More Reliable Software
Faster and Cheaper - An Overview

Dr. Laurie Williams

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: Dr. Laurie Williams was selected by John Musa, a creator of Software Reliability Engineering, to be his technical heir because of his confidence in her technical and communication skills. She is a certified instructor of Musa's *More Reliable Software Faster and Cheaper* course. Laurie is an associate professor in the Computer Science department at North Carolina State University (NCSU).   She teaches software engineering and, more specifically, software reliability and testing. Laurie is a member of the NCSU Academy of Outstanding Teachers and has been voted the "Most Helpful Professor Outside of Class" by the student body.   Prior to joining NCSU, she worked at IBM for nine years, including several years as a manager of a software testing department.   At NCSU, Laurie leads the Software Engineering Realsearch group of graduate researchers. The motto of the "Realseach" group is "Real Engineers – Real Projects – Real Impact." Through this "real" research, Laurie has and continues to work closely with a variety of companies, including IBM, Nortel, ABB, Microsoft, Tekelec, Sabre Airlines, and EMC.   Dr. Williams has published over 150 software engineering papers, articles, and books.   Additionally, she has been an invited to give more than 60 technical presentations worldwide. Through her practical industry experience and extensive research in both reliability and testing, Dr. Williams' is *uniquely* qualified to help you.