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Lifecycle Modeling Language and Systems of Systems (SoS)

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Abstract

This presentation will cover the Lifecycle Modeling Language (LML) open standard, which was designed to support Systems of Systems (SoS) development throughout the lifecycle. LML captures technical and program information to enable optimization of cost, schedule, and performance.

LML consists of ontology and key diagrams, including the Action Diagram. The Action Diagram uses special cases of Actions instead of the classical logic constructs, so that critical decision points needed by command and control and information assurance can be identified and allocated to the performing systems.

By applying LML to SoS engineering problems, we may be able to identify logic, design, and capability errors earlier in the design process, when correcting them is relatively inexpensive.

Biography

Dr. Steven Dam is the President and Founder of the Systems and Proposal Engineering Company (dba SPEC Innovations), based in Manassas, VA. He has been involved with structured analysis, software development, and system engineering for over 35 years. He participated in the development of C4ISR Architecture Framework and DoD Architecture Framework (DoDAF), the Defense Airborne Reconnaissance Office (DARO) Vision Architecture, the Business Enterprise Architecture (BEA), and Net-Centric Enterprise Services (NCES) architecture. He currently is applying system-engineering techniques to various DoD projects.

Dr. Dam is currently the Director-at-Large and a Past President of the Washington Metropolitan Area (WMA) chapter of INCOSE. Dr. Dam is the author of two systems engineering-based books: "DoD Architecture Framework: A Guide to Applying System Engineering to Develop Integrated, Executable Architectures;" and "Proposal Engineering: A Guide to Developing Winning, Cost-Effective Proposals." He was a contributor to the DoD/NASA-sponsored textbook entitled "Applied Space Systems Engineering." Dr. Dam has a BS degree in Physics from George Mason University and a PhD. in Physics from the University of South Carolina.