

Unified Architecture Framework (UAF) Tool Vendor Roadshow Agenda

Note: All times are listed in Central Standard Time (CST)

8:30 – 9:00 am | Welcome Address & Introduction to UAF

Aurelijus Morkevicius, Industry Process Consulting Director (Dassault Systèmes)

Laura Hart, Research Engineer Senior Manager (Lockheed Martin)

Matthew Hause, Principal Consultant (System Strategy, Inc.)

Bio: Aurelijus has 17 years of experience in systems and software engineering. His areas of expertise are model-based systems, software engineering, and defense architectures (DoDAF, NAF, and UAF). Aurelijus works with the Aerospace Corporation, Airbus, BAE Systems, Boeing, MITRE, and others. Aurelijus is INCOSE ASEP and OMG certified (BPM, SysML, and UML 2) and is also the lead architect of the current OMG UAF standard, the main author of the MagicGrid framework, and the Dassault Systèmes representative in INCOSE and the NATO Architecture Capability Team. Aurelijus received his PhD in Information Systems Engineering from Kaunas University of Technology in 2013 and is a Professor there. He is also an article and book author and a speaker.

Abstract: An introduction to the event and the UAF's purpose, adoption, and upcoming certification.

9:00 – 9:30 am | UAF v1.2 in CATIA Magic Suite Formerly Known As Cameo Suite

Ron Kratzke, Senior Solutions Consultant (Dassault Systemes)

Abstract: This session will provide a review of the enterprise architecture capabilities in the Dassault Systemes, CATIA Magic, System of Systems Architect (also known as Cameo Enterprise Architecture (CEA)). This presentation will demonstrate implementation of the UAF v1.2 standard in the modeling environment, including a demonstration of the new concepts and views / viewpoints in the latest version. The presentation will also include a brief demonstration of collaboration support for multiple user access and model management using DataHub.

Bio: Ron has over 30 years of experience in complex systems engineering and management. He is a Certified Systems Engineering Professional (CSEP), a Six-Sigma Green Belt, and an OMG Certified System Model Professional. He has provided model-based system engineering and enterprise architecture support on advanced systems for a number of government organizations including the US Department of Defense, Department of Homeland Security, and Defense Threat Reduction Agency. He has written papers, provided presentations, and participated as a panel member on a number of system engineering topics at International Council on Systems Engineering (INCOSE) meetings, IEEE System Engineering Conference, and National Defense Industrial Association (NDIA) Mission and System Engineering Conferences. In his current position, he provides training and consulting across multiple industry domains on system engineering using SysML and enterprise architecture using UAF.

9:30 – 10:00 am | Modern Defense Architecture Using The Sparx Modelling Platform

Chris Armstrong, President & Chief Architect (Sparx Services North America)

J.D. Baker, Software Systems Engineer (Sparx Systems)

Abstract: This session will provide a walkthrough of how the Sparx Model Platform supports enterprise architecture and systems engineering initiatives using the OMG Systems Modeling Language (SysML) and the UAF. The speakers will demonstrate how Sparx Enterprise Architect is used to create UAF compliant models and various types of architecture views. Sparx Pro Cloud Server will be demonstrated to show how data from other providers such as Jama, Polarion, and Jira, can be integrated into UAF models. Lastly, Sparx Prolaborate will be demonstrated to show how the web portal is used to provide a modern collaboration platform for executive and decision-making stakeholders to interact with architecture models and BI/analytic views, perform online impact analysis, and manage architecture and design reviews

Bio: Chris is an internationally recognized thought leader in business and enterprise architecture, formal modeling, process improvement, systems and software engineering, requirements management, and agile development. He represents SSNA at The Open Group, the Object Management Group, the Business Architecture Guild and the TM Forum. He is certified in TOGAF, ArchiMate, IT4IT, Open FAIR, UML, SysML, and is a Certified Business Architect (CBA).

Bio: J.D. has interest and expertise in enterprise architecture, business architecture, requirements development, software/system architecture and system design processes and methodologies that support Model-Based Development. He represents Sparx Systems at the OMG and is a member of the OMG's Architecture Board and Board of Directors. Within the OMG, he has participated in the development of the UML, SysML, the UML Profile for BPMN Processes, the UML Profile for the ArchiMate Language and the UML Profile for DoDAF and MODAF.

10:00 – 10:30 am | UAF In Practice

Eran Gery, WW Industry Solutions Lead (IBM)

Stephen Rooks, Senior Technical Specialist (IBM)

Abstract: The UAF is the latest modeling specification for systems of systems (SoS) modeling. It is designed to cover all the viewpoints from the latest defense architecture frameworks, namely DoDAF, MoDAF, NAF and others. The UAF is a very rich specification with several layers (domains) and aspects ("model kinds") and while it is very rich and expressive how to apply it in a real-life context can be quite challenging. One challenge is how to translate concepts of operation, existing and future capabilities, planning and acquisition strategy into a concrete UAF model. One other challenge is how to properly use the various levels of abstractions across its domains to enable reuse across different concrete realizations. Another challenge is that UAF does not exist in isolation and needs to be integrated with a broader set of lifecycle tools, such as requirement tools, system models in SysML, planning tools, simulation tools and others.

In this presentation we describe how we transform conops documents and requirements into an actual UAF model using an emergency response system, which is a SoS. We will demonstrate how the various UAF aspects are modeled, how the UAF modeling environment is integrated with a requirements management system, how the UAF technical views are integrated and transformed into SysML system models, and how roadmaps and plans are integrated with planning tools. We will also demonstrate how behavioral aspects of the SoS UAF models are simulated to validate them and reason about the behavior of the overall SoS. The presentation will include demonstrations using an actual set of tools typically used in such engineering environments.

Bio: Eran focuses on best practices and deployment of Engineering lifecycle management (ELM) in

industrial sectors, primarily Aerospace and Defense. His current focus area is Digital Engineering, which combines model-based engineering, lifecycle integration, and overall lifecycle best practices. He has been deeply involved with the MBSE community going back to original work on UML, SysML v1, and currently SysML v2, and was also the principal architect and founder of the IBM Rhapsody product.

Bio: Steve applies the ELM products to industrial domains, mainly Automotive, Defense, and Civil Engineering. He has over 25yrs experience in software and systems engineering across a variety of industries and his expertise includes Requirements Engineering, Model-Based Engineering and Product Line Engineering, with a current focus on UAF.

10:30 – 11:00 am | Morning Break

11:00 – 11:30 am | Gaining Value from Architecture Built in UAF with UNICOM System Architect

Lou Varveris, Director of Product Management (UNICOM Systems)

Abstract: In this 30-minute tour, we will cover how to gain value from an architecture built with UAF in System Architect – capturing sources of record, auto-visualizing UAF views, asking the architecture questions by building reports on the fly, and communicating the architecture to a wide audience via web publishing and personalized dashboards.

Bio: Lou has been involved in enterprise architecture and software product management for over 20 years. He has helped guide the System Architect product from a product management standpoint, created and taught training courses on DoDAF, UAF, and TOGAF, and helped customers build successful architectures through consulting. At IBM, Lou was the global technical enablement lead for its Agile DevOps, enterprise architecture, and portfolio management practices. Lou is co-author of the book "UML Bible" and was technical editor on the book "UML for Dummies". Prior to his software endeavors, Lou was an engineer at UNISYS working on radar systems such as NEXRAD weather radar, Air Traffic Systems for the Marines, and fire control systems for the US Navy.

11:30 am – 12:00 pm | Integrating The Outside World Into Your UAF-Modelled Acquisition

Lonnie Van Zandt, Principal Solutions Architect (Intercax)

Abstract: Intercax will introduce Syndeia, the digital thread platform for model-based engineering, and then illustrate how it can be used to integrate system-of-systems architecture represented as UAF models with digital engineering artifacts in multiple enterprise domains (e.g., requirements and acquisition management, hardware design and manufacturing, software development and deployment, project and program management, and cybersecurity). The demonstration will cover multiple facets of digital threads with UAF models, such as traceability queries, analytics, visualization, reporting, APIs, data science, and enterprise automation. Attend to see how digital threads can provide a significantly higher ROI for your UAF-based architecture models.

Bio: Lonnie provides customer support for Syndeia and performs research, development, and proposal preparation. He assists Intercax's clients in understanding, adopting, and becoming proficient with the use of Syndeia and collaborative digital engineering. Lonnie was one of the former NoMagic Chief Architects and has been a contributor to the OMG for UML, BPMN, SysML, and UPDM specifications.