Development of SEBoK v. 1.2

Development of SEBoK v. 1.2

> The printable version is no longer supported and may have rendering errors. Please update your browser bookmarks and please use the default browser print function instead.

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	Decision Management
Yaniv Mordecai, Technion - Israel Institute of Technology, Israel	Integrating Supporting Aspects into Systems Models
Richard Swanson, High Performance Technologies Group, DRC, USA	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

Editor in Chief
Art Pyster
Stevens Institute of Technology (US)
art.pyster@stevens.edu

Co-Editor in Chief
David H. Olwell
Naval Postgraduate School (US)
dholwell@nps.edu

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

Richard Adcock
Cranfield University and INCOSE UK (UK)
r.d.adcock@cranfield.ac.uk
Responsible for the Systems Fundamentals, Systems Science, Systems Thinking, and Systems Approach Applied to Engineered Systems knowledge areas in Part 2: Systems along with Cihan Dagli.

Barry Boehm
University of Southern California (US)
boehm@usc.edu
Responsible for the Systems Engineering Management knowledge area with Greg Parnell and Life Cycle Models knowledge area; both are in Part 3: Systems Engineering and Management.

Cihan Dagli
Missouri University of Science & Technology (US)
dagli@mst.edu
Responsible for the Systems Fundamentals, Systems Science, Systems Thinking, and Systems Approach Applied to Engineered Systems knowledge areas in Part 2: Systems along with Rick Adcock.

Judith Dahmann
MITRE Corporation (US)
jdahmann@mitre.org
Responsible for Product Systems Engineering, Enterprise Systems Engineering, and Systems of Systems (SoS) in Part 4: Applications of Systems Engineering with Mike Henshaw.

Gregory Parnell
University of Arkansas (US)
gparnell@uark.edu
Responsible for the Representing Systems with Models knowledge area with Dov Dori in Part 2: Systems and the Systems Engineering Management knowledge area with Barry Boehm in Part 3: Systems Engineering and Management.

Ricardo Pineda
Stevens Institute of Technology (US)
rpineda@stevens.edu
Responsible for the Systems Engineering and Industrial Engineering knowledge area.

Garry Roedler
Lockheed Martin (US)
garry.j.roedler@lmco.com
Responsible for the System Concept Definition and System Definition knowledge areas in Part 3: Systems Engineering and Management.

Brian Sauser
University of North Texas (US)
brian.sauser@unt.edu
Responsible for Part 7: Systems Engineering Implementation Examples, which includes Case Studies and Vignettes, with Brian White.

Heidi Davidz
Aerojet Rocketdyne (US)
heidi.davidz@rocket.com
Responsible for the Enabling Individuals knowledge area with Tim Ferris and the Enabling Teams knowledge area in Part 5: Enabling Systems Engineering.

Dov Dori
Massachusetts Institute of Technology (USA) and Technion Israel Institute of Technology (Israel)
dori@mit.edu
Responsible for the Representing Systems with Models knowledge area with Greg Parnell and developer of the Integrating Supporting Aspects into System Models article.

Timothy Ferris
University of South Australia (Australia)
timothy.ferris@unisa.edu.au
Responsible for the Enabling Individuals knowledge area in Part 5: Enabling Systems Engineering with Heidi Davidz. Tim is also developing a new article on Systems Engineering Education.

Michael Henshaw
Loughborough University (UK)
M.J.d.Henshaw@lboro.ac.uk
Responsible for Product Systems Engineering, Enterprise Systems Engineering, and Systems of Systems (SoS) in Part 4: Applications of Systems Engineering with Judith Dahmann.

Samuel Seymour
Johns Hopkins University Applied Physics Lab (APL) (US)
sam.seymour@jhuapl.edu
Responsible for the Service Systems Engineering knowledge area in Part 4: Applications of Systems Engineering.

Ariela Sofer
George Mason University (US)
asofer@gmu.edu
Responsible for Part 1, including an overview of systems engineering and an overview of the SEBoK.

Ricardo Valerdi
University of Arizona (US)
rvalerdi@email.arizona.edu
Responsible for the System Realization knowledge area in Part 3: Systems Engineering and Management. Dr. Valerdi is also developing a new article on Systems Engineering References.

Brian White
CAU>SE (US)
bewhite71@gmail.com
Responsible for Part 7: Systems Engineering Implementation Examples, which includes Case Studies and Vignettes, with Brian Sauser.

James Martin
The Aerospace Corporation
james.martin@incose.org
Supports the Systems
Fundamentals and
Enterprise Systems
Engineering knowledge
areas.

Ken Zemrowski
TASC
kenneth.zemrowski@incose.org
Responsible for the Systems
Engineering Standards
knowledge area.

Chris Paredis
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

Stephanie Enck
Naval Postgraduate School
smenck@nps.edu

Nicole Hutchison
Stevens Institute of Technology
nicole.hutchison@stevens.edu

Devanandham Henry
Stevens Institute of Technology
dhenry@stevens.edu

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.

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