

AST Conference

# CAST 2017

## WHAT THE HECK DO TESTERS REALLY DO?

August 16-18, 2017

**Nashville, TN**

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# Welcome

## Conference Organizers

### Conference Chair

Justin Rohrman

### Program Chair

Rob Sabourin

### Facilitation

Paul Holland

### Registration

Dawn Haynes



### Keynotes by:

**David Snowden**

**Mary Thorn**

### What makes CAST special?

#### **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 "What the heck do testers really do?"

#### **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 have 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 will have opportunities to share your ideas and learn from thought-leaders, trainers, authors, and peers. CAST is a participatory conference, please participate and enjoy.

## AST Board of Directors

### President

Justin Rohrman

### Vice-President, Treasurer

Eric Proegler

### Secretary

Roxane Jackson

### VP of Marketing

Ilari Henrik Aegerter

### Executives at Large

Rob Sabourin

# 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 have 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 does not meet your needs, please speak to the food service or conference 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](https://AssociationForSoftwareTesting.org/about)

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

## Notice

Video recording, audio recording, or live broadcasting of track sessions, workshops, tutorials or keynotes without the expressed written permission of the Association for Software Testing is strictly prohibited.

# 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 & 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

### 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.

## 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 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

# Accelerate Your Quality Assurance to Quality Engineering Transformation

### Strategy and Assessment

We execute a detailed testing maturity assessment to see how you compare to the best practices, help you build a strong testing foundation and provide strategic guidance to advance in quality maturity.

### Digital Assurance

For every stage of your digital journey, Infostretch provides testing services that help you operationalize automation, detect defects early and reduce testing cycle times to reach market faster with more confidence.

### Advanced Testing

Infostretch helps you address next-generation digital challenges such as IoT, Wearables and Bots testing by leveraging proprietary frameworks, tools and AI, predictive models and machine learning techniques.

Take Advantage of Our Free Maturity Model Assessment

[www.infostretch.com/getstarted/](http://www.infostretch.com/getstarted/)



# TestLodge



# Special Events

## Experience Report Primer

Join Rob Sabourin for an experience report on experience reports.

**Wednesday**

**7:00p - 9:00p**

**Davidson A**

## Tester Games

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

**Wednesday**

**7:00p - 10:00p**

**Davidson C**

**Friday**

**7:00p - 10:00p**

**Canal E**

## Lean Coffee

A structured, but agenda-less meeting discussing topics chosen by those who attend.

**Thursday & Friday**

**7:00a - 9:00a**

**Canal E**

## Tester's Lounge

A place for conference attendees to talk and have in depth discussions outside of the hallway.

**Thursday & Friday**

**9:00a - 5:00p**

**Canal E**

## Welcome Reception

Come mingle with attendees and speakers after a hard day of learning.

**Thursday**

**5:30p - 6:30p**

**Water's Edge**

## Honky Tonk Crawl

Find some friends and head on down to Broadway. Eat BBQ, stop by some famous record stores like Ernest Tubb, and visit all the honkey tonks you can handle. Roberts Western World is a must. Uber and Lyft will get you there and back safely.

**Thursday**

**7:00p - ?**

**Nashville**

# Day 1 Schedule

Thursday, August 17

7:00a -				Lean Coffee
7:30a -	Breakfast—Registration Open			Canal E
8:30a	Water’s Edge			
8:30a -	Welcome			
8:35a	Canal ABC			
8:35a -	Keynote: David Snowden			
10:00a	Canal ABC			Canal E
10:00a -	Break			
10:30a	Canal ABC Foyer			
	Canal A	Canal B	Canal C	
10:30a -	Augmenting the Agile Team – A	Testing Through Time And Space:	Performance Testing Without Load	
11:30a	Testing Success Story	NASA’s Twenty-Year Mission to		
	Mike Hrycyk	Saturn		
		Andrea Connell		
11:30a -	Break		Performance Testing Without Load	
11:45a	Canal ABC Foyer			
	Canal A	Canal B		
11:45a -	How Testers can become effective	Lessons Learned journey at software		
12:45p	communicators	testing. Try. Experiment. Fail. Try	Tester’s Lounge	
	Raj Subramanian	again		
	Carlene Wesemeyer	Fahed Sider		
12:45p -	Lunch (Membership Meeting & Elections)			
1:45p	Water’s Edge			
	Canal A	Canal B	Canal C	
1:45p -	A Day in the Life of a Test Architect	Continuous Regression Performance	The Pothole of Automating Too	
2:45p	Lee Hawkins	Testing for enduring in Market	Much	
		Arun Kumar Dutta	Paul Holland	
2:45p -	Break			
3:05p	Canal ABC Foyer			
	Canal A	Canal B	Canal C	
3:05p -	Mining JIRA Data for Defect	What the Heck Do Performance	Demystifying Mobile Testing—Quick	
4:05p	Prediction	Testers Really Do?		
	Sivakumar Anna	Justin Harrison		
4:05p -	Break		Demystifying Mobile Testing—Quick	
4:20p	Canal ABC Foyer			
	Canal A	Canal B		
4:20p -	Lightning Talks	QA: Quality Assistance		
5:20p		Ben Simo		



# Day 2 Schedule

Friday, August 18

7:00a -				Lean Coffee
7:30a -	Breakfast—Registration Open			Canal E
8:30a	Water’s Edge			
8:30a -	Welcome			
8:35a	Canal ABC			
8:35a -	Keynote: Mary Thorn			
10:00a	Canal ABC			Canal E
10:00a -	Break			
10:30a	Canal ABC Foyer			
10:30a -	Canal A	Canal B	Canal C	
	Creating and implementing a mobile testing strategy Guillermo Skrilec	Your safety as a Boeing 777 passenger is the product of a 'big gaming rig' Alexandre Bauduin	Hands-On Web Application Testing Chris Garcia Márion Nepomuceno	
11:30a	Break			
11:30a -	Canal ABC Foyer			
11:40a	Canal A	Canal B		
11:40a -	How we tested Gotthard Base Tunnel to start operation one year earlier Chris Glaettli	Regression testing is to testing like a hamster... Jeremias Rößler		
12:40p	Lunch			
12:40p -	Water’s Edge			
1:40p -	Canal A	Canal B	Canal C	
	Building Tests to Build Websites Dmitry Vinnik	Explaining Testing with Exercises Matthew Heusser	Technical Nomads: Stemming the Migration of Senior Talent Mike Hrycyk	
2:40p -	Break			
3:00p	Canal ABC Foyer			
3:00p -			Canal C	
	Reducing Risk When Changing Legacy Code Tina Fletcher	Session Based testing in an Agile project - Sessions I do during a sprint Simon ‘Peter’ Schrijver	Black Swans Wear Hoodies Josh Gibbs	
4:00p	Break			
4:00p -	Canal ABC Foyer			
4:15p	Canal A	Canal B		
4:15p -	From 6 to 60: Our Scaled Agile Testing Journey Cathy Toth	Security and Testing: Why Red, Green, Deploy matters more than ever Galen Emery		

# Keynotes - Day 1

8:30a - 10:00a



**Dave Snowden** has been one of the leading figures in the movement towards integration of humanistic approaches to knowledge management with appropriate technology and process design. Well known for his work on the role of narrative and sense making, he is an entertaining speaker and a formidable realist, and one of the few thought leaders who can bring together the academic and practitioner perspectives into a single, comprehensible purview.

He is Founder & Chief Scientific Officer -Cognitive Edge (formerly the Cynefin Centre) which focuses on the development of the theory and practice of social complexity. The Cynefin Centre spun off from IBM in

July 2005 to allow it greater freedom to explore new trans-disciplinary and participatory approaches to research and the creation of an open source approach to management consultancy. The Cynefin framework which lies at the heart of the approach has been recognized by several commentators as one of the first practical application of complexity theory to management science and builds on earlier pioneering work in Knowledge Management.

A native of Wales, he was formerly a Director in the IBM Institute for Knowledge Management where he led programmes on complexity and narrative. He pioneered the use of narrative as a means of knowledge disclosure and cross-cultural understanding. He is a leading keynote speaker at major conferences around the world and is known for his iconoclastic style, pragmatic cynicism and extensive use of stories to communicate what would otherwise be difficult concepts. Tom Stewart, the new editor of Harvard Business Review in his latest book states in the context of tacit knowledge “Dave Snowden, the best thinker I’ve found on the subject ...” although by way of counter he also comments “he is Welsh and a bit mad”.

Dave Snowden has an MBA from Middlesex University and a BA in Philosophy from Lancaster University. He is adjunct Professor of Knowledge Management at the University of Canberra, an honorary fellow in knowledge management at the University of Warwick, Adjunct Professor at the Hong Kong Polytechnic University and MiNE Fellow at the Università Cattolica Del Sacro Cuore in Italy. He teaches on various university programmes throughout the world. He regularly consults at the board level with some of the world’s largest companies as well as to Government and NGOs and was recently appointed as an advisor on sense making to the Singaporean Ministry of Defence. In addition he sits on a number of advisory and other bodies including the British Standards Institute committee on standards for Knowledge Management.

# Keynote - Day 2

8:30a - 10:00a

## The Tales of Agile Testers... transforming agile testing at scale.

Scaling Agile Teams is hard. Getting senior leadership buy in when they can barely spell Agile and never had invested in good testing is even harder. Then you add the complexity of laying the ground work of good testing practices and development practices and being consistent across multiple teams and you have a big ball of mess. Come along with Mary where she tells the stories of transforming her organization from waterfall to agile, building out the entire testing practice, and changing a culture from date driven to quality driven. There will be tales of successes when she expected failure, tales of failures that lead to major learnings and tales of changing a culture to care about quality. The journey will describe how consistency drives quality, how defining a vision/mission and strategy empowers testers to own the practices, and knowing the goal of "What Good Testing Looks Like" allows you to model this across many teams. It might also tell you what testers really do in Agile.



Chief Storyteller of The Three Pillars of Agile Testing and Quality, **Mary Thorn** is Director of Agile Practices at Ipreo in Raleigh, NC. Mary has a broad testing background that spans automation, data warehouses, and web-based systems in a wide variety of technologies and testing techniques. During her more than nineteen years of experience in healthcare, HR, financial, and SaaS-based products, Mary has held manager- and contributor-level positions in software development organizations. A strong leader in agile testing methodologies, Mary has direct experience leading teams through agile adoption and beyond.

# Morning Workshop - Day 1

10:30a - 12:45p

## Performance Testing Without Load Tools

To many people, Performance Testing is synonymous with Load Testing. In fact, Load Testing is just a subset of Performance Testing, as there are other techniques for assessing performance that don't involve load simulation. There are several tools that any tester can use to measure, record, assess, and report software performance.

Load Testing is expensive, time-consuming, requires specialized skills and tools – and only tells part of the story. Load Tools cannot predict user experience and response times, only reveal scalability and reliability characteristics of a given deployed system. Modern web application response time has much more to do with client-side code in the browser than the server requests – yet that is all that is measured (under optimal network conditions) by crudely modeled load simulations.

Come to this session to learn more about how you can advocate for your users' experience, use easily available tools to produce actionable information on your application's performance, and help make performance part of your culture.



**Eric Proegler**

I am a Senior Test Manager at Medidata Solutions. I've worked in testing for 17 years, and specialized in performance and reliability testing for 16. I am a Board Member for AST, the Association for Software Testing, and an organizer for WOPR, the Workshop on Performance and Reliability. I've presented and facilitated at CAST, WOPR, Agile 2015, Oredev, STPCon, PNSQC, and STiFS. In my free time, I'm into travel, food trucks, cooking, comedy, sci-fi, music, and the NBA.

# Morning Sessions - Day 1

10:30a - 11:30a

## Augmenting the Agile Team—A Testing Success Story

A few things have become an undeniable fact of business over the past few years. Agile or agile descendants will be how we manage projects. Teams will have to learn to be successful both distributed and remotely. The testing role is evolving both for the above reasons and because technology always means change. Independent testers, contract testers, members of a testing service organization all face some daunting challenges embedding and producing successful outcomes in this new world. Remotely embedded independent testers often have trouble relating to a team they are not permanently part of or collocated with. It's harder for teams to gel into a cohesive productive unit without traditional face-to-face organic team alignment activities. While these challenges are not insurmountable, with time, effort and tools an augmenting strategy can be an alternative path to success. This talk will describe implementing an augmenting testing team, one that works in parallel with feature teams, handling the SIT regression cycle while the feature teams continue to work through new development. Tips will be given for a successful feature handoff, intra-team communication and troubleshooting some of the hurdles that will be encountered. An augmenting team solution can provide an alternate path to success, bypassing many of the common problems ¾ this talk can get you there.



**Mike Hrycyk**

Mike Hrycyk - has been trapped in the world of quality since he first did user acceptance testing 19 years ago. He has survived all of the different levels and a wide spectrum of technologies and environments to become the quality dynamo that he is today. Mike believes in creating a culture of quality throughout software production and tries hard to create teams that hold this ideal and advocate it to the rest of their workmates. Mike is currently the Director of Quality for PQA Testing, but has previously worked in social media management, parking, manufacturing, web photo retail, music delivery kiosks and at a railroad. Intermittently, he blogs about quality at [www.qaisdoes.com](http://www.qaisdoes.com).

# Morning Sessions - Day 1

10:30a - 11:30a

## Testing Through Time And Space: NASA's Twenty-Year Mission to Saturn

NASA's Cassini mission to Saturn launched in 1997, and has been orbiting the ringed planet continuously since arrival in 2004. Throughout this time, the Mission Sequencing Subsystem team at the Jet Propulsion Laboratory has developed software used to design and validate the spacecraft's science activities. As we learn more about the Saturn system and as the spacecraft ages, software changes are needed. Automating tests for software that was initially developed before modern architecture and testing methodologies existed has posed many challenges. The limited-funding and risk-averse environment of a flagship planetary mission heightens these challenges. This talk will discuss the strategies taken and lessons learned from nearly two decades of flight.



**Andrea Connell**

Andrea Connell has held many roles in her ten-year technical career, including Software Developer, Database Administrator, Certified ScrumMaster, and Test Engineer. Andrea earned her Bachelor's Degree in Computer Science from the University of Wisconsin - La Crosse and Master's Degree in Computer Science from the University of Hawai'i at Mānoa. She previously worked for Amazon.com, and is now a Software Engineer at NASA's Jet Propulsion Laboratory.

11:45a - 12:45p

## Lessons Learned Journey at Software Testing. Try. Experiment. Fail. Try Again.

Those who fail to learn from history are doomed to repeat it. Software development has changed a lot in the past 17 years. So has software testing. I will take you back ten years and journey to the present to learn from different software development processes and challenges testers face. Waterfall, Min Waterfall, Agile, Testing, Manual, Automation, Exploratory, Regression. We will glimpse into the future on how to build testing skills that help the team work together to build quality into our product.

Objectives of Presentation: How to grow your skills for all key topic areas in Agile Team, Agile testing and Software testing. Key Lessons I learned and practised from the most influential people in software testing: Lisa Crispin, Janet Gregory, James Bach, Elisabeth Hendrickson, Michael Bolton.



**Fahed Sider**

Fahed Sider is a Software Quality Consulting Engineer with over 17 years experience in software testing. He is an agilest and software tester that loves to learn new concepts. Recognized throughout his career as an expert technical leader and trainer with in-depth experience in agile testing using scrum methodology. He is passionate about sharing best practices with colleagues and the tech world. He focuses his efforts on agile testing and exploratory testing. He presented on agile testing topics at PMI Nashville agile Cop panel discussion and Agile Nashville user group. When not working he enjoys the backcountry exploration and the outdoor adventures.

# Morning Sessions - Day 1

11:45a - 12:45p

## How Testers can Become Effective Communicators

Have you ever been in a situation where...

- You find a bug but the developer does not listen to what you have to say and ignores you?
- Your stakeholders ask you about the status of the project in spite of you reporting status periodically?
- You give the necessary status updates in standups and your team still cannot understand what you were talking about?
- You are stormed by your project manager when you least expect him and commit to something out of fear or without thinking, then realize that you have made a major mistake, which you will repent for the rest of your life?
- You are handling a remote team outside the country and find it hard to collaborate although you give them all the resources they need for proper communication and status updates?
- You are talking in a team meeting and many of the team members start looking at each other and access their mobile phones and laptops without paying much attention to you?

If you answered YES to any of the questions above, this is a session for you. Based on our real-time experiences, attending other presentations and talking to various software practitioners we identified some of the components/behavioral patterns that would help to address some of the questions above. Solutions are often simple but getting to it is complicated. Come join us as we share our research and experiences pertaining to effective communication for software testers in a corporate world.



**Raj Subramanian**

Raj Subramanian, a former developer for a payroll processing company, moved to testing to focus on his passion. Raj currently works as a senior automation engineer for a company which provides digital content management services. He actively contributes to the testing community by speaking at conferences, writing articles, blogging, and being directly involved in various testing-related activities. Raj currently resides in Chicago and can be reached at [raj@rajsupra.com](mailto:raj@rajsupra.com) or through his website [www.rajsupra.com](http://www.rajsupra.com). His twitter handle - @epsilon11



**Carlene Wesemeyer**

Carlene Wesemeyer is a Project Lead at Requordit in downtown Chicago. She works with customers and technical resources to create robust software solutions, combining job roles such as project manager, technical lead, and business analyst. Carlene lived abroad as student, and later an au pair, in Berlin and Stuttgart Germany, respectively. She has had many cross-cultural experiences, both personally and professionally, and enjoys learning about new cultures. She has previously presented at STPCon and CAST, and at many public speaking competitions in her collegiate years. She can be reached at [carlene.wesemeyer@gmail.com](mailto:carlene.wesemeyer@gmail.com)

# Afternoon Sessions - Day 1

1:45p - 2:45p

## Continuous Regression Performance Testing for enduring in Market

Presently, high performance for an application is no longer a luxury for your business – it's now a standard need. Normally, performance testing happens just before production for any major release and doesn't have much time despite having performance issues as going live is more important. Organizations are now concerned with the increasing rate of change in the market where they not only need to compete but also familiarize themselves with the speed of changes to adapt time-to-market pressures. Performance testing now becomes very crucial before the application goes live no matter whether it's major or minor releases or sprint for agile-based projects. It is time to conduct continuous regression performance testing, which is mandatory for all projects since the early phases of SDLC, to avoid big losses and reduce overall costs.

This presentation will assist us in knowing the values that can bring continuous regression performance testing over normal performance testing, why continuous regression performance testing is mandatory for enduring in the market and the things you need to remember while making implementing is an ongoing process.



**Arun Kumar Dutta**

Arun earned a degree in Computer Science from Jalpaiguri Govt. Engineering College, West Bengal, India in 2005 (College topper). He hails from Kolkata, India and is currently living in Webster, NY, USA. He is having over a decade of managing E2E Performance testing delivery experience in different types of applications- Citrix, Oracle Apps, SAP, .Net, Java, Middleware, RMI Java, RTE, Web, Web Service etc. and domain expertise include Automobile, Telecom, Document Solutions, Education, Assurance, Aviation, Retail & Hospitality, Banking and Financial Services, Insurance etc. He has a keen interest in reading and writing different technical papers. He has worked across the globe as performance tester, performance test lead and now working as Performance Test Manager in ATOS Consulting- NAM. Selected on QA&TEST 2016-15th International Conference on Software QA and Testing on Embedded Systems in Bilbao, Spain and Paper published in Agile Record, The Magazine for Agile Developers and Agile Testers, Germany.



# Afternoon Sessions - Day 1

1:45p - 2:45p

## The Pothole of Automating Too Much

Do you work for a company that has decided that 100% automation is their approach to testing? Is your company spending a lot of time and effort on an automation strategy but your customers feel the product quality is going downhill? Does the management at your company feel that automation is the silver bullet that will save money, increase coverage or reduce headcount?

In this talk, Paul Holland will discuss some issues and problems with that approach. He will provide the participants with strong arguments why the “automate everything” approach will likely not be successful and provide details of an alternative balanced approach that will likely yield higher quality in the software. Paul will discuss the difference between testing & checking, detail 5 problems that can and do occur in situations where companies try to automate too much, tell real life stories from companies he has worked with, and provide details of a broader “balanced” solution.



### Paul Holland

Paul Holland is a Senior Director of Test Engineering at Medidata Solutions, Inc. in New York City. Paul has over 20 years experience in software testing. Prior to joining Medidata in August 2016 he was Head of Testing at a small New York based consultancy for 2 years and previously he spent 2 years as the principal consultant and owner at Testing Thoughts, and 17 years at Alcatel-Lucent.

Paul specializes in adapting testing methodologies to reduce waste, and be more effective and efficient. Finding ways to document only that which needs to be documented. Modifying reporting of test activities to provide actionable information to stakeholders and reduce/eliminate potentially harmful metrics. Paul is one of four instructors of the Rapid Software Testing course, developed by James Bach and Michael Bolton.

## A Day in the Life of a Test Architect

Although I stumbled into testing — in 1999 after migrating from the UK to Australia amid a tech boom time — I have since become a passionate member of the worldwide testing community and currently hold the title of Principal Test Architect. But what does that really mean? A test architect at “company” provides technical leadership and strategic direction for testing, and I will describe what that means in my day-to-day work.

My position involves advocacy for great new testing ideas gleaned from the wider testing community, mentoring new testers and coaching testing teams in using context-appropriate approaches to their work. This leadership role extends beyond “company” too so a typical day might include sharing knowledge with a meetup group, blogging on a testing topic or helping a new speaker with a conference proposal.

Join me to discover that testing is far from being a dead-end career and learn how you can become an active participant in your testing community.



### Lee Hawkins

The Principal Test Architect for Quest, based in Melbourne, Australia, I am responsible for testing direction and strategy across the group. In the IT industry since 1996 in both development and testing roles, my testing career really started in 2007 after attending Rapid Software Testing with Michael Bolton. I was the cofounder of the TEAM meetup group in Melbourne, a co-organizer of the Australian Testing Days 2016 conference, and I frequently speak at international testing conferences. I blog on testing at [Rockin' And Testing All Over The World](https://therockertester.wordpress.com). When I'm not testing, I'm an avid follower of the UK rock band, Status Quo; hence my Twitter handle [@therockertester](https://twitter.com/therockertester).

# Afternoon Workshop - Day 1

3:05p - 5:20p

## Demystifying Mobile Testing - Quick tours on your mobile app

As mobile devices, tools, operating systems and web technologies rapidly evolve, testers must quickly adapt their thinking in this changing domain. Testers often struggle to find important vulnerabilities and bugs in mobile applications due to lack of guidance, experience and the right resources. During my career in the mobile testing field, I've come across numerous bugs related to native mobile applications. Looking at these bugs, I started categorizing them, and have since come up with a mind map. This mind map helps to provide a quick tour of your mobile application and find vulnerabilities as quickly as possible (<http://www.rajsubra.com/2015/01/16/native-app-testing-cheat-sheet-quick-tour/>). This could be used for smoke testing, acceptance testing or even production testing after your application is live on the different app stores. This session will give attendees hands-on experience by using these mobile testing approaches in real applications to get quick feedback.



### Raj Subramanian

Raj Subramanian, a former developer for a payroll processing company, moved to testing to focus on his passion. Raj currently works as a senior automation engineer for a company which provides digital content management services. He actively contributes to the testing community by speaking at conferences, writing articles, blogging, and being directly involved in various testing-related activities. Raj currently resides in Chicago and can be reached at [raj@rajsubra.com](mailto:raj@rajsubra.com) or through his website [www.rajsubra.com](http://www.rajsubra.com). His twitter handle - @epsilon11



# Afternoon Sessions - Day 1

3:05p - 4:05p

## What the Heck Do Performance Testers Really Do?

Most testers are very skilled at functional testing, and provide assurance that software works as designed. What they often are not equipped to do is validate that a system will work the same way with 1000 or 10,000 users as it does with one. When system performance is bad, however, the effects can be severe and highly visible:

Customers unable to access services = Lost Revenue  
Employees unable to perform their jobs = Wasted Resources  
Broken data-transfer processes = Corrupt Data  
Confusion and frustration = Tarnished Brand.

Performance testing is essential for determining how scalable any software implementation is. The critical steps of an effective performance testing plan are as follows: Forecast user load and usage patterns; Identify technical risks inherent to system architecture or design; Design an appropriate environment for load simulations; Plan for realistic test data; and Employ the right automated tools for the job.

VPS has deep experience with performance testing, serving some of the largest agencies in the Federal government as well as commercial customers. We use a blend of adapted and proprietary tools to measure system performance and provide actionable results. Come visit with us and learn the basics of performance testing!



### Justin Harrison

Justin is a member of VPS' Performance Testing Consulting Team. Justin has served as lead performance testing engineer for commercial and government projects since September 2014.

Justin's major strengths lie in his ability to directly consult with customers, analyze and extract business processes and requirements, and translate those processes into working software solutions.

- Software engineer with over 7 years of experience in both front end/UI and backend development
- Experienced with performance testing of Appian applications using Apache Jmeter.
- Excels as technical business customer liaison and lead system support engineer

## Mining JIRA Data for Defect Prediction

JIRA dashboards are the ubiquitous tool to keep track of projects and provide useful metrics for effective project management. However, this data also contains very useful insights that can lead to better allocation of testing and development resources for future releases of a product. This session will present an approach to using machine learning to glean predictive insights from JIRA defect data, walking through a scenario of how a dashboard tool can be integrated with JIRA. Using real-world examples, we will outline a specific scenario of how JIRA data can be moved from raw defect data to predictive analytics and follow it with actionable recommendations.

Attendees of this session will fully understand:

- Possibilities of JIRA as an effective tool for predictive analytics
- How JIRA can speed up testing and release cycles
- How to use JIRA for more efficient project management



### Sivakumar Anna

More than 20 years of experience in Fortune 1000 companies. Instrumental in leading strategic engagements at InfoStretch which has resulted in significant value for our clients. Responsible for managing engagements in enterprise segments ranging from QA, Strategy engagements.

# Afternoon Sessions - Day 1

4:20p - 5:20p

## Lightning Talks

Have something to say, want to stand on your soapbox? Do a lightning talk! A lightning talk is five minutes or less, no slides, just you and the audience.



### Your Name Here!

Tell your family, friends and coworkers that you gave a talk at a conference! Sign up information will be available at the registration desk.

## QA: Quality Assistance

Ben Simo tells a story in which he steps out of the expected testing role of 'Quality Assurance Engineer' in order to improve quality throughout an organization. Ben developed and implemented a four-part approach to quality assistance.

- Show. Make business and technical information visible throughout the organization.
- Help. Support business and technical operations.
- Advocate. Champion doing the right thing for stakeholders.
- Test. Observe and experiment in production in order to improve understanding.



### Ben Simo

Ben Simo is a consulting software tester who accidentally stepped into testing in 1991 when he was hired as a 'data collector' for a government software testing project. In the 26 years since, Ben has learned and applied his skills as a software investigator for companies large and small; spanning a variety of industries, including: defense, healthcare, finance, education, marketing, cloud computing, and more. Ben approaches software testing as a cognitively complex activity that requires critical thinking, an understanding of both people and technology, effective communication, and continuous learning.

# Morning Workshop - Day 2

10:30a - 12:45p

## Hands-On Web Application Testing

Come for hands-on feature exploration including Targeting and Scoping, Proxy, Repeater, Comparer and Custom Parameter Handler.

Get hands-on experience with the most widely used HTTP proxy for web application security testing. For this intermediate-level workshop, some HTTP/HTML knowledge is recommended. Participants will be provided with a Virtual Machine image. It is highly suggested that you download and install any requirements prior to the event. Ideally, they would already have the (free) Oracle VirtualBox software installed and a copy of the VM image downloaded - but these will also be available at the workshop. The hands-on features exploration segment will have participants interacting with a live testing/demo web application in real time. This workshop comes with residual value: participants can freely keep and use the VM image for future reference, or bring it back to their workplace to demonstrate to others.



**Chris Garcia**

Chris works as a software security engineer at Hyland Software, where he creates and delivers educational sessions, internal testing tools and frameworks, organizes corporate events surrounding information security, and works closely with the Development and Quality Assurance staff on improving their secure coding and testing skills. He uses BurpSuite daily for hands-on testing of Enterprise Web Applications.



**Márión Nepomuceno**

Márión works as a software security engineer at Hyland Software, where he creates and delivers educational sessions, internal testing tools and frameworks, organizes corporate events surrounding information security, and works closely with the Development and Quality Assurance staff on improving their secure coding and testing skills. He uses BurpSuite daily for hands-on testing of Enterprise Web Applications.

## Morning Sessions - Day 2

10:30a - 11:30a

### Creating and implementing a mobile testing strategy

As we mentioned, mobile testing presents unique challenges. There are trade-offs that you need to consider and choices that you need to make regarding the mix of different techniques and methods that will be used in mobile app testing. Each testing method you consider will have associated pros and cons, and you will most likely find that there is not a single testing method that is completely satisfying.

Instead, you will need to consider a testing strategy that combines different testing options, and as a whole provide the best overall testing result, balancing the trade-offs between cost, quality and time-to-market.

In this session, we examine various testing options for mobile applications while explaining the factors you need to consider when determining your testing strategy.

Finally, we will make some recommendations on how you can combine the various testing options to find the best overall strategy to fit your mobile applications.

This session is going to be a high-level discussion based on our experience defining a corporate mobile testing strategy, analyzed from the perspective of Balanced Scorecards (Financial, Customer, Internal process, and Organizational capacity).



**Guillermo Skrilec**

Master in Management of Technology Companies and Computer Systems Engineer from ORT Uruguay University.  
SQA Manager at GeneXus Consulting, responsible for the Testing/SQA area.  
Part of the Quality Management System process team, responsible for the definition and implementation of tailored processes for GeneXus.  
Quality System Manager from LSQA Quality Austria.  
ISTQB Certified Tester Advanced Level – Test Manager.  
Certified ScrumMaster.  
TestingUy organization team member.  
OWASP Uruguay chapter member.  
Main Judge at the Software Testing World Cup 2016 for South America.

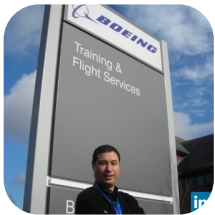
# Morning Sessions - Day 2

10:30a - 11:30a

## Your safety as a Boeing 777 passenger is the product of a 'big gaming rig'

Manufacturing and testing a full flight simulator poses several challenges: hard deadlines, highly regulated environment, high numbers of complex components, safety and legal concerns. Airplanes are manufactured at a faster pace — full flight simulators are no exception.

A fixed test plan cannot respond to the various incidents that will occur during the manufacturing, integration and testing of the device. Risk management and close collaboration with different departments are keys to success. Drastic changes in a simulator's design enabled a review of, among other things, some of the practices and processes. The first concept was to use a common policy to cover the new generation of flight simulators: test the right thing, at the right place, at the right time, using the right tools. Participation at hardware design sessions allowed early insertion of testing points at the frontier of hardware and software. Moreover, root cause analysis was used as a means of tackling recurrent issues, active participation in backlog grooming facilitated bug resolution, deployment of a semi-automatic testing system in manufacturing to distribute testing at appropriate locations, and the creation of a dashboard where both hardware and software tests progress to give project management a full picture. Some tests were moved to smaller rigs (desktop simulation) instead of the full flight simulator to free up some time, and testing was standardized and more objective using test automation. Reuse of pieces and bits of automated testing allowed the creation of an acceptance document in the form of a flight scenario matching aviation authorities' certification requirements.



**Alex Bauduin**

Alex is a 51 years old, world traveler. He worked in consulting firms, gaining experience in several fields (medical, manufacturing, aerospace, pay TV, data warehouse to name a few) in different countries (Switzerland, France, Spain, Canada...). His career started in the space industry where he discovered his passion for aerospace, working on both military and civilian projects. He was sometimes steered away from aerospace but ultimately, his passion pushed him to become an airline pilot, a way to really understand how those instruments he programmed and integrated were operating in a cockpit. One of his last challenge was to organize flight simulator testing into a lean manufacturing environment. His atypical scholarship allowed him to work with milling machines, draftsmanship, accounting and finance, software development, electronic design and industrial robots. Always fun for him to use an oscilloscope, an ARINC bus analyzer, step into assembly language or stall a Boeing 777!

11:40a - 12:40p

## Regression testing is to testing like a hamster...

There is an elephant in the room! Continuous Delivery requests test automation, yet the current GUI test tools have severe drawbacks: tests are costly to create and maintain, yet they are brittle, unreliable and incomplete. This is the reason that still only 28% of test efforts are automated — hardly what would be needed for Continuous Delivery. Maybe the problem is not the tools, but the automation approach itself?

The main effort in test automation is the codification of the assertions. This is also the reason test automation projects usually result in a second programming project with all the costs, traps and pitfalls of such and the legitimate question: who tests the tests?

If you forget what you learned and only think about what you really need, you will come to conclusions that are almost heretical. The result is an approach to testing, that vastly differs from anything seen before. Now it becomes way easier to create the tests and also to maintain them, with tests being both more robust and more complete. Are you bold enough to question the state of the art?

In this talk you will learn that 1) regression testing is not testing, 2) which wide-spread paradigm much better implements the requirements, 3) how you can use this approach to easily automate your testing efforts, 4) how AI can be used to almost fully automate testing and 5) what is left to be done by the tester.



**Jeremias Rößler**

# Morning Sessions - Day 2

11:40a - 12:40p

## How we tested Gotthard Base Tunnel to start operation one year earlier

Automatic train protection has parts on the rolling stock as well as on the track. It consists of both hardware and software. In this highly regulated field we also must comply with several standards, which the testing strategy had to consider. We applied some context-driven approaches to stay on the meaningful track. After five of nine years' project duration the customer had to accelerate the project one year. Thanks to our laboratory we were able to speed things up. After lab testing the testing focus switched to the field ¾ to the tunnel itself. Being on the locomotive performing the tests, a lot of processes and regulations must be taken into account. And, yes, in the end, it's about teamwork.



**Chris Glaettli**

My Name is Chris Glaettli and I'm from Switzerland. I'm in railway testing for over ten years. The last eight years as a test lead with up to 14 testers in the team for the Gotthard Base Tunnel. We've applied context driven testing in a regulated field. The lab testing was key for the project success and we succeeded in delivering one year earlier.

# Afternoon Sessions - Day 2

1:40p - 2:40p

## Explaining Testing with Exercises

A lot of test education is PowerPoint, even at CAST.

Yet we know that a disproportionate number of testers are tactile learners. We learn by doing, which is what makes many of us so good at exploration and discovery.

This class involves actual testing. Participants are immersed in a simulation that includes time pressure, uncertainty, and conditions of ambiguity with evolving requirements. After sharing our bugs, we reflect on what we have learned, discuss as a group, then provide enough instructors' notes for others to run the exercise at their home office.

We've been working on this simulation for two years. We use it for job interviews and in training. This particular version of the exercise has never been run at a conference in its current form, though we prototyped the exercise at TestRetreat in 2016.



**Matthew Heusser**

Matt Heusser is the Managing Director at Excelon Development. The lead organizer of TestRetreat, a former AST board member, co-author of "Save Our Scrum", Senior Editor for "How To Reduce The Cost Of Software Testing", winner of the Most Influential Agile Test Professional Person Award and Most Popular Contributor to Agile, Matt has spent his 20-year career dancing around quality while staying current as the field evolves.

## Building Tests to Build Websites

Technologies like Squarespace, Salesforce, Wordpress or WIX are extremely popular for those who want to create a working website without requisite developer knowledge. In this talk, I will explore how Salesforce uses Page Object Model patterns to test its Communities platform, which is used to develop websites for Salesforce users. Throughout the talk, we will explore how a multi-frame platform can be directly mapped to POM for Selenium Webdriver, and how the client side code is developed to support this pattern. The importance and complexity of these test frameworks is that it needs to be applicable for both platform and produced websites.



**Dmitry Vinnik**

I am a Senior Software Engineer at Salesforce, who has been passionate about software quality since the very beginning of my career. Started as a Quality Engineer, I was able to bring my test expertise into my current role of a software engineer, and ensure a delivery of a high quality product. My background involves studying Medicine, later transition into Bioinformatics field, and now being in a purely Software Engineering-centric area.

# Afternoon Sessions - Day 2

1:40p - 2:40p

## Technical Nomads: Stemming the Migration of Senior Talent

e now. What do you do with a technical resource when they have reached the senior level and want to continue growing? The only real answer to this question has long been that of joining the management track. Many technical resources, however, don't want to be people managers, handling resourcing, project management or politics. Instead, they get bored and take the next interesting job to come along, where they spend a couple of years, get bored and move on again. We've been creating an upper echelon of Technical Nomads.

We've implemented a Guru Career Track in our organization, giving senior resources a way to continue growing and gathering the three career R's: respect, responsibility and remuneration. This talk will discuss the implementation of the Guru Track and share some of the lessons we've learned getting there.



### Mike Hrycyk

Mike Hrycyk - has been trapped in the world of quality since he first did user acceptance testing 19 years ago. He has survived all of the different levels and a wide spectrum of technologies and environments to become the quality dynamo that he is today. Mike believes in creating a culture of quality throughout software production and tries hard to create teams that hold this ideal and advocate it to the rest of their workmates. Mike is currently the Director of Quality for PQA Testing, but has previously worked in social media management, parking, manufacturing, web photo retail, music delivery kiosks and at a railroad. Intermittently, he blogs about quality at [www.qaisdoes.com](http://www.qaisdoes.com).

# Afternoon Workshop - Day 2

3:00p - 5:15p

## Black Swans Wear Hoodies

As testers, we know bugs are often found off the happy path, yet we design personas emphasizing positive experiences. There's a darker path that can attract attackers to our software, and understanding the attackers' motives can help us find security bugs that may have otherwise eluded us. I'll share actual examples and guide you through a few exercises to help you think like an attacker.

### Key Learnings

Hackers are normal, everyday people.

Our design decisions influence the types of attacks our application will face.

Your corporate security team can be a great partner in test design.



### Josh Gibbs

Josh Gibbs is a security tester at Rackspace. He saw the need for modern application security while building network security monitoring systems for banks. The challenge of defending applications from complex, distributed attacks was all it took for him to make the jump to software development. You could say testing found Josh, and as he studied it, he learned he was always a tester but had never recognized his work as testing. Because of this, Josh strives to show everyone how they can be part of testing and learn to test better.

# Afternoon Sessions - Day 2

3:00p - 4:00p

## Session Based testing in an Agile project - Sessions I do during a sprint

When we start with a two-week sprint, I do not always start directly with execution of the test cases. The developers start their coding work. The tester starts with his preparation. As a tester, I start with the analyses of the user stories. The work I can expect. The next step is to gather information on what I have to do and what I need to come up with test ideas and a decent risk assessment. All this preparation work I document in session reports. It will help me to define the test cases I can start with. During my test execution, I observe what happens and write this down in my session reports. At the end of the sprint I sum up my work and give a recommendation to the stakeholders of all the user stories we completed.

In my talk, I will elaborate on the work I do as a tester in a two-week sprint. All is based on my own experiences. My goal is to give insight of what I do and hope to help people with their struggles.



**Simon 'Peter' Schrijver**

Simon is a very experienced all-round tester, who has worked since 1997 as tester, test coordinator and test manager. He has several years of experience using SBTM as a test approach. Since 2005, Simon works as an independent consultant. He visits annually at least two conferences and two training sessions to keep his knowledge up to date and where necessary, broaden/deepen his knowledge.

Simon is also an active member of TestNet and (co-founder) of the Dutch Exploratory Workshop on Testing. In these communities of enthusiastic testers he is active with peers and discuss with them on the testing profession to keep up to date and improve themselves .

## Reducing Risk When Changing Legacy Code

Do you work on a large product that's been around for a while? Are there dark corners and scary areas that no one wants to touch? Does everything seem interconnected in ways that no one fully understands? Do you have low, spotty or maybe even unknown automated test coverage? Do your colleagues talk about doing a "big re-write" or hiring an army of contractors to add tests in fragile areas? Does it feel tempting to attribute escaped defects to something like "there was no subject matter expert for the code we changed"?

If any of this sounds familiar, well, I'm afraid I don't have all the answers. However, my belief that there are ways to make changing legacy code safer has led me to conduct several experiments to help determine what the most effective tactics might be. Interestingly, although I am a tester, none of the investigations I have undertaken so far involved doing any actual testing. So no matter what your role is, join me to hear what I've learned about good and bad ways to approach risk mitigation strategies such as code stewardship, team shadowing, knowledge management, test coverage analysis and culture change.



**Tina Fletcher**

Tina loves being challenged every day to solve new testing, communication, and leadership problems. You're most likely to find her planning test approaches for new features, discovering ways to promote better collaboration between groups, or experimenting with techniques to help enable quality-focused development and decision making. Some of Tina's favorite projects to date have been helping D2L to go "all-in" on AWS, building Analytics applications in D2L's Brightspace learning platform, and leading the team responsible for testing BlackBerry Hub. Tina is currently a Senior Test Strategist at D2L.

4:15p - 5:15p

## Security and Testing: Why Red, Green, Deploy matters more than ever.

We get security into the pipeline by testing security, just like we write unit, integration, smoke and functional tests. Using the open-source Inspec testing language, we can bring these security controls into the testing pipeline and ensure that our build doesn't ship unless the system maintains its security posture.

We do that by treating our security controls like an integration test. Does the system actually comply with the rule? By doing so, we can automate this type of testing and we can put it into our pipeline. Once it's there, we can ensure that code doesn't move past until it clears these tests and eliminates a significant bottleneck to our velocity.

In this talk, I'll go over why we need to build security into our code pipeline, what doing so gives us for our velocity and security, and how we can generate reports with inspec to please managers, auditors and security teams.



**Galen Emery**

I am Galen. Just a self-taught geek out of Seattle. My professional life has been built upon automating everything I can. Currently I am the Federal Solutions Architect for Chef. I am responsible for helping the Federal Government, DoD and associated integrators move into the DevOps space. I currently live in Arlington, VA and am originally from Seattle, WA with a stint in Bozeman, MT. I have extensive experience in Windows, Cloud Migrations, Chef and Yak Shaving.



# Afternoon Sessions - Day 2

4:15p - 5:15p

## From 6 to 60: Our Scaled Agile Testing Journey

When the National Nuclear Security Administration (NNSA) Program Management Information System Generation 2 (G2) project launched in 2007, our executive sponsor stood in front of the project team and stated what we already knew: “I’m a very demanding customer. I know what I want. I wanted it yesterday. And I reserve the right to change my mind.” This talk will share our experiences in establishing testing as an integral part of the development process, how we focus testing on what matters and how we have come to think about processes.

Since the beginning of the G2 project, testers have come from one company and developers have come from at least three different companies, all working to server customers located at DOE headquarters, about 500 miles away. How did we set up testing and testers to help the project succeed? First, it’s the relationships. Good relationships meant we needed to spend time with customers and our developer teammates. We needed to understand their different worlds and find ways to bridge them. Second, it’s what we set out to do. We defined our role on the team. We wanted to know whether the end product really solved the business problem, and we wanted the customer to be able to make good business decisions. Testing is not the gate keeper; it’s a partner in the overall quality of the product and the end-user experience. Third, it’s about a process that lets people focus on what’s important and protects them from rash reactions under pressure. We learned that processes can be our friend. We devised processes to facilitate communication and build in transparency so we could deliver the highest-quality product for the longest sustained time. People are accountable to the process, and the process protects people. We can break the rules, but the process requires we do it with our eyes open. When the process stops working, we change it.

In 2007, the G2 project launched with one scrum team of six people serving one NNSA program: the Global Threat Reduction Initiative (GTRI). Over the past ten years, the project has grown into an enterprise solution developed by a team of over 60 people divided into six scrum teams serving six NNSA programs. The original application helped the GTRI program to grow from approximately \$95M of nuclear non-proliferation projects to nearly \$400M in less than three years without adding any additional federal staff. Today, the G2 system integrates existing Headquarters and Laboratory scope, schedule, more than \$2B of annual budget and metrics information at the project level, creating a single repository of participating program data and providing execution-level modules for management oversight, data collection, analysis and tracking. Users can access the massive data set collected through GIS graphical representations, on-demand reports and business intelligence capabilities. Throughout the G2 project’s entire life, Acato has served as the sole independent test team. In 2010, the project was the first federal project to be recognized by the Project Management Institute as Project of the Year, and the Acato team’s approach to software quality was cited as a key reason for the award. The project was more recently recognized by the National Defense and Industrial Association (NDIA) for Enterprise Information with a 2015 Excellence in Information Award, and by NNSA with a 2015 Excellence Award from NA-50.

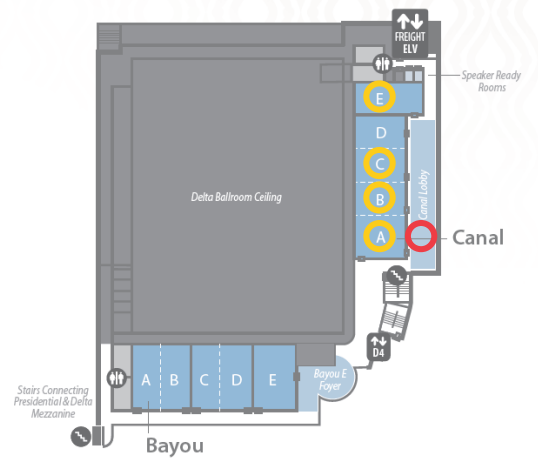
Our talk will share the history of this project, the challenges we faced and our current processes.



**Cathy Toth**

For more than 20 years, I’ve combined engineering and analysis skills with innovative approaches and attention to detail to help my customers succeed. I started Acato Information Management, LLC in 2010, a company specializing in Software Quality Assurance in an effort to provide the best service for our customers and to provide a great place to work for our employees.

## Map

Delta Mezzanine  
& Delta Island Meeting Rooms

- Sessions
- Meals
- Breaks

