Two Books on ISO 9000 for Software:

Achieving Compliance and Continuous Improvement in Software Development Companies

and

ISO 9001:2000 for Software and Systems Providers
An Engineering Approach

There are a lot of books on ISO 9000, including the latest version issued in 2000. But there is hardly anything targeted toward applying ISO 9001 in software development organizations. Most books just quote a few things from ISO 9000-3, the guidance document addressing applying ISO 9000 to software development. (The new version of this guidance is 90003, with no hyphen.) These two books address the latest version of ISO 9000 and provide guidance on applying it to software development situations. This could have been done as two separate reviews, but a combined (indeed intertwined) review seems very appropriate, especially since both books take a paragraph-by-paragraph approach to most of the material. (For the sake of brevity, I’ll use ACCI and I9SSP to refer to them in the review.)

Let’s get one issue out of the way immediately: each book takes the opposite opinion on the value of the 9000-3/90003 guidance documents. ACCI says 90003 “has been used as a reference, and all implementation guidance...is consistent with and builds upon the interpretation included” in it. Indeed, ACCI recommends purchasing a copy of 90003. I9SSP quotes a study of “36 European software houses” that 9000-3 “is not of great help.” I9SSP also says it is “not clear whether [90003] will be any more useful” than 9000-3 given the “lack of market pressure for” 9000-3 and “little or no perceptible industry pressure for an update,” i.e., for 90003. Indeed, one of the goals of the ISO 9000:2000 revision was to make it more easily understood so fewer interpretations would be necessary for special industry domains. However, each book’s stand on the official guidance document may not affect whether you will like that book or not since neither overtly references 9000-3/90003 in the course of discussing the requirements of 9001:2000. What is somewhat curious about this in the case of ACCI, which recommends 90003, is that 90003 has references to other ISO documents relevant to software development as places to find specific software development process implementation details for various parts of 9001.

Both books provide general history and overviews of ISO 9000. ACCI specifically discusses changes in the 2000 version of 9001 compared to the prior version. Both also offer guidance on implementing 9001 and a quality system, in general. I9SSP seems more “emphatic” in some of its guidance while ACCI is more specific with regard to the software development lifecycle, though, in fairness, I9SSP is covering more than just software development. Both books also offer guidance on registration and selecting a registration/auditing firm.
When it comes to the actual sections on the clauses of 9001, *ACCI* devotes 111 pages to this while *I9SSP* devotes 168 pages to it. Interestingly, each book has been arranged to that Chapter 4 covers Clause 4 of 9001, 5 covers 5, etc., through Clause 8. *ACCI* devotes the following number of pages to each clause (4 through 8): 8, 15, 10, 48 and 30. *I9SSP* devotes 23, 26, 10, 79 and 30, respectively. Now, page counts don’t relate to quality, and the advice both books provide is sound. However, in general, *I9SSP* does seem to deal with each clause in more depth, even where page counts are the same or close. And the actual software-specific guidance in *ACCI* is not truly extensive. Of course, the very nature of the revision of ISO 9000 in 2000 was to make the material more applicable overall, so even 90003 has many sections where there is no substantive software-specific guidance.

When it comes to the Appendices, *ACCI* devotes two to an overview of the quality manual and forms/templates on the CD, one with sample audit questions by ISO 9001:2000 clause, and one (of 2 pages) with some acronyms explained. *I9SSP* has one (4 pages) on ISO 9000’s history, one (3 pages) on “Rules for Claiming Conformity under ISO 9001:2000,” one on “Achieving Compliance with Paragraph 4.1” (a part of 9001 which this book views as “an excellent example of types of problems with requirements”), one on “A Template for Procedures,” one on lifecycles, one (30 pages) on “Implementation as a Managed Process,” one on “Mapping the Standard to Core Competencies” (e.g., requirements engineering, QA, configuration management), and one on “A Sample Questionnaire for Registrar Selection.” Again, the volume of pages does not, in itself denote quality, but *I9SSP* seems to cover more useful material in its Appendices that *ACCI*.

Overall then, for books of comparative size, *I9SSP* seems to provide more value than *ACCI*. *ACCI* has the CD, but there are numerous places on the internet offering quality manual and other document templates.

*Achieving Compliance and Continuous Improvement in Software Development Companies*
Authors: Vivek Nanda
Publisher: ASQ Press
Copyright Date: 2003
First printing: 2003
ISBN #: 0-87389-594-0
Pages: ~274 including Preface, Appendices, References and Index.
An accompanying CD contains “an outline of a quality manual, sample templates and forms, sample audit questions, and a list of acronyms.”

*ISO 9001:2000 for Software and Systems Providers: An Engineering Approach*
Authors: Robert Bamford and William Diebler
Publisher: CRC Press
Copyright Date: 2004
First printing: 2003
ISBN #: 0-8493-2063-1
Pages: ~313 including Introduction, Appendices (93 pages worth), and Index.
CD includes UML (1.4, not 2.0) models and code for a JAVA™ application plus shareware, freeware, trial, demo or evaluation versions of: Adobe Acrobat Reader, WinRAR, Eclipse 2.1, MySQL 4.0.1, JAVA 2 Platform (standard edition) version 1.4.1, Tomcat, Apache Ant 1.5, Jakarta Log4j 1.2.7, and Jakarta Struts 1.1