Development of SEBoK v. 1.2

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This version of the SEBoK was released 15 November 2013. This is a minor release of the SEBoK which includes two new articles, updates to existing articles, and new primary references. The Editorial Board released the associated version of the Sandbox in late November 2013.

Contents

Content and Feature Updates for v. 1.2

SEBoK v. 1.2 Authors

SEBoK v. 1.2 Editors

Technical Editors

Content and Feature Updates for v. 1.2

Changes between versions 1.1.2 and version 1.2 included:

- Two new articles: Integrating Supporting Aspects into System Models and Technical Leadership in Systems Engineering
- Heavy revision to Decision Management
- Minor edits to articles in Parts 1, 2, 3, 4, 5, and 6 and
- Two new primary references.

Specific updates by part were:

- In Part 1, there were minor typographical updates.
- In Part 2, there is a new article for SEBoK on integrating modeling of systems and supporting

aspects via model-based systems engineering (MBSE) approaches. Supporting aspects include project management, risk management, requirements management, quality management, and verification and validation. Supporting aspects incorporated into system models or derived from these models enrich the model, facilitate structured and integrated management of these aspects, and capture their implictions on the system or vice versa. As MBSE becomes common practice for core system functionality, moving on to enveloping aspect modeling is the next step toward a holistic MBSE paradigm. This new article is called Integrating Supporting Aspects into System Models. Additionally, there were minor typographic edits to some articles.

- In Part 3, the Decision Management article was heavily rewritten to align with new Decision Management Process developed by the INCOSE Decision Analysis Working Group and several other articles were updated, including System Requirements, System Definition, System Concept Definition, Business or Mission Analysis (formerly Mission Analysis), and Relevant Standards. For Relevant Standards, additional linkages have been added to the existing standards. There were also updates to several figures within Part 3.
- In Part 4, updates were made to the Systems of Systems (SoS) and Service Systems Engineering knowledge areas to add new references in order to refresh the content. Over 25 new references have been added within these knowledge areas.
- In Part 5, a new topic was added on Technical Leadership in Systems Engineering within the Enabling Teams knowledge area.
- In Part 6, there were minor changes. The Editors incorporated some minor suggestions that were submitted via the Sandbox.
- There were no changes to Part 7 for v. 1.2.

SEBoK v. 1.2 Authors

Authors who contributed materials specifically to the v. 1.2 products are listed in Table 1, below.

Table 1. SEBoK v. 1.2 authors. (SEBoK Original) **Author Article**

Matthew Cilli, Stevens Institute of Technology (PhD Candidate), USA

Yaniv Mordecai, Technion - Israel Institute of Technology, Israel

Richard Swanson, High Performance Technologies Group, DRC, USA

Decision Management

Integrating Supporting Aspects into Systems Models

Decision Management

SEBoK v. 1.2 Editors

The Editorial Board for v. 1.2 is listed in Tables 2, 3, and 4 below.

Table 2. SEBoK v. 1.2 Leadership. (SEBoK Original) **BKCASE Editors in Chief**



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The Editor in Chief and Co-Editor in Chief were supported by the Associate Editors. Each Associate Editor's area(s) of responsibility are highlighted in Table 3 below.

Table 3. SEBoK v. 1.2 Editors. (SEBoK Original) **BKCASE Associate Editors**

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Chris Paredis

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Georgia Institute of Technology (US) chris.paredis@me.gatech.edu Responsible for working across the SEBoK adding material on the theoretical underpinnings of systems engineering, including mathematical foundations.

The Assistant Editors provide general editorial support across all topics. They assist both with content improvement and production issues.

Table 4. SEBoK v. 1.2 Assistant Editors. (SEBoK Original) **BKCASE Assistant Editors**

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Technical Editors

Updated articles went through technical editing to improve writing quality and consistency. Thanks go to our technical editor, Emily Leach, for her efforts.

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This page was last edited on 8 March 2024, at 22:36.