Modeling & Simulation

REAL-WORLD ENVIRONMENTS TO HELP YOU TRAIN LIKE YOU FIGHT

Our advanced simulation capabilities mean you can train from anywhere without sacrificing tactical realism.

Success on the modern battlefield is a complex and rapidly evolving pursuit, as new enemies and technologies continue to emerge. The only way to ensure readiness in the face of this shifting landscape is for warfighters to train using the same scenarios, obstacles and teamwork they'll use on the field of battle, no matter how it changes.

An Enriched Training Approach

Basic, stand-alone classroom training is not enough to build a force that is ready to meet any challenge. But training at scale has traditionally been expensive and involved extensive manual tuning. Fortunately, today's modeling and simulation technologies can help U.S. defense and national security leaders enrich training for refined strategies, more predictable outcomes and optimal results.

Through distributed, highly-scalable, integrated training that incorporates live, virtual, computer-to-computer and gaming elements, U.S. warfighters can learn and reinforce their skills in real-world environments. Facing these challenges in advance will help them better prepare, adapt and handle uncertainty in the field.

Unprecedented Mission Readiness

At HII, we help defense and national security clients train like they fight, using advanced modeling and simulation technology. By creating environments that mimic real-world situations, we provide an opportunity for warfighters to prepare in ways that would otherwise be difficult, dangerous and expensive.

Our secure, comprehensive solutions encompass software, hardware and networks to bring together live, virtual, constructive (LVC) assets in a fully-integrated, unified training battlespace. We are enhancing LVC training and simulation with machine learning, to test and calibrate remote system elements, while using deep learning to automate content creation. The result is the development of training and rehearsal products that deliver unprecedented speed and quality.

With practical military experience, our training professionals partner with clients to conduct successful events that meet all desired training objectives, while ensuring that the results of each simulation are applicable in the real world.

HII Game-Based Training Solutions

Training done right means the people who brave battle are prepared for whatever comes their way, so they can make their way home. Our engineers, technologists, program managers and first-class experts apply an agile engineering methodology to every project and problem, saving time and money for our clients while delivering proven modeling and simulation solutions to support every training need.
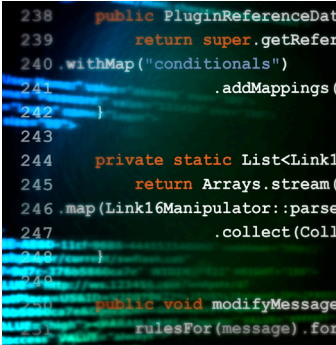

Simulation Development

We develop simulated, virtual, augmented and mixed reality environments to create the most lifelike training scenarios. Our solutions incorporate 3D scanning, gaming engines and system integration to maximize user visualization and response.

Advanced Modeling

We develop detailed, physics-based computer models and databases to generate behavior, terrain and visualization for a realistic experience that helps users understand the impact of their decisions and movements before they're in harm's way.

Software & Integration

With world-class software development and integration capabilities, our experts quickly create and deliver distinct simulations, trainers and systems into an integrated, interconnected network environment.

Performance Analysis

Using our experience modeling and analyzing complex systems, we help identify the cause of any performance deficiencies, indicate where performance gains can be achieved and explain which trade-offs will provide the greatest benefit.

Spotlight: RAVE

Our Real-Time Automated Visualization Environment (RAVE) enables whole-world training using the commercial game engine Unity3D as a framework RAVE provides live streaming, full-motion video and imagery products for use during synthetic training.

As a trusted partner on the U.S. Navy's enterprise tactical training solution, we overcame the traditional game engine limitations of small terrain play boxes, curved earth and native simulation interoperability to develop this environment. RAVE is currently used to support Navy training in exercises scaling more than 150,000 platforms.

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