

QSM, Vol. 1: Systems Thinking

"Weinberg addresses more clearly the form and essence of quality that we software people worry about. . . . I can't imagine a better way to help change the thinking process in your organization than the wide-scale distribution of Jerry Weinberg's wonderful new book."

—Ed Yourdon, *American Programmer*

"With the current frenzy for Total Quality Management, ISO 9000, and Baldrige Awards dominating the industry, it's refreshing to have someone as down-to-earth as Weinberg focusing on the need for high-quality management as a necessary prerequisite for high-quality software. . . . [a] people-oriented approach to quality."

—Warren Keuffel, *Computer Language*

"This is one of those landmark books that comes along at the right time and addresses the right set of issues. . . . what makes this book unique and invaluable is the organization and presentation of the material. This is a book every software development manager should study."

—Shel Siegel, *CASE Trends*

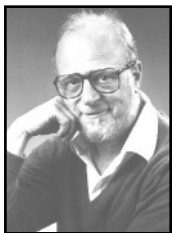
"The notation is so elegant that it takes almost no effort to learn it and use it. The diagrams are simple and easy to understand and used in such a consistent manner that one has to wonder why this notation is not in widespread use. I hope it will be. . . ."

—*Software Quality World*

"A must book for every software development manager."

—C.C. Dilloway, *Computer Books Review*

About the Author



Gerald M. Weinberg, prolific author of some thirty popular books, is a principal of the consulting firm Weinberg and Weinberg, based in Lincoln, Nebraska. Drawing on decades of experience in the worlds of industry, academia, and computer programming, he teaches and consults on ways that people can become more productive.

Partial Contents

- I **Patterns of Quality**
 - What Is Quality? Why Is It Important?
 - Software Subcultures
 - What Is Needed to Change Patterns?
- II **Patterns of Managing**
 - Control Patterns for Management
 - Making Explicit Management Models
 - Feedback Effects
 - Steering Software
 - Failing to Steer
- III **Demands That Stress Patterns**
 - Why It's Always Hard to Steer
 - What Helps to Stay in Control
 - Responses to Customer Demands
- IV **Fault Patterns**
 - Observing and Reasoning About Errors
 - The Failure Detection Curve
 - Locating the Faults Behind the Failures
 - Fault Resolution Dynamics
- V **Pressure Patterns**
 - Power, Pressure, and Performance
 - Handling Breakdown Pressures
 - What We've Managed to Accomplish

Notes

Listing of Laws, Rules, and Principles

Author Index

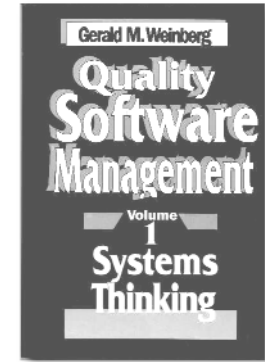
Subject Index

"Once I read the book, I understood more about how to effect change with my peers so that I could improve our quality practices and we could all succeed at turning projects into products."

—Johanna Rothman
Reflections

Quality Software Management Vol. 1: Systems Thinking

by Gerald M. Weinberg



ISBN: 978-0-932633-72-9
©1992 336 pages softcover
\$36.95 (plus shipping)

*Enrich the Way Your Organization
Thinks About Quality*

High-quality software demands high-quality management. That's the subject of *Quality Software Management*, a four-volume series that has grown out of acclaimed author Gerald M. Weinberg's forty-year love affair with computers.

In Volume 1, *Systems Thinking*, the author tackles the first requirement for developing quality software: learning to think correctly—about problems, solutions, and quality itself. He also sets out guidelines that stimulate the kind of thinking needed. "Act early, act small" is key to staying in control of the software process. Managers need to serve as both planners and catalysts within the organization: to continually plan what to do, observe what happens, and then act

decisively to bring the actual closer to the planned. Numerous examples illustrate "control points," areas that can be managed to prevent a crisis or to keep one from getting worse.

Topics include: • understanding quality • pressure and breakdowns • software cultures • patterns of quality • patterns of management • feedback effects • the size/complexity dynamic in software engineering • detecting failures and reacting to them • fault resolution dynamics • the role of customers. Useful diagrams, references, exercises, and a bibliography augment the text.

"... very highly recommended!"
—*New Book Bulletin*

Read more about this book at
www.dorsethouse.com/books/qsm1.html