

Serving Our Stakeholders



Advancing the understanding and practice of software testing

July 13 – 16, 2009 Colorado Springs, Colorado

www.CAST2009.org

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Virtuology – Testing in a Time Machine

What if you could go back in time to the exact moment when a bug occurs? Or even better, just before a bug occurs and try something else.



QualiTest presents: Virtuology – Testing in a Time Machine

Virtuology is the use of virtualization tools & testing methodologies, which provide the ability of testing in a time machine. Whether you practice Scrum/Agile, Exploratory Testing, Waterfall, Spiral or use test automation, Virtuology will transform the way you test.

Please take part in the QualiTest Virtuology Survey and enter to win a Kindle DX



For over a decade, QualiTest has been dedicated to delivering superior QA and testing services to global fortune 500 companies such as Microsoft, Intel, GE, Verizon, T-Mobile, Motorola, Siemens, Fuji, Johnson & Johnson and SAP.

QualiTest promotes new testing technologies and global QA and testing standards such as Test Process Improvement (TPI), Keyword Driven Testing (KDT), TMap, Exploratory Testing, Scrum and Virtuology.

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Welcome

Welcome to CAST 2009, the 4th Annual Conference of the Association of Software Testing (CAST), in Colorado Springs, Colorado, July 13-16, 2009.

Serving Our Stakeholders

Keynote Presentation by Dr. Jonathan Koomey,

Project Scientist at Lawrence Berkeley National Laboratory, Consulting Professor at Stanford University, and author of

Turning Numbers into Knowledge: Mastering the Art of Problem Solving

What makes CAST special?

CAST puts *CONFER* back into CONFERence: At least 1/3rd of every session is reserved for facilitated discussion. We also provide additional space for late-breaking presentations and discussions that extend beyond the scheduled time. Conferring with testing practitioners and leaders is part of the program -- not just something that happens after hours in the hotel bar.

CAST presentations are tied to a theme: This year's theme is **Serving Our Stakeholders**. Only rarely do we test software solely for the joy of finding a bug. We test software because someone wants us to provide them with quality-related information about their software so they can make better decisions, fix important bugs, and/or assess regulatory compliance. Those someones are **stakeholders**. Learn to better serve your stakeholders at CAST 2009.

CAST is free from thinly veiled sales pitches: CAST sessions are about experience, practice, and ideas -- not just products.

CAST contains new content: Most of the presentations and tutorials at CAST are first-run content. We've assembled a cast of practitioners and thought-leaders with interesting stories and provoking ideas.

CAST is preceded by unique tutorials: AST has lined up unique interactive tutorials -- each led by recognized thought leaders in their areas of expertise.

Our hope is that CAST helps you advance the understanding and practice of testing -- at your organization and around the globe. You'll have opportunities to share your ideas and learn from thought-leaders, trainers, authors, and peers. CAST 2009 is a participatory conference. Please participate.

^{*} AST Executive Committee member

Conferring at CAST

It is our desire that CAST help foster advancement in software testing – both in your organization and throughout the industry.

The focus of CAST is on the *confer* part of the word *conference*. Each pre-scheduled session consists of a presentation followed by facilitated discussion about the presentation.

Unless instructed otherwise, you may only ask *clarifying* questions while a speaker is presenting.

Once a speaker is done, it becomes Open Season – at which point the discussion begins.

You will find colored index cards in your packet. These *K-Cards* are to be used to signal the facilitator that you have a question or comment. When you want to join in a discussion, please use your cards as follows:

- Green: The New Stack card signals that you have a question or comment unrelated to the current discussion thread.
- Yellow: The On Stack card signals the facilitator that you have a question or comment that relates to the current thread of discussion.
- Red: The Burning Issue card is to be used only when you are urgently compelled to
 interrupt a speaker. It can be a point-of-order, an argument, a problem with facility
 acoustics, or something you need to say quickly because you've been provoked in a
 meaningful way. If you use your red card, the facilitator may confiscate it for the remainder
 of the conference so use it wisely.

Additional meeting space is available should a group desire to continue discussing a topic beyond the scheduled time.

Meals

All meals shown on the schedule are included in the registration fees for that day's activities. Additionally, the Monday night reception is open to all CAST attendees and family that may have accompanied them to Colorado Springs.

We have attempted to provide sufficient food variety to satisfy most dietary needs of CAST attendees. If you do not find suitable food, please speak to the food service staff and they will attempt to accommodate your requests.

AST Elections and Annual Meeting

The AST is a non-profit professional association dedicated to improving the practice of software testing by advancing the science of testing and its application.

The AST is run by members who volunteer as a nominated, elected slate of officers. The AST elections for the Board of Directors will be held during lunch on Tuesday, July 14. Non-members and Associate members may not vote. Only full members may participate in the vote. If you would like to become a voting member prior to the elections, please visit http://join.AssociationForSoftwareTesting.org.

The AST Annual Membership Meeting where election results will be announced and an overview presentation is made to the membership will be held during lunch on Wednesday, July 15.

Monday Schedule

Monday, July 13

7:30	Registration Desk Opens							
7:30 - 9:00	Breakfast							
9:00 - 10:20	Turning Numbers into Knowledge: Getting the Numbers You Need [Heritage A] Jerry Weinberg Ensuring Testing's Proper Place in the Organization [Heritage B]		Mike Dwyer & Scott Barber Experiencing Agile Integration [Heritage E]	James Bach Teach YOURSELF Software Testing [Learning Center]	Fiona Charles & Michael Bolton Testing Your Testing: Determining Risks [Heritage F]			
10:20 - 10:30			Morning Break					
10:30 - 12:00	Jonathan Koomey Turning Numbers into Knowledge: Getting the Numbers You Need [Heritage A]	Jerry Weinberg Ensuring Testing's Proper Place in the Organization [Heritage B]	Mike Dwyer & Scott Barber Experiencing Agile Integration [Heritage E]	James Bach Teach YOURSELF Software Testing [Learning Center]	Fiona Charles & Michael Bolton Testing Your Testing: Determining Risks [Heritage F]			
12:00 - 1:10	Lunch [Heritage D]							
1:10 - 3:00	Cem Kaner Metrics, Qualitative Measurement, and Stakeholder Value	Jerry Weinberg Ensuring Testing's Proper Place in the Organization [Heritage B]	Mike Dwyer & Scott Barber Experiencing Agile Integration [Heritage E]	James Bach Teach YOURSELF Software Testing [Learning Center]	Fiona Charles & Michael Bolton Testing Your Testing: Determining Risks [Heritage F]			
3:00 - 3:20	Afternoon Break							
3:20 - 5:00	Cem Kaner Metrics, Qualitative Measurement, and Stakeholder Value [Heritage A]	Jerry Weinberg Ensuring Testing's Proper Place in the Organization [Heritage B]	Mike Dwyer & Scott Barber Experiencing Agile Integration [Heritage E]	James Bach Teach YOURSELF Software Testing [Learning Center]	Fiona Charles & Michael Bolton Testing Your Testing: Determining Risks [Heritage F]			

6:30 - 7:00	Registration Desk Open
6:30 - 8:30	Reception Open to All CAST Conference and Tutorial Attendees [Heritage D]

Tuesday Schedule

Tuesday, July 14

7:00	Registration Desk Opens				
7:00 - 8:30	Breakfast				
8:30 - 9:00	CA	AST 2009: Serving Our Stakeholders [Heritage C/D]			
9:00 - 10:20	Sorry, wrong number: Real-life le	Jonathan Koomey essons for responsible use of data and [Heritage C/D]	d analysis in decision making		
10:20 - 10:40		Morning Break Please visit our sponsors			
10:40 - 11:50	Edgardo Greising Helping Managers Make Up Their Minds: The ROI of Performance Testing [Carson] Yaron Kottler Virtuology: Testing in a Time Machine [Fremont] Doug Hoffman Why Tests Don't Pass [Heritage B]				
11:50 - 1:20		Annual Elections and Lunch [Heritage C/D]			
1:20 - 2:30	Lynn McKee & Nancy Kelln Testing Within All the Shades of Agile [Carson]	Scott Allman Software Experiments are Applied Epistemology [Heritage B]			
2:40 - 3:50	Joel Montvelisky Testing Intelligence [Carson] Geordie Keitt & James Nilius Challenges of Certifying Electronic Voting Systems Software [Fremont] Mike Dwyer The Genesis of Agile QA: One Person's Ongoing Journey to Move QA to the Front of the Train [Heritage B]				
3:50 - 4:10	Afternoon Break Please visit our sponsors				
4:10 - 5:20	Mónica Wodzislawski & Raquel Abella In the Mood for Quality [Carson] Mónica Wodzislawski Jeff Hinz How Testers Can Serve Stakeholders Stakeholders [Fremont] [Fremont] Cem Kaner New Rules Adopted for Software Contracts [Heritage B]				

6:20	Dinner
- 8:00	[Heritage C/D]
8:00 - 9:00	AST SIG Meetings, Recruiting, & Information Sessions [Carson, Fremont, Heritage A, Heritage B, Learning Center]

Wednesday Schedule

Wednesday, July 15

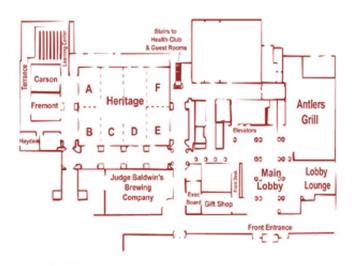
7:00 - 8:20	Breakfast						
8:20 - 9:30	Dee Ann Pizzica Helping Clients be Successful [Carson]	Adam Geras Of Schools and Tools: An Agile Tester's Toolkit [Fremont]		Danny Faught Tearing Down the Ivory Tower of Testing [Heritage B]			
9:40 - 10:10	Lightning Talks [Carson]		Lightning Talks [Fremont]			Lightning Talks [Heritage B]	
10:10 - 10:30			Morning I Please visit ou				
10:30 - 11:40	Outsourcing the Testing Effort at a Large Organization Managers & Testers Outsourcing the Testing Effort at a Large Organization Managers & Testers					Together: Communication blocks Between Project	
11:40 - 1:00	Annual Member Meeting and Lunch [Heritage C/D]						
1:00 - 2:10	Selena Delesie When Developers + Testers = Success [Carson]	& C Transla	cott Barber Dawn Haynes ting Stakeholder's rmance Desires [Fremont]	Fiona Charles Modeling Scenarios with a Framework Based On Data [Heritage B]		Rebecca Fiedler & Cem Kaner Cultural-Historical	
2:20 - 3:30	Neha Thakur Software Testing: To Be or Not To Be [Carson]	Jean Ann Harrison A Balancing Act: Satisfying Regulators, End-Users, Business Leaders & Developers: A case study from a medical device company [Fremont]			e Testing: riven ve	Activity Theory: Framework to Characterize the Activity of Software Testing Double Session [Heritage A]	
3:30 - 3:50							
3:50 - 4:10	Closing Remarks [Heritage C/D]						
4:10 - 5:30	Rob Sabourin & Tim Coulter Tim Bits: What I Learned About Software Testing at CAST 2009 [Heritage C/D]						

6:30	Dinner	
- 8:00	[Heritage C/D]	

Thursday Schedule

Thursday, July 16

8:00 - 9:00	Breakfast					
9:00 - 10:10	Open Space Session [Carson] Open Space Session [Heritage B] [Heritage A]		BBST Instructor			
10:20 - 11:30	Open Space Session [Carson]	Open Space Session [Heritage B]	Open Space Session [Heritage A]	Training [Learning Center]		
11:30 - 1:00	Lunch [Heritage C]					
1:00 - 2:10	Open Space Session [Carson]	Open Space Session [Heritage B]	Open Space Session [Heritage A]	BBST Instructor		
2:20 - 3:30	Open Space Session [Carson]	Open Space Session [Heritage B]	Open Space Session [Heritage A]	Training [Learning Center]		
3:30 - 3:40	Break					
3:40 - 5:00				BBST Instructor Training [Learning Center]		



Software Test & Performance COLLABORATIVE

Software Test & Performance Collaborative serves the global software testing and performance community, providing more than 50,000 software professionals with information, education, training, and professional networking opportunities. Software Test & Performance Collaborative is a Redwood Collaborative Media community dedicated to providing a highly interactive, dynamic platform for community, resources, and knowledge sharing for the software test and QA profession. For more information, visit http://www.stpcollaborative.com.



QualiTest Group is a leading global provider of Quality Assurance and Software Testing services. With over 800 Testing professionals, 10 branches and a strong presence in the USA, Europe, Israel and Asia, QualiTest provides services to global Fortune 500 companies as well as other leading organizations, both large and small. QualiTest Group is committed to improving quality and providing superior solutions by continuously investing in R&D of innovative methodologies and services. We promote the use of global practices such as Test Process Improvement (TPI), Keyword Driven Testing (KDT), Scrum Testing, Exploratory Testing, Virtuology and much more. QualiTest Group delivers a wide variety of targeted solutions to vertical markets such as healthcare & life sciences, defense & aerospace, Banking & Finance, insurance, government, Media & Entertainment, Retail, Industrial Telecom, Networking, Utilities and Products. For more information. http://www.QualiTestgroup.com.

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accomplish their goals. Our business technology optimization (BTO) products along with our new, complete approach to application lifecycle management (ALM) helps customers achieve better business outcomes. For more information, visit http://www.hp.com/go/appmod.



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PerfTestPlus offers advising, consulting and training services as well as resources to bring software testing expertise and thought-leadership to organizations seeking to push their testing beyond "state-of-the-practice" to "state-of-the-art." Our testing services are designed and delivered by name-brand testing professionals who subscribe to our integrity driven, value focused philosophy." For more information, visit **Error! Hyperlink reference not valid.**





TestingFAQs.org is an information resource for software testers, listing test tools, conferences, service providers, and courses. In 2009 we're celebrating the 15th anniversary of the FAQs, which were originally distributed via ftp and Usenet. Now safe and secure on a web site of its own, TestingFAQs.org lives on. The maintenance of the ever-evolving site is supported by many generous advertisers and donors. Thanks to everyone who has helped make it successful.

testingReflections.com is your one-stop for **software testing blogs**, aggregating many of the best blogs and articles on software testing from around the web into one convenient place.



The Software-Testing Community's knowledge-hub of the web

Established in 2004, <u>testingReflections.com</u> now contains nearly 4000 blog articles covering functional testing, performance testing, unit testing, test-driven development and just about all things 'Software Testing'...

"testingReflections keeps up with the most interesting testing blogs so I don't have to. I come for the feeds, and stay for the comments." -James Bach

Black Box Software Testing (BBST) Online Training for Testing Practitioners

The Association for Software Testing is offering a series of online courses in software testing to our members

Too many testing courses emphasize a superficial knowledge of basic ideas. This makes things easy for novices and reassures some practitioners that they understand the field. However, it's not deep enough to help students apply what they learn to their day-to-day work.

The BBST series attempts to foster a deeper level of learning by giving students more opportunities to practice, discuss, and evaluate what they are learning.

Each BBST course includes video lectures, quizzes, homework, and a final exam. All of the homework, and the exam, are peer-reviewed. Every participant in the course reviews work submitted by other participants and provides feedback and suggests grades.

AST is currently offering the following two courses:

Foundations

This first course (a prerequisite for all other courses in the series) is a basic introduction to black box testing. It presents basic terminology and considers:

- · the mission of testing
- the oracle problem
- the measurement problem
- the impossibility of complete testing

Bug Advocacy

Bug reports are not just neutral technical reports. They are persuasive documents. The key goal of the bug report author is to provide high-quality, well-written, information to help stakeholders make wise decisions about which bugs to fix when. Key aspects of the content of this course include:

- Defining key concepts (such as software error, quality, and the bug processing workflow)
- the scope of bug reporting (what to report as bugs, and what information to include)
- Bug reporting as persuasive writing
- Bug investigation to discover harsher failures and simpler replication conditions
- Excuses and reasons for not fixing bugs
- Making bugs reproducible
- Lessons from the psychology of decisionmaking: bug-handling as a multiple-decision process dominated by heuristics and biases.
- Style and structure of well-written reports

For more information about BBST training, visit http://training.AssociationForSoftwareTesting.org.

Bronze Sponsors



Over the past eleven years, **ProtoTest** has led more than 200 companies toward improving their

software quality and streamlining their processes. ProtoTest provides consulting services in specialized software quality and test efforts, offers training courses in software testing fundamentals as well as testing in an Agile environment, and can help augment your team with the best contract, contract-to-perm, and direct-hire testing resources. For more information, visit http://www.prototest.com.



SpiraTest by Inflectra - A complete quality assurance and test management system with integrated release

scheduling and defect tracking. It manages your project's requirements, test cases and defects/bugs with requirements traceability and comprehensive coverage analysis. For more information, visit http://www.inflectra.com.



VMC Consulting's Test Labs practice delivers a disciplined approach to software test engineering

employing highly collaborative test teams to reduce time and increase productivity in development cycles. Software Test and QA services include functions such as requirements testing, unit testing, build acceptance, integration testing, systems testing, and release acceptance. Our clients include the largest software, hardware, and peripheral manufacturers and developers in the world. For more information, visit http://www.vmc.com.



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needs. Our experts provide project-based services including proof of concept, assistance with tool selection, system tuning, and complete QA testing of client's applications. Connected Testing provides on-demand software Quality Assurance services to ensure that your get the most out of your QA budget. As a result, you can be assured of on-time completion of the QA cycle with the highest customer satisfaction. For more information, visit http://www.ConnectedTesting.com.



The Software Quality Association of Denver (SQuAD), founded in September of 1997,

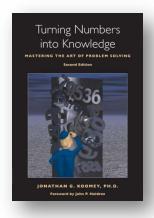
supports Quality Assurance Professionals in the Mile High City. SQuAD meetings and events promote local interaction for members in Colorado. SQuAD is a not-for-profit organization. Membership is free and includes members from all aspects of software quality. For more information, visit http://www.squadco.com.

Keynote Speakers

Jonathan Koomey is a Project Scientist at Lawrence Berkeley National Laboratory and a Consulting Professor at Stanford University. Dr. Koomey is one of the leading international experts on electricity used by computers, office equipment, and data centers, and is the author or coauthor of eight books and more than one hundred and fifty



articles and reports on energy and environmental economics, technology, forecasting, and policy. He has also published extensively on critical thinking skills. He holds M.S. and Ph.D. degrees from the Energy and Resources Group at the University of California at Berkeley, and an A.B. in History of Science from Harvard University. In 1993 he won the Fred Burgraff Award for Excellence in Transportation Research from the National Research Council's Transportation Research Board. He was named an Aldo Leopold Leadership Fellow in 2004 and an AT&T Industrial Ecology Fellow in January 2005. He has been quoted in the New York Times, the Wall Street Journal, Barrons, The Financial Times, The Washington Post, Science, Science News, American Scientist, Dow Jones News Wires, and the Christian Science Monitor, and has appeared on Nova/Frontline, BBC radio, CNBC, All Things Considered, Marketplace, On the Media, Tech Nation, and the California Report, among others. His latest solo book is Turning Numbers into Knowledge: Mastering the Art of Problem Solving, now out in its second edition (April 2008). For more information about Dr. Koomey, visit www.koomey.com.



Robert Sabourin has been involved in all aspects development, testing and software management of engineering projects. Robert graduated from McGill University in 1982. Since writing his first program in 1972, Robert has become accomplished software engineering and SQA management expert and



evangelist (don't tell me it can't de done!). He is presently the President of <u>AmiBug.Com</u> Inc; a Montreal-based international management consulting firm specialising in the implementation of "light effective process" to achieve excellence in delivering on-time, on-quality, on-budget commercial software solutions. AmiBug.Com provides management consulting, training and professional development directly and with various business partners.

Robert is a frequent guest lecturer at McGill University where he relates theoretical aspects of Software Engineering to real world examples with practical handson demonstrations.

Robert is the author of a short book illustrated by his daughter Catherine entitled "I Am a Bug". Written in the style of a children's book, "I am a Bug" explains elements of the software development process using a fun metaphor. Robert has also written many articles and papers, and has given presentations relating to software development at a number of international conferences.

Tim Coulter is a software developer for The Open Planning Project, a New York City based non-profit software engineering firm. Since studying under Dr. Cem Kaner at the Florida Institute of Technology, Tim has actively participated in over ten software testing peer workshops and has gained the respect of leaders in the field. Tim has



participated in CAST since its inception. He brings a fresh perspective to the practice of software testing and is skilled at summarizing testing wisdom into short snippets that have been dubbed "Tim-Bits". Alongside Rob Sabourin, Tim will be sharing his "Tim-Bits" from CAST in the closing keynote. Tim blogs about testing at www.OneOfTheWolves.com.

Tutorial Presenters

Jonathan Koomey See bio in keynote speakers.

Cem Kaner has pursued a multidisciplinary career centered on the theme of the satisfaction and safety of software customers and software-related workers. With a law degree (practice focused on the law of software quality), a



doctorate in Experimental Psychology, and 17 years in the Silicon Valley software industry, Dr. Kaner joined Florida Institute of Technology as Professor of Software Engineering in 2000. Dr. Kaner is senior author of three books: *Testing Computer Software* (with Jack Falk and Hung Quoc Nguyen), *Bad Software* (with David Pels), and *Lessons Learned in Software Testing* (with James Bach and Bret Pettichord). At Florida Tech, his research is primarily focused on the question, *How can we foster the next generation of leaders in software testing?* See TestingeEucation.org for some course materials and this Proposal to the National Science Foundation for a summary of the course-related research.

Gerald Weinberg established the very first separate software testing group fifty years ago, in 1958, to aid in producing lifecritical software for Project Mercury. Jerry will speak of many steps, done and not yet



done, needed to complete the task of creating a true software testing profession.

For the last 50 years, <u>Gerald Weinberg</u> has worked on transforming software organizations. For example, in 1958, he formed the world's first group of specialized software testers. He is author or co-author of may articles and books, including <u>The Psychology of Computer Programming</u> and the 4-volume <u>Quality Software Management</u> series. He is perhaps best known for his training of software leaders, including the <u>Amplifying Your Effectiveness</u> (AYE) conference and the Problem Solving Leadership (PSL) workshop.

James Bach is a high school dropout who taught himself programming and testing. He's been a tester, test manager, and consultant since 1987. A founding member of the Context-Driven School of testing, he has taught his class, Rapid Software Testing, around the world. He is co-author of Lessons Learned in Software



Testing, and author of Secrets of a Buccaneer-Scholar, a book about technical self-education which is being published in September.

Mike Dwyer is a Principal Agile Coach at BigVisible Solutions working with IT organizations as they adopt Agile and Lean methods. He has extensive experience as a manager, a coach, and consultant transforming high growth organizations into hyperproductive Agile organizations.



Mike brings over 30 years experience managing teams in manufacturing, support, Information Technology, and new Product Development.. He is a well known and respected contributor to the Scrum, Agile, and Lean software community. He is also founded 3SidedCoin, an Agile innovation company where he developed his ground breaking work bringing Agility to Operations and Support. Mike has an MBA from the Carroll School of Management at Boston College and an undergraduate degree from Clark University.

Scott Barber is the chief technologist of PerfTestPlus, executive director of the Association for Software Testing, cofounder of the Workshop on Performance and Reliability and lead contributing author of Performance Testing Guidance



for Web Applications. Scott's particular specialties are testing and analyzing performance for complex systems, developing customized testing methodologies, testing in Agile environments, embedded systems testing, and authoring instructional materials. Scott is an international keynote speaker and contributor to various software testing publications. He is a member of IEEE, ACM, American MENSA, the Context-Driven School of Software Testing, and he is a signatory to the Manifesto for Agile Software Development.

Fiona Charles teaches organizations to match their software testing to their business risks and opportunities. With thirty years experience in software development and integration projects, she has managed testing and consulted on testing on many projects for clients in retail, banking, financial services, health care, and telecommunications.



Throughout her career <u>Fiona</u> has advocated, designed, implemented, and taught pragmatic and humane practices to deliver software worth having—in even the most difficult project circumstances. Her articles on testing and test management appear frequently in Better Software Magazine and on StickyMinds.com. She edited *The <u>Gift of Time</u>*, and is cofounder and host of the Toronto Workshop on Software Testing.

Michael Bolton has been teaching software testing on five continents for eight years. He is the co-author (with senior author James Bach) of Rapid Software Testing, a course that presents a methodology and mindset for testing software expertly in uncertain conditions and



under extreme time pressure. Michael is a co-founder of the Toronto Workshops on Software Testing. He has a regular column in *Better Software* magazine, writes for Quality Software, and sporadically produces his own newsletter. Michael lives in Toronto, Canada, with his wife and two children.

Session Speakers

Raquel Abella participates in the definition and implementation of business strategies at Centro de Ensayos de Software, a software testing center raised as a public-private entrepreneurship between the Uruguayan IT Chamber and the Dept. of Computer Science



(InCo), Engineering Faculty, Republic University in Uruguay. She is a Computer Engineer (2002) and Master in Business and Administration (2004), with many years of experience in software development projects for the financial industry. Raquel is an assistant professor, in the areas of Programming and Software Engineering at the Dept. of Computer Science (InCo) and her research interests are testing and digital inclusion.

Scott Allman is Quality Assurance and Testing Architect at Vidiom Systems, a division of ADB Global, focusing on embedded systems testing. Like most of us, his interests look beyond engineering practice of development. He asks from a philosophical perspective, "Just what is going on here?", and



applies answers to that question to help us be better at our work. He enjoys the give-and-take of discussions about science, experiments, automated testing, and the mysteries of computers. A software developer since the late 1960's his career spans universities, startups, aerospace, consulting, big corporations, working on four continents, while earning an M.A. in Philosophy (2002). He is a long time member of SQuAD, Software Quality Assurance of Denver, Colorado.

Dani Almog recently retired from Amdocs where he last served as director for test automation where he built Amdocs infrastructure for testing including development of testing tools, methodologies, and training for all Amdocs R&D division with the new technology. He led the implementation of Agile and SOA throughout



Amdocs.

Dani Almog is currently a member of the academic staff at Ben Gurion University, Israel; teaching and researching. Dani teaches software quality engineering and testing, and research the interaction between development processes quality/testing - trying to introduce to the academic world some of the achievements and work models developed in industry.

Henrik Andersson is consultant and founder of House of Test, consultancy and outsourcing based in Sweden and China. His strengths are in building and growing test organizations in an efficient way. He is helping large international companies increase their efficiency and reconstructing their testing to deliver better,



faster, and cheaper with improved quality. Henrik has been working in software testing since 1998 and spends a major part of this time in managing roles. Henrik has been worked in a variety of fields, including telecom, medical devices, defense, insurance, SAP, and supply chain system.

Scott Barber See bio in tutorials.

Michael Bolton See bio in tutorials.

Fiona Charles See bio in tutorials.

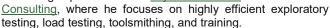
Selena Delesie is the Software Test Manager for Intelligent Mechatronic Systems, and Chair for the Kitchener-Waterloo Software Quality Association. She has managed and coached on testing in small and large organizations for programs in wireless, media.



embedded, telematics, web, billing, and speech technologies. For the last seven years Selena has focused on mentoring and transforming teams to be successful within their environments. She enjoys helping people develop customized solutions to project and organizational challenges, and does so by blending techniques from software testing, project management, process improvement, soft-skills and life experiences. She is particularly passionate about creating empowered and collaborative organizations, by way of individualized coaching, and creating interactive training experiences.

Mike Dwyer See bio in tutorials.

Danny Faught has been testing software for 16 years and is a Founding Member of the AST. He is the maintainer TestingFAQs.org, a free information resource. Danny is a columnist and blogger for StickyMinds.com. Danny's independent consulting practice is Tejas Software



Rebecca Fiedler is an Assistant Professor in the Curriculum, Instruction, and Media Technology Department at Indiana State University. She's interested in how people learn and how technology can make educational efforts more effective and more accessible to more people. In the testing



community, she works with Cem Kaner on the BBST courses and AST's Education SIG. She is also a regular attendee at the Workshop on Teaching Software Testing.

Adam Geras has been in the IT industry for 20 years as a developer, architect, researcher, tester, and test manager. His research at the University of Calgary centred on test-driven development from both the developer and customer perspectives. Most recently Adam has been keen on using dynamic languages for scripted and unscripted testing and is the author of PSExpect, an open source testing framework based on Powershell, Microsoft .NET-based scripting language for system administrators (and testers!). His job at Ideaca as chief methodologist is to promote project health awareness and project wellness, with a testing slant.

Edgardo Greising is manager of the Performance Testing Laboratory, he joined Centro de Ensayos de Software in March 2007. With wide experience in Operations Management, Systems Programming, Systems Development and IT Sales, he had worked for several IT companies in Uruguay, and was also



Regional Sales Manager at Novell Inc. for Uruguay and Paraguay. Working at the Public Administration he was Chief of Systems Support at the National Statistics Office of Uruguay, Operations Manager at the Infamilia Program of the Social Development Ministry of Uruguay and worked as a Consultant at World Bank, the International Organization for Migrations and OECD Projects. He taught Physics and Mathematics at UTU in Montevideo, Uruguay, and Systems Performance Analysis and Data Structures at ICT Institute (ORT University) in Colonia, Uruguay. Edgardo holds an Analista Programador degree from the UdelaR at Uruguay and a Social Management diploma from Indes at Washington, DC. He lives in Montevideo with his wife, daughter and son.

JeanAnn Harrison has ten years of experience in software quality assurance testing and three years testing embedded software on portable devices. She currently works for CardioNet, Inc. where her primary role is testing software embedded in medical devices that provide diagnostic data for physicians to determine their patient's heart condition. Jean



Ann's project experience includes large multiple systems testing. She has been a key developer and trainer in documentation generation for testers, developers, project managers, and trainers. Jean Ann has gained broad experience in various software testing processes and applying practices to large multi-million dollar corporations, venture capital, and start-up companies.

Dawn Haynes is a Senior Trainer and Consultant for PerfTestPlus, and Director of the Association for Software Testing. A highly regarded trainer of software testers, she blends experience and humor to provide testers of all levels with tools and techniques to help them generate new approaches to common and



complex software testing problems. In addition to training, Dawn is particularly passionate about improving the state of performance testing across the industry. She has more than 20 years of experience supporting, administering, developing and testing software and hardware systems, from small business operations to large corporate enterprises. Dawn holds a BSBA in MIS with a minor in programming from Northeastern University.

Jeff Hinz is a Delivery Manager for TESTars based in New York and Bangalore. Jeff has worked for two of the largest test practices globally, LogicaCMG and Sogeti based in the Netherlands. For the last 18+ years Jeff has concentrated on software quality assurance, testing and test automation. Jeff has certifications in TQM, CMM, and software quality assurance. For the last 7 years jeff has focused on structured testing (TestFrame, TMAP). For the last 3 years jeff has focused on managed testing. Jeff's main interest is in managed testing. Throughout his career Jeff has worked in the following industries: Aerospace; Automotive; Broadband; Computer Aided Design; Energy and Utilities Electronics; Financial Services; Health Care; Imaging; Industrial Automation; Payroll; Public Sector; Publishing (Internet); Telecom; Transportation; Travel (Online); Wireless.

Doug Hoffman has attended (at last count) 30 LAWSTly style workshops and been kind enough to share the lessons and observations of that experience with WOPR organizers. Doug has thirty years experience as a consultant, manager, and engineer in the computer and software industries. Twenty years experience in evaluating, creating, and



turning around software quality departments in medium and small start up companies. Experience with corporate, quality assurance, development, manufacturing, and support functions and procedures. Management Consultant, Course Developer, Instructor, Author, and Project Manager for SQM, LLC. Adjunct Instructor for the University of San Francisco. Instructor for UCSC-Extension, ASQ-CSQE, ASQ-CQM, ISO 9000 Auditor. Chair of ASQ's Santa Clara Valley Section (0613). Founding member, Past Chair, and current Treasurer of the Santa Clara Valley Software Quality Association (SSQA), a task group of the ASQ. Program Chair for the Third International Conference on Software Quality (ASQC Software Division). US Program Chair for the First World Congress on Software Quality (ASQC Software Division). Conference Chair for the Third SSQA Software Quality Conference. Publisher of dozens of papers and speaker at numerous conferences. Doug is a founding life member of AST.

Cem Kaner See bio in tutorials.

Geordie Keitt has been a professional software tester since 1996. He credits the opportunity to study and work closely with James and Jonathan Bach at Satisfice, Inc. in 2001 - 2003 for opening many career doors. He is one of the few test leads to implement exploratory testing and Session-Based Test Management in a U.S. Federal agency, while



managing testing for the Federal Communications Commission's Spectrum Auctions. He currently leads the testing of project management software at ProChain Solutions, Inc. in Woodbridge, VA.

Nancy Kelln has 12 years of diverse experience within the IT industry. Nancy is motivated by working with teams who are implementing or enhancing their agile practices; providing adaptive testing approaches and creative learning techniques. Over the past 4 years she has facilitated and



co-facilitated local workshops, presentations and training on software testing, agile methodologies, continuous improvement, and computer applications. She is an active member of the Calgary Software Quality Discussion Group, AST and the Scrum Alliance. Nancy holds degrees in Computer Science, Psychology and Religious Studies and is a Certified Scrum Master (CSM) and Certified Scrum Practitioner (CSP) from the Scrum Alliance.

Yaron Kottler is a multidisciplinary QA and Testing expert with hands-on experience implementing testing methodologies such as Scrum, TPI, Exploratory Testing, "Virtuology", Load testing and KDT test automation.



Yaron has been a QA & testing professional for over a decade. During this time, Yaron held various technical, instructive, leadership and business roles. He led the establishment of QualiTest Turkey in 2005 before relocating to the USA to become CEO and Senior Test Specialist at QualiTest US.

Lynn McKee has 14 years experience in the IT industry and a passion for designing and implementing high value, adaptive and scalable software quality programs. Working with small to enterprise scale companies, Lynn has a proven ability to establish and lead high performing test teams across varied development



methodologies. Over the past 10 years she has facilitated numerous local workshops and presentations sharing her passion for software quality. She is an active member of Calgary Software Quality Discussion Group, ASQ, AST and the Agile Alliance and holds Manager of Quality/Organizational Excellence (CMQ/OE), Software Quality Assurance (SQA), Software Testing, Scrum Master (CSM) and Project Management certifications.

Alan McKellar is a certified Project Management Professional (PMP) who has practiced the project management art for over 15 years. He began his career in the United States Navy by working projects in satellite communications and on the Aegis weapons suite making the first successful shipboard



integration of Link-16. He has led customer focused IT projects at Procter & Gamble, then at HP. Five years ago he joined HP's R&D arm for Business Critical Servers where he delivered telecommunication systems that met stringent NEBS requirements. His first taste of software testing had him "hooked" and he now leads software testing efforts for the new Unified Storage Division, the software arm of Storageworks division

Alan holds a MBA from the University of Notre Dame, Mendoza College of Business as well as a Masters in Information Systems from the University of Phoenix. When he and his teams are not "attacking" products, he enjoys leisure time with his family, photography and reading.

Joel Montvelisky is one of the founders and Product Architect of PractiTest, a company providing an Innovative SaaS Test and QA Management System. He is also a QA Consultant specializing in Testing Processes, and a QA Instructor for multiple Israeli Training Centers.



Joel has been part of the QA Industry for over 12 years, having managed the QA in companies ranging from small Internet Start-Ups and all the way to HP/Mercury where he managed the QA for TestDirector/Quality Center, QTP, WR and additional products in their Testing Platforms Family.

A member of the Advisory Board of the Israeli Testing Certification Board (the Israeli chapter of the ISTQB); he publishes articles and a periodic QA blog under http://www.practitest.com/qablog/, and is an active speaker in local and international conferences. Joel holds a B.Sc in Industrial Engineering and an MBA from Tel Aviv University.

Jim Nilius has over 23 years of experience in software testing, test management and architecture. His experience includes testing of large telecommunications billing and customer care systems. He served as Chief Test Architect for the Test Center of Excellence at US West IT. A major



accomplishment during this period was the architecture, design and deployment of an enterprise-level, end-2-end test environment consisting of 65 major telecommunications applications to support Year 2000 and beyond testing.

His most recent role was as Program Manager and Technical Director of SysTest Lab's Voting System Test Laboratory. An ISO 17025 test & calibration lab accredited by the US Election Assistance Commission under NIST's National Voluntary Laboratory Accreditation Program and mandated by the Help America Vote Act of 2002. The lab performs testing of voting systems for Federal Certification against the 2005 Voluntary Voting System Guidelines. He is a member of AST's eVoting SIG.

Over the years his focus has been on all aspects of software testing, automation and test process improvement. He has presented at several conferences in the areas of test metrics, unit testing, performance and volume testing, and voting system certification.

Dee Ann Pizzica works in the DC suburbs as a Lead Quality Assurance Analyst on the Application Development team for TerpSys where she tests custom applications for a broad range of organizations. Dee's first love is the theatre, and five years ago she became a tester by "accident" (needed a day job to



support the acting habit). Her ability to speak "English" as opposed to "Technology" has put her in the position to regularly work with clients, something that has brought her much stress, and much satisfaction. She is advocate for tester training and education within her organization as well as with clients in order to promote better testing & bug reporting. Dee assists in teaching classes for the BBST, and hopes to someday grow up to be a lead instructor.

Dee has an MFA from The Catholic University of America and a BA from Eureka College. She lives in Maryland with her husband & daughter and is expecting kid number 2 this fall.

Neha Thakur is an engineering honors graduate in electronics & communication field. She has an experience of nearly 3 years in testing. Her experience includes mostly automation testing and also knowledge of manual testing as well. She has played different roles like that of a module, knowledge



representative of team, configuration manager, training new personnel and member of Testing COE etc. She has performed automation testing for projects of domain like medical electronics, storage & networking, and risk & compliance. Neha has received many awards and acknowledgements for her meritorious contribution to the projects & quick learning. She has a fair knowledge about the automation and is excellent in debugging skills. She has a good capability of learning quickly the projects business as well as functional requirements. Recently Neha has also presented her whitepaper on "Agile: A worthy Automation Testing Approach" which was selected as one of the BEST 25 papers in 8th International Software Testing Conference, QAI, held in Bangalore.

Mónica Wodzislawski manages the Functional Testing Laboratory of the Centro de Ensayos de Software (Software Testing Centre), Montevideo, URUGUAY, since its creation, in 2004. She has a vast experience as quality assurance and testing consultant, local and regionally, as well as managing software



projects. Mónica also teaches Software Engineering and Software Testing at the Engineering School, Republic University of Uruguay. Both activities are thoroughly related, inspiring her permanent commitment to improve research and efficiency of software testing, as well as to build collaborative and jelled teams in the IT area.

AST's Guiding Principles

- AST is focused on supporting the development of professionalism in software testing, among practitioners and academics, at all levels of experience and education.
- 2. AST views software testing as an empirical, technical investigation conducted to provide stakeholders with quality-related information.
- AST views software testing as a cognitively complex activity that requires critical thinking, effective communication, and rapid self-directed learning.
- 4. AST believes willingness to work collaboratively through controversy is vital to the growth and education of the field and those in it.
- AST fosters future generations of leadership in software testing through emphasis on personal growth in both ethical behavior and technical competence.
- AST supports the credentialing of software testers to the extent that the credential is marketed and presented consistently with the levels of knowledge, skill and experience that the credential measures or reflects.
- 7. AST values all types of instruction in software testing, from all sources, to the extent that the instruction, instructional materials, and assessment are marketed honestly and promote the development of knowledge, skills, critical thinking, and respect for the diversity of well-informed views in the field.

AST's Guiding Principles of Governance

- AST's leaders make decisions based on AST's ethics, AST's brand integrity, and value for AST members while being mindful of the potential for conflicts of interest for our members, volunteers, and staff.
- AST strives toward making the organization selfsustaining through means other then strictly volunteerism.
- AST finances its mission through products and services consistent with its nonprofit status, code of ethics, these eight guiding principles, and its high values of quality, relevance, and integrity.

Join AST Today!

http://join.AssociationForSoftwareTesting.org

AST's Mission

The Association for Software Testing (AST) is a nonprofit professional organization dedicated to advancing the understanding and practice of software testing. The AST serves a community of scholars, students, and software development practitioners by providing forums for discussion of software testing through conferences, publications, training, web sites, and other services.

Why Join AST?

Often, those who are not yet members of the AST ask what value they will get by joining. It's difficult to answer this question briefly because individual members obtain different value from different aspects of membership – both tangible and intangible.

Tangible Benefits

- Free online testing courses (Black Box Software Testing)
- Access to AST's members-only social networking site
- Significant discounts on fees for live events* (Benefit not available to Associate Members)

Non-Tangible Benefits

AST was founded with the aim to better the state of software testing and the lives of testers through programs like the ones above, but also through less tangible ways like those below:

AST members agree to a Code of Ethics, demonstrating support for principles shared by hundreds of other members around the world. Membership in any professional testing organization may help show prospective employers your affiliation to a community, but with the AST, it is the affiliation with these community ethics that demonstrates the members' commitment to the advancement of testing as both thoughtful craft and technical discipline.

AST is dedicated to improving the practice of software testing by framing it in the art and science of critical thinking. For example, how could commonly held beliefs and principles about software development change as they apply to projects in different contexts? Could it actually be cheaper to fix a bug later in the project lifecycle? By becoming an AST member, you show an affiliation with an organization devoted to the discussion of issues like this that recognize both the philosophy of testing and its practical grounding.

AST is working to better the working lives of testers. One way we accomplish this is through our Special Interest Groups (SIGs). A SIG is a group of AST members who share a desire to pursue a specific, significant long-term activity in an area of interest to the Association. Some examples of topics currently being pursued by SIGs include: eVoting, Tester Education, Supporting Undergraduates, Performance Testing, and Testing in Financial Services.

You can choose to make a difference in the future of the testing profession and in social issues that face our field (like in the SIGs above) by tackling the topics that mean the most to you. As a member of the AST, you can participate in these groups and help research, support, and advance causes that you believe are important to the field of testing. If topic of interest to you is not currently being addressed by a SIG, AST will help you form a SIG so that you can lead the charge in advancing your area of interest.

With AST, you are becoming a member of a community of testers who share many of your views about the most important challenges facing our field and who are interested in resolving (or at least improving upon) those challenges through collaboration, innovation, advancement and/or education at the individual, team, project, and field levels. Sometimes we face challenges that only other testers can understand, so the networking aspects of the AST allow you to find other testers to seek ideas and feedback.

At CAST, you'll see that our membership includes some of the best-known, passionate thinkers and practitioners in the business, each of whom considers themselves as much a student as they are an expert. Ask them and they will tell you that they obtain value from even the smallest AST-sponsored workshops like the Workshop on Heuristic and Exploratory Techniques (WHET), the Workshop for the Teaching of Software Testing (WTST), and Software Testing in Financial Services (STiFS). Each of these small forums are known for their innovative discussions framed by a Creative Commons License to ensure that participants can collaborate and produce new content of value to the broader testing community without squabbling over who owns the content.



Monday Tutorials

Turning Numbers into Knowledge: Getting the Numbers You Need

Jonathan Koomey

Heritage A

Almost all managers struggle with getting the numbers they need. Unfortunately, most technical folks (even those with excellent quantitative skills) aren't always able to deliver the right numbers in a timely fashion. It's not that they aren't smart, they just don't understand the fundamentals about how you will use the information and how to communicate it to you. And it's not just their problem—it's yours also, both because you're not getting the information you crave and because you haven't trained your people to give it to you.

This interactive workshop will teach how to create and present quantitative information, using exercises and modest amounts of lecture. It will summarize some of the basic principles and most common pitfalls in analysis and information presentation and then describe techniques for teaching those principles and pitfalls to your staff. And it will help you hone your own analytical skills.

The key source for this workshop is Dr. Koomey's, Turning Numbers into Knowledge: Mastering the Art of Problem Solving, but other complementary sources will be referenced as needed.

What You Will Learn:

- Some ideas for getting your staff's attention on this issue and letting them know how important it is to you and to their future professional development;
- Why focusing data collection and analysis on specific decisions is the key to success;
- How best to teach the key principles of effective data collection, analysis, and information presentation;
- How you can most effectively promote back of the envelope thinking;
- How to become more effective in your own use of quantitative information, and
- Which key books and other resources can help you and your staff find out more

Metrics, Qualitative Measurement, and Stakeholder Value

Cem Kaner Heritage A

The same old platitudes about measurement don't help us. Most companies don't have measurement programs. That's not because seasoned software executives have no experience with measurement programs. It's that they have too much. It's not because they're lazy. It's because we do software-related measurement so badly that the measurement programs do more harm than good. We need measurements that provide genuine value, that are worth their costs (direct and indirect).

Genuinely valuable measurements help answer questions that stakeholders consider important.

This tutorial has four parts:

- Facilitated discussion that yields a list of important questions.
- b. Brief review of some traditional measurements offered for these question.
- c. Review of traditional measurement theory, with an emphasis on validity and threats to validity, specifically applied to the some of the measures on our list.
- d. Overview of qualitative measurement, with application to some of the questions on our list. We'll close with an effort to pull this together into some recommendations for application on the job.

Qualitative measurements don't give you numbers. Instead, they provide well-organized descriptions that reflect the complexity and detail of the underlying tasks, behaviors or problems. They can provide a powerful foundation for comparisons, evaluations, or examples that illustrate or challenge ideas from other sources. In many ways, the contrast between qualitative and traditional measurement is like the contrast between scenario testing and automated build verification. Both have their uses and their limits. Neither tells the full story. A blending of methods across the spectrum (what we call "mixed methods" in measurement theory) provide a richer set of descriptions, and a better basis for making decisions.

Ensuring Testing's Proper Place in the Organization

Jerry Weinberg

Heritage B

An interactive, exercise filled learning experience designed to help you:

- Demonstrate the value of testing vs. the cost.
- Find the points of influence in the organization, and how to cope with them.
- Communicate with executives.
- Evaluate risk and make it real.

Experiencing Agile Integration

Mike Dwyer & Scott Barber

Heritage E

This workshop investigates the questions of "What is it like to integrate Agile into a large project?" and "What is it like to integrate testers into an Agile team." Using a simulation based on experiences working with numerous large organizations, participants will see first-hand what it feels like to apply the Agile principles.

The workshop is designed to give participants an idea of the challenges and issues encounter when successful small projects are integrated into a large effort. Participants will leave the workshop with a better understanding of what goes into integrating an agile project and the skills needed to be effective. The simulation begins with the attendees joining "Marble Movers Unlimited" as it begins its journey to be the driving force in the high-speed world of marble moving. Participants first work in small teams where they deliver product that shapes an industry. The simulation continues as MMU combines its teams in a move to retain a leadership position with larger, more customer sensitive products. The workshop concludes with an extended back brief where the experience is reviewed and discussed by the team members and the instructor.

What you will get from the workshop:

- A brief introduction to Agile and Scrum
- Hands on experience being part of an Agile team to meet changing objectives in a time constrained environment
- Hands on experience integrating testers and testing into an Agile team
- Participate in a simulation scaling small Agile teams into a larger, more complex "team of teams"
- Discussion about the experience with your peers, as well as with the instructor

Teach YOURSELF Software Testing

James Bach

Learning Center

Want to supercharge your career? Are you on top of your testing education? Do you have a systematic approach to your education on the job? In this tutorial, James Bach shares his personal system of testing self-education. Based on his upcoming book Secrets of a Buccaneer-Scholar, it's a system of analyzing experiences and questioning conventional wisdom. He explains and demonstrates the methods that he has used to develop context-driven testing ideas since 1987. You can use similar methods to draw out and codify the lessons of own experience. Specifically, James discusses how to sort through the differing schools of testing; the entry points for personal testing education; a syllabus of software testing concepts; how to identify, articulate, and test your own heuristics; and how to assess your progress. This tutorial will help you if you are serious about being a tester: whether you are new to testing, trying to be a great test lead, or want to become a more effective testing consultant.

Testing Your Testing: Determining Risks

Fiona Charles & Michael Bolton

Heritage F

Every tester knows that when software fails or has significant bugs, people and organizations suffer. Financial loss, damaged reputations, harm to human health and safety-even just additional work-are only some of the impacts businesses have to deal with. So we try to base our testing strategies on risk, historically evaluating the probability that something will go wrong in an application, and the severity of the consequences if it does. But even if we have a good idea of the technical risks, testers aren't always best placed to understand the business impacts. Probability may be incalculable, and severity unpredictable.

The best way to find out what matters to stakeholders is to ask them. But unless we ask the right questions, most people will tell us practically every feature is equally important-and equally risky if it has bugs. And we need to ask the right people: not only users, but ideally, representatives of everyone who could be impacted.

Business stakeholders own the risks, but may need our help in assessing them. Technical stakeholders may understand technical risks in principle, but may not realize how to find them, or how they relate to business risks. Conversation and interaction help to achieve business buy-in for a risk-based test strategy, and help developers to mitigate technical risk. Collaboration produces guiding principles for stakeholders-including testers-to make decisions about the bugs we choose to look for, the severity of the bugs we find, and the priority for fixes.

In this session, we'll explore strategies for identifying the stakeholders and how they can tell us about risks. We'll discuss the kinds of questions to ask and look at sample questions for different contexts. We'll also examine a process for conducting a risk assessment workshop that has proved useful on several large projects for customers in banking, retail, and health care.

Tuesday Sessions 10:40 - 11:50

Helping Managers To Make Up Their Minds: The ROI of Performance Testing

Edgardo Greising

Carson

Some IT Managers think Performance Testing is expensive, so they "save money" not doing it. Nevertheless, the fact is that nowadays, most of the systems have performance issues when going into production. Edgardo explores the risks and costs of not performance testing, and the costs and benefits of performance testing.

Virtuology - Testing in a Time Machine

Yaron Kottler

Fremont

What if you could go back in time to the exact moment when a bug occurred? Or even better, just before it occurred, yet empowered with the knowledge the bug exists and the ability to continue testing different scenarios.

This presentation is not about the known efficiencies Virtualization and Cloud Computing bring to QA and testing. It is about "Virtuology" - using virtualization tools & methodologies to transform the way we test.

Recent advances in virtualization technology have created the ability to record and replay complete testing sessions. This includes everything from OS and application conditions, Network traffic and the actual lines of code leading to those hard to reproduce bugs.

You now have a time machine, which enables testers and developers to see precisely what went wrong with the software; including the ability to rewind, pause and fast forward. More importantly, you can go live at any moment and continue on a different path.

Now, think about how your testing methodologies should evolve. Regardless if you practice Waterfall, Scrum/Agile, Spiral, Exploratory Testing or use test automation, "Virtuology" can improve your testing.

Why Tests Don't Pass

Doug Hoffman

Heritage B

Most testers think of tests passing or failing. Either they found a bug or they didn't. Unfortunately, experience repeatedly shows us that passing a test doesn't really mean there is no bug. It is possible for bugs to exist in the feature being tested in spite of passing the test of that capability. It is also quite possible for a test to surface an error but it not be detected at the time. Passing really only means that we didn't notice anything interesting.

Likewise, failing a test is no guarantee that a bug is present. There could be a bug in the test itself, a configuration problem, corrupted data, or a host of other explainable reasons that do not mean that there is anything wrong with the software being tested. Failing really only means that something that was noticed warrants further investigation.

Doug explains these ideas further, explores some of the implications, and suggests some ways to benefit from this new way of thinking about test outcomes. The talk concludes with examination of how to use this viewpoint to better prepare tests and report results.

Tuesday Sessions 1:20 - 2:30

Testing Within All the Shades of Agile

Lynn McKee & Nancy Kelln

Carson

There is no cookie cutter solution or step by step guide to follow when determining how to effectively test across varied agile projects. The testing approach needs to be adaptive and scalable to the project methodology, constraints, team dynamics, corporate culture, etc. Although the approach, techniques and tools leveraged need to be flexible there are key success factors that can be applied almost universally.

This summary focuses on the observations of real-world experience to testing successfully within projects of varying degrees of agile adoption. With practical examples, the presentation will provide adaptive test approaches for projects ranging from textbook adoption to experimentation as traditional teams begin their transition to agile.

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Test Case Definition: A New Structural Approach

Dani Almog Fremont

For decades, the term "test case" has been widely used in software testing as a work unit, a metric and a documentation entity. A thorough review of the extant literature reveals that there is no formal and agreed-upon definition of a test case, in spite of its centrality and extensive use. Following Kaner's (2003) assertion that "a good test case is one that gives the required information", we see benefits in formalizing a unified, well defined and structured test case format.

In this presentation Dan will

- Explore and classify the various definitions of test cases
- Discuss undesired implications of the current situation
- Propose four criteria for a "good" test case definition
- Suggest an alternative structural definition of a test case
- Illustrate a "good" definition and its benefits
- Discuss experience using the structural definition

In conclusion we discuss limitations and future research trajectories opened by the proposed test case definition, as well as its implications for practice.

Software Experiments are Applied Epistemology

Scott Allman Heritage B

Software testers for create knowledge their stakeholders. According to one definition from classic epistemology knowledge may be characterized as "justified, true belief". What justifies the claims in your test reports? At a non-technical level this talk looks at how background assumptions, observations, reasoning and hypotheses must work together to validate test results. Old terms in software testing are given new definitions when viewed through an epistemic lens. Franklin's list of epistemic strategies that may be useful when the results of software tests are questioned is presented. Software experimenters often play an intellectual role on par with software developers in the enterprise of software engineering.

Tuesday Sessions 2:40 - 3:50

Testing Intelligence

Joel Montvelisky

Carson

One of the most important tasks we perform as Testers and Test Managers is to Provide Timely and Actionable Information to our Stakeholders and our Team. To do this we generate Summaries, Dashboards, Tables, Graphs and many other Reports in different formats. But many times the Information we provide goes unread or completely unnoticed, other times it is reviewed only to be asked to present more and different data that we had not provided or even gathered in the first place. All these are signs that our "Reports" and even our Information Gathering approach are not the right ones.

Correct Information is not only a function of the way you present your report at the end of the process; it is the result of a complex process that starts with the analysis of the needs of your stakeholders, gathering the accurate and timely data from all your multiple project sources, and then presenting it in the correct format, at the right time, and to the proper audience. This is what we call Testing Intelligence.

Challenges of Certifying Electronic Voting Systems Software

Geordie Keitt & James Nilius

Fremont

In this session Geordie Keitt and James Nilius argue that the testing process used to certify electronic voting systems is a poor fit for the demands of certifying the fitness of computerized voting systems. The process was designed to test physical products to extremely tight tolerances, and it promotes a scripted, narrowly focused, controlled style of testing. Software systems can behave in an infinite and physically unbounded fashion, and therefore require an open-ended, exploratory style of testing. Geordie and James propose a framework for addressing these issues to improve the overall process of testing and certification of eVoting systems.

The Genesis of Agile QA:

One Person's Ongoing Journey to Move QA to the Front of the Train

Mike Dwyer

Heritage B

Mike Dwyer says it is time we move our industries back to the future. For the first 15 years of his career, Mike worked in companies where Quality was paramount and a common approach shaped his thinking and actions. He then spent the next 20 years trying to create products that could stand next to these names. Names like Fisher Price, Parker Brothers, Eastman Kodak, and Wang Word Processing, speak to the power and importance of quality. With their respective demise Mike also learned another important lesson about quality. It is not just about how well the product is built. It is the value the product adds to a customer's quality of life that separates a fad from a staple. This, it turns out, is the one item that moves business and management to understand the importance - to their success - of having quality at the front of the train.

Mike shares a thread of experiences that have provided lessons that are helping him build what he calls *Agile QA*. Mike will review the following core issues (developed at the STiFS6 workshop) that affect all testers.

- Getting the business to appreciate your contributions to the project
- Explaining technical testing issues using business terminology
- Justifying the testing function to senior management
- Explaining test priorities, estimates, and schedules to project managers
- Building 2-way communication bridges with all stakeholders
- Demonstrating value and accountability
- Building team confidence and reputation

Tuesday Sessions

4:10 - 5:20

In the Mood for ... Quality

Mónica Wodzislawski & Raquel Abella

Carson

Centro de Ensayos de Software (CES) was created in 2004 to serve its stakeholders: the Uruguayan IT Chamber and the Computing Institute (InCo) from University of the Republic (UdelaR). Since its creation in 2004, CES has delivered independent software testing services, training and consultancy services to Software and Information services sector (SSI) but also to other industries such as financial, services and state-owned companies as well. This diversity of stakeholders has driven CES business and technical proposals, depending on institutions, sectors, segments, even project profiles and demands. It is a continuous flow: understand stakeholders needs, meet their expectations and generate new ones, in the mood for quality. But some invariants emerge: integration, collaboration & independence.

How Testers Can Serve Stakeholders

Jeff Hinz Fremont

Structured testing has gained popularity in recent years. The concept of risk-based testing is essentially a test treatment within structured testing. Business Driven Test Management (BDTM) is an offshoot the structured test method and a relatively new concept in testing. Test professionals state that when we speak about risk-based testing, we are speaking the language of the stakeholders.

When we speak in terms of risk-based testing and business driven test management are we really speaking the language of the stakeholders? In this case as test professionals, are we really serving the stakeholders? How do we measure this?

Jeff gives an overview of the structured test method, risk-based testing, and business driven test management. We apply BDTM with hundreds of clients every day. We hope that this makes the concepts of structured testing, risk based testing and business driven test management clearer, and that it makes it easier for you to implement these concepts.

New Rules Adopted for Software Contracts

Cem Kaner Heritage B

On May 19, 2009, the American Law Institute (ALI) unanimously approved the Principles of the Law of Software Contracts. This will probably play a major role in American commercial/computer law for the next 20 years. What does this have to do with you? Most quality-related disputes in the US are decided as commercial-law disputes. To a large degree, the Principles lay out the ground rules under which your company (or clients) buy, sell or support software. If you want to use the law to argue that a bug will get your company into trouble, this is a key source for your arguments.

Dr. Kaner started working in this effort in 1995 and was elected to the ALI in 1999 in recognition of his work on computer law. He helped write some of the provisions that relate to the law of software quality. He'll lay out a few of the key provisions, sketch a wee bit of the controversy, and open the floor for discussion, providing specific answers and details as they are relevant to the interests of the room. As with all talks at CAST, we encourage discussion and debate in our sessions and we keep lively sessions going until they come to a natural close. Conferences are for conferring, after all.

We expect this session to be lively because this work has so been controversial for so long and has been the target of so much honest debate and so much more disinformation. As a recent example, last May on Slashdot you might have seen much ado about a letter from Microsoft and the Linux Foundation to the ALI, whining that a provision of the Principles would destroy free software. The provision requires software publishers (like Microsoft) to reveal known defects in their software -- but it explicitly excludes free/open-source software from this requirement.

Legislatures in the United States have not yet passed laws to govern computing-related contracts. Until they do, when a case involving the development, sale or licensing, maintenance or support of software comes to court, the judge has to apply commercial laws written 50+ years ago. The Principles are not legislation--they are guidance for judges and business people. The ALI has high credibility with judges (because its works are so well researched and because so many ALI members are judges). ALI reviews of the law are heavily cited in legal opinions written in Courts of Appeal and the (state and federal) Supreme Courts. Until the legislatures finally speak, the Principles will probably play a major role in American commercial/computer law.

Wednesday Sessions, 8:20 - 9:30

Helping Clients be Successful Testers

Dee Ann Pizzica

Carson

How do you get reliable information about quality out of your end users? Clients tend to have a number of things working against them when it comes to testing a newly designed system. Many have no training in testing, are expected to manage their normal duties in addition to testing, or have minimal information about the scope of a project. Often, bug reports from clients provide vastly variable levels of competence - from the truly insightful to the virtually untranslatable. So how can you manage to have a successful user acceptance test under these circumstances?

For the last five years Dee Ann has worked with an organization that builds custom web applications for a broad range of organizations. She frequently educates and collaborates with clients to help them test systems developed for them.

This talk explores:

- Common pitfalls that make client testing challenging
- What has been done to better serve clients and promote successful client testing

Of Schools and Tools, An Agile Tester's Toolkit

Adam Geras

Fremont

Adam presents an overview of the contents of an agile tester's toolkit for 2010. The toolkit is a syllabus of philosophies, tools, and techniques that demarcate the agile testing landscape as of this year. It is not a vision of the future, nor a survey of the past. The toolkit is a learning tool for interested and motivated testers to use to maximize their service offering to their project teams. The toolkit begins with a contrast between the contextdriven school of testing, standards-driven testing, agile testing and developer-driven testing; and explains why a rational agile tester needs to consider each of these philosophies. In a similar manner, static testing, scripted testing (manual and automated), and exploratory testing are all described from the perspective that each of them is useful in context. Testing tools are also outlined in the toolkit, but it is not intended to be a survey of testing tools that exist today. Instead, this section contains descriptions of the tool stereotypes that agile testers should have in their portfolio, and why. The underlying theme is to help testers to evolve into project strategists as the need for effective testing and enhanced communications skills continue to converge mainstream systems projects.

Tearing Down the Ivory Tower of Testing

Danny Faught

Heritage B

As software testers advance in their careers, they may desire to influence the processes that are contributing to poor software quality. While following this path, they may lose touch with the processes they want to improve. Join Danny for a discussion of how testers lose touch, and how to come back down to earth.

Wednesday Lightning Talks 9:40 - 10:10

Lightning Talks are very short talks given by a variety of speakers within a time box.

Instead of one full-length session dedicated for Lightning Talks running in parallel with other talks, we are trying something new at CAST 2009: Parallel Lightning Talks. We have set aside this time for as many five-minute talks as we can squeeze into thirty minutes in three rooms. There's no need to miss a scheduled session to participate in the Lightning Talks.

If you would like to give a lightning talk, please sign up on Tuesday. Spots will be made available on a first-come first-served basis.

Lightning Talks give you an opportunity to stand on a soapbox and say that thing you've been itching to say without preparing a long speech. You can say whatever you want that is related to software testing – but you only get four minutes.

Lightning Talks give a lot of people a chance to share, and hear, a lot of ideas in a short period of time.

If a Lightning Talk provokes discussion, take it to one of the open rooms or propose a topic for Thursday's Open Space.

Wednesday Sessions 10:30 - 11:40

Real-World Experience in Outsourcing the Testing Effort Successfully

Alan McKellar

Carson

Hear a real world example of successfully outsourcing testing in a short period of time. We have all heard about the challenges in outsourcing work to partners overseas. At the same time, it is a business imperative to overcome these barriers to make these relationships productive and efficient. These challenges can be made harder when we do not have a thorough understanding of the work. Normally, our procurement colleagues advise us to have highly detailed Statements of Work (SOW). But what if we cannot neatly plan our project around deliverables or effort? The key is to focus on what you do know.

- Know your stakeholders
- Know your requirements
- Build the relationship
- Maintain the relationship through effective measurement

Implementing Exploratory Testing at a Large Organization

Henrik Andersson

Fremont

In this presentation, Henrik shares how he introduced Exploratory Testing (ET) at a Swedish based telecom company. Come hear his astonishing story of implementing ET in only 8 days to an organization with around 80 testers! Henrik will give a road map and a tool kit to enable you to set up a similar project. Learn to:

- Set up a pilot program
- Assemble a team of champions
- Train testers in ET theory and practice
- Define responsibilities and expectations

Rowing Together

Communication Roadblocks Between Project Managers & Testers

Lynn McKee & Nancy Kelln

Heritage B

Communication between project managers and testers can be challenging, even on the best projects. Project managers often comment on the "noise" created by testers, while testers comment they are frequently frustrated by their communication with project managers. Human nature plays a role in the communication breakdown, partnered with differences in goals, expectations and accountabilities.

This summary focuses on the observations of real-world experience in unmasking the communication roadblocks between project managers and testers often limiting the collaboration and contribution of the testing effort. The focus is on bridging the communication gap by assisting project managers in recognizing and deciphering the key information provided by testers; while also assisting testers in effectively communicating the needs, concerns and progress of the testing effort to ensure project managers and stakeholders make informed decisions.

Wednesday Sessions 1:10 - 2:20

When Developers + Testers = Success

Selena Delesie

Carson

Some organizations have development and test groups that work very well together. Some even see these groups consistently deliver projects that meet or exceed customer expectations. Working in such an organization isn't just the luck of the draw! It is possible to create an environment where developers and testers work closely together, support one another, and deliver quality products.

Selena Delesie has worked in hostile environments where developers and testers did not interact, regularly played the blame game, and kept important information from each other. She has also found ways to overcome the negativity, break down those walls, and turn hostile environments into healthier ones. She has experienced dramatic changes where development no longer shut testers out, but instead:

- Demanded early involvement of testers in projects
- Worked with testers on software designs
- Asked for help with process and people problems, and
- Investigated issues with testers as a team.

Join Selena for an interactive session, where you will work together to find appropriate ways to handle challenging situations with development. Options and techniques will be experienced and discussed to learn how to encourage and create an environment where development + test work well together for business success.

Translating Stakeholder's Performance Desires

Scott Barber & Dawn Haynes

Fremont

When an executive tells you "We need 4 second response time" or a user says "This is slow", what do they really mean and how can we find out? The truth is that very few people know how to articulate their performance desires. It's only after we've achieved the performance desires that the stakeholders articulated and they are still dissatisfied with performance that this becomes clear. To effectively design performance tests that provide insight into the ultimate satisfaction of the stakeholders, performance testers need to be able to translate what the stakeholders say into what they mean. Join Scott Barber and Dawn Haynes as they discuss how to improve your ability to translate stakeholder desires.

Modeling Scenarios with a Framework Based On Data

Fiona Charles Heritage B

Many test efforts depend on scenarios that represent real sequences of transactions and events. Scenarios are important tools for finding problems that matter to stakeholders in business applications and integrated solutions, giving us tests of functionality from end to end. Often, scenarios are essential for business acceptance, because they encapsulate test ideas in a format that is meaningful for business users and easy for them to understand and review.

User stories, use cases, and other business requirements can be good sources of scenario test ideas. But testers know that these are rarely comprehensive or detailed enough to encompass a thorough test without additional analysis. And if we base our test model entirely on the same sources used by the programmers, our test will reflect the assumptions they made building the system. There is a risk that we will miss bugs that arise from misinterpreted or incomplete requirements or user stories.

One way to mitigate this risk is to build a scenario model whose foundation is a conceptual framework based on the data flows. We can then build scenarios by doing structured analysis of the data. This method helps to ensure adequate coverage and testing rigor, and it provides a cross-check for our other test ideas. Because it employs a structure, it also facilitates building scenarios up from reusable components.

Wednesday Double Session 1:10 - 3:40

Cultural-Historical Activity Theory: Framework, to Characterize the Activity of Software Testing

Rebecca Fiedler & Cem Kaner

Heritage A

One of the most difficult tasks in software testing is discovering and applying contextual information. When we try to understand our stakeholders, in order to understand what problems would be most serious for them, we are EXPLORING context. When we try to design tests to expose those problems or write bug reports to explain the problems we find in ways that connect to what we have learned about our stakeholders' needs and values, we are APPLYING context.

Qualitative analysts (researchers who characterize rich and complex systems using qualitative research techniques) often use a central model as a tool for developing questions and organizing information into possible answers or insights. We use one of these, the Cultural-Historical Activity Theory (CHAT) Framework, to characterize the activity of software testing.

CHAT has been applied widely to software usability analysis, but not so much (yet) to testing. We think that for testing, this is a tool whose time has come. Here are a few examples of challenges faced by testers that a CHAT-based analysis might help us better understand and thus more effectively work within.

- Introducing a new metric
- Introducing a new test tool
- Interviewing stakeholders to gather their requirements and to discover the conflicts among stakeholders' requirements
- Designing tests that are tailored to expose highly important problems
- Describing failures in ways that are intended to motivate specific stakeholders to demand fixes
- Gaining insight into the dynamics of a failing project

Wednesday Sessions 2:30 - 3:40

Software Testing - To Be or Not To Be

Neha Thakur Carson

Is software testing really necessary? Do we do it just because everyone else does it? Why is software testing important? While ideas about testing vary, the motive is generally the same: someone believes it has value. We test because someone wants us to test. They may be managers, developers, business executives, regulators, or even customers.

How do testers know if they are doing the right thing or if something is lacking? We are all human beings that make mistakes. If we question ourselves about whether we are testing subjectively or objectively, we will likely find an answer.

In today's dynamic and competitive business environment, software functionality is increasing while release cycles are tightening – all in the midst of continuously changing requirements. Thus, we will explore the following:

- Why do we need software testing?
- Who are our stakeholders, and how can we learn what they need?
- What are the advantages of identifying & involving stakeholders?
- What should be our strategy?

A Balancing Act: Satisfying Regulators, End Users, Business Leaders and Development:

A case study from a medical device company

Balancing all stakeholders in a regulated environment

Fremont

Jean Ann Harrison

with a strict project schedule can be a daily challenge. Process is a critical element in understanding who your stakeholders are throughout the project but also within different stages within that project. With each stage, your stakeholders' priorities change and SQA must address each priority while these priorities can change at any given moment within the project. What are the responsibilities of SQA in a regulated project? What are the artifacts necessary to appease all stakeholders within each stage of a project? Who gets top priority

within each stage of that project? What role does SQA play when stakeholders disagree with priorities, schedules, results, and especially what is produced in a

User Acceptance Testing: A Context-Driven Perspective

Michael Bolton

Heritage B

User Acceptance Testing is a part of most test plans, yet few authorities on testing outline what it means and what it requires. Is this because it's obvious what user acceptance testing means? Is because there is no effective difference between user acceptance testing and other testing activities? Or might it be that there are so many possible interpretations of what might constitute "user acceptance" that the term is effectively meaningless?

Hang around a software development project for long enough and you'll hear two sentences: "We need to keep the customer satisfied," and "The Customer doesn't know what he wants." A more thoughtful approach might be to begin by asking a question: "Who IS the customer of the testing effort?"

Michael Bolton will lead a collaborative session in which we'll explore questions about user acceptance testing and the contexts in which it happens. We'll discuss the challenges of user acceptance testing, and exchange ideas and techniques that testers can use to help to clarify user requirements--and meet them successfully.

Papers for these presentations may be viewed on the CAST 2009 web site at http:// CAST2009.org.

project?



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			Tuesday			
7:00 - 8:30	Breakfast					
8:30 - 9:00	Serving Our Stakeholders					
9:00 - 10:20	Jonathan Koomey Sorry, wrong number: Real-life lessons for responsible use of data and analysis in decision making					
10:20 - 10:40				ing Break it our sponsors		
10:40 - 11:50	Edgardo Greising Helping Managers Make Up Their Minds: The ROI of Performance Testing [Carson] Yaron Kottler Virtuology: Testing in a Time Machine [Fremont] Why Tests Don't Pass [Heritage B]					Why Tests Don't Pass
11:50 - 1:20			Annual Elec	tions and Lunch		
1:20 - 2:30	Lynn McKee & Nancy Kelln Testing Within All the Shades of Agile [Carson] Testing Within Test Case Definition: A New Structural Approach [Fremont] Scott Allman Software Experiments are Applied Epistemology [Heritage B]				Software Experiments are Applied Epistemology	
2:40 - 3:50	Joel Montv Testing Intel <i>[Carso</i>	ligence	Certifying Ele	eitt & James Nilius ctronic Voting Systems [Fremont]		Mike Dwyer The Genesis of Agile QA [Heritage B]
3:50 - 4:10				oon Break sit our sponsors		
4:10 - 5:20	Mónica Wodzisławski & Raquel Abella In the Mood for Quality [Carson] How Testers Can Serve Stakeholders [Fremont] Cem Kaner New Rules for Software Contracts [Heritage B]					w Rules for Software Contracts
6:20 - 8:00				Dinner		
8:00 - 9:00		AST SI	G Meetings, Recr	uiting, & Information Sessi	ons	
			Wednesday	y		
7:00 - 8:20			Br	eakfast		
8:20 - 9:30	Dee Ann P Helping Clients Be Su [Carsol	ccessful Testers	Of So An Agil	dam Geras chools & Tools: e Tester's Toolkit [Fremont]	Tearing	Danny Faught g Down the Ivory Tower of Testing [Heritage B]
9:40 - 10:10	Lightning [Carso			phtning Talks [Fremont]		Lightning Talks [Heritage B]
10:10 - 10:30				ing Break sit our sponsors		
10:30 - 11:40	Alan McKellar Real-World Experience in Outsourcing the Testing Effort Successfully Henrik Andersson Implementing Exploratory Testing at a Large Organization Lynn McKee & Nancy Kelln Rowing Together: Communication Roadblocks Between PMs & Tester			ving Together: Communication		
11:40 - 1:00			Annual Member	Meeting and Lunch		
1:00 - 2:10	Selena Delesie When Developers + Testers = Success [Carson]	s+ Translating Stakeholder's Modeling Scenarios w				
2:20 - 3:30	Neha Thakur Software Testing: To Be or Not To Be [Carson]	Jean Ann Harrison A Balancing Act: Satisfying Stakeholders [Fremont] Michael Bolton User Acceptance Test A Context-Driven Perspe			Framework to Characterize the Activity of Software Testing Double Session [Heritage A]	
3:30 - 3:50	Afternoon Break Please visit our sponsors					
3:50 - 4:10	Closing					
4:10 - 5:30	Rob Sabourin & Tim Coulter Tim Bits: What I Learned About Software Testing at CAST 2009					
6:30 - 8:00	Dinner					