THE TWELFTH INTERNATIONAL

Software Quality Week

San Jose

May 24 - 28, 1999

Organized by

Software Research Institute

TWELFTH YEAR OF QUALITY WEEK !

For the past twelve years Quality Week has established itself as THE ANNUAL EVENT for software quality professionals.

The foremost experts from academia and industry come together to address such issues as process design, software test technology, software quality control, system reliability and availability, C++ & Java, Web testing, client/server systems quality, and how to plan for future software quality trends.

The presentations at QW'99 are the strongest ever! Don't miss our Twelfth Anniversary event.

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THE TWELFTH INTERNATIONAL

Software Quality Week

Facing the Future

Clear community focus on Y2K issues -- the clock is ticking! -- must be combined with the need for "Facing the Future". As our technology and experience with software quality issues grow, and our knowledge about the topic deepens, knowing where we are heading is a key issue for companies, institutions, and Government agencies. The 12th International Software Quality Week brings you over 100 Tutorial, Keynote, QuickStart and Technical presentations by the best-known experts. They represent such leading organizations as: IBM, IQUIP, NASA, Rational, Boeing, CSC, CableData, Clemson, Lockheed Martin, Compuware, Bellcore, Microsoft, Sequent, Teradyne, Ford, Lucent, SAS Institute, SUNY, Intel, AT&T, Alenia Aerospazio, Siemens, Stanford, Universidad de Buenos Aires.

WHO SHOULD ATTEND

- Lead QA/Test Experts and Managers who want to know about the latest methods and tools
- WebMasters who need to give assurances of quality about their WebSites
- Beginning QA/Test specialists who need to get a broad overview of the field
- Technologists who want to catch up on the state-of-the-art in software quality
- Programmers and developers who want to build higher quality code

PROGRAM POINTS

Pre-Conference Tutorials: Fifteen full-day and half-day presentations by leading industry experts: Boris Beizer, Robert Binder, John Musa, Edward Kit, Tom Gilb, Thomas Drake, Linda Rosenberg, Magdy Hanna, William Bently, Karen Bishop-Stone, Michael Deck, Sally Drew, Norman Schneidewind, Leonard Verhoef, and John McGregor.

Keynotes: Talks from internationally acclaimed experts address "Facing the Future" from many aspects: E-Commerce, The Law, Usability Aspects of Quality, Test Process Maturity, Commercial Product Testing, Models for Test Development.

Six-Track Technical Conference: A full program of regular technical presentations:

Technology Track:

- New Real-Time Test Tools and Test Architectures
- Installation Testing
- Test Environments
- Automated Software Inspection
- Data Quality

Applications Track:

- Failure and Fault Density Methods
- E-Commerce Benchmarking
- Designing Practical Test Cases
- Realistic WebSite Testing
- Special Techniques for OO Software

Tools & Solutions Track:

- Specification Analyses and UML
- Event-Based Test Generation
- Operational Profile Environments
- Experiences from EURO Conversion Projects
- Y2K Compliance Approaches

Management Track:

- CMM Level 5 Organizations
- Process Diversity & Small Team Deployments
- Change Management
- Test Engineering and Career Issues

QuickStart Mini-Tutorials Track:

- Evolutionary Project Management
- Software Testing Candidate Interviewing
- Moving to Object Oriented Testing
- Risk Management at NASA

BOFS Track:

QW'99 Birds-of-a-Feather sessions are organized by Danny Faught and Brian Marick

- Web and E-Commerce Testing
- Medical, Safety Critical Software
- Formal Methods for the Masses
- Testing Career Issues
- Client/Server Load Testing

Vendor Technical Track:

Technical Presentations and Product Demos by QW'99 Exhibitors

MONDAY, 24 MAY, 1999

.... TUTORIAL DAY #1 ....

8:30 - 12:00	A 1	**Dr. Edward Kit & Mr. Hans Buwalda** ***Software Development Technologies / CMG*** *Integrated Test Design and Automation (Part I)*	B 1	**Dr. John McGregor** ***Clemson University*** *Testing Distributed Object Systems*	C 1	**Ms. Karen Bishop-Stone** ***Testware Associates, Inc.*** *Practical Software Test Case Design*	D 1	**Dr. Norman Schneidewind** ***Naval Postgraduate Sch.*** *Development & Maint. Process Assessment Using Reliability, Risk and Test Metrics*	E 1	**Dr. Linda H. Rosenberg** ***SATC, NASA*** *Writing High Quality Requirement Specifications (Part I)*
12:00-1:30	LUNCH AND NETWORKING IN EXHIBIT HALL									
1:30 - 5:00	A 2	**Dr. Edward Kit & Mr. Hans Buwalda** ***Software Development Technologies / CMG*** *Integrated Test Design and Automation (Part II)*	B 2	**Mr. Thomas Drake** ***Coastal Research & Technology, Inc.*** *Measuring Object-Oriented Software Quality for C++ and Java*	C 2	**Mr. William Bently** ***Mu_Research*** *How to Test an Object: The Information Flow Approach*	D 2	**Dr. John D. Musa** ***Consultant*** *Software Reliability Engineering: More Reliable Software, Faster*	E 2	**Dr. Linda H. Rosenberg** ***SATC, NASA*** *Writing High Quality Requirement Specifications (Part II)*

A1 and A2: Integrated Test Design and Automation (full day seminar). This tutorial provides a practical guide for addressing three essential testing challenges. First, how to design and document a highly inspectable test suite. Second, how to cost-effectively architect an automated regression test library using the minimum number of highly technical, programming-proficient testers. Third, how to also bridge test design and automation to provide an integrated solution.

B1: Testing Distributed Object Systems. This tutorial presents techniques for testing components and systems composed of components. It is built around a simple, but comprehensive, example that illustrates the basic concepts of the various component models & interconnection technologies. JavaBeans & CORBA are used as examples.

B2: Measuring Object-Oriented Software Quality for C++ and Java. This tutorial presentation will provide practical and useful knowledge centered on measuring object oriented software quality using emerging OO code level analysis and process techniques and automated tool technology support as well as defining OO quality and what it means. Examples will be drawn from C++ and Java.

C1: Practical Software Test Case Design. The tutorial introduces the practical cost-effective test case design techniques for every level of software testing from unit to user acceptance, and how to determine quality testing rather than execute quantities of tests will open the tutorial followed by explanations and exercises of various techniques.

C2: How to Test an Object: The Information Flow Approach. The tutorial shows how to select method invocation sequences for an object Information flow analysis provides a new family of coverage measures for object testing and has the potential to automatically generate the fundamental method sequences.

D1: Development & Maintenance Process assessment Using Reliability, Risk and Test Metrics. Practitioner and research software engineers and managers will benefit from this tutorial by learning how to make product reliability measurements and predictions to assess the risk of deploying software and how these measurements and predictions can also be used to assess the stability of the process that develops and maintains the product

D2: Software Reliability Engineering: More Reliable Software, Faster. This tutorial will quickly, efficiently teach you the basics of how to apply Software Reliability Engineering (SRE) to your project to make software more reliable and to develop and test it faster and cheaper. You will learn details that work.

E1 and E2: Writing High Quality Requirement Specifications (full day seminar). This tutorial will educate project managers and software developers in effective development of quality requirement specifications. It will also provide them with ideas and methods they can incorporate immediately into their project plan and find a productive return in documentation evaluation and comprehension.

TUESDAY, 25 MAY, 1999

.... TUTORIAL DAY #2 ....

8:30 - 12:00	F 1	**Dr. Boris Beizer** ***Independent Consultants*** *An Overview of Testing: Unit, Integration, System (Part I)*	G 1	**Dr. Magdy Hanna** ***International Institute for Software Testing*** *Establishing a Software Inspection Process*	H 1	**Mr. Robert Binder** ***RBSC Corporation*** *Modal Testing Strategies for Object-Oriented Software (Part I)*	J 1	**Mr. Leonard Verhoef** ***Human Efficiency*** *Improving Software Quality for users*	K 1	**Mr. Michael Deck** ***Cleanroom Software Engineering Inc.*** *Requirements Analysis Using Formal Methods (Part I)*
12:00-1:30	LUNCH AND NETWORKING IN EXHIBIT HALL									
1:30 - 5:00	F 2	**Dr. Boris Beizer** ***Independent Consultants*** *An Overview of Testing: Unit, Integration, System (Part II)*	G 2	**Mr. Tom Gilb** ***Result Planning Limited*** *Advanced Inspection*	H 2	**Mr. Robert Binder** ***RBSC Corporation*** *Modal Testing Strategies for Object-Oriented Software (Part II)*	J 2	**Ms. Sally Drew** ***Tescom UK SGT*** *E-Commerce Testing-The Clash of the Titans*	K 2	**Mr. Michael Deck** ***Cleanroom Software Engineering Inc.*** *Requirements Analysis Using Formal Methods (Part II)*

F1 and F2: An Overview of Testing: Unit Integration, System (full day seminar). This is an overview of the testing field. Its purpose is to provide you with the technical and conceptual vocabulary of testing. Testing has emerged as a field within software engineering and has acquired a big vocabulary. It has progressed, in the past 20 years, from intuition to science -- from personal heuristics to well-understood practices rooted in theory and confirmed by use and experiments.

G1: Establishing a Software Inspection Process. Software inspections have proved to be very effective in capturing more defects early enough to avoid the cost of rework. This tutorial will examine the different elements that make an effective inspection process and to achieve the real benefits of inspections.

G2: Advanced Inspection. This tutorial will focus on the improvements and generalizations of the Inspection process. Examples will focus on major defects, more detailed well-defined process, defect-checking specialist-roles, real-time Inspection process control, application of the process to any type of specification.

H1 and H2: Modal Testing Strategies for Object-Oriented Software {full day seminar}. This tutorial presents new approaches for domain/state modeling to characterize class modality and show how to produce effective test suites from these models.

J1: Improving Software Quality for Users. This tutorial offers: insight in movement, perception, memory and reasoning; how these processes interact and operate with software; a translation of this theoretical basis into practical guidelines for design; application of these guidelines.

J2: E-Commerce Testing--The Clash of the Titans. This tutorial, based on numerous real-life E-Commerce and New Media testing projects. It will describe practical techniques which work, experiences using automation solutions and how traditional testing techniques mapped onto this environment (or not!).

K1 and K2: Requirements Analysis Using Formal Methods (full day seminar). This tutorial teaches how to use formal methods to analyze, improve, document, and manage software requirements. It provides informal ways to think formally about requirements to reveal domain gaps, incompleteness, and other problem spots early in the product cycle. The tutorial looks at three dimensions of the requirements and specification process: categories, practices and phases.

WEDNESDAY, 26 MAY, 1999

.... CONFERENCE PROGRAM ....

1 — PLENARY SESSION AND KEYNOTE PRESENTATIONS #1

8:30–9:15

Conference Introduction: Edward Miller, QW99 Program Chair
Martin Pol, IQUIP Informatica: *Facing the Future Means Facing Test Maturity*
Jeff Schuster, Rational: *Facing the Future: E-Commerce Quality and YOU!*

10:00 Coffee and Networking Break in Exhibit Hall

2

	TECHNOLOGY *Innovative Tools I*	APPLICATIONS *Fault Density Methods*	TOOLS & SOLUTIONS *Automated Approach*	MANAGEMENT *Quality Culture*	QUICK-START	Birds-of-a-Feather
10:30	*2T1* **Selim Aissi & Wend Hummel** ***Applied Dynamics*** *Automating Syntax testing: The Case of a Real-Time Simulation Tool*	*2A1* **Graham Thompson** ***InCert Software*** *Minimizing Testing While Maximizing Failure Detection*	*2S1* **Douglas Hoffman** ***Software Quality Methods*** *Test Automation Architectures: Planning for Test Automation*	*2M1* **Roger M. Records** ***Boeing Commercial Airplanes*** *Deploying SQA in Very Small Projects*	*2Q* **Rainer Pirker & Andreas Rudolph** ***IBM*** *Millennium is Getting Closer -- The Quickstart to Y2K Testing*	*2B* **Elizabeth Hendrickson** ***Aveo, Inc.*** *Mass Market Software Testing*
11:15	*2T2* **Kenneth Nagin & Alan Hartman** ***IBM Research Lab in Haifa*** *TCBeans Software Test Tool Kit*	*2A2* **Frank Ackerman** ***Institute for Zero Defect Software*** *Measuring Fault Density in the Real World*	*2S2* **Alan Ark & Sarah Ackroyd** ***Thomson Financial*** *Euro: An Automated Solution to Currency Conversion*	*2M2* **Mike Ross** ***Quantitative Software Management, Inc.*** *Size Does Matter: Continuous Size Estimating and Tracking*		

12:00 Conference Lunch and Networking in Exhibit Hall

3

	TECHNOLOGY *High Assurance System*	APPLICATIONS *Technology Injection*	TOOLS & SOLUTIONS *Critical Systems*	MANAGEMENT *Maturity Models*	QUICK-START	Birds-of-a-Feather
1:30	*3T1* **Brian Miller** ***Teradyne*** *Automated Test Generation for Computer Telephony Systems*	*3A1* **Ron Silacci** ***Lucent Technologies*** *A Tester's Top 10 List*	*3S1* **Rob Oshana** ***Raytheon Systems*** *An Automated Testing Environment to Support Operational Profiles of Software Intensive Systems*	*3M1* **John N. Romanak** ***Bellcore*** *Life As A CMM Level 5 Test Organization*	*3Q* **Tom Gilb** ***Result Planning Limited*** *Evolutionary Project Management ('Evo')*	*3B1* **Peggy Fouts** ***Compuware*** *Medical & Safety Critical Application Testing*
2:15	*3T2* **Bettina Buth , Hui Shi & Jan Peleska** **FB3 Informatik** *Combining Methods for the Analysis of a Fault-Tolerant System*	*3A2* **Lisa Boden & Jon Hagar** ***Lockheed Martin*** *How to Build a 20 year Successful Independent Verification and Validation (IV & V) Program for the Next Millennium*	*3S2* **David Carman** ***Bellcore*** *Event-Based Test Generation for Distributed Systems*	*3M2* **I. Burnstein, R. Grom, A. Homyen, G. Saxena & T. Suwanasart** ***IIT*** *Using the Testing Maturity Model (TMM) to Assess and Improve Your Software Testing Process*		*3B2* **Mark Wiley** ***nCUBE*** *OS and Embedded System Testing Techniques*

3:00 Refreshment and Networking Break in Exhibit Hall

4

	TECHNOLOGY *Maintenance Testing*	APPLICATIONS *eCommerce Testing*	TOOLS & SOLUTIONS *Client/Server Apps*	MANAGEMENT *Process I*	QUICK-START	Birds-of-a-Feather
3:30	*4T1* **Ira Baxter, Andrew Yahin, Srinivas Neunuri & Leonardo Moura** ***Semantic Designs*** *Lowering Maintenance Costs by Code Clone Removal*	*4A1* **Steven Rabin** ***Interworld Corp.*** *eCommerce Performance Benchmarking -- Methodology and Criteria*	*4S1* **Heesun Park** ***SAS Institute*** *Optimum Level of Test Automation for Multi-Platform Client/Server Software*	*4M1* **Herb Krasner** ***Krasner Consulting*** *Using the Cost of Quality Approach for Software*	*4Q* **Bill Deibler** ***Software Systems Quality Consulting*** *Making CMM Work: Streamlining the DMM for Small Projects and Organizations*	*4B1* **Larry Apfelbaum** ***Teradyne*** *Testing Telecommunications Software*
4:15	*4T2* **Christopher Agruss** ***Autodesk, Inc.*** *Automating Software Installation Testing*	*4A2* **Federico Pacquing, Jr** ***TechWave Inc.*** *Usability Testing in E-Commerce Applications*	*4S2* **Huey D. Joseph Chu** ***National Defense Management College*** *Automating Client/Server Testing in the Real World*	*4M2* **Michael Deck** ***Cleanroom Software Engineering, Inc.*** *Process Diversity: How I Stopped Worring and Learned to Love Chaos*		*4B2* **Jon Hagar** ***Lockheed Martin*** *Testing for Military and Government Software*

5:00 Cocktail Party in The Exhibit Hall

Visit The Tools Exposition
Wednesday, May 26 -- 10:00 AM to 6:00 PM
Thursday, May 27 -- 10:00 AM to 6:00 PM

Cocktail Party -- 5:00 PM to 6:00 PM on Wednesday

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THURSDAY, 27 MAY 1999

• • • • CONFERENCE PROGRAM • • • •

5 — PLENARY SESSION AND KEYNOTE PRESENTATIONS #2

8:30 **Conference Introduction/Session Introduction: Edward Miller, QW99 Program Chair**

9:15 **Cem Kaner, Independent Consultant:** *Facing the Future: The Law*
Roger Sherman, Consultant: *Facing the Future:Commerical Product Testing*

10:00 Coffee and Networking Break in Exhibit Hall

6

	TECHNOLOGY *Web Testing I*	APPLICATIONS *OO Methods*	TOOLS & SOLUTIONS *Requirements I*	MANAGEMENT *Risk Assessment*	QUICK-START	Birds-of-a-Feather
10:30	*6T1* **Fan Yang, Anant Adiga & Trung Nguyen** ***Sequent Computer System*** *A Web-Based System Testing Repository Model*	*6A1* **Mei-Hwa Chen & Ming-Hung Kao** ***SUNY Albany*** *Test Effectiveness on Object-Oriented Software*	*6S1* **Hanania T. Salzer** ***RTS Software Ltd.*** *ATRs (Atomic Requirements) Used Throughout Development Lifecycle*	*6M1* **Stale Amland** ***Avenir UK*** *Risk Based Testing and Metrics*	*6Q* **Douglas Hoffman & Cem Kaner** ***Software Quality Methods / Independent Consultant*** *Thoughts on Oracles and Software Test Automation*	*6B* **Johanna Rothman** ***Rothman Consulting*** *Life as a New Test Manager*
11:15	*6T2* **Frances I. Medina** ***AT&T Operational Technology Center*** *Test Automation of a GUI WEB Based Application: An Experience Developing Reusable Automated Testing*	*6A2* **Glen Xia** ***Deloitte Consulting*** *An Industrial Case Study of Quantitative Management for Object-Oriented Software Testing*	*6S2* **Larry Apfelbaum & Steve Meyer** ***Teradyne & AT&T*** *Use Cases Are Not Requirements*	*6M2* **Tom Gilb** ***Result Planning Limited*** *Risk Management Technology: A Toolkit for Identifying, Documenting, Analyzing and Coping with Project Risks*		

12:00 Conference Lunch and Networking in Exhibit Hall

7

	TECHNOLOGY *Windows CE*	APPLICATIONS *Web Testing II*	TOOLS & SOLUTIONS *Big System Testing*	MANAGEMENT *Processes II*	QUICK-START	Birds-of-a-Feather
1:30	*7T1* **Patrick Copeland** ***Microsoft*** *Approaches in Testing componentization in the Windows CE Operating System*	*7A1* **Leon Slota** ***Neoglyphics Media Corporation*** *Developing Load and Performance Requirements for Web Sites*	*7S1* **Jim Williams** ***CableData, Inc.*** *Testing for Y2K Compliance: A Case Study*	*7M1* **Philip Lones** ***Lucent Technologies*** *Revolutionary? A Development Method That works*	*7Q* **Ted Hammer** ***NASA GSFC SATC*** *Continuous Risk Management at NASA*	*7B1* **Cem Kaner** ***Independent Consultant*** *Status Report on US Software Quality Laws*
2:15	*7T2* **Sergio Cherskov** ***Microsoft*** *Testing Windows CE 3.0 Real-Time Kernel*	*7A2* **Sam Guckenheimer** ***Rational Software, Corp.*** *Effective Testing for Java-Based Web Software*	*7S2* **G. Chrobok-Diening, A. Ulrich & P. Zimmerer** ***Siemens AG*** *Test Architectures for Testing Distributed Systems*	*7M2* **Nick Borelli** ***Microsoft Corporation*** *Seizing Control of the Development Lifecycle*		*7B2* **Richard Denney** ***Landmark Graphics*** *Blue Collar Formal Methods*

3:00 Refreshment and Networking Break in Exhibit Hall

8

	TECHNOLOGY *Innovative Tools II*	APPLICATIONS *Complex Systems*	TOOLS & SOLUTIONS *Requirements II*	MANAGEMENT *Real Life Lessons*	QUICK-START	Birds-of-a-Feather
3:30	*8T1* **Steven Toeppe & Scott Ranville** ***Ford Motor Co.*** *An Automated Inspection Tool for a Graphical Specification and Programming Language*	*8A1* **Lorenzo Lattanzi & Mario Musmeci** ***Alenia Aerospazio*** *Safety Critical S/W Development for a Satellite based Navigation System*	*8S1* **Mark Charles** ***Vector Research, Inc.*** *Testing a System With Dynamic Requirements*	*8M1* **James Bindas** ***Intel Corporation*** *Tactical Improvement Projects: Real-Life Lessons in Leading Change*	*8Q* **Cem Kaner** ***Independent Consultant*** *Interviewing Software Testing Job Candidates*	*8B1* **Rodney Wilson** ***KLA-Tencor*** *Care & Feeding of a Testing Career*
4:15	*8T2* **John Kent** ***CISS Ltd.*** *Advanced Automated Testing Architectures*	*8A2* **M. Vierimaa, M. Makarainen & A. Kinnula** ***VTT Electronics / Nokia*** *Improving DSP Software Engineering Processes from the Testing Viewpoint*	*8S2* **Yuri Chernak** ***Valley Forge Consulting*** *In-Process Validation and Improvement of Test-Case Effectiveness*	*8M2* **Scott Young** ***Perot System Corp.*** *Them and Us: Communication Between Development and Test*		*8B2* **Mark Johnson** ***OrCAD*** *Productivity in Small Integrated Teams*

QW'99 presents the strongest team of speakers ever! To learn more about the speakers and their topics, visit our Web site at:

http://www.soft.com/QualWeek/QW99/qw99.program.html
Once there, click on Speaker's Name for their photos and biographies,
click on Presentation Title for descriptions of their papers,

FRIDAY, 28 MAY, 1999

9	TECHNOLOGY *Data Flow Approaches*	APPLICATIONS *Models*	TOOL & SOLUTIONS *Avionics*	MANAGEMENT *Careers & Culture*	QUICK-START	Birds-of-a-Feather
8:30	*9T1* **B. Tsai, S. Stobart, N. Parrington & I. Mitchell** ***University of Sunderland*** *A State-Based Testing Approach Providing Data Flow Coverage in Object-Oriented Class Testing*	*9A1* **Jon Hagar** ***Lockheed Martin*** *Industrial Experiences in Establishing Lab. and Software Models to Effectively Execute Software Test*	*9S1* **Alain Kerbrat Verilog** *Automated Test Generation from SDL/UML Specifications*	*9M1* **Tom Wissink** ***Lockheed Martin Mission Systems*** *Test Engineering--A "Value Add" Career Path*	*9Q* **Elfriede Dustin, John Paul & Jeff Raksha** ***CSC*** *Moving From Conventional Testing to Object-Oriented Testing*	*9B1* **Mark Anderson** ***Discerning Software Corp.*** *Client/Server Load Testing*
9:15	*9T2* **Martina Marre, Monica Bobrowski & Daniel Yankelevich** ***Universidad de Buenos Aires*** *A Software Engineering View of Data Quality* **(QWE'98 Best Paper)**	*9A2* **Johanna Rothman** ***Rothman Consulting Group*** *Using Quality to Drive Product Development Processes*	*9S2* **E.L. Safford III** ***Lockheed Martin*** *Development of an Integrated Real-Time Avionics Software Testbed*	*9M2* **Keith Stobie** ***BEA Systems, Inc.*** *Creating a Testing Culture*		*9B2* **Carla Oexmann** ***Chromatic Research*** *Running a Nightly Test*

10:00 Refreshments

10 PLENARY SESSION AND KEYNOTE PRESENTATION #3

10:30

Jakob Nielsen, ***Nielsen Norman Group*** *Facing the Future: Usability Aspects of Quality*
Brian Marick, ***Reliable Software Technologies Corporation*** *Facing the Future: Trapped by Models*
Boris Beizer, ***Independent Consultant*** *The Mavin*
Conference Conclusion: Edward Miller, ***QW99 Program Chair***

STAND-BY PRESENTATIONS

Wednesday and Thursday, May 26-27

Tech.	**Siegfried Voessner et. al.** ***Standford University*** *Genetic Algorithm with Cluster Analysis for Software Testing*
Apps.	**Mr. Rex Black** ***Rex Black Consulting Services*** *Charting the Progress of System Development Using Defect Data*
	Reinhard Weiss ***Further Inspection, Inc.*** *Automated load Testing of DB2 Client/Server System*
Tools & Solut.	**Ingrid B. Ottevanger** ***IQUIP*** *Test Factory (TSite): A Next Step in Structured Testing*
	J.P. Schroeder ***Teradyne*** *Model-based Testscript Generation for a C++ Class*
Mgmt.	**Karen Bishop-Stone** ***Testware Associates, Inc.*** *Training the Software QA Professional*
	Nathan Baddoo & Tracy Hall ***South Bank University*** *The Impact of Software Practitioners on Software Quality*

TWO-DAY VENDOR EXHIBIT

Visit Over 30 Exhibitors on Wednesday and Thursday, May 26-27

Azor
AutoTester
Capital One Services
Computer Associates International
Compuware Corp.
CS VERILOG
Cyrano
ErgoLight
Hall Kinion
Information Balance
Interim Technology
Intrinsa Corporation
Keylabs
McCabe & Associates
Microsoft Corporation
Performance Research
Q-Labs, Inc.
Quantitative Software Management
Rational Software
Soffront Software
Software Development Technologies
Software Quality Engineering
Software Research, Inc.
Sunpower Computing
Teradyne Software & Systems Test
Testmasters
The International Institute of Software Testing
And many more

Vendor Presentation Track:
Heighten your knowledge of the industry. Learn from the vendors how you can effectively implement proven techniques immediately.

Demo Track:
Gain a competitive edge. You can see live demonstrations of the products that will dominate the decade!

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Mr. Neil Hunt, *Rational,* USA
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Mr. Brian Marick, *RST Corporation,* USA
Dr. Edward Miller, *Software Research, Inc.*, USA
Dr. John D. Musa, *Independent Consultant*, USA
Ms. Emilia Peciola, *Ericsson*, Italy
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Mr. Rob Schultz, *Motorola*, USA
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• • • • REGISTRATION FOR QUALITY WEEK • • • •

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You can pay by **credit card** (Visa, Mastercard, American Express), **by check**, or by **bank wire transfer**. Please handle the credit card payments by FAX or over the phone.; do not E-Mail credit card information. The entire conference fee is payable prior to the program. **Make checks payable to SR Institute**. No cancellation fee is applicable until April 23, 1999; $250 thereafter. No refunds will be given for cancellations after 14 May call the registrar to obtain your cancellation number. **Substitutions** are permitted with written notification until 14 May.

FEES: Registration includes all seminar and conference material, Continental Breakfast, Lunches, Refreshments, and Cocktail Parties.

Registered & Paid	On or Before 23 April	After 23 April	Group Rates
Tutorial Day #1	$425	$475	no discount
Tutorial Day #2	$425	$475	no discount
Both tutorial days	$800	$900	no discount
Conference + Tools Exhibition	$950	$1050	10% discount
1-Day Tutorial + Conference	$1250	$1350	10% discount
5-Day Quality Week Event COMBINED	$1450	$1550	10% discount

NOTE: A **check**, **credit card, or bank transfer** payment must be received at The SR Institute by **23 April** to benefit from the lower rates.

SAVE: Benefit from the reduced group rate! Send your **team** of software QA specialists, managers and developers. If you register two or more representatives at one time, deduct 10% of the fee for each attendee from the Conference or COMBINED (Conference + Tutorial) prices only.

CONFERENCE LOCATION: Quality Week will be held at the luxurious Fairmont Hotel, 170 S. Market, San Jose, CA. Within easy walking distance of the best in facilities, restaurants, clubs, theaters, shops, and points of interest.

Please Type or Print:

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FAX: (___) _____

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- Primary Job Function: _____
- Platforms Used: _____
- Languages Used: _____

Please check one:

❑ Tutorial Day 1 ❑ Tutorial Day 2 ❑ Both Tutorial Days
❑ 3-Day Conference + Tools Exhibition
❑ 1-Day Tutorial + 3-Day Conference + Tools Exhibition
❑ 2-Day Tutorials and Conference COMBINED

Please choose morning and afternoon tutorials for each day attended:

Day1-AM:	❑A1	❑B1	❑C1	❑D1	❑E1
Day1-PM:	❑A2	❑B2	❑C2	❑D2	❑E2
Day2-AM:	❑F1	❑G1	❑H1	❑J1	❑K1
Day2-PM:	❑F2	❑G2	❑H2	❑J2	❑K2

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CONFERENCE HOTEL ACCOMODATIONS

Please make your own reservations. May can sometimes be a congested month, early reservations are recommended. A limited block of rooms have been reserved for QW'99 attendees at special conference rate until April 23. **Mention Quality Week to receive the special Conference rate**. After April 23, the rooms will be released to the general public. The conference hotel is **the The Fairmont Hotel** in San Jose.

Mention Quality Week to receive the special Conference rate

The Fairmont Hotel
170 South Market Street,
San Jose, California 95113
Telephone: (408) 998-990 Fax: (408) 280-6072
Reservations: +1 (800) 527-4727

For more information about the hotel and the program, please visit the Quality Week Web Page at **http://www.soft.com/QualWeek/QW99/** (click on "Program").

• • • • KEY SPEAKER LIST • • • •

Boris Beizer is best known for his books on software testing and his seminars based on them: *Software Testing Techniques*, *Software System Testing and Quality Assurance* and *Black Box Testing*. He has been in the computer industry for more than 30 years, and is currently an independent consultant with **ANALYSIS, Inc.**

William Bently is a Software developer and software testing researcher. He has written several papers on a novel theoretical approach to software testing: the theory of dynamic information flow testing (Cd testing). He is currently investigating the application of this theory to the testing of Java objects and components (JavaBeans). He has a B.A. in Mathematics from Oberlin College & a M.S. in Biology from Ball State University.

Robert Binder is President of **RBSC Corp.**, providing consulting and training in software engineering and software process improvement since 1984. Mr. Binder has written extensively about software development, including *Application Debugging* and his forthcoming *Testing Object-Oriented Systems.* He writes a regular column on testing for "Object" magazine. He developed the FREE methodology for testing object-oriented systems.

Karen Bishop-Stone is the principal owner of **Testware Associates, Inc.** She has taught seminars on STQAM internationally since 1980 and is a national conference lecturer on software life cycle testing methodologies. Ms Bishop-Stone has been certified as a Certified Software Quality Analyst with the American Society of Quality and as a Certified Software Test Engineer with Quality Assurance Institute.

Michael Deck and his consulting company, **Cleanroom Software Engineering, Inc.**, specializes in training in cleanroom practices to solve real-life software process problems. From 1982 to 1993 he was a member of the IBM Cleanroom Software Technology Center. He has a BA in mathematics from Kalamazoo College and an MS in Computer Science from the University of Maryland, College Park. His current research interests include application of cleanroom to object-oriented development, real-time and embedded software, and highly reliable systems.

Thomas Drake is a software quality specialist and management and information technology consultant for **Coastal Research & Technology, Inc.** in the U.S. He currently leads and manages a U.S. government agency-level Software Engineering Knowledge Based Center's software quality engineering initiative. Mr. Drake is listed with the International Who's Who for Information Technology for 1999, is a member of IEEE and an affiliate member of the IEEE Computer Society. He is also a Certified Software Test Engineer(CSTE) from the QAI.

Sally Drew has over 12 year experience as a specialist tester, including development of Project Management skills and Systems Analysis techniques, based in both the UK and US. Prior to joining **TesCom**, (the largest European specialist software testing consultancy) in 1997, Ms. Drew was Test Director for an innovative multi-billion dollar OMT based E-comm. system using Internet, COM & DCOM technology.

Tom Gilb, an independent consultant, contributed 80 pages to the earliest book describing inspection, *Software Metrics* (1976). He has actively taught, installed and followed up the method internationally since 1975. He has been a consultant to key pioneers of inspection at IBM development labs. He is the author of *Principles of Software Engineering Management,* and *Software Inspections*.

Magdy Hanna is a recognized educator, speaker and consultant in several related areas of software engineering. He is a frequent speaker in many national and international conferences. Dr. Hanna is a professor of Software Engineering at the University of St. Thomas, President of Software Dimensions, & Chairman of the **International Institute for Software Testing**.

Cem Kaner consults on technical and management issues, teaches, and practices law. He co-wrote the book *Testing Computer Software*, which received an Award of Excellence from the Society for Technical Communication. He writes the *Software Quality & The Law* column in Software QA.

Edward Kit, the founder and President of **Software Development Technologies**, has assisted hundreds of companies to improve their software testing and automation practices. Dr. Kit's recent book, *Software Testing in the Real World... Improving the Process*, has been adopted as the standard by leading software and commercial companies.

Brian Marick worked for twelve years as a tester, developer, and line manager, mostly on operating systems and compilers. Joint research at the University of Illinois led to internal consulting and then, in 1992, his own consulting business, **Testing Foundations**. Because practitioners are justifiably suspicious of those who talk about software development but never actually do any, he tries to spend half his time building, testing, & maintaining tools, some freely available. Mr. Marick is the author of *The Craft of Software Testing*.

John McGregor is a Professor at **Clemson University** and a senior partner in Software Architects, a software design consulting firm, specializing in object-oriented design techniques. Dr. McGregor is co-author of several books and he has published numerous articles on software development focusing on design & quality issues. His research interests include software engineering specifically in the areas of design quality, testing and measurement.

Edward Miller is President of **Software Research, Inc.**, San Francisco, California. Dr. Miller pioneered in the development of automated software testing methodologies, analysis support tools, and has established himself as a highly-respected leader in the field. He is the author of *Software Testing and Validation Techniques*, an IEEE Computer Society Press tutorial text, as well as numerous articles on software testing.

John D. Musa is an independent consultant. The courses he gives around the world and his pioneering book, *Software Reliability: Measurement, Prediction and Application*, have gained him recognition as one of the creators and leaders in the field. He organized & led the transfer of software reliability engineering into practice within AT&T, spearheading the effort that defined it as a "best current practice." Actively involved in research to advance the theory and practice of the field.

Jakob Nielsen is a User Advocate specializing in Web usability and a principal of **Nielsen Norman Group**, which he co-founded with former head of Apple Research, Dr. Donald Norman. Until 1998, Dr. Nielsen was a Sun Microsystems Distinguished Engineer and led that company's Web usability efforts starting with the original design of SunWeb in early 1994. His previous affiliations include the IBM User Interface Institute, Bell Communications Research, and the Technical University of Denmark. Nielsen is the author of *"Usability Engineering" and "Multimedia and Hypertext: The Internet and Beyond".*

Martin Pol, with more than 25 years in the information business, has worked at **IQUIPInformatica** since 1991, within the dedicated testing unit TMap(tm) Consultancy with more than 250 specialized testers. With exceptional insight and experience in practical testing issues, Mr. Pol's a highly regarded presenter at conferences and training sessions throughout Europe and in the USA. He was involved in the development of the structured testing approach TMap(tm). He's also the co-author of two (Dutch) books on TMap(tm)**.**

Linda Rosenberg is an Engineering Section Head at **Unisys Government Systems** in Lanham, MD. She is contracted to manage the Software Assurance Technology Center through the System Reliability and Safety Office in the Flight Assurance Division at Space Flight Center, NASA. She's responsible for overseeing metric programs as basis for numerical guidelines and standards for software developed at NASA.

Norman Schneidewind is a Professor of Information Sciences and Director of the Software Metrics Research Center at the **Naval Postgraduate School**. He is the developer of his software reliability model which is recommended by the ANSI and American Institute of Aeronautics and Astronautics Recommended Practice for Software Reliability. Dr. Schneidewind is a Fellow of the IEEE. He has a BSEE at UC Berkeley; a MSEE & MSCS at SJSU; a MSOR (ENGR) and doctorate, with a major in OR, at University of Southern California.

Roger Sherman is the former Director of Testing for Microsoft, a post he held during the releases of Microsoft Windows 95 and Microsoft Office 95. He has published articles in such journals as American Programmer & Crosstalk, and has been a keynote speaker at numerous software quality conferences. Before his ten years at Microsoft, Mr. Sherman was a QA Manager of Boeing Computer Services, and an operating system tester for one of Boeing's largest data centers.

Jeff Schuster has over 15 years of direct experience in automated testing and is responsible for defining the performance Test Product line for **Rational Software Corp.**. Since 1987, Mr. Schuster has worked on all aspects of preVue, the performance test and load generating software for ASCII, X-Windows, and Client Server based applications. He started his career at AT&T Bell Lab in 1981 where he designed and developed automated testing software for telecommunication applications.

Leonard Verhoef (1950) performed research on human thinking. As a psychologist he was involved in the development of several systems (electronic mail, traffic control, process control, public transport, public information, software design). He also investigated how to apply psychological knowledge in the design process. Now he is working on "*A future based on psychology" & "How to unenslave Windows users".*