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SYSTEMS ENGINEERING**

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Collaborators Information Exchange (SoSECIE)**

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Data Dependency Network Analysis in Systems of Systems

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This brief discusses the challenge messy data presents to System-of-Systems (SoS) performance, and introduces a technique for evaluating its effects. The technique, called Data Dependency Network Analysis (DDNA), based on previous work on Functional Dependency Network Analysis (FDNA), introduces a quantitative model for evaluating the effects of messy data in SoS and coming up with mitigation strategies. The paper also describes the DDNA implementation in an agent-based model and discusses its practical use in SoS engineering.

Biography

Mr. Reggie Cole is a Lockheed Martin Senior Technical Fellow and Master System Architect. He is the Chief Architect for Enterprise Applications and Data in Lockheed Martin. His primary areas of expertise are enterprise transformation, large-scale distributed systems, and system-of-systems modeling and simulation. He has served either as chief architect or consulting architect on a number of very large systems-of-systems programs.