills.

Embedded training systems enable greater effectiveness for military forces, providing training access while troops are deployed on duty out of the country. The embedded Stryker allows crews to conduct precision gunnery, driver and commander tactical training, using the vehicle's computers.

The combination of realistic imagery, lower power demands and advances in technology has made the case for embedded trainers. Smaller packaging makes the embedded trainer a useful and necessary tool for effective real-world training. The technology and processing power of today's vetronics and power management resources enable the vehicle to serve as a training platform.

Challenges of a high tech digital environment

The increasing pressure and challenges associated with a weapon platform comprising a multitude of inherent and integrated technologies places added pressure on the crew to be highly skilled in the operation, function, employment, management, processing of information and the application of all in the decision making process.

One means by which to mitigate these challenges is by enabling the soldier to train within the AFV itself; permitting him to train within the environment that he must fulfill all of these duties. Providing his fighting environment with a training capability. In turn, building his confidence, reinforcing his capacity and developing those muscle memory skills specific to the systems he will employ in battle. ET provides for this capability, while minimizing the need to acquire large cumbersome simulation and training solutions that can come at significant cost.

Embedded Training Variants

Embedded Training solutions can be hosted on the vehicle's main processor if space permits, an embedded training module can be added to the vehicle's design or an embedded training module can be hosted outside the vehicle.