



Extensible Modeling and Simulation Framework (XMSF) Demonstrations

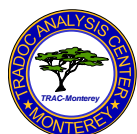
Naval Postgraduate School (NPS)

Modeling, Virtual Environments and Simulation (MOVES) Institute

Interservice/Industry Training, Simulation and Education Conference (IITSEC) Booth #575

featuring America's Army, with XMSF Partners and Contributors:

George Mason University (GMU), Planet 9 Studios, Yumetech, and the Web3D Consortium



You are cordially invited to visit the NPS MOVES Institute XMSF booth (#575) on the IITSEC show floor in Orlando Florida, 1-4 December 2003. Students, faculty and partners are presenting numerous project demonstrations. Our use of open standards and Web services illustrates the capabilities of the new Web-enabled Modeling & Simulation initiative called the Extensible Modeling & Simulation Framework (XMSF). <http://www.MovesInstitute.org/xmsf>

XMSF efforts are producing a composable set of standards, profiles and recommended practices for web-based modeling & simulation (M&S). Open standards, XML-based markup languages, Internet technologies and cross-platform cross-system Web services are enabling a new generation of distributed M&S applications to emerge, develop and interoperate. Working groups in the Simulation Interoperability Standards Organization (SISO) and Web3D Consortium are laying a strong foundation for future growth.

The XMSF booth (#575) is located next to the Defense Modeling and Simulation Office (DMSO) booth (#669), the primary sponsor of the XMSF program. Partner efforts include the ODU/VMASC booth (#931) and SAIC (booth #801 plus DMSO booth #669). DMSO has declared that the Web services approach is a key technology strategy for revolutionizing military modeling and simulation and for connecting to tactical command and control systems.

The XMSF booth also showcases *America's Army*, the highly acclaimed networked multi-player game developed and distributed by the Army. COL Casey Wardynski, LTC George Juntiff and MAJ Bret Wilson describe development of the game and demonstrate its operation. <http://www.AmericasArmy.com>

Thanks to DMSO, the Army Game Project, and Planet 9 for their co-sponsorship of the XMSF booth during the conference. <http://www.iitsec.org>

Thanks to the following project sponsors: Defense Modeling and Simulation Office (DMSO), Joint Advanced Distributed Learning Co-Laboratory (JADL Co-Lab), Naval Air Systems Command (NAVAIR), Defense Threat Reduction Agency (DTRA), USAF Joint Synthetic Battlespace (JSB), Joint Forces Command (JFCOM) J9, OPNAV Assessment Division (N81), Naval Undersea Warfare Center (NUWC), U.S. Army TRADOC Analysis Center Monterey (TRAC-Monterey), Sonalysts, Inc. and Web3D Consortium.

We are proudly showing the following demonstrations and presentations in the XMSF booth.
Questions welcome, demonstration appointments available upon request: xmsf-contact@movesinstitute.org

Extensible Modeling and Simulation Framework (XMSF)

Dr. Don Brutzman, NPS MOVES Institute <http://www.MovesInstitute.org>

Extensible Battlespace Management Language (XBML) and Selectively Reliable Multicast Protocol (SRMP)

Dr. J. Mark Pullen, George Mason University (GMU) <http://netlab.gmu.edu>

**Deformable Surfaces: Distributed Real-time Destruction of Building Models
using Ultra-High Resolution Building (UHRB) Format and X3D**

MAJ Nick Wittwer, TRADOC Analysis Center, Monterey (TRAC-Monterey) <https://www.trac.nps.navy.mil>
Dr. Niki Goerger, U.S. Army Engineer Research and Development Center (ERDC) <http://www.erdcd.usace.army.mil>
Alan Hudson, Stephen Matsuba and Justin Couch, Yumetech, Inc. <http://www.yumetech.com>
David Colleen and Michael Pontecorvo, Planet 9 Studios <http://www.planet9.com>

Web-based 3D Modeling of Large-Scale Urban Areas

David Colleen, President, Planet 9 Studios <http://www.planet9.com>

Xj3D: Open Source Implementation of the X3D Graphics Language

Alan Hudson, Stephen Matsuba and Justin Couch, Yumetech, Inc. <http://www.xj3d.org>

**Rapid Building Generation (RBG): Conversion of CADD files to OneSAF Format
in an End-to-End Process with Deformable Surfaces**

Mike Pace and Barry White, U.S. Army Engineer Research and Development Center (ERDC) <http://www.erdcd.usace.army.mil>

Online Mentors for Language Training and Cultural Familiarization

Jeffrey Weekley, MOVES Institute Research Associate and Computer Science Masters student
Dr. Ed Sims, Chief Technology Officer, Vcom3D, Inc. <http://www.vcom3d.com> and Dr. Luba Grant, Defense Language Institute (DLI)

Scenario Authoring and Visualization for Advanced Graphical Environments (SAVAGE)

On-Line Library of X3D Military Models and Authoring Tools, online at <http://web.nps.navy.mil/~brutzman/Savage/contents.html>
Jeffrey Weekley, NPS

Flexible Asymmetric Simulation Toolbox (FAST): XML Data Interchange across a Family of Simulations

Curtis Blais, NPS MOVES Institute Research Associate and MOVES Ph.D. student
Randy Jones, NPS MOVES Institute and John Hiles, Research Associate Professor, NPS MOVES Institute

Developing Web-based Naval Simulation System (NSS) and Discrete Event Simulation (DES) SimKit Library

N81-sponsored Project to Transform Analytical Modeling
Curtis Blais, NPS MOVES Institute and Dr. Arnie Buss, NPS MOVES Institute
John Ruck, Rolands & Associates Corporation <http://www.rolands.com>

America's Army: Award-Winning 3D Game for Recruiting and Training

COL Casey Wardynski, LTC George Juntiff and MAJ Bret Wilson USA

Web-based 3D Visualization of Tactical Databases for Operational Planning

CPT David Lowery, USMC, NPS Computer Science Masters student (for graduate MAJ Claude Hutton, USMC)

XMSF Terrain Services and Terrain Following

LCDR Duane Davis, USN, NPS Computer Science Ph.D. student
(for graduates CPT James Neushul, USMC and CPT Brian Hittner, USA)

Anti-Terrorism / Force Protection (AT/FP) Planning Tool

LT Scott Rosetti, USN(R) NPS MOVES Masters student (for graduate LT James Harney, USN)

Sonar Visualization for Multi-Platform Net-Centric Undersea Warfare

LT Scott Rosetti, USN(R)

Autonomous Underwater Vehicle (AUV) Workbench

Chin Siong Lee, Singapore, NPS Computer Science Masters student

XML-based Tactical Chat

Chin Siong Lee, Singapore, with Don McGregor, MOVES Institute and LT Dan Devos, USN, NPS MOVES Masters student

Web3D Consortium: Emerging-Technology Partnerships and Membership Opportunities

Dr. Anders Jepsen, Executive Director <http://www.web3d.org>