

Summary of the May 23, 2010 BKCASE Author Team Meeting at EuSEC 2010

1. Introduction

The BKCASE Author Team agreed at Workshop II in Daytona Beach, FL, that it would be useful for any authors attending the European Systems Engineering Conference (EuSEC) to meet and discuss the current status of the SEBoK 0.25 draft. The Author Team submitted materials to the Core Team on May 20, 2010; these materials were combined and sent out to the author team for review. These materials provided the basis for discussion for the EuSEC meeting.

The meeting was led by Art Pyster and attended by Dave Olwell, Rick Adcock, Jean-Claude Roussel, Hillary Silletto, Henk van der Linden, Bud Lawson, Sven-Olaf Schulze, and Jim Anthony.

2. Meeting Purpose

The EuSEC authors meeting was held in Stockholm, Sweden, on Sunday, May 23, 2010. Art Pyster began the meeting with a review of the meeting's primary objectives:

1. Understand the state of SEBoK 0.25 (including case studies) and GRCSE 0.25, including both strengths and weaknesses;
2. Decide on mid-course decisions and adjustments necessary for a successful BKCASE Workshop III on July 7-8 in Chicago; and
3. Draft "gate" criteria for release of SEBoK 0.25.

3. Meeting Proceedings

3.1 Overview/Observations

The participating authors provided an overview of some of the current draft materials submitted for SEBoK 0.25. Specifically, the following Chapters were discussed (materials used in presentations can be found on Sakai under "FOLDER"):

1. Chapter 3—Systems Concepts and Thinking, *Bud Lawson*
2. Chapter 4—Systems Engineering Principles, *Rick Adcock*
3. Chapter 6—Systems Engineering Organization, *Hillary Silletto*
4. Chapter 8—Systems Engineering Technical Knowledge, *Jean-Claude Roussel*

Art Pyster provided an overview of the materials to date along with the several observations. He indicated that, overall, there is a high level of engagement of the

author team and that the current materials are of good quality, raising confidence we can deliver a solid version 0.25 this summer. However, the current draft is fairly rough, as is to be expected at this point.

Dr. Pyster raised a few concerns with the current draft of SEBoK 0.25, which were discussed by the participating authors. The primary points and resolutions included:

1. There is a considerable amount of overlap, which was expected because the teams are working primarily independently. The Core Team will have primary responsibility for addressing this before Workshop III (See Section 4 – Way Ahead).
2. For the Knowledge Areas (KAs), there is disparity in the amount of historical information included as well as in how this information is presented. There was no judgment among the participants regarding which approach is best, but the author team should agree to a standard approach.
3. The current materials are generally light on references. Some authors have used a few references very heavily, with many specifically focusing on INCOSE publications or ISO/IEEE standards. Dr. Pyster encouraged authors to continue to pull in additional references.
4. A philosophical difference in the current materials is the level of description versus prescription. In general, the SEBoK should describe the state of the art and available materials. The authors should be careful about making specific recommendations to use or avoid a particular type of approach, tool, or method.
5. There is still less commercial industry focus than desired; the document primarily provides a government and government contractor focus. Given the current structure of the author team, this is not surprising. The authors recommended that a focus of the 0.25 review process be to collect perspectives from other industries.
6. There is currently no summary of primary references. The authors agreed that it would be useful to develop an annotated bibliography for significant references. The exact format and a deadline for this have not been determined.
7. There is a spectrum of company-specific to fairly generic examples included in the current materials. It is important that the SEBoK not focus specifically on a few companies. In general, company-specific examples may be most appropriately included in Case Studies.

3.2 Discussion Points/Decisions

The authors discussed the observations set forth by Art Pyster and worked to fulfill the meeting objectives. Major issues under discussion are captured below. Dr. Pyster encouraged this and recommended that the different methods be reviewed at Workshop III.

3.2.1 Copyright/Intellectual Property

A few concerns regarding intellectual property (IP) were raised during the meeting. First, not all authors have signed and returned their author release forms. It is imperative that all authors return these forms prior to the release of version 0.25. Stephanie Enck provided the release form via email. All authors who have not yet returned their signed forms must submit them prior to Workshop III.

In addition, there was concern over the use of figures from source material in the SEBoK. The authors discussed the possible issues and agreed that all figures used in the SEBoK which come from source materials must be covered by a 'permission to use' release from the author. Even figures pulled from other materials written by the authors must have a written release. The core team will work on creating language to use in obtaining permissions.

3.2.2 Release Criteria

The authors attending the EuSEC session developed draft criteria for the release of SEBoK v0.25. These criteria will be discussed, modified, and agreed to by the larger author team at Workshop III in Chicago.

As a starting point, the attending authors believed that v0.25 will be releasable when:

1. All authors have signed and returned the author release form;
2. The BKCASE project has the right to use or the right to use is in process for all figures not developed by the author team;
3. The following sections are reasonably mature: Introduction, Systems Concepts and Thinking (Chapter 3), and Systems Engineering Fundamentals;
4. All other Chapters are reasonably mature, meaning each Chapter has an appropriate organizational structure with fairly complete topic and sub-topic lists, "obvious" material is included, and there is a statement of maturity (stable, evolving, immature);
5. No more than 2 chapters are blank;
6. The Core Team has approved the document with regards to technical editing and readability;
7. Critical overlaps in material are corrected while non-critical overlaps which are not yet corrected are identified;
8. Critical inconsistencies are corrected while major inconsistencies which are not yet corrected are identified;
9. Critical gaps are noted and characterized; and
10. The author team is reasonably comfortable with the draft presented at Workshop III.

Clearly, most of these 10 release criteria are subjective, such as criteria 9 which refers to "critical gaps" without defining what makes a gap critical. There will be no

attempt to formalize these criteria, but the criteria will be discussed in Workshop III so that the authors can develop a reasonably common interpretation of them.

If the Author Team is uncomfortable with the state of the draft in Chicago, a determination of way ahead and any schedule changes would be discussed at the workshop. If the author team is comfortable with the draft at Workshop III, the Core Team would like to have the authority to release version 0.25 based on their best judgment.

These recommended release criteria will be discussed, modified as required, and finalized at the beginning of Workshop III.

3.2.3 Publicity

The authors discussed opportunities for presenting BKCASE materials at several events, including upcoming UK and German INCOSE national conferences, APCOSE, the INCOSE International Symposium (IS), and others. Art Pyster stated that he was encouraged by the authors' proactive engagement in finding opportunities to discuss BKCASE. He reminded authors that there is a standard BKCASE slide deck available on Sakai which all authors can use and tailor as they see fit. A few of the authors stated that they would like to translate the slides into their respective languages; Art Pyster encouraged this.

Art asked again that Stephanie Enck be notified of all speaking opportunities. Also, Art requested that, after each presentation or discussion, the involved authors provide a short (one page or less) summary of the audience reaction and any major topics of discussion.

3.2.4 Visual Representation of Knowledge Structure

Currently, there is no visual representation of the knowledge structure, which should be included in version 0.25. Nicole Hutchison provided a draft wire diagram to present the knowledge structure of Chapter 3 based on the format of the Software Engineering Body of Knowledge (SWEBOK). (See Appendix A). The authors agreed to draft such a structure for each knowledge area. Nicole will send out a power point template for the teams to use. The Core Team will format all of the wire diagrams prior to Workshop III, so formatting will not be critical. Some authors will likely offer more sophisticated methods to structure knowledge in later versions of the SEBoK.

3.2.5 NDIA Track

Don Gelosh is playing a key role in organizing the U.S. National Defense Industrial Association (NDIA) Systems Engineering conference in San Diego, CA, USA in October 2010. Don has gotten agreement from the NDIA conference leadership to include a BKCASE track at the conference. The participating authors agreed that to optimize this opportunity, there should be an overarching plan for the track. The authors propose that the following list of topics for sessions be suggested to the

entire author team for comment, agreement, adjustment (all sessions except the first are expected to be panels; the first is expected to be a presentation):

1. Overview of BKCASE – SEBoK and GRCSE – Art and Dave
2. GRCSE more in-depth walk through including report from survey of universities – Alice and Dave
3. Principles of SE - Rick
4. Concepts of systems and systems thinking – Bud and/or Alice
5. Specialty engineering – Cihan
6. Organization – Hillary and possibly Barry
7. Organizing technical knowledge – Jean Claude/Snoderly
8. Workforce development/Competency – Brian Wells
9. Relationship with PM and SwE – Art and Barry – perhaps Ricardo
10. BKCASE informing the emerging SE research agenda - Dave

*N.B. The day of the meeting, Art Pyster provided this information to the author team, requesting feedback by Tuesday, May 24, 2010. Based on that feedback, Art sent out a refined plan to all authors for up to 10 sessions at the workshop as part of the BKCASE Track.

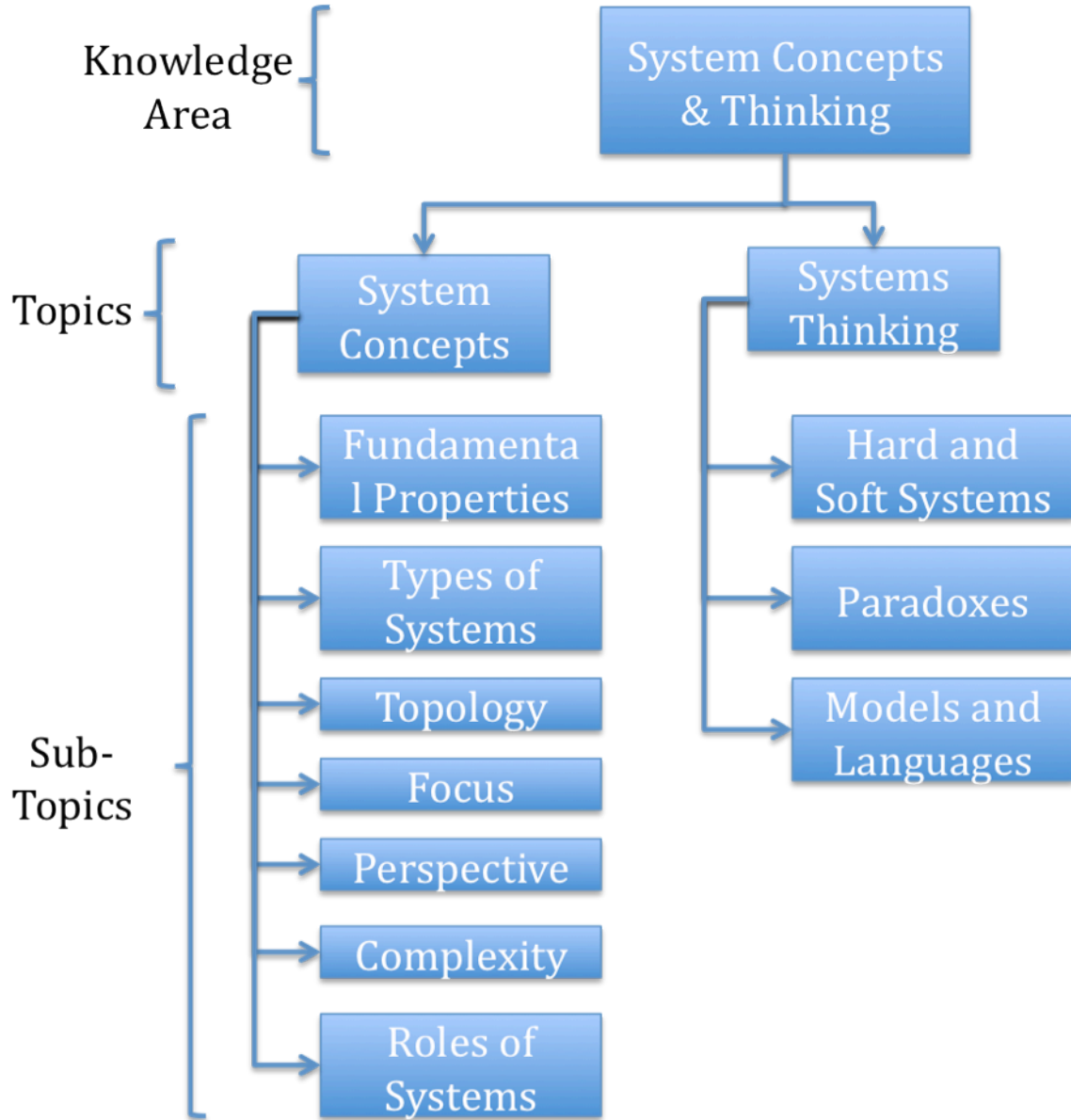
4. Way Ahead

The following is an outline of the way ahead for SEBoK and the BKCASE project overall:

1. **June 20** is a *hard deadline* to submit SEBoK 0.25 material to the Core Team. There must be enough time for the Core Team to do a strong edit prior to Workshop III. Authors should focus on content and not worry about overlap or redundancies for the most part (though it is suggested that Chapters 3 and 4 coordinate closely as they provide the basis for the other documents).
2. **June 21-July1**—The Core Team will build as clean a version of SEBoK 0.25 as possible in the limited time. The Core Team will have a wide license to make changes to improve integration, remove redundancies, smooth different writing styles, clean up formatting, etc.
3. **July 2**—The Core Team will send an updated draft of 0.25 to the Author Team. The Core Team will also state their opinion on the state of the document (level of maturity, gaps, etc.) in an email.
4. **July 7-8**—The release criteria drafted at this meeting will be reviewed, edited, and agreed to by the Author Team at the beginning of Workshop III. Using these criteria, the Author Team will determine what steps need to be done before the document should be released. Also, target dates for the following steps will be determined during Workshop III.
5. **Post-Workshop 3**, the authors will improve SEBoK content based on decisions made at the workshop.

6. **Tech Editing**—A tech editor will help with the document to ensure consistency and grammatical and syntactical correctness.
7. **Integration**—The Core Team will take all of the resulting material and massage it into the final version of 0.25.
8. **Review**—No later than September 15, the Core Team will send out 0.25 for a 90-day review to a targeted set of reviewers. The Author Team will help identify the right people to review 0.25.
9. **October 13-14**—At Workshop IV there will be discussion of 0.25, including a look at whatever review comments have been received by that date. The approach to developing Version 0.5 will be established. The Author Team will also review GRCSE version 0.25 and the SEBoK Case Studies in preparation for their release.

Appendix A: Example Wire Diagram



Appendix B: Action Items

Item	Responsible
Work on receiving a time slot for BKCASE review in conjunction with either the CAB or BOD meetings for the INCOSE IS.	Art Pyster
Build a consolidated calendar for all publicity events for the rest of the year.	Nicole Hutchison/ Stephanie Enck
Send an email to the author team to remind them of the generic BKCASE slide deck available on Sakai, to inform the core team of speaking engagements regarding BKCASE, and to provide a short (less than one page) report on audience reception of BKCASE.	Stephanie Enck
Develop a draft wiring diagram of all KAs/Chapters	Team Leads
Sign and submit author release forms	All authors
Develop a table of figures to keep track of all provenance issues from this point forward.	Core Team
Develop and distribute guidance and templates for gaining permissions to use figures.	Core Team
Close coordination between Chapters 3 and 4	Rick Adcock and Bud Lawson
Close coordination between Chapters 8 and 10	Cihan Dagli and John Snoderly
Coordinate and submit NDIA track abstracts	Art Pyster