

Progress Report for a Software Reengineering Body of Knowledge (SREBOK)

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Abstract

The special interest group software reengineering (FG-SRE) of the German Informatics Society (GI e.V.) pursues the goal of discussion and moving forward the state-of-practice and research of software reengineering in the German-speaking countries since 1999. In 2021 we started an initiative to collect and share the knowledge about the state-of-the-art in software reengineering to help practitioners and researchers to get an understanding of the field. In the last WSRE workshop, the team presented the initiative's goals and plans. In this contribution and the associated talk, we report on our recent progress and expected results of this initiative.

1 Introduction

Software reengineering (SRE) is concerned with “the examination and alteration of a subject system to reconstitute it in a new form and the subsequent implementation of the new form” [2]. The field of SRE is very broad, incorporating technical and organizational aspects, which stretch through all phases of the software lifecycle. This broadness makes it difficult to get an overview of the field, e.g., for practitioners to learn about SRE and apply its knowledge, methods, practices and tools to software systems and for researchers to identify valuable points for research.

To tackle this problem, on the Workshop on Software Reengineering and Evolution 2021, the special interest group software reengineering (FG-SRE¹) of the German Informatics Society (GI e.V.) started an initiative to collect their knowledge and experience and share it with the public. The initiative's goal is to describe the state-of-the-art of SRE as an entry point for interested software engineers to learn about SRE and as a reference to existing further literature. In this contribution and the associated talk, we present

the recent progress and planned activities for achieving this goal and how the audience, members of our special interest group and further experts in the field can contribute to the project.

2 Current State of the Initiative

We are currently working on a citable open access publication that collects and describes the relevant aspects of SRE in the form of a book. The “Software Reengineering Body of Knowledge” (SREBOK) is intended to describe the aspects deeply enough to serve as a self-contained overview and reference document while referencing further reading for details comparable to the Software Engineering Body of Knowledge [1]. In our contribution in 2022 [3], we presented our goals and the state of planning. Since then, we worked on the book structure, thanks to the feedback of the community. We started writing in chapters, contacted potential further co-authors, and deepen our shared understanding in regular meetings.

3 Planned Activities

In the Workshop on Software Reengineering and Evolution, we report on the current state of the document and invited the workshop participants to show their interest in contributing to the document, e.g., by co-authoring a chapter or section. Therefore, we also present an example section to showcase the SREBOK's intended style. As the next steps, we plan to:

1. iteratively sketch and refine further chapters' contents, to progress towards a complete document,
2. further get in touch with potential co-authors for chapters and sections,
3. get feedback from the community,
4. contact potential publishers in parallel,
5. publish when ready.

¹<https://fg-sre.gi.de>

4 Final Remarks

We are currently actively searching for co-authors for the SREBOK. We call every interested party to join our effort to share our knowledge. If you are interested in joining, please address Marco Konersmann via konersmann@se-rwth.de.

References

[1] Pierre Bourque. *SWEBOK : Guide to the Software Engineering Body of Knowledge*. IEEE Computer Society, Los

Alamitos, CA, 2014.

[2] Elliot J. Chikofsky and James H. Cross II. Reverse engineering and design recovery: A taxonomy. *IEEE Softw.*, 7(1):13–17, 1990.

[3] Marco Konersmann, Jens Borchers, Leif Bonorden, Andres Koch, and Sandro Schulze. Towards a Software Reengineering Body of Knowledge. In *Proceedings 24. Workshop Software-Reengineering und -Evolution (WSRE)*, volume 42 of *Softwaretechnik-Trends*, pages 47–48, 2022.