

# AI.IMPLANT

ACCURATELY SIMULATE CROWD & VEHICLE BEHAVIOR WITHIN URBAN ENVIRONMENTS

## AWARD WINNING MIDDLEWARE

- AI.implant is the only AI middleware to be awarded the Frontline Award... twice.

Game Developer Magazine's FRONTLINE Award: Best Middleware 2006

Game Developer Magazine's FRONTLINE

Award: Best Art Tool 2002

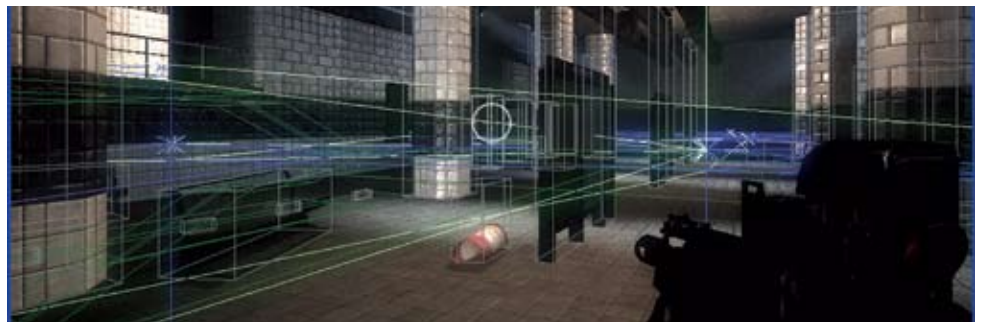
- AI.implant is the trusted AI solution for such companies as:  
EA, Midway, Lockheed Martin, FATS, Krauss-Maffei Wegmann, SAIC, Institute of Creative Technologies and L-3 Communications
- AI.implant is an open toolset with various levels of pathfinder access that can be updated and changed for your specific needs
- Complete middleware solution for Windows and Linux
- Dozens of out-of-the-box behaviours, sensors & scripts  
C++ Software Development Kit (SDK)
- Development Environment (AI.DE). Deep Integration with STAGE Scenario & Unreal Engine 3. Even non-programmers can create variety of complex intelligent behaviors

## ARTIFICIAL INTELLIGENCE FOR SIMULATION

AI.implant is a production-proven Artificial Intelligence software and SDK for the training & simulation market. With visual behavior authoring and debugging tools, users can create vehicular and human agents for simulation projects that easily scale from a single intelligent entity to large crowds with autonomous and group behaviors. AI.implant makes it easy to create and control all entities in any complex simulation.

Accurately simulate crowd and vehicle behavior, AI.implant is suited for urban training & simulation projects requiring realistic and dynamic environments for urban warfare training. Offering 3D entities capable of non-doctrinal, complex, and unpredictable behavior, AI.implant is the smart way to make any existing simulation better.

By increasing realism and making it easier to create entities with complex intelligent behavior, AI.implant is advancing the state of visual simulation. Offering virtually instant crowds and clutter, as well as sophisticated single entity and autonomous/emergent behaviors, AI.implant ensures greater fidelity in immersive simulations. This fidelity is crucial for simulating UAV aerial tracking, for urban operations training, and for making accurate and reliable evacuation plans and tests for non-lethal weapons and crowd dispersal mechanisms. As a commercial-off-the-shelf (COTS) middleware product, AI.implant integrates seamlessly into existing pipelines and simulation engines and greatly increases the robustness of any simulation through its user friendly development and debugging tools.



We found the AI.implant SDK flexible enough to meet the demands of our developers as well as current and future customers alike.

- Udo Holländer, Training & Simulation,  
Krauss-Maffei Wegmann

#### Open And Extensible

AI.implant is an open toolset with various levels of pathfinder access that can be updated and changed to meet any scenario's specific needs.

C++ API and header files

Pathfinding events

Various levels of API access

Extensible, open API

#### Complete Middleware Solution

The C++ SDK enables developing cutting-edge 3D applications. AI.implant contains all of the tools required for visual AI authoring and debugging:

Runtimes for Windows and Linux

Development Environment (AI.DE)

Deep tool Integration with STAGE Scenario and Unreal Engine 3

OpenFlight and Creator support

Plug-ins for Autodesk 3ds Max and Maya

#### Realtime & Scalable.

AI.implant is engineered to be real-time and memory efficient for large character populations. Multi-processor and multi-threaded.

#### Integrated Into Any Simulation Engine

Development and debugging tools. Integrate AI.implant into applications with a minimum amount of programmer effort.

## DYNAMICS AREA BASED PATHFINDING

Dynamics area-based pathfinding, is a powerful physics-aware dynamics navigation that can respond to unpredictable changes in the simulation physics. An area based "map" for AI enables entities to move naturally, not robotically, within the defined area. Correlation issues and/or network generation nightmares are eliminated because AI.implant uses terrain data for pathfinding. Complex dynamic obstacle avoidance strategies prevent characters from running into each other or from getting stuck while pathfinding.

Visit [www.presagis.com](http://www.presagis.com) for more information.

## NEXT-GEN SIMULATION

AI.implant helps developers to enhance realism by creating non-scripted rule-based doctrine that allows to characters to create unique and varied paths instead of simply following pre-scripted scenarios. Using AI.implant, simulation developers can create dynamic environments as well as intelligent entities who are so aware of their surroundings that they can make informed decisions based on input from any given situation.

