

Architecting the Enterprise: Using a Standards Approach

Richard A. Martin

Abstract

Enterprise architecture has taken on many meanings as practitioners and scholars attempt to understand and apply the principles of design and construction necessary for today's highly complicated enterprise scale systems.

This tutorial presents an overview of enterprise architecture concerns and then uses International Standards as a means to frame the disparate approaches relative to those concerns, offers some insight into the relationships among approaches that result from applying the standards, and identifies opportunities for an innovative architecting discipline to facilitate sustainable enterprise operation. International communities for Information technology (ISO JTC1) and Automation systems and integration (ISO TC184) have produced International Standards with requirements related to enterprise architecture. These methodology independent International Standards provide a means to assess methodological approaches and offer guidance for the creation and articulation of enterprise architecture. INCOSE, as a liaison partner, has been instrumental in assuring that systems engineering remains an essential contributor to these efforts.

Biography

Richard A. MARTIN, USA, is President of Tinwisle Corporation in Bloomington, Indiana, USA, where he manages and provides services focused on enterprise integration to companies in the manufacturing, distribution, and services sectors. Prior to forming Tinwisle in 1981 he spent 15 years providing and managing the design and construction of automated research laboratory instrumentation at Indiana University. Mr. Martin is a senior member of the Society of Manufacturing Engineers, and member of IEEE, ACM, and INCOSE. In addition to his corporate duties he participates in an active research program, in conjunction with the Computer Science Department at Indiana University, to formalize the frameworks now in use for the management of model-based artifacts created in the course of enterprise operations. His professional activities include participation in the USTAG of ISO TC184/SC5 as Convener of WG1 and he is currently the editor for a revision of ISO 15704. His public service includes a current appointment to the Plan Commission of Monroe County, Indiana, where he leads their Comprehensive Plan revision efforts.