

# 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.



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## Content and Feature Updates for v. 1.2

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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 implications 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, 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

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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
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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

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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  
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**Co-Editor 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**

**Richard Adcock**

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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**

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Responsible for the  
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Management knowledge  
area with Greg Parnell and  
Life Cycle Models  
knowledge area; both are in  
Part 3: Systems Engineering  
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**Cihan Dagli**

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Systems Science, Systems  
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**Judith Dahmann**

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Responsible for Product  
Systems Engineering,  
Enterprise Systems  
Engineering, and Systems  
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Engineering with Mike  
Henshaw.

**Gregory Parnell**

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Responsible for the  
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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  
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**Ricardo Pineda**

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Responsible for the Systems  
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**Brian Sauser**

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Responsible for Part 7: Systems  
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Examples, which includes Case  
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**Heidi Davidz**

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Responsible for the Enabling Individuals knowledge area with Tim Ferris and the Enabling Teams knowledge area in Part 5: Enabling Systems Engineering.

**Dov Dori**

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**Timothy Ferris**

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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**

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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**

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**Ariela Sofer**

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Responsible for Part 1, including an overview of systems engineering and an overview of the SEBoK.

**Ricardo Valerdi**

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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**

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Responsible for Part 7: Systems Engineering Implementation Examples, which includes Case Studies and Vignettes, with Brian Sauser.

**James Martin**

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Supports the Systems  
Fundamentals and  
Enterprise Systems  
Engineering knowledge  
areas.

**Ken Zemrowski**

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Responsible for the Systems  
Engineering Standards  
knowledge area.

**Chris Paredis**

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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)  
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## Technical Editors

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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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