December 2016

Specialist Group in Software Testing

THE TESTER

SIGiST Winter Conference Wednesday 7th December 2016

59

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From the Editor

Welcome to the ***SIGiST*** and ***The Tester*** for the last time in 2016. The Winter conference is almost upon us, and again, what a great line-up we have. Along with our usual mix of internationally-renowned speakers and practitioners with high industry experience, we have our new speakers, as part of the SIGiST mentoring programme. Come along and support them, or sign up as a new speaker for next year - Challenge yourself!

Sponsored by Test Partners, subjects covered on the day will include Agile and Performance Testing; Seamless Integration - the challenge of Heathrow Airport; challenges for Test Managers in changing times; and Technical Challenges for 2017…. There will also be a very hands-on workshop on Test Case Design.

Did you miss our BCS SIGiST conference in Manchester in April? "***Northern Lights***", is back! A one-day event is planned for **Leeds** in February 2017. See page 17 for details. Plans are also in place for another Manchester event in 2017.

Phill Isles
The Tester Editor
phill.isles@bcs.org

Conference Booking Instructions

To register online, please use the link below, or scan the QR code with your smart device. Please note the BCS booking system accepts multiple and third party bookings.

https://events.bcs.org/book/2116/

Join our Linked-In Group:

http://www.linkedin.com/groups?mostPopular=&gid=3466623

Follow us @SIGiST

Conference Agenda

BCS SIGiST – Winter 2016 Conference – Wednesday 7th December 2016
BCS 1st Floor, Davidson Building, 5 Southampton Street, London. WC2E 7HA.

Challenge yourself!

Time	Session	
09:25	***Welcome – Geoff Thompson, Vice Chair, SIGiST***	
09:30	Keynote ***"Agile and Performance Testing"? A Contradiction in Terms?*** Mieke Gevers AQIS	
10:30	*Networking Session – Jen Wheeler, Networking Secretary, SIGiST*	
10:45	Coffee , Tea & Refreshments	
Morning	**Presentations**	**Workshop**
11:15	**New Speaker Mentoring Scheme 2016** • ***"Automated Testing - What I have learned (The Hard Way)"*** Andy Shaw • ***"Testing: The Scenic Route"*** Cassandra Leung • ***"The first 6 weeks, managing a team when you feel like you know nothing!"*** Gwen Stewart • ***"The Agile Cycle"*** Tunde Oduniyi	***Test Case Design – by doing it*** Dr Stuart Reid
12:30	Lunch in networking area Soap box sessions – on the day 5 mins each **Videos or Vendor presentation in main room 12:50- 13:20**	
Afternoon	**Presentations**	**Workshop**
13:30	***Seamless Integration: the challenge of Heathrow*** Bob Stickland IT Programme Leader T3/T5 IT Systems & Operational Integration Leader, Heathrow	***Test Case Design – by doing it (continued)*** Dr Stuart Reid
14:15	***Challenges for TMs in changing roles*** Steve Watson, Test Manager Reed Business Information	
15:30	Coffee, Tea & Refreshments	
16:00	*Keynote* ***2017 – The Technical Challenges Ahead*** Antony Marcano	
17:00	***Close - Geoff Thompson, Vice Chair, SIGiST***	

The SIGiST committee reserves the right to amend the programme if circumstances deem it necessary.
Workshops will have limited places.

Conference Sponsor

Test Partners

Test Lab & Consultancy Services

Whether you're looking for a turnkey testing service or flexible resourcing to support your own testing team, Test Partners' Consultancy division and Test Lab in central London can provide all the testing resources and facilities you require.

Test Lab

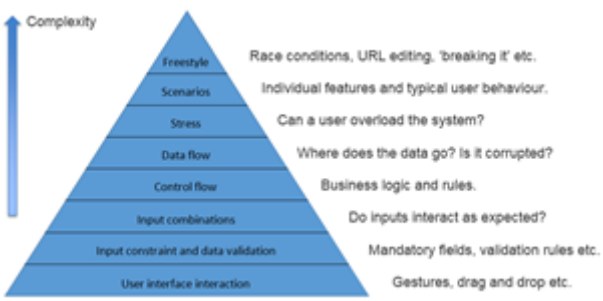
Our Test Lab in central London is designed to respond rapidly to testing requests, efficiently handling projects lasting from a few hours to many years.
We can support any development methodology, from waterfall to agile and can ramp the team size up and down as required.

Exploratory Testing

Since 2001 we have been the UK's leading exponents of exploratory testing and have developed a unique approach that is far more efficient and effective than scripted testing.



From our "building blocks" to our 8-layer testing model, everything we do is driven by the context of each project, to maximise efficiency.



Consultancy

Our Consultancy division supplies experienced test resources and proven processes to provide you with information about the quality of your software via on-site services including:

- Test Process Review / Health Check
- Strategy and Planning
- Test Management
- Test Analysis, Script Development and Execution
- Test Automation & Regression Testing

Compatibility Testing

- Our comprehensive Compatibility Testing Lab facilities include a wide range of Windows and Mac hardware and software to enable testing on every end-user environment you could want.
- Every Microsoft and Apple operating system and service pack since 1995.
- Every version of popular browsers such as Internet Explorer, Firefox, Safari, Opera and Google Chrome.
- Every version of major plug-ins such as Flash Player, Shockwave, Adobe Reader, Windows Media Player, .Net Framework etc.
- Nearly 100 mobile devices.

Accessibility Testing

We offer a comprehensive range of accessibility testing and consultancy services to support development projects from concept through to launch and maintenance.

- Concept review
- Wireframe review
- Creative design review
- Template (WCAG) testing
- Expert review with assistive technologies
- Final (WCAG) testing
- User testing with disabled participants
- Automated testing

BS8878 Accessibility Governance



Our BS8878 governance programme is ideal for clients wanting to achieve and maintain the highest level of website accessibility.



Accessibility Training

- JAWS Screen Reader Training
- WCAG Testing Training
- Accessibility Training for Project Managers

UX Lab Hire

Situated in the centre of the City of London, our purpose built user testing study lab and observation room are available for hire.





The study lab has a top-end PC with microphones and cameras, while the observation room is a comfortable environment in which to watch the testing.

London Open Device Lab

The Open Device Lab is a free facility for testers and developers to come and test the layout and behaviour of their mobile apps and websites on all our mobile devices.



We've got about 90 phones and tablets including all the popular Apple, Samsung and Google Nexus models. To make a booking, please email odl@testpartners.co.uk

Find us on Procurement Portals

G-Cloud
www.digitalmarketplace.service.gov.uk/g-cloud/search?q="Test+Partners+Ltd"

Ariba
discovery.ariba.com/profile/AN01011471333

www.testpartners.co.uk
0800 612 2780
enquiries@testpartners.co.uk

Visit our stand at the SIGiST conference
Wednesday 7th December 2016

SIGiST Conference Venue

The December 2016 SIGiST conference will be held at the BCS London office. Travel details and location below.

London office guide

How to get to the BCS London office

First Floor
The Davidson Building
5 Southampton Street
London WC2E 7HA

Telephone 01793 417666

These area and inset maps have been simplified in the interests of ease of understanding. Not all roads are shown. The inset map below is more accurate.

Access by car is very difficult due to the local one-way system. There are no car parking facilities at BCS London. The nearest car park is located on Drury lane, Parker Street, Parker Mews, London, WC2B 5NT.

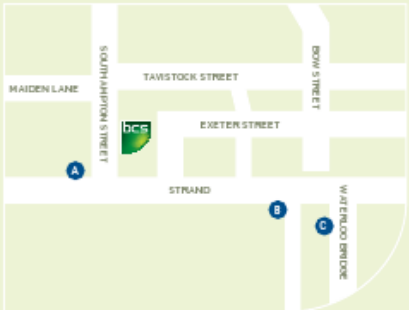
The rear door in Exeter Street is to be used for deliveries only and is normally locked.

The main entrance is fully accessible to wheelchair users and should be used by all staff and visitors.

On arrival, report to the Davidson Building Reception who will direct you to the first floor.







Travel tips from major London stations

Charing Cross – 6 minutes walk

Waterloo – 12 minutes walk across Waterloo Bridge, or buses 139 or 176 to Stop Ⓒ

London Bridge – onward rail link to Charing Cross

Kings Cross or St Pancras – Piccadilly Line to Covent Garden tube, or bus 91 to Stop Ⓑ

Euston – West End Branch of Northern Line to Charing Cross, or bus 91 to Stop Ⓑ

Victoria (rail and coach stations) – Circle Line to Embankment, but the most direct journey is via bus 11 to Stop Ⓐ

Paddington – Circle Line to Embankment or Temple, Bakerloo Line to Charing Cross or buses 15 or 23 to Stop Ⓐ

Liverpool St – Circle Line to Embankment or Temple, or buses 11 or 23 westbound

Fenchurch St – Walk to Tower Hill, then District or Circle to Embankment

Presentation Abstracts and Speaker Biographies

Opening Keynote



Mieke Gevers, Aquis

"Agile and Performance testing"? A Contradiction in terms?

Does performance testing fit into an agile world? If so, where should it be?

In Agile software development, an iteration (called a sprint) is a single development cycle, usually measured as one week or two weeks. Traditionally, Performance Testing starts off with Unit testing (if not before) and ends with the UAT-user acceptance test (if not later).

The questions that we should ask ourselves are: "What are the challenges, pros and cons of running performance tests within an Agile development cycle?", "Does it make sense to unite agile approaches and performance testing?" and "Can performance testing help organisations to develop higher quality software in less time while reducing development costs?"

As a senior test engineer, performance engineer and automated tools specialist, Mieke will share her experience with you, including her reflections, insights and challenges when doing performance testing within Agile projects. Learn from someone who has been there, done it, faced the challenges. Mieke will share insights and lessons learned from recent projects doing performance testing in an Agile environment.

***Mieke** has been in the IT industry for 22 years and is managing director at Aqis. She is a Bachelor of Computer Science and started her career as a software developer, later moving on to various positions as analyst, project manager and, ultimately, QA Manager for several different companies in the Benelux region and Germany. Until November 2006 she was with Segue Software, Borland for more than eight years rising from Technical Sales Engineer, Technical Manager, EMEA/APAC, Alliance Architect EMEA/APAC to Solution Architect, EMEE at Borland.*

Having developed a special interest in the techniques and processes related to test environment management and the impact of environmental factors on automated testing, she has been working with different automatic testing tools, specialising in performance testing and monitoring. She remains a practical, hands-on technical tester, working at the coal-face of projects.

Mieke is a regular speaker throughout Europe, the United States, Asia and Australia. She was a member of the programme committees for EuroSTAR's 2007 & 2009 & SEETest 2009 and she is currently Program Chair of Belgium Testing Days, 2011-2016. In 2006, she co-founded "the Belgian Testers Organisation" and she is board member of KVIV and BNTQB and the International Representative at ISTQB.

Closing Keynote



Antony Marcano, RiverGlide

2017 – The Technical Challenges Ahead

Technology seems to be advancing faster than ever with ever-increasing variety. New technologies interact with each other creating emergent and hard-to-predict behaviours. Mainstream testing is unlikely to suffice in a technological landscape that is becoming increasingly complex. From connected climate control devices in our homes to autonomous vehicles – much is crossing the chasm from the early adopters into the early majority…

More of us will face new, exciting, and potentially overwhelming challenges as a result. In this talk, Antony explores what these challenges will be in 2017.

Antony Marcano *has over 20 years in technology and is co-founder of RiverGlide – an innovation and agile product development consultancy. He spends as much time as a practitioner as he does as a coach, consultant or trainer, sharing his experiences with the community in various ways: including as a contributor to books such as Agile Coaching and Agile Testing, with references in Bridging the Communication Gap, and Software Craftsmanship Apprenticeship Patterns. His work in the community continues as a regular guest speaker to post-graduates in Software Engineering at Oxford University and as a regular speaker on agile development & testing at international conferences.*

Morning Track Session

Short talks by New Speakers

The BCS SIGiST New Speaker Mentoring Scheme provides testers who wish to start public speaking with an experienced mentor who guides them in abstract writing, preparing a presentation and delivering a short talk. Being able to present to an audience is skill useful to all testers. Our four mentees this year are Andy Shaw, Cassandra Leung, Gwen Stewart and Tunde Oduniyi.

Andy Shaw

Automated Testing - What I have learned (The Hard Way)

In this presentation, Andy Shaw talks about some of the automated testing that he has undertaken, the challenges that he (and others) face when automating tests, and understanding how automated testing can add value to software testing.

The automated tests were created for a Geological software system, where there were no tools that were directly applicable, so he had to approach the automation in a different way. Andy explains what worked and what didn't work, and what he learned from these challenges, as well as the successes achieved with the automated testing.

He concludes by explaining how the automated testing has added value, and gives advice and guidance about the questions to ask when looking to automate tests for a software, mobile or web based system.

***Andy Shaw** is a Software Testing Professional, gaining experience in software development, software support, focusing on a career in Software Testing. He graduated from Sheffield Hallam University and has worked in different companies including Total Systems Plc, EDS, Hewlitt-Packard, Schlumberger and currently works as a software tester in DBIS.*
He is actively involved with the British Computer Society, mentoring professionals embarking on a career in the IT Industry, including students, young professionals, women and people with disabilities, and is a Young Professionals Group representative and the Vice-Chair of the South Yorkshire BCS branch.
He continually develops his knowledge and experience of software testing, the IT industry and the different industries he has tested software for, including Defence, Geology and the Cargo and Shipping Industries.

Morning Track Session

Short talks by New Speakers

Cassandra Leung

Testing: The Scenic Route

How do you become a tester? How do you test software? How do you find bugs? Are these questions to which one can provide straight-forward answers? Are the straight-forward answers the best? In this session, our speaker will share how having a career in the recruitment industry has allowed her to become a better tester and build valuable relationships with users – and a rather unusual relationship with her CEO. We'll consider the importance of scrutinising existing features in the product, using feature improvements as an opportunity to do so, and how failing to do this could mean uncovered risk to the business. We'll also look at other aspects along the "scenic" development lifecycle and how taking the time to explore these can contribute to improved software quality.

Three Key Points:

- A career before testing brings value and insight
- Existing features can harbour risk to the business
- The end isn't enough - the journey matters too

Cassandra's *official job title is UX Ninja; this encompasses her many responsibilities, including testing, UI design, requirements gathering and representing users. Having had a career in sales and recruitment and now working at a recruitment software firm, user experience is always on her mind when testing and making product decisions. Cassandra aims to use her past experiences to help make positive, user-focussed decisions, and share her new experiences with others in the testing community.*

Morning Track Session

Short talks by New Speakers

Gwen Stewart

The first 6 weeks, managing a team when you feel like you know nothing!

Imagine the end of your first week in a new job. You've found out where the coffee is, you've got a “new to you” desk / laptop / view and you can nearly remember everyone's names. You've seen how the team is working, found out the things they didn't tell you in the interview and answered too many questions with some variation on "I'm new here, what do you think?"

Gwen will reflect on this:

> “So at the end of that week I'm thinking, what now? I've realised that the people asking my opinion on prioritising that exciting looking bug know much more about it than I do. There hasn't been anyone in my role for 6 months and things look fine, in fact better than the place I just left. I'm never going to learn ALL those TLAs! Everyone else seems so much cleverer than me. In fact, why am I here at all?”

In this talk Gwen would like to share her experiences of dealing with the first few months in a new role, some tools that she finds useful and some tips for dealing with the feeling that you are an imposter.

***Gwen** has been working in IT for the last 19 years with 12 years as a test manager. In that time, she has moved from working on waterfall legislative projects to agile projects for a range of e-commerce and digital broadcasting companies. Specifically, she's worked on a number of large, integration projects and had to transition from how these work in a V-model structure to fit to agile and CD practices. She's passionate about IT and although 4-5 years ago she would have said that she was passionate about testing, she'd now say, based on her agile experiences that she is passionate about software delivery. Currently working at the BBC as QAM for myBBC personalisation services, she still manages to get hands on with testing though and says that is the best part of the job.*

Morning Track Session

Short talks by New Speakers

Tunde Oduniyi

The Agile Cycle

For a child, learning to ride a bicycle is a leap into the unknown; a magical mastery of control if accomplished without any bruises, can be a liberating experience. It's no easy feat getting steady on the bicycle pedals hanging between two rotating wheels. Mastering cycling basics can put pressure on a child. Cycling is simply utilizing body weight movement and small manoeuvres of the bicycle handlebars in and out of turns this is
similar to walking which consists of small falls counteracted by constant regulated recoveries. The world of Agile is similar to bicycle-riding in that it takes time to get things right, just like the mastery of any process or skill. The learning process involves failing, re-learning and ultimately creating a winning formula which evolves beyond textbook practices in order to develop into a highly functional team. This presentation aims to introduce Agile methodology through the lens of learning to ride a bike.

***Tunde** is a Quality Assurance Engineer with experience in overseeing the development process of e-commerce web and mobile applications in the retail and payments industry.*
Tunde is passionate about all things mobile and disruptive technologies. and loves getting involved with the community. He is here today to introduce us to Agile.

Thank you to this year's New Speaker mentors, Dot Graham, Julian Harty, Graham Thomas and Mieke Gevers, without whom the scheme would not have been possible.

The New Speaker Mentoring Scheme 2017
opens for applications shortly after the December SIGiST

Workshop



Dr Stuart Reid

Test Case Design - by doing it

Workshop is in the morning 11:15 – 12:30 and continues in the afternoon 13:30 – 15:30

Test case design is a fundamental skill for a practicing tester. It requires the tester to move from an infinite number of possible tests to a tiny subset which can be managed in the all too finite timeframe of a real project. The secret is to select the most effective subset that will give you the most information about the software under test. This is the challenging, skilful and intellectually-demanding task of effective test case design.

This short workshop provides a new way of learning about the most popular and useful test design techniques. It is highly interactive, allowing attendees to gain practical experience in creating and executing test cases, while learning from the experience of the instructor and each other. However, the special ingredient is that for each technique covered, attendees will be able to actually execute their tests against real programs specifically created for this course, which will provide immediate feedback on how 'good' your tests are.

To get the most benefit from this workshop, you should bring a laptop so that you can run your tests on actual software (so you need the ability to load software on the machine).

Three key points:

Understand the basics of the most popular test case design techniques
Learn how to design test cases by actually doing it
Get immediate feedback on your tests from the programs under test

Stuart Reid *is Chief Technology Officer at STA Test Consulting & CONKRIT, working about a third of the year in Korea. He has over 33 years' experience in the IT industry, working in development, testing and education, and has a PhD in the area of test case design. Application areas range from safety-critical to financial and media. Stuart supports the worldwide testing community in a number of roles. He is convener of the ISO Software Testing Working Group, which developed the new ISO 29119 Software Testing standards, and founded the International Software Testing Qualifications Board (ISTQB) to promote software testing qualifications globally*

Lunchtime sessions

We have several bonus sessions during lunchtime, 12:30 to 13:30.

Vendor presentation

In the main room from one of our sponsors.

Birds of a feather session 1: improve your networking

As requested by SIGiST delegates, a chance to improve your networking skills and discuss how to get the best of SIGiST meetings (facilitated by a SIGiST Committee member).

Birds of a feather session 2: making do with what we have

As requested by SIGiST delegates, a chance to discuss tactics for dealing with traditional organisations, and how to work well with the tools, methods and structures that we have, Share experiences and ideas (facilitated by a SIGiST Committee member).

Have your say / soap boxes.

Depending on demand, we hope to run a “soap box” at lunch time – 5 minutes to share an idea in the networking area. Bring your idea and take your turn.

Afternoon Track Session



Bob Stickland

Seamless Integration: the challenge of Heathrow

Bob will present the challenges of working at Heathrow and the approach used to balance the testing of systems, people and process within the highly critical multi-vendor environment.

> "There is no BaU at Heathrow, every day as its own challenges for our Operational teams and the supporting functions, including IT. Change is the 'norm' in this high availability public facing organisation. Having worked in the airline industry for 20 years my focus goes beyond standard IT testing to provide integrated systems that support our operational trails and people training.
>
> With the introduction of a brand new terminal 2 in 2014, a fabulous state of the art integrated baggage handling system in T3 in 2015 we are working ever harder to provide integrated, tested and proven IT systems that support our operation, airlines and passengers. Only by truly focusing on making every journey better can we achieve our vision of providing the best airport service in the world."

Three key points:

- Collaboration with Project teams & Stakeholders
- Introduce new technology with consideration
- Focus on Outcomes & not the Technology

***Bob** is an IT Programme Leader with over 25 years of experience in IT and delivery large infrastructure change projects and programmes.*

His role is to ensure the successful outcomes of infrastructure change programmes at Heathrow across all the terminals and works as part of the IT Programme Delivery leadership team. He is also accountable for Test Assurance across all IT projects and has a passion for systems and operational integration.

Business change is more than delivering a new IT capability that has been through testing, that is just brilliant basics. To maximise the benefits from Day 1 systems need to be tested with our people, process and environment ensuring all inter-dependencies are careful thought through, tested, trialled and executed. The purpose of seamless integrated is to provide 'quiet' go lives into our terminals.

A chance to cast your mind beyond the absolute requirement of systems testing and think about the seamless integration of environment, process and people supported by quality tested and reliable IT systems.

Afternoon Track Session



Steve Watson

Challenges for Test Managers in Changing Roles

Steve will present and lead a discussion on the challenges for test managers.
Be ready to contribute and learn from each other!

"I have been in testing for 28 years and a Test Manager for over 8 years of my long career. The talk over the past few years about the future of Test Managers in an Agile world has been both interesting and alarming as I may have worked my way up to a role that will no longer exist in 5 years!

I was given the opportunity to try something different alongside my TM role in 2015, and I grabbed the opportunity, even though it took me outside of my comfort zone. I want to share my experience of delivering a brand new product to market, despite having no track record in this area, the lessons I learned, new skills developed and old skills sharpened.

We will have an open discussion about the Test Management skills we possess that could help us diversify into other roles, and about possible career paths for existing Senior Testers and Lead Testers."

Three key points:

- Change is inevitable – so be prepared.
- Identify the skills you have that can be transferred to other roles, and skills you need to develop.
- Be open minded about other possibilities where a testing background can be advantageous.

***Steve** is an ISTQB certified test manager with over 28 years of experience in Banking, Futures & Options Trading, Vehicle Leasing, Automotive Information and B2B publishing. His role combines being a Test Manager with Product Management for a leading brand within Reed Business Information, part of RELX, a FTSE 100 company. He manages a team of 9 permanent testers, directing the overall testing strategy and approach across a number of projects.*

Within RBI, he co-runs a 'QA Chapter' bringing 60 global testers together from different RBI brands to encourage knowledge sharing. Externally he speaks at conferences, assists with Test Management Forums, writes magazine articles and blogs here - http://stevethedoc.wordpress.com/. In June 2014 he was a 'Topic Guru' at the Next Generation Test Conference. In April 2016 he presented a session on Diversification for Test Managers at the UKTMF.

With 8 years Test Management experience, he has first-hand experience of diversifying his role to pick up Product Management alongside testing responsibilities, so this session is a case study and discussion. This is an opportunity to look at the future for those in Test Manager roles or for Senior Testers looking at career progression. What is the future for Test Managers? What challenges are we facing? How can we diversify our roles into other areas and use our testing skills? These are some of the discussion points that will be covered in Steve Watson's session.

SIGiST White Paper Scheme

We have set up an area on the BCS website of a searchable repository for white papers and articles on testing and we are looking for contributors. That means you!

Do you have an existing paper you would like to repurpose and make more widely available through the SIGiST website?

- Then please send us the paper with three keywords for searching.

Would you like to write a new paper?

- Please send us the title and abstract together with the three keywords (or phrases)
- We will review the proposal and guide you through the authoring process
- For those who are thinking of speaking at SIGiST then this might be a good way to prepare a talk and get some useful feedback

If you have been thinking of writing or publicising an existing paper then this is the ideal opportunity. Please email your existing paper (with keywords) or your proposal to The Tester Editor, phill.isles@bcs.org

Past articles from The Tester will slowly be added to the repository as well.

Follow this link to the repository: http://www.bcs.org/category/18128

Write an article

We are always on the lookout for new content, so if you have a testing story you would like to share, a test technique you would like to evangelise or testing research you would like to publish, then The Tester is the place to do it. Simply email the Editor on phill.isles@bcs.org

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BCS West Yorkshire and BCS Specialist Group in Software Testing Proudly present the Leeds "Northern Lights" Conference Thursday 9th February 2017

In association with the BCS West Yorkshire Branch, the SIGiST is bringing its successful full day conference programme to the Leeds Marriott, on Thursday 9th February 2017. To book this conference go to https://events.bcs.org/book/2332/

Conference Programme

Time	Topic, Speaker, Affiliation
08:30	Coffee, registration and informal networking
09:00	Welcome from **Stephen Allott**, BCS SIGIST committee
09:15	A not-so Unexpected Journey: end to end Healthcare Testing, **Monica Jones**, MD Animo
10:15	The 4th Industrial Revolution and Smarter Testing, **Dr Stuart Reid**, CTO STA Testing Consulting
11:15	Coffee/tea and networking break
11:45	Agile Testing: Challenges still to be conquered, **Pablo Garcia**, CEO Quality Point, Sweden
12:30	Lunch
13:30	Blunders in test automation, **Dorothy Graham**, Software testing consultant, speaker and author
14:15	Is automating mobile testing pointless? **Thomas Crabtree**, Head of service introduction, Ten10
15:00	Coffee/tea and networking break
15:30	To infinity and beyond . . . **Chris Ambler**, Independent
16:00	Meet the speakers – informal networking and Q&A
17:00	Summary and close, **Stephen Hill**, BCS SIGIST committee

Please note:

Many sessions are designed to be interactive and audience participation is encouraged.

The committee reserves the right to alter the speakers, topics and timings for operational reasons on the day.

Conference Venue

Leeds Marriott Hotel, 4 Trevelyan Square Boar Lane, Leeds, LS16ET.
www.LeedsMarriott.co.uk



EuroSTAR Conferences is delighted to announce the launch an exciting new software testing conference!

UKSTAR Software Testing Conference will take place in the iconic County Hall, Westminster London from 27th – 28th February 2017.



EuroSTAR held it's first testing conference in London in 1993 and now, 24 conferences later…we are thrilled to be returning to the British capital.

This new conference will featuring two jam packed days of insightful workshops, world class keynotes, awesome presentations, lively discussions, a buzzing Expo, welcoming social events and more. Don't just take our word for it….first off lets meet our Keynotes…….



And you can take a look at check out the full line up of superb speakers here

If you are looking for a conference that will give you a **warm and fuzzy feeling** about the true craft of software testing; a conference that **motivates** you to be the very best tester you can be; a conference where you are surrounded by **peers** in an **open welcoming forum**, where every opinion is valid and **every opinion counts**; a conference where you can **speak to experts**, learn and engage, upskill, gain **new perspectives**, take home **new ideas** and leave with feelings of **excitement** and a collection of **new friends** – **then this is the conference for you!**



UKSTAR is delighted to be working in partnership with the BCS SIGiST. And we are offering **SIGiST members a 10% discount off UKSTAR tickets!**

Simply use the code **bscss-091** when booking!

We will also be giving away a free two day ticket for UKSTAR at the next SIGiST Winter Conference on Wednesday 7th December 2016. Don't miss out – we hope to see you there!

For further details on UKSTAR see our website ukstar.eurostarsoftwaretesting.com. For queries please email info@ukstarconference.co.uk

Crowdsourced Testing

Elizabeth Mathew,
UST Global

Abstract

Digital transformation has resulted in redefining how quality assurance is performed in the Industry today. The abandonment rates of digital consumers have increased significantly in the last couple of years due to poor customer experience and failure to understand the end customer needs. Customers have become less tolerant to poor quality and also expect a channel agnostic experience in their digital journey. It is important to understand consumer sentiment proactively and accurately to ensure that we provide a world class experience.

A common challenge in today's industry is to cope with the dynamic nature of rapidly changing technology and device landscape and this has a direct impact on test coverage and quality. Crowdsourced testing will help you to reduce the capital investment in procuring mobile devices where we would leverage our testing and domain experts to carry out testing of mobile applications. The approach enables you to reduce the time to market as defects are identified faster and also helps you achieve wider device and test coverage for testing. The whitepaper details about UST Global's point of view on how crowdsourced testing can be leveraged to achieve speed to market and improve the overall quality of applications.

What is Crowdsourcing?



"Taking a service traditionally performed by a person or team and sourcing it to a large online group of people as an open project." Jeff Howe Author of "Why the Power of the Crowd Is Driving the Future of Business"

Crowdsourcing is defined as the "practice of obtaining required services, ideas, or content by soliciting contributions from a large group of people and especially from the online community rather than from traditional employees or suppliers. The two words "Crowd" and "Outsourcing" were combined to generate the term "Crowdsourcing". The approach helps you to receive an

improved quality result by in a faster way as a huge crowd with variety of skills, perceptions and ideas.
Jeff Howe and Mark Robinson, editors at Wired Magazine, coined the term "crowdsourcing" in 2005 during their conversations about “How businesses were using the Internet to outsource work to individuals” and they came to a conclusion that what was happening was like “outsourcing to the crowd," which quickly led to the portmanteau "crowdsourcing”.

A great example of crowdsourcing is the Internet site Wikipedia. Instead of investing lots of money to create an encyclopedia, the founders of Wikipedia created a platform where anyone could contribute and edit the content. Wikipedia is open to everyone and is a prime example of how to harvest through crowdsourcing and the degree of success possible.

Crowdsourced Testing

“Crowdsourced Testing”, is emerging testing methodology which exploits the benefits, effectiveness, and efficiency of crowdsourcing. It’s an approach of leveraging a large crowd from the organization/online community to perform in real world testing of mobile applications/websites on need basis to improve quality, achieve speed to market and reduce Cost”.

Crowdsourced testing is not replacement for the traditional testing but it is an alternative to accelerate defect identification and also provide wider device coverage for testing. Crowdsource testing puts the software to test under real world conditions by users’ in order to get a real perception, feedback of the application and to identify defects quickly.

Gartner’s view on Crowdsourced Testing

“By 2018, crowdsourcing will constitute 20% of all enterprise application development sourcing initiatives.”

“Estimates $50 million to $75 million spend on crowd testing in 2015”

Crowdsourced Testing is can be used for functional testing of mobile and responsive website. Besides functional testing, crowdsourced testing can be extended for usability, performance, localization, and compatibility testing. Crowdsourced testing can be performed using two types of Crowd: Public Crowd and Private Crowd. In case of public crowd, the testing will be outsourced to the people outside the organization i.e. the online community. In case of private crowd, testing is performed by the employees who are part of the organization.

Some of the service providers that offer crowdsourced testing services are Applause, 99tests, Bugcrowd and Bugfinder.

Approach for Internal Crowdsourced Testing

First step involved in Crowdsourced Testing, is to identify a crowd curator. The crowd curator is responsible for the overall delivery of the service and acts as the liaison between service requestor and participants. The crowd curator sends out invitations across the organization in order to identify associates who interested to participate in crowdsourced testing. Basic

information such as years of experience, domain knowledge, location, language skills and device details are collected as part of registration. Whenever there is an application that needs to be crowd tested, the crowd curator collects information such as type of application, type of testing, project documentation, OS support, Browsers support, device support etc. from the requestor. The crowd curator shortlists the associates for the crowdsourced testing cycle by matching the application details with the registered users database and sends out invitations to participate in the testing cycle.

A detailed walkthrough of the application is provided to the participants. During the course of testing cycle, participants tests the applications and logs the defects in the defect tracking system. At the end of test cycle, the crowd curator reviews the defects and prepares a Test Summary Report. The test summary report is then shared with the requestor and the requestor is billed based on a pay per defect model. Participants are awarded points based on the severity of the defects or provides with gifts based on number of defects logged or the best defect.

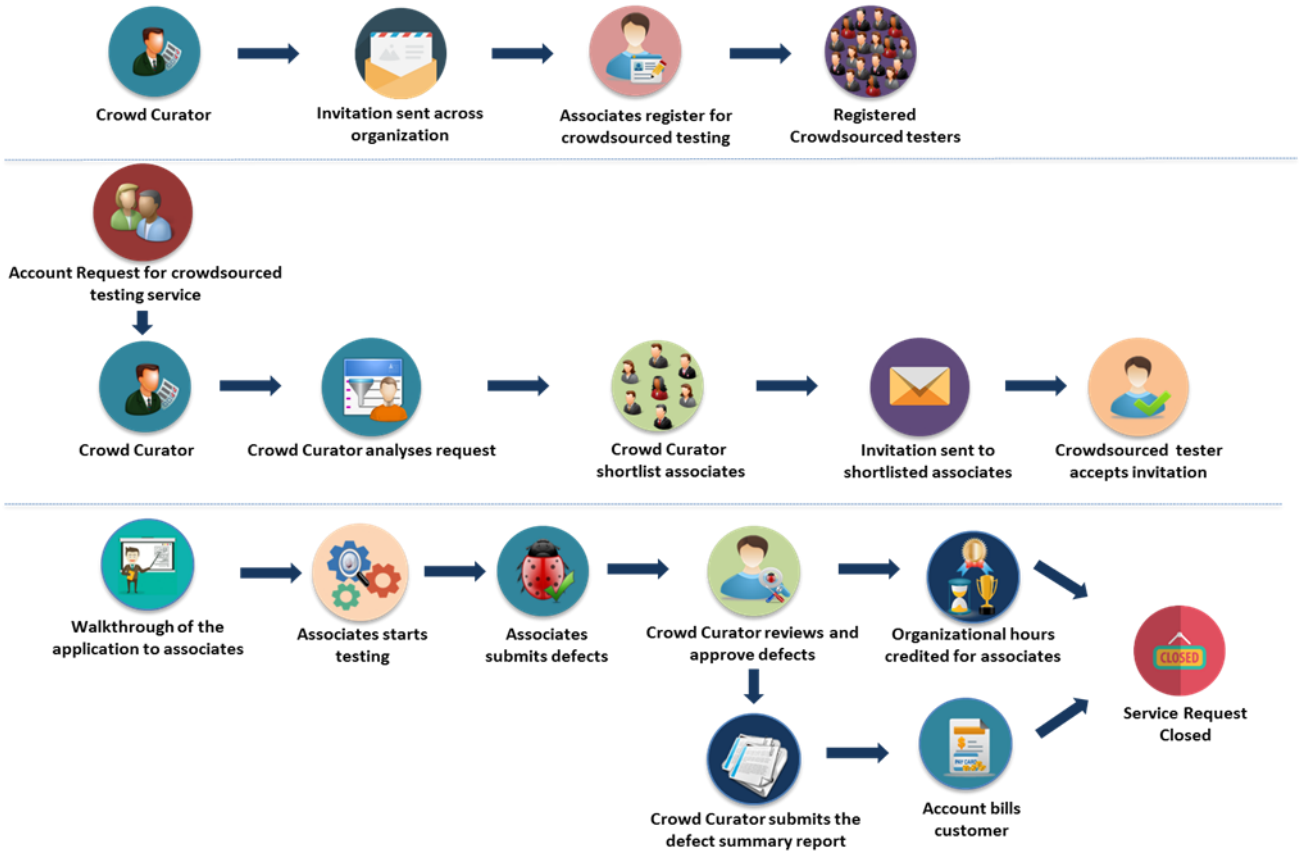

Figure 1: Internal Crowdsourced Testing Approach

Crowdsourced Testing Maturity Levels

The most suited approach for implementing internal crowdsourced testing is by adopting a phased approach. There are there levels of maturity that can be defined and each of the levels can be achieved in a time frame of 4-5 months. The Level 1 maturity level is basically *ad hoc* where no formal processes are followed. Level 2 consists of standardizing processes whereas Level 3 focuses on more on tools, rewards and commercial models. The details of the three levels are provided below for reference.

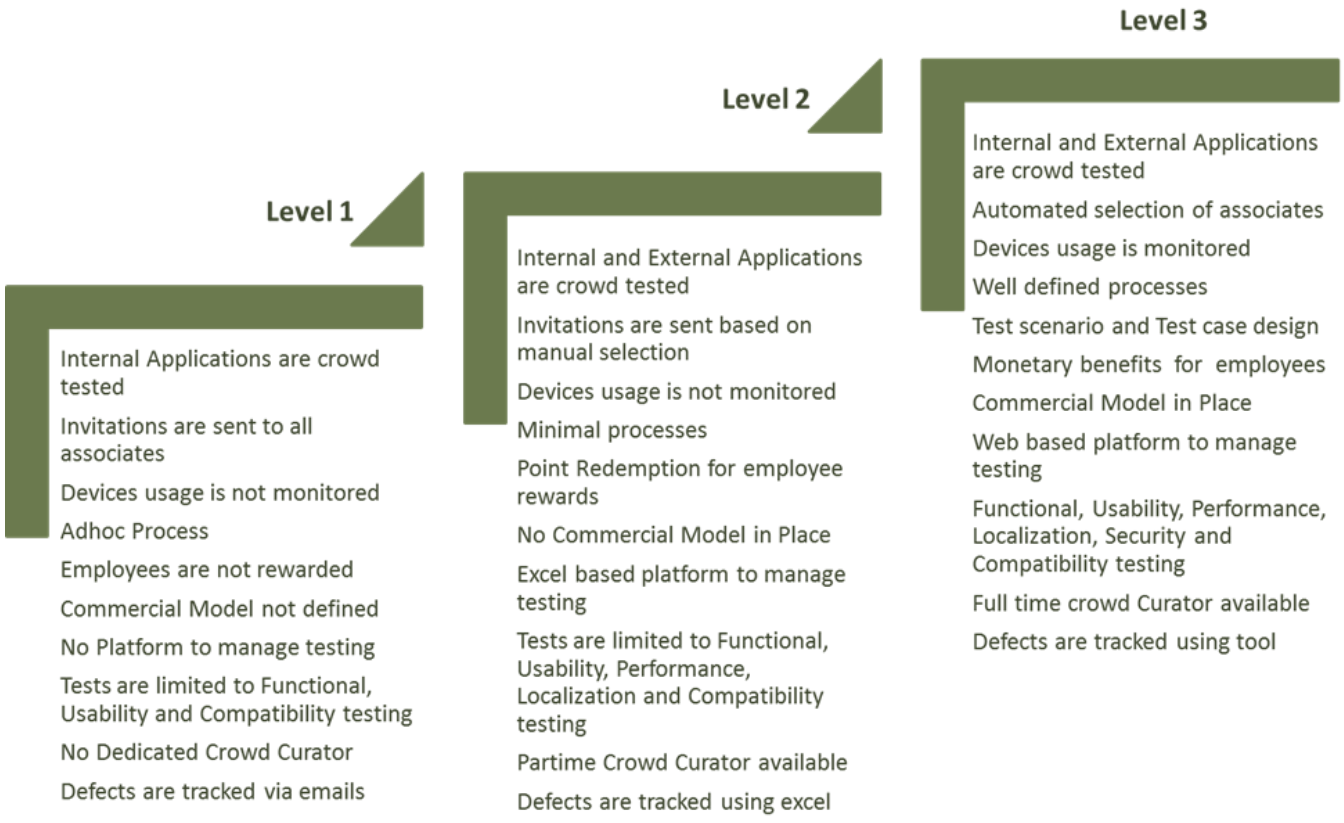

Figure 2: Internal Crowdsourced Testing Maturity Levels

Benefits of Crowdsourced Testing

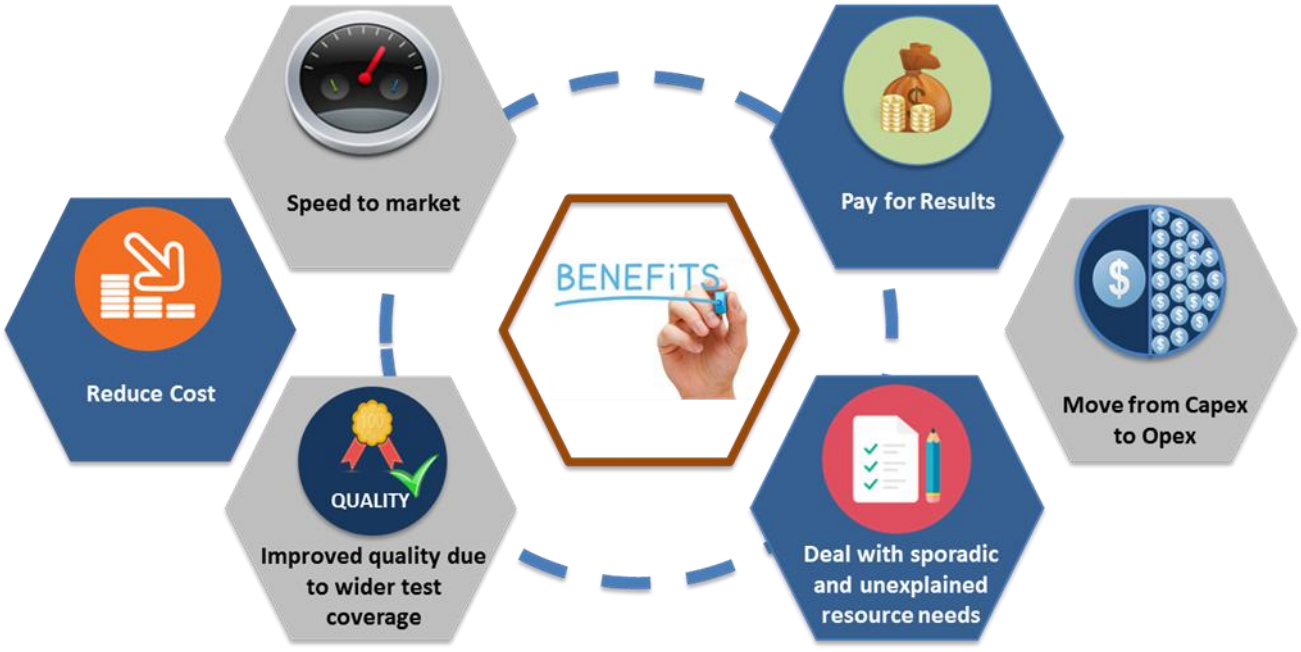

Figure 3: Internal Crowdsourced Testing Benefits

Conclusion

As we have discussed, Crowdsourced testing is an emerging methodology where real world testing of mobile applications and websites are performed on need basis to improve quality, achieve speed to market and to reduce cost. Crowdsourced testing dynamically distribute workloads based on expertise level of the participants with the ability to aggregate results and derive key insights in an automated fashion. Crowdsourced testing will play a major role in meeting up with digital consumers' needs around speed and quality.



Elizabeth Mathew works as a Test Engineer in the Enterprise Assurance practice of UST Global and has more than three years of testing industry experience. She specializes in automated test design and has extensive experience in leading crowdsourced testing cycles. She has deep domain expertise in E-Commerce and Health Insurance domains.

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Write an article

We are always on the lookout for new content, so if you have a testing story you would like to share, a test technique you would like to evangelise or testing research you would like to publish, then The Tester is the place to do it. Simply email the Editor on phill.isles@bcs.org

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BCS SIGiST 2016 and 2017, your invitation

Isabel Evans, SIGiST Programme Secretary

Winter: Wednesday 7th December 2016

Booking now open: http://www.bcs.org/category/9264

See above for the programme

At the December conference our speakers will challenge you and we ask you to challenge yourselves.

Keynotes: Mieke Gevers discusses the challenges of performance testing and Antony Marcano asks: 2017 - what technical challenges do we face?

Other full length presentations:

- Steve Watson discusses Challenges for TMs in changing roles
- Bob Stickland IT Programme Leader T3/T5 Heathrow presents Heathrow Terminal X - the testing challenges

Dr Stuart Reid hosts a Test Design Challenge Workshop.

We have four short talks on a variety of topics from our new speakers.

Your chance to raise a debate: we'll hold some slots for on-the-day Soap box sessions - book to speak on the day - 5 mins each!

The SIGiST committee reserves the right to amend the programme if circumstances deem it necessary. Workshops will have limited places.

BCS SIGiST 2017

We have confirmed London dates for 2017: 14th March, 14th June, 14th September and 1st December. So put them in your diary and request the budget to come!

We also have a confirmed date of 9th February 2017, for the Leeds "Northern Lights" Conference, in association with the BCS West Yorkshire Branch. See page 17 of this edition of The Tester for further details. Other dates for regional conferences are also being organised.

We are planning the programme, so if there is a topic or speaker you'd like covered please let us know via the SIGiST website. We are particularly interested in future challenges for testing, 4th Industrial Revolution and coming trends, but we also want some sessions on the here and now. Got a story you'd like to tell? Got a topic you'd like covered? Tell us!

Do you want to speak at events?

We now have a full programme for 2016, and we are planning 2017. If you want to speak, please apply at http://www.bcs.org/category/10880, or let us know ideas for topics and speakers you'd like to see at the SIGiST.

Do you want to sponsor events?

If your company works in these areas providing tools, software or consultancy / training you might want to sponsor an event, if so please contact Hiedi Homan via http://www.bcs.org/upload/pdf/sigist-vendor-information-sheet.pdf

The SIGiST committee reserves the right to amend the programmes if circumstances deem it necessary. Workshops in will have limited places.



Open-Source Test Automation Tools and You



Eran Kinsbruner,
Perfecto Mobile

Abstract

There's a shift to open-source mobile test automation tools happening today among developers and QA. And it's not just happening in mobile testing. Many mature technology sectors are adopting lightweight, vendor-transparent tools to fulfill the need for speed and integration.

As with many free and open-source software markets however, a plethora of tools complicates the selection process. How do you know what to spend time learning, integrating and deploying in your own environment?

This post aims to help you choose which open-source test automation framework to use based on a number of critical considerations.

Criteria for Selecting an OSS Test Automation Framework

The rationale and advantages behind your choice of open-source test automation tools can be related to a few key benchmarks:

1. **Ease of script development and execution** (supports agile processes and short iterations)
2. **Cross team collaboration capabilities** (Both QA and Dev can easily use the same tools)
3. **Match app platform with test development language** (ObjectiveC/Swift for iOS, Java for Android)
4. **No platform capabilities gap around testing** (support for the latest OS features)
5. **Support for real devices as well as emulators and simulators**
6. **Fully integrated tools within IDEs**

Additionally, there are considerations that differ from project to project:

What Are the Application Use Cases? What Level of Complexity Needs to Be Tested?

- Heavy UI elements?
- Environment dependencies (Networks, GPS, Camera)?
- What OS versions and API levels should be supported?

Does the App Support Multiple Platforms (iOS, Android, Web)?

Based on these considerations, you are far more likely to see long-term success with your automated testing efforts than if you simply dive in to a given framework without understanding the implications.

SO what are the most popular OSS test automation frameworks?

When looking at today's open-source mobile test automation landscape, there are five highly-adopted test frameworks:

1. **Selenium** – The leading open-source test framework for web app test automation
2. **Appium** – Open-source test automation framework for mobile native, web, and hybrid apps
3. **Calabash** – Behavior-driven development (BDD) test framework based on Ruby development language
4. **Espresso** – Google open-source test automation framework within Android Studio
5. **XCUITest** – Apple's open-source test automation framework within XCode IDE

Each of these frameworks are being sponsored by a different community and have unique benefits to their target platforms and respective audiences. Though general-purpose frameworks cover a broad range of devices, they often lack late-breaking hardware support; conversely, frameworks that are device-specific often lack support for different scripting languages and approaches. It is therefore important to identify what is important to your team and project as part of the selection process, and avoid just selecting a framework based on technical requirements.

In the table below, we list the top test automation tools with their core capabilities and limitations:

Capabilities		Selenium	Appium	Espresso	XCTest UI	Calabash
Application Type Support	Mobile Web	Yes	Yes	No	No	No
	Native	No	Yes	Yes	Yes	Yes
	Hybrid	No	Yes	Yes	Yes	Yes
	Desktop Web	Yes	No	No	No	No
Supported Mobile Platforms	Android	Yes	Yes	Yes	No	Yes
	iOS	Yes	Yes	No	Yes	Yes
Supported Context	App Context	N/A	Yes	Yes	Yes	Yes
	Device Context	N/A	Yes	No	Yes	No
Scripting Development Language	Java	Yes	Yes	Yes	No	No
	Python	Yes	Yes	No	No	No
	C#	Yes	Yes	No	No	Yes
	Ruby	Yes	Yes	No	No	Yes
	Java Script	Yes	Yes	No	No	No
	Perl	Yes	Yes	No	No	No
	ObjectiveC/Swift	Yes	Yes	No	Yes	Yes
Supported Visual Object	N/A	N/A	Yes (with extension)	No	No	No
Integrated with IDEs	Eclipse	Yes	Yes	Yes	No	Yes
	Android Studio	Yes	Yes	Yes	No	Yes
	Xcode	Yes	Yes	No	Yes	Yes
	Visual Studio	Yes	Yes	No	No	Yes
	IntelliJ IDEA	Yes	Yes	Yes	No	Yes
Supported by Mobile OS Vendors (no gaps)	N/A	No	No	Yes (Google)	Yes (Apple)	No
Real devices	N/A	Yes	Yes	Yes	Yes	Yes
Simulators/Emulators	N/A	Yes	Yes	Yes	Yes	Yes
Automatic sync between test actions and App UI	N/A	No	No	Yes	No	No
Test Recorder	N/A	No	No	Yes(Version 2.2+)	Yes	No
Community Support	N/A	Active	Very Active	Google	Apple	Average
GitHub Rankings	N/A	787 Stars	2444 Stars	NA	NA (*KIF 3017 Stars)	1930 Stars

Why Choose One Framework Over Another?

You may already have portions of test automation frameworks and tooling integrated into your software delivery process. These decisions may not always have been made by a single person or team, but rather a collection of experiences and motivations over time. A few of these motivations are:

- Teams trying to get fast quality feedback per each of their app builds and code commits
- Teams testing UI and functionality of their app
- Teams using behaviour-driven testing tools to match their agile processes
- Performing cross-platform testing of mobile and web

- Complementing unit testing

The table above shows that not every tool or test framework can provide full coverage of your requirements, and may even come with a risk of limiting the quality of the mobile or web app under test do to their shortcomings. We have summarized each approach to help you decide which makes the most sense for you.

Appium

Appium is best suited to QA teams trying to test the functionality of native, mobile web and mobile hybrid apps across iOS and Android. This tool is less suitable for developers who wish to develop and perform unit testing since it uses a different scripting language than the app itself, (e.g. ObjectiveC). The generated Appium report is a bit limited from a debugging and fast feedback loop perspective, and does not include videos, network logs and key vitals information.

Selenium

The Selenium framework is the best choice for web test automation teams testing for RWD (responsive web design), or stand-alone web sites. It's less suitable for developing unit testing, which makes this framework less appealing for developers. Core Selenium test reports are not highly informative and lack unique mobile related insights.

Calabash

Calabash is designed for organizations that work in BDD (behavior-driven development) workflows. The tool offers an easy path to develop the features in parallel with the tests for these features in an easy user-flow based language. Calabash is appealing for both dev and QA practitioners. The tool provides solid insights and reports to Dev and QA teams.

Espresso and XCTestUI

These two tools are very similar in that they are both designed for a specific target user. Espresso is for Android and XCTestUI is for iOS. Both tools are fully integrated into development IDEs such as Android Studio/Xcode, and offer very easy to develop techniques, including test recorders. These tools are fully maintained by Google and Apple, which assures that they always support the latest OS features (i.e. iOS Force Touch) so developers can stay ahead of the market and test accordingly. These tools support both unit testing types and functional UI testing. Both tools are app context only, which limits their abilities to test for user condition scenarios.

Like what you read? Follow this link for more interesting posts on test automation strategy.



Eran Kinsbruner is the Mobile Evangelist at Perfecto Mobile, one of the leading mobile cloud and automation companies. Formerly CTO for mobile testing and Texas Instruments project manager at Matrix, Eran has been in testing since 1999 with experience that includes managing teams at Qulicke & Soffa, Sun Microsystems, General Electric and NeuStar. The co-inventor of a test exclusion automated mechanism for mobile J2ME testing at Sun Microsystems, Eran has vast experience in the mobile testing world. You can find Eran on Facebook, Twitter @ek121268, LinkedIn, and his professional mobile testing blog at ek121268.wordpress.com.

Event Listings

If you would like your event listed here, please contact the Editor phill.isles@bcs.org

2016

December

Agile Testing Days
5 – 8 December 2016
Potsdam / Berlin, Germany
http://www.agiletestingdays.com/

SIGiST
7 December 2016
London, UK
http://www.bcs.org/category/9264

2017

February

SIGiST and BCS West Yorkshire Branch "Northern Lights"
19 February 2017
Leeds, UK
http://www.bcs.org/category/9264
http://www.bcs.org/category/14985

UKSTAR
27 – 28 February 2017
London, UK
https://ukstar.eurostarsoftwaretesting.com/

March

SIGiST
14 March 2017
London, UK
http://www.bcs.org/category/9264

May

STAREAST
7 - 12 May 2017
Orlando, US
https://stareast.techwell.com/

June

SIGiST
14 June 2017
London, UK
http://www.bcs.org/category/9264

September

SIGiST
14 September 2017
London, UK
http://www.bcs.org/category/9264

November

EuroSTAR
6 – 9 November 2017
Copenhagen, Denmark
https://conference.eurostarsoftwaretesting.com/

December

SIGiST
1 December 2017
London, UK
http://www.bcs.org/category/9264



Did you get your Personal Development Plan email with suggested potential CPD activities?

The BCS Personal Development Plan (PDP) uptake is going well, with thousands of registered users already actively recording their CPD Development Goals, Activities and preferences. It's not just about recording details though, as there is a Resources section that shows live feeds of potential CPD activities, and a tailored email is sent every 2 months with details of the latest videos, articles, blogs, books and research in your specified field of interest. If you haven't registered yet, you can see the content from the latest PDP bulletin for topics relating to solution development and implementation here http://www.bcs.org/content/ConWebDoc/50854 or by going to the CPD Portal at: http://www.bcs.org/pdp/.

The BCS Personal Development Plan is free to use; BCS members can use their Member Secure Area login and password to access it at https://pdp.bcs.org/, and non-members can use most of the facilities (using the same link) and registering to create their own user name and password. You can use it on a PC / laptop or compatible tablet PC or smartphone.