Institute for Scientific Simulation

Infusing Enterprises with
Advanced Modeling & Simulation Technologies

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The ISS Mission

Mission Statement

"Improve Engineering Enterprises through the Use of Advanced Modeling and Simulation Software"

Our Expertise

Modeling and Simulation Software Systems

Systems Engineering & Engineering Software

Artificial and Computational Intelligence

Intelligent Information Acquisition & Management

Consulting & Training in Advanced Technologies

ISS Senior Partners

- **David M. Russell,** ▮▮▮▮.

  Leading Software Developer & Scientist

- **F. Brett Berlin**

  Outstanding Computer Technologist

- **Michael D. Williams,** ▮▮▮▮.

  Expert in Artificial Intelligence Software

- **Christine Maxwell**

  Visionary Designer of Internet Technologies

- **Arana Greenberg**

  Pioneer of New Media Technologies

ISS Corporate Partners

- **Strategic Insight, Ltd.**

  Government Contractor in Executive Consulting

- **CSC (Computer Sciences Corp.)**

  Leading Enterprise Systems Contractor

- **SAIC (Science Applications Int'l Corp.)**

  Leading Government Systems Integrator

- **Launchspace, Inc.**

  Leading Group of Spacecraft Designers

- **Aerospace Consulting Group, Inc.**

  Outstanding Talent Resource for the Aerospace Sciences

ISS Products Under Development

- **ACES™**

  Advanced Collaborative Engineering System

- **Mentor-Based Software Systems**

  On-Demand Web-Based Training & Learning Tools

- **Compound Media Interfaces**

  Integrated Multi-Media Interfaces for Software Tools

- **Web-Based Simulators**

  Simulators Using Expert Systems and Knowledge Databases

- **Intelligent Automation Tools**

  Automated Tool Interoperability Using Intelligent Agents

ACES™
Advanced Collaborative Engineering System

** Features **

- **Intelligent Modeling & Simulation System**
- **Universal Systems Application Interface**
- **Dynamic Objects**
- **Emergent Systems Behavior**
- **Advanced Performance Modeling**
- **Rich Systems Collaboration**

ACES™
Advanced Collaborative Engineering System

** Benefits **

- Integrates Enterprise Resources
- Automates Redundant Human Activities
- Captures Enterprise Intellectual Capital
- Improves the Systems Engineering Process
- Reduces Time to Market
- Reduces Program Costs

ACES Case Study
IMAGESAT: A Real-World Satellite Design Project

- **Who:** Naval Research Lab (NRL) and NASA Jet Propulsion Laboratory (JPL)

- **Project:** Redesign Communications Satellite

- **Objective:** Perform Engineering Design Trade-Off Studies with Fixed Cost, Mass, Power Constraints

- **Results:** Matched NRL PDR Results after 5 and 1/2 Weeks (NRL - 18 Mo.) & Met JPL Constraints

- **Outcome:** NRL Ordered GENSAT Alpha for $150,000

ACES Opportunities

- **On-Going Contract Business Development:**

  Department of Defense

  U.S. Navy

  U.S. Air Force

  U.S. Intelligence Agencies (NSA, CIA, FBI, DIA)

  NASA

- **Near-Term Markets:** Commercial Space & Aerospace

- **Future Markets:** Engineering Markets

  Communications, Education, others

ISS Action Plan

- Current Focus:

    - Build ISS Team & ISS Recognition

    - Generate Early ISS Contract Business

    - Develop ACES™ (Next Generation of GENSAT)

- Action Plan:

    - Close Initial ISS Government Contract Business

    - Complete Series B Financing

    - Complete & Demonstrate ACES Prototype