



# VEHICLE SIMULATOR

## REALISTIC & HIGH FIDELITY TRAINING

Simsoft can produce vehicle simulators from wheeled vehicles to heavy tracked vehicles

### Tracked Vehicles

- Tank
- Artillery Gun
- Armored Personnel Carrier
- Construction Equipment

### Wheeled Vehicles

- Shortland
- Cobra
- Panzer
- Lorry/Truck
- Armored Vehicles



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## Visualization (Image Generation)

- Up to 6 channel with single system
- Weather effects (Rain, snow, fog)
- Thermal and IR/FLIR camera visualization
- Multiple mirror visualization
- Explosion/Smoke/Fire visualization



## Artificial Intelligence

- Realistic behaviour of civilian vehicles, pedestrians, motorcycles, etc.
- Realistic behaviour of terrorist on different terrain conditions
  - Rocket usage
  - Grenade usage
  - Remote controlled bomb usage
- Behaviour configuration
  - Traffic rule violation ratios
  - Lane change behaviours
- Script based behaviour description
  - Event trigger definition
- Custom behavioural state diagram description with XML and scripts



## Scenario Creation & Management

- 2B map tactical display
- 3B visual display
- Free form view to scene
- Attach a specific object
- Add/Remove simulation objects to scenario
- State diagram editing for each object
- Behaviour script editing
- Dynamic loading of different scenarios
- Saving current scenario status
- Load, play, pause simulation objects to scenario
  - Add/Remove simulation objects to scenario
  - Give commands (stop, start, follow path, etc.) to scene object
  - Instructor controlling of user controlled or AI objects



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## High Fidelity Vehicle Dynamic

- Vehicle properties
- Gears
- Gear ratios
- Motor power
- PRM-Torque curve

## Debriefing and Analyses

- Vectorial recording and playback of all events
- Record/Playback of visuals, sounds
- Motion platform data
- Automatic tagging
- Manuel tagging
- Replay individual or all tags
  - Free form view to scene
  - Attach a specific object

## Hardware Specification

- Real vehicle instrumentation
- Usage of real gear, throttle, clutch, break controls
- Usage of real dashboard with all displays
- Mocap cabin
- Special Input/Output sensors usage
- Ergonomic instructor console

## Hardware Specification

- 2DOF, 3DOF and 6DOF motion platform integration
- Realistic motion simulation
  - Slopes
  - Breaks
  - Acceleration
  - Crash
- Active motion platform during replay





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