

More Reliable Software *Faster and Cheaper - An Overview*

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Many, if not most, software practitioners feel stressed out by competitive pressures to produce more reliable software faster and cheaper. If you are now associated or expect to be associated with software in the future, software reliability engineering (SRE) can help. This overview is intended to give you a feel for what this standard, proven, widespread best practice is and its benefits.

SRE is based on two powerful ideas:

- Quantitatively characterize the expected use of your product and then focus your resources on the most used and/or most critical functions. This increases development efficiency and hence the effective resource pool available to add customer value to your product.
- Further increase customer value by setting quantitative reliability objectives that precisely balance customer needs for reliability, timely delivery, and cost; engineer project strategies to meet them; and track reliability in test as a release criterion.

About the Speaker: Musa is one of the creators of SRE, with more than 30 years experience as software development practitioner and manager. Musa has published 3 books and more than 100 papers on SRE. His latest book, *Software Reliability Engineering – Second Edition* (actually almost totally new) came out in the fall of 2004. Elected IEEE Fellow in 1986 for many seminal contributions, he was recognized in 1992 as the leading contributor to testing technology. The IEEE Reliability Society named him Engineer of the Year in 2004. His leadership has been noted by every edition of *Who's Who in America* since 1990 and by *American Men and Women of Science*. Musa, widely recognized as the leader in SRE practice, initiated and led the effort that convinced AT&T to make SRE a “Best Current Practice.”

Musa has helped a wide variety of companies with a great diversity of software-based products deploy SRE. He is an experienced international speaker and teacher (over 200 major presentations including keynotes) with consistently outstanding feedback. A founder of the IEEE Technical Committee on SRE, he is closely networked with SRE leaders, providing a broad perspective.