Aligning Enterprise, System, and Software Architectures

Ivan Mistrík (Independent Consultant, Germany), Antony Tang (Swinburne University of Technology, Australia), Rami Bahsoon (University of Birmingham, UK) and Judith A. Stafford (Tufts University, USA)

Although enterprise, system, and software architectures have many common features and often overlap in practice, the presence of each architecture is required in the planning and design of a system. The alignment of these architectures in the design processes is important in the development of software-intensive complex systems.

Aligning Enterprise, System, and Software Architectures covers both theoretical approaches and practical solutions in the processes for aligning enterprise, systems, and software architectures. This book aims to provide architects and researchers with a clear understanding of all three types of architectures.

Topics Covered:
- Architecture Alignment
- Choreographing Agility
- Embedded Software and Systems
- Enterprise Service Architectures
- Open Architectures
- Open Source Components
- Software Architectures
- Software Licenses

Ivan Mistrík is an independent researcher in software-intensive systems engineering. He is a computer scientist who is interested in system and software engineering (SE/SWE) and in system and software architecture (SA/SWA). In particular, life cycle system/software engineering, requirements engineering, relating software requirements and architectures, knowledge management in software development, rationale-based software development, aligning enterprise/system/software architectures, value-based software engineering, agile software architectures, and collaborative system/software engineering. He has more than forty years’ experience in the field of computer systems engineering as an information systems developer, R&D leader, SE/SA research analyst, educator in computer sciences, and ICT management consultant. In the past 40 years, he has been primarily working at various R&D institutions in USA and Germany and has done consulting on a variety of large international projects sponsored by ESA, EU, NASA, NATO, and UN. He has also taught university-level computer sciences courses in software engineering, software architecture, distributed information systems, and human-computer interaction. He is the author or co-author of more than 90 articles and papers in international journals, conferences, books and workshops, most recently a chapter Capture of Software Requirements and Rationale through Collaborative Software Development, a paper Knowledge Management in the Global Software Engineering Environment, and a paper Architectural Knowledge Management in Global Software Development. He has also written over 120 technical reports and presented over 70 scientific/technical talks. He has served in many program committees and panels of reputable international conferences and organized a number of scientific workshops, most recently two workshops on Knowledge Engineering in Global Software and Development at International Conference on Global Software Engineering 2009 and 2010 and IEEE International Workshop on the Future of Software Engineering for/in the Cloud (PoSFC) held in conjunction with IEEE Cloud 2011. He has been the guest-editor of IEEE Proceedings Software: A Special Issue on Relating Software Requirements and Architectures published by IEE in 2005 and the lead-editor of the book Rationale Management in Software Engineering published by Springer in 2006. He has been the co-author of the book Rationale-Based Software Engineering published by Springer in May 2008. He has been the lead-editor of the book Collaborative Software Engineering published by Springer in 2010 and the book on Relating Software Requirements and Architectures published by Springer in 2011.

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