

# THE TESTER

## SIGiST Spring Conference Wednesday 13<sup>th</sup> March

44

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### From the Editor

Welcome to the first Tester magazine of 2013, and my first Tester magazine as Editor.

Firstly I would like to thank **Sogeti with HP**, as sponsors of the Spring Conference. I would also like to thank our event supporters, **Testing Solutions Group**, who will have a stand at the conference. If you are attending the conference, make sure you talk to the representatives from these organisations.

In The Tester this month, along with the conference agenda and speaker abstracts, we have an interesting article on how to energise your team's creativity. Also don't miss the special offer for SIGiST members of a discount off the registration fees for the **BelgiumTestingDays** conference.

Phill Isles  
The Tester Editor  
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### 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/472/>



### LinkedIn

Our LinkedIn site carries details of our conferences as they become available. It also provides a place where people can discuss testing topics, make requests about future conferences, find employment opportunities and generally keep up to date with our chosen industry. If you are already a member of LinkedIn then simply visit the group and make a request to join. If not, go to <http://www.linkedin.com/> to create an account.  
<http://www.linkedin.com/groups?mostPopular=&gid=3466623>



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# Conference Agenda

## BCS SIGiST – Spring 2013 Conference

Wednesday 13 March 2013

Royal College of Obstetricians and Gynaecologists

27 Sussex Place, Regent's Park, London NW1 4SP

08:30	Coffee & Registration, Exhibition opens	
09:25	<b>Introduction and Welcome</b> Stuart Reid, SIGiST Chair	
09:30	Opening Keynote	
	<b>Be Agile or Do Agile</b> Matt Robson, Mastek	
10:30	Open Microphone and Networking session	
10:45	Tea/coffee break	
11:15	<b>Systems Challenges Going from an R&amp;D Product to Production</b> George Wallace	<b>Workshop M1</b>  <b>How to run a Product Risk Workshop</b> Chris Comey & Davidson Devadoss, Testing Solutions Group
12:00	<b>Project Agnostic Test Metrics for an Independent Test Team</b> Sakis Ladopoulos, Intrasoft International	
12:45	Sogeti with HP – Vendor Talk	
13:00	Lunch break Opportunity to visit the Exhibition	
14:00	<b>The Other Side of Elegant Websites</b> Balaji Iyer & Anwarhusen Malgave, MindTree	<b>Workshop A1</b>  <b>Be Agile or Do Agile</b> Matt Robson, Mastek
14:45	<b>Evolution of your test strategy to address emerging risks</b> Chris Comey & Davidson Devadoss, Testing Solutions Group	
15:30	Tea/coffee break Opportunity to visit the Exhibition	
16:00	Closing Keynote	
	<b>Web and mobile testing - How crowdsourcing can turbo-charge your coverage.</b> Martin Mudge, Bugfinders.com	
17:00	- Closing Remarks -	

The SIGiST committee reserves the right to amend the programme if circumstances deem it necessary. Workshops will have limited places, to avoid disappointment try to book in advance.

# Conference Sponsor



Sogeti is a leading provider of professional technology services, specialising in Application Management, Infrastructure Management, High-Tech Engineering and Testing.

In the UK we help our clients to benefit from the identifiable results of our onshore and offshore cost-effective testing solutions, that include Test Process Improvement (TPI) Assessments, Functional and Non-Functional Testing, Performance Testing, Accelerated Test Automation, Agile Development Testing, Managed Testing Services, but also wider transformational services such as Application Packaging & Virtualisation and Desktop Migration Services. Our solutions and collaborative approach aim to increase speed to market, enhance software quality, mitigate risk and reduce costs.

Together with Capgemini, Sogeti has developed innovative, business-driven quality assurance (QA) and testing services, combining best-in-breed testing methodologies (TMap® and TPI®) and the global delivery model, Rightshore®, to help organizations achieve their testing and QA goals. Capgemini and Sogeti have created one of the largest dedicated testing practices in the world, with over 9,500 test professionals and 14,500 application specialists, and a common centre of excellence developed in India.

Sogeti is a wholly-owned subsidiary of Cap Gemini S.A., a global leader in consulting, technology, outsourcing and local professional services, with 90,000 professionals. Capgemini S.A. is listed on the Paris Stock Exchange.

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# Presentation Abstracts and Speaker Biographies

## Matt Robson

### "Be Agile or Do Agile"

All too often the term "Agile" denotes dogma method and an almost religious adherence to a particular mode of change delivery. However, some of the most effective delivery can be a mix and match of the best tools and techniques, appropriate to the risks to be managed and mitigated, and also appropriate to the constraints of the delivery environment. Equally Agile techniques and processes can contribute greatly to other methods at a very practical level. There are as many Waterfall zealots out there as there are Agile extremists.

Understanding overall delivery context, what is to be delivered and how, and then the capability available to deploy in support of this delivery can help shape an effective testing method both in terms of cost effectiveness ("bang for buck") and testing effectiveness, finding defects as close to the point of injection as possible.

So if "Agility" is the goal, is this slavishly following a method, or is it a state of mind, leadership culture and approach that "is" agile rather than blindly "doing" Agile?

*Matt Robson is on his third career in testing, having previously been an academic psychologist and a British Army officer, holding the Queen's Commission from the Royal Military Academy, Sandhurst.*

*He has been the client, worked for consultancies, and in product delivery, from a*

*junior consultant to the most senior roles in testing.*

*He lives in Bath with his wife, Margaret, and their two young sons. His interests include outward bound activities, youth work, music, classic cars and classic motorsport. He is also a mild social media addict.*

## George Wallace

### "The Systems Challenges Going from an R&D Product to Production"

This was the most amazing challenge. The product had been in development for a number of years and was just about on the verge of going to production. My task was to take 140 requirements and test them.

It took a little while to get used to working in what was essentially an R&D environment. But after two weeks started to make my influence felt. The system to be tested had never really been put under a great deal of strain plus people would happily move things about without informing anyone else. The 142 requirements were presented to me and as a good Systems Engineer I read the requirements. Some requirements were okay and others did not really provide much data.

The first thing was to decide how each requirement would be tested. Using a spread sheet each requirement was defined and a method of test defined. Did not take long to do and was quite easy, some

requirements were broken down to make them testable.

Created a word document and started work on testing each requirement. Then came the first change can you use Test Track to capture the requirements. Had never heard of this Systems Engineering Tool. But it had been purchased by the company with no training and was being managed from India. Started to use Test Track what had been done was all of the projects that existed had been placed in one Project. Created a new project and started to manipulate Test Track to work the way I wanted it to work using my experience. Gradually over three weeks started to understand Test Track, managed to get a day of training on Test track which helped so much.

*George Wallace is a Chartered Engineer with 20 years' experience in Systems Engineering and Test gained by building Hawk aircraft, putting an aircraft into a Systems Engineering Tool and making it usable. Air Traffic Control at Swanwick and in Albania both brand new systems. Part of the design of CVF for Harrier, Sea King, and Merlin systems. Ticketing systems and trusted Borders. Was made redundant ran a company selling on eBay. Author of a book "The 20 secrets to successfully selling on eBay".*

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## Sakis Ladopoulos

### “Project agnostic test metrics for an independent test team”

In order to measure the performance and efficiency of a Test Team, Project Metrics and KPIs are not sufficient. Test Management should introduce metrics and monitor and control their output so as to assess Test Team's productivity and efficiency regardless of project's progress and outcome.

The necessity to introduce new and specific to test project agnostic test metrics emerge from the fact that project teams targets and test team targets are not necessarily always

aligned and same in nature even though they serve the same common (project's) goal. There might well be cases where project targets are missed but test team's are not and vice versa. For that, specific metrics should be introduced to measure Test Team targets and assess Test Team's performance and efficiency regardless of project progress and performance.

This necessity is specifically crucial for independent test teams or third parties test teams so as to be able to demonstrate their performance and efficiency and to identify, isolate and correct possible issues in the process of work.

The presentation will open with the definitions of project targets and test team's targets pinpointing their separate nature even though they are under same and common goals. Vivid metaphorical examples will support the above idea (Soccer team - Goal Keeper).

Specific metrics and KPIs will be presented along with the logic behind them explaining their meaning and value and proposing ways to collect data (Defect Management Tool, Test Management Tool, and Daily Reports).

Presentation will close showing the added value to collect such data not only for Test Management but also for the projects which are served by Test Team.

*Sakis Ladopoulos is a Test Manager with 7 years of hands on experience in forming and leading and managing through changes, teams of test engineers in IT and Telecom industry. Apart from Test Engineering, which was his first job in Siemens, he has worked also as internal auditor (certified for ISO9001) and member of several work groups and committees for ISO and CMMI certifications having gained that way significant and valuable experience in various aspects of Quality with the Telecom and IT industry.*

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## Christopher Comey & Davidson Devadoss

### “How to run a Product Risk Workshop” [Workshop]

How can IT projects cope with the ever-increasing pressure to deliver more reliable systems in ever decreasing timeframes and tighter budget restrictions? Systems are becoming more complex; new technologies are emerging; the level of networking and system integration is spiralling; the web acts as a multiplier with many combinations of hardware, software, browsers and communications options, and this all needs to be tested!

Is it possible to achieve a successful project implementation within the project time and cost constraints without sacrificing quality? This is not a new dilemma; testing scope has always been about trade-offs. Risk Based Testing makes it possible for us to agree an achievable balance that meets all key stakeholders needs but it is not easy and requires a co-operative approach involving both business and IT people working together. All key stakeholders in the business and project must understand the project aims and objectives and appreciate each other's specific needs.

This session is aimed at people who are considering adopting the risk based testing approach. It is based on the presenter's experiences of implementing RBT within organisations. What RBT can and can't do for a project will be discussed and key benefits and pitfalls highlighted.

The relevant factors for each test phase (Component through to Acceptance), the 'must have' activities required for enabling successful RBT (rules), and how to conduct a risk based assessment for a change (impact analysis) will be discussed.

After this session the delegates will be aware of the risk based testing process and understand that it is not something that can be achieved by testers in isolation. In order to succeed, RBT needs all parties involved at the right time with realistic expectations of the benefits.

A paper to support this presentation will be provided outlining a typical Risk Based Testing approach. This paper will detail the fundamental process and include information and tips based on experience derived from implementing the RBT process within an organisation. This paper will contain 'how to' sections for getting people on board, carrying out risk identification and analysis, identify risk based regression testing scope.

*Christopher Comey has been a tester for over 30 years and has first-hand experience of 'testing in the real world' in roles from Test Analyst through to Test Consultant and Trainer. He has led test teams on several large programmes and projects and is a true believer in the risk based testing approach.*

*Davidson Devadoss is presently managing all aspects of testing for a global magic circle law firm with responsibility for testing all aspects on software and infrastructure upgrades and new projects. Davidson uses risk based testing as the vehicle to scope the testing and involve the key project team members in the decision making process for all testing activities.*

## Balaji Iyer & Anwarhusen Malgave

### “The other side of elegant websites”

Web applications have evolved from being single celled organisms (plain html) to rich sophisticated (java-script governed) web applications. The current genera of web application intend to provide superlative quality experience to users without compromising on performance. This underscores the need for performance

testing. With the advent of new web technologies, burnished web-layouts and dynamic behaviour of pages, performance test scripting has become a significantly complex process.

Effective performance test scripting dictates the success of any performance testing engagement and primarily depends on the underlying tool used. Commercial as well as open-source tools facilitate scripting. While open-source tools score high as load generating engines, they prove to be inefficient in comparison to the rich feature-set provided by commercial utilities for script recording, debugging etc. However, owing to short performance test cycle and budget rigidity, open source tools fit the bill as an economical solution. The fundamental scripting hitches associated with open-source tools comprise *parameterization and correlation of myriad parameters, interoperability of scripts across testing tools, identifying java-scripts dealing with business logic on client layer, script debugging and management of script changes across project builds.*

Nevertheless, these problems are not insolvable and need a creative and optimized solution to address the inherent shortcomings.

In this paper, we will introduce one such approach that comprises an adaptive algorithm that would accelerate the process of correlation by emphasizing on potential parameters. The algorithm will gather and maintain metadata about the application with incremental recordings. This information would facilitate debugging and script management across project builds. The approach also employs a recording mechanism to create a generic script that can be adapted to any tool as required. The proposed approach will enhance the scripting capabilities of JMeter, an open-source load generation tool, and address the conventional scripting challenges in a time and cost effective manner.

*Balaji Iyer is presently working with MindTree Performance Team. He is responsible for R&D,*

*Framework design and development in the area of Web Application Performance Testing. In addition his areas of interest also include Web Application Security testing. He has Bachelor's degree in Instrumentation from Ramrao Adik Institute of Technology, India.*

*Anwarhusen Malgave is presently working with Mindtree Performance Team. He is responsible for R&D, Tool Design and development in the area of Web Application Performance Testing. In addition, his interest areas also include test automation. He has Bachelor's degree in Computers from Shivaji University, India. He has 5 years of experience in software industry.*

## Christopher Comey & Davidson Devadoss

### “Evolution of your test strategy to address emerging risks”

History records a number of larger than life individuals credited with genius and the ability to achieve what others could not. In military exploits, success is primarily as a direct result of the strategies adopted that succeeded, often against the odds. Of course history is written by the winners of the conflict and they are the ones that are remembered. A flawed military strategy can be very costly and no one remembers ‘Alexander the reckless!’ The analogy with strategies for testing can be drawn but experienced generals have studied historical conflicts and make decisions based on the facts that are available, what they know about the opposition and what they think the opposition does not know about them. Often, for new developments, there is no precedent set and we are doing something for the first time so how can we confidently establish a nailed down strategy without introducing the risk that the strategy is wrong or not optimised?

A ‘great’ project test strategy or approach may be rendered obsolete by changing circumstances over a period of time. Agile methodologies acknowledge the need to focus on ‘today’s priorities’ and use daily

meetings to agree and communicate change within the project team. This evolving focus is apparent inside the project but action at a strategic level is often required to achieve group awareness and alignment to address emerging risks

As the world changes around a programme/project and we learn more about the deliverables “how” rather than just the “what”, we need to ensure our test focus remains optimised. Even the best test strategy in the world will need to evolve to keep us all heading in the right direction. This presentation will recount actual instances where issues have arisen in projects and how these very real situations were addressed through on-going risk analysis and adaptation. The presenter will include some hints and tips regarding tuning the approach throughout the lifecycle.

This presentation is based on the experience of the presenters and will discuss the following:

- *The objectives of test strategies and plans – why do they exist?*
- *Typical issues that hit a programme/project and how these impact the test strategy.*
- *What happens if we do not review our approach and just carry on regardless (keep calm and carry on!)*
- *How to plan for checkpoints and review of the test approach so we can evolve and accommodate changing aspects within the projects*

*Christopher Comey has been a tester for over 30 years and has first-hand experience of 'testing in the real world' in roles from Test Analyst through to Test Consultant and Trainer. He has led test teams on several large programmes and projects and is a true believer in the risk based testing approach.*

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## Matt Robson

### “Be Agile or Do Agile” [Workshop]

All too often the term “Agile” denotes dogma method and an almost religious adherence to a particular mode of change delivery. However, some of the most effective delivery can be a mix and match of the best tools and techniques, appropriate to the risks to be managed and mitigated, and also appropriate to the constraints of the delivery environment. Equally Agile techniques and processes can contribute greatly to other methods at a very practical level. There are as many Waterfall zealots out there as there are Agile extremists.

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So if “Agility” is the goal, is this slavishly following a method, or is it a state of mind, leadership culture and approach that “is” agile rather than blindly “doing” Agile.

This workshop follows on from the keynote speech and the aim is to give attendees a better view of how to understand and select appropriate testing methods and techniques to mix and match in real world delivery scenarios.

*Matt Robson is on his third career in testing, having previously been an academic psychologist and a British Army officer, holding the Queen's Commission from the Royal Military Academy, Sandhurst.*

*He has been the client, worked for consultancies, and in product delivery, from a junior consultant to the most senior roles in testing.*

*He lives in Bath with his wife, Margaret, and their two young sons. His interests include outward bound activities, youth work, music, classic cars and classic motorsport. He is also a mild social media addict.*

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## Martin Mudge

“Web and mobile testing - How crowdsourcing can turbo-charge your coverage”

Martin explores the practical applications that crowdsourcing can deliver for the testing of mobile applications and how

using the power of the crowd can help deliver higher quality apps: significantly more cost effectively and quicker than using traditional methods.

With today’s economic climate, coupled with the challenge of viral social media, apps get limited chances to impress. Crowdsourcing not only ensures that your app works on the multitude of different devices wherever you want in the world, but also you get valuable user feedback on how your application will be used by real users in the real world.

*Martin Mudge - With over 12 years' experience in testing, Martin has been involved in testing from small web start-ups, through to large corporate environments where he was recently in charge a test team of 55 based in local and remote locations.*

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# Specialist Group Library

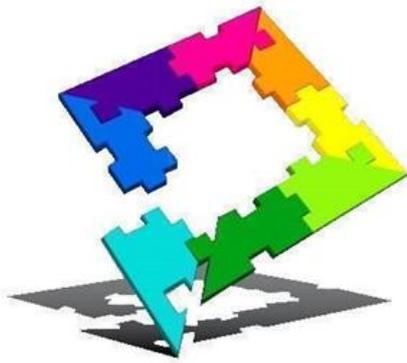
## Borrowing a book

Looking for a testing book but not sure which topics are covered? Or are you trying to decide which testing book to buy? Or do you simply want to increase your testing knowledge? If the answer to any of these questions is ‘yes’ then the BCS Software Testing Specialist Group Library could help!

The Library has lots of testing books covering a variety of topics and they are available to borrow for a period of 4 weeks - free of charge. Extended loans are allowed as long as the book has not been requested by another member.

Topics include (amongst others) Requirements testing, Reviews/Inspections, Test Management, Test Techniques and Test Process Improvement.

We are currently reviewing our library details on our website. In the meantime if you would like to know more about the library and books available please email out librarian Matt Archer at [sigistlibrary@bcs.org](mailto:sigistlibrary@bcs.org)



# BELGIUM TESTING DAYS

## WHAT



Break down the  
walls to boost  
up the business!

## WHY

- A continuous innovating conference
- Share and learn
- Inspire and get inspired
- Expand your professional family
- Have fun

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### With 64 speakers from all over the world:

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## HOW

2 days of tutorials - 2 days of conference -  
2 networking evening events  
55+ international speakers covering topics  
like Test Automation, Security, Agile, Cloud,  
Fuzzing, Performance, Mobile, Outsourcing,  
Metrics, Communications, Leadership, Agile,  
Scrum, Advanced workshops and much more.

## WHEN

February 27<sup>th</sup> - March 2<sup>nd</sup> 2013

## WHERE

Brussels Sheraton Airport Hotel  
@ National Airport Belgium

Register now at:

[www.btd2013.com](http://www.btd2013.com)

For 10% off standard registration, SIGiST members should the code TESTORG in the yellow block "Click here to enter a promotion code".

### Sponsors & Exhibitors 2013



# How to boost and supercharge your team's creativity

Ulf Eriksson, ReQtest

<http://www.reqtest.com/>

Creativity is a powerful motivator for both individuals and teams. It's not something only artists have, and with the help of specific techniques, it can be taught, trained, and enhanced. After all, this is how highly creative people hone their skills; although the artistic streak might be present, training and practice go a long way to enhancing one's creativity.

Here are a few techniques we use at ReQtest so as to boost our creativity as individuals and as a team, while having a bit of fun and a laugh!

## Break the ice

Although creativity differs from person to person, most people need to get into a comfortable place in their heads before they can reach their creative space. We typically use ice-breakers and exercises just for this reason. One of our favourite exercises at the moment is creating anagrams. You can create them on your own with a bit of effort, or use one of the online tools like <http://wordsmith.org/anagram/>. Enter some business words, like the names of IT systems, departments, internal buzz words *etc.* and let the anagram generator create anagrams. For example, an anagram for the word "test manager" is "greatest man". See if you can find an IT-related word in the phrase "dense ruse" (answer at the end of the article). What we then do, during or before a meeting, a pair testing session or a requirements gathering workshop we get the participants to guess the words. Fun and doesn't take much.



## Stand up!

Stand up and move about. In fact, you may as well carry out the whole thing standing up, except for when you might have to write something down. Too often we require people to sit down during workshops, requirements discussions or meetings, but when you get people to stand, they breathe more, thus getting more oxygen in their brain and therefore making them think better.



You'd be surprised how things get moving once you get people to get up from their chairs and do something standing up. Gone is the lethargy and vibe of boredom! Get people to stand up, and this is guaranteed to happen.

## Brainstorm at the whiteboard

The easiest way to boost your participants' creativity and interaction with each other is to simply arm them with pens and Post-it notes, line them up in front of a blank whiteboard, and tell them to start generating new ideas. If you've ever tried this before, you know it's a great way to create ah-ha moments of insight.

You can use this technique either ongoing during brainstorming, or during grouping, and prioritization.

Get the participants to stand in front of the whiteboard and write their ideas on Post-It/sticky notes. It's best if they generate ideas in silence, without explaining what their notes mean - explanations and discussion can be left for later. The bonus of this activity is that people start to think more cogently when they are left to their devices in an unstructured environment.

## Work in pairs

We like to program in pairs in ReQtest, primarily because it reduces our dependency on any one code slinger, since the practice teaches all the developers a lot

about each other's different sections. You'd be surprised how often this spillover in knowledge comes in handy. Developing in pairs also boosts the creativity of both developers, firstly because getting input from a peer for an idea happens right away, in conversation, and because one developer will often be able to find immediate solutions to problems the other might encounter. Additionally, the quality of the code is improved because when using pair testing you have, unwittingly perhaps, introduced a peer review system.

Pair testing is one of the best ways to make acceptance testing (and a number of other test levels too) more fun and much more useful to everyone involved. It's true that when testers do not test alone, rather with end users, there is a risk of straying away from structure, however if you ensure that you steer back to the current task if the tests start going astray this should not be an issue.

We find that as many people as possible should be included in pair testing. The whole point of testing in pairs is to get as many different viewpoints as possible so you can not fault the logic behind including as many people as possible. You truly never know what kind of creative and novel feedback might be forthcoming, and from whom. Listen to the impressions and comments and try to understand them from the user's point of view before discounting them. All too often, the tester's technical flair and the end user's intimate knowledge of business processes can bring about some truly remarkable and creative solutions.

## Workshops

Workshops are a popular format for creative meetings to elicit the participants' intrinsic drive and motivation. A well-executed workshop is far superior to a traditional meeting in many ways. It shifts the focus from the facilitator to the group, resulting in a more democratic process in which everyone contributes and buys in to the outcome. Participants are more motivated

and active, and when a workshop is run it right, you'll get more done in less time than you would in a meeting. Then there's the bonus that participants end up having fun!

There are plenty of creativity-boosting exercises to choose from and use in workshops - finding the right exercise is a matter of looking at the problem to be solved, the group of participants, and your own preferences as the facilitator. The whole point behind a workshop is to shift focus away from the facilitator onto the other participants, helping the participants feel more comfortable and cohesive as a group. The facilitator's responsibility is to create this sense of reliance on other team members, so that the participants' involvement and engagement with each other grows.

## And finally

These creativity boosting techniques work well in many other situations. You can use them to increase a group's energy and find solutions to problems during a meeting or kick-off, or even just to break up the monotony of day-to-day work. We also use them when participants get stuck in a rut, when they need a break from more complicated tasks, or when they get bogged down in misunderstandings or stalemates. The post-lunch food coma is also a time

when groups can have trouble focusing so a bit of change of pace and light-heartedness goes a long to reinvigorating the team. And lastly, "dense ruse" is an anagram of "user needs".

*Ulf Eriksson heads ReQtest, an online bug tracking software based in Sweden. ReQtest, which is the culmination of Ulf's decades of work in development and testing, is a very handy and simple tool to track bugs, list requirements and better manage all communication by anyone involved in any project. Ulf is also the author of many white papers and articles, mostly on the world of software testing. He is also slaving over a book, which will be compendium of his experiences. Ulf lives in Stockholm, Sweden.*

<http://www.reqtest.com/>



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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](mailto:phill.isles@bcs.org)

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## Are you looking for a Mentor?

Don't forget that you can use our linked in page to advertise for a mentor or, if you are happy to be a mentor, why not put your details up. <http://www.linkedin.com/groups?mostPopular=&qid=3466623>



## Bristol Branch Talk

Tuesday May 21st in Bristol

### Dr Stuart Reid FBCS CITP

## ISO 29119: The New International Software Testing Standards

In May 2007 ISO formed a working group to develop new standards on software testing – a new area for ISO - these standards will start being published in mid-2013. This initiative is closely-supported by IEEE and BSI, both of which have donated existing standards as source documents to the project (these standards will be retired when the new standards are published).

There are currently six new software testing standards in development:

- Concepts and Terminology (ISO/IEC/IEEE 29119-1)
- Test Processes (ISO/IEC/IEEE 29119-2)
- Test Documentation (ISO/IEC/IEEE 29119-3)
- Test Techniques (ISO/IEC/IEEE 29119-4)
- Keyword-Driven Testing (ISO/IEC/IEEE 29119-5)
- Test Assessment (ISO/IEC 33063)

This presentation describes the content of the standards, their development and the difficulties encountered in creating standards that are applicable to all organizations (from the smallest to the largest) and all types of project (from agile to traditional safety-critical). The challenge of creating new testing standards when quite disparate parts of the industry (e.g. some context-driven testers and parts of the defence industry) oppose the concept is also covered.

ISO 29119 has already been released in draft form for review (and subsequently been updated based on literally thousands of comments) and is already being used within a number of multi-national organizations. These organizations are already seeing the benefits of reusing the well-defined processes and documentation provided by a standard reflecting current industry best practices.

**Stuart Reid** is Chief Technology Officer at Testing Solutions Group. He has 30 years experience in the IT industry, working in development, testing and education. Application areas range from safety-critical to financial and media. Stuart also supports the worldwide testing community in a number of roles. He is convener of the ISO Software Testing Working Group, which is developing the new ISO 29119 Software Testing standard and is the software testing representative at BSI. He chairs the BCS Specialist Group in Software Testing and founded ISTQB to promote software testing qualifications on a global scale.

Stuart is a popular speaker at conferences on software testing, and is invited to present keynotes, tutorial and track sessions worldwide. He chaired EuroSTAR 2007, Europe's largest ever software testing conference with over 1200 attendees, won the European Testing Excellence award in 2001, and regularly writes magazine articles on software testing.

Further details and booking:

<http://www.bristol.bcs.org.uk/>

<https://events.bcs.org/book/568/>

# Event Listings

If you would like your event listed here, please contact the Editor on [phill.isles@bcs.org](mailto:phill.isles@bcs.org)

## February

### **Belgium Testing Days**

27 February – 2 March 2013  
Brussels, Belgium  
<http://btd2013.com/>

## March

### **SIGiST**

13 March 2013  
London, UK  
<http://www.bcs.org/server.php?show=nav.9264>

## April

### **UK Test Management Forum**

24 April 2013 (TBC)  
London, UK  
<http://uktmf.com/>

### **STAREAST**

28 April – 3 May 2013  
Orlando, US  
<http://stareast.techwell.com/>

## June

### **SIGiST**

11 June 2013  
London, UK  
<http://www.bcs.org/server.php?show=nav.9264>

## July

### **UK Test Management Forum**

31 July 2013 (TBC)  
London, UK  
<http://uktmf.com/>

## September

### **SIGiST**

12 September 2013  
London, UK  
<http://www.bcs.org/server.php?show=nav.9264>

## October

### **STARWEST**

29 September – 4 October 2013  
Anaheim, US  
<http://starwest.techwell.com/>

## November

### **EuroSTAR**

4 – 7 November 2013  
Gothenburg, Sweden  
<http://www.eurostarconferences.com/>

## December

### **SIGiST**

5 December 2013  
London, UK  
<http://www.bcs.org/server.php?show=nav.9264>

## Spring/Autumn

### **BCS Scottish Testing Group**

Spring / Autumn  
<http://www.bcs.org/category/9729>

# THE TESTER

## SIGiST Summer Conference Tuesday 11<sup>th</sup> June

45

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### From the Editor

Welcome to the summer edition of The Tester magazine, covering the June 2013 SIGiST conference. This conference will be the last conference at the current venue. Come along for one last visit to RCOG, before we move to our new venue at The Barbican from September.

For the June conference, I would like to thank our event supporters, **Testing Solutions Group**, who will have a stand at the conference. If you are attending the conference, make sure you talk to their representatives.

In The Tester this month, along with the conference agenda and speaker abstracts, we have a number of interesting articles, on a range of Testing-related topics. Also don't miss the special offer for SIGiST members of a discount off the registration fees for the Unicom conference.

Phill Isles  
The Tester Editor  
[phill.isles@bcs.org](mailto: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/473/>



### LinkedIn

Our LinkedIn site carries details of our conferences as they become available. It also provides a place where people can discuss testing topics, make requests about future conferences, find employment opportunities and generally keep up to date with our chosen industry. Visit the group on LinkedIn and make a request to join. We currently have over 1,000 members.

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

 Follow us @SIGiST

# Conference Agenda

BCS SIGiST – Summer 2013 Conference Tuesday 11 June 2013 Royal College of Obstetricians and Gynaecologists 27 Sussex Place, Regent's Park, London NW1	
08:30	Coffee & Registration, Exhibition opens
09:25	<b>Introduction and Welcome</b> Stuart Reid, SIGiST Chair
09:30	<b>Opening Keynote</b>
	<b>The Divine Comedy of Software Engineering.</b> Farid Tejani, Ignitr Consulting
10:30	<b>Open Microphone and Networking session</b>
10:45	Tea / coffee break
11:15	<b>Expanding our testing horizons</b> Mark Micallef, University of Malta
12:00	<b>Requirements Based Software Testing</b> Mike Bartley, TVS Systems
12:45	<b>Vendor Talk</b>
13:00	Lunch break Opportunity to visit the Exhibition
14:00	<b>Improving Product Quality Through Building a More Effective Scrum Team</b> Pete George, Pelican Associates (UK) Ltd
14:45	<b>Mission Impossible: Effective performance evaluation as part of a CI approach</b> Mark Smith, Channel 4 & Andy Still, Intechnica
15:30	Tea / coffee break
16:00	<b>Closing Keynote</b>
	<b>Keep Calm &amp; Use TMMi</b> Clive Bates, Experimentus
17:00	- Closing Remarks -

The SIGiST committee reserves the right to amend the programme if circumstances deem it necessary.  
Workshops will have limited places, to avoid disappointment try to book in advance.

# Conference Supporter



Testing Solutions Group Ltd specialises in testing and assurance for new and changed systems; a capable and trusted partner to test and assure business critical development programmes.

Our Software Testing Consulting Services range from a full audit to helping you develop your Test Policy and Test Strategy and optimisation of your software development life cycle, through to maximising the benefits of Test Automation or User Acceptance Testing.

Our experience covers a range of applications including; ERP and CRM systems, Functional and Non Functional Testing, Agile Development Testing, delivered via Test Specialist skills support through to a full Managed Testing Service.

We train, coach and mentor a range of people through our Learning and Development programmes. Our ISTQB Certificated, Practical and Agile training courses offer a full range of management and technical skills for testing, aimed at different job roles and different stages of your career. We provide a full public course schedule and all of our courses can be delivered in-house, privately at your chosen location. For companies who are looking for Test Personnel to expand their teams, TSG offers a full Specialist Recruitment service.

TSG have been recognised as a point of excellence over the last 12 years, for many blue chip companies such as IBM, Fujitsu, Bank of England, FCA/FSA, The Royal Bank of Canada, Linklaters LLP and countless others in the UK. We have also supported client programmes in the USA, Hong Kong, Hungary, Portugal and Australia.



**Testing Solutions Group Ltd**  
[www.testing-solutions.com](http://www.testing-solutions.com)  
[services@testing-solutions.com](mailto:services@testing-solutions.com)  
+44 (0)207 469 1500



The talk will begin by making the case that in order for our profession to prosper, we need to continuously strive to identify new and better ways of doing things, new ways which can be outside our comfort zone. I will then discuss different areas in software testing and highlight two areas which are receiving limited attention: Automated Test Case Design and Runtime Testing. With automated test case design, we hope to develop ways of automatically producing better test suites. Runtime testing (sometimes referred to as runtime verification) on the other hand, is an admission that no amount of testing will ever be enough to guarantee quality. Therefore we push certain testing out to production environments such that problems are detected (and possibly fixed automatically) during live operations. The talk will cover three new up and coming areas, explaining their basis, current problems and how the testing community can benefit from moving them forward. These are:

1. Mutation testing
2. Symbolic Execution
3. Runtime Testing/Verification

It is hoped that the talk will energise the audience into seeking out these and other new techniques so as to maintain momentum in improving the testing profession.

*Mark Micallef has a Ph.D. in Software Engineering and currently lectures and carries out research in Software Testing at the University of Malta where he co-founded the Process Engineering and Software Testing (PEST) research lab. Although he currently calls academia home, Mark has over a decade of industry experience with international companies, has previously managed the BBC News testing team and been invited to speak at conferences such as the Google Test Automation Conference and STANZ. With a passion for bridging the gap between academia and industry, Mark is still actively involved with the industry, both in a consultancy role as well as on research collaboration initiatives.*

## Mike Bartley

### TVS Systems

## "Requirements Based Software Testing"

Requirements-based testing aims to design a necessary and sufficient set of test cases derived from the product requirements to ensure that the design and code fully meet those requirements. It is both important from both a commercial and standards perspective.

A number of standards, such as ISO26262, mandate that certain safety related requirements have a demonstrable audit trail to implementation and signoff. A requirements-based testing approach helps with this.

From a commercial perspective it helps to ensure that a product meets all of its requirements. However, it can also help to ensure that every testing activity is associated with a product requirement. This helps to eliminate over testing which adds additional cost and can delay market entry. In this talk we first explain requirements-based testing and the legal obligations of requirements based testing for some industries. However, rather than seeing it as a cost the talk explains how this can be turned to commercial advantage.

*Mike Bartley has been involved in software testing and hardware verification for over 20 years. He started his career in testing of military software and safety-related aerospace applications using formal mathematical methods. He then moved into commercial hardware verification of a 64-bit MPEG4 chip at ST Microelectronics. From there he moved to Verification Manager at Infineon building up a team of over 35 verification engineers using state-of-the-art verification technology to verify numerous chips and design IP ranging from secure chip cards, through automotive applications to mobile phones. Mike then moved to start working with start-up companies in charge of both the testing of software*

*products (tool chain, run-time libraries, applications, etc.) and the verification of the hardware products. In these roles he established software testing and hardware verification teams (including offshore resources), flows and processes which were used to sign off numerous hardware / software products.*

*Mike gained a PhD in Mathematical Logic from Bristol University. He has since obtained an MSc in Software Engineering and an MBA through the Open University. Mike has had numerous papers published and presented at a number of conferences.*

*Mike now runs his own software testing and hardware verification company TVS (Test and Verification Solutions) to help companies improve and execute on their software test and hardware verification strategies. Mike has grown TVS to the point where the offices in the UK, India, France and Germany have worldwide headcount of over 80 engineers.*

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## Tony Bruce

### Tony Bruce Consulting

#### "The Power of Good Questioning" [Workshop]

Questions are a powerful tool, and good questioning skills are extremely important for both people and testing. Through effective use, we can:

- \* Save ourselves time and effort.
- \* Encourage participation and teamwork.
- \* Create outside-the-box thinking.
- \* Engage in more effective learning.
- \* Start decision making conversations.
- \* Improve our inquiry skills.

During this session we will explore the power of questions and their ability to make us and others think by looking at items such as:

- \* Listening to set the questions.
- \* Use of probing questions.
- \* Open and closed questions.

- \* Constructive conversations.
- \* Tone.
- \* Rephrasing.

Questions can help create and negate, learn and teach, and stop and start projects, connections and relationships.

Participants will walk away with ideas on how to sharpen their questioning skills to a fine tool which can be used to transform their every conversation and to increase their testing thinking.

*Tony Bruce is a professional, experienced, constantly learning, coaching and teaching agile team member who specialises in Testing and people.*

*He has worked in various industries with organisations such as Channel 4, Ernst & Young, LMAX and The Children's Society.*

*He is an active member of the Testing community, he hosts the London Tester Gathering and speaks at conferences all over the world.*

*And in case his accent has you confused, it's 1-part Aussie, 1-part English and 1-part American.*

---

## Pete George

### Pelican Associates (UK) Ltd

#### "Improving Product Quality through Building a More Effective Scrum Team"

This presentation makes the case that the self-organising Scrum Team is the bedrock of the Scrum development process and therefore building an effective team is extremely important to delivering products of greater value to the customer. In the last decade or so particularly, many companies have eagerly sought to adopt Agile methods, such as Scrum, expecting to see early and continuous delivery of valuable products. When that ideal is not always achieved they can spend a great

deal of effort trying to improve processes, skills and knowledge, but very rarely look at how the people actually doing the work interact.

Team building methods, from simply spending time down the pub to instruction in techniques such as Belbin team roles theory, may well improve the quality of the product far more than traditional quality improvement approaches, e.g. manual testing. Therefore, as a member of a Scrum team particularly interested in quality, the tester should consider how they might be involved in helping to build a more effective team.

*Pete George has been Director of Pelican Associates (UK) Ltd since 2005. He lives in Gloucestershire with wife, Lizzie. Six children between us, aged 14 - 23. Enjoys canoeing and rock climbing. Currently undertaking research project with University of Birmingham into a theological perspective of empowerment.*

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## Mark Smith Channel 4 & Andy Still Intechnica

"Mission Impossible:  
Effective performance evaluation  
as part of a CI approach"

This presentation by Mark Smith (QA Manager, C4) and Andy Still (Technical Director, Intechnica) will describe the approach Channel 4 took to ensuring performance assurance on a recent, major development project at C4, including the risks, challenges and outcomes. They will cover the challenges the project presented (see summary below), why a CI approach was adopted, and the approach taken to building performance checks into the CI process.

Project challenges:

- \* Architecture, infrastructure and code being delivered in parallel.
- \* New technology adoption:
  - \* Introduction of a noSQL database which had not previously been used by either Channel 4 or their development partner.
  - \* Utilisation of dynamically scalable AWS platform.
- \* Integration of 3rd party components.
- \* Dependent on other systems/services with known performance limitations.
- \* Short timescales.
- \* Relatively complex transactional functionality compared to core business systems which deliver primarily static content.
- \* High likelihood of flash flood traffic to the system on go-live.

*Mark Smith joined Channel 4 as Head of QA early 2012; prior to this Mark was QA Manager at ASOS.com for over three years during a period of huge expansion and international growth.*

*Andy Still is founder and Technical Director of Intechnica, a consultancy specialising in performance troubleshooting and engineering, whose clients include Channel 4, GlaxoSmithKline, Nisa Retail, Swinton Insurance and Permanent TSB.*

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## Christian Colombo & Mark Micallef University of Malta "Runtime Testing – From Assertions to Monitors" [Workshop]

No matter how much effort is put into testing, one can never be sure that the system under test will behave according to the requirements. Typically, once the system is deployed, little or no checking is performed to ensure that the system has not deviated from the expected behaviour. If the system does deviate, the system

administrator might not be able to immediately detect any problems. For example a few pence' error in financial transactions originating from a particular country might go unnoticed for a long while until an audit discovers an accumulated discrepancy. The solution to this problem is to somewhat perform an ongoing audit of the system's behaviour where any deviations are instantly visible.

Many test engineers are familiar with the concept of an assertion - explicitly stating assumptions which should hold throughout a system's execution and automatically raising an alarm if an assumption fails. Indeed, assertions do provide a means of ongoing auditing but they are severely limited in the expressive power they provide. Using only basic assertions, simple checks would quickly clutter the code they are meant to check.

The workshop starts by exposing delegates to the challenges of expressing non-trivial checks using basic assertions. Subsequently, delegates will be able to experiment with incrementally complex assertions and shown how these can be elegantly expressed using aspect-oriented programming techniques. Towards the end of the workshop, the use of aspect-oriented programming is superseded by a specialised monitoring tool which simplifies the task of specifying assertion logic even further. By the end of the workshop delegates would have had time to experiment with a typical monitoring tool and would hopefully appreciate the benefits of using monitors to test a system at runtime.

*Christian Colombo lectures at the University of Malta with a number of published papers in the area of runtime verification. In his research, he has developed a monitoring tool called Larva and applied it to industrial Java systems handling financial transactions. Recently, he has been exploring ways in which the closely related areas of runtime verification and testing can benefit from each other.*

*Mark Micallef has a Ph.D. in Software Engineering and currently lectures and carries out research in Software Testing at the University of Malta where he co-founded the Process Engineering and Software Testing (PEST) research lab. Although he currently calls academia home, Mark has over a decade of industry experience with international companies, has previously managed the BBC News testing team and been invited to speak at conferences such as the Google Test Automation Conference and STANZ. With a passion for bridging the gap between academia and industry, Mark is still actively involved with the industry, both in a consultancy role as well as on research collaboration initiatives.*

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## Clive Bates

### Experimentus

### "Keep Calm and Use TMMi"

Clive has been a significant supporter of the TMMi Foundation since it first started in September 2005. Over the last 8 years he has run a large number of TMMi assessments and in the last 12 months has certified 4 major organisations to either TMMi level 2 or 3 and a further 2 organisations at level 4 - in addition, he is currently working with 2 organisations assisting them in being certified to the top level of TMMi, level 5.

Certifications are only part of the story and they can certainly help organisations validate their practices. The bigger aspect though is that IT service providers are very clear they want practical and pragmatic help in identifying improvements to their processes that will mean they are more effective and efficient in their testing. Preventing defects and not just detecting them.

Over the last few years Clive has been fully involved with running a number of TMMi assessments and has seen the benefits that organisations have subsequently enjoyed.

There are a number of key factors that contribute to organisations improving their

processes and so in this presentation, Clive will explore the following points:

- \* Why improve what we do?
- \* An overview of the TMMi model
- \* How assessments work
- \* The current state of the nation

*Clive Bates is a Managing Consultant with Experimentus based in London and has a focus of managing test and quality process improvement assignments and the development the TMMi training offering. He is a TMMi Lead Assessor and conducted a number of assessments and training both in the UK and abroad.*

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## Are you looking for a Mentor?

Don't forget that you can use our linked in page to advertise for a mentor or, if you are happy to be a mentor, why not put your details up. <http://www.linkedin.com/groups?mostPopular=&qid=3466623>

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# Specialist Group Library

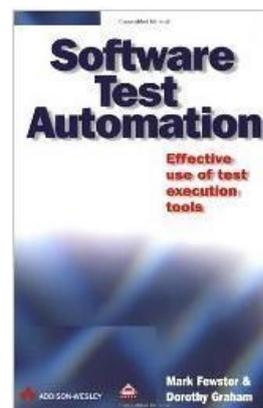
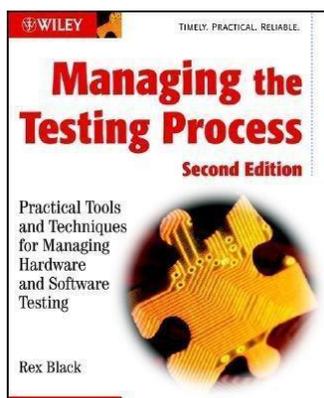
## Borrowing a book

Looking for a testing book but not sure which topics are covered? Or are you trying to decide which testing book to buy? Or do you simply want to increase your testing knowledge? If the answer to any of these questions is 'yes' then the BCS Software Testing Specialist Group Library could help!

The Library has lots of testing books covering a variety of topics and they are available to borrow for a period of 4 weeks - free of charge. Extended loans are allowed as long as the book has not been requested by another member.

Topics include (amongst others) Requirements testing, Reviews / Inspections, Test Management, Test Techniques and Test Process Improvement.

We are currently reviewing our library details on our website. In the meantime if you would like to know more about the library and books available please email out librarian Matt Archer at [sigistlibrary@bcs.org](mailto:sigistlibrary@bcs.org)



# Technical Debt

## - ignore at your peril

Peter Morgan

A major implementation is on the horizon and a potential schedule slipping difficulty arises. Project staff have a choice - a quick and dirty fix that protects the planned implementation date by kludging it or 'doing it properly' by applying a solution that will work both now and into the future and ensure that support staff in 2 or 3 months (or even perhaps 5 or 10 years) can understand what changes were made but which can or would jeopardise the production delivery. Welcome to the world of technical debt!

In such situations, the purist would say that the elegant, proper solution should always be done, and few would argue with the text book answer if timescales and cost were not a consideration. But these two factors cannot be ignored and they can be of over-riding importance at some stages in the software development life cycle. The IT department has to deliver software that is good enough to add business value - that is 'good enough', not necessarily 'perfect'. So when it comes to a debate between the purist and the pragmatist, what do project stake-holders want? Such people want working software that is deployed to the business (or shipped to customers).

So, I have used the term "technical debt" - what is it? There are many good definitions, some more wordy than others, and Wikipedia is not a bad place to start for the diligent reader [http://en.wikipedia.org/wiki/Technical\\_debt](http://en.wikipedia.org/wiki/Technical_debt). My own words encompass something we may realise at the time, and also perhaps with the benefit of hind-sight. "Something

we realise that we could have done better - with possible adverse consequences." Not all items that fall into this very generalised view are big ticket items - not removing a now unused column for a database table, or using a field for an alternative purpose (*i.e.* not what was originally planned) are two examples that seem trivial. I am sure that some will immediately think of their own examples. Seemingly small items that came back to bite both project staff and bite into contingency budget allocations.

The 'inelegant solution' (= kludged fix) can sometimes give rise to difficulties. But it is not only technical debt if it **DOES** give rise to a problem, it is technical debt if it **MAY** result in a difficulty. Redundant access to an otherwise unused database table may not seem of any import - until the table is removed because its original purpose is no longer appropriate. Not applying a 'proper' solution seems of little consequence, until it is a real month end crash over a bank holiday week-end.

In system generation there are rules, project standards and good practice. These sometimes need to be broken. The key is that if something is 'broken', it should be mended at the earliest opportunity. In the throes of UAT, there are occasions when I have by-passed the Configuration Management tool, in order to enable a halted schedule to be restarted as soon as possible. In such circumstances, the 'breaking' of the Configuration Management rule needs to be 'mended' as soon as possible - a proper delivery via CM within 24 elapsed hours, weekend not

withstanding is the guide-line that drives my actions in such circumstances. The same is true of Technical Debt - it is broken and may well need fixing.

Technical debt items need to be listed and as necessary, tabled into any program of future work. Two schedules that cannot run at the same time because they would corrupt shared data? Sounds like this needs 'fixing' in one way or another (either ensuring that no corruption takes place, or prevent simultaneous execution are two options, of possibly several). Any such items should be systematically examined and acted upon if the risk justifies it. Strangely enough, testers can be some of those best placed to catalogue items of technical debt - and suggest that certain matters are resolved whilst the code is open for a user-requested enhancement. Testers are not to be considered the 'quality police', and I hope that as a breed neither we nor others put that label on us. But we are something of guardians of quality on behalf of the wider project team. As such, we need to be aware of and concerned about technical debt.

Those of an Agile background have often educated the user base to build in refactoring sprints periodically, perhaps every 7th or 10th sprint delivering no new functionality. Please don't confuse refactoring sprints with eliminating technical debt. There can be some over-lay between the two ideas, but they are different. Technical debt can sometimes cover vertical segments of the software solution, impacting various technologies. Refactoring is usually smaller in extent. The two can be similar or even identical in some limited circumstances, but don't be fooled by the

thought that because you have refactoring sprints, with its emphasis on tight, self-documented code and performance / maintainability, you have covered off any technical debt that may have accrued. Technical debt resolution is another justification for 'do nothing' sprint activities.

So, we are returning to the position of being between a rock and a hard place that this article began with. Given that situation, which one would you choose? Perhaps it is both, so doing what is necessary to keep the implementation on track, but having a plan to enable a 'proper solution' to be implemented in the slightly longer term, maybe in the warranty release that is scheduled 6 weeks after the main production implementation. Two solutions to the same problem? If you ignore items of technical debt, you will have a few more significant things to think about. What to do when you receive your P45 end-of-employment notice being one of them!



---

## 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](mailto:phill.isles@bcs.org)



## Dr Stuart Reid FBCS CITP

### ISO 29119: The New International Software Testing Standards

In May 2007 ISO formed a working group to develop new standards on software testing – a new area for ISO - these standards will start being published in mid-2013. This initiative is closely-supported by IEEE and BSI, both of which have donated existing standards as source documents to the project (these standards will be retired when the new standards are published).

There are currently six new software testing standards in development:

- Concepts and Terminology (ISO/IEC/IEEE 29119-1)
- Test Processes (ISO/IEC/IEEE 29119-2)
- Test Documentation (ISO/IEC/IEEE 29119-3)
- Test Techniques (ISO/IEC/IEEE 29119-4)
- Keyword-Driven Testing (ISO/IEC/IEEE 29119-5)
- Test Assessment (ISO/IEC 33063)

This presentation describes the content of the standards, their development and the difficulties encountered in creating standards that are applicable to all organizations (from the smallest to the largest) and all types of project (from agile to traditional safety-critical). The challenge of creating new testing standards when quite disparate parts of the industry (e.g. some context-driven testers and parts of the defence industry) oppose the concept is also covered.

ISO 29119 has already been released in draft form for review (and subsequently been updated based on literally thousands of comments) and is already being used within a number of multi-national organizations. These organizations are already seeing the benefits of reusing the well-defined processes and documentation provided by a standard reflecting current industry best practices.

**Stuart Reid** is Chief Technology Officer at Testing Solutions Group. He has 30 years experience in the IT industry, working in development, testing and education. Application areas range from safety-critical to financial and media. Stuart also supports the worldwide testing community in a number of roles. He is convener of the ISO Software Testing Working Group, which is developing the new ISO 29119 Software Testing standard and is the software testing representative at BSI. He chairs the BCS Specialist Group in Software Testing and founded ISTQB to promote software testing qualifications on a global scale.

Stuart is a popular speaker at conferences on software testing, and is invited to present keynotes, tutorial and track sessions worldwide. He chaired EuroSTAR 2007, Europe's largest ever software testing conference with over 1200 attendees, won the European Testing Excellence award in 2001, and regularly writes magazine articles on software testing.

Further details and booking (this is a FREE event):

<http://www.bristol.bcs.org.uk/?q=node/168>

<https://events.bcs.org/book/568/>

# Experiences in Automating Requirements Based Testing

Dr. Mike Bartley, TVS

When buying a new car it is usually simple to state your requirements: "*I want it to go from 0 - 60 mph<sup>1</sup> in 8 seconds*"; "*I want it to give 50 mpg at a steady speed of 60 mph*" and "*I want it to be yellow*". It is also easy to check your car meets these requirements. For example, there are numerous websites on acceleration and fuel efficiency for every type of car. You can even get technical on the colour. But such simple consumer requirements become harder when we turn to technology. I recently needed to buy a laptop that could deliver both PowerPoint and Linux demonstrations to two separate screens. The websites tried to sell me on CPU and memory which I found hard to translate back into my requirements.

When it comes to software, requirements become even more difficult to state and test products against. In support of all of our experiences, there are a number of surveys<sup>2</sup> that attest to the fact that many projects fail (missed deadlines; budgets exceeded; requirements not met) due to the difficulty in accurately record and maintain user requirements. Indeed, it is

well known that users have trouble to define their requirements.

My company, TVS, works with a number of companies to help them test their software and verify their hardware. They capture their requirements in a variety of formats: documents; Use Cases; User Stories; Specification by Examples; Specifications as tests. Some of them use requirements tracing which gives them the ability to follow the life of a requirement, in both a backward and forward direction.

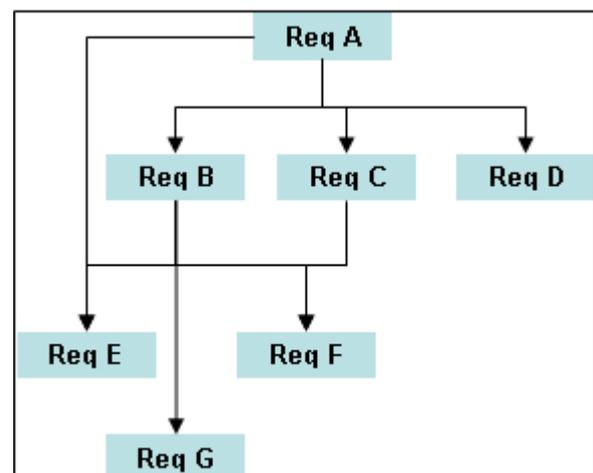


Figure 1: Bi-directional requirements tree

<sup>1</sup> For those fully metric, "mph" means "miles per hour" and "mpg" is "miles per gallon". You can replace these with "metres per second" and "kilometres per litre" without any loss of understanding.

<sup>2</sup> For example, Bull 1998 and Chaos Report 1995.

Requirements tracing offers a number of advantages. For example, it is possible to more easily understand the impact of a change in the requirements or understand which product features do not actually relate to any requirement.

The technique is important in building rigorous software systems and mandated in a number of industries (U.S. Food and Drug Administration, Aeronautics (DO-178B, DO-254), Railway Transportation (EN-5012x), Automotive (ISO26262, IEC 61508) and many others). There are a number of tools (such as Doors, Reqtify, Enterprise Architect, Jira) to support requirements tracing but our customers reported to us that they did not offer good support for testing. At best they map requirements to tests without any connection to test status, test results and test history. The rest of the paper discusses our experiences of automating the collection of such data.

The automation has been embodied in a tool that allows the user to map their requirements directly to tests. As seen above, those requirements are often in the form of a hierarchical tree and the user can map from any point in that tree to any test through a many-many relationship. This extends the analysis described above to include test orphan analysis (*i.e.* identify

tests which don't actually map to any requirement), and extending impact analysis to include testing. One important advantage is that the user can see what requirement each test maps to. This helps to document the tests: a number of testers often inherit test databases and the first question to answer is "what are they testing?" By mapping them to requirements that question becomes much easier to answer.

The users were keen to ensure that the automation did not just record status (*i.e.* pass and fail) against a test as this information comes quite late in a project. So the user can record a status of defined (we have identified the tests required for this requirement), written (those tests are now written), executing and passing. Our customers tell us that this gives them a much earlier, more realistic view of the test status than just waiting to tests are running and passing.

The test "executing" and "passing" information is collected through a simple interface that the user calls from their existing test automation scripts. The tool also automatically records the source code version of the product being tested. This allows the user to build up an historic status for the testing which helps the testers to more accurately predict

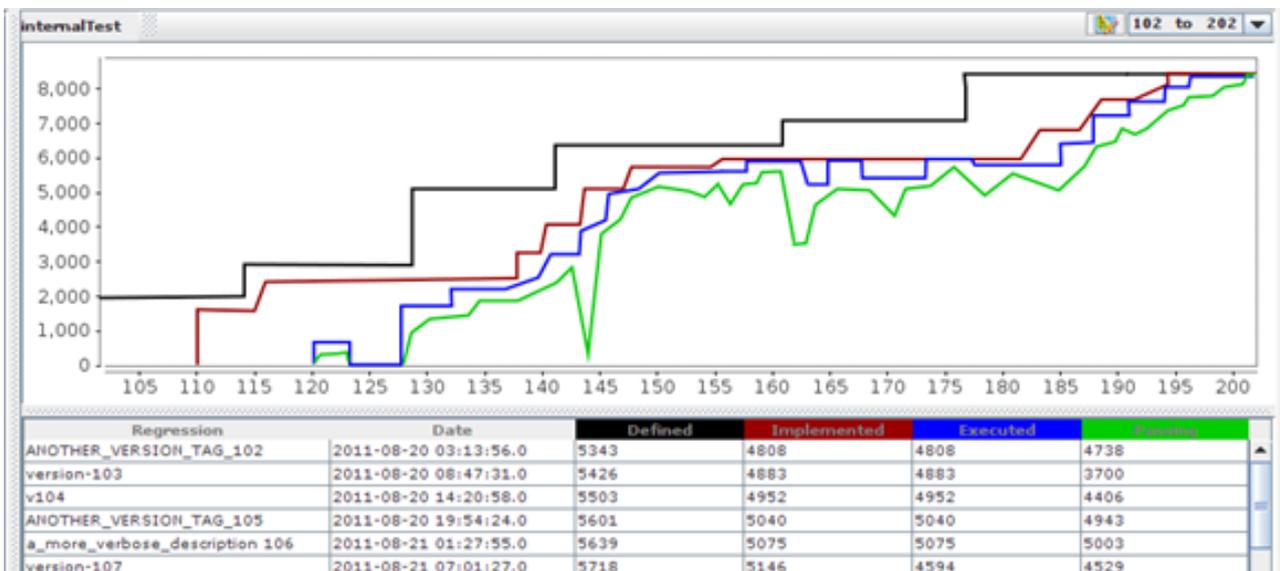


Figure 2: Tracking test status using "defined", "written", "executing" and "passing?"

completion. Users are also able to view the test status using the requirements hierarchy thus giving a unique view for each requirement.

The tool has been used in a number of flows and environments. Figure 3 shows how it gets used in a sequential flow (the "V-model" in this case).

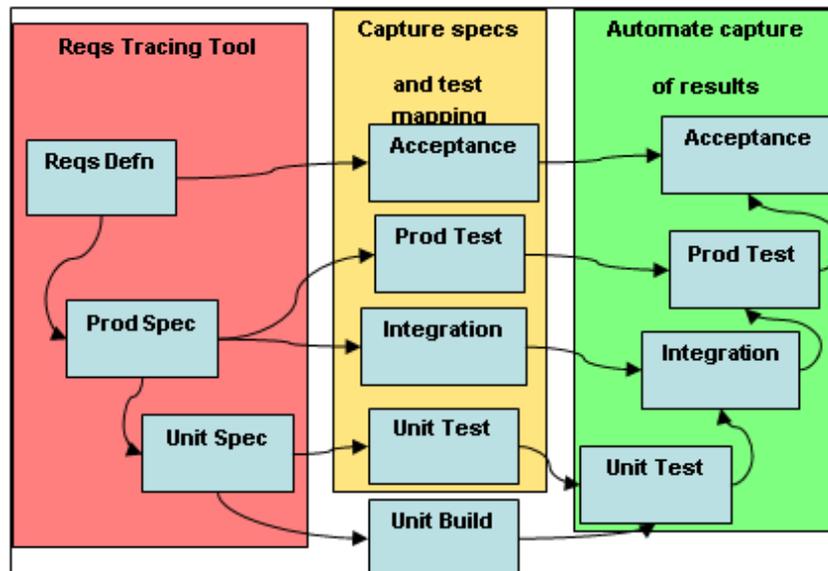


Figure 3: Supporting a sequential flow

However, the automation can also be used to support techniques more usually associated with iterative environments.

- \* "Use Cases" or "User Stories" can be recorded as "requirements" and then mapped to their associated tests.
- \* Test Driven Development: Add the tests into the database and map them to the requirements they test. You can then track how the tests initially fail and then start passing as the product code adds the features they test.
- \* Testing with scrum: The automation helps to ensure the features being added within the sprint are all mapped to tests and thus increase the likelihood they will get tested within the sprint (which one of the keys to successful testing in scrum). Also, if tests from previous sprints start to fail then it is easy to see which features are broken.
- \* Code refactoring: As you refactor your code some tests often start failing. The automation allows you to easily identify

which requirements or features have been broken.

The concept behind the automation we have described is simple. We record the mapping of requirements (in their varying formats) to tests using a simple SQL database that can also record the version of the code being tested and the results of the tests from existing automation flows. The advantages for the user are

- \* Reports on the percentage of tests defined, written, executing, passing (not just a "pass / fail" status) against the requirements and aggregated for their position in the requirements hierarchy.
- \* Use the recorded historical perspective for more accurate test completion predictions.
- \* Support for regulatory-based requirements signoff.

Future features to be added will allow automatic connection to a bug database and code coverage results.



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# SOA Gear

## An automated approach for SOA Testing

Shajahan Pulikkal, UST Global



### Abstract

Service Oriented Architecture (SOA) can help solve the problems of reusability and maintainability which object-oriented, component-oriented analysis and design methods cannot solve. SOA can also eliminate the integration problem which is brought by different protocols, hardware and software platforms. The traditional client-server architecture has failed to meet the requirements of modern enterprise applications, while the SOA architecture allows IT environments more flexibility and responds faster for constantly changing business requirements. SOA also allows heterogeneous systems and applications as far as possible to communicate in order

to cut costs and best use existing technology.

SOA makes software quality both more important and more difficult to achieve. Conventional testing approaches are insufficient to validate the quality in a SOA environment, as SOA systems are not screen-centric but integration-centric. Also the process flow across application stacks and technologies needs to be considered. An inside out, layer-by-layer test strategy needs to be implemented to ensure the quality. This approach can involve different levels like functionality, interoperability, security, performance and governance to ensure the quality.

In this paper, I will firstly introduce the structure of SOA and then proceed with an analysis on different areas of SOA testing. I will also cover an automated testing mechanism to overcome different challenges in SOA testing.

## SOA Evolution

As Service Oriented Architecture begins to form the fabric of IT infrastructure, actively and aggressively testing Web Services has become crucial. Comprehensive Functional, Performance, Interoperability and Vulnerability testing form the pillars of SOA testing. Only by adopting a comprehensive testing stance can organisations ensure that their SOA is robust, scalable, interoperable, and secure.

Web Services have blurred the boundaries between network devices, security products, applications and other IT assets within an organisation. Almost every IT asset now advertises its interface as a Web Services Definition Language (WSDL) interface ready for SOAP / XML messaging. Web Services interfaces provide unprecedented flexibility in integrating IT assets across internal and external corporate domains. Such flexibility makes it the responsibility of IT staff from

all domains such as Developers, Network Engineers, Security & Compliance Officers, and Application QA Testers to ensure that their Web Services work as advertised across functional, performance, interoperable and security requirements.

SOA is an architectural style whose goal is to achieve loose coupling among components which leads to greater re-use of business logic. Service Oriented Architecture provides a framework for independent services to interact with each other across a network. This allows a complex distributed system to be assembled quickly and cost-effectively from individual services.

A service is re-usable, easy-to-program, and independent of programming language or platform. It can be best thought of as a reusable application function, used as a component in a business process. A service is able to provide this function over and over again to various service requesters. It is this ability to reuse the service, and the practice of breaking down each business process into a series of services, that generates the efficiency benefits of a SOA.

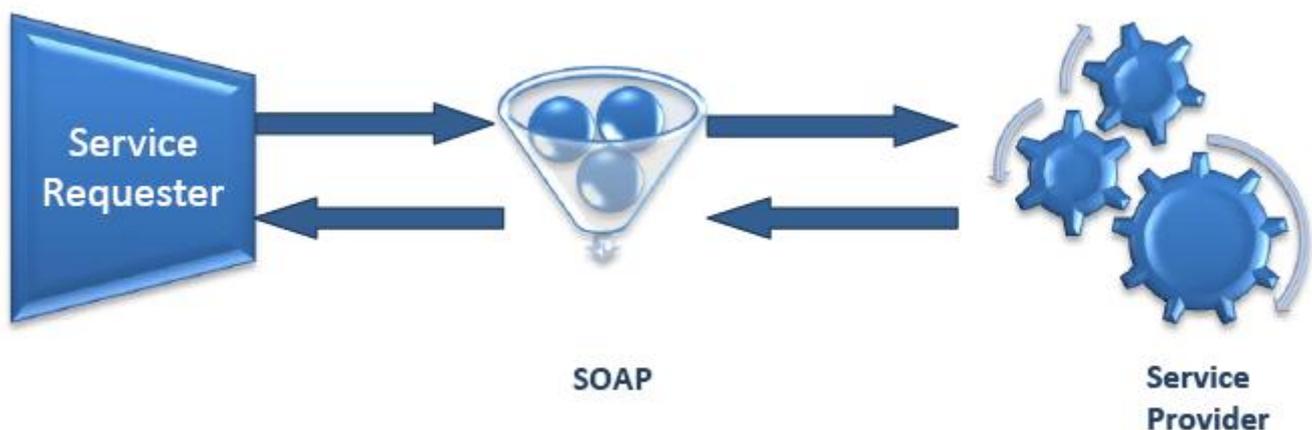


Figure 1 - SOA Architecture

### SOA Entities

SOA consists of three major entities:

- Service Provider

Creates the services and publishes them by registering the implemented services in the service broker.

- Service Consumer

Identifies the services in the service broker and bind their application to the service provider.

- Service Broker

Services are defined, managed and controlled by the broker - Universal Description Discovery and Integration (UDDI).

### SOA Benefits

SOA provides benefits in five basic categories:

- Reducing integration expense
- Increasing asset reuse
- Integrate heterogeneous system
- Increasing business agility
- Reduction of business risk

## Observations and Challenges of SOA Testing

### Observations

- Service Oriented Architecture makes software quality both more important and more difficult to achieve.
- An inside out layer-by-layer test strategy needs to be implemented to ensure the quality.

### Challenges

- Conventional testing approach is insufficient to validate the quality in SOA environment.
- SOA systems are not screen-centric but integration-centric.

## SOA Testing Tools

To establish a comprehensive end-to-end SOA testing framework, the selection of effective and efficient tools is the key. Figure 2 lists some of the best tools available in the market and their rating.

Vendor	Tool	Parameters					
		Test Process Management	Service Virtualization	White Box/Unit Testing	Component Level Testing	Workflow Testing	Load Testing
ITKO	LISA	✓	✓	✓	✓	✓	✓
GREENHAT	GH Tester	✓	✓	✓	✓	✓	✓
Parasoft	SOATest	✗	!	✓	✓	✓	✓
HP	Service Test	✓	✗	✓	!	!	!
eviware	SOAPUI Pro	!	✓	!	✓	✓	✓
IBM	Rational Tester	✓	✗	!	!	!	!

Legend	
Strong	✓
Intermediate	!
NA	✗

Figure 2 - SOA testing tool analysis report

## SoapUI

An open source SOA testing tool  
<http://www.soapui.org/>

SoapUI is a free and open source cross-platform functional testing solution. With an easy-to-use graphical interface, and

enterprise-class features, SoapUI allows you to easily and rapidly create and execute functional, regression, compliance, and load tests. In a single test environment, SoapUI provides complete test coverage and supports all the standard protocols and technologies.

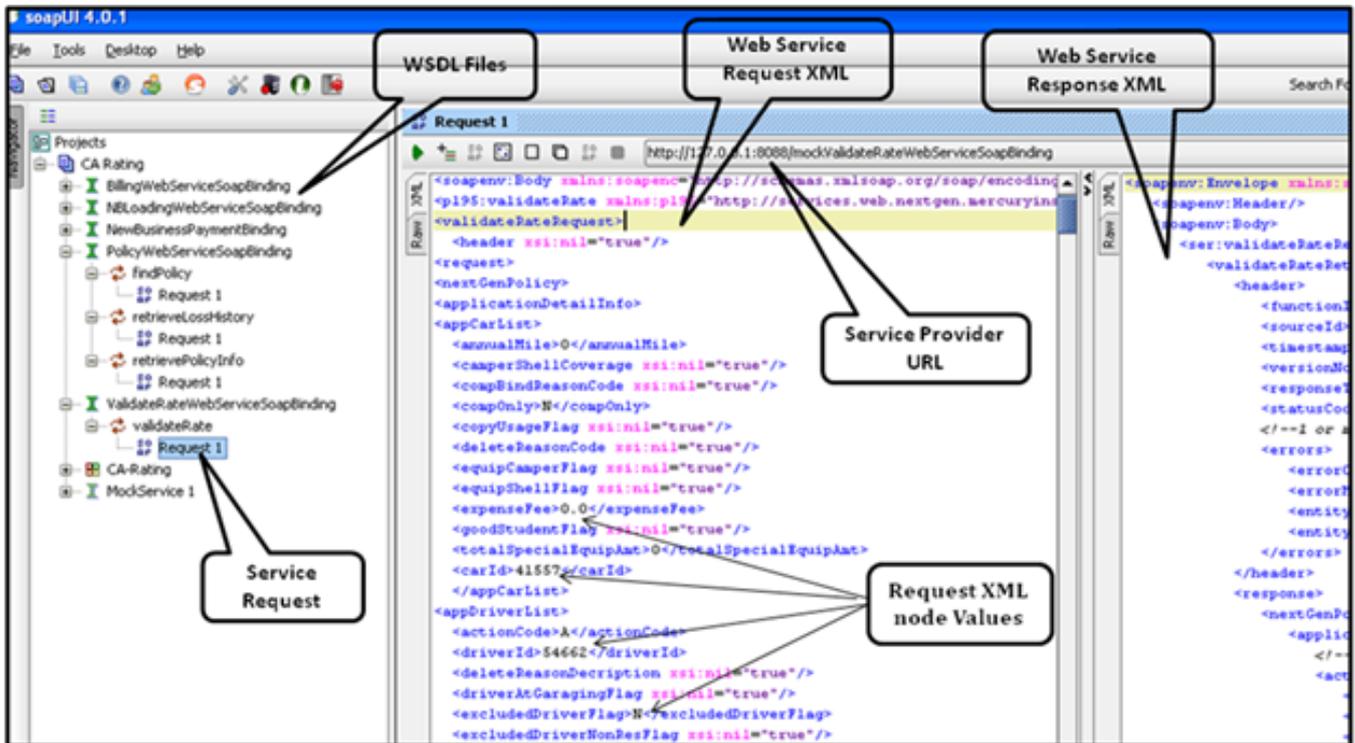


Figure 3 - SoapUI tool [http://www.soapui.org/]

## How to approach?

We have to validate web services separately with different input combinations to ensure that they are working as expected at the component level. Existing SOA testing tools available in the market can be used to interact with Service Providers through request / response XML files. A large amount of manual effort is required to manipulate XML files, which will lead to an increased possibility of corrupted XML. An automation script can be implemented to replace those manual efforts by generating request XML files dynamically based on different input data combinations and the XML schema. The script can be extended

to validate response XML files with expected baseline results.

## Proposed SOA Automation Framework

The proposed SOA Automation Framework 'SOA Gear' is an automated testing mechanism to overcome different challenges in SOA testing. A large amount of manual effort can be replaced with SOA Gear by dynamically creating the request XML file based on the given test data. SOA Gear will control the entire test execution and test results can be updated in Quality Center.



Figure 4 - SOA Gear (proposed solution)

## SOA Gear Workflow

SOA Gear execution steps are described below based on the above architecture diagram.

Step 1. Groovy Script generates request XML file based on the given test data sheet which relates to test scenarios.

Step 2. Request XML wrappers in to Soap Message and send to the Service Provider through SOAP protocol.

Step 3. SOA Auto Pack connects the correlated services and achieves the business logic.

Step 4. It consolidates the final result from the service response and writes in to result sheet using groovy script.

Step 5. Test case Pass/Fail will be identified based on the data values on actual result sheet and given expected result sheet.

Step 6. SOA Gear will integrate with QC to accomplish the end to end test execution

flow by updating the test result in QC automatically.

Step 7. The framework controls the execution of all scenarios according to the input data values provided in Test data sheet.

## Key benefits of SOA Gear

- \* SOA Gear can help to launch the web service testing in early stage even before the application screens are ready.
- \* SOA Gear automation framework approach ensures 100% test coverage.
- \* The approach ensures entire validation of application process flow within short span of time using SOA Gear.
- \* Once SOA Gear is all set, test execution becomes easier and faster.
- \* Request / response xml files of each service will be saved for further analysis.
- \* Selective execution of service / test case can be implemented based on the controller sheet in test data.
- \* Automatic verification of response xml files against expected results.
- \* Request XML files will be created dynamically based on XML schema and the input values provided through test data sheet.



## Conclusion

Through the detailed analysis of Service Oriented Architecture we identified that SOA testing is important and difficult. There are a number of SOA testing tools available in the market to make SOA testing easier, but most of the tools are costly and a large amount of manual intervention is required to accomplish the task. In this report we introduced a new approach to overcome those limitations and challenges. An automated SOA testing framework is proposed 'SOA Gear' which can make SOA testing easier, faster and cheaper. It can make sure the quality of individual / integrated services within SOA architecture. SOA Gear can perform SOA testing in the very early stage of any SOA project life cycle and it can reduce defect prevention cost and timelines.



*Shajahan Pulikkal has been with UST Global for over three years. He is has 7 years of IT experience with notable success and expertise in the field of Automation Testing. He provides support for different projects within UST Global as a SOA testing consultant. Shajahan has developed numerous in-house tools to make testing faster and more accurate with maximum test coverage.*

shajahan.pulikkal@ust-global.com

# Event Listings

If you would like your event listed here, please contact the Editor on [phill.isles@bcs.org](mailto:phill.isles@bcs.org)

## May

### **Bristol Branch Talk**

21 May 2013

Bristol, UK

<http://www.bristol.bcs.org.uk/?q=node/168>

## May

### **SIGiST**

23 May 2013

London, UK

<http://www.next-generation-testing.com/>

## June

### **SIGiST**

11 June 2013

London, UK

<http://www.bcs.org/server.php?show=nav.9264>

## July

### **UK Test Management Forum**

31 July 2013 (TBC)

London, UK

<http://uktmf.com/>

## September

### **SIGiST**

12 September 2013

London, UK

<http://www.bcs.org/server.php?show=nav.9264>

## October

### **STARWEST**

29 September – 4 October 2013

Anaheim, US

<http://starwest.techwell.com/>

## November

### **EuroSTAR**

4 – 7 November 2013

Gothenburg, Sweden

<http://www.eurostarconferences.com/>

## December

### **SIGiST**

5 December 2013

London, UK

<http://www.bcs.org/server.php?show=nav.9264>

## Spring / Autumn

### **BCS Scottish Testing Group**

Spring / Autumn

<http://www.bcs.org/category/9729>





## Are you recording your CPD?

You may have seen some announcements recently regarding the launch of the new BCS Personal Development Plan. It's a cloud-based solution where you can record your Development Goals and the Activities you plan and complete to reach those goals. It has a responsive design which enables you to use it on compatible smartphones in addition to tablets and standard PCs. One of the largest challenges to keeping accurate CPD records is being able to record them at the point of need, which this approach is intended to overcome.

Once you have set your preferences, BCS can send you information on new videos, articles, blogs and upcoming events that may be of interest to you, and you can use the built-in reports to analyse your CPD Activity spread. You can also create your own data fields, if you need extra ones over and above those delivered as standard. You can choose to record as little or as much information as you like, and use the Resources to get ideas on how to build up your skills and knowledge.

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.

# THE TESTER

## SIGiST Autumn Conference Thursday 12<sup>th</sup> September

### 46

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#### From the Editor

Welcome to the autumn edition of The Tester magazine, covering the September 2013 SIGiST conference. Unusually for the UK, we have had some hot, dry weather over the summer, but this is bound to change. Another change is the venue for our September conference. From September we will be at **The Barbican**, City of London. See page 9 for details on how to get there.

For the conference, I would like to thank our event sponsors **Sogeti & HP**, and our event supporters, **Experimentus** and **Testing Solutions Group**. Come along to The Barbican to talk to their representatives. The September conference also contains our annual AGM. This will take place before the conference starts at its usual time.

In The Tester this month, along with the conference agenda and speaker abstracts, there is an article on the annual EuroSTAR conference, and a career related interview

Phill Isles  
The Tester Editor  
[Phill.Isles@bcs.org](mailto:Phill.Isles@bcs.org)

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#### 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/763/>



#### LinkedIn

Our LinkedIn site carries details of our conferences as they become available. It also provides a place where people can discuss testing topics, make requests about future conferences, find employment opportunities and generally keep up to date with our chosen industry. Visit the group on LinkedIn and make a request to join. We currently have over 1,000 members.

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



# Conference Agenda

BCS SIGiST – Autumn 2013 Conference Thursday 12 September 2013 The Barbican Centre Silk Street, London. EC2Y 8DS.		
08:30	Coffee & Registration, Exhibition opens	
09:15	<b>SIGiST Annual General Meeting</b>	
09:25	<b>Introduction and Welcome</b> Stuart Reid, SIGiST Chair	
09:30	Opening Keynote	
	<b>Bees – A Model for Agile Teams</b> Stevan Zivanovic	
10:30	<b>Open Microphone and Networking session</b>	
10:45	Tea / coffee break	
11:15	<b>Changing Attitudes to Testers in Financial Services</b> Steve Ramsay, Independent Consultant	<b>Morning Workshop</b>  <b>NoCode Test Automation</b> Senyo Affram, Fofx Solutions
12:00	<b>Improve Testing for Customer Services and Service Management</b> Shirley Lacy	
12:45	<b>Sogeti / HP Vendor Talk</b>	
13:00	Lunch break Opportunity to visit the Exhibition	
14:00	<b>Data-driven Testing – Experiences with Testing Postal Address Data</b> Stephen Hill, Allies Computing	<b>Afternoon Workshop</b>  <b>Adopt the Principles, Adapt the Practices</b> Stevan Zivanovic
14:45	<b>Integration of Enterprise Applications &amp; Performance Management</b> Mahesh B Gadataranavar, Nous Infosystems	
15:30	Tea / coffee break	
16:00	Closing Keynote	
	<b>ISO 29119: The New International Software Testing Standards</b> Stuart Reid	
17:00	- Closing Remarks -	

The SIGiST committee reserves the right to amend the programme if circumstances deem it necessary.  
Workshops will have limited places, to avoid disappointment try to book in advance.



## Specialist Group in Software Testing

### The BCS Specialist Group in Software Testing

# Notice of Annual General Meeting

Notice is hereby given that the Annual General Meeting of the BCS Specialist Group in Software Testing (SIGiST) will be held on Thursday 12<sup>th</sup> September 2013. The venue for this meeting will be the Barbican Centre, London.

## Agenda

- ❖ Welcome and Introductions
- ❖ Apologies for absence
- ❖ Reports
  - Chair
  - Treasurer
  - Standards committee
- ❖ Committee elections
  - Secretary
  - Social Media
- ❖ To consider any nominated business

Items for inclusion on the AGM agenda should be emailed to [maureen.shannon@bcs.org](mailto:maureen.shannon@bcs.org). Additions to the agenda must be received no less than three days prior to the meeting.

# SIGiST Election process

Elections will normally take place at the SIGiST Annual General Meeting (AGM) in September. In extraordinary circumstances (e.g. early resignation) the SIGiST committee has the power to invite someone to take on any of the vacant roles until either the AGM or an Extraordinary Meeting when the role will be filled using the election process described here.

Elections are required in two sets of circumstances:

1. Automatically after a SIGiST Committee member(s) has held a position for 3 years.
2. If a SIGiST committee member resigns before the completion of their 3 year tenure.

The basic process to be adopted for any election follows:

Task	Timescales
When an election is to take place at an AGM the available positions should be announced. Otherwise, for an Extraordinary Meeting, an email will be sent to all registered email addresses on the SIGiST database announcing the election(s).	No later than 30 days prior to the election.
The name of any member accepting nomination for election or re-election as an Officer or as a Committee member should be submitted in writing to the Secretary, with an accompanying short manifesto (no more than a page of A4) describing what they expect to bring to the role, by two members of the Group and with the written consent of the nominee. See the Member Group Rules for further details: <a href="http://www.volunteer.bcs.org/Rules">http://www.volunteer.bcs.org/Rules</a>	At least 20 clear days prior to the election (after this point no more applications will be accepted).
A list of applicants for each job is released to the SIGiST members via email together with their manifestoes.	10 days prior to election.
Election takes place during AGM or Extraordinary meeting.	At the AGM or Extraordinary Meeting.

Rules
1. Each candidate may stand for as many positions as they want (and can vote for every position available – subject to item 4 below), but may only hold one position. In the event that someone is elected to more than one role then they must immediately decide which role they wish to take up and vacate the other positions. The second-placed candidates for the vacated positions are then elected to those roles.
2. Should the nominations number equal to or less than the vacancies, the nominees will be deemed to have been duly elected without an election.
3. A simple majority is required to be elected to a position.
4. Only members as defined in section 4. of the SIGiST constitution may vote
5. Voting is only allowed if the member is physically present at the AGM
6. The formal voting process will take place on the day of the meeting (a simple show of hands).

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**Visit our stand at the SIGiST conference Thursday 12<sup>th</sup> September 2013**



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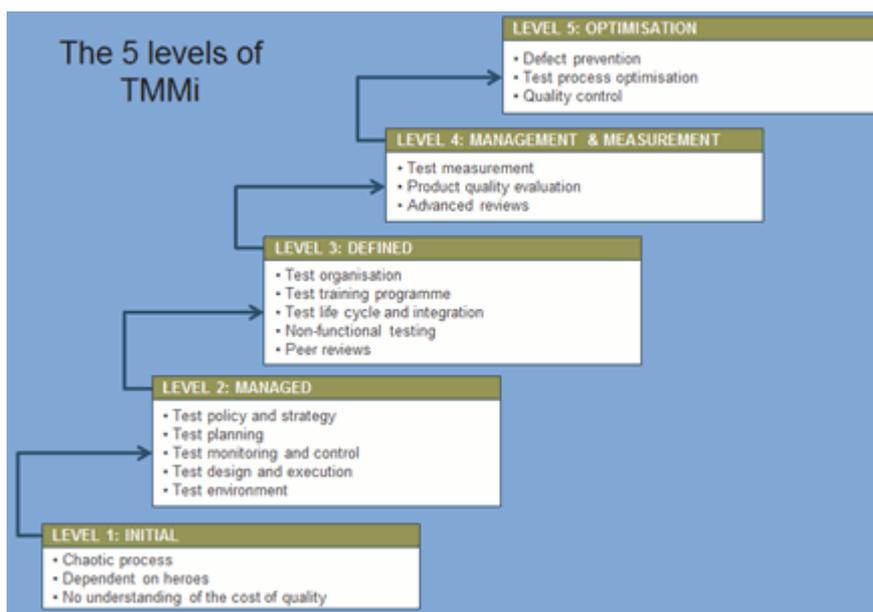
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**Visit our stand at the SIGiST conference Thursday 12<sup>th</sup> September 2013**

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or call me on +44 (0)207 871 2301



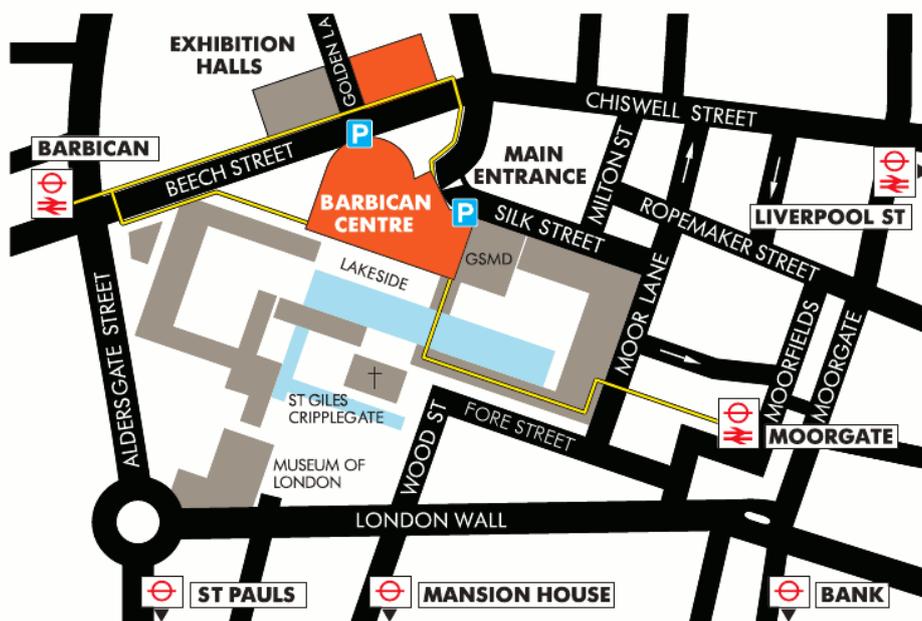
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<http://www.experimentus.com/training/tmmiprof.htm>



# SIGiST Conference New Venue!



From the September 2013, the SIGiST moves to the Barbican Centre, City of London, for our quarterly conferences. Full details of how to get to the Barbican can be found on their website: <http://www.barbican.org.uk/visitor-information>. The closest London Underground stations are Barbican, St Paul's and Moorgate.



— Pedestrians are advised to follow the yellow line routes to gain access to the Barbican Centre

GSMD Guildhall School of Music and Drama

The SIGiST conference will be located in Frobisher Auditorium 1, Frobisher Room 1 and the Conservatory Terrace, on the fourth floor of the Barbican. These will be clearly sign-posted on the day.

# Presentation Abstracts and Speaker Biographies

## Stevan Zivanovic

### “Bees – A model for Agile Teams”

The use of metaphors to better understand our everyday activities is well understood. To help question what we do and how we behave, particularly in Agile teams, the speaker will use his experience of working in Agile teams and compare this with his other passion, that of bee keeping.

Using videos of the speaker’s own bee colony and extrapolating the social model of a beehive, the speaker will relate these to the structure and behaviour of an Agile team.

The result is that you, as a professional tester, will have a better understanding of the dynamics of an Agile team, what behaviours you need to demonstrate and the expected outcomes and how not to get you or your team stung. In addition you will also gain a better understanding of bees!

*Stevan Zivanovic loves to support people to achieve their best. His long career in the IT industry has taken him from a practitioner in the discipline of software testing to a management consultant; advising, supporting and enabling individuals and teams to change. He has used Agile practices to successfully deliver projects and translated these experiences to facilitate others to achieve. Other interests include Systems Thinking, Decision Theory and use of modelling techniques. Stevan now provides facilitation, training and consultancy services to a wide range of organisations enabling them to*

*make real, sustainable and beneficial change. Stevan’s other great passion, other than his wife of course, is in beekeeping – a self-organising system that provides huge sustainable benefits to others around it.*

## Steve Ramsay

### “Changing attitudes to testers in Financial Services”

Having built a successful testing practice for a large law firm in 2009, Steve Ramsay moved back into the financial sector and over the past two years has noticed a marked change in attitudes to testers (testing) by senior management, fuelled in part perhaps by the global banking crisis. Recent high profile failures of banking and other systems have illustrated the reliance we all place on computer software.

Steve will share his experiences of senior managements changing attitudes to testers and the perceived indifference of testing suppliers to adapt. He will examine the driving factors behind these changing attitudes and what he thinks senior managers currently want. He will also examine some of the innovations in testing that he feels goes some way to bringing the industry back towards what buyers want to see.

*Steve Ramsey first spoke at SIGIST in 2009, where he shared his experience of building a testing practice at Linklaters LLP, arguably the world’s biggest law firm. Steve held the position*

*for IT Projects and Testing Manager until 2010, when he left Linklaters to take a senior programme management role at JP Morgan. Steve has recently joined the Realization Group's Post Trade Services to build their implementation business.*

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## Shirley Lacy

### "Improve Testing for Customer Services and Service Management"

The delivery and management of technology enabled customer services requires coordination of all the elements that contribute to services, including technology, processes, people and partners or suppliers. Testing failures can result in painful disruptions and poor service quality that can ultimately lead to dissatisfaction and loss of customer loyalty. They can also lead to serious delays in getting new or changed services and products to market at time.

Shirley will share her experiences and key concepts in ITIL service management best practices that change people's mindset and attitudes to service design and testing, including Agile projects. She will outline key testing scenarios across the ITIL service lifecycle that enable a service provider to deliver value to customers and improve quality of service.

The automation of service management processes is increasing as part of digital transformation and the move to cloud services. Shirley will highlight and explore key processes that require automation and testing.

*Shirley Lacy is Managing Director of ConnectSphere that specialises in the application of service management best practices to deliver value from IT investments. ConnectSphere aims to unite, empower and*

*build the capability of its clients to deliver value to customers.*

*Shirley leads ConnectSphere's consultancy and ITSM implementation practices. She has worked in various roles across the service, product and software lifecycles. Shirley has established software and service management processes within many organizations, often as part of business and technology transformation programmes and/or achieving ISO/IEC 20000 certification. She holds the ITIL Expert certificate and is an accredited trainer for ITIL and ISO/IEC 20000.*

*Shirley is highly regarded within the industry and is an authority on service management practices. Shirley is a co-author of the ITIL Service Transition publication that includes the Service Validation and Testing best practices. She was also the project mentor for the ITIL 2011 update.*

*Shirley is the UK representative on the International Standards groups that develop service management, software and systems engineering and cloud computing standards.*

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## Senyo Affram

### Fofx Solutions

### "NoCode Test Automation" [Workshop]

Test automation has a lot of potential benefits. However, some of the technical challenges can render test automation totally ineffective.

Most organizations write too many lines of code to automate anything. The test automation scripts in most cases take a significant amount of time to develop and are usually difficult to maintain. Automated test cases are not always easy to read and understand. Some automation solutions are change-intolerant. This code-intensive approach yields little dividend for test automation.

The "no-code test automation" concept encourages the design of a test automation

framework that requires no coding efforts. Effective automated test can be created in no time. Test cases are more expressive and easy to maintain. The test framework is more robust and adapts to changes easily.

This workshop explores and illustrates the philosophy of “no-code test automation” using RobotEngine. By the end of this session, participants should be able to design an effective robust test automation framework that requires no coding.

*Senyo Afram is Lead Engineer at Fofx Solutions Inc. Having started his career as a Software Developer Senyo has spent the last five years researching, designing and building test automation solutions.*

*Senyo has had the opportunity to implement test automation solutions for companies such as the Federal Reserve Bank and Nokia to reduce the cost of testing significantly.*

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## Stephen Hill

### Allies Computing Ltd

#### "Data-driven testing - Experiences with testing postal address data"

Address data capture is very important and popular in e-commerce systems. Postal authorities are increasingly looking to formalise their data and make address data available for developers to use in websites and applications.

Here, in the UK, Royal Mail has made available one of the most complete, yet complex, address databases (in terms of percentage of properties to which mail is deliverable being present on the database and in terms of the data elements available) in the world. Through links with organisations like the Office for National Statistics and Ordnance Survey address data can be used for much more than just mail routing.

Allies Computing Ltd has been active in the address management industry for over 25 years now and has gained a lot of experience in handling addresses in the UK and is looking to international datasets now.

In my presentation I would like to introduce delegates to some interesting facets of UK postal addresses that can cause problems for the unwary such as giving a false sense of completeness of an address, why public perception of a ‘proper’ address might be incorrect and also introduce some of the rich datasets that tie in to Postcodes and how they can be used.

I will outline my test approach using examples of live data that delegates may wish to try in their own websites and applications to see how well they are processing ‘simple’ addresses.

*Stephen Hill has spent 12 years as a tester for Allies Computing Ltd and still learns new things every day! He considers himself a context-driven tester with a passion to learn as much as possible about the craft. He is involved in the Software Testing Club and networks extensively.*

*Outside testing he is interested in law, history and travel and can be found in the public galleries of Courts, the British and Science Museums and airports!*

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## Mahesh B. Gadataranavar

### Nous Infosystems

#### "Integration of Enterprise Applications & Performance Management"

Proactive approach to end-to-end Performance Management for enterprise applications that are integrated in heterogeneous environment is crucial to achieve the business objectives and optimize returns on IT spending. Post deployment, application performance and

quality of service (QoS) issues will have an impact on Enterprise Application's computing ability and operational efficiency.

A good understanding of Enterprise Application integration challenges and scalability issues is essential in strategizing a layered performance engineering approach that includes performance testing, performance modelling and optimization across various aspects like application architecture, design and underlying IT infrastructure. The topic covers the enterprise application performance management overview, key considerations and best practices.

***Mahesh B. Gadataranavara** is a Bachelor of Engineering (B.E) graduate in Electronics and Communication (E & C) and has over 14 years of experience in the IT industry. He has expertise and experience in test architecting, test consulting / solutioning and test management roles and is well acquainted with various testing methodologies, test frameworks, tools and best practices. In his current role, he manages test architecting and solutioning activities for various requirements in niche testing areas like Test Automation, Performance Testing and Mobile Application Testing. He has participated in independent quality / test assessments to analyse the application functional stability and measured various test metrics.*

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## Stevan Zivanovic

### "Adopt the Principles, Adapt the Practices" [Workshop]

The workshop will focus on the Agile Principles and how they impact your work. You will be given the opportunity to:

- Define your understanding of Agile, the Manifesto and Principles
- Develop this understanding to influence how it would impact your future practice

- Plan one action on an activity that you would introduce to your project

***Stevan Zivanovic** loves to support people to achieve their best. His long career in the IT industry has taken him from a practitioner in the discipline of software testing to a management consultant; advising, supporting and enabling individuals and teams to change. He has used Agile practices to successfully deliver projects and translated these experiences to facilitate others to achieve. Other interests include Systems Thinking, Decision Theory and use of modelling techniques. Stevan now provides facilitation, training and consultancy services to a wide range of organisations enabling them to make real, sustainable and beneficial change. Stevan's other great passion, other than his wife of course, is in beekeeping – a self-organising system that provides huge sustainable benefits to others around it.*

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## Stuart Reid

### Testing Solutions Group

### "ISO 29119: The New International Software Testing Standards"

In May 2007 ISO formed a working group (WG26) to develop new standards on software testing – a new area for ISO – the first three standards are due for publication in July / August 2013. This initiative is closely-supported by IEEE and BSI, both of which have donated existing standards as source documents to the project (these standards will be retired as the new standards are published).

Three new software testing standards are being published in July / August 2013:

- Concepts and Terminology (ISO/IEC/IEEE 29119-1)
- Test Processes (ISO/IEC/IEEE 29119-2)
- Test Documentation (ISO/IEC/IEEE 29119-3)

And the following three standards are currently in development:

- Test Techniques (ISO/IEC/IEEE 29119-4)

- Keyword-Driven Testing (ISO/IEC/IEEE 29119-5)

- Test Assessment (ISO/IEC 33063)

This presentation describes the content of the standards, their development and the difficulties encountered in creating standards that are applicable to all organizations (from the smallest to the largest) and all types of project (from agile to traditional safety-critical). The challenge of creating new testing standards when quite disparate parts of the industry (e.g. some context-driven testers and parts of the defence industry) oppose the concept is also covered.

ISO 29119 has already been released in draft form for review (and subsequently been updated based on literally thousands of comments) and is already being used within a number of multi-national organizations. These organizations are already seeing the benefits of reusing the well-defined processes and documentation provided by a standard reflecting current industry best practices.

*Stuart Reid is Chief Technology Officer at Testing Solutions Group. He has 30 years' experience in the IT industry, working in development, testing and education. Application areas range from safety-critical to financial and media. Stuart also supports the worldwide testing community in a number of roles. He is convener of the ISO Software Testing Working Group, which is developing the new ISO 29119 Software Testing standard and is the software testing representative at BSI. He chairs the BCS Specialist Group in Software Testing and founded ISTQB to promote software testing qualifications on a global scale.*

*Stuart is a popular speaker at conferences on software testing, and is invited to present keynotes, tutorial and track sessions worldwide. He chaired EuroSTAR 2007, Europe's largest ever software testing conference with over 1200 attendees, won the European Testing Excellence award in 2001, and regularly writes magazine articles on software testing.*

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## Are you looking for a Mentor?

Don't forget that you can use our linked in page to advertise for a mentor or, if you are happy to be a mentor, why not put your details up. <http://www.linkedin.com/groups?mostPopular=&gid=3466623>

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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](mailto:phill.isles@bcs.org)

# Specialist Group Library

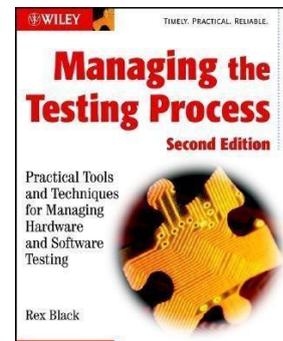
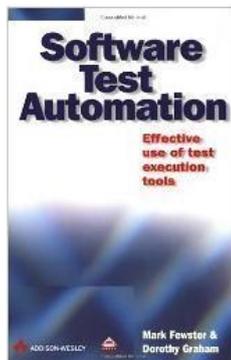
## Borrowing a book

Looking for a testing book but not sure which topics are covered? Or are you trying to decide which testing book to buy? Or do you simply want to increase your testing knowledge? If the answer to any of these questions is 'yes' then the BCS Software Testing Specialist Group Library could help!

The Library has lots of testing books covering a variety of topics and they are available to borrow for a period of 4 weeks - free of charge. Extended loans are allowed as long as the book has not been requested by another member.

Topics include (amongst others) Requirements testing, Reviews / Inspections, Test Management, Test Techniques and Test Process Improvement.

We are currently reviewing our library details on our website. In the meantime if you would like to know more about the library and books available please email out librarian Matt Archer at [sigistlibrary@bcs.org](mailto:sigistlibrary@bcs.org)



# Gothenburg in November

Peter Morgan

In November, the EuroSTAR train rolls into Gothenburg. And, 'no' – I don't mean trains that leave St Pancras International station – the testing community had the name 'EuroSTAR' first, with STAR stemming from **S**oftware **T**esting, **A**nalysis and **R**evue. The annual gathering of (some) European testers is in Gothenburg in the West of Sweden, from November 4<sup>th</sup> – 7<sup>th</sup>.

If you have never been to a EuroSTAR conference and never been to Sweden, hey, you can combine the two! Mind you, unless you tag some days onto either end, you may not see too much of Sweden. There are some great speakers in the program (follow the link: <http://www.eurostarconferences.com/conferences/2013/conference-at-a-glance>), and as usual, Brits are well represented. Some of those speaking are well known, some less so, but they all have a story to tell, and it is **hard** to be selected to speak – I had the rejection slips yet again this year.

The EuroSTAR conference is not static; hot topics come and go, technologies change and as a conference, EuroSTAR like to try new things. Many of these occur outside the main conference sessions. I have forged many lasting friendships with testers across Europe and beyond from attending these gatherings. Informal breakfast meetings to discuss experiences of Agile, or talking techniques into the evening over a pie and a pint.

The conference proper starts on Tuesday lunchtime, with the first 1½ days given over to tutorials. Depending upon other commitments, I have sometimes attended

tutorials (you pay extra for these by the way) and here there are world-class speakers. Titles for these include "Coaching Software Testers" and "Insights into Exploratory Testing".

It is probable that there will be an introduction to EuroSTAR on the Tuesday morning, aimed at those that have never attended this conference, but of benefit to many on "how to get the most out of the conference". This will NOT recommend specific sessions to attend, as we all have different needs, but tips, pointers and wrinkles to enable you to add real value to the companies that you work for, and to advance your career.

You may have to do a hard-sell to find the funding to attend, but think imaginatively. If the company will come up with the money, you will use 4 days of your own holiday allowance. (Don't make that offer first as you may not need to, and ensure you have any family permission before hand!) In the end it will be of great benefit to you AND to those you work for, if my experience is anything to go by.

If you have any further questions on logistics, try the EuroSTAR web-site (<http://www.eurostarconferences.com/>). Alternatively, speak to someone who has been, or drop me an e-mail ([morganp@supanet.com](mailto:morganp@supanet.com)).

I'll see you in Gothenburg in November. You know it makes sense!

# 15 minutes with ....

Phil Scrace of Red Gate Software Ltd.



**Stephen Brockwell** and **Jennifer Lumley** of E-Assurance spent 15 minutes with **Phil Scrace** of Red Gate Software Ltd talking about his career in testing so far.

My career in Testing - Phil Scrace Senior Tester at Red Gate Software - Winners of the Best Use of Agile, Private Sector at the UK Agile Awards 2012.

*How did you get into testing in the first place?*

My training and first job was in structural engineering, well the technology in that market anyway. I was working with VBScript, VBA and Excel as tools for planning and the projects I was working on got canned. A guy I met at University suggested I might like to work at Crystal, joining as a Graduate.

*What do you think helped you develop your career the most?*

Self-improvement is a very important trait – you need to keep moving forward and learning new things, technology evolves so fast these days. My character matches the culture of Red Gate which is to make things better, to do good stuff for the users and to be inquisitive.

I see you have taken the ISEB Foundation and Intermediate certification. Why did you decide to take these qualifications and do

you think having them has helped in your career development and if so in what way? Coming from a different industry I felt I needed to take my ISEB qualification to feel recognised as a software tester, it was important to me to feel professional in the industry.

*You have worked in software testing for 11 years what advice would you offer people at the beginning of their testing careers who are keen to travel down a similar path?*

Be open and receptive to opportunities, treat everything as a chance to learn and hone your skills (even the more repetitive tasks can be interesting if you look at them as a learning experience). Assume you know very little and soak up as much as you can from everyone. Get involved in as many different things as possible, communicate with people and be reliable. If you are working, go out to users and talk with them about what problems they have then go to the business stakeholders and find out what problems they have, once you have a full picture you can try and solve the problems and close the link. Make a difference!

*Staying up to date with new approaches to testing, tools, etc. can be a full time job in itself. How do you stay in touch with what is happening in the market?*

I am a blog writer and consumer which helps me get involved with what is going on. I follow technically advanced companies such as Google, Microsoft and Spotify.

We really push learning at Red Gate – we have ‘Down tools week’ 4 times a year when people spend the time researching ideas, we sit in different areas of the business learning about what they do and seeing if we can come up with ideas of how to make things better. We have forums for trading ideas and research new ideas, at the moment I am interested in model based testing so am spending time learning about that.

#### What do Red Gate products do?

We primarily develop off-the-shelf desktop software for DBAs, database and .NET Developers, although we are really excited about our ‘on demand offering’ for backing up databases to the cloud. Data management and building quality quickly are areas of focus which are fascinating, at the moment we are releasing 3 - 4 times a month, our aim is to release 2 - 3 times a day.

#### How has your approach to testing at Red Gate changed since you joined the company nearly 5 years ago?

We are moving towards a lightweight continuous software build process where we now code quickly and are very light in literature, all internal documentation is wiki based.

#### How do you structure testing at the moment?

We have lots of Agile scrum teams incorporating all software engineering skills, these change and move with projects. Quality is very much up-front in the design process and Test Engineers are involved from the very first requirement sessions along with all members of the team – we all get information at the same time. Test activities are viewed as much a part of the process as everything else and

are often supported by the Software Engineers.

#### What projects are you working on now?

I am currently working in the SQL Source Control team. Whilst my primary focus is testing, we get involved in most aspects of the project from planning, design, usability and release process.

Across Red Gate, we have some very exciting projects and all get involved, Chris (Head of Test Engineering), for instance, is a member of the test team on one project and is also spending time looking for new talent to join us. We are looking for people who are passionate about software testing and who also have skills in one or more of these areas:

- \* User experience
- \* Exploratory testing
- \* Load testing
- \* Coding in C# or any similar language

#### What plans do you have to change anything around testing?

As we move towards web technologies, our testers will be given opportunities to up-skill where necessary to meet the unique challenges this will bring.

Building quality in to the feedback loop quickly.

Looking for new people to join us who are passionate about software testing.

Continuing to reassess the role of testing / quality and the shape / tasks in our teams.

#### What do you most enjoy about heading up a testing practice?

I really get enjoyment from doing things well for our customers and fixing problems and helping people develop their careers, seeing them learn new things and building careers. Making a difference is very important.

[Phil.Scrace@red-gate.com](mailto:Phil.Scrace@red-gate.com)

To find out more about careers in testing at Red Gate please email Jodie or Sarah at [careers@red-gate.com](mailto:careers@red-gate.com)

For advice and information about careers and training in software testing contact Jennifer Lumley or Stephen Brockwell of e-Assurance [Jennifer.Lumley@e-assurance.co.uk](mailto:Jennifer.Lumley@e-assurance.co.uk), [Stephen.Brockwell@e-assurance.co.uk](mailto:Stephen.Brockwell@e-assurance.co.uk). Regular updates on the software testing community can be found at @eAssurancejobs. 

E-Assurance is a specialist Testing group within e-Resourcing and was the ninth IT recruitment organisation out of 3,750 corporate members to achieve REC's highly prized 'Audited' status. In addition the company has won national recognition, including being named in the Sunday Times Fast Track 100 in 2009 and the Recruiter's Fast Track 50 in 2010, 2012 and 2013.

<http://www.e-resourcing.co.uk/>

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# Event Listings

If you would like your event listed here, please contact the Editor on [Phill.Isles@bcs.org](mailto:Phill.Isles@bcs.org)

## September

### **SIGiST**

12 September 2013  
London, UK

<http://www.bcs.org/server.php?show=nav.9264>

### **STARWEST**

29 September – 4 October 2013  
Anaheim, US

<http://starwest.techwell.com/>

## October

### **BCS Scottish Testing Group**

8 October 2013  
Edinburgh, UK

<http://www.bcs.org/category/9729>

### **Intelligent Testing Conference**

17 October 2013  
Bristol, UK

<http://testandverification.com/intelligent-testing/>

### **London Testing Gathering Workshops**

17 – 18 October 2013  
London, UK

<http://skillsmatter.com/event/agile-scrum/ltg-workshops>

### **Agile Testing Days**

28 - 31 October 2013  
Potsdam / Berlin, Germany

<http://www.agiletestingdays.com/>

### **UK Test Management Forum**

30 October 2013  
London, UK

<http://uktmf.com/>

## November

### **EuroSTAR**

4 – 7 November 2013  
Gothenburg, Sweden

<http://www.eurostarconferences.com/>

## December

### **SIGiST**

5 December 2013  
London, UK

<http://www.bcs.org/server.php?show=nav.9264>

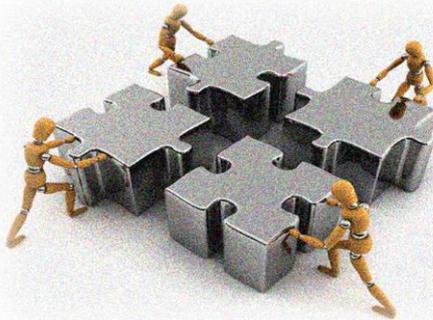


# Intelligent Testing™

Bristol, 17<sup>th</sup> October 2013

UWE Conference Centre

Improve the efficiency and effectiveness of your testing



*Sponsors:*



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**Coveritas**

*Gold Sponsors*

TVS will be hosting the first Intelligent Testing Conference in Bristol this October. This half-day conference will focus on how to improve the effectiveness and efficiency of our software testing.

The keynote address will be provided by Dot Graham, an entertaining and distinguished speaker known to many of you. Dot holds the European Excellence Award in Software Testing, has co-authored four books on software testing, brings a vast experience in test automation to the conference and is always well worth listening to.

We are assembling an exciting mix of industry speakers who will discuss a range of techniques to improve software quality and reduce time-to-market such as using and proving assertions, adopting "shift left" techniques and introducing static analysis prior to dynamic testing. The full conference agenda will be announced shortly.

So if you are interested in learning about new way to improve the way software is tested, want to share your testing challenges and leave with new ideas, join your peers for what will be a stimulating, entertaining and rewarding event.

For more information and to register for this FREE conference, visit:

<http://testandverification.com/intelligent-testing/>



## BELGIUM TESTING DAYS 2014 CONFERENCE, 17-21 MARCH 2014, BELGIUM

With Belgium Testing Days in 2014, we are looking at its 5<sup>th</sup> edition, growing to be an international conference, welcoming attendees and speakers from all over the world. During all those years, the team received a lot of positive comments from speakers, sponsors and attendees, but the best is yet to come!

### THE “DOING” CONFERENCE

When the people behind Belgium Testing Days started to brainstorm for the next edition, they’ve decided to change their old concept, and think about a complete new concept!

Different from other conferences, the edition in March 2014 will be a “doing” conference. This conference will be a mix of hands-on labs, case studies, stunning solutions, lab sessions and many things more! It will be a conference full of practical learning opportunities. Or as they say: a conference for you, and with you!



### THE DIFFERENT FACES OF TESTING

Everybody who has visited one of the last editions knows that they work with a new theme every year. In 2014, they want to discover “the different faces of testing”. At this moment, the team is getting to know these different faces and, as every year, they want your advice in their search!

### JOIN THE BELGIUM TESTING DAYS

Do you have any proposals or ideas to make the Belgium Testing Days better? Then you can join their call for proposals or you could become a buddy, blogger or reviewer. We, the BTD Team, value your input and your help. More information about these calls, you can find on <http://btdconf.com/>, or via social media!



If you want to see the result of all those changes and discover the different faces of testing, the team of Belgium Testing Days will welcome you from the 17<sup>th</sup> till the 21<sup>st</sup> of March 2014! Until then, you can follow them on Twitter <http://twitter.com/BelgiumTD> (BelgiumTD) or LinkedIn <http://www.linkedin.com/company/belgium-testing-days?trk=prof-following-company-logo>, like them on Facebook <https://www.facebook.com/belgiumtestingdays?fref=ts> or visit their new website (<http://btdconf.com/>) for more information!

**bcS**  
The Chartered Institute for IT

# Personal Development Plan

Your portable record of professional aspirations and activities

Desktop/Laptop

Tablet

Smartphone

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

The BCS Personal Development Plan (PDP) uptake is going well, with over 1,000 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/> and selecting the "Give me ideas" link.

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.

# THE TESTER

## SIGiST Winter Conference Thursday 5<sup>th</sup> December

47

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### From the Editor

Welcome to the winter edition of The Tester magazine, covering the December 2013 SIGiST conference. The last SIGiST of 2013 is again being held at **The Barbican**, City of London. See page 4 for details on how to get there. Dates for the first two SIGiST conferences of 2014 are now also available, including our 25th Anniversary conference in June 2014.

In The Tester this month, along with the usual agenda and speaker biographies, we have the second article in our careers series, Fifteen minutes with.... Also check out the Belgium Testing Days conference 2014, where SIGiST members get a discount on the registration fees - see their website for details.

For the conference, I would like to thank our event supporters, **Testing Solutions Group** and **Experimentus**. Come along to The Barbican and talk with their staff about Testing and Training.

Phill Isles  
The Tester Editor  
[Phill.Isles@bcs.org](mailto:Phill.Isles@bcs.org)



Follow us @SIGiST

### 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/475/>



### LinkedIn

Our LinkedIn site carries details of our conferences as they become available. It also provides a place where people can discuss testing topics, make requests about future conferences, find employment opportunities and generally keep up to date with our chosen industry. Visit the group on LinkedIn and make a request to join. We currently have over 1,000 members.

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



# Conference Agenda

BCS SIGiST – Winter 2013 Conference Thursday 5 December 2013 The Barbican Centre Silk Street, London. EC2Y 8DS.	
08:30	Coffee & Registration, Exhibition opens
09:25	<b>Introduction and Welcome</b> Stuart Reid, SIGiST Chair
09:30	<b>Opening Keynote</b>
	<b>Intelligent Mistakes in Test Automation</b> Dot Graham
10:30	<b>Open Microphone and Networking session</b>
10:45	Tea / coffee break
11:15	<b>Anyone Fancy a Year Off?</b> Dave Oxley, McAfee
12:00	<i>Panel Discussion</i> <b>Should software testers be able to code?</b> Dot Graham, Alan Richardson, Stuart Reid and Paul Gerrard
11:15	<b>Morning Workshop</b> <b>Flowcharting for Software Testers</b> Graham Thomas, Independent Consultant & Phill Isles, HSBC
12:45	<b>Vendor Talk</b>
13:00	Lunch break Opportunity to visit the Exhibition
14:00	<b>Quick Wins in Agile</b> Peter Morgan
14:45	<b>Test Automation in the Cloud</b> Jonathon Wright
14:00	<b>Afternoon Workshop</b> <b>Test Automation Patterns</b> Dot Graham
15:30	Tea / coffee break
16:00	<b>Closing Keynote</b>
	<b>Continuity Testing</b> Ranjodh Singh
17:00	- Closing Remarks -

The SIGiST committee reserves the right to amend the programme if circumstances deem it necessary.  
Workshops will have limited places, to avoid disappointment try to book in advance.

# Conference Supporters



Testing Solutions Group Ltd specialises in testing and assurance for new and changed systems; a capable and trusted partner to test and assure business critical development programmes.

Our Software Testing Consulting Services range from a full audit to helping you develop your Test Policy and Test Strategy and optimisation of your software development life cycle, through to maximising the benefits of Test Automation or User Acceptance Testing.

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**Visit our stand at the SIGiST conference Thursday 5<sup>th</sup> December 2013**



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Experimentus is an IT solutions and services company who working in partnership with our clients understand their business and technical objectives, and develop solutions designed to reap the benefits of a 'shift left' mentality, these include:

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**TMMi Assessment and Certification** - Assessing and certifying companies against the industry standard Test Maturity Model (TMMi) and where required providing a roadmap of improvements and return on investment

**TMMi and iTM Licensing** - Licensing our accredited Test Maturity Model (TMMi) assessment method and our intelligent Test Method (iTm) to help companies achieve better/more efficient software management processes throughout their organisation

All of our services are underpinned by our award winning **intelligent Test Method (iTm)** a complete test management framework. Incorporating comprehensive Process Maps, Procedures, Templates, Checklists and Guidelines and comprehensive training material. All based upon TMMi, International testing standards and ISTQB. iTm can be used to help improve and/or supplement an existing framework and is suitable for small to global test programmes.



**Find out more about TMMi and iTM**  
**Come visit our stand at the next BCS SIGiST event 5<sup>th</sup> December 2013**

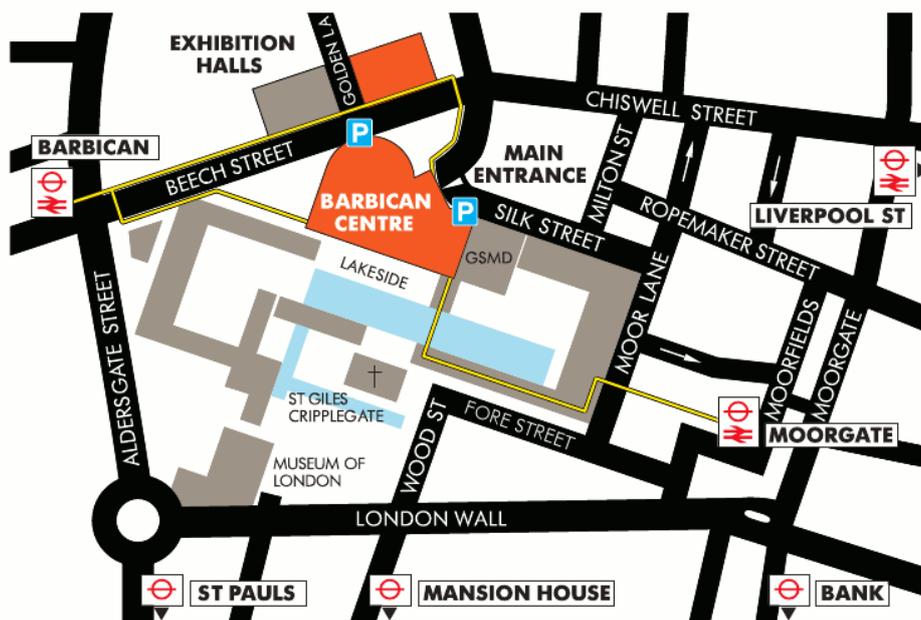


Contact me at [annie.quinn@experimentus.com](mailto:annie.quinn@experimentus.com)  
 Or call me on +44 (0)207 871 2301  
[www.experimentus.com](http://www.experimentus.com)

# SIGiST Conference New Venue!



From September 2013, the SIGiST conferences moved to the Barbican Centre, City of London. Full details of how to get to the Barbican can be found on their website: <http://www.barbican.org.uk/visitor-information>. The closest London Underground stations are Barbican, St Paul's and Moorgate.



— Pedestrians are advised to follow the yellow line routes to gain access to the Barbican Centre

GSMD Guildhall School of Music and Drama

The SIGiST conference will be located in Frobisher Auditorium 1, Frobisher Room 1 and the Conservatory Terrace, on the fourth floor of the Barbican. These will be clearly sign-posted on the day. From the Lakeside main entrance, take a lift (just inside the doors) to the fourth floor.

# Presentation Abstracts and Speaker Biographies

## Dot Graham

### Intelligent Mistakes in Test Automation

A mistake is where you do something wrong; an intelligent mistake is doing the wrong thing but for reasons that seemed sensible or logical at the time.

There are a number of ideas in test automation that seem sensible at first glance, for very good reasons. However, there are problems lurking below the surface, where what seemed like a good idea turns out to be a mistake. In this presentation Dot will cover five of these “intelligent mistakes”:

- automated tests should find lots of bugs
- make sure you get the right tool
- automate all of our manual tests
- we must prove Return on Investment (ROI)
- testing tools are for testers to use

Knowing the pitfalls of what seems like a good idea is the first step to avoiding the problems.

*Dorothy Graham has been in software testing for 40 years, and is co-author of 4 books: Software Inspection, Software Test Automation, Foundations of Software Testing and Experiences of Test Automation. Dot was programme chair for the EuroSTAR conference in 1993 and 2009, and has been attending the SIGiST since it began in 1989. She has been on the boards of conferences and publications in software testing, was a founder member of*

*the ISEB Software Testing Board and was a member of the working party that developed the first ISTQB Foundation Syllabus. She was awarded the European Excellence Award in Software Testing in 1999 and the first ISTQB Excellence Award in 2012. She is currently working on a Test Automation Patterns Wiki with Seretta Gamba.*

## Dave Oxley McAfee

### Anyone fancy a year off?

Why wait until you’ve released a product to see how good it’s going to be? With the right mind set, realistic but challenging goals and regular executive reviews we can drive significant improvements across releases. We can also predict prior to release whether we’re on track to release a better quality product than last time. This presentation will look at this process in the context of a team adopting Scrum for the first time. We’ll cover why, what and how to measure and show how big the engineering savings can be.

*Dave Oxley is currently a Director of Quality at McAfee. Dave has spent the last 17 years running teams in development, support and testing. For the last 2 years he’s been focused on driving improvements in customer satisfaction across a business unit spanning 14 time zones, which involves a lot of travel for someone who hates flying.*

# Graham Thomas

Independent Consultant  
&  
**Phill Isles**  
HSBC

## Flowcharting for Software Testers [Workshop]

By now many of you will have heard about the Raspberry Pi, the \$35 British computer that is helping schoolchildren to learn how to write computer programs. To date over 1.75 million have been produced. A real success story.

Some of you may also know that over the last 18 months I (Graham) have been actively trying to reconvert the world to using flowcharts.

Well now Phill and I have brought these two themes together in the form of a highly interactive flowcharting workshop presented using the Raspberry Pi and a programmable Robotic Arm.



This session should be informative, fun, and productive. Informative in that you will find out how really powerful a \$35 computer can be. Fun because we will use the Penguins logic puzzle game on the Raspberry Pi as the basis for the flowcharting exercise. And productive because you will learn or relearn how powerful quick and easy it is to generate flowcharts to aid in your daily work.

To play an active part in this workshop you will need something to draw flowcharts with,

be that notepad and pencil, computer, tablet or phone.



**Graham Thomas** currently works in two key areas of software testing; program test management and testing change & transformation. His current focus is on helping testers and the organisations he works with in transitioning to more agile ways of working.

*Graham has extensive experience in IT across a number of industry sectors including; Finance (Banking, Treasury & Insurance), Utilities and Retail. This has been gained in software house, consultancy and end user environments. He has specialised in software testing since the early 1990's.*

**Phill Isles** currently works as a Test Manager for HSBC Private Bank. He has worked in the field of software testing since 2000, mainly for banks, but has also had roles as a Tester in media organisations.

*Phil's software testing interests are in process improvement (by whatever means), and also in Tester education. He is a volunteer for the BCS and the UKTB for the ISTQB range of qualifications.*

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## Peter Morgan

### Quick Wins in Agile

You want to do 'Agile' but where do you begin? Or you are on a project that is supposed to be Agile, but is quite heavy-weight (or perhaps 'clumsy' is a better term). How do you as a tester bring your contribution to the team, and get real value to the business?

This session will bring some key items that can enable you to turn the corner when testing on an Agile project.

Please don't expect a silver bullet to success; no two projects are the same and there is no single item that is universally successful.

Peter will call upon his experience in both traditional and Agile projects to bring real things you can take home:

- The nature of the stand-up – expectations vs. accountability
- The whole team has to deliver. Testers do other things .....and others do testing
- The 4 P's: the **Positive Power of Peer Pressure**
- Agile should be fun, but it can also be quite scary
- Get developers to demo things to you
- Not every sprint has to deliver new functionality
- Not every delivery is implemented into **PROD on its own**
- Planning is the key

*Peter Morgan is a freelance testing professional with more than 30 years' experience in the ICT industry. His time has sometimes moved from testing to 'development', but he would add "always using the mind-set of a tester". An enthusiastic speaker and author, Peter tries to base his output on hands-on experience, attempting to relate fine sounding ideas back to how it will affect Joe or Jane Tester in their everyday working lives.*

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## Jonathon Wright

### Test Automation in the Cloud

What is the future of test automation? The possibilities associated with cloud computing provide instant scalability, flexibility and availability for testing on demand with no upfront investment. This provides the industry with a perfect opportunity to utilise powerful test automation solutions.

The global testing cloud marketplace will allow for the joint collaboration of leading test specialists following industry best practice. This enables firms of all sizes to access the latest test approaches and methodologies whilst providing a unified platform for domain experts to represent business processes and user story acceptance criteria in a natural language.

*Jonathon Wright has over 13 years of commercial automation experience with a number of international organisations. Currently working on providing Test Automation as a Service to a number of global clients.*

*Jonathon also contributed to the recent "Experiences of Test Automation: Case Studies of Software Test Automation (2012)" and a number of upcoming books on test automation and testing in the cloud. He is an active blogger on "Test Automation as a Service" (TaaaS.net) as well as presenting at various international testing conferences (StarWEST (California) / Fusion (Sydney) / ANZTB (Melbourne)).*

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## Dot Graham

### Test Automation Patterns [Workshop]

Many people encounter problems in automating test execution. Typical problems are: trying to get started with automation, unrealistic management expectations, such as too high a Return on Investment (ROI), or high maintenance cost for the automated tests. The bad news is that lots of people have problems like this with their automation. The good news is that there are solutions to these problems, which have been used by lots of other people and really work.

A "pattern" is a general reusable solution to a commonly occurring problem. Patterns have been popular in software development for many years, but they are not commonly recognized for test automation. Seretta Gamba initiated a collection of common

problems (issues) and their solutions (patterns) which she and Dorothy are developing as a wiki.

In this workshop, Dot gives you a brief guided tour of some issues and patterns. You will then work with an offline version of the wiki (supplied on a USB stick to copy to your laptop) to investigate your own issues and identify patterns to help resolve them.

*Dorothy Graham has been in software testing for 40 years, and is co-author of 4 books: Software Inspection, Software Test Automation, Foundations of Software Testing and Experiences of Test Automation. Dot was programme chair for the EuroSTAR conference in 1993 and 2009, and has been attending the SIGiST since it began in 1989. She has been on the boards of conferences and publications in software testing, was a founder member of the ISEB Software Testing Board and was a member of the working party that developed the first ISTQB Foundation Syllabus. She was awarded the European Excellence Award in Software Testing in 1999 and the first ISTQB Excellence Award in 2012. She is currently working on a Test Automation Patterns Wiki with Seretta Gamba.*

testing method. However, the depth of expert testing varies between test engineers. This may lead to test engineers, being allocated a certain amount of time to perform expert testing but lack the capacity or idea to execute it properly. Another problem is that engineers who constantly perform expert testing may experience “burn out” whereby, it will be more difficult for these test engineers to generate new expert test scenarios. Continuity testing will help expand expert testing capabilities by producing more chances to find issues and will assist test engineers to generate more robust test scenarios. The workings of Continuity Testing are that every interaction will produce a certain state. Hence, it will take the newly produced state of an interaction as the current active state and then interact with another event to produce a new state of the product being tested and so forth. The result would be able to increase the test coverage of a product. It will also help to improve Phase Containment Effectiveness (PCE) and reduce Cost of Poor Quality (CoPQ) as more defects are uncovered earlier during testing. It would also allow test teams to improve its test efficiency rate.

## Ranjodh Singh

Dell

### Continuity Testing

Most of the defects captured by the test team, particularly which are above the line (ATL) defects are found using the expert

*Ranjodh Singh has over 10 years in software testing field and has held positions as a Test Architect and Test Program Manager. He currently works as a Test Engineering Advisor for Dell where he leads all QA and Testing activities from conception through delivery and maintenance. In addition to a Bachelor's degree in Computer Science, Ranjodh holds certifications in ISEB (Software Testing), PMP, ITIL (Expert) and CobiT.*

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## Are you looking for a Mentor?

Don't forget that you can use our linked in page to advertise for a mentor or, if you are happy to be a mentor, why not put your details up. <http://www.linkedin.com/groups?mostPopular=&gid=3466623>

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# Specialist Group Library

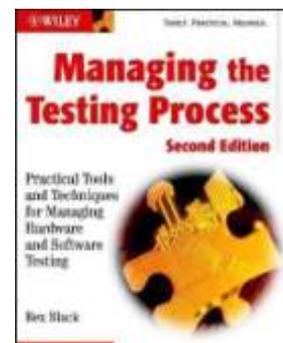
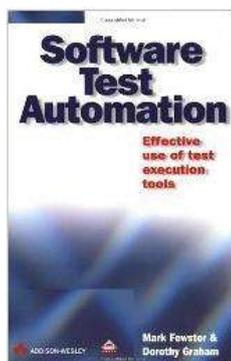
## Borrowing a book

Looking for a testing book but not sure which topics are covered? Or are you trying to decide which testing book to buy? Or do you simply want to increase your testing knowledge? If the answer to any of these questions is 'yes' then the BCS Software Testing Specialist Group Library could help!

The Library has lots of testing books covering a variety of topics and they are available to borrow for a period of 4 weeks - free of charge. Extended loans are allowed as long as the book has not been requested by another member.

Topics include (amongst others) Requirements testing, Reviews / Inspections, Test Management, Test Techniques and Test Process Improvement.

We are currently reviewing our library details on our website. In the meantime if you would like to know more about the library and books available please email out librarian Matt Archer at [sigistlibrary@bcs.org](mailto:sigistlibrary@bcs.org)



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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](mailto:phill.isles@bcs.org)

# 15 minutes with ....

Jon Moore of Riverbed Technologies



**Stephen Brockwell** and **Jennifer Lumley** of E-Assurance spent 15 minutes with **Jon Moore** of Riverbed Technologies talking about his career in testing so far.

**How did you get into testing in the first place?**

I studied Hardware / Electronics with day release on an apprenticeship so I was looking and I applied for jobs which had a hardware element. It was my passion to develop and learn new things that drove me to learn about software whilst in my first position. When there was a change in the business and subsequent redundancies within the hardware team I was kept on board within the software test team because I had shown an interest and haven't looked back since then.

**What do you think helped you develop your career the most?**

My curiosity and passion to expand my knowledge in new areas led me to interact with different people at the office. Also I was fortunate enough to be working with some really bright people who were also really energetic; we got to know each other outside work and had common interests which helped a lot. Being part of a small, dynamic team meant I was able to continually learn new things.

**You progressed very quickly from a 'hands on' tester role up to a team leader. What**

**skills / competencies do you think were most helpful in facilitating this?**

It wasn't really a pre-meditated conscious move to take a leading role. I joined Plasmon as a QA Engineer, I was a bit older with more commercial business knowledge which is valuable in a leading position, and I guess this just helped me gravitate to the role. Being able to communicate with both technical and non-technical people put me in good stead to represent them in team meetings / gatherings.

**You have been in test management for 11 years, knowing what you know now what advice would you offer people at the beginning of their testing careers who are keen to travel down a similar path?**

Do not be frightened to continue learning. Maximise your chances to expand your skills by placing yourself in the right teams, with bright interested people and bounce ideas back and forth with them.

**Staying up to date with new approaches to testing, tools, etc. can be a full time job in itself. How do you stay in touch with what is happening in the market?**

I like to visit forums as often as possible. I have previously attended the EuroSTAR conference and earlier in my career read a host of books. Talking to people who are new to the company is a good way of learning things, we have had at least 1 person a quarter joining us for the past 2.5

years – they all come with fresh ideas and experience.

Finding time to stay up to date nowadays is a bit more of a struggle but I tried to find the time where possible. I look at things such as Testing Planet and utest community.

#### What do Riverbed products do?

Our products improve IT infrastructure and speed up application performance in a number of industries; Airline, Energy & Utility, Financial Services, Government, Healthcare, Manufacturing, Industrial & Technology, Media & Communications, Pharmaceutical and Retail & Consumer. We deliver products such as; Cascade, Granite, OPNET, Steelhead, Stingray and Whitewater and have a global organization consisting of WAN optimization experts.

#### How has your approach to testing at Riverbed changed since you joined the company nearly 2 years ago?

We have always had a collaborative approach to testing but have one step further and really work together. The test team are involved as user stories are

written, test cases are defined at design stage and Developers and Testers work together. Testers move in to the Development team and vice versa which allows for a very Agile and flexible team with open communication.

#### How do you structure testing at the moment?

Flexibility is really important. Communication is absolutely key and we try to keep the line between testing and development as small as possible. We encourage experienced members of the team to be more involved in decision making.

#### What do you most enjoy about heading up a testing practice?

Shipping a product that has a good level of quality and seeing the stock market response is great, we get a real buzz around new launches, it makes us feel closer to customers. Knowing that I am part of the next step in software is thrilling. Working with teams throughout the world on cutting-edge products keeps me excited through the late night international calls (Jon laughs).



To find out more about careers in testing at Riverbed Software <http://www.riverbed.com/>

For advice and information about careers and training in software testing contact Jennifer Lumley or Stephen Brockwell of e-Assurance [Jennifer.Lumley@e-assurance.co.uk](mailto:Jennifer.Lumley@e-assurance.co.uk), [Stephen.Brockwell@e-assurance.co.uk](mailto:Stephen.Brockwell@e-assurance.co.uk) or call or call 01372 748444. Regular updates on the software testing community can be found at @eAssurancejobs. 

E-Assurance is a specialist Testing group within e-Resourcing and was the ninth IT recruitment organisation out of 3,750 corporate members to achieve REC's highly prized 'Audited' status. In addition the company has won national recognition, including being named in the Sunday Times Fast Track 100 in 2009 and the Recruiter's Fast Track 50 in 2010, 2012 and 2013. <http://www.e-resourcing.co.uk/>

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# Event Listings

If you would like your event listed here, please contact the Editor on [Phill.Isles@bcs.org](mailto:Phill.Isles@bcs.org)

## 2013

### November

#### **EuroSTAR**

4 - 7 November 2013  
Gothenburg, Sweden

<http://www.eurostarconferences.com/>

### December

#### **SIGiST**

5 December 2013  
London, UK

<http://www.bcs.org/server.php?show=nav.9264>

## 2014

### February

#### **Intelligent Testing**

12 February 2014  
Bristol, UK & Grenoble, France

<https://it2.eventbrite.co.uk/>

#### **Agile Testing Day**

13 February 2014  
Den Haag, Netherlands

<http://www.agiletestingday.nl/>

### March

#### **SIGiST**

11 March 2014  
London, UK

<http://www.bcs.org/server.php?show=nav.9264>

#### **Belgium Testing Days**

17 - 20 March 2014  
Bruges, Belgium

<http://btdconf.com/>

### April

#### **STARCanada**

5 - 9 April 2014  
Toronto, Ontario, Canada

<http://starcanada.techwell.com/>

#### **BCS Scottish Testing Group**

22 April 2014  
Glasgow, UK

<http://www.bcs.org/category/9729>

#### **UK Test Management Forum Annual Summit**

TBC April 2014  
London, UK

<http://uktmf.com/>

### June

#### **SIGiST (25<sup>th</sup> Anniversary)**

5 June 2014  
London, UK

<http://www.bcs.org/server.php?show=nav.9264>



# Intelligent Testing™ 2

12<sup>th</sup> February 2014

Improve the efficiency and effectiveness of your testing



The cost of failure determines the price of verification. If the consequence of a bug in a product is expensive then the organisation will (or at least should) put more effort into the amount of testing they perform.

Costs of failure can come in many forms.

- Semi-conductor companies might have huge (multi-million \$) production costs.
- Embedded software companies might have large recall costs (e.g. automotive).
- Financial institutions might lose real money.
- Safety critical software may lead to loss of life.
- Most companies will face some level of impact on brand and/or time to market that can have far reaching commercial implications.

However, just because your test budget is limited, that doesn't mean you should not use it intelligently!

Let's consider silicon products. The costs of failure are high (multi-million \$ production costs, time-to-market impact, brand damage). Working in the semi-conductor industry for the past 20 years I have personally seen a vast number of

improvements in the way pre-silicon products are verified prior to manufacture.

- Coverage driven verification: The verification activities are driven by the need to hit 100% explained code and functional coverage.
- Constrained random test generation: Allows more corner cases to be hit as the random generation finds unexpected scenarios but the use of constraints ensures they are legal cases.
- Assertion-based: Adding assertions (into the design code or the test bench code) increases the level of checking performed. This should reduce debugging time (by reducing the spatial and temporal distance of failure from cause).
- Mutation testing: Automated injection of errors to discover if the regression test suite can detect them improves confidence in both test generation as well as the level of checking.

Automation is the basis of all of the above techniques (often considered in DVClub <http://testandverification.com/publications/published-articles/dvclub/>) and as more companies adopt agile then automation becomes of increasing importance. Why?

Because iterative development models mean that we are continuously adding new features and so we need to ensure that previous features are still working. With “sprints” now typically in the 2 to 3 week range manual testing no longer cuts it.

However, forewarned is forearmed, as many have floundered on their path to automation. Dot Graham,

(<http://testandverification.com/intelligent-testing/dot-graham/>), a software testing veteran of 40 years (most spent in test automation), cautions that there are often unjustified assumptions when adopting test automation:

- automated tests should find lots of bugs
- we must automate all of our manual tests
- testing tools are for testers to use
- we must prove Return on Investment (ROI)

The series of Intelligent Testing conferences (<http://testandverification.com/intelligent-testing/>) are aimed at helping software testers to improve both the efficiency and effectiveness of their verification. The first one was held in October 2013 in Bristol where a wide variety of ideas were discussed, for example:

- Shift Left: Starting your testing earlier brings a number of advantages including improved specifications and earlier bug detection. Test Driven Development seems to be the ultimate manifestation of this.  
<http://testandverification.com/intelligent-testing/jim-thomas/>
- Requirements Tracing: How to link your tests back to the user requirements or product features, and vice-versa. This can bring a number of benefits including the elimination of over-engineering and improved risk-based testing.  
<http://testandverification.com/intelligent-testing/serrie-chapman-infineon/>

- Randomization: The “use case” based approach to functional verification, though effective at focusing on specific, identified issues, still leaves the vast majority of the functional space untouched. Randomization can automatically generate huge numbers of unique, but useful and interesting use cases to expose those untouched areas and associated lurking bugs.  
<http://testandverification.com/intelligent-testing/giles-hall/>
- Coverage models for multi-threaded software: As hardware moves to multicore architectures and software is increasingly multi-threaded, our old sequential coverage metrics are no longer adequate.  
<http://testandverification.com/intelligent-testing/kyriakos-georgiou-university-of-bristol/>

Software testers may not be able to change the cost of failure in their industry which will limit the budget they are given to test their products. However, that does not put a limit on their imagination and their use of more intelligent forms of testing. Even within a fixed budget there is still huge scope for “intelligent testing” which will impact both the effectiveness and efficiency of the resulting testing activities.

The second Intelligent Testing conference will be held on February 12th 2014 and collocated in the UK and France with remote access available. Given the first one sold out at 200 registrations we advise early booking. The conference is free to attend so why not register your interest here  
<http://it2.eventbrite.co.uk/>





## BELGIUM TESTING DAYS 2014

### CONFERENCE, 17-20 MARCH 2014, BELGIUM

Ever seen a “Testing conference” with so many “doing” possibilities? A conference for everybody who is involved in quality assurance! Yes, a conference for testers and developers, for technicians and managers, novices and experts ... for you!

Everybody will be given a lot of possibilities “to learn by doing”!

#### THE “DOING” CONFERENCE

We are excited to present the conference program for 2014! The BT2014 program contains: **keynotes, talks, interactive sessions** - hosted by an expert - where everybody can contribute, **a lab for developers and QA'ers, workshops** for everyone, also for "advanced" people & the successful "open panel discussion"

#### THE DIFFERENT FACES OF TESTING

You might wonder what are “interactive sessions”? Is this of interest to me? Well, they are special sessions where topics are being presented to you in a compact & short way, by a speaker, by a colleague from the group or ... **by you!**

The topics are very diverse! A problem, an idea, a solution, a case study, .. given like lightning talks, but in a small group and with the opportunity to talk about it, to discuss possibilities, .. , all with the purpose of **sharing knowledge!** **You too are invited to participate!** **We are confident that you will learn!**

We have those different “*faces of testing*” being covered by several interactive sessions’ streams and we are very proud to present to you the hosts, mentors & moderators of those streams, all very well-known international keynote presenters:

	<p><b>Dorothy Graham</b> <b><i>Test Automation &amp; Tools</i></b></p> <p><i>Dorothy has a special interest in Test automation, co-author of 4 books and recently passionate about Test Automation patterns. Always exploring new grounds of the test automation boundaries.</i></p>		<p><b>Doug Hoffman</b> <b><i>Exploratory Testing &amp; Test Automation</i></b></p> <p><i>Doug has a real extensive experience with systems, software &amp; testing in the computer industry. Talk to him! And you'll discover it for yourself.</i></p>
	<p><b>Fiona Charles</b> <b><i>Leadership &amp; Problem solving aspects</i></b></p> <p><i>Software test consultant, teacher, writer, speaker, iconoclast, Her passion is to assess, coach, renovate &amp; rescue testing &amp; projects!</i></p>		<p><b>Lisa Crispin</b> <b><i>Agile Testing</i></b></p> <p><i>Agile Tester and Donkey Fan, co-writer and a real driver behind the agile community. No wonder she will run the “agile breakfast” sessions @BT2014.</i></p>

	<p><b>Rob Sabourin</b> <b><i>Test management and general aspects</i></b></p> <p><i>Co-professor, creator of the Just-In-Time Testing class and always on the lookout for new testing ideas. Challenge him and explore his knowledge!</i></p>
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## JOIN THE BELGIUM TESTING DAYS

More than **52 amazing speakers**, from all over the world, are there for you to create the agenda of **5 parallel conference tracks** and a number of events. Not forgetting the **intense networking & sharing knowledge opportunities**, like "Cocktail @ the Town Hall", "Meet me Quick", "Networking @ the EXPO" ... Opportunities for you to **connect and communicate** with friends and colleagues.

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By W. Somerset Maugham (1874 - 1965), The Razor's Edge, 1943

Take advantage of the pre-early bird and early bird registration – be early, be there!  
Looking forward seeing you in Bruges,  
*The BTD team*



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The image shows the BCS Personal Development Plan (PDP) interface on three devices: Desktop/Laptop, Tablet, and Smartphone. The Desktop/Laptop view shows a detailed dashboard with a navigation menu, a main content area, and a sidebar. The Tablet view shows a simplified version of the dashboard with a prominent pie chart and a list of activities. The Smartphone view shows a mobile-optimized version of the interface with a vertical list of activities. A yellow banner in the top right corner of the image says "NEW".

**bcS** Personal Development Plan  
The Chartered Institute for IT

Your portable record of professional aspirations and activities

NEW

Desktop/Laptop

Tablet

Smartphone

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

The BCS Personal Development Plan (PDP) uptake is going well, with over 1,000 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/> and selecting the "Give me ideas" link.

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.