



# SCALABLE ADVANCED GRAPHICS ENGINE – GROUND

RICH VISUALS DELIVERING A REALISTIC TRAINING EXPERIENCE

**LOCKHEED MARTIN**

*We never forget who we're working for®*





# SAGE – SCALABLE ADVANCED GRAPHICS ENGINE: GROUND



## Effects and Environments

With SAGE, art and engineering intersect to create a training environment that's true to life. Realism comes from integrating gaming technologies including Havok™ physics, destruction, animation, artificial intelligence, cloth and script technologies. Dynamic terrain is based on the physical makeup and properties of the underlying soil.

## Where Is SAGE Today?

- U.S. Army
  - M1A1 and M1A2 Advanced Gunnery Training Systems (AGTS)
  - Stryker Mobile Gun System

Lockheed Martin's Scalable Advanced Graphics Engine (SAGE) is a hybrid gaming visual solution that provides richly detailed images and motion. SAGE models scenarios such as traffic on city streets or the effects of a mortar to provide a detailed training experience.

## How It Works

SAGE leverages commercial gaming technology as the foundation for image generation. It is an affordable way to reap the benefits of advances in the commercial market without incurring the cost of a unique development effort.

## The SAGE system:

- Runs on commercially available off-the-shelf computer hardware
- Provides the option for scalable configurations from a single desktop to distributed multi-channel, multi-machine configurations
- Draws from existing databases, models and custom-built databases
  - Includes a scenario generation tool for the quick addition of autonomous, reactive patterns of computer-generated avatars

- Advanced Gunnery Training System
- Bradley Conduct of Fire Trainer Situational Awareness
- Common Embedded Training System

- U.S. Marine Corps
  - M1A1 and LAV-25 AGTS
  - Combat Convoy Simulators

- International Military
  - Kuwait National Guard Virtual Combat Convoy Trainers
  - Royal Saudi Land Forces AGTS
  - Saudi Arabia National Guard AGTS
  - United Kingdom Combined Arms Tactical Trainer
  - Egypt Tank Driver Trainer and AGTS
  - Australia Tabletop AGTS

