

“Advancing the understanding of the science and practice of software testing according to context-driven principles.”



August 11 - 13, 2014  
New York, NY, USA



# CAST

## “The Art and Science of Testing”

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Mobile Schedule



# Welcome

## Conference Organizers

### Conference Co-Chairs

Anna Royzman  
Keith Klain

### Program Chairs

Paul Holland  
Bernie Berger

### Operations

Smita Mishra

### Facilitation

Richard Robinson

### Registration

Dawn Haynes

### Live streaming

Benjamin Yaroch  
Paul Yaroch



### Keynotes by:

**James Bach**

**Trish Khoo**

**Carol Strohecker**

**Ben Simo**

**Matt Heusser**

## What makes CAST special?

## AST Board of Directors

### President

Benjamin Yaroch

### Executive Vice-President

Dee Ann Pizzica

### Secretary

Markus Gärtner

### Treasurer

Michael Larsen

### Executives at Large

Douglas Hoffman  
Pete Walen  
Keith Klain

### **CAST puts *CONFER* back into Conference:**

At least 1/3 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.

### **CAST presentations are tied to a theme:**

This year's theme is "Art & Science of Testing."

### **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 has unique tutorials:**

AST has lined up unique interactive tutorials -- led by a recognized thought leader in his or her area 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 is a participatory conference, please participate and enjoy.



# Conference Logistics

## Conferring at CAST

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

At CAST we focus on the *confer* part of the word *conference*. Except for workshops, each pre-scheduled session consists of a presentation followed by facilitated discussion about that 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 floor is opened for discussion.

You will find colored index cards in your welcome packet. These **K-Cards** are used to signal the facilitator. When you want to join the discussion or ask a question please hold up the appropriate card as indicated below.

Please ensure that the facilitator has seen your card and acknowledged it before lowering your card:

**Green:** The **New Stack/Thread** card signals that you have a question or comment unrelated to the current discussion thread.

**Yellow:** The **On Stack/Thread** 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 misuse your red card, the facilitator can confiscate it for the remainder of the conference – so use it wisely.

## Meals

All meals shown on the schedule are included in your registration fee for that day's activities.

We try to provide sufficient food variety to satisfy most dietary needs. If, however, the food served doesn't meet your needs, please speak to the food service staff and they will try to accommodate you.

## AST Elections and Annual Meeting

AST is a non-profit professional association dedicated to advancing the understanding of the science and practice of software testing according to context-driven principles.

AST is run by members who volunteer as a nominated, elected slate of officers. AST elections for the Board of Directors will be held on **Tuesday**. Non-members and Student members may *not* vote. Only Regular members who have been members for at least one month can participate in the voting process.

If you would like to become a voting member for next year's elections, please visit

[AssociationForSoftwareTesting.org/about](http://AssociationForSoftwareTesting.org/about)

The AST Annual Membership Meeting is where election results are announced during lunch on **Wednesday**.

## Transportation

We're thrilled to have partnered with the on demand transportation service Uber to provide new Uber users a free ride (up to \$25) to or from CAST 2014.

Already riding with Uber? Use the promo code CAST10 to receive 10% off your ride the day of the event (up to \$10, excluding uberT, expires Aug 18, NYC only).

Check your email for details or ask about it at the registration desk.

Check out [uber.com/nyc](http://uber.com/nyc)

U B E R

# About AST



## AST's Mission and Purpose

The Association for Software Testing is dedicated to advancing the understanding of the science and practice of software testing according to context-driven principles.

The Association for Software Testing (AST) is a professional non-profit association that is dedicated to advancing software testing and strives to build a testing community that views the role of testing as skilled, relevant, and essential to the production of faster, better, and less expensive software products. We value a scientific approach to developing and evaluating techniques, processes, and tools. We believe that a self-aware, self-critical attitude is essential to understanding and assessing the impact of new ideas on the practice of testing.

## Our Objectives

Encourage, facilitate, and coordinate partnerships between testing practitioners, testing researchers, non-profits, and business leadership.

Publish content both online and in print containing leading-edge information on testing practice and theory.

Host an annual AST Conference to bring together developers, testers, and researchers in an exchange of testing practices, theories, and techniques.

Support the teaching of software testing by encouraging projects to develop and publish resources that assist classroom presentation, grading, and self-study.

## Who Are We?

We encourage and promote the use of the principles of context-driven testing to help choose testing objectives, techniques, and deliverables for each specific testing situation, recognizing that there are no best practices only good ones in each context.

We are willing to question commonly held beliefs and principles about software development so as to improve the craft of software testing. For example, could it actually be cheaper to fix a bug later in the project lifecycle? Can a test be useful and valid without a predetermined result?

## Why Join AST?

AST was founded with the intention to improve the state of software testing and the lives of testers by raising awareness through events, education, and community. Each member benefits from different aspects of their membership – below are some things you can benefit from as a member.

### Member Benefits Include:

Professional Affiliation	Code of Ethics
Industry Activism	Community of Professionals
Events	Training (BBST Testing courses)
Event and Program Discounts	Blog syndication



## Learn More about AST:

<http://www.AssociationForSoftwareTesting.org/about>

## Guiding Principles

### General

AST is focused on supporting the development of professionalism in software testing, among practitioners and academics, at all levels of experience and education.

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.

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.

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.

### 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 self-sustaining through means other than strictly volunteerism.

AST finances its mission through products and services consistent with its nonprofit status, code of ethics, these seven guiding principles, and its high values of quality, relevance, and integrity.

## Training

The AST 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 AST BBST course includes video lectures, quizzes, homework, and a final exam. Every participant in the course reviews work submitted by other participants and provides feedback and suggests grades.

AST is currently offering the following multiple 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 decision-making: bug-handling as a multiple-decision process dominated by heuristics and biases
- Style and structure of well-written reports

### Test Design

Good testing requires application of many test techniques. Each technique is better at exposing some types of problems and weaker for others. Participants will look at a few techniques more closely than the rest but do not become skilled practitioners of any single technique.

- Gain familiarity with a variety of test techniques
- Learn structures for comparing objectives and strengths of different test techniques
- Use the Heuristic Test Strategy Model for test planning and design
- Use concept mapping tools for test planning

## Training

### AST Black Box Software Testing (AST-BBST) Online Education 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.

## Test Lab Sponsor



SmartBear is the choice of more than two million software professionals and over 25,000 organizations in 90 countries that use its products to build and deliver the world's best software applications. The company's user centric application management solutions support the key software delivery processes of development, testing, API readiness and application performance management across desktop, Web and mobile platforms. With millions of developers, testers and operations teams already using its products, SmartBear is profitable, growing, global and poised to support the emergence of DevOps. Be a smart bear. Get started building and delivering the planet's next great application at [www.smartbear.com](http://www.smartbear.com).

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PQA Testing has been the home of passionate software testers in Canada since 1997. With over 80 talented and dedicated testing professionals, our team works with leading edge companies, technologies and tools to solve our clients' software testing challenges.

PQA Testing offers a full range of software quality assurance services throughout the entire software development lifecycle. From strategic consulting to manual functional testing, PQA Testing has extensive experience in helping organizations design and execute their testing efforts. PQA Testing's comprehensive testing expertise includes: manual functional testing, test automation implementations, performance testing, security testing and QA consulting. Our testing is performed on a variety of platforms such as desktops, browsers and mobile devices.

Since its inception, PQA Testing has continuously grown its client base and now has clients ranging in size from start-ups to large multinationals in a variety of industry sectors, including: Financial Services, Insurance, Healthcare, Gaming, Telecommunications, Government and e-Learning. PQA Testing's clients can be found around the world, from Australia to Sweden to Canada.

[www.pqatesting.com](http://www.pqatesting.com)



Liquidnet is the global institutional trading network that connects over 700 of the world's top asset managers to large-scale trading opportunities across the globe — 42 markets across five continents. With an average trade size of more than 41,000 shares in the US, 57,000 in Canada, and \$1.5 million in Europe, Africa and \$1.1 million in Asia Pacific, Liquidnet is a leader in large block trading globally. Liquidnet does this by going beyond what the retail market can provide by defending and securing the integrity and the anonymity of the block trade while continuously looking for ways to bring in new sources of safe, actionable liquidity from asset management firms, exchanges, brokers and corporations. Asset Managers rely on Liquidnet to help them protect the performance of their portfolios by allowing them to enter and exit their portfolio positions more efficiently.

For more information on the Liquidnet community, its liquidity, block executions and additional investment capabilities, visit [www.liquidnet.com](http://www.liquidnet.com) and follow us on Twitter @Liquidnet.

## Platinum Sponsors



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QualiTest Group is the world's second largest software testing and quality assurance company. QualiTest offers quality assurance and software testing services, and is committed to the highest standards of quality in every project. We aim to improve software quality by providing superior QA solutions to customers and partners worldwide, as well as advancing international QA and testing methodologies.

### **Committed to Quality**

The key to assuring high-quality software is to use a third party who will be able to think outside of the box to locate defects that in-house IT teams would miss. Through our software testing professionals located onsite or at test centers around the world, we provide a variety of services to Fortune 500 companies as well as local small businesses. Providing QA solutions and outsourced testing services to a wide variety of industries such as healthcare IT, aerospace & defense, telecom, and many others has enabled us to maintain a strong presence in the US, Europe, the Middle East, and Asia. We are able to ensure high-quality operations by investing in our employees, for whom we offer opportunities for constant improvement via training and peer reviews.

[www.qualitestgroup.com](http://www.qualitestgroup.com)

## Gold Sponsors



QASymphony provides an innovative Test Management platform to today's savviest development and testing teams that aim to realize the full benefits of agile development. QASymphony provides real-time insight into the progress, quality, and test coverage of an application through modern test case management, exploratory testing and unprecedented data-driven visualization. With its intuitive UI, flexible deployment model, and visual application analytics, QASymphony enables teams to communicate and collaborate faster, more clearly, and more seamlessly, bringing visibility and control back to the development and testing lifecycle.

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## Gold Sponsors



Over a million users employ Tasktop's ALM integration technology to transform the productivity of software delivery, by connecting the development, testing, Agile planning, PMO and operations functions into a unified software development and delivery team.

Organizations have worked hard to create a tool infrastructure that will make all members of the software development and delivery team more productive. They've invested in Application Lifecycle Management (ALM) tools such as Requirements Management, Test Management, Agile Project Management, Project and Portfolio Management (PPM) and Service Desk products.

But when it comes to sharing the artifacts they create, business analysts, product managers, product owners, developers, architects, testers, system administrators, project managers, scrum masters and help desk professionals all find their work stuck within their tool silos. ALM integration allows these software development artifacts, such as user stories, requirements, test plans, defects, and incidents – just about everything but the code – that are created in one ALM system to flow to the others.

Our flagship product, Tasktop Sync is an integration server that provides fully automated, enterprise-scale synchronization among the artifacts created and managed within the disparate tools used in software development and delivery organizations. Tasktop Sync works in the background, keeping the flow of information among the practitioners and their tools, constant. Everyone works in their tool of choice, but has real-time access to the changes other team members are making in their tools. Practitioners are better informed and save time. Management has greater visibility across the entire project team, providing information for better decision making and planning.

[www.TaskTop.com](http://www.TaskTop.com)



Virtusa Corporation is a global IT services company that combines innovation, technology leadership and industry solutions to transform the customer experience. Virtusa's purpose-built Independent Software Quality Practice (ISQ) is different from traditional service provider testing practices or "utilities". Our focus of defect prevention over defect detection directly reduces the cost of quality by nearly 30% just by managing the SDLC with a quality focus. When combined with our unique approach towards automation, QA Planning, and use of tools, Virtusa offers a cost effective and business focused partnership to bring higher quality products through the SDLC, not just test case execution.

[www.virtusa.com](http://www.virtusa.com)

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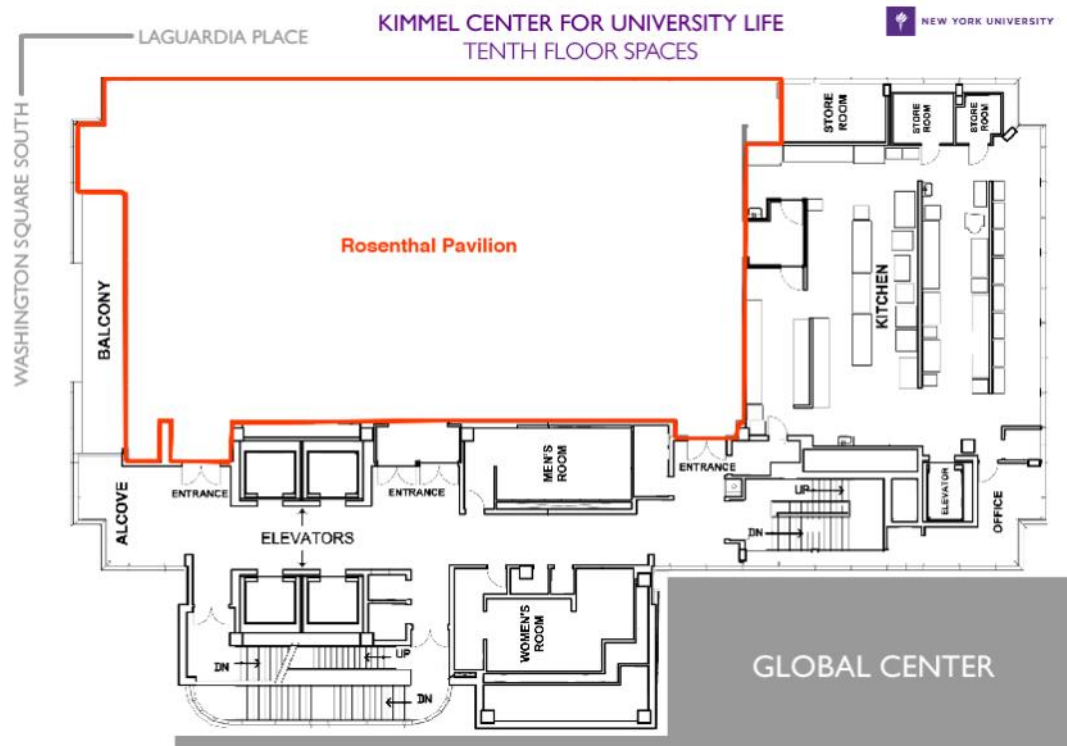
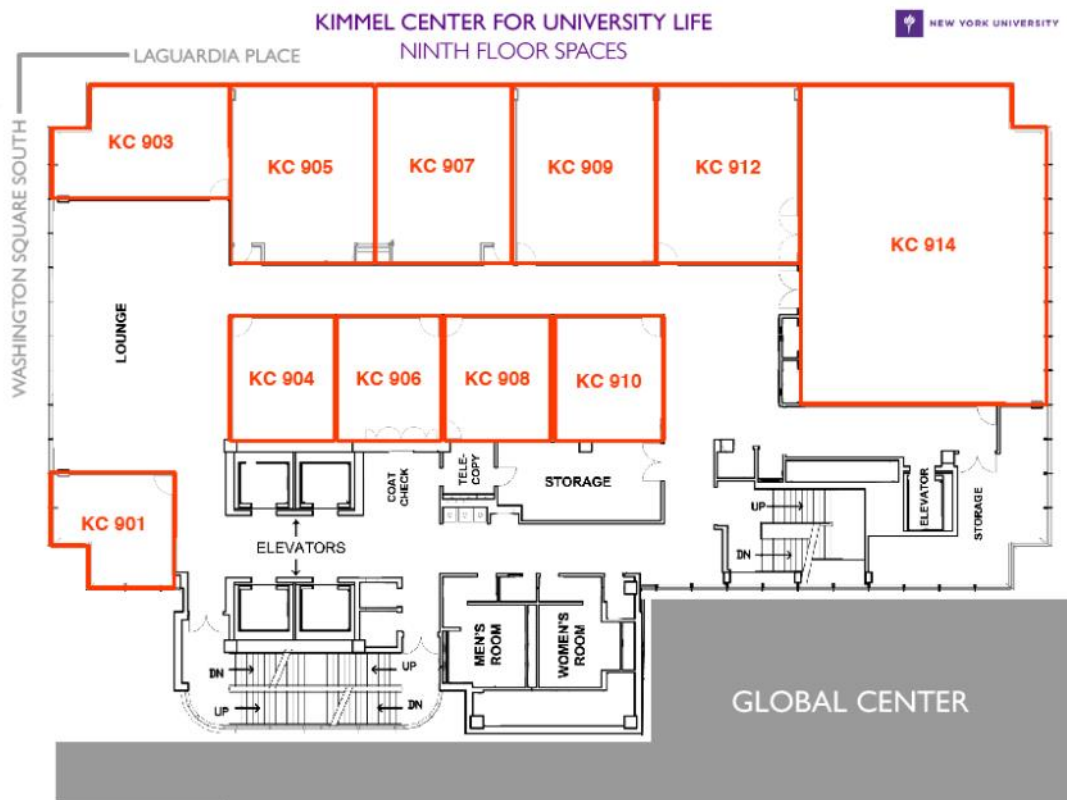


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# Maps

## Conference Center



# Day 1 Schedule

**Tuesday, August 12**

8:00a - 9:00a	Breakfast—Registration Open [Rosenthal Pavilion]						
9:00a - 9:15a	Welcome [Rosenthal Pavilion]						
9:15a - 10:25a	Keynote: James Bach “Test Cases are Not Testing: Toward a Performance Culture” [Rosenthal Pavilion]						
10:25a - 10:40a	Morning Break						
10:40a - 11:45a	Rosenthal	KC905/907	KC914	KC909	KC912		
	Standards – promoting quality or restricting competition? James Christie	My Boss Would Never Go for That Alessandra Moreira	The Business Minded Tester Håkan Ramberg	Beyond Bewilderment Lanessa Hunter	Mobile Application Testing with Selenium & Appium Dan Cuellar		
11:45a - 12:45p	Lunch (Membership Meeting & Elections) [Rosenthal Pavilion]						
12:45p - 1:55p	Keynote: Trish Khoo “Scaling Up with Embedded Testing” [Rosenthal Pavilion]						
2:10p - 3:15p	Rosenthal	KC905/907	KC914	KC906	KC908	KC909	KC910
	Challenges of implementing CDT in a large organization Jean-Paul Varwijk	Psychology and Engineering of Testing Ilari Henrik Aegerter Jan Eumann	...QA and Dev don't have to be enemies! Hilary Weaver	Are Your Test Reports a Death Sentence  Nancy Kelln	The Art & Science of Thinking Skills  Karen Johnson	Bug Hunting for Fun and Profit  Martin Hall	One More Question...  Tony Bruce
	Afternoon Break						
	Early Performance Testing Eric Proegler	Social sciences and the art of testing Huib Schoots	Painting like an engineer... Alexandra Casapu				
3:15p - 3:30p							
3:30p - 4:35p							
4:50p - 6:00p	Rosenthal	KC905/907	KC914	KC909			
	Recipe for Testing Spacecraft Ground Software Barbara Streiffert	Patterns of Automation Jeff Morgan	Why testers love playing Martin Hynie Christin Wiedemann	Testing Lessons from Design Thinking World Parimala Hariprasad			
	Special Events [Rosenthal Pavilion]						
	6:30 - 8:30p	6:30 - 8:00p	8:00 - 10:00p	6:30 - 11:00p	6:15 - 7:15p		
	Reception	Lightning Talks	Test Competition	Testing Games	“CAST Live”		

# Day 2 Schedule

Wednesday, August 13

8:00a - 9:00a	Breakfast [Rosenthal Pavilion]					
9:00a - 9:15a	Announcements [Rosenthal Pavilion]					
9:15a - 10:25a	Keynote: Carol Strohecker “STEM to STEAM Advocacy to Curricula” [Rosenthal Pavilion]					
10:25a - 10:40a	Morning Break					
10:40a - 11:45a	Rosenthal	KC905/907	KC914	KC909	KC912	
	Adding value in an agile context Henrik Andersson	Smartphone mobile app needs smart testers Dhanasekar S	Test Coverage: An Art and a Science Jean-Ann Harrison Jay Philips	Coyote Teaching: A new take on the art of mentorship Harrison C. Lovell Michael Larsen	Using Open Source Tools to Build a Full Automation Framework Roman Khaimov	
11:45a - 12:45p	Lunch (Election Results) [Rosenthal Pavilion]					
12:45p - 1:55p	Keynote: Ben Simo “There Was Not a Breach; There Was a Blog” [Rosenthal Pavilion]					
2:10p - 3:15p	Rosenthal	KC905/907	KC914	KC906	KC908	KC909
	Test Automation != Less Testers... Richard Bradshaw	Discover the Power of Pair Testing Pradeepa Narayanaswamy	The history of reason; arts, science, and testing Geoff Loken	Myths of Testing in Financial Services  Joseph Lopez Ben Weber	Balancing the Leadership Seesaw  Erik Davis Maria Kedemo	Thinking Critically About Numbers: Defense Against the Dark Arts  Michael Bolton Laurent Bossavit
	Afternoon Break					
3:15p - 3:30p	Looking to social science for help with metrics Justin Rohrman	Bridging the Gap - From Developer to Tester Jonathan R Clarkin	Black and White: Software Testing for Scientists Katrina Clokie			
3:30p - 4:35p						
4:50p - 5:20p	Timbits [Rosenthal Pavilion]					
5:20p - 6:30p	Keynote: Matt Heusser “Software Testing State of the Practice (And Art! And Science!)” [Rosenthal Pavilion]					
Special Events [Rosenthal Pavilion]						
6:30 - 11:00p		6:30 - 7:30p		7:30 - 8:30p		6:45 - 7:45p
Testing Games		SIG Meetings		Talking to Management		“CAST Live”

# Special Events

## Rosenthal Pavilion

**Tues —6:30p - 8:30p**

### Reception

Join us for a cocktail, light hors d' oeuvre, and socializing.

**Tues —6:30p - 8:00p**

### Lightning Talks

Have something to say, want to stand on your soapbox? Do a lightning talk! A lightning talk is 5 minutes or less, no slides, just you and the audience. All we need is your name, email address, and talk title.

**Tues / Wed —6:30p - 11:00p**

### Testing Games

Join us for game night. You will have the opportunity to socialize with your peers, play testing games to sharpen your skills.

**Wed —6:30p - 7:30p**

### Special Interest Groups (SIGs)

Special Interest Groups (SIGs) are groups formed by AST members with a desire to pursue significant, long-term activity in an area of interest to the Association. As a member you are invited to join existing SIG or propose a new one. All SIGs are self supporting and AST currently has the following Special Interest Groups (SIGs):

- **Education Special Interest Group (EdSIG)**
- **Leadership Special Interest Group**

**Wed —7:30p - 8:30p**

### Talking to Management

In this community gathering, we bring together the brightest minds in software testing to discuss our state of the craft and promoting skilled testing to management. It's an open forum discussion led by experienced facilitators, where we exchange ideas and help each other in moving our industry forward.

AST Leadership SIG will share their resources, created while working on "Talking to Management about Testing" project.

**Tues / Wed — 6:15p / 6:45p**

### "CAST Live"

"CAST Live" is a webcast hosted by **Benjamin Yaro** and **Dee Ann Pizzica**. The show is streamed live each evening following the close of the conference. Stop by to watch it live.





# Keynotes - Day 1

9:15a - 10:25a

## “Test Cases are Not Testing: Toward a Performance Culture”



Testing means evaluating a product by learning about it through experimentation. This is a dynamic, exploratory process. Although we might script parts of it, and even reduce some of it to programmatic fact checks, testing itself is a live performance. In fact, all technical work is a live performance. Programming, managing, designing...it's all a performance. Meanwhile, for many years, some managers have dreamed of making technical work into a factory activity. That would require thinking of testing, for instance, as being encoded in artifacts such as "test cases." The primary aim of that effort is to turn testing into a commodity and to devalue testers. To fight back we need to become better at explaining "performance culture" and better at arguing for what can and cannot be done with a script.



**James Bach** is an acclaimed innovator and coach in the field of software testing. After spending a few years as a video game programmer, in 1987 he became the youngest manager at Apple Computer when, at 20, he was hired to run a test team. He has been a tester ever since. He spent about ten years managing testing in Silicon Valley, but for the last fifteen years, he has traveled the world testing the Rapid Software Testing methodology and serving as an expert witness on court cases involving software testing. James is the author of two books, *Lessons Learned in Software Testing* and *Secrets of a Buccaneer-Scholar*. His special focus is helping companies make the transition from "factory-style" testing (which ignores the role of human ingenuity and motivation) to systematic skilled software testing whereby each tester takes professional development seriously. He is a founder of the influential Context-Driven school of testing and a charter member of both the Association for Software Testing as well as the International Society for Software Testing.

12:45p - 1:55p

## “Scaling Up with Embedded Testing”

Whenever someone asks me what I do for a living, I tell them that my job is to take software from idea to release as efficiently as possible. I provide this service for multiple teams as a time, without writing a single test case. But in my journey to here, it made me question what the role of a tester really is. My conclusion was that testing is not a role - it is an activity. My role therefore is to embed that activity in the software development process, shortening the feedback loop between creation and verification as much as I can. In this talk I will explain what this involves, why it's awesome and what it means for you as a tester, a software developer, a software engineering manager, and for the budding entrepreneur who's thinking of building a startup in the next couple of years.



**Trish Khoo** is a test engineer at Google working on advertising solutions in Mountain View, California. Prior to moving to the UK to join Google in 2012, Trish was a test manager for NBNCo, Campaign Monitor and Salmat in Sydney, Australia. She has also been a lead software developer in test and a .NET Developer for Microsoft. She maintains a blog at [trishkhoo.com](http://trishkhoo.com), a podcast at [testcast.net](http://testcast.net), enjoys speaking at conferences and writes articles for technical publications. When she's not doing all of that, she's busy traveling the world, sketching robots or maybe just sleeping until noon.

Trish earned a bachelor's degree in information technology from the University of Queensland, where she graduated with honours.

# Keynotes - Day 2

9:15a - 10:25a

## “STEM to STEAM Advocacy to Curricula”



The Rhode Island School of Design (RISD), one of the world's preeminent schools of art and design, is also the leader of the STEAM educational movement. STEAM is an acronym created by adding an A for Art into STEM, the term representing the US government's current emphasis on education in Science, Technology, Engineering, and Mathematics. STEAM has become the basis of two resolutions by the House of Representatives, asserting the importance of art and design to innovation and economic growth.

Join Dr. Strohecker in learning how STEAM relates not only to curricular content, but to a set of methods and a way of thinking. Hear how creative work relies on personal curiosity and often involves exploration of materials and failure as not only inevitable, but welcomed for the potential to inspire new directions. STEAM work involves not only testing hypotheses, but ongoing questioning of assumptions. It includes not only analysis, but synthesis: not only solving problems, but creating solutions.



**Carol Strohecker** is Vice Provost for Academic Affairs at the Rhode Island School of Design. From 2006 until 2013, she was inaugural Director of the Center for Design innovation, a multi-campus research center of the University of North Carolina system. Previously, she was Principal Investigator of the Everyday Learning research group at Media Lab Europe, the European research partner of the MIT Media Lab. Prior to joining MLE, she worked in the United States at Mitsubishi Electric Research Laboratories and in the Human Interface Group of Sun Microsystems.

She earned the PhD of Media Arts and Sciences from the Massachusetts Institute of Technology in 1991 and the Master of Science in Visual Studies from MIT in 1986. She has served MIT's Program in Media Arts and Sciences as a Lecturer and as a Presidential Nominee on the MIT Corporatino Visiting Committee. Her awards also include Fellowships with the Artists Foundation of the Massachusetts Council for the Arts and Humanities, the US National Endowment for the Arts, and the Harvard University Graduate School of Design.

## SKYPE COACHING

Get Coached by James Bach, Michael Bolton, or Anne-Marie Charrett



Want to improve your craft? James Bach, Michael Bolton, and Anne-Marie Charrett are offering individual coaching sessions via Skype.

Learn how James uses instant messaging to improve your testing skills.

[www.associationforsoftwaretesting.org/about/membership/skype-coaching/](http://www.associationforsoftwaretesting.org/about/membership/skype-coaching/)

# Keynotes - Day 2

12:45p - 1:55p

## “There Was Not a Breach; There Was a Blog”



Like millions of other Americans, Ben Simo visited HealthCare.gov in search of health insurance for a member of his family. And like millions of others, Ben found a frustratingly buggy website that was failing to fulfill its purpose: to educate people on the new health insurance law and help people purchase health insurance. After a few failed attempts at creating an account, Ben put on his tester hat and turned on his web developer tools as he continued his pursuit to get information about insurance options. Ben soon discovered a chain of security vulnerabilities that exposed users of the system to unnecessary risk.

After finding the HealthCare.gov customer service people unequipped to receive reports of security vulnerabilities, Ben began blogging his discoveries. This spawned a storm of public attention in the midst of the political hot topic of the day. In this storm, Ben gathered a variety of public labels including "security researcher", "web expert", "methodical IT guru", and "not too bright". Ben's reports even came up in congressional hearings, in which the Secretary of Health and Human Services referred to Ben as "a sort of skilled hacker". Ben's reports helped bring attention, and eventually fixes, to problems that suggested a systematic lack of care and understanding of information security. Join Ben as he shares his experience, the issues he has found, and the lessons we can learn from HealthCare.gov.



**Ben Simo** (an amphibious time-traveling context-driven cyborg software tester), also known as QualityFrog, is a skilled context-driven software tester and agile software developer, who has been practicing his craft for over two decades. Ben views software testing as a cognitively complex activity that requires critical thinking, effective communication, and rapid self-directed learning. Ben approaches software testing as a search for knowledge - both confirming existing beliefs and seeking out that which is unknown. In his role as a software investigator, Ben strives to enable informed decision making. Ben has applied his testing skills for companies large and small; spanning a variety of industries, including: defense, healthcare, finance, education, internet services, and advertising. Ben is a member and past president of the Association for Software Testing. Ben operates [IsThereAProblemHere.com](#) - a blog that provides software professionals an opportunity to laugh and learn from wild-caught software failures. Ben currently applies his skills leading a Production Quality Team at eBay.

5:20p - 6:30p

## “Software Testing State of the Practice (And Art! And Science!)”



This honest, heartfelt, and sometimes bittersweet assessment of what's going on in the test industry today is delivered by Matthew Heusser. Based on conversations and his own experiences, Matt tries to not just generalize, but to find meaning in what is going on in the industry, the difference between what is actually done and what could be done - and how we all might do a little better.



**Matthew Heusser** is the principal consultant at Excelon Development, where he acts as a consulting software tester, software process naturalist, writer and recruiter. Matt has been working in software development for his entire professional career, including roles as a developer, project manager, and Test/QA Lead before going independent in May of 2011. In addition to his day job, Matt is a prolific writer. He served as the lead editor for *How to Reduce the Cost of Software Testing*, wrote the forward for *The Clean Coder* and contributed a chapter to *Beautiful Testing* in 2009. A contributing editor at STQA Magazine, Matt writes for other test publications including [SearchSoftwareQuality.Com](#) and [Informit.com](#). Also heavily involved in conference activities, Matt is the most proud of his role as a founding organizer of [GLSEC](#) (The Great Lakes Software Excellence Conference) and his presentation at Google's Test Automation Conference. And there's video!

You can also read Matt's writing at [Creatives Chaos](#), his contributions to the [SoftwareTestProfessionals Community Blog](#), listen to his [podcasts](#) with Michael Larsen, read his [IT Knowledge Exchange Blog](#), or follow him on Twitter.

# Mobile testing sucks less when you have the right tools.



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# Day 1 Sessions

10:40a - 11:45a

## Standards—promoting quality or restricting competition?



James Christie argues that standards are produced by bodies with a commercial interest in seeing them adopted. He analyses the economic forces behind the creation of standards. They should be viewed as optional methods that companies can buy or reject as they see fit. Selling them as standards distorts the market by creating the impression amongst senior managers, lawyers and regulators that there is no valid, responsible alternative. James explains why the auditors and compliance professions are not lined up on the side of the standards lobby. His audit experience allows him to expose the case for standards as a spurious appeal to non-existent authority. Testers must speak out following the Healthcare.gov website fiasco. This debate is not an academic contest between rival schools of thought. It is a commercial struggle, and James provides compelling arguments against standards. Free and fair competition is at stake. Testing standards could put a massive restriction on our ability to trade and compete. This is serious business!



### **James Christie**

Self-employed testing consultant with 31 years IT experience. Before moving into testing I spent six years as an IT auditor, so I have experience on both sides of the fence. I have also worked in information security management, project management, business analysis and development. My experience helps me understand the relationships between different specialisms. I am particularly interested in links between testing, auditing, governance and compliance. I spent 14 years working for a large UK insurance company, then nine years with IBM working with large clients in the UK and Finland. I have been self-employed for the last eight years.

## My Boss Would Never Go for That—Testing and the Art of Persuasion

Conferences are a great place to learn, but it is not always easy to put new knowledge into practice after going back to the office. It can be an even greater challenge for testers not in a management role and/or working in scripted environments. Implementing corporate change is not easy, especially from bottom up. Alessandra speaks of her own journey from scripted tester to CDT evangelist, sharing lessons learned as the only context-driven member among highly scripted and risk averse teams. Alessandra discusses valuable learnings such as, how to approach risk averse managers and prepare for the conversation; CDT myth busting; tips on how to influence the test process in your team; how to lead by example and easier ways to implement small changes. If you would like to change test practices in your workplace but feel like your boss would never go for it, then this session is for you.



### **Alessandra Moreira**

I am a student of and advocate for the context-driven school of testing. I spent part of my career following test scripts day in and day out, so I appreciate the effectiveness and power of CDT. I started testing in 2000 in Sydney, Australia and since worked in diverse industries and a variety of roles from technical tester to test manager. My experience working as a context-driven tester in highly scripted environments has given me a passion to 'waken' factory testers and to work on projects such as Weekend Testing Australia and New Zealand where, as the organizer and facilitator, I have the opportunity to help and empower other testers in their own journeys. I am @testchick on Twitter and blog at roadlesstested.com.

## The Business Minded Tester

Most testers are technical skilled and do often focus their competence development sharpening these skills. This by itself is not a problem but it is a real problem if we forget to increase our skills within the business domain. Håkan explains why testers need to understand why companies really invest in testing. By asking the right questions and providing insights of how the product really works, the tester can become an invaluable asset to the development team and external stakeholders. Product owners for example do care great about their product and the cost and time constraints involved, not always about how the product is built. They do have the right to ignore this process and we as testers can learn how to assist in bridging this gap and build market awareness in the team. Without understanding the business value a tester provide, or could provide, the tester is simply not reaching his or hers full potential as a professional tester.



### **Håkan Ramberg**

Håkan is a business developer within testing working as CEO at Knowit Quality Services in Malmo, Sweden. He has played a central role in building a consultant business unit within test & verification from 0 to over \$20,000,000 in sales per year. With a Master of science degree Håkan started his career as a test consultant in 2004 and have worked as tester/test leader/advisor and mentor for several different companies since. Håkan's motto in life is "If you don't grow, you decay" which applies a great deal why he will show up at Cast 2014.

# Day 1 Sessions

10:40a - 11:45a

## Beyond Bewilderment

As testers, the nature of our work demands us to think differently about how we view the systems we investigate. Our daily discoveries and experiments can point to the need for change, which makes people (ourselves included) uncomfortable. How do you make a transition in the way you test and work to be effective within development teams? What is required of you and/or your teams to make big leaps into unknown territory? Lanessa shares stories, examples, and artifacts to demonstrate how to eliminate silos, create new rhythms and use resistance to boost your confidence. Anecdotes from encounters with forms of bewilderment illustrate how we can strengthen ourselves as test professionals to effectively make our way through not-so-comfortable situations. You will see how the use of both artistic and scientific processes help us become sensitive to and courageous about our own creative endeavors, to bring out our best work, to influence a quality culture, and aid evolution of our careers and organizations.



### **Lanessa Hunter**

Lanessa Hunter is a Software Test Analyst in the Operations group within the Development Team at AppRiver, LLC, named one of Florida Trend's Best Companies to Work For five years in a row. For the past 15 years, she has enjoyed providing testing services in educational, government, healthcare, and SaaS service areas for large and small companies. Ten years into her software career, she realized she was bored and in a drought of uninspired testing. This led Lanessa to find the context-driven community and eventually propelled her to become the 1st tester in a small, rapidly growing global company. With this transition, she entered a landscape more complicated than anything she had known before, and thus embarked on the humbling effort of professional deconstruction and remodeling, a story she now shares to inspire other testers. She completed the Black Box Software Testing series in 2011, recently started Gulf Coast Software Testing Meetups and has a new blog at [testness.wordpress.com](http://testness.wordpress.com).

## Mobile Application Testing with Selenium and Appium

One of the most significant changes in software testing over the last decade is the increased usage of automated testing. For mobile, long regression passes can be problematic due to the fatigue of using small devices for extended periods of time and lengthy AppStore review and distribution mechanisms that can slow your ability to fix issues in the field. Until recently, there were no good solutions for automating mobile applications. Early tools were problematic because they required using a specific programming language, jail-breaking devices, or significant modification of the application under test. Introducing Appium, a mobile test automation framework that uses the Selenium bindings that many web testers are already familiar with to automate mobile applications. Appium allows you to code in the language you want, uses official automation APIs under-the-hood, and does not require modification to an application. Dan Cuellar, the creator of Appium, demonstrates how to write a basic iOS or Android test with Appium and provides one on one support.



### **Dan Cuellar**

Dan Cuellar is an agile test manager currently in charge of the test organization at Shazam where he manages testing across all products. In 2011 he created Appium, which is a growing open-source framework for mobile app automation. Before Shazam, Dan worked at Zoosk and at Microsoft on Outlook for Mac and Office.com after graduating with his BS in CS from Carnegie Mellon University in Pittsburgh, PA.

2:10p - 3:15p

## Challenges of Implementing CDT in a large organization



Imagine you are living in country that for the most part still heavily trusts and believes in standardized software testing and test certification. Imagine you are working for a company, with 45000+ employees, that previously created its own version of TMap for software testing. A part of that company, Rabobank International, then gets exposed to Agile Testing, Rapid Software Testing and Exploratory Testing in a span of less than two years. Learn what this exposure meant on an organizational level. See how it affected the 'designated' context-driven thought leaders and learn about their experiences. Discussions on future prospects of getting context-driven embedded and accepted into the organizational culture.



### **Jean-Paul Varwijk**

Jean-Paul Varwijk is a senior test analyst at Rabobank International and owner of Arborosa Software Consultancy. Jean-Paul has a broad experience in software testing in the financial sector. Jean-Paul considers himself to be a member of the Context-Driven School of testing and is a member of the Dutch Exploratory Workshop on Testing ([dewt.wordpress.com](http://dewt.wordpress.com)). He regularly participates in workgroups, has a blog ([www.arborosa.org](http://www.arborosa.org)), can be found on twitter (@arborosa) and Skype (arborosa). Jean-Paul regularly speaks at international software testing conferences and welcomes people to confer and approach him for questions. And finally Jean-Paul is one of the founding members of the International Society for Software Testing ([www.commonstesting.org](http://www.commonstesting.org)) and promotes an approach to software testing that emphasizes value and the role that skilled testers play in its delivery.

# Day 1 Sessions

2:10p - 3:15p

## Psychology and Engineering of Testing

In a dysfunctional setting, testers are seen by many as a blocking gate keeper police who do unskilled work by “executing” scripted “test cases”. That might cause agilistas to think that testers are no longer needed as soon as enough test automation is in place. In an equally uninformed setting, developers often have a limited view on what software testing is all about. Jan Eumann and Ilari Henrik Aegerter tell the story of how initial suspicion against testers within the European Product Development at eBay evolved into a strong shared view on the value of testing and how testers gained respect as embedded members of agile scrum teams. Learn why agile teams need embedded testers and what helps to make the collaboration within a team successful. Gain insights into how engineering driven and exploratory testing can be combined and how a holistic product view helps the whole team to achieve greatness.



### **Ilari Henrik Aegerter**

Ilari Henrik Aegerter manages the core testing team of Productivity & Test Engineering Europe group at the world's biggest online marketplace eBay where he is supported by magnificent test professionals. He is the president of the International Society for Software Testing where he tries to change how software testing is done in the world. Quite some time ago he became a software tester by pure chance because he urgently needed a job during his studies in general linguistics. He then so much liked the profession that he continued to intensively work on his skills. Today he is an avid follower of the context-driven school of software testing and he believes that software testing is not a clerical job but a profession that needs a high level of proficiency. In his private time he likes to read a lot of books and comics, spend time with his family, test the possibilities of our world with his sons and test good food in restaurants with his wife. He believes that people are generally good and that there is plenty for everybody in this world. All that results in him smiling a lot.



### **Jan Eumann**

Jan is a Senior Software Engineer in Test working at eBay. He has been in the software industry for about 9 years working in different roles in the software development process. Jan started as a developer and learned quickly to appreciate skilled testers. During the last years he worked as a test engineer looking into exploratory and automated testing approaches. At the moment he is working as an engineer in an agile team performing testing tasks but also writing production code and educating the team and himself about testing.

## **‘He doesn’t like you! I don’t like you either!’ QA and Dev don’t have to be enemies!**

Hilary is often introduced by developers to other developers like this: "This is Hilary, she's QA" \*cue groan\* "No, no - she's \*good\* QA". So why is she “\*good\* QA”, and what makes every other tester these developers have worked with \*bad\*? Hilary analyzes the different ways in which developers often despise or misunderstand QA, and what we as testers can do to not only make them see us as the good guys, but also work together in perfect harmony and maybe even grab a beer together as friends. Attendees learn specific complaints and misunderstandings that developers often have about testers (gathered by a tester allowed in their inner circles!) and why we should care about what they think about QA and testers. Attendees take back how to better understand, work with, and overall be amazing cohesive teams with, our developers, as well as better ourselves in the process. This talk is PG-13!



### **Hilary Weaver**

Hilary Weaver (known as g33klady on the Internets) is a QA Engineer, Award Winning Tweeter (@g33klady), and prolific swearer. She has written for 'The Testing Planet', been a guest on the 'IT in the D' Internet radio show (where she earned the nickname The H-Bomb), scarcely maintains a blog at g33klady.wordpress.com, and is a skilled marksman in Halo.

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# Day 1 Workshops

2:10p - 4:35p

## Are Your Test Reports a Death Sentence

Good software testers often interact more with people than software, especially when reporting on the results of testing. Yet our industry has little focus or training on the social and psychological aspects of our jobs. There are times when the results testers deliver to our project teams and stakeholders can be difficult to take. It is fascinating to observe the reactions a negative testing message can provoke in people during the final, stressful phase of a project. Based on the speaker's experience in highly contentious test reporting and background in psychology, Nancy discusses the psychological side of test reporting and examines the challenges when reporting difficult information to project stakeholders. Learn why test reporting problems are often people problems, model behaviours demonstrated in contentious situations and discover how to understand the emotional reactions from project stakeholders



### **Nancy Kelln**

Test Manager at FGL Sports Ltd. with 16 years of diverse IT experience, Nancy enjoys working with teams that are implementing or enhancing their testing practices and provides adaptive testing approaches to both Agile and traditional testing teams. She has coached test teams in various environments and facilitated numerous local and international workshops and presentations. From small scale to multi-million dollar projects; Nancy has played many roles within testing including Project Test Manager, Test Manager, Test Lead and Tester. A co-founder of POST, Nancy is an active member of the Calgary Software Quality Discussion Group, Association for Software Testing, and the Software Test Professionals organization. Nancy and her family live in Airdrie, Alberta, Canada. Connect with Nancy on Twitter @nkelln.

## The Art & Science of Thinking Skills

As software testers working and collaborating with engineers, we may believe the only thinking skills we need are scientific. Thinking skills typically thought of as scientific include: observing, recognizing patterns, dimensional thinking and modeling. But are we disregarding creative and artistic thinking skills such as abstracting, analogizing, empathizing and playing? Abstracting helps us to realize the purpose of product and not get lost on details. Analogizing helps us make use of our knowledge from past experiences in other domains and anticipate problems and solutions we might otherwise miss. Empathizing helps us work with an array of people from the business to clients to user experience designers and engineers as we collaborate with other people to learn, test and deliver a product. And without play, without a sense of exploration, our testing might be limited to requirements checking and not fully testing a product. Karen N. Johnson explores the thinking skills of a tester and how to explicitly apply scientific and creative thinking skills to the craft of software testing.



### **Karen N. Johnson**

Karen N. Johnson is a software test consultant. She is frequent speaker at conferences. Karen is a contributing author to the book, Beautiful Testing by O'Reilly publishers. She has published numerous articles and blogs about her experiences with software testing. She is the co-founder of the WREST workshop, more information on WREST can be found at: <http://www.wrestworkshop.com/Home.html> Visit her website at: <http://www.karennjohnson.com>

## Bug Hunting for Fun and Profit

Did you know that many companies encourage people to find bugs in their software? Martin shows how you can gain fame and money while having fun finding issues in the software and websites you use every day. He's also showing you some of the basic tips and techniques that enable you to become a great "Bounty Hunter". These skills once learnt will make you more valuable to your current employer as well as potential future employers. Time permitting we end the workshop with a testing session against sites that pay you for finding issues.



### **Martin Hall**

Martin is a senior lead software test engineer at Microsoft (Skype Division) He has over 15 years experience in the software industry working on a mixture of back end and web based products with most recent past focusing on testing large scale cloud deployments. He is a extremely passionate about all matters relating to his role as a quality expert within Skype and has had the good opportunity to work alongside and learn from some great test engineers in his time. Martin also runs the "Reading Test Gathering" in the UK Besides his day job Martin can be found spending most of his spare time looking for security bugs and logic flaws in software and websites.



# Day 1 Workshops

2:10p - 4:35p

## One more question...

Questions are a powerful tool, and good questioning skills are extremely important for both people and in testing. Through effective use, we can engage in more effective learning, create outside-the-box thinking and start decision making conversations. Tony will explore the power of questions and their ability to make us and others think by looking at items such as the use of probing questions, tone and rephrasing. He will work through exercises to allow participants to practice some of what they are learning. Participants will walk away with ideas on how to sharpen their questioning skills to a fine tool which can be used to transform their every conversation and to increase their testing thinking. Questions can help create and negate, learn and teach, and stop and start projects, connections and relationships. Add this ability to your tool set.



### **Tony Bruce**

Tony Bruce is a professional, experienced, constantly learning, coaching and teaching agile team member who specialises in Testing. He has worked in various industries with organisations such as Channel 4, Ernst & Young, LMAX and The Children's Society. He is an active member of the Testing community, he hosts the London Tester Gathering and speaks at conferences all over the world. He keeps a blog at <http://dancedwiththetester.blogspot.co.uk/> and tweets on @tonybruce77.

# Day 1 Sessions

3:30p - 4:35p

## Early Performance Testing: Finding News You Can Use



Development and deployment contexts have changed considerably over the last decade. The discipline of performance testing has had difficulty keeping up with modern testing principles and software development and deployment processes. Most people still see performance testing as a single experiment, run against a completely assembled, code-frozen, production-resourced system, with the "accuracy" of simulation and environment considered critical to the value of the data the test provides. But what can we do to provide actionable and timely information about performance and reliability when the software is not complete, when the system is not yet assembled, or when the software will be deployed in more than one environment? Eric will deconstruct "realism" in performance simulation, talk about performance testing more cheaply to test more often, and suggest strategies and techniques to get there. He will share findings from WOPR22, where performance testers from around the world came together in May 2014 to discuss this theme in a peer workshop.



### **Eric Proegler**

I have worked in testing for 15 years, and specialized in performance and reliability testing for 12. I work for Mentora Group, a national testing consultancy, from my home in Mountain View, California. I test in a wide variety of contexts, using tools appropriate to the job at hand. Some of the applications I've tested recently include Oracle E-Business ERP systems, a hospital's provider portal, a large scale "second-screen" mobile app, a large B2B EDI Translation clearing house, a custom SaaS application, and e-Commerce web sites. I am an organizer for WOPR, the Workshop on Performance and Reliability. I've presented at STPCon, and facilitated at CAST and STiFS (Software Testing in Financial Services). I am very proud to have completed BBST Foundations - the only testing certification I hold. In my free time, I spend time with my family, read, and try to enjoy life as much as possible. I'm a comedy nerd, I seek out street food, play video games, and follow professional basketball. I am passionate about treating people like people - it makes them happy and more productive, and it is also moral. Everyone has value, and they are not interchangeable. Reducing people to "resources", "FTEs", "positions" or any other bloodless euphemism that denies their humanity is morally wrong. Thinking about my work this way led me to strongly identify with context-driven principles. I think the ideas, approaches, and techniques that we explore in testing have larger applications, and are something the world desperately needs. Critical thinking, continual questioning, collaboration, debate, and courage are badly needed in a world so utterly inundated with bullshit. As we careen into a future run on algorithms, we are needed to help identify and assess risks, call out dangers, and aggressively represent our constituency - people.

# Day 1 Sessions

3:30p - 4:35p

## Social sciences and the art of testing—What testing can learn from social sciences

Testing and informatics are often seen as exact or physical science. People perceive that computers always do exactly the same. This gets reflected in the way we think about testing: a bunch of repeatable steps to see if the requirements are met. Is this really what testing is all about? Huib likes to think of testing more as a social science. Testing is not only about technical exact computer stuff, it is also about human aspects and social interaction. Huib will share insights in why testing is more like a social science. He will give examples of what a tester can learn from social sciences like anthropology, psychology and sociology. Topics include critical thinking, scientific approach, qualitative and quantitative research and biases. Participant will learn that people are irrational and that we have to learn to deal with ambiguity.



### **Huib Schoots**

Huib Schoots is a tester, consultant and people lover. He shares his passion for testing through coaching, training, and giving presentations on a variety of test subjects. With fifteen years of experience in IT and software testing, Huib is experienced in different testing roles. Curious and passionate, he is an agile and context-driven tester who attempts to read everything ever published on software testing. A member of TestNet, AST and ISST, black-belt in the Miagi-Do School of software testing and co-author of a book about the future of software testing. Huib maintains a blog on [magnifiant.com](http://magnifiant.com) and tweets as [@huibschoots](https://twitter.com/huibschoots).

## Painting like an engineer—skill

Testing is about conducting experiments, and this requires good skills and a problem solving approach. Alexandra shares her search for essential skills, how she uses them as thinking tools daily, and also what fallacies she may encounter while using them. She is doing a retrospective analysis of her testing skills at work, as heuristics. This means listing the skills she is conscious she uses in testing, organizing them into categories and connecting them to corresponding specific examples from her work. Through these examples, Alexandra shows how she has found that she is combining a lot more skills than expected to perform a task, how she is under-using or over-using her skills in different contexts, how some of her skills have atrophied, and other insights. Join Alexandra to learn about the lessons gathered from her experience while working towards becoming a skilled workman - an artisan.



### **Alexandra Casapu**

Alexandra is a tester at Altom, a start-up in Cluj, Romania, that focuses on providing software testing services. The environment she works in has facilitated her learning on the importance of context in testing, the exploratory approach, and caring a great deal about improving her testing skills. After finishing school in the educational system, she took full responsibility of her learning. Since then she enrolled in BBST courses, followed courses on Coursera, read challenging books, attended the Eurostar Conference in 2012 and 2013, and had coaching sessions on testing. Meanwhile, she worked on 2 different testing projects and started work on her third project, working together with remote teams on helping with successful releases for new features and bug fixes.

4:50p - 6:00p

## Recipe for Testing Spacecraft Ground Software



Jet Propulsion Laboratory (JPL) creates one of a kind spacecraft that are sent on missions to objects in our solar system. Some go to planets, others to asteroids and some orbit the Earth or target our Moon. Some of the spacecraft fly by numerous solar system objects; while others orbit an object. A few actually drive across the rocky planets. Each one of these spacecraft has a unique set of instruments and a unique computer operating system called flight software (FSW). At JPL there is ground software that simulates the FSW commands to make sure that the commands will not harm the spacecraft. Typically, the number of commands makes it impossible to fully test their impact/effect on the spacecraft. Testing this volume of command states is impossible in the time frame that is required to command the spacecraft. This presentation outlines the various ways testing has evolved to adequately test the software. The science of testing involves understanding spacecraft. The art deals with picking the right set of tests to build and automate. The presentation includes videos that show the spacecraft testing and describe the difference between hardware simulation and software simulation as it is practiced at JPL.



### **Barbara Streiffert**

Barbara Streiffert is a Senior Systems and Software Engineer at Jet Propulsion Laboratory (JPL) specializing in the development of software approaches for use in ground data systems for spacecraft missions. She has worked in all aspects of systems and software development for commercial, military and aerospace projects. She is currently the Test Engineer for the Multi-Mission Software that supports over 19 applications including spacecraft simulators that are used for verifying, analyzing, translating, packaging, and integrating the commands sent to JPL spacecraft. She has over 20 years of experience in software development and test at JPL.

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ON A DIFFERENT SCALE

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# Day 1 Sessions

4:50p - 6:00p

## Patterns of Automation

Many organizations are introducing test automation only to find out it is more difficult than they thought it would be. Good test automation requires good coding practices. Good test automation requires good design. To do anything else will lead to spaghetti code that is hard to maintain or update. If you're new to coding or new to automation it is difficult to know where to start. Join Cheezy as he talks about and demonstrates lessons he has learned while helping numerous organizations adopt test automation. He will show you the patterns he uses to keep automation code simple and clean. He will also demonstrate techniques that you can use to make your automation code more maintainable. Finally, he will write code to implement these patterns taking them from theory to implementation.



### **Jeff Morgan**

Chief technology officer and a cofounder of LeanDog, Jeff “Cheezy” Morgan has been teaching classes and coaching teams on agile and lean techniques since early 2004. Most of his work has focused on the engineering practices used by developers and testers. Recently he has been helping teams adopt Acceptance Test Driven Development using Cucumber. He has authored several popular Ruby gems used by software testers and is the author of the book, *Cucumber & Cheese—A Testers Workshop*.

## Why testers love playing—Exploring the science behind games

Testers love to play games. We group up, we challenge one another and we explore new ways to stump our peers. There seems to be general consensus that playing games makes us better testers, and that playing is an important part of honing tester skills, but... is there scientific evidence? There is a hypothesis (often treated as a theory) but a disconcerting lack of empirical support. Diving deep into neuroplasticity and brain imaging techniques, Christin and Martin put the hypothesis to the test. They explore the science of play and share some of the fascinating research examining the correlation between playing games and improving valuable cognitive capabilities. This research provides valuable data to help us understand how we can benefit from playing games. Are people who enjoy games, riddles and puzzles better equipped for a career as a tester? What games can be introduced and how to best bring them into the workplace? What are some examples of how improving cognitive skills through games might be useful to testers?



### **Martin Hynic**

With over 14 years of specialization in software testing and development, Martin's attention has gradually focused on emphasizing value and information through team development, organizational learning and the significant role that testers can play to help enable these. Martin incorporates ideas introduced by various schools of learning, principles and sources of inspiration (including Context Driven Testing, Pragmatic Marketing, Satir Change Model, Agile Principles, Christensen's Job-To-Be-Done and Behaviour-Driven Development) to help teams iteratively learn, to embrace failures as opportunities and to simply enjoy working together. Follow Martin on Twitter @vds4 or visit his blog <http://developersbestfriend.com>.



### **Christin Wiedemann**

I love to learn, and to me the whole purpose of life is to explore, experience and gain knowledge. My desire to learn led me to do a Ph.D. in Physics at Stockholm University, and my topic was ultra-high energy neutrino astronomy which also got me to Antarctica and the geographic South Pole a couple of times. After finishing my Ph.D. in 2007, I began working as a software developer, but I soon discovered that software testing was more challenging and I joined the Swedish testing company AddQ Consulting. There, I worked as a tester, test lead and trainer, giving courses on agile testing, test design and exploratory testing throughout Europe. In late 2011, I moved to Vancouver, and joined Professional Quality Assurance (PQA) Ltd. In my roles as tester, test lead, trainer and speaker, I try to use my scientific background and pedagogic abilities to continually develop my own skills and those of others.

## Testing Lessons (Science) from Design Thinking World (Art)

When you decide which seat to take at a conference, you are designing your experience. When you re-do your home office or draft an artsy email, you are designing. In this sense, everyone is a designer. Have you ever entered a room in a new office block and started to look for switches. Were you able to switch on the right light on the first attempt? Did you blame yourself for the failure? If you did, you became a victim of false blame, cursing yourself for poor design of products. Testers must be aware of the psychology behind design of products. Design concepts like affordances, signifiers and gulfs of execution can help testers in testing products better. In today's world, where designers and testers often work in silos, Parimala speaks about how working together can lead to not just designing explorable systems, but testing them effectively by highlighting feedback and visibility. Key takeaways include understanding design case studies, being aware of design and learning concepts like design thinking and natural mappings.



### **Parimala Hariprasad**

Parimala spent her youth studying people and philosophy. By the time she got to work, she was able to put those learnings to create awesome testers. She has worked as a tester for over 10 years for domains like CRM, Security, eCommerce and Healthcare. Her expertise is in coaching, test delivery excellence and creating great teams which ultimately fired her because the teams became self-sufficient and she wasn't needed anymore. She has experienced the transition from Web to Mobile and emphasizes the need for design thinking in testing. She frequently rants on her blog, *Curious Tester* (<http://curioustester.blogspot.com>). She tweets at @CuriousTester and can be found on LinkedIn at <http://in.linkedin.com/in/parimalahariprasad>.



# Day 2 Sessions

10:40a - 11:45a

## Adding value in an agile context



At a first glance you might relate testing in an agile context to abbreviations like TDD, BDD, ATDD. Though these are often valuable practices they are closer related to checking of the software. The point is to run them often and to help developer to know when to stop coding. Henrik will make his case of why developers should take responsibility of these kinds of checks and not the tester. So, what should we as testers then do? Testers contribute with lots of value. We have an advantage over the computer, we are sapient! We set out to find new information about the software by exploration and learning. We relate and adapt to users and business objectives of the product. Let's have a look at tasks and contributions a tester do to be valuable in an agile team, such as: sprint planning, calculating "testers' velocity", communicating the health of the product, track and visualize test ideas and bugs and more. How a tailored and modified combination of Scrum and Session Based Test Management can be of help.



### **Henrik Andersson**

Henrik Andersson is Co-founder and CEO of House of Test Consulting, a context driven testing consultancy based in Sweden, Denmark and China. Besides House of Test, Henrik also co-founded Let's Test, Europe's first annual conference on context driven testing. The conference has set a new bar for testing conferences around the world. 2013 has been a busy year; Henrik founded the local user group ConTest in Malmö, Sweden, supported the Let's Test expansion to Australia and co-founded the International Society For Software Testing (ISST). ConTest is taking the concept of facilitated peer conferences to a broader local community and the ISST was founded with the mission to put back common sense back into testing by advocacy, development of testing skills and growing our community. Twitter: @henkeandersson

## Smartphone mobile app needs smart testers

Smartphone applications are developed with immense creativity and effort. Mobile users demand a sleeker experience with applications compared to desktop users. The mindset of mobile users is very different from web or desktop users. Smartphone apps are used on the move (e.g.: while walking or using a toilet), and mobile devices have a lot to offer through hardware location tracking, gyroscopes and other integrated features. Dhanasekar will show how to tune the tester's mindset to model test approaches specific to smartphone apps. Smartphone apps focus on speed, size and sleek. Learn how to design tests at the UI level to identify issues beyond the usual functional and non-functional testing. Even if a smartphone app has a sleek UI, users will uninstall the app if it drains their battery, crashes frequently or wastes the user's data plan. Dhanasekar will explain how he designs mobile tests and








### **Dhanasekar S**

I am a software tester by profession and passion. Currently as a commander of Mobile of testing in Moolya, I do consulting and lead the delivery of mobile apps testing. Mentor next generation testers to specialise the new paradigm shift (touch devices) in mobile arena. Love mindmapping and developing new test approaches for mobile apps. Inspired by AR Rahman, Steve Jobs and Jony Ive.



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# Day 2 Sessions

10:40a - 11:45a

## Test Coverage: An Art and a Science

How do you determine the test coverage of your application per project? Do you have strategies in place? Do you know when to implement methods to examine your test coverage? How do you know enough is enough? Jay and Jean Ann discuss the meaning of test coverage and use 4 concepts to help determine when "enough is enough" providing approaches on how to discover the data required to make informed decisions on what to test, where to test, what testing is missing and how much testing is needed based on scope of project. By breaking down the types of coverages, Jay and Jean Ann built some guiding strategies which testers can immediately apply to their testing projects with more confidence in achieving a stronger sense of quality in their efforts. Take back a stronger understanding of test coverage which makes test design more thorough and answers a higher level of quality.



### **Jean-Ann Harrison**

Jean Ann has been in the Software Testing and Quality Assurance field for over 15 years including 7 years working within a Regulatory Environment and 8 years performing mobile software testing. Her niche is system integration testing with focus multi-tiered system environments involving client/server, web application, and standalone software applications. Mobile software testing includes mobile native apps, mobile hybrid apps, mobile web applications and mobile websites. Jean Ann is a consistent speaker at many software testing conferences, a Weekend Testing Americas facilitator as well as making guest appearances. She is always looking to gain inspiration from fellow testers throughout the software testing community and continues to combine her practical experiences with interacting on software quality and testing forums, attending training classes and remaining active on social media sites.



### **Jay Philips**

A highly experienced leader with a focus in business intelligence and software development team building. Successfully completed multiple large and small projects in a variety of industry domains including strict regulated financial & health care environments. Over the years, I have concentrated on learning more about the entire software life cycle, quality process and controls for a project. I am familiar with a variety of testing tools which support a full software and system life cycle including requirements tracking, configuration management, defect tracking, test team management and automated regression test tools. In doing so, I have used metrics as a means to measure a project's success. I founded Project Realms, Inc because I saw a need for leadership, creation, maintenance and execution of development and testing activities. Project Realms is a software consulting firm specializes in all aspects of a software project with emphasis on project management, quality assurance and development. Reporting statistics to my Clients' management teams is vital for project success and satisfied clients. To learn more about Project Realms, go to <http://www.projectrealms.com> TeamQualityPro (TQP) is a real-time integrated platform to evaluate the entire ecosystem of Application projects and development resources with drill down investigation into specific team activity. The dashboards present on demand information to make informed assessments from any location at any time. To learn more about the our big data dashboards, go to <http://www.teamqualitypro.com>

## Coyote Teaching: A new take on the art of mentorship

Too often, new software testers are dropped into the testing world with little idea as to what to do, how to do it, and where to get help if they need it. Mentors are valuable, but too often, mentors try to shoe-horn these new testers into their way of seeing the world. Often, the result is frustration on both sides. "Coyote Teaching" emphasizes answering questions with questions, using the environment as examples, and allowing those being mentored the chance to create their own unique learning experience. Coyote Teaching lets new testers learn about the product, testing, the world in which their product works, and the contexts in which those efforts matter. We will demonstrate the Coyote Teaching approach. Through examples from our own mentoring relationship, we show ways in which both mentors (and those being mentored) can benefit from this arrangement. "When raised by a coyote, one becomes a coyote".



### **Harrison C. Lovell**

Harrison C. Lovell is an Associate Engineer at Virtusa's Albany office. He is a proud alumnus from Per Scholas' 'IT-Ready Training' and STeP (Software Testing education Program) courses. For the past year, he has thrown himself into various environments dealing with testing, networking and business practices with a passion for obtaining information and experience.



### **Michael Larsen**

Michael Larsen is Senior Tester located in San Francisco, California. Over the past seventeen years, he has been involved in software testing for products ranging from network routers and switches, virtual machines, capacitance touch devices, video games and distributed database applications that service the legal and entertainment industries. In addition to being a member of the Board of directors for the Association for Software Testing, he is an active instructor of the Black Box Software Testing classes, is the co-founder and primary facilitator for the Americas chapter of Weekend Testing, a Black Belt in the Miagi-Do School of Software Testing, and the producer (and on-air personality at times) of Software Test Professionals "This Week in Software Testing" podcast along with fellow board member Matthew Heusser. Michael also contributed the chapter "Trading Money for Time" to the book How to Reduce the Cost of Software Testing and writes about testing topics for publications like The Testing Planet, ST&QA magazine, Techwell and others. Michael writes the TESTHEAD blog and can be found on Twitter.

# Day 2 Sessions

10:40a - 11:45a

## Using Open Source Tools to Build a Full Automation Framework for Financial Trading Systems

Financial trading systems must meet the demands of brokers, private traders and other customers, and in order to meet these demands, the trading system must be thoroughly reliable. In this Test Lab session, we will demonstrate how we can use freeware tools available in the public domain to build an automated test framework that randomly generates data for trading simulations and automatically executes and reports on regression test sessions.



**Roman Khaimov**

Roman Khaimov is a VP at Flextrade Systems in NY. He earned a Bachelor in Computer Engineering degree from Queens College and holds an MBA from University of Arizona. He joined Flextrade Systems in 2007 and is responsible for testing of all software and data products delivered by FlexTrade around the world (Singapore, London, Mumbai). Prior to this role, Roman was the Principal Quality Assurance Automation Engineer at Piper Jaffray for 3 years. In this position, he was responsible for testing of FIX Algorithms and ATM Trading as well as providing technical support of software to the field. As a senior software engineer and manager, Roman has always loved to create automated scripts on financial computer systems and programs.

2:10p - 3:15p

## Test Automation != Less Testers || Faster Testing || More Time for ET



It's commonly said that Test Automation means you need less testers on the team, it speeds up the testing process and allows more time for Exploratory Testing. In this talk Richard shares his critique of these common outcomes by calling upon his experiences of working in and managing teams where Automation has played a crucial part in the testing approach and has been used to great effect; but hasn't resulted in the above outcomes. Richard explains why he believes these common misconceptions of Automation are unfounded and gives reasoning as to how and why these myths have gained such momentum. In addition he briefly touches upon the Testing vs. Checking definitions and how they can be used to educate team members ensuring there is a common understanding of these aspects leading to a greater appreciation of Testing. Attendees should expect to take away a deep understanding of the real benefits of Automation and the importance of a whole team understanding of why and how to utilize Automation to assist Testing.



**Richard Bradshaw**

I am a friendly tester with a passion for testing. I try to share my passion with the wider community via blogging, forums, twitter and participating at conferences. I also organise a testing meetup in Nottingham, UK (#NottsTest) and am a member of MEWT (Midlands Exploratory Workshop on Testing). Testing has been my only career since graduating and have been testing for 8 years now. I have strong technical skills and encourage the use of tools and automation in the right context.

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# Day 2 Sessions

2:10p - 3:15p

## Discover the Power of Pair Testing!

In agile teams, it's inevitable that team members are expected to be more cross-functional and produce high quality product for their customers. How can agile team members become more cross-functional and take ownership of quality? Often times there seems to be a scarcity of testing talents in agile teams. How can agile teams attain highest quality product when working with very few or no testing talents? For agile team members to take ownership of quality, Pradeepa Narayanaswamy exposes the power of "Pair Testing" that greatly supports providing faster feedback and producing high quality product all along as a team. For the scarce testing talents and an effective way to become more cross-functional, one approach is for team members to pair up on various testing efforts that ensures the shared eye on quality and learning. Pradeepa talks about several pairing options and opportunities between various specialties in an agile team. As a new or an experienced agile team member, learn how to spearhead this technique in your team at various levels and spread the buzz to other teams. As a tester, learn how to get the non-testing talents excited and experience the value of pair testing.



### **Pradeepa Narayanaswamy**

As a Senior Agile Consultant and Coach with specialization in Agile Testing, Pradeepa Narayanaswamy is a self-proclaimed "Agile Passionista" who strongly believes in the Agile Principles used in transforming organizations to build superior quality products. She has worked with many teams of various sizes and recognizes the benefits of agile testing to help teams effectively perform testing in parallel to development. In her current role as Senior Agile Consultant with Centare, Pradeepa works as a trainer, coach and mentor to teams and help them with their Agile Transformation journey.

## The history of reason; arts, science, and testing

Dichotomies are appealing. Put art and humanities on one side, and science and objectivity on the other, and almost everyone will understand the distinction. Is it really that simple? Geoff Loken discusses the history of reason, and of testing in a context both old and broad. Reason and what has become the scientific method have roots as far back as the classical period. Modern software testers unknowingly draw their analytical tools from insights and techniques derived over centuries, by philosophers, mathematicians, scientists, and historians. Remembering that history we can better understand our modern interactions with computers, and decide for ourselves where the distinction between objective and subjective is useful to us, and where it is not.



### **Geoff Loken**

I'm currently charged with the oversight of software testing at the Athabasca University. Before that I spent a bit of time doing testing at Bioware, out of Edmonton. In my copious spare time I train, blog, and attend conferences about QA, and will be speaking for the second time at CAST this year. I have an MA in History, so I came into testing through the back door, and spend a lot of surplus energy thinking about advanced education, and how technology is going to affect it.

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# Day 2 Workshops

2:10p - 4:35p

## Myths of Testing in Financial Services

In the past few years, software problems in the financial industry have captured the media and public's attention. Everyone is aware that financial software glitches can result in millions of dollars of loss and do it at an unprecedented rate of speed. Ben and Joe take a look at some of the myths (and realities) of testing financial software. What actually constitutes financial services software? How thorough is the testing? What are some of the unique requirements of software testing in finance that aren't present in software testing in other industries? And how are financial companies coping with these needs? Ben and Joe will help distinguish the realities from the myths.



### **Ben Weber**

Ben Weber is a QA Manager at Barclays Investment Bank in New York. He has over 30 years of experience starting as a tester for AT&T, working on projects ranging from telephony to data networking to radiology systems. He subsequently moved into development and Unix administration as well as testing, while also teaching a variety of college level courses on Unix and programming as an adjunct. After 3 years in full-time academia running an evening CS program, he moved into Financial Services industry QA, where he has worked for over a decade for a variety of exchanges, trading platforms and banks. Ben is a founding member of the Software Testing in Financial Services workshop.



### **Joseph Lopez**

Joe Lopez is a graduate of Polytechnic University with a Bachelor of Science degree in Electrical Engineering and a Computer Science Minor. Joe has over 20 years experience in the Financial Services area as a functional tester, performance tester, system tester, automation engineer, and test management. Joe is a very strong advocate of agile methodologies and its principles. Joe is also involved in the AST SIG called Software Testing in Financial Services. Joe is currently managing a Performance team and an Automation team at an Investment Bank.

## Balancing the Leadership Seesaw

Leadership is the art of understanding and guiding people. It is both a trait and a skill that requires finesse, intuition, dedication, and passion to develop. Many people believe only managers can show leadership, or that all managers are leaders. Working as managers of testers today Erik and Maria share their personal experiences and beliefs on leadership and management. Through discussion and exercises they aim to give you insights into the differences between leadership and management. They also address the need for transparency between testers and managers. And most important, they guide you through common obstacles that can be found between managers and testers as well as some ways to get passed them. Everyone has an experience to share and we hope you share yours; whether you are a tester, test lead, test manager, or someone looking to become a test manager. Through sharing and discussing experiences with each other, everyone in this workshop leaves with an increased awareness of the art of leadership. That is why this workshop is for you!



### **Erik Davis**

Erik is currently responsible for the overall testing effort of a team of 170 testers. He owns, reviews, and finds ways to improve the way testing is done including; bringing new ideas to the team, finding ways to engage testers in testing as a career, and building a stronger community for testers in the Northeastern Ohio region. Erik is a sometimes speaker, blogger, and participant in online tester communities. He is the founder of NOTiCE (<http://meetup.com/notice>) and Programs Lead for NOSQAA (<http://nosqaa.org>).



### **Maria Kedemo**

Maria Kedemo has worked within software development since 2000. Her experience ranges from developer, test lead, tester and coach in different domains such as Telecom, Retail and Security. Today she is working as a coach and manager of Verisure Innovation AB Test department where she strives to spread the values of the context-driven school of software testing. With a passion for helping and providing the opportunity for people to learn and develop she is engaged in various testing communities often behind the curtains. Sporadically you can find her speaking at software testing events or writing on her blog.



# Day 2 Workshops

2:10p - 4:35p

## Thinking Critically About Numbers: Defence Against the Dark Arts

Numbers, models, and measurements are often used to describe. Just as often, they are used to persuade. Sometimes, they are used to intimidate. Testers must be able to look at information, claims, and evidence critically, in order to avoid being fooled or bullied. They must apply critical thinking to their own observations, interpretations and reports, in order to avoid fooling themselves--or worse, their clients. This workshop is about looking thoughtfully and skillfully at reports, research, and common claims about testing and software development. Participants learn methods for analyzing those claims and a framework for evaluating them. Applying this approach to real-world cases, and exercises, they refine their approach to collecting, assessing and presenting data and information. Throughout, participants remain engaged: looking for the original data, assessing the relationship between numbers and their representations, evaluating the methods of measurement -- in a nutshell, refining your current skills and building new ones. Caution: this workshop may interfere with your enjoyment of your daily newspaper.



### **Laurent Bossavit**

Laurent Bossavit is mainly known as an Agilist and was a recipient of the 2006 Gordon Pask award from that community. He still likes to code though no longer doing so full-time, dividing his attentions between assisting Agile teams on technical and organizational matters, and the Institut Agile project which collects empirical evidence on the benefits and limitations of Agile practices.



### **Michael Bolton**

Michael Bolton is a consulting software tester and testing teacher who helps people to solve testing problems that they didn't realize they could solve. 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 and credibly in uncertain conditions and under extreme time pressure. Michael has 25 years of experience testing, developing, managing, and writing about software. Currently, he leads DevelopSense, a Toronto-based consultancy. Prior to that, he was with Quarterdeck Corporation for eight years, during which he managed the company's flagship products and directed project and testing teams both in-house and around the world. Contact Michael at [michael@developsense.com](mailto:michael@developsense.com), on Twitter [@michaelbolton](https://twitter.com/michaelbolton), or through his Web site, <http://www.developsense.com>.

## Games and Tools to encourage Creative and Critical Thinking within Testing

How often do you find yourself stuck for ideas or thinking why I am running this test, whilst testing? Do you find yourself repeating the same type of test ideas again and again? Do you find it difficult to explain your reasoning to others or to be able challenge what someone is saying? If this is the case then this workshop is for you. This workshop, led by John, uses interactive creativity and critical thinking games, along with easy to remember techniques. Learning these techniques provides you with a set of tools that you can take back and implement straight away in your testing profession as well as learning skills for your everyday life. The focus is on freeing up your mind to allow creative ideas to flow and then re-evaluating those ideas using critical thinking approaches. These are the concepts that this workshop brings for you to take back and use in your daily working environment. If that is not enough to convince you, then how does the idea of some freebies to take away with you help?



### **John Stevenson**

Having been involved in testing for over 20 years and within the IT industry for more than 24 years I am still surprised with how exciting I find it and how much I continue to learn about things that are new. I have a passion for learning and love to learn about new things. I have an interest in many things such as social science, psychology, photography and gardening. I keep involved within the testing community and write a testing blog ([www.steveo1967.blogspot.com](http://www.steveo1967.blogspot.com)) and can be found regularly tweeting ([@steveo1967](https://twitter.com/steveo1967)). I am keen to see what can be of benefit to software testing from outside the traditional channels and as such I like to explore different domains and see if there is anything that can be linked back to testing. I care about the testing community, like to be involved and like to be social. I feel I have a wide variety of experience within testing and currently I am mentoring and training others in exploratory testing and SBTM whilst looking for opportunities to introduce approaches from other crafts such as anthropology, ethnographic research, design thinking, cognitive science and many others. Currently working on a book about the connection of psychology with software testing.



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# Day 2 Sessions

3:30p - 4:35p

## Looking to social science for help with metrics



Most simplistic measures for software productivity and quality fail, for reasons you don't need a conference talk to explain. The problem is how to do better than that - how to "plus one" software measurement, or, at least, to choose measures and frame them in a way that will do more good than harm. Studying a little social science, specifically how social scientists do qualitative research, and measurement problems can help. Justin will talk about the development of qualitative research as a field of study, common problems with measurement in the software world, and some ideas from Lean. You will take back some tools to help you tell a more meaningful story to your business.



### **Justin Rohrman**

Justin Rohrman is a software tester currently living in Nashville, TN. He has been involved in software testing for about 8 years now in various industries (consulting development, oil and gas, pricing science and a few different flavors of healthcare). Outside of his day job, Justin is an instructor for BBST classes run by the Association for Software Testing, is a Miagi Do black belt, and writes for StickyMinds and ITKnowledgeExchange. You can reach him on twitter @JustinRohrman.

## Bridging the Gap—From Developer to Tester

There is often a divide between those who write the code and those who verify the solutions. These organizational silos act as barriers to efficient communication and collaboration. Jonathan is new to being called a tester, but has been actively following the lively blogging and tweeting discourse of the testing community for some time. This year, he decided to leave his role as a senior software architect to join his company's software testing team. It confused many people, especially the developers. He believes that any developer would benefit from greater understanding of the current testing culture and techniques. He shares his story on what caused him to bridge the gap, in hopes that it helps testers build bridges to strengthen relations with developers. He shares his insight on how to entice developers to listen more actively to testers' results, which testing skills inspired him to want to learn testing, and what aspects of the tester culture might lead to new recruits.



### **Jonathan R. Clarkin**

Jonathan Clarkin is a passionate new member of the tester community. With over a decade of experience producing software under various titles (developer, lead, designer, architect) he is excited to be an active member of the context-driven school of software testing. He is a strong believer in questioning, lifelong learning, and that when great people work together they can do amazing things.

## Black and White: Software Testing for Scientists

What are the rules for software testing? In a specialist financial domain, where a University education grounded in sciences is the norm, rules are important. How do you teach the curiosity and judgment of testing to those who see the world in black and white? Katrina shares her experiences in taking a team of scientists from a test strategy of "100% automation" to an approach that pulls together elements of specification by example, mind mapping and session based test management. Her brief was to create a cross-skilled team by training developers, business analysts and subject matter experts in testing. Learn how to expose varied understanding by asking your team to visualize their test strategy. See how to teach and embed new testing skills in a project environment alongside the continued delivery of working software. Know how to customize common practices to the skill set of your team so that change is adopted with enthusiasm.



### **Katrina Clokic**

Katrina Clokic is a software tester from Wellington, New Zealand. She is very active in the New Zealand testing community as the editor of Testing Trapeze magazine, a co-organiser of her local testing MeetUp, a regular attendee at the Kiwi Workshop for Software Testing, and frequent blog writer. In her role at Assurity, Katrina wears three hats; as a Senior Agile Test Engineer, a lead facilitator of the Assurity Agile Testing course, and the Practice Lead for Lean Testing

# Closing Session

4:50p - 5:20p

## Timbits

Join Tim Coulter and Paul Holland as they share with you their "take-aways" from the sessions at CAST 2014. Tim and Paul will provide a brief summary of some of the key points that they gathered throughout the talks they attended and then encourage the audience to share their own nuggets of wisdom gained throughout the conference.



### **Paul Holland**

My name is Paul Holland and I am Managing Director, Head of the Testing Practice at Doran Jones in New York City. Prior to Doran Jones I was the principal consultant at Testing Thoughts. I am a proud and active member of the context-driven school of software testing which means that we believe that you must adapt your approach to any testing mission depending on the situation at hand (or your context). There is no "best way" to use when presented with a given testing problem. You must adjust and adapt to find an approach that will be effective for you. The test methodology we use at Testing Thoughts is based on the Rapid Software Testing course, developed by James Bach and Michael Bolton.



### **Tim Coulter**

Tim Coulter is an American software engineer who has made a career of being the sole tester for multiple New York City startups. As a self-proclaimed "professional quitter" (don't tell the startups that) Tim spent the last six years helping startups as they grew from fledgling code houses to 70-100 person companies. Recently, Tim struck a deal with his current employer to work part-time and 100% remotely so he can travel the world at the same time. Tim is also the creator of NoteApp (noteapp.com), an online note-taking and collaboration tool which he hopes will soon become a startup of its own.

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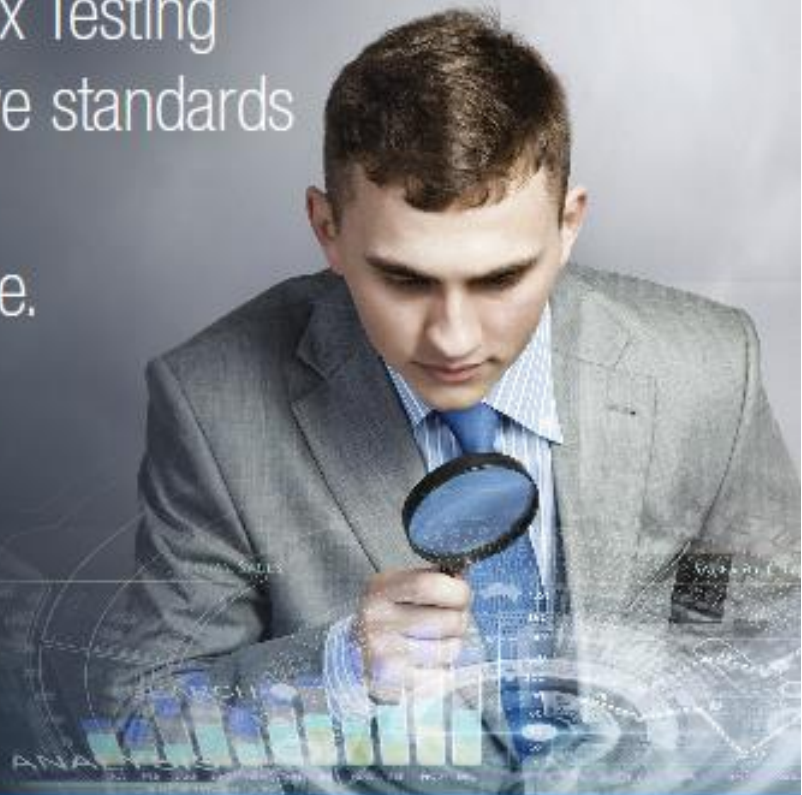
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Test Data  
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## Who are we?

Mphasis an HP Company is a USD 1 billion global service provider, delivering technology based solutions across industries, including Banking & Capital Markets, Insurance, Manufacturing, Media & Entertainment, Telecom, Healthcare, Life Sciences, Travel & Transportation, Hospitality, Retail & Consumer Goods, Energy & Utilities, and Governments around the world. Mphasis' integrated service offerings in Applications, Infrastructure Services, and Business Process Outsourcing help organizations adapt to changing market conditions and derive maximum value from IT investments. Contact us on [www.mphasis.com](http://www.mphasis.com)

# Pre-Conference Schedule

## Tutorials

**Monday, August 11**

8:00a - 9:00a	Breakfast—Registration Open					
	KC 903	KC905	KC907	KC909	KC912	KC914
9:00a - 10:30a	<b>The Art of Performance Analysis</b> Mark Tomlinson	<b>Context-Driven Test Leadership</b> Matt Barcomb Selena Delesie	<b>The Art &amp; Science of Test Heuristics</b> Fiona Charles	<b>How We Discover</b> Anne-Marie Charrett	<b>Speaking the Language</b> Ben Kelly Iain McCowatt	<b>Continuous Automated Testing</b> Noah Sussman
10:30a - 10:50a	Morning Break [Common Areas]					
10:50a - 12:00p	<b>The Art of Performance Analysis</b> Mark Tomlinson	<b>Context-Driven Test Leadership</b> Matt Barcomb Selena Delesie	<b>The Art &amp; Science of Test Heuristics</b> Fiona Charles	<b>How We Discover</b> Anne-Marie Charrett	<b>Speaking the Language</b> Ben Kelly Iain McCowatt	<b>Continuous Automated Testing</b> Noah Sussman
12:30p - 1:30p	Lunch [Rosenthal Pavilion]					
1:30p - 3:30p	<b>The Art of Performance Analysis</b> Mark Tomlinson	<b>Context-Driven Test Leadership</b> Matt Barcomb Selena Delesie	<b>The Art &amp; Science of Test Heuristics</b> Fiona Charles	<b>How We Discover</b> Anne-Marie Charrett	<b>Speaking the Language</b> Ben Kelly Iain McCowatt	<b>Continuous Automated Testing</b> Noah Sussman
3:00p - 3:30p	Afternoon Break [Common Areas]					
4:00p - 5:00p	<b>The Art of Performance Analysis</b> Mark Tomlinson	<b>Context-Driven Test Leadership</b> Matt Barcomb Selena Delesie	<b>The Art &amp; Science of Test Heuristics</b> Fiona Charles	<b>How We Discover</b> Anne-Marie Charrett	<b>Speaking the Language</b> Ben Kelly Iain McCowatt	<b>Continuous Automated Testing</b> Noah Sussman

## Context-Driven Test Leadership: How to keep from feeling testy

Have you ever clubbed a seal or shot a panda? Neither have we...BUT we have helped a LOT of people and organizations facilitate change!

Managing, facilitating and sometimes just coping with change can be a challenge. Finding where you fit or how to help grow a change initiative effectively can be a struggle, even if you have been a part of an organization dealing with change before. Maybe you are part of an agile transition, or perhaps you're facing a shift in role or responsibility? How do you know you are in a change? When will it be over? What's coming next? What is it all about ?!?!

Join Selena and Matt for this interactive workshop where you will participate in simulations and activities designed to help you understand, adapt, and even contribute to different change initiatives. You will come to the workshop with your real-life challenges and concerns. You will leave with increased self-awareness, techniques to work with others to support changes, and ideas for how to influence your underlying organization.

Some of the topics we'll cover include environment design, change models, influence diagrams, change patterns, as well as the pillars and key values for successful change leaders.



### **Matt Barcomb**

Matt Barcomb (@mattbarcomb) is passionate about cultivating sustainable, adaptive organizations; enjoys being out-of-doors; loves punning; and thrives on guiding organizations towards balanced, holistic, self-organizing cultures. Matt has spent time in the military, as a programmer, team manager, college instructor, org design consultant and executive in product development. He believes that individuals and their interactions continue to be the most challenging issues facing businesses today. As such, he has dedicated an inordinate amount of his time and energy finding ways of making the business-software universe a better place to work, play and do business. Matt currently resides in Boston and shares his musings on his blog, <http://blog.risingtideharbor.com>



### **Selena Delesie**

Selena Delesie helps organizations, teams and individuals achieve big visions. With a passion and dedication for helping people exceed their goals, she engages at the personal level with practical learning experiences and guidance to improve beyond the ordinary. Her work on leadership, organizational culture, product planning, agile, software testing and development practices have made her an in-demand and innovative leader in the software industry. When not working with software professionals, Selena is found dancing through ballrooms, wrestling dumbbells and yoga mats, homeschooling her son, and inspiring people to create the life of their dreams. Learn more about her at [www.DelesieSolutions.com](http://www.DelesieSolutions.com).

## The Art of Performance Analysis

Many newcomers to performance and load testing get the basics of test scripting and execution mastered in a few months and they can provide value to your project and company by simply delivering test results. However, if that's where your skills suddenly end and other engineers seem disconnected from your efforts, it's time for you to learn more about performance analysis and remediation. The real purpose and value of your work is making improvements and driving change to the technology and the company through the extension of your performance test results.

In this workshop you will learn how to take the next steps with your performance testing skills by learning new techniques for advanced performance analysis, deep-dives into bottlenecks, and proving out the remedies to the problems you've identified.

### **Workshop Takeaways:**

- Techniques for performance analysis and how to apply them in different contexts.
- The use of inductive and deductive reasoning in performance.
- Mathematical regressions for determining risk and severity.
- Tips for measurement correlation and juxtaposition.
- Risk and cost-based problem evaluation.
- Innovative practices for results reporting and escalation.
- Iterative remediation and problem isolation processes.



### **Mark Tomlinson**

Mark Tomlinson is a performance engineering and software testing consultant. His career began in 1992 with a comprehensive two-year test for a life-critical transportation system, a project which captured his interest for software testing, quality assurance, and test automation. That first test project sought to prevent trains from running into each other --- and Mark has metaphorically been preventing "train wrecks" for his customers for the past 22 years. He has broad experience with real-world scenario testing of large and complex systems and is regarded as a leading expert in software testing automation with a specific emphasis on performance. Mark now offers coaching, training and consulting to help customers adopt modern performance testing and engineering strategies, practices and behaviors for better performing technology systems.

## Continuous Automated Testing: A Communication System That Scales!

Automated tools provide test professionals with the capability to make relevant observations even in the fastest-paced environments. Automated testing is also a powerful tool for improving communication between software engineers. This is important because good communication is a prerequisite for growing a great software engineering organization.

This workshop will explore the continuous testing of software systems. Special focus will be given to the situation where the engineering team is deploying code to production so frequently that it is not possible to perform deep regression testing before each release.

People who participate in this course will learn pragmatic automated testing strategies like:

- \* Data analysis on the command line with find, grep and wc.
- \* Network analysis with Chrome Inspector, Charles and netcat.
- \* Using code churn to predict hotspots where bugs may occur.
- \* Putting stack traces in context with automated SCM blame emails.
- \* Using statsd to instrument a whole application.
- \* Testing in production.
- \* Monitoring-as-testing.

Technical level: participants should have some familiarity with the command line and with editing code using a text editor or IDE. Familiarity with Git, SVN or another version control system is helpful but not required. Likewise some knowledge of Web servers is helpful but not required.



**Noah Sussman**

From 2010 to 2012 Noah was a Test Architect at Etsy. He helped build Etsy's continuous integration system, and has helped countless other engineers develop successful automated testing strategies. These days Noah is an independent consultant in New York. He is passionate about helping engineers understand and use automated tools as they work to scale their applications more effectively.

## How We Discover

In testing our role is to discover things, to find bugs and look for information about risk. To do that we conduct a series of science experiments. Testing is all about discovery.

How do we discover things? The psychology of scientific discovery was a topic that fascinated David Khlar, so much so that he conducted a series of scientific experiments using robots to figure out how people discovered in a given problem space.

In this workshop, we're going to use robots and repeat these experiments to examine through experimentation and observation how we discover, how it may relate to test design, test execution and test reporting. Of course, we will have to test these ideas, and perhaps create null hypothesis to work out if our ideas are valid.

A large part of science is publishing your findings and this tutorial will do the same. The second part of the tutorial will be spent collating our findings, debating their validity and putting them together in a white paper that will be published with acknowledgement to all who participated.

So don your lab coat, your curiosity, your skeptical mindset but most of all your enthusiasm and passion and join me for a day of scientific experimentation. Be warned, this workshop will not be for the feint hearted, but will be a lot of fun and by the end of the day, we will have a paper we can



**Anne-Marie Charrett**

Anne-Marie Charrett is a testing coach and trainer with a passion for helping testers discover their testing strengths and become the testers they aspire to be. Anne-Marie offers free IM Coaching to testers and developers on Skype (id charretts) and is working on a book with James Bach on coaching testers. An electronic engineer by trade, testing discovered Anne-Marie when she started conformance testing to ETSI standards. She was hooked and has been involved in software testing ever since. She runs her own company, Testing Times offering coaching and software testing services with an emphasis on Context Driven Testing.



An iceberg floating in a blue ocean under a cloudy sky. The tip of the iceberg is visible above the water, while the much larger, jagged base is submerged below the surface. The text "Test beyond the obvious" is overlaid on the water surface.

Test beyond the obvious



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## Speaking the Language

You've just put in a Herculean effort into testing, found some killer bugs that have no business shipping, and some risks that you think might delay the project launch. You're in tester Heaven.

The next day you find all your bugs rejected as 'not an issue', and when you hand your test report to the project manager, he grunts, adds it to the pile of paperwork next to him, and waves you out of the room. Is this the point where you whine and moan about how no-one understands testers and the value they provide?

You could. Or you could look at why the information you presented didn't resonate the way it should. Your testing is only as good as your ability to communicate what you're doing and why, what you've found and why it matters. Can you speak the language of your audience?

This experiential workshop will help you to decipher how your stakeholders see the world, and to frame your communication in a way that MATTERS.

Attendees will participate in a simulated project in which they will be challenged to communicate effectively: with both senior stakeholders and one another. Through this exercise, they will learn critical communication strategies, and experience more than a few surprises...If communicating with your team is something you could do better, Iain and Ben ARE the droids you are looking for.



### **Benjamin Kelly**

Ben Kelly is a software tester at eBay. He has been in the industry for well over a decade and has done stints in various industries including Internet statistics, insurance and online language learning. When he's not agitating lively discussion on other people's blogs, he writes sporadically at [testjutsu.com](http://testjutsu.com) and is available on twitter.



### **Iain McCowatt**

Iain McCowatt is a software testing expert whose experience and passion for testing spans multiple industries and more than a decade: he had his first exposure to testing in the late 90s, and by 2002 decided to focus on it full time. During this time he has been a hands on tester, test manager and occasional automator. He specializes in getting stuff done in difficult environments, and in helping organizations solve complex testing problems on large enterprise IT projects. In his spare time, Iain blogs at [exploringuncertainty.com](http://exploringuncertainty.com).

## The Art and Science of Test Heuristics

Variously defined as "fallible methods for solving problems" (Bach & Bolton) or "rules of thumb", heuristics are essential tools for thinking test practitioners. When you construct a test around a model like "follow the money", or adopt a leadership pattern where you challenge your team members with stretch goals, you are working with a heuristic. In each case, the model may be applicable and useful in some contexts, and irrelevant or even detrimental in others.

One of the keys to using heuristics successfully is to do so consciously. If you aren't aware that you are operating with a heuristic model, it can become an unchallenged assumption. But if you consciously use a model as a heuristic, then you are in a better position to see its weaknesses and potential failure points in a given situation.

In this workshop, we will explore the use of heuristics in problem solving, software testing, and test leadership. Working in groups, participants will have opportunities to design heuristics to solve particular problems, apply them to problem solutions, then critique their models and share their conclusions with other groups.

The session will be highly interactive, consisting principally of problem-solving exercises and debriefs. Conscious use of heuristics requires both creativity and critical thinking skills. Come prepared to practice and extend yours! Participants are invited to bring testing or test leadership problems from their own experience to share and work with in the second half of the session.



### **Fiona Charles**

Fiona Charles teaches organizations to manage their software testing risk, and IT practitioners project skills "beyond process" - hands-on practical skills essential to thrive and excel on any kind of software project. An expert test consultant and manager, she has been in the thick of the action through 30+ years of challenging projects across the business spectrum on both sides of the Atlantic. Throughout her career, Fiona has advocated, designed, implemented and taught pragmatic and humane practices to deliver software worth having. Fiona's articles and blog posts appear frequently, and she conducts experiential workshops at international conferences, and in-house for clients. Contact Fiona via her website [www.quality-intelligence.com](http://www.quality-intelligence.com), and follow @FionaCCharles on twitter.



Thank You For Attending!