2003 Fall Preliminary Agenda

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Sponsored by the Simulation Interoperability Standards Organization
The Holiday Inn International Drive, Orlando, FL
14-19 September 2003

You are invited to participate in the 2003 Fall Simulation Interoperability Workshop (SIW). SISO SIWs address a broad range of modeling and simulation issues, applications, and communities, with the overall goal of identifying and supporting the development of products to facilitate simulation interoperability standards and reuse. SIWs include working sessions addressing interoperability and reuse requirements and issues; tutorials on state-of-the-art methodologies, tools, and techniques; and exhibits presenting the latest technological advances.

As further details become available, they will be posted at **2003 Fall SIW**

2003 FALL SIW FOCUS: Simulation of the Space Operating Environment

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The Fall 2003 Simulation Interoperability Workshop (SIW) will focus on "Simulation of the Space Operating Environment". Topics include challenges and opportunities associated with simulating the wide variety of Space-based assets, operations, and operating environments. These topics are of considerable interest to a variety of M&S application domains (e.g., military, aerospace, communications, astronomy and cosmology, etc.). Simulation interoperability and software reuse are therefore of serious concern to the world's defense establishments, civil aerospace authorities, and associated industrial sectors. Meeting plenary speakers, papers, and workshops will address approaches to standards and interoperability for this diverse and burgeoning simulation application constituency.

WORKSHOP SCHEDULE

The following schedule lists only major sessions and events. Detailed schedules, including sessions and presentation times, will be posted on the SISO web site at **2003 Fall SIW**. Please check this web site frequently as the workshop approaches!

SUNDAY AFTERNOON -- TUTORIAL SESSIONS

SISO's "day before" tutorial program (held on Sunday, 14 September, 1:00 - 5:00 PM EDT) consists of three parallel sessions. A $90 fee will be assessed for those registering for a tutorial to cover the costs of materials, equipment, facilities, and refreshments. Tutorial sessions include:

- **(1) - HLA and FEDEP Tutorials**
    This tutorial package contains two two-hour components:

    IEEE 1516 - The Future of HLA
    This tutorial provides insights into the IEEE 1516 version of the HLA and makes the case as to why organizations should move to this version vs. the HLA Version 1.3. The tutorial starts with an overview of the HLA background and definition and then provides a summary of the HLA IEEE 1516 development process and highlights the improvements

provided by the 1516 version. Next a business case as to why a program should use IEEE 1516 instead of HLA 1.3 is presented. The tutorial then ends with a discussion of what needs to be done to transition to IEEE 1516. This tutorial is aimed at people who need to make an informed decision with respect to which version of the HLA they should use. Some prior familiarity with HLA version 1.3 is assumed.

Insights Into Federation Development Issues
This tutorial addresses distributed HLA Federation development issues. Distributed simulation environments grow increasingly complex in modeling fidelity, scale, and diversity relative to the types of simulations, computing platforms, and networked locations. Distributed simulation environments consist of several components that must be configured and tested prior to a successful federation execution. This tutorial will discuss how a network and its components, the Run-Time Infrastructure software, and simulation applications influence HLA federations. The Federation Development and Execution Process model will be presented as a sound system engineering approach for creating a distributed HLA simulation environment. Finally, the tutorial will highlight tools that can be used to document, troubleshoot, and enhance the performance of an HLA federation.

(2) - Simulation of US and International Command, Control, Communication, Computing, and Intelligence Systems (C4I)
(Francis H. Carr, The MITRE Corp)

This tutorial is designed to provide an introduction and overview to all aspects of C4I within M&S - from Modeling C4I to C4I Interoperability with M&S Systems. C4I is an increasingly important part of the Simulation-Based Acquisition Community (SBA), Concept Development, Experimentation, Testing, Decision Support and Operational Domains. Federated solutions to C4I/M&S interoperability will be described that reuse modular components of existing C4I and M&S. To be able to do so, this tutorial will introduce key Architectures, Data Models and other Standards/Components in both the C4I and M&S domains. A key goal of this tutorial will be to define a common vocabulary and introduce a taxonomy of the various uses of C4I within M&S. At the conclusion of this tutorial, participants will be familiar with the main uses of C4I within M&S, will be able to identify the key components and how they correspond, and will have the conceptual framework to assess and categorize C4I in M&S programs.

(3) - Range System Interoperability using TENA and the IKE 2 Middleware
(Ed Powell, SAIC)

The Foundation Initiative 2010 program is chartered to enable interoperability among ranges, facilities, and simulations in a timely and cost-efficient manner and to foster reuse of range assets and future range system developments. To achieve this vision, FI 2010 is developing and validating a common architecture called the Test and Training Enabling Architecture (TENA), which provides for real-time range system interoperability using the TENA Middleware, as well as interfaces to existing range assets, C4ISR systems, and HLA simulations. The TENA Middleware is being built in a series of prototypes. The current prototype, called IKE 2, has been released to the range community for testing, evaluation, and feedback. This tutorial is intended to provide the attendee with a short overview of the TENA architecture as well as more detailed look at the IKE 2 Middleware, its features, uses, and Application Programmer's Interface (API).

MONDAY MORNING -- SPECIAL SESSIONS (8:30 - 12:00)

● Newcomer's Orientation

The Newcomer's Orientation is designed for those who have not previously attended a SISO Simulation Interoperability Workshop. Its goal is to help new attendees gain maximum benefit from the Workshop and from participation in SISO. In this session, we describe the structure of the Workshop, the overall organization of the Simulation Interoperability Standards Organization, and how to participate most effectively as a SISO member. If this is your first Workshop, this is where you should be on Monday morning.

● Priorities for M&S Standards

This panel discussion is being held at various M&S conferences (e.g., SISO, SCS, ITEC, I/ITSEC). Each session features a distinguished panel of experts from government, industry, and academia, who discuss mid-term modeling and simulation standards needs. The panel discussion will be followed by audience discussion and feedback. Results from each of these sessions will be compiled and briefed back to SISO and to key leaders in government, industry, and academia.

● Simulation of the Space Operating Environment

This session is organized by the Army Space Focus Area Collaborative Team (FACT) and is chaired by COL James Mitcham, TRADOC, Assistant Deputy Chief of Staff Simulations & Analysis. LTC Kurt Woods, Space and Missile Defense Battle Lab (SMDBL), will begin the session with an overview of space operations. Following the introduction, a panel of senior managers responsible for space simulation development and use will comment on their perspectives on space simulation; difficulties associated with current space simulations and representations; and opportunities for development and employment of space simulation standards, processes, or practices. Invited panelists include

- Patricia O'Brien, Air Force Space Command (AFSPC) Space Analysis Division
- Michael Conroy, NASA Kennedy Space Center
- Steven Fox, SMDBL Simulation Development Division Chief
- Thomas Johnson, Vice President, Analytical Graphics Inc. (AGI)
- Sam McNully, Executive Vice President, CG2, Inc.
- Frank Grose, Senior Space Analyst, SAIC.

MONDAY AFTERNOON -- PLENARY SESSION (1:30 - 4:30)

Invited Plenary speakers include

● James W. Kennedy, Director, NASA Kennedy Space Center

In June, Mr. Kennedy was named as the new Director of NASA's Kennedy Space Center (KSC) in Florida. He has served as KSC's Deputy Director since November 2002, and previously served as deputy director of NASA's George C. Marshall Space Flight Center in Huntsville, Ala.

Kennedy served as project manager for several major initiatives, including the X-34 and the DC-XA, and he led the KSC's "One NASA" effort to help make the agency more effective and efficient by encouraging teamwork across all field centers. He first joined NASA in 1968 in the Aerospace Engineering Cooperative Education program at KSC. He earned a bachelor's degree in mechanical engineering from Auburn University, Ala., in 1972. After being called to active duty in the U.S. Air Force, he earned his master's degree in business administration from Georgia Southern University in 1977.

Kennedy has received numerous awards during his NASA career, including Marshall's Leadership Award, NASA's Silver Snoopy Award, a Distinguished Service Medal and a Meritorious Rank

Award. In 2003, Kennedy received the National Space Club's Astronautics Engineer of the Year Award.

Kenneth G. Goad, Technical Director, Joint National Training Capability, Joint Warfighting Center, United States Joint Forces Command

Mr. Kenneth Goad is the Technical Director of Joint National Training Capability (JNTC) Joint Management Office (JMO) located at US Joint Forces Command's Joint Warfighting Center. In this capacity, he provides management for system engineering and architecture development for the JNTC, as well as engineering, planning, budgeting, coordination, and execution of all technical activities.

In August of 2000, Mr. Goad was named Chief Engineer within the Joint Experimentation (J-9) directorate of the United States Joint Forces Command (USJFCOM). He acted as the lead in the execution of major joint experimentation programs including the Unified Vision 2001 and Millennium Challenge 2002 experiments. Previously, Mr. Goad was the Chief Architect of the Aircraft Combat Environment Test and Evaluation Facility (ACETEF). In addition, he was the model development manager for the Simulated Warfare Environment Generator, the core mission-level analysis model endorsed by Air Force Studies and Analysis and the JSF program. He graduated from the Pennsylvania State University in 1985 with a Bachelor of Science in Electrical Engineering and received a Master of Science in Electrical Engineering from the Virginia Polytechnic Institute and State University in 1987.

SISO Standards Activities Report

The Plenary session will also include brief status reports on current and planned SISO standards activities.

MONDAY LATE AFTERNOON -- SISO SOCIAL (5:00 - 8:00)

The SISO Social will immediately follow the Plenary Session. Food and drink will be available, subsidized by SISO Sponsors and Exhibitors. The Exhibit Area will be open. If the weather cooperates, the venue will include a roped-off area of the parking lot in front of the hotel, with grills, kegs, and other appropriate accoutrements for an informal social event.

MONDAY EVENING -- SPECIAL PRESENTATION (7:30 PM to 9:00 PM)

Digitized Shuttle Reconstruction

Following the Columbia accident, a small team of NASA and Boeing engineers at the Kennedy and Marshall Space Flight Centers supported the investigation team developing simulations enabling better understanding of what had happened. This session will show how the simulations bring the viewer inside the wing and the wheel box. The technology At KSC, modeling and simulation addresses one-of-a kind situations -- a new payload configuration, an environmental concern or, unfortunately as in this case, an accident. A small team works together, documents the process and shares the results across the Internet. This session will discuss how this approach helps experts in one field communicate with experts in other fields creating a common reference point and potential for consensus.

TUESDAY MORNING AND AFTERNOON -- USER COMMUNITY FORUMS (8:00 - 5:00)

User Community Forums focus on topics that span specialty areas and are of broad interest to users within a particular area of M&S application. User Community Forums include

- **Analysis Forum (ANL)**, which focuses on the use of distributed models and simulations for analysis applications.

- **Research, Development, and Engineering Forum (RDE)**, which is concerned with the evaluation of alternative designs and research concepts as well as supporting specific engineering decisions within the RDE community.

- **Test and Evaluation Forum (TE)**, which focuses on comparing the performance of a system or its components with physical, technical, and operational performance requirements during acquisition and employment of the system.

- **Training Forum (TRAINING)**, which focuses on the use of simulations to provide individual and team training to system operators, team leaders, tactical decision makers, and strategic and theater-level planners.

- **System Acquisition and Product Development (SAPD)**, which focuses on the use of simulation in system acquisition and product development, for both military and non-military applications.

- **Medical Simulation (MED)**, which focuses on interoperability standards that build upon already extensive medical interface standards for operational systems for robot assisted surgery; command & control systems for medical situational awareness; medical models of varying resolutions for research and development; training systems for instruction and rehearsal; imaging systems for treatment planning and assessment; and logistic planning systems for security and disaster response.

TUESDAY EVENING -- INTERNATIONAL PROGRAM REPORTS (7:00 - 9:00)

This session provides everyone the opportunity to hear and learn about goals, achievements, and issues arising from programs and projects around the world. Presentations for this session are selected to provide the widest possible cross section of activities, with special emphasis on programs involving two or more nations.

TUESDAY AND THURSDAY -- SPECIALTY AREA FORUMS (8:00 - 5:00)

Specialty Area Forums bring together specialists from different communities to discuss issues of simulation interoperability and component reuse. The Specialty Area Forums are organized into five Tracks.

- **INFRASTRUCTURE TRACK**

  o **The Communication, Frameworks, and Infrastructure Forum (CFI)** focuses on technologies and techniques for constructing, utilizing, or extending the infrastructure that supports run-time interoperation and execution of distributed simulations.

- **ENVIRONMENT TRACK**

  o **The Simulated Natural Environment Forum (SNE)** addresses digital representations

and models of the natural environment, including land, ocean, atmosphere, and space data. SNE also focuses on issues and use cases relating to SEDRIS, environmental data classification systems, and coordinate transformation systems.

- o **The Sensor Forum (SENS)**, which is co-administered by the C4ISR Track, serves as a bridge between environmental and mission/system-related areas, focusing on issues of interoperability, fidelity, and correlation for sensor simulations.

DISTRIBUTED SIMULATION DEVELOPMENT TRACK

- o **The Distributed Simulation Processes and Tools Forum (DSPT)** is a consolidation of the Federation Development Process Forum (PROC) and the Exercise Management and Feedback Forum (EMF). This Forum focuses on the Federation development and execution life-cycle process, including tools and methodologies for concept development, exercise planning, initialization, monitoring and control, data collection and repositories, visualization, analysis, and after-action review.
- o **The Verification, Validation & Accreditation Forum (VV&A)** deals with issues of credibility and appropriate use related to federation development and application.

C4ISR TRACK

- o **The Command, Control, Communications, Computers, and Intelligence (C4I) Forum** is concerned with the interoperability of simulations representing command and control, communications, and intelligence. Interests include coupling simulation systems with real C4I systems, models of C4I systems and the underlying infrastructure (nets, communications, data links, etc.). Application domains include Computer Assisted Exercises (CAX), Simulation Based Acquisition (SBA), and operational use of Mission Rehearsal, Alternative Course of Action Analysis/Decision Support (ACOAA/DS), and After Action Review (AAR) Tools.
- o **The Information Operations - Intelligence, Surveillance and Reconnaissance (IO-ISR) Forum** is concerned with the interoperability of simulations which represent (1) both the defensive and offensive aspects of Information Operations, to include Infrastructure Assurance, and (2) intelligence collection, processing, exploitation, production and dissemination, to include the various different intelligence disciplines (IMINT, SIGINT, HUMINT, etc.), including representations at the national, strategic, operational, and tactical military levels, as well as non-military and commercial sources of intelligence.

APPLICATIONS TRACK

- o **The Vehicle/Weapon System Modeling Forum (VWS)** focuses on the development and reuse of vehicle/weapon system simulations, including manned and unmanned weapons which operate in space, air, ground, and sea environments.
- o **The Logistics (LOG) forum** focuses on simulations and simulation challenges associated with modeling supply chains, logistics management processes, logistics policies and business practices, as well as the portrayal of logistics in military simulations at all levels. Topics of interest include innovative approaches to supporting network centric operations, rapid deployment forces, Operations Other Than War (OOTW), global commercial operations, and enterprise process simulations. The latter include but are not limited to executable models of work flow, manufacturing, distribution, transportation

and customer, patient, crowd, or traffic flow.

o **Synthetic Mission Spaces Forum** - A recently recognized need within the M&S community is that of having responsive, flexible, composable M&S battlespaces that are fit for an intended use. This Forum will focus on efforts under way within the Services and across the Joint & International community. The Forum will encompass two distinct activities: (1) a panel session, conducted each workshop, addressing a particular issue or topic of interest, with panelists from Service, Joint, and OSD efforts in Synthetic Mission Spaces; and (2) presentation and discussion of SIW papers related to the chosen panel discussion topic/issue. For this Fall SIW, the Forum will focus on papers addressing instantiations of synthetic mission spaces.

WEDNESDAY EVENING - SIMULATION INTEROPERABILITY STANDARDS COMMITTEE (SISC)

On Wednesday evening, the ninth official meeting of the SISC will be held. The SISC is officially a committee under the IEEE Computer Society. A formal announcement of this meeting and the agenda to be followed will be posted shortly. During the meeting, the current IEEE standard efforts will be discussed, as well as other SISC-related business.

This session will also include an organizational meeting of the IEEE 1516 HLA WG. This meeting will consider possible updates to the IEEE 1516 standards.

VARIOUS TIMES - STUDY GROUP AND PRODUCT DEVELOPMENT GROUP SESSIONS

Please check the final Workshop Agenda for a detailed schedule of Study Group and Product Development Group Sessions. Most are meeting on Thursday morning or afternoon or Friday morning.

STUDY GROUPS

Study Groups (SGs) are chartered when SISO wants to obtain recommendations on well-defined issues from groups of volunteer experts selected from appropriate Forums. Study Group sessions at this Workshop include:

Assessment of the Need for Product Data Representation Standards (ANPDRS SG)
The data required to represent systems and products in M&S is broad and diverse, describing requirements, conceptual and physical design, manufacturing means, cost, system performance, and the product's operational and support environment. The ANPDRS SG will review existing methods of representing product data, identify significant gaps in product data representation standards and ongoing activities to address these gaps, and, if warranted, recommend SISO product group(s) to begin formulation of needed standards.

C4ISR/Simulation Technical Reference Model II (C4ISR TRM II SG)
The C4ISR/Sim TRM II SG is continuing the work started by the original C4ISR/Sim TRM Study Group and creating a technical model that can be used as a frame of reference for interoperability between C4ISR Systems and M&S Systems. By design, the TRM will facilitate analysis of requirements, architecture, design, implementation, and testing of heterogeneous systems. In addition, the TRM will support improved dialogue among users, developers, and technicians in the C4ISR community. C4ISR/Sim TRM SG II tasks include a C4ISR/Sim TRM Use-Case study, the initial development of a TRM Sourcebook, and the initial development of a TRM User Guide.

Common Image Generator Interface (CIGI SG)

The goal of the CIGI SG is to evaluate industry and government interest in developing a standard image generator interface. Typically, today's Image Generator (IG) vendors have their own closed, proprietary run-time interfaces. At I/ITSEC'02, Boeing proposed their Open Source Common Image Generator Interface (CIGI) as a run-time interface that could be adopted by the simulation community. Boeing indicated that they would like to see a standards organization adopt CIGI and develop it into a robust and broadly accepted simulation industry image generator run-time interface standard. The SG will discuss this proposal, evaluate alternatives, and generate recommendations and a proposed action plan.

DIS Study Group (DIS SG)

The DIS SG will investigate the present use of Protocol Data Units (PDUs), which are the basis for communicating information among simulations under the DIS (IEEE 1278) standards. Many times, the use of PDUs requires users to select values for certain fields to identify the specific use of the PDUs in that event. Many users have also created "experimental PDUs" to serve their application needs. The DIS SG will review new DIS PDUs for applicability and usefulness to the M&S community. Also, DIS users have expressed a need to clarify and interpret the existing DIS Standard(s). This includes HLA users of DIS PDUs. Users are invited to participate, both on the DIS SG Discussion and at upcoming SIWs. Please contribute a description of any experimental PDUs that you have developed and value assignments that you have made to existing DIS PDUs.

Extensible Modeling and Simulation Framework Profile (XMSF SG)

The Extensible Modeling and Simulation Framework (XMSF) has several high-level requirements derived from years of experience with M&S frameworks and the challenges of their effective deployment across diverse networks and systems. XMSF must enable simulations to interact directly and scalably over a highly distributed network, achieved through compatibility between a web framework and networking technologies. The specification of XMSF will be in the form of a collection of profiles detailing how to interoperate with XMSF-compliant systems. These profiles will enable inter- and intra-domain interoperability. The initial profile content and structure must be agreed on. As the underlying technologies and standards evolve, the profiles and will need to be upgradedto maintain interoperability. The purpose of this SG is to determine the required scope for XMSF profiles and to define their structure.

Intelligent Tutoring System Interoperability (ITSI SG)

The ITSI SG is working on interoperability between components of simulation-based training environments that include Socratic and didactic tutoring and coaching, personalized After-Action Review (AAR) and performance assessment, management of individual or team curriculum progress, student modeling, natural language dialog interaction with intelligent agents, authoring tools for creating or modifying courseware objects and ITS behavior, and quantitative measures of training effectiveness. The SG will draw on results from previous and concurrent efforts such as the Shareable Courseware Object Reference Model (SCORM), the Joint Modeling and Simulation (JMASS) Modeling and Simulation Reuse Library (MSRL), and the JSIMS Learning Methodology Working Group (LMWG), as well as standards developed by the Worldwide Web Consortium (W3C).

Medical Federation Object Model (MED FOM SG)

The MED FOM SG will hold its inaugural meeting during this SIW. Medical simulation systems have unique technical, operational, and regulatory requirements and serve a broad array of users and customers. Medical simulation increasingly needs interoperability standards that build upon already extensive medical interface standards. The purpose of this Study Group is to identify categories of M&S applications needed by the health care community and to define relevant information exchange requirements.

Open RTI Protocol (ORTI SG)

The Open Run-Time Infrastructure (RTI) Protocol is a proposed communication and implementation standard for the High Level Architecture (HLA) RTI. Message formats and data handling algorithms for RTI services are encapsulated in an open, message-based protocol. The SG will investigate the applicability of the Open RTI Protocol, facilitating interoperability between RTI implementations and promoting Research and Development (R&D). The SG will solicit inputs government, academia and industry for feasibility and prototyping efforts.

Simulation Conceptual Modeling SG (SCM SG)

The Simulation Conceptual Modeling Study Group has been formed in order to conduct a preliminary investigation on the best practices of simulation conceptual modeling and to establish recommendations for pursuit of the topic within the scope of the SISO, if appropriate. This session will have two invited presentations on conceptual modeling followed by group discussion on the following topics: review of the SCM SG TOR objectives; feedback from the Call for Data; resolution on the components for a Conceptual Modeling Framework; and planning for future work.

Simulation Reference Markup Language (SRML SG)

Discussion and presentations will be focused on technical and non-technical aspects of standardizing a simulation markup language and corresponding simulation engine specification based on the Simulation Reference Markup Language (SRML). We will be capturing the goals, needs, business case, and potential benefits to the simulation community, and summarizing the SRML survey. Additional discussions will relate SRML to HLA, BOMs, XMSF, MDA, and other emerging trends, as well as various forms of standardization. Participants will have an opportunity to see Web-Based Simulation demonstrations, and discuss technical details.

Transfer of Control (TC SG)

The Transfer of Control SG is identifying design deficiencies and areas that need clarification related to the transfer control function. It will determine the changes needed to the DIS IEEE 1278.1a-1998 standard and to the HLA RPR FOM to ensure that transfer control implementations will be compatible between simulators. Goals for this SIW include reaching agreement on a basic set of enumerations to be used for transfer control which will be submitted to the DIS Enumeration group; reviewing draft changes and clarifications to the issuance and receipt rules for the Transfer Control PDU and HLA interactions; discussing restoring entity ownership information to DIS PDUs and to the HLA RPR FOM; and agreeing on a timetable for formalizing the changes and presenting them at the 2004 Spring SIW.

PRODUCT DEVELOPMENT GROUPS

Product Development Groups (PDGs) are approved to generate a specific SISO Product (Standards, Guides, and Reference Products) after approval of a formal Product Nomination. Current Product Development Groups include

Base Object Model (BOM PDG)

The major objective of the Base Object Model (BOM) Product Development Group (PDG) is to develop a functional specification, which can be used as a component-based standard to support composability. This includes format and XML syntax specification for the basic BOM elements and ontology; identification of XML Schemas supporting other BOM dimensions as meta-data; guidance describing how the composition of individual BOMs for defining a simulation or simulation environment can be used to form Mega-BOMs. * Guidance on how to generate FOMs and SOMs from these BOM compositions. The Fall SIW will be used to review and discuss the

BOM PDG efforts including the BOM Specification Interface document and BOM Guidance captured. This includes

● Environment Data Coding Specification (EDCS PDG)
EDCS is a component of the Synthetic Environment Data Representation Interchange Specification (SEDRIS) that provides a data dictionary and coding standard for environmental data used in simulations of terrain, atmosphere, ocean, and space.

● Dynamic Link Compatible HLA API PDG (HLA API PDG)
The Dynamic Link Compatible HLA API Product Development Group (PDG) will be developing a standard to define the requirements for Dynamic Link Compatible HLA APIs and methods for testing compliance. This standard will be very useful to the distributed simulation community that uses the HLA and particularly useful to simulation developers that have to participate in multiple Federations using different RTIs. Use of the Dynamic Link Compatible HLA APIs will also support Federation managers in assembling Federates. The PDG plans to define standard C++ and Java APIs for HLA 1.3 which will be based on the current APIs. Additionally, alternative C++ and Java APIs will be created for the IEEE 1516.1 HLA. The 1516.1 APIs will be a SISO extension to the IEEE standard.

● Link-16 (Link-16 PDG)
Link 16 is one of the critical components of interoperability in the Allied forces. There are immediate operational requirements for existing and future military simulations to exchange Link-16 data using a single interoperable standard. This group is developing a SISO standard to define the methods to simulate a Link-16 Network within Distributed Interactive Simulation (DIS) and High Level Architecture (HLA) frameworks. At the Fall 2003 SIW the Link-16 PDG will conduct a final review of the draft standard before submitting it to balloting.

● Real-Time Platform Reference Federation Object Model (RPR-FOM PDG)
Version 1.0 of this Reference Federation Object Model was the first SISO standard, capturing the functionality of IEEE 1278.1-1995. RPR FOM 2.0, currently under development, will add the functionality of IEEE 1278.1a-1998. The PDG will continue work towards readying the FOM and GRIM for community balloting. Time will be given for status updates on both the FOM and GRIM, as well as a chance to work through open issues.

● VVA Overlay to the FEDEP (VVA FEDEP PDG)
The VVA FEDEP PDG will begin by developing an initial process model for the overlay using 03S-SIW-085 "VV&A Process Overlay for the FEDEP" and the work being done by NATO TG016 as the foundation. Lessons learned from past and ongoing federation activities (e.g., 03S-SIW-076 "Guidelines for Conducting VV&A of Simulation Federations") will be used to mature the overlay. In parallel, the group will look to leverage efforts that are under way to advance the state of VV&A technology, such as the work being done by DMSO to assess the anomalies that can occur as a federation is integrated -- leading to problems in substantive interoperability. The proposed product will address substantive interoperability (issues associated with the meaningfulness of the data, sometimes referred to as "fair fight" issues); reusability (an element of composability -- issues associated with reusing federates within different federation contexts as well as reusing federation results for different applications); and composability (the proposed product will facilitate the meaningful composition of simulation components).

TECHNICAL EXHIBITS AND DEMONSTRATIONS

Throughout the week, various organizations will provide exhibits and demonstrations of materials, software, and equipment relevant to distributed simulation applications. The exhibit/demonstration area

will be open during the lunch breaks each day and from late afternoon to early evening. Special topical exhibits will be provided by NASA and the Army Space Fact.

NOTE: NO FRIDAY MORNING OUTBRIEF SESSION

In order to maximize the time available to Study Groups and Product Development Groups, the Conference Committee has eliminated the usual Friday morning Outbrief Session. It will be replaced by a consolidated summary report from the Chairs of each Forum, to be posted on the web the week after the Workshop. This report will summarize the key points raised and insights reached, as well as specific recommendations for future SISO Workshops and Standards activities.

All Forum, SG, and PDG Chairs will meet for breakfast Friday morning to discuss high-priority action items.

Site and Accommodations

The Workshop will be held at the Holiday Inn, International Drive, Orlando, FL. All hotel reservations will be handled through IEEE Conference Management Services (ICMS) rather than directly with the hotel. The special conference rate is $97/night. A government rate of $95/night is also available for a limited number of rooms. Proof of status will be required to obtain the government rate. Make your reservations on line at **http://www.sisostds.org** or by contacting ICMS at 1-800-810-4333 (in the U.S. or Canada), +732-981-3414 (outside the U.S. or Canada), by faxing your request to 732-465-6447, or by emailing it to **d.krynski@ieee.org**.

Registration

The Workshop registration form is available on-line at **2003 Fall SIW** Please note that the early registration deadline (and the deadline for room reservations) is 13 August 2003. Fees range from $475 for early registration through $550 for on-site registration, with discounts available for SISO sponsors. See **SISO Sponsors**

DoD Participation

The Office of the Secretary of Defense has reviewed the plans for this Workshop and issued the following determination: "The Department of Defense finds this event meets the minimum regulatory standards for attendance by DoD employees. This finding does not constitute a blanket approval or endorsement for attendance. Individual DoD Component commands or organizations are responsible for approving attendance of its DoD employees based on mission requirements and DoD regulations."

Conference Committee

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Simulation Technology Magazine

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