Software Engineering for the Rest of Us

Diomidis Spinellis

Code Craft: The Practice of Writing Excellent Code *by Pete Goodliffe, No Starch Press, 2006, ISBN 978-1-59327-119-0, 624 pp., US$44.95.*

Most software engineering books are written as textbooks. Geared at hapless students who typically don't have a say in the course content, they often stray toward dry lists of term definitions and methodologies. *Code Craft: The Practice of Writing Excellent Code* claims to be "a survival guide for the software factory." Indeed it is, but it's also a brilliant software engineering book.

Software engineering isn't an abstract academic topic. It's the body of knowledge that every developer should be familiar with and apply day in and day out. Author Pete Goodliffe starts his work where the rubber meets the road—with code. He presents defensive programming, presentation and naming, commenting, and error handling. He then moves on to what he calls the code's "secret life": tools, testing, debugging, build management, performance, and security. Only then does he discuss factors affecting the code's shape, such as design, architecture, growth, and maintenance. The last three parts of the book cover less tangible but no less practical topics: programmer characteristics, teamwork, source control, specifications, code reviews, estimation techniques, methodologies, and specialized programming disciplines.

Code Craft is an ideal introduction to software engineering for both students and budding practitioners. By emphasizing coding—the activity that, at the start of our careers, monopolizes our time and interest—it imparts practical hands-on advice that we can immediately apply the next time we're at a keyboard. More advanced topics follow naturally as issues that we inevitably stumble upon as we advance through our careers.

Academics looking for detailed references for each topic discussed won't find them here. On the other hand, readers are guaranteed to understand every paragraph, and they'll also get almost 100 pages answering the end-of-chapter exercises. If a fresh developer asks you to recommend one book, *Code Craft* is a perfect candidate.

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Mapping Specifications to Design

Naseem Mariam

Software Specification and Design: An Engineering Approach *by John C. Munson, Auerbach, 2005, ISBN 0-8493-1992-7, 400 pp., US$79.95.*

As its title indicates, *Software Specification and Design* takes a simple engineering approach to the critical issue of mapping software specifications to design. It also explains software measurements and advocates the use of call graphs during software maintenance. Author John Munson has participated in