Advanced Collaboration Technologies for Lifecycle Affordability

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Abstract

Lockheed Martin Advanced Technology Laboratories (LM ATL) has developed Simulation Based Acquisition (SBA) technologies to help Lockheed Martin groups address SBA requirements that are becoming more prevalent on new programs. Smart Product Model (SPM), developed by LM ATL, is one such SBA application that was used to deliver the ship design concept for the DD21 program. SPM has evolved into an advanced collaboration environment that supports the entire product life cycle. Its web-based federated architecture allows external collaboration with team members and the government in supporting products from design to disposal. SPM product structure capability allows configuration management of analysis data along with requirements, documentation, training materials, and testing results.

The Real Time Supportability System (RTSS), by Lockheed Martin Maritime Systems and Sensors extends SPM capabilities to support the management of deployed configurations of products and their attributes, and includes bulk load of thousands of part types and automated creation of product structures. The Technology REfresh for Navy Transformation (TRENT) program is improving the readiness and life cycle affordability of Navy weapon systems, such as the Joint Strike Fighter (JSF), by developing an enterprise wide strategy for proactively managing technology obsolescence across the supply chain.

Zach Horiatis
Mr. Horiatis is a Senior Member of the Engineering Staff at LM ATL. His work includes systems architecture, design, integration and development of intelligent complexity science (agent based systems), system dynamics, and collaborative engineering disciplines as well as configuration management processes. Mr. Horiatis has progressively undertaken more responsible roles within research and development, and led technical efforts for the Ground Logistics Command and Control (GLC2), Smart Product Model (SPM), Integrated Management Framework (IMF) integration to SPM as well as for the Real-Time Supportability System (RTSS). Mr. Horiatis holds a BA in computer science from Rutgers University and a MS in computer and information science from the Moore School of Engineering at the University of Pennsylvania.