

# JAMIDS

**DESIGN AIR DEFENSE OF  
TOMORROW**

**BE PREPARED!  
WITH OUR JOINT  
AIR & MISSILE DEFENSE  
SIMULATION SOLUTION**

**PROVIDES A FLEXIBLE SIMULATION  
ENVIRONMENT FOR ASSESSING  
YOUR JOINT AIR AND MISSILE  
DEFENSE NEEDS AND CAPABILITIES**

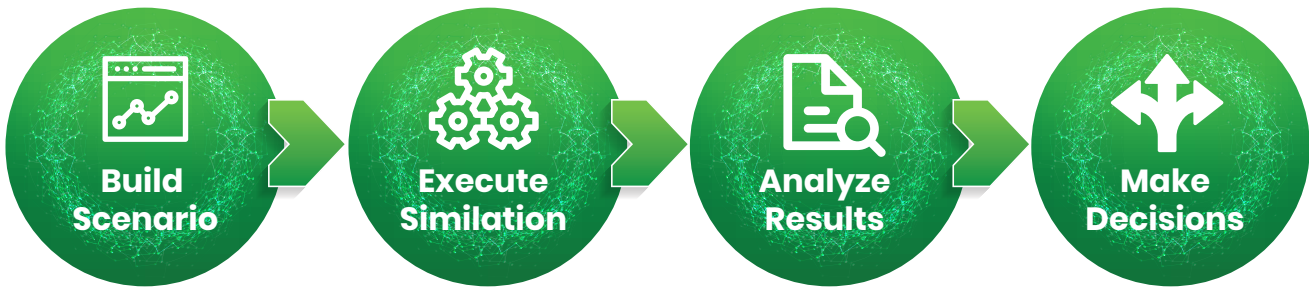
## OVERVIEW

JAMIDS is CTech's complete simulation solution, a realistic and constructive simulation system that simulates Joint Air and Missile Defense operations with battlefield, maritime and airspace activity.

JAMIDS is used to assess the effectiveness of defense systems against the air and missile threats.

JAMIDS is used by operational commanders and analysts to model the performance and predict the effectiveness of TBM's, Cruise Missiles, air-to-ground and surface-to-air missiles, platforms, communication systems, and sensors in a variety of user-developed scenarios.

Whether evaluating the effectiveness and performance of new or existing defense systems and subsystems, JAMIDS provides a flexible simulation environment for answering your Joint Air and Missile Defense questions.



## PRODUCT DESCRIPTION

JAMIDS is an extensive modular simulation environment targeted towards joint air and missile defense. It has extensive analysis capabilities. Scenarios composed of highly detailed air defense systems and various threat types can be simulated. JAMIDS was developed to analyze the effectiveness of complex air defense systems under various conditions including the probability of kill and damage impacts of high fidelity missile models.

JAMIDS comes with simulation model library including hundreds of battlefield units and systems. Due to its flexibility and open architecture, it is also possible to replace existing models with your own models. JAMIDS provides an advanced user interface that allows users to build scenarios by positioning forces, creating routes and waypoints and assigning tasks. JAMIDS serves as a battle lab, allowing research and experimentation for systems and doctrines.

## FEATURES

- Analysis Tool for Planners and Decision Makers
- Constructive Simulation Tool
- Plugin Based, Flexible and Open System
  - Architecture XML Based Modeling Language
- Discrete and Continuous Event Simulation
- State Oriented Programming Paradigm
- HLA Compliant (EEE 1516)
- Networked Multi-station Configuration
- Runs on PC-based COTS Equipment
  - ▶ DTED
  - ▶ Raster
  - ▶ Vector
- Coordinate Systems
  - ▶ Geographic
  - ▶ GeoRef
  - ▶ UTM
  - ▶ MGRS
- Cartesian
- 2D and 3D Visualization
- MIL-STD 2525( Tactical Symbolology
- Multi Language Support
- Typical Scenario Library
- On The Fly Model and Event Injection
- Parameterized Weapon Dynamics
- Highly Configurable Models

## TOOLS

### SIMULATION EXECUTION TOOL

- Agent Driven Simulation System
- Execution Control Panel
- Local Execution
- Distributed Execution (HLA)
- Multiple Execution
- Collects Trace Records
- Displays Common Tactical Picture

### SCENARIO DEVELOPMENT

- Scenario Editor
- Scenario Consistency Check
- Scenario Import/Export
- Template Scenarios
- Typical Scenarios
- Integrated GIS

### MODEL DEVELOPMENT

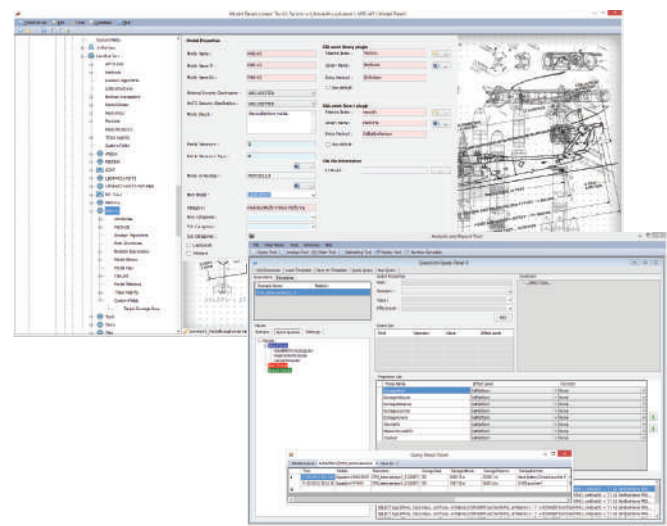
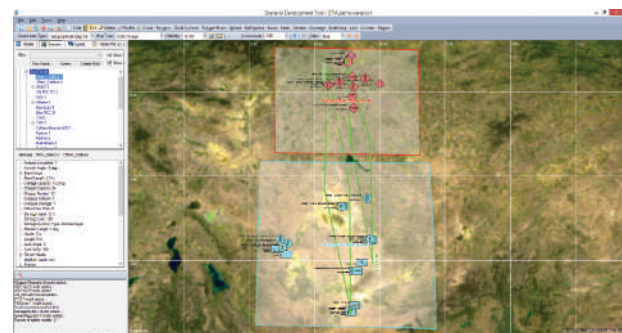
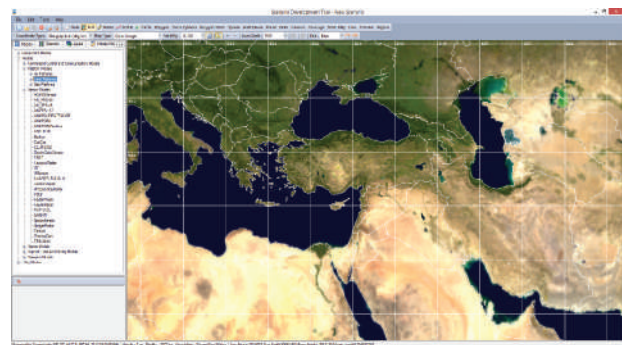
- Create New Models
- Modify Existing Models
- Inheritance and Model Hierarchy
- High Level of Realism in Weapon System Modeling

### ANALYSIS AND REPORTING

- After Action Review
- Debriefing
- Replay
- Report Generation

## MAJOR FUNCTIONALITY

- Accurate Representation of Air Defense Systems
- Extensive Modelling of Firing Doctrines
- Air Control Order (ACO) Definition and Execution
- High Fidelity Dynamic and Kinematic Missile Modeling
- Mission Types
  - ▶ Air to Ground Attack
  - ▶ Suppression of Enemy Air Defense
  - ▶ Recce
  - ▶ Armed Recce
  - ▶ Close Air Support
  - ▶ Tactical Air Support for Maritime Operations
  - ▶ Planned Close Air Support
  - ▶ Planned Tactical Air Support for Maritime Operations



- Automatic Air Tasking Order (ATO) Generation and Execution
- Manual ATO Definition and Execution
- Import/Export ATO
- Terrain Analysis
  - ▶ Line Of Sight
  - ▶ Sensor Coverage Maps
  - ▶ Wireless Coverage Maps
  - ▶ Terrain Profile
- Engagement Rules
- Multi-Tiered Air and Missile Defense Rules
- Meteorological Conditions
- Behavior Scheduling
- Damage Assessment Functions



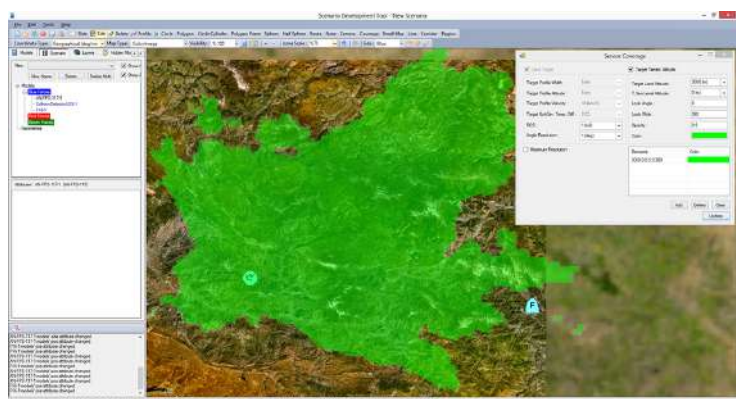
## USE CASES

- Effectiveness Analysis
  - ▶ Weapon System and Subsystem Analysis
  - ▶ Doctrine Performance Analysis
- Tactics Evaluation
- Mission Planning
- Tactical/Command Sta Training
- Probability of Kill (PK) Calculation
- Decision Support
  - ▶ Launcher Locations
  - ▶ Sensor Locations
  - ▶ Communication System Locations
- Fire Doctrine Selection
- Weapon Type Selection
- Concept Exploration and Validation



## MODEL LIBRARY

- Command and Control Models
- Sensor Models
- Communication Models
- Platform Models
  - ▶ Air Platforms
  - ▶ Land Platforms
  - ▶ Sea Platforms
  - ▶ Space Platforms
- Weapon Models
- Simulation Management Models
- Environment Model
- LOS Server
- Damage Model
- Collision Detection
- Operator Console
- Support Units and Facility Models



## BENEFITS

- Improve Air Defense Capabilities
- Reduce Acquisition Costs
- Reduce Live Exercise Costs
- Reduce Training Costs
- Reduce Design Costs
- Reduce Development Costs

