Acquisition Standards Profile

Product Development Group

“A Standards Profile for the Use of Modeling and Simulation in Support of Acquisition Activities”

Community Outreach
Primary Purpose

* A Standards Profile for the Use of Modeling and Simulation in Support of Acquisition Activities

To Provide Guidance on the Selection and Use of Modeling and Simulation Standards and Recommended Practices To support the Acquisition Lifecycle.
The Product

• To be developed, published, and maintained as two volumes:
  - **Volume 1 - a Balloted SISO Guidance Product**, will identify a set of modeling and simulation standards and recommended practices as key tools for guiding the international acquisition community in the use of modeling and simulation in activities that take place across the typical acquisition lifecycle.
  - **Volume 2 - a SISO Reference Product**, will provide the descriptions and metadata for each modeling and simulation standard and recommended practice identified in the SISO Guidance Product.
Product Description – Volume 1

• A balloted SISO Guidance Product that will include the main body of the standards profile guidance document where the use of standards across the acquisition lifecycle are identified and discussed.

• As a SISO Guidance Product, this product will be developed and balloted in accordance with the SISO-ADM-003, which describes the SISO Balloted Products Development and Support Process.

• Will identify a recommended set of modeling and simulation standards and recommended practices intended to provide guidance to users as they execute activities within the typical acquisition lifecycle.

• System lifecycle concept includes common elements from the system lifecycle concept discussed within the Systems Engineering – Guide for ISO/IEC 15288 (System Life Cycle Processes) which illustrates a common understanding of the needs for standards that support each stage of the lifecycle.
Product Description – Volume 2

• A SISO Reference Product that will include a metadata template and the set of detailed descriptions and supporting metadata for each recommended standard or practice referenced in the main body of the SISO Guidance Product, which is Volume 1.

• This SISO Reference Product will include the detailed metadata information describing each standard and recommended practice and be published as a separate document in order to support the periodic updates needed to maintain currency of associated metadata.
Need Established

• Various NDIA Systems Engineering Conferences
• NDIA Modeling and Simulation SE Subcommittee Meetings
• INCOSE MBSE Initiative Presentations
• National Research Council:
  - “Modeling and Simulation in Manufacturing and Defense Acquisition: Pathways to Success” (2002).
The Community

• The products resulting from the product development effort will serve all communities that manage, develop, and/or use models and simulations in support of the acquisition, use, and retirement of systems and system of systems.

• It will establish a compilation of standards and recommended practices that are used to manage, coordinate, align, and integrate the development and use of model and simulation artifacts through a systems acquisition lifecycle across both time (e.g., acquisition phases) and organizational and activity boundaries.

• The community spans multiple user domains (Acquisition, Analysis, Test, and Training) and application areas (Defense, Aerospace, Medical, Information Technology, etc.)
A Typical Acquisition Life Cycle

Applies a Generic Life Cycle

<table>
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<tr>
<th>Concept Stage</th>
<th>Assessment / Development Stage</th>
<th>Production / Manufacture Stage</th>
<th>Utilization / In-Service Support Stage</th>
<th>Retirement / Disposal / Termination Stage</th>
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To provide International Communities a Solution  
To Address the Standards Required  
To Support Acquisition Communities of Practice  
With Focus on the Potential Role and Application of  
Modeling and Simulation  
In Support of Key Functions Across the  
Generic Acquisition Lifecycle.
The Impact Without Standards Profile

- Product models that support simulation and analysis will continue to be built in a stove-pipe fashion.
- The goal of consistent and re-usable models will continue to be elusive.
- The current challenges faced in the acquisition of complex systems to apply modeling and simulation in consistently meaningful ways will continue to exist.
- The concerns of government acquisition leadership will not be addressed.
- The value gained in proper, consistent, and meaningful application of modeling and simulation to acquisition activities outside the traditional systems engineering domains will not be realized.
- Missed opportunity to address situation of diminishing resources, including finances and an aging engineering population.
- Missed opportunity to establish/pass on system knowledge in a consistent manner.
- Missed opportunity to enable a “single source of truth” with the reusability and interoperability benefits not maximized.
- Users will continue to rely on stove-piped activities that marginalize the activities from each other.
Our Standards Example

Built Upon
The Contributions of
Approved & Known
International Standards Projects.
Product Development Milestones

• Fall 2012 SIW: Phase 1 Activity Approval: Product Nomination (For both the SISO Guidance Product and the SISO Reference Product) drafted and submitted for approval.

• Spring 2013 SIW: Phase 2 Product Development Initiated: PDG Kickoff Meeting; Officers Elected, Drafting Group Established; Proposed Road Ahead (schedule; templates; product document structure).

• Fall 2013 SIW: PDG Workshop Meeting; Progress report (product development, review and comment resolution)

• Spring 2014 SIW: PDG Workshop Meeting; Progress report (product review and comment resolution)

• Summer 2014: Finalize product development. Development of both the SISO Guidance Product and the SISO Reference Product shall be finalized at this point. The SISO Reference Product shall be part of the Circulation Package for the SISO Guidance Product.

• Fall 2014 SIW: PDG presents product to the SAC for approval to begin balloting. Initiate Phase 3 Product Balloting

• By end of 2014: Phase 4 Product Approval: SISO product available for use worldwide
Ways To Participate Drafting Group Organization

• Drafting Group #1 to Support Volume 1 - a balloted SISO Guidance Product, will identify a set of modeling and simulation standards and recommended practices as key tools for guiding the international acquisition community in the use of modeling and simulation in activities that take place across the typical acquisition lifecycle.

• Drafting Group #2 to Support Volume 2 - a SISO Reference Product, will provide the descriptions and metadata for each modeling and simulation standard and recommended practice identified in the SISO Guidance Product.

• Drafting Group #3 to Support Integration of Information between the two volumes and provide quality assurance and technical editing support.

Your Choice of Drafting Groups
SISO PDG Officers

Tim Tritsch, Chair
ttritsch@drc.com

Paul Gustavson, Vice-Chair
pgustavson@simventions.com

Peggy Gravitz, Secretary
pgravitz@aegistg.com

William Oates, SAC TAD
william.oates@afams.af.mil
SISO PDG Communications

• PDG SISO Discussion - Register for Discussion:
  - Go to www.sisostds.org and select “DISCUSSIONS” at the top of the page, log on and then select SAC-PDG-ACQSTDSPROF from the list of discussions – which is the PDG email discussion for the Acquisition Standards Profile PDG, and then select save/submit.
  - If you have questions regarding your SISO user name and/or password just contact the SISO help desk at siso-help@sisostds.org and they can help you find, setup and/or reset your account.

• PDG SISO Webpage - Complete Affiliation Form:
  - Go to www.sisostds.org and select Standards Activities > Development Groups > Acquisition Modeling and Simulation PDG for:
    “A Standards Profile for Modeling and Simulation Activities in Support of Acquisition Activities”
  - The affiliation form is on the PDG’s webpage.
Summary

• The Acquisition Standards Profile will increase the visibility and role of SISO within the wider international acquisition community

• Will improve the efficiency of non modeling and simulation specialists by providing a method to locate and use modeling and simulation standards

• Where applicable this product will also provide relevance, insight and visibility for SISO standards and the SISO Balloted Products Development and Support Process

We are looking forward to your enthusiastic participation!