



# Standards Activity Committee (SAC)

## Group Description:

- The SAC oversees the development and support of products to support interoperability and reuse in the M&S community.
- The SAC manages the PDGs and PSGs, which focus on the development and support of consensus-based standards and related products.

## Recommended for:

- Anyone interested in the processes of the committee that oversees standards development activities
- Those who are passionate about Standards
- Those interested in serving as liaisons to IEEE, ISO/IEC JTC1/SC24, OGC, or NATO MSG
- Any group member who has a specific question for the SAC!

## Recent and Upcoming Activities include:

- Reviewed & Approved Cyber DEM, C-DIS and SIRL Standards
- Approval to go to Ballot (CIGI)
- Approval to go to Ballot (RPR FOM 3)
- Reviewing BPDSP, as well as SISO and IEEE Policies & Procedures

## POCs:

- Chair: Grant Bailey
- Vice Chair: Dr. Curtis Blais
- Secretary: David Drake



# Acquisition Modeling & Simulation Standards Profile (AcqMSStd) PSG

## Group Description:

The AcqMSStd Profile PSG was formed to maintain and evolve guidance on the selection and use of M&S standards and recommended practices to support the Acquisition Lifecycle. The SISO products that were developed are titled "A Standards Profile for the Use of Modeling and Simulation in Support of Acquisition Activities". The products are maintained as two volumes.

## Recent and Upcoming Activities:

- Volumes 1 & 2 were approved & published (Summer 2021)
- PSG focuses on review of Operating Manual processes for product evolution and outreach.
- 2023 included research into methods and tools for maintaining content within the profile.
- Researched potential integrated listing of SISO products that could be expanded with relevant metadata.

## Recommended for:

- Developers, users, and integrators of models and simulations for technical activities across the acquisition life-cycle
- Supporting model and simulation planning, integration, coordination, and collaboration in the model and simulation support to acquisition life-cycle activities
- Increasing effectiveness and efficiency while reducing risk and removing ambiguity in acquisition programs

## POCs:

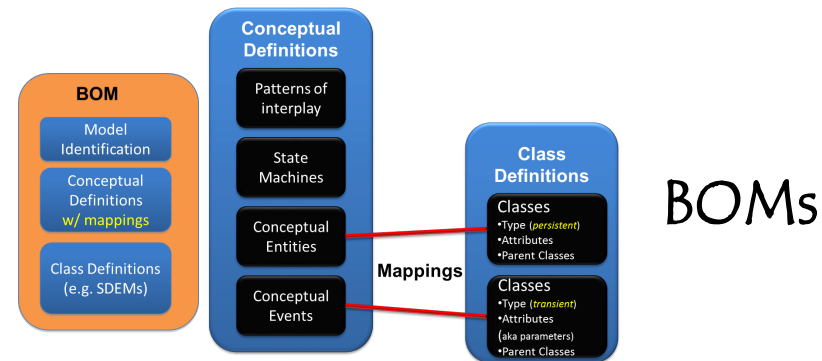
- Chair: Kenneth "Crash" Konwin
- Vice Chair: Dr. Jim Coolahan
- Secretary: Peggy Gravitz
- TAD: Dr. Curtis Blais



# Base Object Model (BOM) PSG

## Group Description:

- The BOM PSG facilitates the sharing of information related to the development, composition, and reuse of Base Object Models (BOMs), which is a SISO standard.



## What We're Doing at this SIW:

### Discussions and presentations to include:

- What it is and what it offers
- How it can support
  - Digital Engineering
  - Simulation as a Service
  - Experiential Interoperability
- Next Steps to update standard

Co-meeting w/ XR Interop Thu 1030-1200 (Forum East 4)

## Recommended for:

- Developers, users, and integrators of models and simulations

A BOM is a **piece part** of a conceptual model, simulation object model, or federation object model, which can be used as a **building block** in the development and/or extension of a simulation or federation.

## POCs:

- Paul Gustavson, PDG Chair - *SimVentions*
- Bob Lutz, PDG Vice Chair - *JHU/APL*
- Jane Bachman, PDG Secretary - *Navy (NSWCDD)*
- Jean-Louis Igarza, SAC TAD.



# Command and Control Systems - Simulation Interoperability (C2SIM) PDG/PSG

## Group Description:

- We are working toward a day when the members of a coalition interconnect their networks, command and control (C2) systems, simulation systems, and robotic and autonomous systems (RAS) simply by turning them on and authenticating, in a standards-based environment.

## Recommended for:

- Designers/developers/implementers of C2 with simulation and RAS, especially for coalitions
- NATO Standardized Agreement (STANAG)
- Use in NATO Federated Mission Networking (FMN) under NATO MSG-201

## Recent and Upcoming Activities:

- Promoting and advancing early adoption of the C2SIM standard:
  - Conducted tutorials on C2SIM under NATO MSG-194 and MSG-211
  - Employed in NATO Coalition Warrior Interoperability Experiment (CWIX) to prepare for use in NATO Federated Mission Networking (FMN)
  - Evaluating/implementing improvements proposed by the user community including autonomous systems
  - Examining interplay with HLA, DIS, CyberDEM

## POCs:

- PDG Co-Chairs: Dr. Mark Pullen, Kevin Galvin
- PDG Vice Chairs: Dr. Doug Reece, Bruno Gautreau
- PDG Secretary: Thom DeCarlo
- PSG Chair: Dr. Doug Reece
- TAD: Curtis Blais



# Cloud-Based Modeling and Simulation (CBMS) Standing Study Group

## Group Description

The purpose of this study group is to identify and document M&S in the cloud activities in order to facilitate adoption by other practitioners and inform future standards.

## Recent and Upcoming Activities:

- Exploration of ongoing projects
- Review of recent research publications
- Monitoring NATO MSG progress
- Guest speakers

## Recommended for:

- Anyone who develops or uses M&S and may be required to deploy M&S in the cloud computing environment
- Anyone interested in the migration of services to cloud computing and determining how best to facilitate this migration

## POCs:

- Chair: Chuck Sanders, AMSO, [charles.g.sanders.ctr@army.mil](mailto:charles.g.sanders.ctr@army.mil)
- Vice Chair: TBD
- TAD: Chris McGroarty, US Army CCDC-SC STTC, [christopher.j.mcgroarty.civ@mail.mil](mailto:christopher.j.mcgroarty.civ@mail.mil)



# Compressed-Distributed Interactive Simulation (C-DIS) PDG

## Group Description:

- The C-DIS specification was created in order to exchange IEEE Standard 1278.1™-2012 DIS PDU information in limited bandwidth situations.
- C-DIS can achieve compression ratios from 2:1 to 6:1 depending on the DIS data.

## Recent and Upcoming Activities:

- SAC Approved Final SISO-STD-023-2024
- Now available on the new SISO Website
- Work has begun on a C-DIS Standard that will compress DIS V8 PDUs based on the Draft 2 version of DIS V8
- C-DIS records for DIS V8 may be included in SISO-REF-030

## Recommended for:

- Developers and users in limited bandwidth environments.
- Real-time solutions targeting LVC (Live, Virtual & Constructive) use cases over an RF (Radio Frequency) network

## POCs:

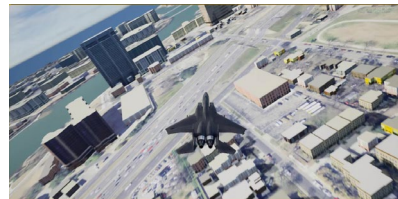
- Chair: Mark McCall
- Vice-Chair: Brett Tainter
- Secretary: John Hughes
- TAD: John Hughes



# Common Image Generator Interface (CIGI) PSG

## Group Description

The **CIGI PSG** maintains and provides community guidance on the application of the **CIGI Standard**, as well as developing next-generation versions of **CIGI**.



CIGI SDK for Unreal



Boeing Host Emulator



Thales UK's CIGI4 Unity IG

## Recommended for:

- Image generator engineers and developers
- SAF, CGF, Host developers.
- Virtual Reality and Augmented Reality enthusiasts.
- System integrators.
- Government and industry stakeholders.

## Recent & Upcoming Activities:

- **CIGI 4.1** entering balloting phase.
- Encouraging discussion of **CIGI** success stories.
- Soliciting ideas for improving **CIGI** standard.
- Discussing how to progress **Synthetic Environment Generation Interfaces (SEGI)**

<https://sisostandards.connectedcommunity.org/>

-> Communities -> CIGI PDG/PSG

## POCs:

- Chair: Jordan Dauble
- Vice Chair: Curt Schroeder
- Secretary: Brad Smull
- TAD: Grant Bailey



# Cyber DEM (Data Exchange Model) PDG

## Group Description:

- The Cyber DEM PDG represents cyber events and objects in a format independent of simulation interoperability solutions, but which is unambiguously translatable to those solutions.
- Architecture-specific standards are being developed.

## Upcoming Activities:

- Get updated Cyber DEM BONES approved as a reference product
- Initiate Cyber FOM ballot
- Initiate TENA OM standard

## Recommended for:

- Cyber simulation developers and integrators; cyber simulation users, customers, operators; cyber range operators and users
  - To contribute to a shared future vision of cyber M&S integration and interoperability
- Cyber is intrinsic to the way we go to war today;
  - Proper/authoritative modeling of cyber needs to be intrinsic to the way we prepare to go to war

## POCs:

- Chair: Dr. Katherine L. Morse
- Vice Chair: Ed Powell
- Secretary: Dr. Fuzzy Wells
- TAD: Clyde Smithson



# Discrete Event System Specification (DEVS) SG

## Group Description:

Based on emerging technologies, address potential for DEVS standardization to facilitate:

- M&S composability at the model level.
- Distributed execution of simulations via data streaming platforms and service/event/data meshes.
- M&S support to model-based systems engineering (MBSE) and digital engineering.

## Recent and Upcoming Activities:

- Study group initiated January 2024
- Initial meeting Wednesday, February 29, 10:30 AM in Boardroom 3

## Recommended for:

- Current and potential DEVS practitioners
- Those interested in M&S composability
- Those interested in distributed simulation protocols
- Those interested in using M&S to support MBSE or digital engineering
- Anyone to help contribute to the study

## POCs:

- Chair: Rob Kewley
- Vice Chair: TBD
- Secretary: TBD
- TAD: Keith Snively



# Distributed Interactive Simulation (DIS) PDG / IEEE WG

## Group Description:

- PDG chartered to revise IEEE Std 1278.1™ - 2012



## Recent and Upcoming Activities:

- Kick-off meeting at 2021 Virtual SIW, formed PDG for next revision of IEEE Std 1278.1™ (DIS Version 8)
- Private reflector set up per IEEE guidelines.
- Two drafts have been reviewed with comments resolved or under resolution
- Draft 3 to be submitted for review and comment within the next couple of months

## Recommended for:

- Developers and implementors of real-time platform level distributed simulations for any domain
- To access domain expertise relevant to the standards; to learn about future standard activities
- Ensure your requirements are considered in future standard activities for DIS and RPR FOM

## POCs:

- Chair: Mark McCall
- Vice Chair: Bob Murray
- Secretary: Lance Call
- Drafting Group Editor: Bob Murray
- TAD: John Hughes



# Distributed Interactive Simulation / Real Time Platform Reference Federation Object Model (DIS / RPR FOM) PSG

## Group Description:

- Permanent support group for multiple DIS-related products



## Recent and Upcoming Activities:

- Support of IEEE Std 1278.1™ (DIS Version 7)
- Support of RPR FOM and RPR PDG
- Analyze PCRs and pass on to PDG
- Support of various reference products.
- Final draft of SISO-REF-030.1, Reference for DIS/RPR FOM Product Support Group Records - Operations Manual approved in Dec 2023.

## Recommended for:

- Developers and implementors of real-time platform level distributed simulations for any domain
- To access domain expertise relevant to the standards; to learn about future standard activities
- Ensure your requirements are considered in future standard activities for DIS and RPR FOM

## POCs:

- Chair: Mark McCall
- Vice Chair DIS: Bob Murray
- Vice Chair RPR FOM: Björn Möller
- Secretary: Lance Call
- TAD: John Hughes



# Discovery Metadata Specification for M&S Resources (DMS-MSR) PDG

## Group Description:

The DMS-MSR Profile PDG is developing a metadata standard to describe modeling and simulation (M&S) resources in a manner that will be useful to the international M&S community in discovering various types of M&S-related resources, including, but not limited to, models, simulations, simulation federations, M&S-related tools, datasets, services, standards, and points of contact.

## Recommended for:

- Individuals and organizations in the international M&S community, including government, industry, and academia that support the development, discovery and reuse of metadata assets used for M&S purposes.
- Stakeholders in the M&S community can be grouped into three general roles: producers, consumers, and integrators.

## Recent and Upcoming Activities:

- Conducted reviews of M&S COI Discovery Metadata Specification (MSC-DMS) metadata sets for inclusion in, modification for, or exclusion from DMS-MSR (in progress)
- Developed format of metadata set tables for inclusion in DMS-MSR; converting reviewed metadata sets to new format
- Discussed standard nomenclature for use across all metadata sets
- Initial draft of standard expected within the next year, prior to balloting

## POCs:

- Chair: Dr. Jim Coolahan
- Vice Chair: Paul Gustavson
- Secretary: Peggy Gravitz
- TAD: Peggy Gravitz



# Distributed Simulation Engineering and Execution Process (DSEEP) / DSEEP Multi-Architecture Overlay (DMAO) PSG

## Group Description:

- The DSEEP is a generalized, systems engineering process for building and executing distributed simulation applications. It incorporates fundamental concepts from existing process models within the HLA, DIS, and TENA\* communities, and reflects a broad consensus as to the key activities and tasks needed to build distributed simulation environments.

*(TENA = Test and Training Enabling Architecture)*

## Recommended for:

- Federation planners/managers
- Federation engineers
- Those seeking to reconcile differences among multiple process models
- Those new to the area of distributed simulation

## Recent and Upcoming Activities:

- DMAO “reaffirmation” finished balloting
  - Currently adjudicating IEEE edits
- Fully revise DSEEP and DMAO together

## POCs:

- Chair and Secretary: Bob Lutz
- Vice Chair: Dr. Katherine L. Morse
- TAD: Clyde Smithson



# Electronic Warfare DEM (Data Exchange Model) SG

## Group Description:

- The EW DEM SG will identify and parameterize the entities and events necessary to meet validated data exchange requirements for CEMA and position, navigation, and timing (PNT) across and between live and synthetic and cyber and kinetic environments. The EW DEM SG will determine the feasibility of unifying these requirements into an EW DEM and make a recommendation for whether or not to move forward with a standard based on this determination.

## Recommended for:

- EW simulation developers and integrators; EW simulation users, customers, operators

The EW DEM will be a critical interoperability enablers for achieving the vision of integrating LVC, kinetic, and Cyber Electro Magnetic Activities (CEMA) components without the considerable expense of refactoring existing capabilities.

## Upcoming Activities:

- Approval of EW DEM SG final report
- Initiate EW DEM PDG

## POCs:

- Chair: Dr. Katherine L. Morse
- Vice Chair: Allen Geddes
- Secretary: Jeff Welch
- TAD: Dr. Curt Blais



# Exploration of Next Generation Technology Application to Modeling and Simulation (ENGTAM) SSG

## Group Description:

- Explore the latest industry technology trends and available solutions, focused on their applicability to the Modeling & Simulation (M&S) domain
- Host discussions to continue the education and documentation of best practices to examine, adopt, and utilize the newest technologies for M&S as the technologies present themselves
- Identify areas where further technical analysis could be most beneficial
- Expand the scope of technology exploration as relevant technologies emerge

## Recent and Upcoming Activities:

- Continuing regular presentations on emerging technologies
- Explore improvement of technology readiness measures and, more importantly, applicability assessments
- Providing information obtained to date from SSG meetings/presentations
- Identifying next steps for the group – additional areas of exploration and areas for further exploration, synthesis of findings

## Recommended for:

- Anyone with an interest in how emerging technologies can improve M&S
- Representatives from Government, Industry and Academia (Domestic & International)
- Everyone within the spectrum of M&S Developers to End Users

## POCs:

- Lead: Chris McGroarty, US Army DEVCOM Soldier Center Simulation & Training Technology Center
- Outreach: Lana McGlynn (contact to join the SSG)
- TAD: Dr. Curtis Blais



# Special Working Group for Enumerations (SWG Enumerations)

## Group Description:

- The SAC Special Working Group Enumerations (SWG Enumerations) publishes, maintains, supports, and updates the SISO-REF-010, Enumerations for Simulation Interoperability.



## Recommended for:

- Anyone involved in distributed simulation interoperability
- People interested in discovering how enumerations are developed and supported

## Recent and Upcoming Activities:

- v32 released 05 FEB 2024
- v33 release planned for May 2024
- SISO-REF-010.1 Operations Manual Draft 9 is in review.

## POCs:

- Lead: Michael Penkrot
- Editor: John Shue
- TAD: John Hughes





# Federation Engineering Agreements Template (FEAT) PSG

## Group Description:

- The FEAT benefits all developers, managers, and users of distributed simulations by providing an unambiguous format for recording agreements about the design and use of the distributed simulation.
- The PSG supports the FEAT schema and associated reference products such as examples of application of the schema and the user's guide.

## Upcoming Activities:

- Potential review / revision of the FEAT after completion of SIRL

## Recommended for:

- Federation engineers, federate developers, commercial tool developers
- Anyone who wants to improve the stability and robustness of federations
- Those interested in improving the usability of the FEAT standard in its next version

## POCs:

- Chair: Dr. Katherine L. Morse
- Vice Chair and Secretary: David L. Drake
- TAD: David L. Drake



# Gateway Description and Configuration Languages (GDACL) PSG

## Group Description:

- The GDACL PSG maintains and provides community guidance on the application of the Gateway Description Language (GDL) and Gateway Filtering Language (GFL) standards.

## Upcoming Activities:

- Review change proposals and discuss possible document revision
- Welcome interest in proposing other gateway-related standards that could augment the GDL and GFL

## Recommended for:

- Exercise engineers who are not gateway experts,
- Gateway developers to capture the capabilities and record the filtering settings of a gateway,
- Resource developers to create tools to facilitate gateway selection, integration in support of exercise planning, preparation, and simulation execution.

## POCs:

- Chair: Bob Lutz
- Vice Chairs: David Drake, Michael O'Connor
- Secretary and TAD: Patrice Le Leydour



# High Level Architecture (HLA) 4 PDG

## Group Description:

- The HLA 4 PDG is revising the 3 components of the IEEE 1516-2010 standard:
  - Framework and Rules
  - Federate Interface Specification
  - Object Model Template (OMT) Specification

## Recent and Upcoming Activities:

- Finishing updates to documents based on comment adjudication
- Recirculation ballot

## Recommended for:

- Federate developers, RTI developers, federation engineers wishing to provide input to the next version of the standard
- All participants and contributors are welcome.

## POCs:

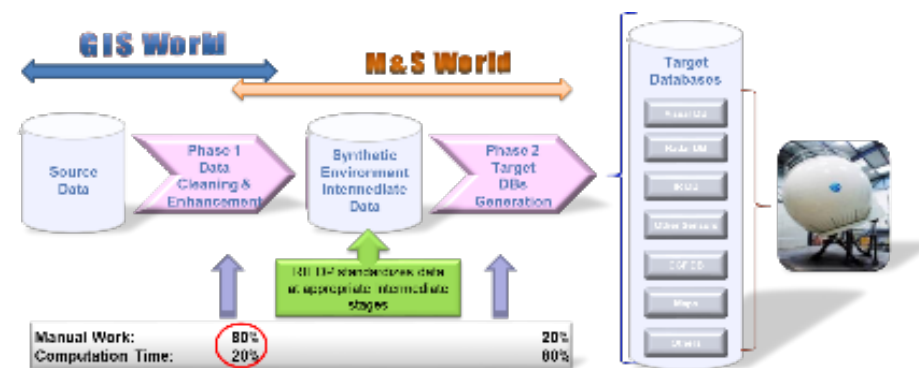
- Chair: Randy Saunders
- Vice Chair: Björn Möller
- Secretary: Dr. Katherine L. Morse
- TAD: David Drake



# Reuse and Interoperation of Environmental Data and Processes (RIEDP) PDG

## Group Description:

- Promotes *reusability* of environmental database generation efforts and fosters *interoperability* between simulations.
- Standardized methods and semantics embodied in two products:
  - RIEDP Data Model Foundations ([Guidance](#)),
  - RIEDP Detailed Features Description (Standard).



## Recent and Upcoming Activities:

- Completed work on Product 2 (RIEDP Detailed Features Description standard)
- Available momentarily, 1<sup>st</sup> draft of Product 2 for submission to Informal review by SISO community
- Review change proposals and discuss possible Product revision
- To be proposed for Tutorial at I/ITSEC 2024
- Support the EDRS Informational Event(s) in discussing and reviewing existing capabilities of environmental data standards and initiatives.

## Recommended for:

- Program Managers, Database, Systems and Software Engineers involved in the use or development of M&S Environmental Database Generation Products, Processes, and Systems
- Users and SMEs who define and specify requirements for Environmental Databases in M&S and Distributed Simulation Applications, as well as those who evaluate and select databases for reuse

## POCs:

- Chair: Jean-Louis Gougeat
- Vice Chair: Simon Skinner
- Editors: Farid Mamaghani, Christophe Rind
- TAD: Grant Bailey



# Real-time Platform Reference FOM (RPR FOM) 3 PDG

## Group Description:

- The RPR FOM version 3 shall facilitate the interoperability with simulations using the Distributed Interactive Simulation standard IEEE Std 1278.1™-2012 (“DIS 7”). The RPR FOM version 3 shall support federations developed using HLA 1.3, IEEE Std 1516™-2000 and IEEE Std 1516™-2010.

## Recommended for:

- Any individuals or groups involved with RPR FOM federations, or those interfacing between RPR FOM federations and DIS.

## Upcoming Activities:

- A final draft has been prepared and is available for download.
- Preparing for ballot. Sign up now to join the ballot group. See the SISO RPR FOM reflector.
- Balloting will take place in Q1/Q2 2024.
- Plan to publish the standard during 2024.

## POCs:

- Chair: Björn Möller
- Vice Chair: Aaron Dubois
- Secretary: Patrice Le Leydour
- TAD: Patrice Le Leydour



# Simulation Interoperability Readiness Levels (SIRL) PDG

## Group Description:

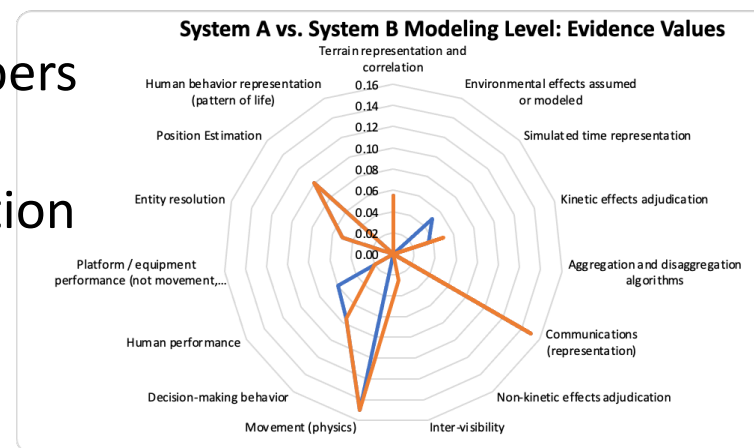
- Rapidly and accurately determining whether a set of simulations can be integrated to produce a working, federated simulation producing valid results remains one of the key challenges for distributed simulation. SIRL is a step toward producing a systems engineering artifact-based approach to addressing that challenge.

## Recent and upcoming Activities:

- Completed and published the SIRL standard
- Balloted the User's Guide

## Recommended for:

- Simulation developers and integrators
- Simulation acquisition professionals and program managers



## POCs:

- Chair: Dr. Katherine L. Morse
- Vice Chair: George Schleh
- Secretary: David L. Drake
- TAD: David L. Drake



# Simulation Reference Markup Language (SRML) PSG

## Group Description:

- Simulation Reference Mark-Up Language (SRML) consists of three related documents:
  - A specification that defines syntax and semantics of SRML markup.
  - A specification that defines the required operation of an SRML engine. An SRML engine is software that is capable of executing SRML models.
  - A User Guide that provides a user-oriented guide to developing SRML models.

## Recent and Upcoming Activities:

- Continuing to identify an organization willing to build an SRML engine

## Recommended for:

- Simulation developers who are interested in the modeling, interoperability, reusability, componentization, and composition of systems and simulations.
- Interested parties are encouraged to join the SISO SRML Product Support Group (PSG)

## POCs:

- Chair: Bob Lutz
- Vice Chair: Jane Bachman
- Secretary: Dr. Curtis Blais
- TAD: Dr. Curtis Blais



# Simulation Scalability Study Group

## Group Description:

- Develop a common understanding of the problem of scalability among distributed simulation applications.
- Evaluate the proposed design and initial API draft to determine whether they can serve as a starting point for a SISO standards development effort.
- Evaluate potential alternatives that may be presented to the Study Group to determine if another design would be a better starting point for an SSF SISO Standard.

## Recent and Upcoming Activities:

- Conducted an online survey to gather feedback from the simulation community on scalability problems and potential solutions.
- Reviewed and discussed feedback from the survey.
- Will continue to review proposed Simulation Scalability Framework (SSF) and alternatives.

## Recommended for:

- Anyone planning to simulate on the scale of 100s of thousands or millions of moving entities
- Anyone knowledgeable about scalable data distribution systems
- Anyone involved in implementing distributed simulation systems

## POCs:

- Co-Chair: Matthew Figueroa
- Co-Chair: Keith Snively
- TAD: Dr. Michael Woodman



# Simulation and Wargaming (S&WG) SSG

## Group Description:

- The S&WG SSG is exploring the topic of simulation and wargaming for the purpose of identifying best practices; models, methods and tools; and identifying areas where it may be appropriate to develop standards for/with the community.

## Recent and Upcoming Activities:

- Hosted a special session on AI for Wargaming, and how it is handled by Pytho
- Hosted special session on Professional Wargaming, and how a commercial design of a hobby wargame can be converted to a digital wargaming System
- Hosted a special session on Generative AI and Wargaming and how LLMs can be used, even in a secure environment
- All of the above, available as videos on group's Youtube channel.
- Beginning a subgroup activity looking at how Deception is handled in wargaming & simulation. Volunteers welcome.

## Recommended for:

- Anyone involved in professional wargaming
- Combat modelers
- Simulation and Tool developers who want to support the growing need for wargaming in DOD/MOD/NATO
- All those who might be interested to find out what wargaming is

## POCs:

- Co-Chair: Dr. Chuck Turnitsa
- Co-Chair: Dr. Thomas Holland
- Secretary: Tracy Johnson
- TAD: Clyde Smithson



# Space Reference Federation Object Model (SRFOM) PSG

## Group Description:

- The Space Reference FOM PSG supports a FOM that shall support interoperability for Space simulations. This includes federations executing in real-time as well as federations executing in logical-time (including as-fast-as-possible).

## Recent and Upcoming Activities:

- Product Support Group established.
- Sharing practical experiences of the Space FOM in US and European projects.
- Producing guidance documents (handbook, papers) for new and current users.
- Developing PCRs with new and improved features for version 2.1.

## Recommended for:

- Users, developers and researchers interested in Space simulations or that have a general interest in the design of HLA FOMs.
- Learn about state of the art in distributed Space simulation and contribute your own experiences!
- Understand how to simulate on the Earth and beyond.

## POCs:

- Chair: Björn Möller
- Vice Chair: Alfredo Garro
- Secretary: Alberto Falcone
- TAD: Keith Snively



# TADIL TALES PDG (Tactical Digital Information Link - Technical Advice and Lexicon for Enabling Simulation)

## Group Description

- Tasked with developing DIS and HLA standards for various tactical datalinks

## Recent and Upcoming Activities:

- Link 16 – New standard approved 8 Nov 21
- Link 11/11B – New standard approved 15 Jun 23
- Automated Identification System (AIS) – Product Nomination (PN) Approved; working on standard
- Integrated Broadcast Service (IBS) – PN submitted

## Recommended for:

- Implementers/developers of tactical datalinks over DIS or HLA
- Providing domain expertise relevant to the standards
- Learning about current status of various datalink standards

## POCs:

- Chair: Joe Sorroche
- Vice Chair: Steve Weiss
- Secretary: Mike Stroz
- TAD: John Hughes



# Urban Combat Advanced Training Technologies (UCATT) PDG & PSG

## Group Description:

- The UCATT PDG & PSG develops standards for live force-on-force training systems.
- The UCATT PDG & PSG supports and maintains the developed standards for live force-on-force training.

## Recent and Upcoming Activities:

### Approval of:

- SISO-STD-022-DRAFT U-NITE (Dynamic Object Reporting)
- SISO-REF-076-DRAFT - Reference for Country/Contractor Specific Player Unit - TESS Message Definitions
- SISO-REF-077-DRAFT - Reference for UCATT Player Unit - TESS Connector Information
- SISO-REF-079-DRAFT - UCATT Consolidated Enumerations

### Revision of:

- SISO-GUIDE-003-00-2016 Guide for UCATT Live Simulation Standards and Architecture
- SISO-STD-016-00-2016 Std for UCATT Laser Engagement Interface
- SISO-REF-073-00-2020 Test Plan for UCATT Laser Engagement Interface
- SISO-STD-021-2021, Standard for UCATT Federation Object Model (FOM)
- SISO-REF-075-2021, UCATT FOM Enumerations Tables

## Recommended for:

- Anyone who has to do with (military) live force-on-force training, like
  - Combat Training Center Officers
  - Procurement
  - Industry

## POCs:

- Chair: Tom Ståle Christoffersen
- Vice Chair: Karl Roschei
- Secretary: Ulf Björkman
- TAD: Grant Bailey



# Verification, Validation, and Accreditation/Acceptance (VV&A) PDG

## Group Description:

- **Purpose:** Build a recommended practice regarding VV&A for distributed simulations.
- **Product:** IEEE 1730.2 Distributed Simulation Engineering and Execution Process (DSEEP) Verification, Validation and Accreditation (VV&A) Overlay.
- **Approach:** Standardize methods and recommended practices related to the planning and implementation of verification, validation, and accreditation of distributed models and simulations (M&S); conduct periodic meetings (face to face and online as available) to draft and review the document

## Upcoming Activities:

- Jan 2023 IEEE 1730.2 publication
- Feb 2024 VV&A PSG/PDG Meeting

## Recommended for:

- Systems Engineers, Program Managers, and Software Engineers involved in the integration, implementation and VV&A of a distributed simulation
- V&V Agents, Accreditation Agents, Subject Matters Experts, and simulation users involved in or requiring an implemented VV&A process.

## POCs:

- Co-Chairs: Axel Lehmann, Simone Youngblood
- Vice-Chair: Jose Ruiz
- Secretary: Kathy Ruben
- TAD: Kathy Ruben
- Participants: 18
- Participating organizations: NPS, JHU/APL, MSE, Deakin University, Univ Bundeswehr Munchen, Old Dominion University, NATO MSG, Acquisition Systems Associates



# Web Live, Virtual, Constructive (Web LVC) PDG

## Group Description:

- WebLVC is a protocol for distributed simulation applications using web-friendly technologies.
- All messages represented use JSON encoding.
- Allows easier use within web applications.
- Allows WebLVC server to connect to traditional M&S federations (DIS, HLA, TENA, etc.).
- Includes Standard Object Model, based on HLA RPR FOM

## Recent and Upcoming Activities:

- Product Approval Package Approved by SAC October 2022.
- Published version 1.0 in 2023
- Reference implementation available on Github at <https://github.com/simlytics-cloud/weblvc-server>

## Recommended for:

- Anyone who wants to develop web-based simulation applications, and achieve interoperability with traditional M&S applications and federations – whether those applications are used for training, experimentation, analysis, or other purposes,
- Anyone to help complete the standard.

## POCs:

- Chair: Rob Kewley
- Vice Chair: Vacant
- Secretary: Keith Snively
- TAD: Keith Snively



# XR Interoperability Standards SSG

## Group Description:

XR stands for eXtended Realty

The XR Interoperability Standards Standing Study Group (SSG) is monitoring and curating guidance as it relates to XR, including eXperiential Interoperability (XI), and the Metaverse. Our interests include Digital Engineering using 3D simulation and models, Digital Twins, AR, VR, MR, Haptics and AI/ML.

## Recommended for:

- Integrators, Developers, and Users of XR technology including 3D environments, Digital Twins, and Simulation.
- Areas of interest include:
  - Digital Engineering using 3D simulation and models
  - The Metaverse to support persistent interoperability
  - XR Meta-resource asset producers / consumers

## Recent and Upcoming Activities:

- Facilitated XR Moonshot sessions at previous SIWs
- Periodic XR meetings to discuss topics of interest
- Presented to NATO MSG Working Group
- Working Consumer Reports framework for XR Meta-resources
  - see [xrmetaresources.com](http://xrmetaresources.com)

Meeting Thursday 1030-1200 (Forum East 4)

## POCs:

- Chair: Paul Gustavson
- Secretary: Peggy Gravitz
- TAD: Peggy Gravitz

