

**TRAJECTORY GENERATION**

Generates high-fidelity ballistic and hypersonic trajectories using customizable dynamics models, constraints, and advanced mathematical methods. Designed to rapidly produce realistic kinematic data sets for analysis, simulation, and mission planning.

**ENGAGEMENT OPTIMIZATION**

Automated command and control determining optimal weapon-target pairing based on user-defined objective functions. Athena applies proprietary optimization algorithms to generate real-time engagement strategies and maximize mission effectiveness.

**TRACKING & FUSION**

Containerized tracking and fusion service integrating 2D angle-only measurements with 3D track states to produce continuous, multi-phenomenological tracks. Built to support live test events and operational environments, including integration with UCI message protocols.

**AI-ENABLED DIGITAL  
TRANSFORMATION ENGINE**

AI-enabled platform automating software architecture development, ontology mapping, software adapter generation, and documentation creation. Designed to deliver secure, customized digital threads in weeks not years, supporting deployment as a containerized platform or hybrid service for sensitive environments.

**SUPPLY CHAIN ANALYTICS &  
LOGISTICS ENVIRONMENT**

Davidson-developed, AI-enabled supply chain platform transforming fragmented logistics data into actionable intelligence. SCALE delivers predictive analytics, accurate forecasting, and real-time visibility through a unified interface, empowering a mission-ready supply chain ecosystem. Now under contract with U.S. Air Force.

**SIMULATION PLATFORM FOR  
ADVANCED DIGITAL ENGINEERING**

Event-driven simulation framework enabling rapid modeling and simulation, Monte Carlo execution, and high-quality synthetic data generation for machine learning training. Includes modular representations of threat trajectories, RF/IR sensors, tracking systems, interceptors, and command and control logic within integrated operational environments.

## — WHO WE ARE

## Built for *speed*. Designed for *integration*.

Davidson's software tools are engineered to operate within complex, evolving mission environments — where integration, security, and speed are critical to operational success. Each solution is designed to deploy rapidly, integrate seamlessly, and scale with mission needs.

### 01 MODULAR

Rapidly configurable to meet evolving mission requirements without reengineering core systems.

### 02 SECURE

Deployable within classified and sensitive environments, supporting mission assurance at every level.

### 03 INTEROPERABLE

Designed to integrate seamlessly with existing architectures, data sources, and operational workflows.

### 04 ACCELERATED

From concept to capability in weeks not years — enabling faster deployment and decision-making.

#### HEADQUARTERS

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#### INQUIRIES

**Start the conversation**

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## Innovate with Purpose. Deliver with Speed. Empower the Warfighter.