

# Signature Analytics LLC Wins New Business Development Contract with Software from AGI

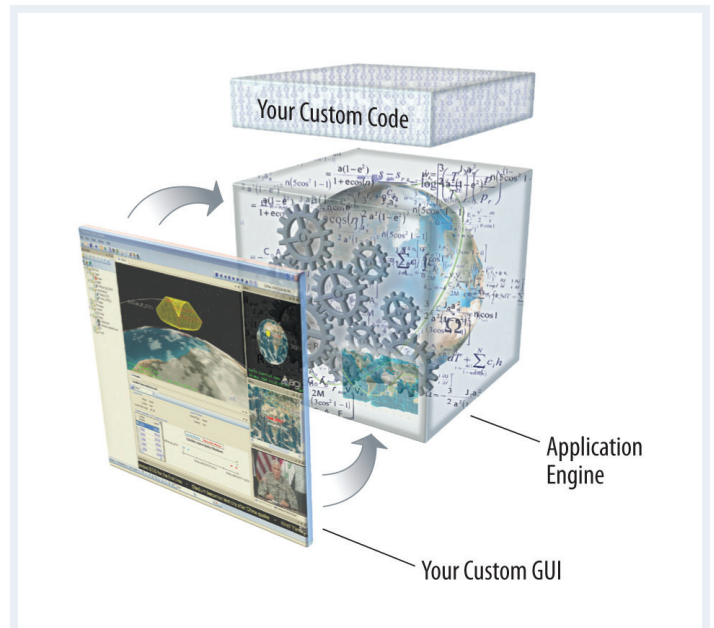
## Defense Contractor Wins Feasibility Study with AGI Support

**TARGET ACQUIRED:** In missile defense operations, optimal allocation of interceptors against multiple threats is critical. To address this, Signature Analytics LLC of Alexandria, Virginia conducted a six-month Phase 1 feasibility study under contract to the Missile Defense Agency. The purpose of the study was to demonstrate the benefit of mathematical resource-allocation algorithms.

**TARGET LOCKED:** The defense contractor wrote custom code to integrate STK, STK/Analyzer, STK/Scheduler, and STK/Missile Modeling Tools into a weapon allocation solution. "The ability to integrate custom code with STK tools was critical to accomplishing the study," said Signature Analytics' lead developer, Jerry Ruckstuhl. Signature Analytics' "Defender" code computed battlespace access constraint and fed weapon-target access into STK, which ingested the data and quickly provided visualization and analysis of the missile battle scenario. Defender algorithms computed optimization details, shot opportunities, target priorities, resource costs, engagement lethality, and collateral damage risk that STK/Scheduler used to produce optimized engagement solutions. AGI's Interceptor Flight Tool (IFT)—a module included in STK/Missile Modeling Tools—received engagement feasibility requests from Defender and returned results that Defender could evaluate for optimal allocation.

"Without AGI software, it would have been impossible to do what we did in such a short time. Because of it, we were able to examine many threat scenarios and conduct rapid prototyping of missile defense engagement scheduling in a short study."

— DR. SHAOANN SHON, PRINCIPAL INVESTIGATOR,  
SIGNATURE ANALYTICS



By integrating AGI's software with its own custom framework, Signature Analytics produced a feasibility study on a short turnaround and won a follow-on contract.

When Signature Analytics LLC responded to a challenge to demonstrate new concept in a limited time and on a tight budget, they used AGI software to accelerate development and stay focused on their own unique competencies. As a result, they won new business and were awarded a follow-on contract in order to continue development.

**A CONFIRMED HIT:** AGI's off-the-shelf capability eliminated the time and cost of developing the majority of the software code, which allowed Signature Analytics to focus on its expertise and produce a solution in six months. By leveraging AGI's broad analysis software base, Signature Analytics quickly demonstrated the value of their approach and was selected for a follow-on contract award.