

GDC 2009

CUDA and Multi-Core Gaming: Lessons from the Trenches

NVIDIA Corporation

Supplemental videos:

- Video clips provided show AI CUDA simulation playback; note the frame rate depicted is for the graphics (rendering) process.
- Make sure to install Divx codec (<http://www.divx.com/>) for playing the clips.
- Notes on simulation clip content:
 - *Simple* - four agents moving towards a goal diagonally across each other, bypassing an obstacle in the middle [1.5 MB].
 - *Car* - twelve agents averting collision with a moving obstacle of a velocity orthogonal to the agents flow [0.7 MB].
 - *Robots* - 24 agents maneuver over an area filled with polygonal obstacles, towards a base niche [2.2 MB].
 - *Circle* - 32 agents on a circle move to their diametrically opposite position by giving the right of way [3.0 MB].
 - *Narrow* - four groups of 25 agents each move in antipode, forced to pass through a narrow corridor [5.8 MB].
 - *Stadium* - 245 agents entering a stadium through four gates and spreading towards forming a textual pattern [11.7 MB].
 - *Crosswalk* - four groups of 100 agents each form straight lanes as they cross each other on a walkway [19.0 MB].
 - *Evacuation* - 500 agents have to evacuate an office floor and escape through two narrow exits [16.5 MB].