

MISSION SIMULATION SOLUTIONS

for defense and homeland security



exail

CUSTOMIZABLE SIMULATOR PROJECTS

Exail mission simulators are modular, scaling from initial driver training to advanced tactical maneuvers. By integrating a Mission Scenario Editor (MSE) and Computer-Generated Forces (CGF), our systems allow crews to train either independently or as a coordinated networked unit

CUTTING-EDGE MIXED REALITY INTEGRATION

Tactile accuracy:

Simultaneous view of the physical cockpit and the virtual world.

Spatial awareness:

Real sense of vehicle scale and speed thanks to high-resolution peripheral vision.

BRAND-NEW VEHICLES TO ADVANCED SIMULATORS

Data-driven modeling:

Static and dynamic measurements for 1:1 physics.

Reverse engineering:

Accurate replication of complex electronic interfaces.

NETWORKED TRAINING & MISSION COORDINATION

Collective tactics:

Group driving, radio procedures, and coordinated firing capabilities.

Dynamic complexity:

MSE and CGF units react in real-time to trainee decisions, creating evolving battlefield dynamics (ambushes, urban combat).

Scalable doctrine:

Rapidly design missions that mirror current field requirements and reinforce doctrinal response.



IMMERSIVE TRAINING EXPERIENCE

By providing high-fidelity simulation, Exail empowers land forces to develop the skills and confidence needed to navigate complex terrains and operational scenarios. Coupled with mixed reality headsets, our simulators offer an unprecedented level of immersion, elevating military training within a risk-free environment.

REALISTIC SCENARIOS & REAL-TIME INTERACTION

Lifelike environments:

Weather, day/night cycles, and varied terrain.

Dynamic assets:

Interaction with pedestrians and third-party vehicle AI.

Tactical hurdles:

Checkpoints, road blockages, IED threats, or gunnery attacks.

TAILORED TO ANY VEHICLE PLATFORM

Multi-platform simulation:

Hands-on experience across diverse vehicles, including light tactical, MBTs, and transport trucks.

Custom interfaces:

Specific exercises to master advanced electronic functions and onboard systems.

AFTER ACTION REVIEW: TACTICAL DEBRIEFING

Multi-angle 3D replays:

Interior/exterior views, aerial perspectives, and pedestrian viewpoints.

Telemetry display:

Speed, acceleration/braking, fuel consumption, and traffic violations.



1

Independent scenario management

Protect your tactics with the **Mission Scenario Editor (MSE)**. Instructors can develop and update classified mission profiles without external support, ensuring your training doctrine remains private and adaptable to evolving threats.

2

From simulation to the field

Unlike purely virtual systems, our **Mixed Reality (MR)** bridge preserves physical muscle memory. Trainees interact with authentic hardware controls while immersed in a 360° tactical environment. This high-fidelity approach ensures that skills developed in the simulator transfer directly to the operation of the actual armored vehicle.

WHY CHOOSE EXAIL?

5

Deployable & interoperable

Engineered for seamless integration into modern defense frameworks.

Cyber-hardened:

Compliant with rigorous data protection and security standards.

HLA/DIS compliant:

Native support for networked C4I integration and multi-platform joint exercises.

3

Rapid adaptation to new fleets

Align simulator availability with new hardware delivery. Utilizing **Reverse Engineering** and data-driven modeling, we develop high-fidelity "Digital Twins" for new vehicle platforms ahead of industry timelines. This ensures crew readiness and tactical proficiency before the first vehicle is even fielded.

4

Resource optimization

Maximize fleet availability while reducing total cost of ownership. High-intensity training drills are conducted in a simulated environment, eliminating fuel. This approach significantly reduces mechanical wear, preserving your primary vehicle fleet for operational deployment rather than routine training cycles.