

Spring Simulation Interoperability Workshop 2011

(2011 Spring SIW)

**Boston, Massachusetts, USA
4 – 8 April 2011**

ISBN: 978-1-61782-424-1

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2011) by SISO - Simulation Interoperability Standards Organization
All rights reserved.

Printed by Curran Associates, Inc. (2011)

For permission requests, please contact SISO - Simulation Interoperability Standards Organization
at the address below.

SISO - Simulation Interoperability Standards Organization
1 Donovan Drive
Bedford, MA 01730

Phone: (781) 271-9872
Fax: (781) 271-9874

Siso-help@sisostds.org

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2634
Email: curran@proceedings.com
Web: www.proceedings.com

TABLE OF CONTENTS

11S-SIW-005 - APLET's Lessons Learned on C4I-simulation Interoperability	1
<i>L. Khimeche, J. Herbinet, P. Champs, X. Cuneo</i>	
11S-SIW-008 - How is M&S Interoperability Different from Other Interoperability Domains?	12
<i>A. Tolk, S. Diallo, J. Padilla, C. Turnitsa</i>	
11S-SIW-009 - Verifying Error Models Using the Pearson Chi-Square Test	21
<i>V. Skowronski</i>	
11S-SIW-011 - Global Force Management Data Initiative – The Next GPS	26
<i>R. Sprinkle, C. Black, C. Leeds</i>	
11S-SIW-012 - Serious Games: Fun vs. Reality	38
<i>M. Lacay, J. Casey</i>	
11S-SIW-014 - Status Report: A Review of the Critical Needs for Interdisciplinary Standards within the HSCB User Community	46
<i>K. Byrd</i>	
11S-SIW-016 - Process Oriented Development for Effective Data Analysis of Military Distributed Simulation	48
<i>Y. Minkov, D. Deutch, M. Novaselski, D. Dor, A. Peleg, E. Kiperman</i>	
11S-SIW-017 - A Credibility Assessment Scoring (CAS) Process for Mission Risk Management	57
<i>S. Colombano, W. Lin, M. Lowry</i>	
11S-SIW-019 - OneSAF Implementation on High Performance Computing Systems	67
<i>C. Bouwens, O. Hasan, R. Smith, J. Li, J. Poole, S. Lopez, T. Dere, A. Paschai, P. Wiegand</i>	
11S-SIW-020 - LVC Architecture Study	78
<i>T. Berg, N. Reus, J. Voogd</i>	
11S-SIW-021 - Using Decision-making Techniques in Support of Simulation Training Transfer	88
<i>J. Bachman</i>	
11S-SIW-022 - Symbiotic Simulation for Planning and Monitoring C2 Systems	99
<i>J. Lee, H. Lim, K. Choo, J. Tamilchelvamani</i>	
11S-SIW-023 - Interoperating Between Levels of Fidelity	106
<i>L. Marrou, K. Nielsen</i>	
11S-SIW-024 - Gateway Concepts for Enhanced LVC Interoperability	113
<i>R. Lutz, D. Drake</i>	
11S-SIW-025 - LVCAR Enhancements for Using Gateways	120
<i>M. O'Connor, D. Cutts, K. Lessmann</i>	
11S-SIW-026 - Facilitating Interoperability and Standards for Simulators in Healthcare	129
<i>B. Goldiez, R. Zawadski, J. Anton, P. Garrity</i>	
11S-SIW-027 - Toward Data Interoperability for HSCB Models	149
<i>K. Morse, J. Schloman</i>	
11S-SIW-028 - An HLA-Based Approach to Quantify Achievable Performance for Tactical Edge Applications	159
<i>G. Comparetto, V. Lakshminarayan, M. Mirhakkak, E. Page, N. Schult, D. Yoo, J. Tufarolo, B. Rivera</i>	
11S-SIW-029 - An Emerging DoD M&S Enterprise Data Strategy	170
<i>D. McGroder, J. Lashlee</i>	
11S-SIW-031 - Best Practices Guide for Verification, Validation, and Accreditation of Legacy Modeling and Simulation	179
<i>A. Anderson, K. Heltemes, C. Parker, B. Wood, G. Figart</i>	
11S-SIW-032 - Lessons Learned from the Pilot Development of a SOA-based LVC Interoperability Framework	185
<i>W. Beebe, R. Crutchfield, L. Schroeder</i>	
11S-SIW-033 - How does the Black Swan Fly ? : Considerations for an HSCB Metamodel	196
<i>W. Riggs</i>	
11S-SIW-034 - Emerging Solutions for LVC Asset Reuse	203
<i>W. Riggs, K. Morse, R. Brunton, P. Gustavson, H. Rutherford, T. Chase, J. Belcher</i>	
11S-SIW-036 - Constructing Bridges between Mission Space Conceptual Models and BOM	215
<i>F. Kucukyavuz, N. Karagoz, O. Demirors</i>	
11S-SIW-037 - HuBSiG: Human Behavior Signal Generation for Clutter and Scenarios	226
<i>C. Turnitsa</i>	
11S-SIW-038 - Critical Infrastructure Layers for Synthetic Environments	233
<i>C. Turnitsa</i>	

11S-SIW-039 - A Taxonomy for Conceptual Models	243
<i>C. Turnitsa, A. Tolk</i>	
11S-SIW-041 - A NATO OPORD Capability for BML	252
<i>J. Pullen, M. Ababneh, S. Singapogu, R. Brown, V. Dobbs</i>	
11S-SIW-042 - Software Reuse for Modeling and Simulation	258
<i>E. Andrew, C. Turnitsa, A. Tolk</i>	
11S-SIW-043 - Dynamic Publish/Subscribe Topics in the Scripted BML Server	268
<i>L. Nicklas, J. Pullen, D. Corner</i>	
11S-SIW-044 - VEVA as German Approach Towards Operationalizing the DSEEP: Overview and First Experiences	274
<i>R. Siegfried, J. Luthi, G. Herrmann, M. Hahn</i>	
11S-SIW-045 - Design and Modeling Techniques for Real-time RTI Time Management	284
<i>J. Chaudron, E. Noulard, P. Siron</i>	
11S-SIW-046 - Environment Data for a High Fidelity Fictitious Continent	294
<i>M. Aasen, A. Gerretsen, S. Skinner</i>	
11S-SIW-047 - Operational Environment Scenario Generation! Aligning MSDL for Planning in an IW Context	305
<i>J. Abbott</i>	
11S-SIW-048 - Developing Human Social Cultural and Behavioral (HSCB) Ontologies to Support Simulations	318
<i>L. Lacy, D. Hartley, P. Works</i>	
11S-SIW-049 - Time Representation and Interpretation in Simulation Interoperability – An Overview	327
<i>M. Karlsson, F. Antelius, B. Moller</i>	
11S-SIW-050 - Cross-Domain Information Sharing in the Joint Training Environment (CDIS-JTE)	335
<i>J. Reed</i>	
11S-SIW-052 - Developing Flexible Discrete Event Simulation Models in an Uncertain Policy Environment	340
<i>D. Miranda, M. Steele, S. Fayez</i>	
11S-SIW-053 - Network Protocol Extensions for Automated Human Performance Assessment in Distributed Training Simulation	347
<i>P. Neubauer, E. Watz</i>	
11S-SIW-054 - LVCAR Enhancements for Selecting Gateways	356
<i>K. Lessmann, D. Cutts, D. Drake, M. O'Connor</i>	
11S-SIW-056 - Visualizing SRML Simulations in X3D	364
<i>J. Keyes, R. Holeton, S. Briscoe</i>	
11S-SIW-058 - Understanding the Value of M&S	370
<i>J. Feinberg, R. Graebener, K. Kaping, M. Meehan</i>	
11S-SIW-059 - Modeling Tools for the Integration of Structured Data Sources	378
<i>J. Venkataramanan, D. Brock</i>	
11S-SIW-060 - Building an Angry Grandmother	392
<i>K. Dill, O. Dreger</i>	
11S-SIW-061 - Management of C4I and M&S Data Standards with Modular OWL Ontologies	404
<i>K. Gupton, S. Diallo, J. Abbott, K. Heffner, C. Blais, C. Turnitsa</i>	
11S-SIW-062 - Reuse of User Interface Components across M&S and C2 Systems	418
<i>J. Day, K. Gupton</i>	
11S-SIW-065 - Scalability of Parallel and Distributed Modeling & Simulation Architectures	426
<i>J. Steinman, C. Lammers, M. Valinski, W. Steinman</i>	
11S-SIW-067 - Schema of the Machine Readable Enumerations Document	439
<i>W. Oliver, P. Ross</i>	
11S-SIW-069 - Towards Multi-Level Security for NATO Collective Mission Training – A White Paper	449
<i>B. Moller, P. Karlsson, T. Hartog, W. Huiskamp, C. Verkoelen, G. Jones, M. Nielsen, I. Stahl</i>	
11S-SIW-070 - Future Technologies and Processes and their Impact in the Domain of Live-Virtual-Constructive Architectures	458
<i>J. Schloman, J. Labin</i>	
11S-SIW-072 - How to Develop True Distributed Real Time Simulations? Mixing IEEE HLA and OMG DDS Standards	470
<i>J. Lopez-Rodriguez, R. Martin, P. Jimenez</i>	
11S-SIW-073 - Verification, Validation, and Accreditation (VV&A): MAGTF Training Simulations Division Updated Process and Status for Training Simulations VV&A	478
<i>M. Woodman, A. Arrieta, F. Cox</i>	

11S-SIW-074 - Towards a Foundational Theory for Validation of Models and Simulation	492
<i>E. Weisel</i>	
11S-SIW-075 - Interoperability of Multiple Autonomous Simulators in Integrated Simulation	
Environments	499
<i>L. Jalali, S. Mehrotra, N. Venkatasubramanian</i>	
Author Index	