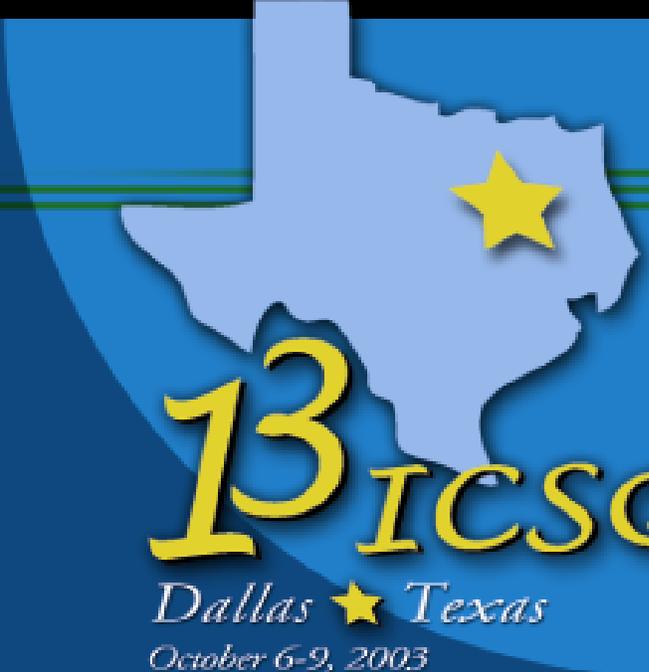


13th International Conference on Software Quality

Dallas Texas
October 6-9, 2003



13 ICSQ

Dallas ★ Texas
October 6-9, 2003

Keynote Speakers:

Jerry Weinberg,
James Bach,
Bill Curtis,
and Karl Wiegers

Invited Speakers:

Robin Goldsmith,
Herb Krasner,
Mark Paulk,
Johanna Rothman,
Mary Sakry,
and Neil Potter

American Society for Quality



Software Division

For more information on the 13th
International Conference on Software
Quality, visit our official web site at...

www.icsq.org

13th International Conference on Software Quality (13ICSQ)

Dallas, Texas

Renaissance Dallas-Richardson Hotel

13ICSQ provides a forum for individuals and organizations seeking technologies, concepts, and techniques to improve the quality of their software products, processes, and services, and looking to enjoy networking and learning opportunities.

13ICSQ is presented by the Software Division of the American Society for Quality (ASQ). 13ICSQ features two days of tutorials (Monday & Thursday) and a two-day conference (Tuesday & Wednesday) highlighting keynote speakers, invited presentations, and technical papers from a variety of industry experts and practitioners.

Monday, October 6 - Tutorials *

Tuesday & Wednesday, October 7 & 8 - Conference

Thursday, October 9 - Tutorials *

Friday & Saturday, October 10 & 11 - Post-Conference Courses

* Tutorial fees are not included in the conference fee (see conference registration form on page 15 of this brochure).



Who Should Attend?

- Executives with software responsibility
- Product, system, and software managers
- Software engineers
- Software process engineers
- Senior systems analysts
- Software quality engineers
- Anyone interested in software development/quality

Why Should YOU Attend?

- Personalize your educational experience by choosing from multiple conference tracks
- Network with your peers to compare lessons learned, successes, and challenges
- Increase your productivity by implementing the tools and techniques presented
- Participate in tutorials that will provide you with new skills to enhance your working processes

ASQ Software Division



13ICSQ is presented by the American Society for Quality (ASQ) Software Division. The Software Division is a community of individuals and organizations committed to:

- Seeking and applying technologies, concepts, and techniques to improve the quality of software products, processes, and services
- Growing their professional skills
- Building a stronger level of professionalism in that community

Software Division Meeting Monday, October 6, 2003 5:30 p.m. - 6:30 p.m.

Software Division members and others interested in the Software Division are invited to attend!!!

Come learn about the Software Division and meet our division officers, committee chairs, and regional councilors.

13ICSQ Conference Committee:

- Linda Westfall, The Westfall Team, Conference Chair
- Theresa Hunt, The Westfall Team, ASQ Software Division, Vice Chair Programs
- Rufus Turpin, Carpe Diem Informatics, Inc., Technical Program Chair
- Karen Bishop-Stone, Testware Associates, Inc., Tutorials Chair
- Michelle Dovel-Cash, Veridian, Sponsors & Exhibitors Chair
- Tom Allen, Web-Site Chair
- Trudy Howles, Rochester Institute of Technology, Proceedings Chair
- Geree Streun, Volunteer Coordinator
- Jean Burns, UIC, Special Events Coordinator
- Marjorie Maupuy, ASQ, Meeting Planner
- Monique Bunch, ASQ, Event Registration Coordinator
- Denise Cawley, ASQ, Marketing

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13ICSQ Keynote Speakers:



Gerald M. Weinberg Quality Alibis: Tools, Rules, Fools, and Schools

Tuesday 8:15 a.m. - 9:30 a.m.

We have a whole arsenal of alibis for why we don't make more rapid progress toward quality software. The four major classes of alibis are:

- Our tools are inadequate
- Our models are wrong
- People are foolish
- Our schools aren't doing their job

This talk will to examine each class of alibi in turn then propose a different model of what stands in the way of rapid improvement in quality.

Gerald M. Weinberg (Jerry) is the author or co-author of many articles and books, including *The Psychology of Computer Programming* and an *Introduction to General Systems Thinking*. His books on leadership include *Becoming a Technical Leader*, *The Secrets of Consulting*, *More Secrets of Consulting*, and the four-volume *Quality Software Management* series. His books cover all phases of the software life cycle, including *Exploring Requirements*, *Rethinking Systems Analysis and Design*, *The Handbook of Walkthroughs, Inspections, and Technical Reviews*, and *General Principles of System Design*. Weinberg is a host of the AYE Conference (Amplifying Your Effectiveness) and winner of the Warnier Prize, the Stevens Award, and a charter member of the Computing Hall of Fame.



Karl Wieggers The Soft Side of Peer Reviews

Tuesday 4:30 p.m. - 5:30 p.m.

Peer reviews are as much a social interaction as a technical practice. Asking your colleagues to point out errors in your work is a learned - not instinctive - behavior. This presentation describes some of the cultural and interpersonal aspects of peer reviews and inspections that must be considered when trying to install a review program in an organization. The

concept of "egoless programming" is described as it relates to reviews. Suggestions are provided for how a reviewer should present issues to the author in a nonjudgmental way. Some aspects of management attitudes and behaviors are discussed, including 10 signs of management commitment to peer reviews. Several reasons why people do not perform reviews and ways to overcome them are explored. Some of the benefits that people performing different project roles can enjoy from a successful peer review program are itemized.

Karl Wieggers is principal consultant with Process Impact, a software process consulting and education company in Portland, OR. His interests include requirements engineering, peer reviews, project management, risk management, and software metrics. Previously, he spent 18 years at Eastman Kodak Company

Wieger's most recent book is *Software Requirements, 2nd Edition*. He also wrote *Peer Reviews in Software: A Practical Guide* and *Creating a Software Engineering Culture*, which won a Productivity Award from *Software Development* magazine.

13ICSQ Registration Hours (subject to change)

Sunday, October 5, 2003 1:00 p.m. to 5:00 p.m.
Monday, October 6, 2003 7:00 a.m. to 5:00 p.m.
Tuesday, October 7, 2003 7:00 a.m. to 5:00 p.m.
Wednesday, October 8, 2003 7:00 a.m. to 5:00 p.m.
Thursday, October 9, 2003 7:00 a.m. to 3:00 p.m.



James Bach How Testers Think

Wednesday 8:15 a.m. - 9:15 a.m.

The role of a tester is to bring vital information about the product to light. To do that requires not only that we create and execute test cases, but also that we think differently from our nontester co-workers. We must be preoccupied with risk, not success; our job is to take seriously possibilities that other people may not even notice. This talk presents specifics on what "thinking like a tester" can mean, and how that way

of thinking makes high quality possible.

James Bach is a pioneer in the discipline of exploratory software testing and a founding member of the Context-Driven School of Test Methodology. He is the co-author of *Lessons Learned in Software Testing: A Context-Driven Approach*. Starting as a programmer in 1983, Bach turned to testing in 1987 at Apple Computer, going on to work at several market-driven software companies and testing companies that follow the Silicon Valley tradition of high innovation and agility. Bach founded Satisfice, Inc., in 1999, a test training and outsourcing company based in Front Royal, VA.



Bill Curtis We Need More Cowboy Programmers

Wednesday 1:30 p.m. - 2:30 p.m.

'Cowboy programmers' have been portrayed by different factions in the software development community as heroes or villains. Process aficionados vilified them as undisciplined renegades whose individualism is a threat to professional engineering. Those who eschewed the process movement in software development defied them as the creative artists

whose refusal to kow tow to management was the only hope for achieving the miracles needed to produce challenging new systems. Yet there are almost no characterizations of what a 'cowboy programmer' is and how they perform their skills. This talk will propose a description of what a 'cowboy programmer' is in reality by exploring the lives and working habits of real cowboys. By understanding how real cowboys worked we will come to understand how real 'cowboy programmers' perform their craft. This understanding will challenge stereotypes and cherished beliefs about the practitioners of two of our most cherished professions. We will propose a definitive characterization of 'cowboy programmer.' The analysis and juxtaposition of these two professions will lead to one inexorable conclusion...we need more 'cowboy programmers.'

Bill Curtis is co-founder and chief scientist of TeraQuest in Austin, TX, where he works with organizations to increase their software development capability. He is a former director of the Software Process Program in the Software Engineering Institute at Carnegie Mellon University. Curtis is a co-author of the *Capability Maturity Model for Software*, and is the principal architect of the *People CMM*. Prior to joining the SEI, Curtis directed research on advanced user interface technologies and the software design process at MCC, developed a global software productivity and quality measurement system at ITT's Programming Technology Center, evaluated software development methods in GE's Space Division, and taught statistics at the University of Washington.

ASQ Certifications at 13ICSQ

The following ASQ certification exams will be offered at 13ICSQ:

- Certified Software Quality Engineer (CSQE)
- Certified Quality Auditor (CQA)
- Certified Quality Manager

Application deadline: September 5, 2003

Exam Date: Sunday, October 5, 2003, 8:00 a.m. - Noon

Exam Site: Renaissance Dallas-Richardson Hotel

Visit our Web site at www.ICSQ.org for more information and to download the registration form for these special certification examination offerings.

Monday, October 6 Full-Day Tutorials:

7:00 a.m. - 8:00 a.m. Continental Breakfast
8:00 a.m. - 5:00 p.m. Full-Day Tutorials
Noon - 1:00 p.m. Lunch



TUT01: Quality Consulting for Quality Consultants - Gerald Weinberg

(Register early as class size is limited to 20)

Quality is obtained one person at a time. Every successful quality professional is also a successful and masterful one-on-one consultant. In this interactive tutorial, you will obtain new strategies for coping with your most serious quality consulting problems — both internal and external.

Jerry Weinberg, author of *The Secrets of Consulting* and *More Secrets of Consulting*, helps you affirm your most successful strategies, while sharing other techniques you may not have thought of.

Learn to be more sensitive to client desires, more aware of safety issues, and more influential in obtaining effective client responses, all leading to higher quality in products, processes, and people. Real-life consulting cases brought by the participants will be used to illustrate all the principles.



TUT02: In Search of Excellent Requirements - Karl Wieggers

Requirements form the foundation for all the software work that follows. Arriving at a shared vision of the product to be developed is one of the greatest challenges facing the software project team, and customer involvement is among the most critical factors in software quality. The objective of this tutorial is to give attendees a tool kit of practices, reinforced with practice sessions and group discussions, that they can begin applying to improve the quality of the requirements development and requirements management processes in their organization.

Learn about tested methods that can help any organization improve the way it gathers, documents, and analyzes software requirements. Characteristics of excellent requirements statements and requirements specifications are presented and used to evaluate some sample functional requirements. The seminar emphasizes several practical techniques, including:

- Customer involvement through a “product champion” model
- The application of use cases for defining user needs and system functions
- Writing software requirements specifications using a standard template
- Construction of dialog maps to model user interfaces
- Using prototypes to clarify and refine user needs
- Using peer reviews to find errors in requirements
- Using a requirements traceability matrix to connect requirements to design elements, code, and tests

The basic concepts of requirements management are described, as are practical methods for managing changes to requirements. These techniques can reduce project risk by improving the quality and control of the software requirements, thereby increasing the likelihood of a successfully completed project.



TUT03: Proactive Testing: Project Manager's Secret Advantage - Robin F. Goldsmith

Testing often is considered an obstacle to project completion, but savvy project managers know that Proactive Testing™ can help them deliver better software quicker and cheaper. This interactive tutorial reveals proven testing methods that also cut development time. Developers finish coding sooner and spend less time recoding. Moreover, Proactive Testing™ can prevent many of the showstoppers and late

unplanned redesign and rework that ordinarily cause most major project overruns. Learn how developers and users, as well as managers, can turn testing from obstacle to advantage whose benefits they recognize and desire. Exercises enhance learning by allowing participants to practice applying practical techniques to an actual case.



TUT04: Making Process Improvement Work: A Concise Action Guide for Software Managers & Practitioners - Mary Sakry & Neil Potter

This tutorial provides a systematic approach for organizations to improve their software development capability, resulting in higher product quality and reduced costs. It presents a straightforward, systematic approach to planning, implementing, and monitoring an improvement program.



Software process improvement too often reflects a significant disconnect between theory and practice. This tutorial bridges the gap by offering a straightforward, systematic approach to planning, implementing, and monitoring a process improvement program. Project managers and teams will be able to apply the tutorial's practical ideas immediately to real-life challenges.

You will develop an improvement action plan based on the business goals and problems of your organization. This

approach addresses the frustration that many people experience when improvement programs do not relate to the project work being done.

Learn techniques for deploying new practices across the organization. These techniques address the problems of resistance, unwieldy solutions, and slow deployment.

Also presented are techniques for checking the progress of your improvement program and taking corrective actions based on what you learn. Checking progress is an essential activity to provide the organization with feedback when pursuing business goals and solving problems. The resulting data allow for early problem detection, early correction, and improved visibility to management on improvement progress.



TUT05: Risk-Driven Software Testing - Joyce Statz & Jorge Boria

Software organizations that want to maximize the yield of software testing find that choosing the right testing strategy is hard, and most testing managers are ill-prepared for this. The organization has to learn how to plan testing efforts based on the characteristics of each project and the many ways the software product is to be used. This tutorial is intended for software professionals who are likely to be responsible for defining the strategy and planning of the testing effort and managing it through its life cycle. These roles are usually those of testing managers or project managers. Topics include:

- Introduction to managing testing
- Defining the scope of testing in a software project
- Testing strategies
- Developing the testing assets
- Managing risk



TUT06: Software Quality Function Deployment - Dan Houston

Software practitioners continue to search for tools to enhance software project and product quality. Quality Function Deployment (QFD) is one approach that directly addresses quality in product development. It has been widely used in a number of industries, and has had limited application to software. Its use is increasing as Six Sigma is embraced by more companies because QFD is a cornerstone of design for Six Sigma. Also, as Six Sigma is applied more to software development, the application of QFD to software will increase.

QFD has been applied to software development in a variety of ways, typically starting with, and sometimes ending with, a product planning chart. However, quality charts can be used throughout the software development process.

Learn the concepts underlying QFD and quality deployment, and the benefits of QFD as cited by those who have applied it to software development. QFD will be presented as a means of supporting decision making during product development.

Houston will discuss the four main charts that can be used in software development and illustrate their use with a product example. Group exercises will teach attendees the mechanics of creating and using quality charts, as well as planning for QFD by specifying a series of quality charts. Various configurations of quality charts will be provided to illustrate the opportunities for their use in software development.

Thursday, October 9 Full-Day Tutorials:

7:00 a.m. - 8:00 a.m. Continental Breakfast
8:00 a.m. - 5:00 p.m. Full-Day Tutorials
Noon - 1:00 p.m. Lunch



TUT07: Using ITIL and CobiT for Improving IT Processes - Bill Curtis

To help IT organizations understand how to use ITIL and CobiT for improving the performance of their operations. To enlighten IT organizations on how to use the Process Maturity Framework that underlies the Software CMM and CMMI for introducing best practices and improved discipline into their operations. Topics include:

- Overview of IT organizations and the standards that affect them. This introduction will briefly describe the typical components of an IT organization and some of the standards used to evaluate them. It will set the stage for the main topics of the tutorial.
- CobiT provides organizations with a way to determine whether they are exercising proper governance over their IT operations. CobiT consists of 34 control objectives with greater detail to explain how each one can be objective, can be implemented, and its performance evaluated. The tutorial will present an overview of the issues covered by CobiT.
- ITIL is a collection of best practices in such areas as service delivery, service support, service security, infrastructure management, and application management. Although ITIL attempts to cover all areas of IT, its guidance is stronger in areas of service delivery and support than in application development. The tutorial will present an overview of the guidance offered by ITIL and the related British Standard 15000 for different IT areas.
- Recommendations - An approach that integrates ITIL and CobiT into a process maturity framework for implementation in IT organizations will be described. Lessons learned from process improvement in IT organizations will be discussed. The tutorial will conclude with recommendations on how to best integrate these standards for improving IT functions.



TUT08: An Introduction to Context-Driven Test Methodology - James Bach

What happens when testers from different parts of the testing field come together and share experiences? Too often, they fight. They ridicule each other's practices. What happens when a company that has always done testing one way is faced with new competitive pressures, time pressures, new technology, new regulatory requirements, or new people who don't share the same practice culture?

They adapt or they flounder.

Introducing context-driven test methodology, an approach to testing that does not rely on canned ideas— best practices— to define how to test a product. Practices are useful to talk about, but the central focus of context-driven testing is the skilled practitioner. We focus on developing the judgment to see a testing situation, reason about it, discuss it, and decide how best to solve the testing problem in that specific context. Context-driven thinkers are better able to share ideas with people who come from different practical traditions, and better able to adapt their testing to changing project conditions.

It is easy to demonstrate that there are no best practices, only good practices in context. It is not so easy to take the next step, and answer the question, "Ok, how do you know what practices to use in which contexts?" Answering that question is a prime concern of context-driven test methodology. A principal tool we use to do that is the "heuristic." A heuristic is a guideline that, in the hands of a skilled practitioner, helps him or her quickly and reliably work through the issues and construct a test approach that fits.

Context-driven testing does not reject traditional best practices of testing, it merely redefines them as "good practices in context" and seeks to deploy them wisely, or reinvent them when necessary. Taught by a founding member of the context-driven school, this tutorial will help you better articulate your test practices and reason about them.



TUT09: Everything Project Managers Need to Know About Requirements But Were Too Busy to Ask - Johanna Rothman

Many of us start projects with fuzzy requirements or mandates: "Get me a blatz by next June," where the only defined piece of the project is the ship date. Or, maybe you start projects with a demand for a feature by a certain date. You have to decide how many other features you have to fit into this release, how many people you need, and how good it's going to be — all before you have any idea what the initial demand truly is.

Welcome to project requirements. By adapting product requirements techniques to the project, you can determine what you're supposed to do, how quickly, how well, and with whom.

As a project manager, you don't just have to know the project's requirements, you also have to know enough about the product's requirements to plan, monitor, and complete the project. We'll discuss how to iterate between the project and product requirements to build a plan and a schedule, and plan for measurements and for release. Attendees will learn to:

- Define project requirements and how they are similar to and different from product requirements
- Quickly learn their project's requirements
- Improve starting projects for success
- Prevent disconnect between themselves and management
- Develop communication skills about the project with the technical staff and management.



TUT10: Stocking the Tester's Toolbox - Danny R. Fraught

Almost all software development organizations use tools to help with testing, if nothing more than a simple defect-tracking mechanism. Most organizations either do some amount of test execution automation or plan to introduce such automation. Introducing automation for test execution is a big step, and it doesn't always succeed. But the most profitable investment in tooling may not come from automating test execution, especially in the short term.

Organizations need to consider the full range of tools that are available to testers. They also need to better understand how test execution fits into the picture, so that they're more likely to get a good return on their tooling investment.

A feature of this tutorial will be the use of freeware test tools. Tool demonstrations during the workshop will use freeware tools wherever possible so that participants can immediately try the tools themselves when they return to the office. Participants will be invited to try some of the tools themselves during the tutorial.



TUT11: eXtreme Programming: What It Is and When to Use It - Herb Krasner

Gain an understanding of what eXtreme Programming (XP) is all about from an objective viewpoint. You will learn to make informed decisions about whether XP is right for your organization and projects, how it can fit into your current approach, and how to adapt XP to optimize your performance. You will be immersed in the details of XP, providing a clear, objective view of the value to be gained

with these practices, and the associated costs you can expect to incur. Topics include:

- The agility movement and XP
- XP background and history
- XP and other modern approaches – a comparison
- The values and principles of XP and the economics of XP success
- Controlling the four success variables (cost, time, scope, and quality) in an XP project
- XP process model
- XP roles of customer, developer, and management
- The 12 XP practices – a cohesive collection of best practices
- Certain key practices and techniques explored
- To do XP or not: tradeoffs in determining whether XP is a good fit for your projects
- Implementation of XP projects: prerequisites for success
- Industry case studies: successes, failures, and misunderstandings
- Automated tools and other support for successful implementation of XP

Thursday, October 9

7:00 a.m. - 8:00 a.m. Continental Breakfast
8:00 a.m. - Noon Half-Day Morning Tutorial
Noon - 1:00 p.m. Lunch *
1:00 p.m. - 5:00 p.m. Half-Day Afternoon Tutorial

* Lunch is included only with full-day or two half-day tutorials.

Half-Day Morning Tutorial:



TUT12: Career Challenges and Opportunities for Software Quality Professionals: Competing and Thriving in Today's Economy - Eric Patel

Those of us who have been part of the software quality community for some time have witnessed numerous changes in our profession. Quality leaders have come and gone.

Trends, fads, and methodologies have been invented, evolved, and repackaged. Companies have formed, changed, or disintegrated. In such a constant sea of change, how well have we navigated? And more important, what lies ahead for us in the near future?

We are constantly faced with numerous career challenges and opportunities: new technology, new tools, and even new industries. With a cyclical, growing economy, how do you plan for short- and long-term strategy? Are career stability and success sure things? If not, what can we do to mitigate some of the inevitable risks and stay the course?

As a hiring manager, what should you be concerned with? Finding and retaining talent is vital. Yet most hiring managers, even HR professionals, do not do as good of a job as they can with these important tasks. Often the problem starts with the company not knowing its requirements: not knowing what it wants or needs in terms of staff augmentation. Without a goal, the journey can turn out to be a hard lesson learned with wasted time, effort, and costs. It's more than just putting in the required time. Due diligence must be a conscious effort, refined, and practiced on an ongoing basis.

As a software quality candidate, what can you do to keep your career on track? With so many of us out of work, one would think that we have plenty of time to spend charting our next course. Yet many of us do not spend enough time – hardly any time, in fact – planning our careers. We go from job to job, hopping from position to position, with sometimes no more of a goal than to constantly increase our salary and/or improve our job title. There's more to our worklife than that, isn't there? What about quality of life? Lifestyle? Actually enjoying our work and what we do? Come learn about how to compete and thrive in today's economy.

Half-Day Afternoon Tutorial:



TUT13: Software Estimation - Bob Galen

The project and cultural dynamics of planning and estimating are a great challenge facing technologists today. There is ever-increasing pressure to "get things done," so there is little time for estimation or planning. All too often, business-derived dates or unrealistic dates drive projects. In conjunction with this, teams lack solid estimating and planning skills.

This usually results in resorting to "quick best guesses." We then compensate for poor estimates and plans by trying to work harder, which has a low probability of success.

Tom Galen will introduce you to a variety of team collaboration and brainstorming techniques for leveraging the skills already within your team to produce and qualify your plans. Almost half the workshop is spent in exercises so attendees will learn to apply the techniques.

Friday & Saturday, October 10 & 11, Post-Conference Courses

Friday, October 10 8:00 a.m. - 5:00 p.m.
Saturday, October 11 8:00 a.m. - 3:30 p.m.

Note: These courses will be held at another hotel (location to be advised). Transportation to and from the Renaissance Dallas Richardson Hotel will be provided at no additional charge.

Each Course Limited to: 24 Students

Course Fee (per attendee per course):

- ASQ or AQP Members \$945
- Nonmembers \$1045

CEUs and ASQ RUs: 1.25



Software Functional Testing (03273C)

Instructor: Theresa Hunt, CSQE

This two-day course focuses on the practical "how-to" knowledge and skills needed to implement and improve functional software testing techniques and practices.

Information and skills taught in this course are presented in combination of lecture and interactive formats. Actual examples from the software industry are utilized to make the information relevant. Throughout this course, learned skills are practiced using interactive and team exercises. The emphasis is on techniques that allow you to transition the testing skills learned in this course to your own work environment.

Learning Outcomes: Upon successful completion of this course you will be able to:

- Understand the basic concepts of software functional testing
- Design and implement tests for the software's functional and nonfunctional requirements
- Utilize functional test case design techniques to increase both test effectiveness and efficiency
- Select the appropriate tests to regression test your software after changes have been made



Building Software Quality Skills (03274C)

Instructor: Linda Westfall, PE, CSQE, CQA

This two-day course is designed to provide a basic knowledge base for anyone interested in implementing or improving software quality engineering techniques and practices in their organization.

Information and skills taught in this course are presented in combination of lecture and interactive formats. Actual examples from the software industry are utilized to make the information relevant. The emphasis is on techniques that allow you to transition the skills learned in this course to your work environment.

Learning Outcomes: Upon successful completion of this course you will be able to understand the:

- Basics of software quality engineering
- Techniques involved in planning, implementing, and auditing a software quality management program for your organization
- Techniques used to define and tailor software engineering life cycles and processes
- Basic techniques used to track and control software projects
- Techniques involved in selecting, defining, and applying software measurements and metrics
- Understand the basic techniques used in verification and validation including peer reviews and various levels of software testing
- Understand the fundamentals of configuration management including configuration identification, control, status accounting, and audits

Exhibit Area Hours

Tuesday, October 7 7:00 a.m. - 7:00 p.m.

Wednesday, October 8 7:00 a.m. - 3:00 p.m.

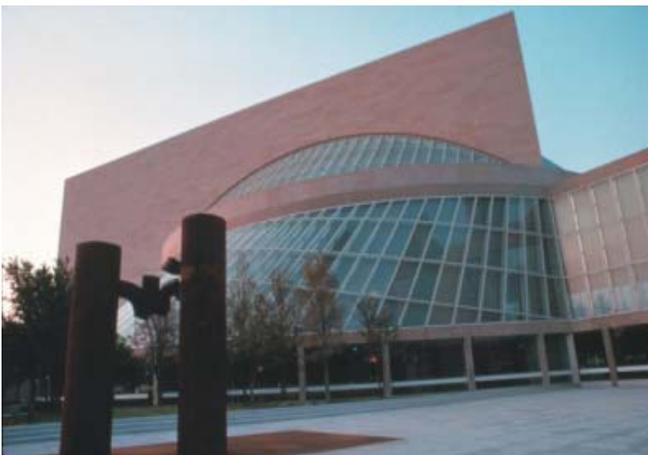
Reception in the exhibit area Tuesday evening
5:30 p.m. to 7:00 p.m.



Hot-Topic Lunch Tables

To facilitate networking, special hot-topic lunch tables will be available on Tuesday and Wednesday.

- Pick a topic and join in the discussion
- Propose a topic and lead your own table
- Network with your peers on topics of common interest



For more information about 13ICSQ,
including tutorial outlines & speaker bios, visit
our Web site at:

www.ICSQ.org

13ICSQ Sponsor/Exhibitor Opportunities

If you or your organization are interested in:

- Meeting prospective clients
- Gaining access to decision makers
- Obtaining more visibility in your marketplace

Consider becoming a sponsor or exhibitor at the 13ICSQ.

Depending on your sponsorship/exhibitor level benefits can include:

- Display table in exhibit area
- Presentation in exhibitor's track
- Your logo on conference tote bags, in On-Site Program, and on conference Web site and CD (with a link to your site)
- Advertising in *Software Quality Professional* journal and *Software Quality* newsletter
- Insert in conference tote bags
- Sponsorship of conference events
- Complimentary 13ICSQ registrations

For more information, visit our Web site at:
www.ICSQ.org/13ICSQ/13icsq_sponsors_exhibitors.htm
or contact Michelle Dovel-Cash, the 13ICSQ Sponsor and Exhibit chair at, 407-658-0044 ext. 255 or by e-mail to michelle.dovel-cash@veridian.com.

7:00 a.m. – 8:00 a.m.	Continental Breakfast with Exhibitors Today's Exhibits Open 7:00 a.m. – 7:00 p.m.				
8:00 a.m. – 9:30 a.m.	Welcome - Mike Kress, ASQ Software Division Chair KEYNOTE ADDRESS: Gerald M. Weinberg - Quality Alibis: Tools, Rules, Fools, and Schools				
9:30 a.m. – 10:00 a.m.	Refreshment and Networking Break With Exhibitors				
10:00 a.m. – 11:00 a.m. Concurrent Sessions	Session A1: Software VandV Axel Podschwadek A Step-by-Step Guide to Incremental Testing: Managing Feature Interaction for Communication Devices	Session A2: Requirements Engineering and Management INVITED SPEAKER: Robin Goldsmith Avoid Creep – Discover the REAL Requirements	Session A3: Leadership Tools and Skills Carol Dekkers and Patricia McQuaid Maximizing Project Success – Give Your Communication Skills a Tune-Up	Session A4: Software VandV Esther Derby The Practical Aspects of Implementing Technical Reviews	Session A5: Exhibitor's Presentation To Be Announced
11:15 a.m. – 12:15 p.m. Concurrent Sessions	Session B1: Software Engineering Processes INVITED SPEAKER: Neil Potter Practical CMM® and CMMI®: Focusing Improvement on Business Goals and Project Problems	Session B2: Requirements Engineering and Management Tim Olson Successful Strategies for Improving Requirements	Session B3: Leadership Tools and Skills Manfred Hein The Blame Game V2	Session B4: Measurement and Metrics Samira SiSais Cherfi, Jacky Akoka, and Isabelle Comyn-Wattiau A Framework for Conceptual Modeling Quality Evaluation	Session B5: Exhibitor's Presentation The Westfall Team – Linda Westfall 12 Steps to Useful Software Metrics
12:15 p.m. – 1:45 p.m.	Lunch With Exhibitors				
1:45 p.m. – 2:45 p.m. Concurrent Sessions	Session C1: Quality Management Dennis Frailey Is There Hope for Software Quality?	Session C2: Hot Topics INVITED SPEAKER: Mark C. Paulk Some Explanatory Factors for Software Quality	Session C3: Software Standards - IEEE Panel Claire Lohr, Scott Duncan, James Bach, Herb Krasner Current Trends in Traditional and Non-Traditional Standards	Session C4: Measurement and Metrics Tao Yi A Repeatable Software Process for Software Defect Tracking: Compuware's QACenter Experience	Session C5: Exhibitor's Presentation To Be Announced
2:45 p.m. – 3:15 p.m.	Refreshment and Networking Break With Exhibitors				
3:15 p.m. – 4:15 p.m. Concurrent Sessions	Session D1: Quality Management Patricia Ensworth The Accidental Project Manager: QA to the Rescue	Session D2: Configuration Management Craig Thomas Configuration Management Practices and Tools Used for Linux Kernel Development	Session D3: Certification Rufus Turpin and Doug Hamilton Certification of Software Quality Professionals	Session D4: Measurement and Metrics Onur Demirors Utilization of a Defect Density Metric for SPC Analysis	Session D5: Exhibitor's Presentation To Be Announced
4:30 p.m. – 5:30 p.m.	KEYNOTE ADDRESS - Karl Wiegers: The Soft Side of Peer Reviews				
5:30 p.m. – 7:00 p.m.	Reception With Exhibitors				

Preliminary program is subject to change

7:00 a.m. – 8:00 a.m.	Continental Breakfast With Exhibitors Today's Exhibits Open 7:00 a.m. – 3:00 p.m.			
8:00 a.m. – 9:15 a.m.	Opening Remarks – Linda Westfall, 13ICSQ Chair KEYNOTE ADDRESS – James Bach: How Testers Think			
9:15 a.m. – 9:45 a.m.	Refreshment Break With Exhibitors			
9:45 a.m. – 10:45 a.m. Concurrent Sessions	Session E1: Hot Topics Scott Duncan Automating Software Life Cycle Workflow: Implementing a “No Excuses” Approach	Session E2: Software Engineering Processes James Bielak Transforming Use Cases Into Design	Session E3: Project Management Linda Shafer, Herb Krasner, and Don Shafer A Software Project Management Certificate Program: 10 Years of Experiential Data	Session E4: Software V&V INVITED SPEAKER: Johanna Rothman Shattering the Myth of Inadequate Testers
11:00 a.m. – noon Concurrent Sessions	Session F1: Hot Topics INVITED SPEAKER: Herb Krasner Agility and Quality	Session F2: Software Engineering Processes Angelica Arceneaux Designing Effective Processes	Session F3: Project Management James Ward The Key Project Constraints: Relationships and Tradeoffs	Session F4: Software V&V Student Presentation Mehran Sharafi A Software Design and Code Inspection Method to Find Major Potential Defects
noon – 1:30 p.m.	Lunch With Exhibitors			
1:30 p.m. – 2:30 p.m.	KEYNOTE ADDRESS – Bill Curtis: We Need More Cowboy Programmers			
2:30 p.m. – 3:00 p.m.	Refreshment Break With Exhibitors			
3:00 p.m. – 4:00 p.m. Concurrent Sessions	Session G1: Hot Topics Robin Dudash Software Stakeholder Management	Session G2: Software Engineering Processes INVITED SPEAKER: Mary Sakry Steamrolling the Organization With Process, or Is There a Better Way?	Session G3: Software Process Improvement Trudy Howles A Personal Approach to Improving Software Quality	Session G4: Software V&V Marcelo Fantinato and Mario Jino Functional Testing Criteria Based on Extended Finite State Machines
4:15 p.m. – 5:15 p.m. Concurrent Sessions	Session H1: Measurement and Metrics Tim Olson Using a Measurement Framework to Rapidly Achieve Measurable Results	Session H2: Software Process Improvement Tom Cagley Extracting Real Value From Process Improvement	Session H3: Software Process Improvement Geree Streun A Practical Approach - Moving From Level 1 To Level 2	Session H4: Software V&V Todd Petersen An Experience Paper on the Use of Software Fault Injection Testing



Tuesday, October 7 - Concurrent Sessions:

10:00 a.m. - 11:00 a.m.

Session A1: Software V&V - Axel Podschwadek - A Step-by-Step Guide to Incremental Testing: Managing Feature Interaction for Communication Devices

In recent years, pressure on the communication industry concerning a shorter time-to-market have been steadily growing. At the same time, complexity is growing tremendously, especially for software components. As one solution to both problems, incremental development processes have been proposed. They allow for the servicing of the market within a shortened time frame, while at the same time splitting the system into pieces of manageable size. Furthermore, such processes permit a validation of the system from the user's perspective in early stages of development. However, the effort and complexity of introducing an incremental process should not be underestimated. This talk proposes a detailed road map for this improvement goal by presenting well-defined and fine-granular steps of process change. It starts from later stages of development and moves on to earlier stages. The focus is on test process improvements, but hints for all other relevant and concerned process areas are given as well. This presentation is based on real-world experiences during the development of communication devices.



Session A2: Requirements Engineering and Management - INVITED SPEAKER: Robin Goldsmith - Avoid Creep - Discover the REAL Requirements

There's a simple (though not easy) way to avoid much of the requirements/scope creep that many developers assume is normal and unavoidable. Statements like, "That's not what I expected" and "Users don't know what they want" are repeatedly predictable outcomes of the inadequate way requirements are defined conventionally, but they don't have to be. This interactive presentation shows the primary, but seldom recognized, REAL reasons developers continue to get requirements and scope wrong, which is what actually causes creep. Powerful techniques are described for discovering the REAL requirements and documenting scope in ways that can dramatically reduce creep.

Session A3: Leadership Tools and Skills - Carol Dekkers and Patricia McQuaid - Maximizing Project Success: Give Your Communication Skills a Tune-Up

The key to software quality lies in getting the right requirements and getting the requirements right, and it all boils down to effective communication with users and your project team. While testing, programming, configuration management, and other technical topics are commonly taught through workshops, it seems to be "assumed" that effective team management and communication skills will be gained by climbing the project management or QA manager ladder. Unfortunately, this is usually not the case.

In this hands-on interactive session, you will learn techniques to not only communicate more effectively, but also to help ask the right questions of the right people. You will also learn skills to increase the effectiveness of techniques such as use-cases and written requirements.

Get ready for a session (taught by two experienced "networkers") where you'll make immediate connections with your fellow ICSQ attendees, and learn new techniques (by doing them!) that will inject new life into your project team.

Whether you have managed multiple projects or are new to QA, this presentation will provide you with the skills to remove obstacles to communication, tear down potential walls of misunderstanding with users, and equip you with the project management people skills to increase the quality of your requirements and overall development process — and build better software.

Session A4: Software V&V - Esther Derby - The Practical Aspects of Implementing Technical Reviews

Technical reviews have been around for a long time, and are generally recognized as a "good thing" for building quality software and reducing the cost of rework. Yet many software companies start to do reviews only to have the review program peter out.

How can you succeed with a review program? Management support and good training for review leaders is a good place to start. But it's the details of implementation that determine whether reviews stick or fall by the wayside.

This session shares lessons learned and gives you access to the wisdom of the group to come up with possible solutions to the roadblocks you're running into while implementing technical reviews.

Session A5: Exhibitor's Presentation - To Be Announced

11:15 a.m. - 12:15 p.m.



Session B1: Software Engineering Processes - INVITED SPEAKER: Neil Potter - Practical CMM® & CMMI®: Focusing Improvement on Business Goals & Project Problems

Common approaches for process improvement include heavily documenting all processes and marching toward the achievement of an SEI CMM® level. The result is often a stack of paper that is either ignored or seen as an unnecessary tax on development. In the light of a goal stating, "Achieve CMM® Level 3 by December," the activity of documenting all processes is reinforced and might even appear natural. This process-centric approach can work but has a high risk of failure.

An alternative approach is to start with the business goals and problems of the organization and tie all improvement activities directly to the organization's current project work.

In this presentation, you will learn how to plan an improvement program based on project problems and goals. By adopting this approach, organizations are able to make significant progress on real issues and make progress on the maturity model they are using. The result is an improvement plan that is staged in manageable phases and directly tied to the business goals of the organization.

Session B2: Requirements Engineering and Management - Tim Olson - Successful Strategies for Improving Requirements

Requirements continue to be a major problem area for most organizations. According to industry reports, the leading causes of quality, cost, and schedule problems are lack of understanding of the customer's needs, incomplete requirement specifications, and managing changing requirements. So what can an organization focus on now to improve their requirements? Practical strategies that your organization can use to improve its requirements as well as its requirements process are described.

Session B3: Leadership Tools and Skills - Manfred Hein - The Blame Game V2

We don't look often enough at the aspects of our personal and business lives that hinder our ability to function, to develop relationships, to interact with others (i.e., to become productive and effective individuals). These neglected or overlooked aspects can become "roadblocks" in our personal and business lives - roadblocks that keep us from "being who we can be." Often we look at new, "state-of-the-art" ideas, concepts, and technology silver bullets to help change/improve ourselves or our corporations. We always think of "adding" these things to our lives to make a difference. We never seem to think that if we "subtract" or get rid of some things - roadblocks - in our lives, they might make more of a difference. One such roadblock we should think of subtracting is The Blame Game. Our individual and organizational propensity to blame can be a significant factor that weakens our foundations. This session describes how we can become aware of the blaming techniques of The Blame Game, the harm they cause, how much we are engaged in them, and how we can change these practices.

Session B4: Measurement and Metrics - Samira Sisais Cherfi, Jacky Akoka, and Isabelle Comyn-Wattiau - A Framework for Conceptual Modeling Quality Evaluation

Three main objectives are generally devoted to a conceptual schema: meet the users requirements, provide a formal representation of the observed reality, and be a basis for implementation and evolution of the future information system. However, the designer is faced with many ways of formulating the same universe of discourse. This session presents exploratory research that investigates an evaluation process of conceptual specifications. We primarily address the problem of assessing conceptual modeling quality. In particular, we provide a comprehensive framework for evaluating conceptual schemas. Based on quality criteria proposed in the literature, we select the subset of criteria relevant to conceptual schema quality evaluation. For each criterion, we define one or several metrics allowing the designer to measure schemas quality. This presentation focuses on the usage and implementation views. In order to validate our approach, we evaluated several alternative UML conceptual schemas representing the same universe of discourse. The results and lessons learned from this evaluation are detailed.

Session B5: Exhibitor's Presentation - Linda Westfall of The Westfall Team - 12 Steps to Useful Software Metrics

Learn a practical, step-by-step process for selecting, designing, and implementing metrics that align to the goals and information needs of your organization, projects, and processes.

Tuesday, October 7 - Concurrent Sessions: (continued)

1:45 p.m. - 2:45 p.m.

Session C1: Quality Management - Dennis Frailey - Is There Hope for Software Quality?

Two hundred software quality improvement plans at organizations in every segment of the U.S. economy show the tenuous state of software quality. This presentation examines what is going on in the trenches, as reported by working professionals trying to make a difference. The results are often disappointing, but there is also evidence that quality improvement is being accomplished at companies that want it.



Session C2: Hot Topics - INVITED SPEAKER: Mark C. Paulk - Some Explanatory Factors for Software Quality

Even in a world of agile methods and Internet-time processes, quality is a crucial attribute of software. In this session, some of the issues associated with building a useful operational definition of software quality are described. Defining quality is of limited value, however, if we do not understand the factors that influence quality. A number of explanatory factors have been proposed, but the empirical evidence on the effect of these factors has been mixed. One reason for the mixed evidence is that surrogates are frequently used that capture the desired factor poorly. For example, it is widely agreed that the competence of the people doing the work is fundamental to the quality of the work done. How does one measure competence? Even if we agree that surrogates such as years of experience are inadequate, better measures may not be readily available. After reviewing the evidence supporting various proposed factors, data from the Personal Software Process (PSP) is analyzed to see what the impact of some of those factors is on software quality as measured by defects found in testing. The factors considered include process factors, such as design time, and nonprocess factors, such as programming language. One of the greatest challenges in empirical software engineering is the variability associated with individual differences, and the PSP data show that, even though performance improves and variability decreases as disciplined processes are instilled, the dominant factor in superior performance remains the competence of the individual professional. The talk closes with a discussion of the issues associated with generalizing from PSP data to an industry environment.

Session C3: Software Standards - Panel: Scott Duncan, Claire Lohr, James Bach, and Herb Krasner - Current Trends in Traditional (IEEE and ISO) & Non-Traditional (Exploratory and Agile) Standards

Scott Duncan, a participant in developing both ISO and IEEE standards, will present what is in the pipeline for new standards and efforts in those communities. Claire Lohr, a participant in the development of IEEE standards, will discuss the changes in orientation of the IEEE, for example, the new focus on process instead of products (including where to go to obtain more information). Then two of our highlighted speakers will weigh in with views from the other side of the spectrum. James Bach will present the key points of his less documentation oriented Exploratory methodology. Finally, Herb Krasner will summarize the tenets of the agile movement that also eliminates much of the documentation required by the "traditional" standards community.

Session C4: Measurement and Metrics - Tao Yi - A Repeatable Software Process for Software Defect Tracking: Compuware's QACenter Experience

Software plays an increasingly important role in the evolution of human society. The demand for on-time, on-budget, and on-quality software production entails the improvement of software processes to meet software industry's specific needs. This session presents Compuware's QACenter experience on software defect tracking. This software process incorporates a software defect life cycle model that standardizes software development activities, error-prevention tools that facilitate and enforce the entire life cycle (i.e., Compuware's TrackRecord), and talented but disciplined people who commit to driving software quality to customer satisfaction. By repeating and adapting this software process, not only does software maintenance become more manageable, but customers get better software.

Session C5: Exhibitor's Presentation - To Be Announced

3:15 p.m. - 4:15 p.m.

Session D1: Quality Management - Patricia Ensworth - The Accidental Project Manager: QA to the Rescue

Since software development is a team effort, much depends upon the captain. In these lean economic times, many IT projects are managed by novices who have been chosen based upon their technical skills as developers and thrust into a leadership role without any training in project management.

The ignorance of such "accidental project managers" can be damaging. Their weaknesses often lead to defects in the software product. Quality assurance (QA) professionals have a vested interest, therefore, in evaluating, monitoring, and improving a novice's project management skills. This talk discusses how QA professionals can make a difference, throughout a project's life cycle, between success or failure for the accidental project manager. By collaborating effectively, QA professionals will not only keep projects on course but also enhance the influence of the QA function within the organization.

Session D2: Configuration Management - Craig Thomas - Configuration Management Practices and Tools Used for Linux Kernel Development

The Linux kernel has become one of the most recognized open source software products to date. It is fairly trivial to locate sites that contain specific versions of the operating system. These sites have repositories of versioned releases that can be downloaded onto a computer system. But these versioned releases were created by many individuals working collaboratively from all over the world. How could a product such as the Linux kernel have such a controlled release cycle?

This session explores some of the practices and tools used for open source configuration management, using the practices employed by the Linux kernel developers as a case study. It will analyze the practices performed in the Linux community compared to the items identified in the CSQE body of knowledge for configuration management (CM). Finally, this session describes a set of CM tools developed at OSDL for managing kernel configuration items and running tests against those items: the Patch Life Cycle Manager and the Scalable Test Platform.

Session D3: Certification - Rufus Turpin and Doug Hamilton - Certification of Software Quality Professionals

Presentations on the Certified Software Quality Engineer (CSQE) certification program and body of knowledge covering the value of the CSQE, the topics in the body of knowledge, the certification program, and the upcoming *Software Quality Engineering Handbook*.

Session D4: Measurement and Metrics - Onur Demirors - Utilization of a Defect Density Metric for SPC Analysis

This session describes the difficulties in applying Statistical Process Control (SPC) to a CMM Level 3 organization. In order to use a defect density metric for SPC, precise definitions are required for what constitutes a defect, as well as for product size for each of the different phases of software development. It suggests using XmR charts for tracking defect density instead of the popular u-chart, which depends on the assumption that the data have Poisson distribution. The results of a case study performed in a CMM Level 3 software organization are used to explore whether SPC can produce beneficial results for a software company.

Session D5: Exhibitor's Presentation - To Be Announced

Join the 13ICSQ
Sponsors & Exhibitors
Tuesday Evening
5:30 p.m. - 7:00 p.m.

Reception in the Exhibit Area
Food ■ Prizes ■ Networking

Wednesday, October 8 - Concurrent Sessions:

9:45 a.m. - 10:45 a.m.

Session E1: Hot Topics - Scott Duncan - Automating Software Life Cycle Workflow: Implementing a "No Excuses" Approach

Encouraging organizations to follow a defined workflow/process and assessing the level of compliance to it can be much easier with automated support for process and documentation workflow. This presentation will describe a newly developed, in-house system based on an enterprise workflow development tool. The organization developing this system employs a mainframe-based production environment with Windows® desktop machines over an NT network and has been using LotusNotes®-based methodology/workflow systems for many years.

Session E2: Software Engineering Processes - James Bielak - Transforming Use Cases Into Design

All too often teams rush from gathering requirements into design, failing to fully analyze the customer's needs. How can we move from a collection of use cases to a robust system design? Can we reliably predict the behavior and responsibilities of components shared between different subsystems? Or, do we discover "you can't get there from here"?

The Unified Modeling Language (UML) provides a rich vocabulary and notation with which we can explore requirements. Robustness analysis (also known as use-case analysis) provides an important, but often overlooked, step in the development process. This analysis technique gives us the opportunity to refine our understanding, and to resolve any questions or issues that may arise - before construction.

This talk demonstrates some advantages and principles of using the UML during robustness analysis. Examples will focus on use-case realization, firming up our understanding of a system's architecture, and tying our notion of business objects to artifacts we will refine during the design step.

Session E3: Project Management - Linda Shafer, Herb Krasner, and Don Shafer - A Software Project Management Certificate Program: 10 Years of Experiential Data

The Software Project Management (SWPM) certificate program at The University of Texas at Austin's Software Quality Institute (SQI) has been in place for 10 years. According to graduates, the course has been very effective in delivering information, yet SQI continually evaluates the program to determine if it is achieving all of its goals.

This presentation describes the certification program, explains three surveys of graduates, examines program strengths and weaknesses, and speculates on a report that students have had somewhat less of an effect on their organizations than either they, or the program sponsors, would desire.

Taught by software practitioners, SWPM aims to provide skills and techniques for students to improve their company's software processes. SWPM goals are to help students achieve personal career objectives, increase their ability to manage/lead software projects, increase their insight into job responsibilities, and have a better awareness of project management professionalism.



Session E4: Software V&V - INVITED SPEAKER: Johanna Rothman - Shattering the Myth of Inadequate Testers

Why do projects "fail" in the test phase? Do teams have inadequate testers? Are they not doing adequate testing? Is the entire test organization inadequate?

We've heard blaming comments about testing and product quality since organizations decided they needed testing groups. Instead of blaming the testers for being inadequate, let's talk about the testing. Why are so many organizations dissatisfied with their testing activities and perceive those activities to be inadequate? Why are we building organizations whose staff can't perform the required work?

In this presentation, Rothman will look at how organizations tend to hire testers and other technical people, and alternatives to those techniques. This talk is for you if you'd like to refine your hiring requirements for great testers (or other great technical staff), or if you'd like to become a great tester (or be hired as one).

11:00 a.m. - Noon



Session F1: Hot Topics - INVITED SPEAKER: Herb Krasner - Agility and Quality

In general, agility is the characteristic of being ready and able to move with quick and easy grace. In software development, this concept has come to mean the ability to develop valuable software quickly, in the face of rapidly evolving requirements. Due to marketplace pressures, agility is an emerging concern for many of today's modern software organizations. As a software professional in the next decade, you will need to become agile. Agile methods are relatively new on the software scene and are based on a set of philosophies and assumptions that are different from the conventional life cycle models of the past.

Some process pundits have claimed that agility and quality are mutually exclusive concepts, and that agility simply promotes hacking. The agilists on the other hand claim that overly rigid process management detracts from the goal of delivering valuable functionality in a timely manner. This talk will reveal the underlying and hidden issues of this discussion, and will define a situational fit model for assisting in best-practice adoption decisions, leading to the delivery of superior software. Clearly, understanding the true value of the functionality for delivery in a product/system is an area where we can best find the leverage.

Session F2: Software Engineering Processes - Angelica Arceneaux - Designing Effective Processes

In today's business environment, as technology permeates almost every facet of life, the likelihood of software engineering professionals working in nonsoftware oriented organizations is very high. This also almost guarantees that people with little or no knowledge of software engineering processes will be key stakeholders in the software engineering process. Designing and documenting an effective software process in this environment can be quite a challenge. If a process is not carefully designed and clearly documented, it will be destined to fail.

This talk provides tips and techniques the presenter has used in the past to successfully design and document effective software engineering processes.

Session F3: Project Management - James Ward - The Key Project Constraints: Relationships & Tradeoffs

Project management always involves effectively balancing the scope of effort with the resources available and within an acceptable or predetermined time frame. This presentation discusses the real relationships and tradeoffs between the three key variables of *work* to be done (scope of effort), *resources* devoted to that work (both personnel and dollars), and *time* as defined by the project schedule or ship date. How can we manage these relationships effectively to consistently deliver projects that meet customer objectives on schedule and within budget, with an acceptable level of quality?

Session F4: Software V&V - Student Presentation: Mehran Sharafi - A Software Design and Code Inspection Method to Find Major Potential Defects

Checklists are important tools for the inspection process and a comprehensive definition of their items can directly affect the inspection efficiency. On the other side, since different software work products have different characteristics and features, using similar checklists for all of them isn't effective. Even when those checklists are very useful for specific products. This talk defines a semiformal method for software inspection. This method reveals suitable information to produce checklist items based on software specification by highlighting the critical features and areas of the software. Concentrating the inspection on critical areas results in optimum use from time and effort. Another important component of the inspection process is the recording of fault statistics. This talk proposes formulas to calculate the majority of a defect, so defects can be recorded by their severity. By utilizing information gathered during the inspection process, this method also defines a quality criterion useful in determining if the inspection was successful.



Wednesday, October 8 - Concurrent Sessions: (continued)

3:00 p.m. - 4:00 p.m.

Session G1: Hot Topics - Robin Dudash - Software Stakeholder Management

Typically software quality is defined as code that has been well-tested and deemed to be 'defect free.' While this is imperative, this short-sighted definition most often leads to the 'nightmare project.' Users and team members both try to distance themselves from this type of project as it is doomed for failure no matter how 'defect free.'

Not only is the project manager responsible for the project definition and execution, but the successful project manager also recognizes their responsibility for stakeholder management. In order to satisfy stakeholder expectations, perceived needs (stated and unstated) must be managed. This is the ultimate responsibility of the project manager.

Participants in this session will learn how to apply the Project Stakeholder Model to software development projects. This formalized approach will enable the prospective project manager to effectively identify and manage the stakeholder expectations to deliver quality software.



Session G2: Software Engineering Processes - INVITED SPEAKER: Mary Sakry - Steamrolling the Organization With Process, or Is There a Better Way?

Many organizations try to implement change. This includes everything from the introduction of a new tool or method, to a companywide process improvement program. Often these attempts fail because too much is attempted too quickly with little thought to the most effective sequence of events. When new ideas are introduced they are either abandoned after a short time or adopted by only a few people.

Whenever a Software Engineering Process Group (SEPG) or process improvement team wants to deploy a change, there are some key principles that it should consider to be successful. This talk covers the use of an adoption curve that categorizes an SEPG's target audience into five groups. Understanding these groups helps the improvement team to increase the speed of deployment, by determining who to work with and in which order, to reduce the risk of failure by building and deploying the solution in increments, and to determine when a policy should be developed and an edict issued.

Session G3: Software Process Improvement - Trudy Howles - A Personal Approach to Improving Software Quality

As software professionals, we're aware of the negative publicity surrounding software development and the resulting products. Reports abound describing cost overruns, ineffective and incorrect products, and failed projects.

Consider best practices learned in school or through work experiences. Are they still being applied into your daily work? Have they been abandoned because of limited cycle times and intense schedule pressures? Has the weak economy forced you to stretch your resources by doing more with less? How are you addressing increasing concerns about software safety and security, liability, and reliability? This talk focuses on the basics, and how one might use the basics and fundamentals for improvements on a personal basis. Focus on reducing defects or on being more productive in areas that will deliver value to you and your organization.

Session G4: Software V&V - Marcelo Fantinato and Mario Jino - Functional Testing Criteria Based on Extended Finite State Machines

Finite State Machines (FSMs) have been widely used to create behavioral models for functional testing. Although traditional FSMs have played an important role in software testing improvement, they do not provide mechanisms to model important behavioral aspects of the software such as its data flow. Due to this limitation, testing techniques based on traditional FSMs cannot make use of further information in test guiding. This presentation proposes an extension to the traditional FSMs, which provides data flow modeling mechanisms. The implementation and application of the defined criteria, using the POKE-TOOL testing tool, are also discussed in this talk. Moreover, coverage results from the application of the proposed functional testing criteria on a functional specification are compared to those from the application of structural testing criteria on the corresponding implementation.

4:15 p.m. - 5:15 p.m.

Session H1: Measurement and Metrics - Tim Olson - Using a Measurement Framework to Rapidly Achieve Measurable Results

This presentation will describe a Process Measurement FrameworkSM that rapidly achieves measurable results. The Process Measurement FrameworkSM is based upon the popular Goal/Question/Metric (G/Q/M) paradigm, the Juran Quality Trilogy, and the initial core measures recommended by the Software Engineering Institute (SEI). The G/Q/M Paradigm is applied to the goals of planning, control, and improvement and based on powerful metrics that have a proven track record. In order to illustrate the power of the Process Measurement FrameworkSM, real examples from industry are used. The Process Measurement FrameworkSM helps to ensure that all metrics are collected on a form, in a document, or in a database.

Session H2: Software Process Improvement - Tom Cagley - Extracting Real Value From Process Improvement

Developers of the Capability Maturity Model (CMM[®]) believed that the capture and dissemination of best practices throughout the software industry would result in improvements to an organization's bottom line through quality and process improvement. However, correlation of model-based practices with measurable benefits has been largely theoretical and conceptual. In response to the growing need to demonstrate quantitative value of improvement effort and dollars. Join Cagley in a discussion of a process he has developed for a joint model-based and productivity assessment. This assessment process has been deployed confirming strong correlations between productivity assessment results and model-based strengths and weaknesses. Cagley will discuss how recommendations for matching the organization's business goals with specific process changes were generated. Each recommendation targeted improvement in productivity and reductions in time to market, delivered defects, total defects, and maintenance effort. The resulting recommendations provided the organization with a road map to better leverage effort and cost for true benefit in the next improvement cycle and beyond.

Session H3: Software Process Improvement - Gereee Streun - A Practical Approach - Moving From Level 1 To Level 2

The software industry is painfully discovering is that the tactics and techniques that were successful 10 years ago for established companies or even those used last year by new entrepreneurial start-ups are now failing to deliver expected results. The entrepreneurial company Streun worked for was also encountering difficulties due to the "code, ship, and the customer will test" technique - it just didn't hit the mark any longer. This type of process did not have the required focus to provide appropriate levels of effort for all aspects of the delivery triangle - time, cost, and quality. Our customers were demanding higher quality products, better service, and lower cost products, while also expecting more and more advanced functionality in every new release.

The focus we developed was using a "Practical Approach[®]" to improve the development process because we could not get full and visible commitment from the highest level of the company's management. The CMM[®] was tailored, then the project manager initiated and implemented process improvement changes within his or her sphere of influence. The ongoing success of that team showed up on the bottom line and built the needed support to drive further improvements.

Session H4: Software V&V - Todd Petersen - An Experience Paper on the Use of Software Fault Injection Testing

The talk describes what is meant by Software Fault Injection Testing, followed by descriptions of the benefits of this type of software testing. How Software Fault Injection Testing is being specifically applied at Motorola is the next topic, followed by results and lessons learned. Finally, future plans and uses of this technology are described.



HOTEL:

Renaissance Dallas-Richardson Hotel
900 East Lookout Drive
Richardson, TX 75082

Phone: 972-367-2000 or
800-468-3571

Fax: 972-367-3333

Please identify yourself as an attendee of the **13th International Conference on Software Quality** when making your reservation.

RATES: \$129.00 single/double plus 13% sales tax per room, per night (subject to change); reservations must be guaranteed with a credit card, cash, or check for the first night's stay.

NOTE: No additional fees or service charges are to be added to the above rate. In the event that you are charged for additional fees/service charges (other than early check out charges), please contact an ASQ staff member on-site prior to hotel check out to assist you.

RESERVATIONS MUST BE MADE BY Wednesday, September 3, 2003, to qualify for this block room rate.

Check-in: 3:00 p.m. check-out: noon

CANCELLATION: reservations must be cancelled 48 hours prior to the day of arrival in order to avoid a cancellation fee of one night's room charge.

HOTEL/RATE AVAILABILITY: The above rate is guaranteed until either:

- 1) the contracted block of rooms has been filled or,
- 2) if reservations are made before **Wednesday, September 3, 2003**, whichever occurs first.

LOCATION: Approximately 22 miles from the DFW Airport. A map and driving directions can be found at http://www.icsq.org/13ICSQ/Hotel_Airline_Rental_Car.htm

AIRPORT TRANSPORTATION: From DFW - Cabs are approximately \$60 one-way; shuttle transportation is approximately \$18 per person, one-way. **NOTE:** Various shuttle services go to the hotel and you may get the shuttle outside the baggage claim area. Prices are subject to change.

AIRLINE DISCOUNTS: American Airlines, American Eagle, and American Connection Service are offering special rates which allow a 5% discount on their published round-trip fares to the **13th International Conference on Software Quality Conference** from the United States, Bermuda, and Canada. By purchasing your ticket at least 60 days in advance, you can receive an additional 10% discount on published fares. Special guaranteed zone fares that do not require a Saturday night stay are also available. Two-night minimum stay and seven-day advance purchase required. Valid dates of travel are October 1-14, 2003.

To take advantage of these discounts and obtain reservations please call: **OLSON TRAVEL SERVICE** at 800-847-5921 or 262-784-1060 from 9:00 a.m. - 6:30 p.m. Eastern time, Monday through Friday. Ask for Dawn Anderson or Nancy Jebavy and identify yourself as a **13th International Conference on Software Quality** attendee. You may also call American Airlines directly at 800-433-1790 6:00 a.m. to 1:00 a.m. Eastern time. Refer to Star File number **AN-65H3AK**.

CAR RENTAL DISCOUNTS: Avis is offering discounts on automobile rentals for conference attendees. To make your reservations, please call Olson Travel Service at 800-847-5921 or 262-784-1060; or Avis reservations at 800-331-1600 and refer to: ID number **D150060**.



SPECIAL NEEDS: Do you have special needs or dietary restrictions that we can address to make your experience more enjoyable? Please call, write, or fax ASQ's Education Services Department at P.O. Box 3005, Milwaukee, WI 53201-3005, phone 800-248-1946 or 414-272-8575, fax 414-272-1734 or e-mail mbunch@asq.org.



OUR GUARANTEE: Your satisfaction is our goal. If you are not completely satisfied with the content of the 13th International Conference on Software Quality, we will gladly apply your conference fees to the 14th International Conference on Software Quality. Requests must be received by October 31, 2003. Your feedback is valuable and essential to the continuous improvement of ASQ's programs. If you have questions or concerns, please call ASQ at 800-248-1946 or 414-272-8575 and ask for the Education Services Department.

SUBSTITUTIONS OR CANCELLATIONS: We understand that occasionally things happen that prevent you from attending an event for which you have registered. If you find that you cannot attend the 13th International Conference on Software Quality, here's what you can do:

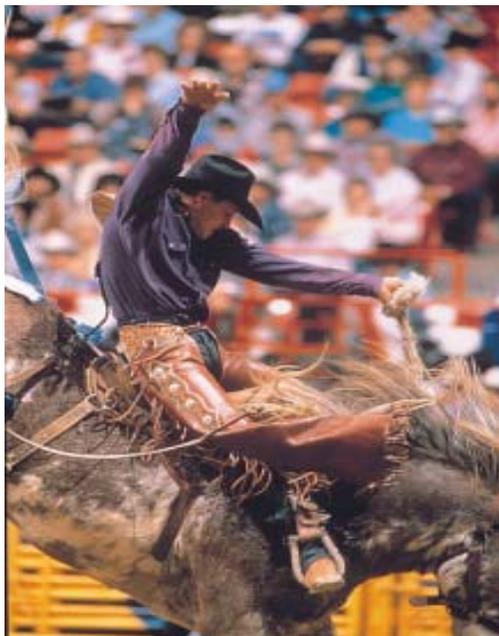
1. Send a substitute. Substitutions can be made at any time—even on site at the conference.
2. If you cannot send a substitute, we will be happy to transfer your conference fees to the 14th International Conference on Software Quality in Orlando, FL, October 2004.
3. If you just want your money back, we will gladly refund your conference registration fee.*

* Note: Requests for cancellations and conference fee transfers received on or before September 19, 2003, will receive a full refund/transfer. Requests received between September 19 and October 6, 2003, will incur a \$100 processing fee. No requests will be accepted after October 6, 2003. To arrange for any changes, simply call ASQ at 800-248-1946 or 414-272-8575, or mail/fax your request to ASQ, Education Services Department, P.O. Box 3005, Milwaukee, WI 53201-3005, fax 414-272-1734.

ASQ reserves the right to cancel or reschedule any course/tutorial and to change instructors. Please be advised that neither ASQ nor the Software Division are responsible for any airfare penalties or other travel charges you may incur.

RECERTIFICATION UNITS: Attendees receive 0.1 RU (recertification unit) credits per hour of attendance. Attendee's registration acknowledgment or name badge and the on-site brochure provide adequate documentation for ASQ recertification.

PHOTOS: Dallas Skyline, Meyerson and Mesquite Rodeo photos courtesy of the Dallas Convention and Visitors Bureau. Dallas Stampede and the Mustangs at Los Colinas photos courtesy of Stan and Barbara Hastings.



For the latest, up-to-date information about the
13ICSQ, visit our Web site at:

www.ICSQ.org

13th International Conference on Software Quality Registration Form

4 Easy Ways to Register:



Fill out the registration form and mail to:

ASQ Education Services Department/CSC
P.O. Box 3005
Milwaukee, WI 53201-3005



Call ASQ at 800-248-1946 or 414-272-8575 and use your MC, VISA, or AMEX card. To speed your registration process we recommend that you fill out the registration form before calling. Please provide your priority code when calling. (Priority code is located above your name on the mail label.)



Fax your completed registration form with payment information to ASQ Education Services Department/CSC, 414-272-1734.



Complete the online registration form on the ICSQ Web site at www.icsq.org.

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Important! Please write the priority code **located above your name on the mailing label** in the boxes at the left.

Please print clearly! Mr. Mrs.

Ms. Dr. (circle one)

ASQ/AQP member or customer number _____

ASQ Software Division member Yes No

First name for badge _____

Name _____
(last) (first) (middle initial)

Company _____

Title _____

Address _____ Apt./Ste. _____

City _____

State/Province _____

Zip/Postal Code _____

Country _____

Phone _____ Fax _____

E-mail _____

Please do not include my e-mail addresses with the contact information provided to the 13ICSQ sponsors/exhibitors.

Conference Session Selection: Please check your preferred sessions so that we can best assign session rooms. You are not bound by these choices.

Tuesday, October 7, 2003

- 10:00 a.m. - 11:00 a.m. A1 A2 A3 A4 A5
 11:15 a.m. - 12:15 p.m. B1 B2 B3 B4 B5
 1:45 p.m. - 2:45 p.m. C1 C2 C3 C4 C5
 3:15 p.m. - 4:15 p.m. D1 D2 D3 D4 D5

Wednesday, October 8, 2003

- 9:45 a.m. - 10:45 a.m. E1 E2 E3 E4
 11:00 a.m. - noon F1 F2 F3 F4
 3:00 p.m. - 4:00 p.m. G1 G2 G3 G4
 4:15 p.m. - 5:15 p.m. H1 H2 H3 H4

13ICSQ - Dallas, TX

13ICSQ Registration Fees:



	ASQ Software Division Member	Non-Software Member Before 8/31/2003	Non-Software Member After 8/31/2003
Two-day Conference plus Two Tutorial days	<input type="checkbox"/> \$1,295	<input type="checkbox"/> \$1,295	<input type="checkbox"/> \$1,395
Two-day Conference plus One Tutorial day	<input type="checkbox"/> \$995	<input type="checkbox"/> \$995	<input type="checkbox"/> \$1,095
Two-day Conference only	<input type="checkbox"/> \$695	<input type="checkbox"/> \$695	<input type="checkbox"/> \$795
Tutorial only (per day)	<input type="checkbox"/> \$395	<input type="checkbox"/> \$395	<input type="checkbox"/> \$495
Half-day Tutorial only	<input type="checkbox"/> \$245	<input type="checkbox"/> \$245	<input type="checkbox"/> \$295

Tutorial Registration Monday, October 6, 2003

Select one full-day tutorial.

- TUT01: Quality Consulting for Quality Consultants (limited to 20 participants)
 TUT02: In Search of Excellent Requirements
 TUT03: Proactive Testing—Project Manager's Secret Advantage
 TUT04: Making Process Improvement Work – A Concise Action Guide for Software Managers and Practitioners
 TUT05: Risk-Driven Software Testing
 TUT06: Software Quality Function Deployment

Tutorial Registration Thursday, October 9, 2003:

Select one full-day tutorial.

- TUT07: Using ITIL and CobiT for Improving IT Processes
 TUT08: An Introduction to Context-Driven Test Methodology
 TUT09: Everything Project Managers Need to Know About Requirements But Were Too Busy to Ask
 TUT10: Stocking the Tester's Toolbox
 TUT11: eXtreme Programming - What It Is and When to Use It

Or select one or both half-day tutorials as appropriate.

- Morning** - TUT12: Career Challenges and Opportunities for Software Quality Professionals: Competing and Thriving in Today's Economy
 Afternoon - TUT13: Software Projects - Effective Estimation & Planning Techniques for Development and Testing

Post-Conference Course Registration, October 10-11, 2003:

	ASQ / AQP Members	Nonmembers
Software Functional Testing (#03273C)	<input type="checkbox"/> \$945	<input type="checkbox"/> \$1045
Buidling Software Quality Skills (#03274C)	<input type="checkbox"/> \$945	<input type="checkbox"/> \$1045

Grand Total: _____

Payment Information: Advance registration must be accompanied by payment in full (U.S. currency) for all desired activities. Purchase orders will be accepted but must be sent along with your completed registration form. All phone registrations or faxes MUST include the number of a major credit card that will be charged for the registration fees (MC/VISA/AMEX accepted). Do not follow up phone, fax, or online registrations with a mail-in registration. All registrations (whether phoned, faxed, mailed, or completed online) will be confirmed by mail with a receipt and confirmation letter.

- P.O. number _____
 Check enclosed Check number _____
 Please charge my credit card MC VISA AMEX

Credit card number _____

Expiration date _____

Signature _____

Name of cardholder (please print) _____

**13ICSQ would like to
thank our
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Gerald M. Weinberg

and our media Sponsor:



13ICSQ is in cooperation with:

ASQ Dallas Section
Association for Software Engineering Excellence (ASEE)

THE UNIVERSITY OF TEXAS AT AUSTIN



Conference Schedule:

Monday, Oct. 6 - **Tutorials***
Tuesday & Wednesday, Oct. 7 & 8 - **Conference**
Thursday, Oct. 9 - **Tutorials***
Friday & Saturday, Oct. 10 & 11 - **Post-Conference Courses**

*Tutorial fees are not included in the conference fee (see conference registration form on page 15 of this brochure).

American Society for Quality



Software Division

600 North Plankinton Avenue
P.O. Box 3005
Milwaukee, Wisconsin 53201-3005

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