

Title: Software Configuration Management
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Reviewed by Eva Freund

Perhaps the most striking relevance of this book is that while the process of SCM has not fundamentally changed very much in the past 30 years, the program elements being managed have changed immensely. The IT environment has moved from centralized mainframes with a scattering of programming languages to an environment replete with decentralized, networked, WEB-enabled systems employing thousands of clients using hundreds of software packages and dozens of programming languages. This is not your mother's SCM.

To manage SCM in our present environment one needs to understand that having a finely tuned SCM process remains key to implementing and managing SCM in this diverse environment. To further complicate the mix, add in automated tools along with their library systems. A well-integrated CM process works to ensure that SCM will not exist in isolation. Thus a CM program will require solid project management inherent with a CM Plan describing the CM activities and tasks; the work breakdown structure; the CM schedule, and also the risks and metrics.

By adopting the processes and concepts outlined in this book, you will have everything needed to implement and execute a sound SCM organization. Whether you are a project manager with responsibility for Configuration Management (CM), a CM manager, or a CM Team Lead, this book has something for you. From documenting the planning results in the CM Plan, using consensus standards, to evaluating and selecting a CM tool, to identifying CM metrics, and to identifying and then managing a CM process, the reader may find value within its pages.

This extensive book has two sections. The first is composed of 14 chapters describing every facet of SCM as it relates to software engineering. Each chapter consists of text, a summary, and applicable references. The second section consists of more than 20 appendices containing a plethora of SCM templates that; if used, may lead to achieving an SEI-CMM Level 2 equivalent CM organization employing repeatable processes.

Perhaps, the very best feature of this book is that it is life cycle oriented. For each phase of the generalized life cycle it identifies the relevant SCM activities along with the SCM milestones. The template for the configuration management plan (Appendix T) requires not only the traditional activities of configuration identification, configuration control, configuration status accounting, and configuration audits; but also identifies the engineering objectives and describes the SCM responsibilities for each phase of the development life cycle.

If you need a checklist for executing a functional or a physical configuration audit you only need go to Appendix V or W. If you desire the definition of a term or the meaning of an acronym, go to Appendix U. If you are seeking information on Configuration Management phasing and milestones you only need go to Appendix T4.

Our experienced CM Manager found the extensive references to CM-related consensus standards and the appendices containing templates, checklists, and samples to be the most useful components of this book. She has just placed her order for it.

In summary, using this book as a guide will allow your CM organization to be:

- a *support function* in that it supports program engineers and developers, the program, the organization, and oftentimes, the customer,
- a *control function* in that it controls specifications, documents, drawings, requirements, tools, software, and other deliverables, and
- a *service provider* in that it supports people and controls data.