Specialist Group in Software Testing

THE TESTER

SIGiST Spring Conference
Tuesday 11th March

48

IN THIS ISSUE

From the Editor

Welcome to the first Tester magazine of 2014, the 25th anniversary year for the SIGiST.

For the Spring Conference I would like to thank our event sponsor **Parasoft**, 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, we have articles on Introducing UAT, Independent Test Teams and Infrastructure Testing. There's also a review of the last SIGiST Conference, along with details of the SIGiST library and the Events Listing.

Talking of events, don't miss the money-off offers for BCS members from **Testing Solutions Group**, **Ministry of Testing - Testbash3** and **Belgium Testing Days**. Visit the BTD website for a chance to win a free place at their conference.

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

Conference Booking Instructions

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

https://events.bcs.org/book/887/

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.

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

Follow us @SIGiST

Conference Agenda

	BCS SIGiST – Spring 2014 Conference **Tuesday 11 March 2014** **The Barbican Centre, Silk Street, London. EC2Y 8DS.**	
08:30	Coffee & Registration, Exhibition opens	
09:25	**Introduction and Welcome** Stuart Reid, SIGiST Chair	
09:30	Opening Keynote	
	The Mismeasure of Software: The Last Talk on Metrics You'll Ever Need to Hear Lee Copeland	
10:30	**Open Microphone and Networking session**	
10:45	Tea / coffee break	
11:15	**Shifting Left – A More Intelligent Direction** Jim Thomas, Test & Verification Services	**Morning Workshop** **TBC** Jennifer Lumley
11:45	**Integrating Automation Related Tools to Use for Assisting the Actual Manual Testing Process** Guy Mason	
12:15	**Tester in a Brave New World** Brindusa Gabur	
12:45	**Vendor Talk**	
13:00	Lunch break Opportunity to visit the Vendor Exhibition	
14:00	**Mobile Testing - That's Just a Smaller Screen, Right?** Stephen Janaway	**Afternoon Workshop** **Compliance Based Testing** Jim Thomas, Test & Verification Services
14:25	**What? Why? Who? How? of Application Security Testing** Declan O'Riordan, Test Manager	
14:50	**Panel Discussion: "What Does the Future Hold for Tester Certification?"** TBC	
15:30	Tea / coffee break	
16:00	Closing Keynote	
	Facebook's Approach to Mobile Testing Simon Stewart, Facebook	
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

PARASOFT

So You Want Another Test Environment?

Business systems today are complex environments. Gone are the days where a test system can be thrown together in a day or so. Duplicating a live infrastructure, even allowing for reduced capacity, can involve databases, ESB's, multiple servers, mainframes, even access to 3ʳᵈ party systems. Is it any wonder then that putting together a new test environment can take a lot of both time, and money.

As these complex systems become more interdependent, development and quality efforts are further complicated by constraints that limit developer and tester access to realistic test environments. These constraints often include:

- Missing / unstable components
- Evolving development environments
- Inaccessible 3rd party / partner systems and services
- Systems that are too complex for test labs (mainframes or large ERPs)
- Internal and external resources with multiple "owners"

Although hardware and OS virtualization technology has provided some relief in terms of reduced infrastructure costs and increased access, significant gaps still exist for software development and testing. It is not feasible to leverage hardware or OS virtualization for many large systems such as mainframes and ERPs. And more pointedly, configuring and maintaining the environment and data needed to support development and test efforts still requires considerable time and resources. As a result, keeping complex staged environment in synch with today's constantly-evolving Agile projects is a time-consuming, never-ending task.

The majority of responses to a recent questionnaire exposed that companies were well aware that testing was suffering due to the cost of test environment provisioning, with time delays introduced by waiting for said environments, and the cost AND delays introduced by relying on access to 3ʳᵈ party systems. On the upside, these companies are now serious about resolving the situation with a technology that is coming of age, Service Virtualization (not to be confused with OS virtualisation such as VM Ware).

So what is Service Virtualization? One thing it is not, is a silver bullet! Test environment provisioning will still take time and money, just less of it. Once in place though, your Virtualized test environment will give you:

- The ability to deploy multiple versions of your test infrastructure with no time or financial penalty.

- Instant access to systems that previously had time constrictions.
- Management rights over your own test data.
- Reduced costs for infrastructure licensing
- Less headaches
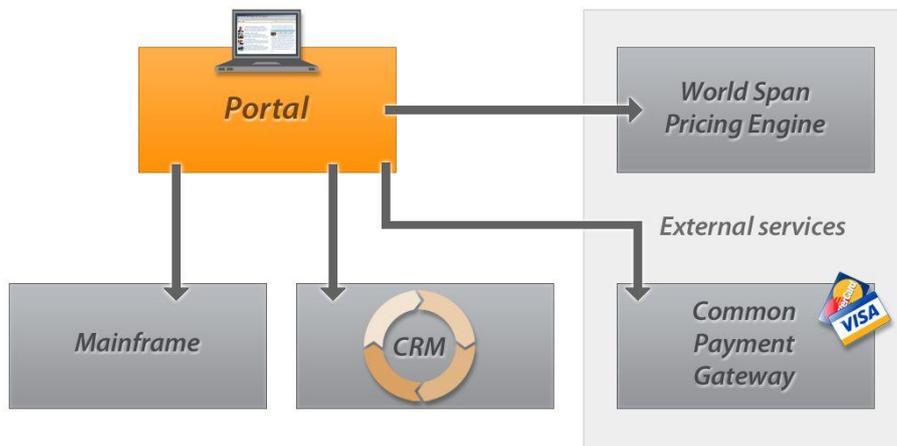
Figure 1 Typical Systems replaced by Service Virtualization

What is involved and is there any risk?

The easiest way of creating a Virtualized asset is to create it from existing message traffic. In simple terms this means recording the message flow between two systems, the Virtualization system will use this to create an asset that always send the same response when a specific request is received. A unique key field (or fields) are used to correlate these request/response pairs.

A more advanced system will interrogate an incoming request and then pull data from a datasource with which to populate the correct response message.


Real system behaviour is captured… using monitors to record live transaction details on the system under test; by analysing transaction logs; or modelling behaviour from a simple interface

The virtualized asset's behaviour can be fine-tuned, including performance, data source usage, and conditional response criteria. The environment is then provisioned for simplified uniform access across teams and business partners.

The virtualized asset can now be called for unit, functional and performance tests- both automated and manual. It can be leveraged by any test environment, including Parasoft Test, HP Quality Center suite, IBM Rational Quality Management suite, Oracle ATS Selenium and beyond.

What makes a workable system though is the ability to easily manage it in use. Systems being virtualized 'may' be modern, with adaptability in mind, or may be 20+ year old mainframe applications. In practise this means that to point your application under test to your virtualised asset may be as simple as changing a field on a web page, or changing a configuration file in some exotic location. Your Virtualized environment needs a way to capture the information needed to change between live and virtualized assets, and allow testers the ability to change at will, automatically via a user interface. A tester should not need to know (or care) how this change is affected. What is required is an Environment Manager.

The risk of course is that you find that the virtualized environment does not exactly mimic your live one. To this end, yes you will need to invest time and effort in designing these systems. Use the services of experts, by all means train up your staff in how to do it, but get the initial systems set up by experts so that you have confidence in the initial systems. The old saying of 'a stitch in time' really does apply.
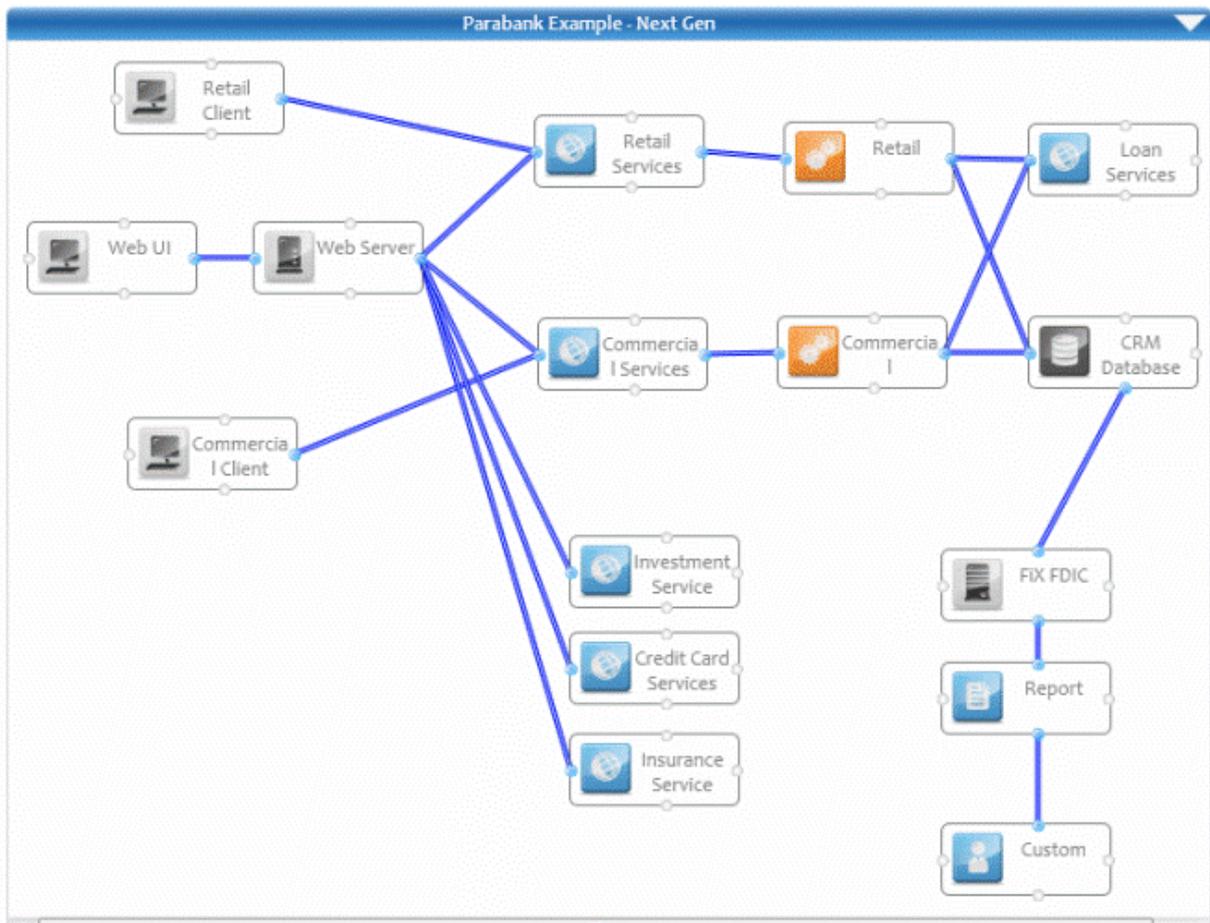
More about application virtualization can be read on www.parasoft.com/VIRTUALIZE, where you can find a recorded presentation of Parasoft Virtualize, download our Virtualization eKit, and request an evaluation.

**Talk with our representatives at the SIGiST conference
Tuesday11th March 2014**

Conference Supporter

SIGiST Conference 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.

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

Lee Copeland

"The Mismeasure of Software: The Last Talk on Metrics You'll Ever Need to Hear"

It seems that most organizations have some kind of metrics program; and almost all of them are ineffective. Lee Copeland first explains the concept of "measurement" and then describes two key reasons for these almost universal failures. The first major mistake people make is forgetting that the model we are using for measurement is not necessarily reality. The second major blunder is treating ideas as if they were real things and then counting them. Lee describes the "Four Don'ts of Metrics" – don't measure it unless you know what it means; don't measure it if you're not going to do something with the measurement; no matter what else you do, don't turn your measurement into a goal; and focus your measurements on accomplishments, not effort. Over the years, Lee has discovered his favourite project indicator that is not a measurement at all. You'll be surprised to learn what it is. In conclusion, Lee shares his Zeroth Law of Metrics to guide your program to success.

Lee Copeland has over thirty years' experience as an information systems professional. He has held a number of technical and managerial positions with commercial and non-profit organizations in the areas of applications development, software testing, and software development process improvement. As a consultant with Software Quality Engineering, Lee has developed and taught numerous training courses focusing on software development and testing based on his extensive experience. In addition, he provides consulting services to SQE's clients. He is a well-known and highly regarded speaker at software conferences both in the United States and internationally. He currently serves as Program Chair for the STAR testing conferences, the Better Software conferences, and the Agile Development conferences. Lee is the author of A Practitioner's Guide to Software Test Design, a compendium of the most effective methods of test case design.

Guy Mason

"Integrating Automation Related Tools to Use for Assisting the Actual Manual Testing Process"

This presentation aims to explore the idea of how automation can be integrated into the manual / hands-on testing process. Rather than just having tests that are either performed by manual testing or tests that we only (later) cover via automation, this talk explores how automation can be in its own right another tool that can be integrated into the hands-on testing process. It has similar goals to what people often have with test automation, reducing repetition so as to save time and money except that it retains the key advantage of allowing for cognitive analysis of the area under test.

Guy Mason has been involved with technology since a very young age. Throughout his life time he has created and run web sites, written for and assisted with the running of computer

publications, been a hobbyist programmer and assisted with running computer related events. As a tester he started in his first testing role back in 2000 and has since worked across many of the leading Digital Agencies throughout London and assisted various of them with formulating test strategies to use in their business, in addition to also holding various other roles in Digital Media and Software as a Service companies.

Brindusa Gabur
"Tester in a Brave New World"

In a world where agile and lean are expanding, what are testers supposed to do?

Test driven development, of shifting the testing and quality ownership from a person, the tester, to a team, where does the tester stand? What is the value that we are bringing to the table? How is our role evolving? More importantly, how do we start taking the lead, rather than wait for others to decide for us?

This session is envisioned to be a space of exploration of our own obsolete concepts and behaviours. All this old baggage is weighing us down and undermines our principles and values. Join me and let's take a holistic approach and reinvent ourselves, let's be the start of the new testing generation, a generation that is resourceful, creative and bold.

Brindusa Axon is a Lean and Agile coach, currently based in the UK. Having a broad experience working with teams, inhouse and offshore, her biggest passion is to create environments where learning and transformation happens. Brindusa writes her ideas on her blog www.unreasonableminds.com.

Stephen Janaway
"Mobile Testing - That's Just a Smaller Screen, Right?"

We are increasingly moving towards mobile devices to fulfil our day-to-day computing needs. More smartphones are sold than PCs but many people are unclear on what changes to test strategies are needed when working with mobile.

This presentation will give an overview of mobile testing, explain some of the common mistakes that are made when starting to test mobile, and will give the audience a taster of what to study next.

Stephen Janaway
has been involved with software testing for over 13 years, starting as a Test Engineer and has worked in various Test and Delivery Management roles for a variety of companies.

Currently he's a Test Manager focusing on mobile and web testing, test automation and software delivery optimisation. Previously he's worked for three of the major mobile device manufacturers, as well as advising a number of mobile application developers on testing and delivery strategies.

Stephen loves talking to others about software testing, test techniques and the mobile device and application world in general. You can contact him on Twitter (@stephenjanaway) or via his blog (www.stephenjanaway.co.uk).

Declan O'Riordan
"What? Why? Who? How? of Application Security Testing"

This is a story of how I stopped describing Application Security as 'Out of Scope' from my Test Plans and learned What it is, Why it is important, Who should be doing it, and How to build and test for Application Security.

The presentation will challenge the notion that security testing is best left to tools, firewalls and penetration testing experts. Any Tester, Test Manager, Developer, or Project Manager can learn the shortcuts to getting Application Security built and tested in their projects.

Declan O'Riordan - 33 years in IT. 26 years in Testing. BA Data Processing (Sunderland). MBA (Open University).

Simon Stewart
"Facebook's Approach to Mobile Testing"

At Facebook there is no "Android team". Instead, each team working on a feature is responsible for that feature on every platform: the Web, Android and iOS. The Facebook Android app is worked on by a large number of people spread across multiple teams. How do they ensure the quality of the application? And how do they do this at speed?

- Facebook releases a new version of its Android app every 4 weeks.
- Automation is a key tool to enable productivity.
- There is no QA team.

Simon Stewart works at Facebook as a Software Engineer, focusing on mobile developer productivity. As part of that work he has contributed to OSS software such as buck and selendroid.

He is also the lead of the Selenium project, creator of WebDriver and the co-editor of the W3C WebDriver specification.

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

----

Thoughts on the SIGiST Conference December 2013

The SIGiST conference held at The Barbican in December had a strong focus on test automation. Automation expert Dot Graham, a software testing veteran of 40 years, gave the opening keynote and focused on common mistakes people make when adopting automation. She describes them as "intelligent mistakes" which are "actions based on a faulty premise, with the best of intentions, but with adverse consequences". Dot highlighted five common unjustified assumptions when adopting test automation:

- **automation should find lots of bugs**

Tests find bugs not automation. Automation frees up time to write them. Also, a test is most likely to find bugs when it is run for the first time so automating regression suites is NOT likely to find more bugs! So set both your expectations and the expectations of your management!

- **automation comes out of a box (or download)**

Tools come out of a box. You have to build automation around them and Dot suggests you automate as much as you can, not just execution and comparison but also pre- and post-setup, metrics, etc. Also be aware that a poor "testware architecture" can lead to high maintenance. Dot advises adding layers of abstraction to divorce the tests from the tool by allowing for structured scripts using keywords (e.g. "make call" and "add contact" for mobile phone testing) to allow testers to think in a domain specific way.

- **let's automate all of our manual tests**

Not all tests can be automated such as "look and feel testing" for a GUI. Also, it may not pay to automate some tests: e.g. taking 10 days to automate a test that takes .5 days to run every quarter? Also, if you automate ONLY manual tests, you aren't using the tools to their full potential.

- **ROI is essential for automation**

Many people report advantages gained through automation such as faster time-to-market, faster feedback on internal releases, improved coverage and defect containment, etc. But these are benefits and not ROI. Dot cautions that ROI can be hard to evaluate and can cause automation to fall prey to short term goals. She advises on focusing on benefits, measuring improvements and making them visible.

- **testing tools are testers' tools**

Dot advises that creating a test automation framework is more about software development than testing so it might be best performed by developers. Many a company has "lost a good tester and gained a poor programmer" [Hans Buwalda] when implementing the automation.

When asked if automation can mean fewer testers Dot asked "well, what type of testers do you have currently? Intelligent investigators or mindless morons?" as only the latter can be replaced by automation. This topic is covered well in comparisons of mimeomorphic vs. polimorphic actions. A recording of this talk from a previous conference is also available.

The second speaker was Dave Oxley, a Quality & Security Champion at McAfee. The title of his talk, "Anyone fancy a year off?", reflected his tongue-in-cheek agreement that if his introduction of scrum saved 1 year of engineering effort then he could take a year off work. So did he get his holiday?

Dave first explained that before the introduction of scrum McAfee decided to put in place metrics to measure the impact of scrum. Dave highlighted the fact that the wanted a metric that meant something to the organisation so they chose "reducing the number of support calls" whose impact could be measured in financial terms and understood at a senior level. They then translated this overall goal into lower level goals. For each goal they defined a metric and a target for the improvement in the metric. Finally, they defined a limit for each goal: a level they MUST achieve before the code can be released. Below are some of the details on this:

Goal	Measure	Target	Limit
Reduce number of defects found in system test	% of total defects removed in peer reviews	20% of defects removed in peer reviews	10% of defects removed in peer reviews
Increase early code reliability	% decision coverage of automated unit tests	100% of new code	80% of new code
Increase efficiency through automation	% decision coverage of automated system tests	40% of total code	30% of total code
Reduce manual test effort	Manual hours spent testing a release	Reduce hours by 10%	Reduce hours by 5%

At this point Dave made some very important points about introducing metrics:

- **Teams must be measured not individuals**

- **Plan for a monthly review of metrics in front of peers and executives**

The result was that the team adopted agile which had a positive impact on both efficiency and quality. The team agreed to include the testing targets in definition of "done" and consequently development and QA worked more closely. For example, developers helped in testing to achieve done rather than racing ahead on features.

The details of the results are in the slides from Dave but the headline: the scrum saved 12 years of engineering effort across 6 teams! Unfortunately Dave has not claimed his vacation yet.

Ranjodh Singh of Dell spoke on "Continuity testing" which he defined as "testing built up by events and states of a particular feature within a product". For a particular application, Ranjodh defines a set of states, the possible behaviours and actions for each state and the next state. The following table gives an example for a flight booking website.

| Current State	Behaviour/Action	Next State
Flight Finder Page	Pick valid "Type" Click "Passengers" dropdown. Select valid number. Click "Departing From" dropdown. Select a city. Click "Continue". New State: Select Flight Page	Select Flight Page
Select Flight Page	Check validity of information stated. Pick valid depart flight. Pick valid return flight. Click "Continue" New State: Book Flight Page	Book Flight Page
Book Flight Page	Click "Sign off" New State: Home Page	Home Page

Ranjodh descried a tool build in Excel where by adding the above information then the tool will automatically generate a set of test scripts to fully exercise the resulting state machine. This surely supports the layers of abstraction advised by Dot.

Peter Morgan talked on "Quick wins in Agile" noting that "Agile is not a destination but a journey". Peter highlighted sprint planning as the key to success. He reminded us to include testing in the planning and said that for planning of testing "High/Medium/Low" may be a sufficient level of detail in addition to the same levels for development; it depends (he sometimes uses planning poker cards for the whole team). Peter recommended having BIG visible picture to show progress which can help motivate the team and also engage the casual passer-by. Finally Peter talked about the 4 P's (the Positive Power of Peer Pressure) in the daily stand-up to ensure things get done.

The closing keynote continued with the theme of test automation. Jonathon Wright, Global Head of Automation at Deutsche bank, 14 years global experience in automation and contributor to Dorothy Grahams 'experience in test automation' book explained how they are moving to a Test Automation as a Service in a Hybrid cloud in order to support their global team of over 300 automation testers. The talk gave us an insight into the complexity of their test automation requirements (i.e. to automate over 1500 applications in the next 18 months) which requires a global solution which can be grown quickly and temporarily according to needs. The slides have a lot of detail which explains how to implement such a global testing service and how to execute tests within the cloud.

All in all a very informative day and I'm already looking forward to the next event on Tuesday 11th March 2014.

Mike Bartley
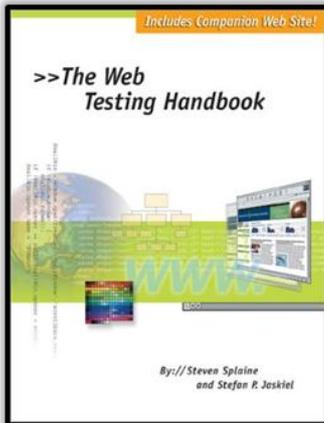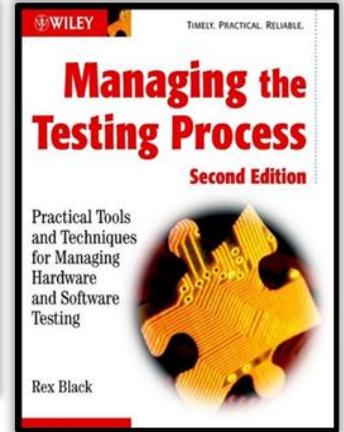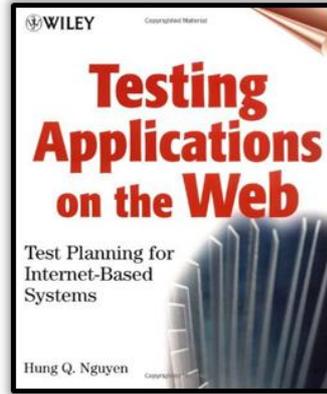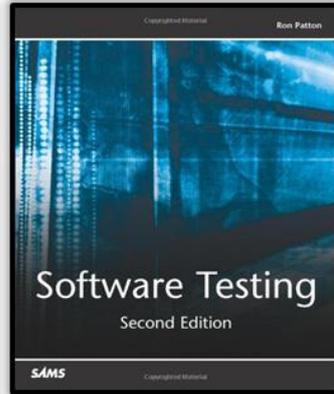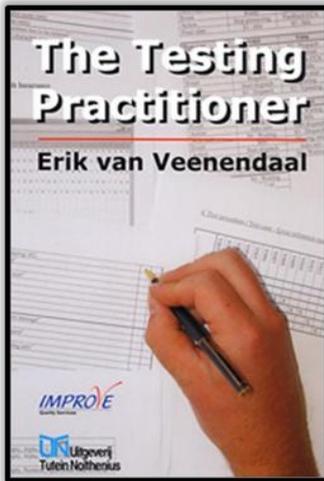
The SIGiST Library

Did you know that the SIGIST has a range of testing books that you can borrow for free?
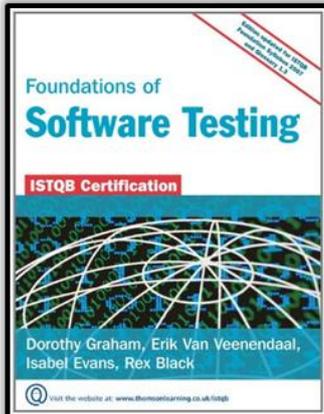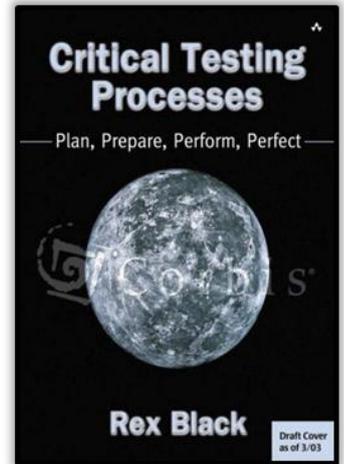
Please email Matt at sigistlibrary@bcs.org for a list of available books and instruction on how to borrow a book from the SIGiST library.

ISO / IEC / IEEE 29119 Parts 1, 2 and 3, published in 2013, are available from the SIGiST library.
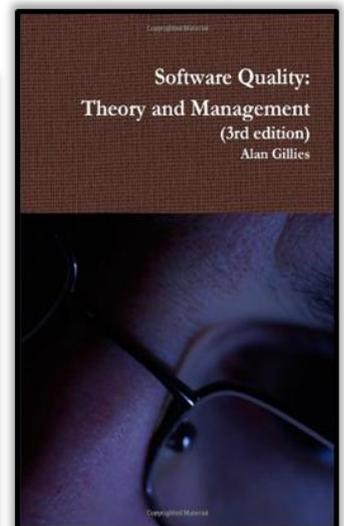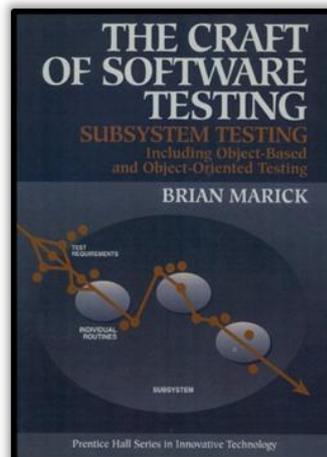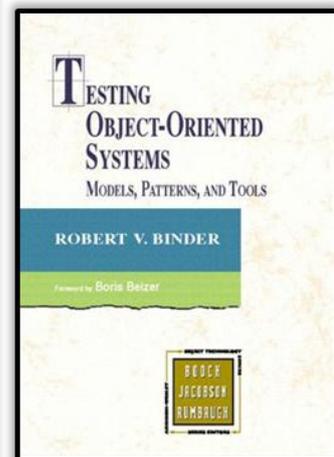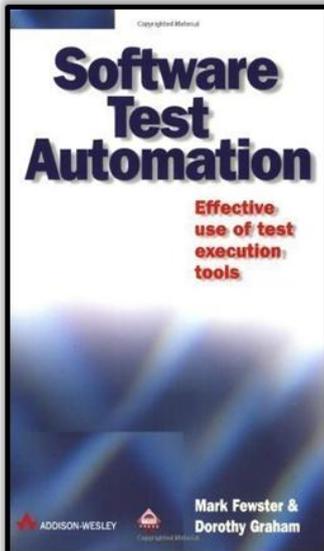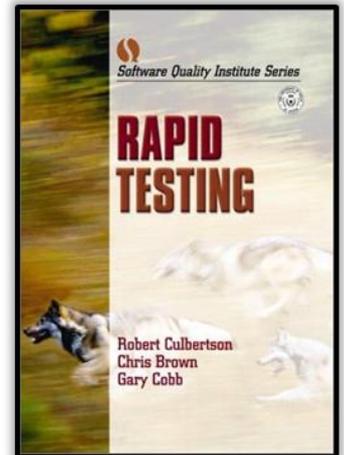
Introducing UAT to the Business

James Brodie, Delivery Manager at Retail Bank Capgemini

One of the tasks I am often asked to look at is how can I introduce UAT (User Acceptance Testing) to the business? Now UAT may seem like common sense but one of the traditional brick-walls I have hit is that the business have resisted the request to release business resource or users.

So how do you overcome a problem like this? Well you really need to have a conversation with the business and to explain to them that as testers we will try and capture as many defects as possible using standard test methodologies, however there will be certain scenarios that will only come about if someone who is familiar with the system and uses it daily gets the opportunity to get their hands on the system.

This also gives the users the opportunity to be part of the process and make suggestions for possible future release. Using the same users over a period of time will also build up their skills as testers and they will be able to spot other issues which may have been missed by normal system testing.

However one of the important things is to make sure that the users know what is expected of them and they have the appropriate training.

Here are a few pointers which should help you in setting up your own UAT process:

1. Identify areas of the business you would like to involve in the UAT process.

2. Use your Project Managers to contact the business areas and explain to them that UAT is in their best interest as they can identify defects and areas of improvement, as well as holes or flaws.

3. Make sure that resource are available and the appropriate people are identified by the business to join UAT.

4. Produce a resource plan for the identified UAT people to come in.

5. Identify the appropriate kit and logistics. *e.g.* hardware and software requirements.

6. Create sample spreadsheets for importing into your chosen test tool.

7. Produce training materials and a plan.

8. Set expectations for the incoming business users.

9. Write a list of the top 20 business tasks - how they do it now and how they would do it in

    the future with the new system.

10. Confirm roles and responsibilities.

11. Provide support for the different phases of testing and ensure the appropriate people

    are in place for that support.

12. Ensure you have the appropriate defect management process in place.

13. Sign off.

If you can include the majority of those pointers, then you will have a good framework to work from.

James Brodie has been a test professional for 15 years and has worked in a number of different sectors ranging from Video Games & New Media, to Financial Services, Retail and Banking. He currently works at Capgemini and is an Engagement Manager for a Retail Bank. James has extensive experience of designing and delivering test solutions and has also presented at EuroSTAR on how to make test engagements work.

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

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

----

Independent Test Teams:
a Powerful Tool for Software Development Projects that can Easily Backfire

Sakis Ladopoulos, Intrasoft International

One of the greatest successes of the V-model was probably the fact that it brought the appropriate attention to the customer's side and pinpointed customer's importance as a stakeholder in the Software Development Lifecycle of a Software Project.

It is the customer (external or internal) who initiates a request and -after a deep dive into the V-shaped great unknown, hoping that we will emerge back at the surface- it is she or he who will provide the final validation, and of course acceptance of our effort's product.

It is the customer who may not always be right but does this really matter? To the customer we trust to start business and to successfully finish a project that is, -in uninspiring and unsentimental words- to get paid and make some profit. A profit that we expect to obtain only to use it as the oxygen for the next dive into the V-shaped deep-blue of our next project.

Under this perspective, there is no better way to validate not only the quality of the code but also the potential project success, than to simulate customer's acceptance activities. We need to have a periscope to see if we will resurface from the deep blue "V" at a predefined and agreed point. We need to have a dress rehearsal before the actual play that is the final release to customer.

This is exactly the work and the added value out of the engagement of an independent / third party test team. An independent test team is a team that tests a product being unbiased by the engineers that developed it and the organization supporting the project in general. An independent test team -having its own structure and line of escalation- is away from the heat of project constraints that may imply bending of processes and quality criteria, so as to achieve milestones and cost targets. It is a team which aims to get into end user's shoes and provide a customer-before-the-customer perspective of the quality of the product so as to help avoid surprises upon delivery - surprises that cost in money and sometimes reputation. In the dress rehearsal of the final release, the ones that are dressed and play the role of customer are the testers of an independent test team.

To this point and following this approach, I rest my case; there is no need to continue providing arguments why the engagement of a third party / independent test team is a very important parameter in mitigating risks and avoiding surprises towards the successful completion of a software development project. Despite their acknowledged importance though, third party test teams are rarely used in the industry per se. There are development organizations who build an independent-

like test team within their own organization. There are cases where a third party / sub-contractor acts as a consultant to the development organization providing the services of Test Management, Test Processes or a group of some experts but not a full test organization. There is also the new trend of crowd testing but even in these cases, development organizations rarely count only on crowd-testing for their validation activities. It usually acts as a complementary strategy with a potential of very high performance but questionable outcome in regards to a solid coverage. It seems after all that only in cases that the contract forces the use of an actual third party test team, is their existence present. Why aren't independent / third party test-teams not in as wide a use as expected when there is an obvious benefit from it? Why is a practice that has an apparent and acknowledged value only partially used? Is it just a fear of getting exposed? Do we just like to live with the risks in our projects? Do we aim to deliver actual quality or do we just want to see what the customer will fish out of the deliverable, correct it and off we go?

Regardless of if you find yourself feeling guilty for the above questions / crimes, there is always a much more elementary reason for it. We just do not know how to do it. Software development organizations tend not to welcome third party test teams because they do not know how to engage

them appropriately and efficiently. They usually lack the appropriate mechanisms to define the work products, the targets, goals and methodologies to be followed. They do not have the appropriate interface within the organization to encapsulate and make an efficient use of the armory provided by an independent test team. They even lack the knowhow on how to request such services, how to evaluate them and how to charge for them in the complex scenario of expected outputs which have as pre-requisite various inputs with various constraints by the contracting party.

Without well-defined engagement rules a relationship with a third party test team will not be fruitful for sure, even worse, the entire armory may backfire. Conflicts and issues between the teams may then start bursting out, and if the gap between developers and the independent testers is not minded the whole project team (along with the project) may fall in to it. In such unfortunate cases an independent test team may destabilize the rest of the software development organization and in-return become the scapegoat for all the risks, issues and failures of a formerly -but most probably falsely- known as an on track, with green lights, project.

Sakis Ladopoulos MSc. (TMMi Prof. certified) is a Test Manager with 8 years of hands on experience in forming, leading and managing through changes, teams of test engineers in IT and Telecom. Apart from Software Testing, which was his first job in Siemens AG more than a decade ago, he has also worked as an internal auditor for Quality Management Systems and as a member of several work groups and committees for ISO and CMMI certifications, having gained an oversight of the Quality Assurance & Control area within the Telecom and IT industry. He is also an occasional writer and speaker in software testing related topics.

THE BELGIUM TESTING DAYS,

MARCH 17-20, BRUGES

WHY ATTEND?

International Software Testing Conference aiming to **"Learn by Doing",** having :

◊ For **everyone** who cares about increasing software quality.

◊ + 58 **International known field experts**

◊ 12 pre-conference **workshops**

◊ 5 **keynotes** incl. **open panel** discussion

◊ **Innovative lab** for dev'ers & test'ers

◊ Interactive, innovative and **advanced** workshops

◊ **Hands-on** & through discussions, learning from your peers, colleagues & friends

◊ Covering **actual topics and challenges**

◊ *No need to skip presentations to network;* we built these breaks into the schedule

◊ **Latest** technology covered

◊ ...

OUR GOAL !

To **Excel your skills** & to **increase your performance** *personal & @work*

HOW ?

FIND OUT

WWW.BTDCONF.COM

Infrastructure Testing

Wesley Robertson, Test Manager at Amor Group

Business is changing and building IT systems that meet the day-to-day challenges is a daunting thought for most IT professionals. Its sounds like a fairly benign statement, but in truth business is changing and we can thank IT and especially the Internet for its part in this change. What is important is *'Business Critical Time'*, the measurement of IT systems using the availability and reliability of other systems as the key metric. The deployment or refresh of an IT system must go through a process of exhaustive testing to meet the ever increasing demands by internal users and external customer. So what is infrastructure testing? One definition could be "to assure that the platform the service is to be deployed on fully supports the solution in a performant and robust manner".

Infrastructure testing is about testing IT infrastructure which is a collection of building blocks or components that can be used for supplying functionalities towards other applications. Potentially these building blocks can have innate functionalities for an end-user by a provided user interface. The building blocks can consist out of one or more (hardware) appliances or software solutions. It is easily possible that these building blocks are not visible for an end-user which include (*e.g.* network switch, firewalls, routers, *etc.*).

The base level architecture – as in the hardware, must deliver increased levels of performance and reliability. The operation system software that sits on this hardware must be multi-faceted and must be capable of running business critical software. Considering this overview, the common design points which can be amalgamated into 'Infrastructure Testing include the following for consideration:

- *Tin* – Commissioning the appliances into the data centre and powering up, what should you be looking for to assure this, and weed out the DOA (Dead on Arrival) kit?
- *Network* - Making sure that all of the Tin communicates with each other as designed, without any erroneous traffic.
- *Tiers* – Most internet facing solutions are built using the tier model to separate the internet, application and data for security purposes, should this have a penetration test applied by a specialist in that arena?
- *OS* – What special consideration and configuration will need to be applied to the software stack specified to support the solution? How do you assure the build prior to releasing the solution code and any supporting artefacts for testing?
- *Monitoring* – What system monitoring will be in place and how do you prove its functioning to the solutions specific requirement?
- *Code* – How can you utilise the functional testing to supply you with data for assuring the infrastructure solution?

Infrastructure Testing should also take into account the following Areas:

- Availability & Reliability
- Alerts Monitoring & Diagnostics
- Log File Size Monitoring
- Disk Performance
- Disk Space
- Network Load Balancing
- Scalability
- Back –Up & Recovery
- Disaster Recovery
- CPU & Memory Utilisation

Conclusion

The availability of computing is like that of an orchestra where all the elements work in harmony with each other. No matter what the model, without robust testing a failure of any of the aforementioned areas could have a catastrophic impact on the business. Like an orchestra all of these components must not only work in perfect synchronisation, but they must also keep working for the orchestra to keep playing. Infrastructure Testing of the hardware and software applications must be robust and resilient to eliminate any failure of one single element which could bring the rest of the system crashing down.

Wesley Robertson having worked in the IT industry within the testing sphere for nearly 17 years has successfully delivered several projects from Project Start-Up to Project completion mainly within the Public Services sector. He has initiated and facilitated post implementation reviews to ensure keys lessons learned and test process improvements are integrated for projects he has been engaged on. Wesley has also gained valuable experience with regards to Non-Functional Testing where he has worked on several programmes to refresh and upgrade the system infrastructure.

---

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

----

Intelligent Testing™
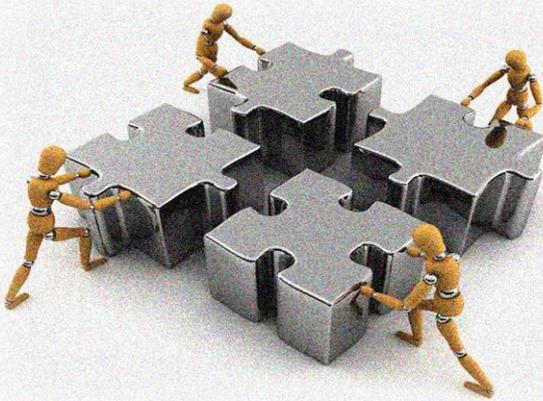
Bristol, 17th March

UWE Conference Centre

Improving the efficiency and effectiveness of your testing

Sponsors:

ATKINS   *Platinum Sponsor*

EMENDA   klocwork   imperas   LAUTERBACH DEVELOPMENT TOOLS   *Gold Sponsors*

Following on from the success of the first conference last October, TVS will be hosting its second Intelligent Testing Conference in Bristol this March. The half-day conference will once more focus on how to improve the effectiveness and efficiency of our software testing.

The keynote address will be provided by Nigel Charman, Chief of Software and Systems Verification at Rolls Royce. Nigel has worked in the aerospace industry since the mid-80s, can remember CP/M 86 and OS/2, and has an extensive test background having tested the software and electronics on missiles, rockets, ships and aircraft.

Accompanying Nigel, we have another exciting mix of industry speakers who will discuss a range of techniques to improve software quality and reduce time-to-market such as static analysis, monitoring test coverage and harnessing the power of assertion checking.

So if you are interested in learning about new ways to improve your software testing, want to share your testing challenges and leave with new ideas, are keen to network with fellow professionals, join us for what will be another stimulating, entertaining and rewarding event.

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

www.testandverification.com/intelligent-testing

Event Listings

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

February

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

Intelligent Testing
17 March 2014
Bristol, UK
https://it2.eventbrite.co.uk/

Belgium Testing Days
17 - 20 March 2014
Bruges, Belgium
http://btdconf.com/

TestBash3
28 March 2014
Brighton, UK
http://www.ministryoftesting.com/training-events/testbash-3/

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
29 - 30 April 2014
London, UK
http://uktmf.com/

July

SIGiST (25th Anniversary)
3 July 2014
London, UK
http://www.bcs.org/server.php?show=nav.9264

UK Test Management Forum
31 July 2014 (TBC)
London, UK
http://uktmf.com/

September

SIGiST
4 September 2014
London, UK
http://www.bcs.org/server.php?show=nav.9264

October

STARWEST
12 - 17 October 2014
Anaheim, US
http://starwest.techwell.com/

November

EuroSTAR
24 – 27 November 2014
Dublin, Ireland
http://www.eurostarconferences.com/

December

SIGiST
4 December 2014
London, UK
http://www.bcs.org/server.php?show=nav.9264

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

The BCS Personal Development Plan (PDP) uptake is going well, with 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.

Specialist Group in Software Testing

THE TESTER

SIGiST Summer Conference
Thursday 3rd July 2014

From the Editor

Welcome to the summer edition of The Tester, and the 25th anniversary of the SIGiST. Wow, what a line-up of speakers we have for this conference! We have also aligned with The World Congress in Software Quality (WCSQ) and will be located in the same venue – the Hilton London Metropole. This alignment and the 25th anniversary means we are offering a discount on our normal attendance fees – book now!

For those attending the SIG there is also the offer to attend WCSQ on Wednesday 2nd July 2014 at a 33% discount, as well as the WCSQ Conference Dinner, taking place on 3rd July (after the SIG) at Madame Tussauds.

As part of our 25th Anniversary celebrations, win one of two free places on offer to a future SIGiST conference (September 2014 to June 2015). Everyone attending the SIG on Thursday 3rd July will be given a 10-question quiz, covering the last 25 years of Software Testing.

If that is not enough, everyone attending the SIG gets the chance to win a free EuroSTAR conference place for Dublin in November.

Check out the articles in this edition of The Tester and look out for our new white paper scheme on page 8.

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

Conference Booking Instructions

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

https://events.bcs.org/book/888/

Join our Linked-In Group:

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

Follow us @SIGiST

Conference Agenda

	BCS SIGiST - Summer 2014 Conference Thursday 3rd July 2014 Hilton Metropole, 225 Edgware Road, London, W2 1JU.
08:30	Tea / Coffee & Registration Vendor Exhibition opens
09:25	**Introduction and Welcome** Stuart Reid, SIGiST Chair
09:30	Opening Keynote **Reinventing Software Quality** Gojko Adzic, Neuri Consulting LLP
10:30	**Open Microphone and Networking session**
10:45	Tea / coffee break Opportunity to visit the Vendor Exhibition
11:15	**Tester Motivation – Evidence-Based Results** Stuart Reid, Testing Solutions Group
12:00	**My life as a Tester** Dot Graham
12:45	**Vendor Talk**
13:00	Lunch break Opportunity to visit the Vendor Exhibition
14:00	**Restore to Factory Settings: when a change programme goes wrong** Isabel Evans, Dolphin Computer Access
14:45	**Data Visualization in Software Testing** Debra Friedenberg, IBM
15:30	Tea / coffee break Opportunity to visit the Vendor Exhibition
16:00	Closing Keynote **Software Testing in Context** Julian Harty, Commercetest Ltd
17:00	- Closing Remarks -

The SIGiST committee reserves the right to amend the programme if circumstances deem it necessary.

There are no workshops for the Summer 2014 meeting due to the alignment with the WCSQ.

There's still time to book your place at the 6th World Congress for Software Quality...

WCSQ World Congress for Software Quality 1st - 3rd July 2014 www.wcsq.org London

ARE YOU A WINNER?

or to win one of five free tickets to this outstanding event.

Simply tell us by email why think you deserve to win one of the tickets and you could be arriving in London on 1st July at the world's premier event for software quality with speakers like Tom Gilb, BJ Rollinson, Paul Gerrard and land speed record holder Andy Green.

The 6th World Congress for Software Quality (WCSQ6) promises to be an exciting and stimulating forum for the world's leading software professionals.

Launched in 1995, this congress has rapidly become the 'must attend' event of the software world's calendar.

The prize for each of five lucky winners is **a ticket for the entire event** including the social event on the 3rd July at Madame Tussauds in the heart of London.

You could be joining delegates in London at the luxurious Hilton Metropole Hotel on July 1st – 3rd, to take part in this event that combines contributions from thought leaders, experts, innovative practitioners and inspiring speakers from industry and academia from around the world.

This event will combine three days of not to be missed keynote presentations, tutorials and workshops, an EXPO and a unique networking event.

Just tell us in an email in no more than 100 words why you deserve to be joining the other delegates at WCSQ6 on 1st July and you could one of our winners.

The decision of the committee in awarding the five tickets is final and this offer may not be combined with any other offers.

Whatever happens **all contestants** and *Test Magazine* readers will receive 20% discount on any tickets by using the discount code "**Test 5**". Plus, if you book for **three people at any one time you can get a fourth ticket completely free**. Book for **seven people at any one time and you will get three tickets free**. Just use the booking form on the website and look for 'group tickets'.

www.wcsq6.org

Contact the events team: bcs_events@hq.bcs.org.uk
Tel: 01793 417 417 (Ask for a member of the events team)

WCSQ The Sixth World Congress for Software Quality

SIGiST Conference Venue

For the Summer 2014 SIGiST conference only, we have moved from our usual venue to the

Hilton London Metropole, 225 Edgware Road, London, W2 1JU.

This is the same venue as The World Congress in Software Quality.

Directions from the Underground

The nearest tube station is Edgware Road, which is a short walking distance from the hotel (less than 5 minutes). There are two Edgware Road tube stations, depending on which underground line you use. For the Circle, District and Hammersmith & City lines exit the station and go west along Chapel Street a short distance, then cross over Edgware Road to the hotel. For the Barkerloo line, exit the station and go south along Edgware Road, under the Marylebone Flyover, and the hotel is on your right.

https://plus.google.com/116966954240576466210/about?gl=uk&hl=en
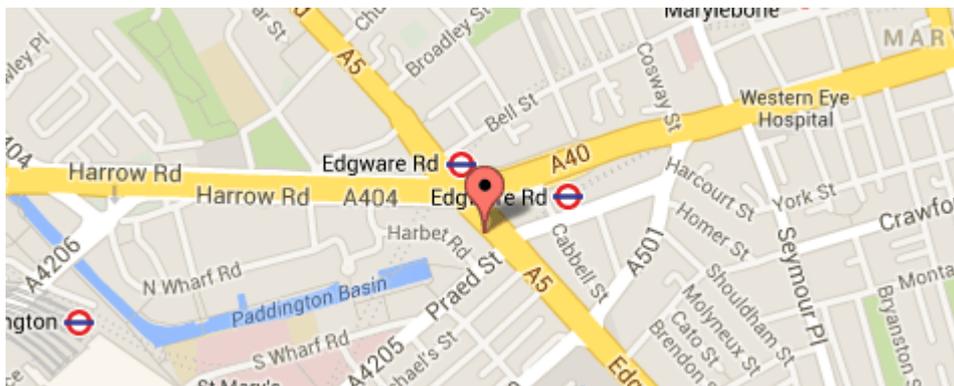
Presentation Abstracts and Speaker Biographies

Gojko Adzic
"Reinventing Software Quality"

The need to go faster to market and cut costs, dominating the industry lately, are significantly changing the landscape of software quality. Many pillars of successful quality strategies in the past are just slowing down delivery too much. To be competitive in the future, we have to switch from quality as a cost centre to quality as value-add, but for that we have to completely change the way we measure, assure and define quality.

Gojko Adzic is a strategic software delivery consultant who works with ambitious teams to improve the quality of their software products and processes. He specialises in agile and lean quality improvement, in particular agile testing, specification by example and behaviour driven development.

Gojko's book Specification by Example was awarded the #2 spot on the top 100 agile books for 2012 and won the Jolt Award for the best book of 2012. In 2011, he was voted by peers as the most influential agile testing professional, and his blog won the UK agile award for the best online publication in 2010.

Stuart Reid
"Tester Motivation – Evidence-Based Results"

Over the last two years, through a series of workshops, presentations and surveys, over 600 testers have provided feedback on what they believe motivates them. This talk presents the results of the analysis of this data to provide a view of the current state of tester motivation. The study divided the survey respondents into six distinct testing roles: Developer/Tester, Test Analyst, Test Lead, Test Manager, Test Consultant and Head of Testing. The factors and job characteristics that affect testers in each of these roles are compared and contrasted. It is clear from the results that different roles are best motivated by different factors and job characteristics, and, for some factors, something that motivates testers in one role demotivates testers in another. The effects on motivation of education, professional qualifications, experience levels, salary, activities performed and outside interests for each of these different roles are reported.

The aim of the survey is to inform managers on how they can best motivate their testers and so improve productivity, increase retention and reduce absenteeism – it should also provide clues on what to look for in future employees. As a tester, it should give you practical insights into how you might change your job and your behaviour to make you feel happier in your working life.

Stuart Reid is Chief Technology Officer at Testing Solutions Group. He has over 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 standards, 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.

Dot Graham
"My life as a Tester"

Dot started her working life by being put into a test group, where she wrote test execution and comparison programs (they weren't called "tools" then). In her 40 years as a developer and then a testing specialist, she has seen many changes and has been in at the start of many initiatives to help promote the discipline of software testing (including being at the first meeting of the SIGiST). Dot will share her experiences and insights into how testing became as it is today.

Dorothy Graham is an internationally renowned consultant, speaker and author, who has been in software testing for more than 40 years. She attended the first meeting of the SIGIST in 1989, and was the prime "speaker finder" for the early years.

Dot is co-author with Tom Gilb of "Software Inspection", co-author with Rex Black, Isabel Evans and Erik Van Veenendaal of "Foundations of Software Testing", and co-author with Mark Fewster of "Software Test Automation" and "Experiences in Test Automation". Dot was awarded the European Excellence Award in Software Testing and the first ISTQB Testing Excellence Award.

Dot was Programme Chair for EuroSTAR in 1993 and 2009. She has been on the boards of a number of conferences and publications in software testing. She was a founder member of the ISEB Software Testing Board and was a member of the working party that developed the ISTQB Foundation Syllabus. She founded Grove Consultants in 1989, and in 2008

became "semi-retired" and now speaks at events and conferences. She is currently working on a Test Automation Patterns wiki with Seretta Gamba.

Her main hobby is choral and madrigal singing.

Isabel Evans
"Restore to Factory Settings: when a change programme goes wrong"

Change is hard to start and hard to embed, and problems for a test improvement and change programme may come from several directions. Although people buy into the new methods, and may be using them successfully, when problems occur, it can be easier for people to go back to the old ways than try and hold to the new methods. When things go wrong people and teams will "restore to factory settings" – because old habits die hard.

This presentation is based on my experiences as a practitioner in the last 4 years introducing changes to testing in a software organization, while working on delivery projects, and managing a team. It is about the practical experience and difficulties of embedding improvement during a difficult time in the marketplace which meant we were asked to improve quality, increase speed to market and reduce costs. I will discuss embedding change in test teams, and the benefits and disadvantages of running change programmes jointly with development teams and business teams.

Isabel Evans has more than twenty five years of experience in the IT industry, mainly in quality management and testing in the financial, communications, and software sectors. Since the mid-1980s, her quality management work as a practitioner on delivery projects and as a quality manager has focused on encouraging IT teams and customers to work together, delivering results via flexible, customer-focused, risk- and test-driven processes designed and

tailored by the teams that will use them. Isabel is a popular speaker at software quality conferences worldwide and has been a member of several working groups for industry improvement. Her publications include Achieving Software Quality Through Teamwork and chapters in "Agile Testing: How to Succeed in an eXtreme Testing Environment"; "The Testing Practitioner" and "Foundations of Software Testing". Isabel is a Chartered IT Professional and a Fellow of the British Computer Society. Isabel is Quality Manager at Dolphin Computer Access, a UK software development company, a role she has had since 2010.

Debra Friedenberg
"Data Visualization in Software Testing"

In my experience, we software testers tend to put a strong emphasis on the data we are required to track, the frequency of data collection and the metrics we wish to derive from that data. What also is important to consider, and what generally is given less consideration, is how we present the results of all of this work.

This is not a talk on data collection or metrics.   Rather, it is a talk on interpretation -- understanding what the data means -- and the presentation of that information.   Data is not by nature informative. To be useful, it needs context and it must be presented clearly and effectively, in a way that is appropriate and for its intended audience.

In this talk, we will look at various ways to present information. Most specifically, we will consider a number of ways to present in clear, compelling and engaging ways the types of data that typically are collected and used by software test teams. I also will share information on some tools and resources that may be valuable in your quest to create useful and interesting data visualizations.

Debra Friedenberg has been involved in the software testing profession for almost 30 years. She has managed teams for both start-up organizations and large multi-national corporations, including Software Publishing Corporation (SPC), Autodesk, Barra/MSCI, Wells Fargo Bank, and IBM, and has managed test teams participating in the development of a variety of consumer applications, geographic information systems, e-commerce sites, financial software systems and enterprise tools. Debra is currently a Test Manager for IBM's Cloud and Smarter Infrastructure group, where she manages the testing of the IBM Endpoint Manager platform. She has been a Director of the American Software Testing Qualifications Board (ASTQB®) since 2007, and is a co-author of the ISTQB® Expert Test Manager and Foundation Level Syllabi.

Julian Harty
"Software Testing in Context"

The practice of explicit testing of software continues. The SIGiST was launched when the 80386 was king, LANs considered high-tech, and Europe was divided into East and West. Apps were standalone.

Since then, testing has been outsourced across the world, including to competent testers in countries previously considered off limits. Internet, Web and Mobile are prevalent, and international the norm. I'm routinely asked to help groups learn to be software testers so they can earn an income that's self-sustaining.

Where will all this lead? And, what's to come? How can we invest wisely in software testing, remembering "The value of your investment can go down as well as up so you may get back less than you originally invested"

Julian Harty is another of the 30+ year 'experienced' practitioners, who's worked for global companies and in domains that weren't conceived when the SIGiST was launched. He's currently leading technology projects at a range of organizations in several continents. Testing underpins all these projects.

He's spoken at hundreds of public conferences and workshops, been published, and is currently studying a PhD part time in ways mobile analytics may help us improve software *for smartphones and tablets by refining software testing, development, and design.*

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

----

New SIGiST White Paper Scheme Launched

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

Do you have an existing paper you would like to repurpose and make more widely available through the SIGiST website?
- Then please send us the paper with three keywords for searching.

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

If you have been thinking of writing or publicising an existing paper then this is the ideal opportunity. Please email your existing paper (with keywords) or your proposal to the SIGiST Programme Secretary Mike Bartley.

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

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

Accelerate Software Delivery at Less Cost with End-to-End Test Data Management

Huw Price, Managing Director, Grid-Tools

Most IT departments are striving to build more agile, modern, cost-effective environments in the bid to accelerate the delivery of valuable, quality software to the business. However, for banks and financial institutions in particular, legacy systems and continually tightening external compliance pressures are impeding agility when it comes to the provision of new software projects.

One of the key ways to speed the delivery of new projects is to minimise the risk of production defects. Creating efficiencies in test data provision mitigates the risk of delays, rework and spiralling costs, which slows time to market.

Testing accounts for approximately 40% of the average software development lifecycle, and as much as 50% of development and testing time is spent manipulating, searching for or manually creating the right data to meet test case requirements. In an ideal world, organisations would standardise and automate the majority of these time consuming manual processes. Recent research however shows that very few companies achieve significant levels of automation and many, especially in the banking and financial services market, are still heavily reliant on manual testing.

The question is, why?

Where financial institutions are concerned, the fact that most are dealing with legacy systems, systems that in some cases are over 40 years old, is seriously hampering their ability to move to a more standardised approach. To add to the issue, often the knowledge around these systems and various nuances about them remains in the heads of individuals. This makes it increasingly difficult to create standard, repeatable testing processes and is one of the reasons that testing is still incredibly reliant on manual intervention.

Banks are also under constant pressure to meet ever growing and tightening compliance and regulatory requirements. Current data protection and legislation such as HIPAA, PCI DSS, the EU Data Protection Directive and the UK Data Protection Act means that much more vigilant practices around the use of data needs to be adhered to.

Traditionally, most financial institutions used full copies of production databases to provision data for development and testing. This practice however is no longer viable due to growing legislation requirements, so

banks now have to use some form of data masking to solve this problem. However, for banks that have large and complex IT architectures with sensitive data stored across multiple sites and disparate data sources, as well as a lot of manual processes, data masking is very expensive, slow and error prone. With an increased pressure on cost control and cost reduction, banks need to find more intelligent ways of finding the right test data as well as provisioning and creating test data marts.

Implementing an end-to-end Test Data Management (TDM) solution offers total control over data throughout the software development lifecycle (SDLC). Building clear, unambiguous requirements from the outset helps to ensure quality in testing, whilst shortening test cycles by more than 30%. It also cuts defects creation by up to 95%, reducing costly rework. Clarity in requirements also allows testing teams to better understand what needs to be tested. This allows them to design the perfect, minimum set of tests to cover all of the required functionality.

No bank can afford the time, the cost or the risk of employing an army of manual testers anymore. Whether building or testing new software, re-engineering systems or migrating applications, banks and financial services companies need to be able to respond to changing requirements by provisioning fit for purpose test data to the right place at the right time to accelerate and improve test cycles.

Moving to an end-to-end Test Data Management system will deliver significant test process improvements that will enhance the performance and effectiveness of testing, ultimately speeding the delivery of better quality software to the business and at less cost.

If you are interested in finding out more about how FIs can get new software development projects to market more quickly why not download our latest whitepaper: Delivering More Rigorous Testing of Software Systems to Banks and Financial Institutions [here](#).

With a career spanning nearly 30 years, Huw Price has been the lead technical architect for several US and European software companies and has provided high-level architectural design support to multinational banks, major utility vendors and health care providers. Voted "IT Director of the Year 2010" by QA Guild, Huw has spent years specialising in test automation tools and has launched numerous innovative products which have re-cast the testing model used in the software industry. He currently speaks at well-known events internationally and his work has been published in numerous magazines such as Professional Tester, CIO Magazine and other technical publications.

Huw's newest venture, Grid-Tools, has quickly redefined how large organisations need to approach their testing strategy. With Huw's visionary approach and leadership, the company has introduced a strong data-centric approach to testing, launching new concepts conceived by Huw such as "Data Objects", "Data Inheritance" and "A Central Test Data Warehouse".

Currently working with leading edge testing companies and partners such as HP, Software AG and Bender RBT, Grid-Tools is building on the strategy of improving automation tools and associated structured methodologies.
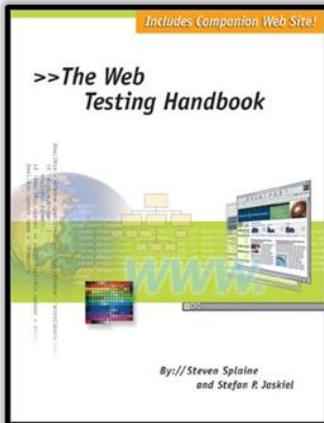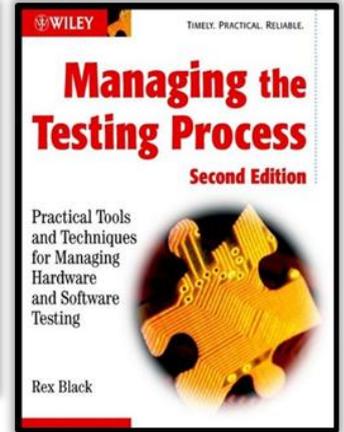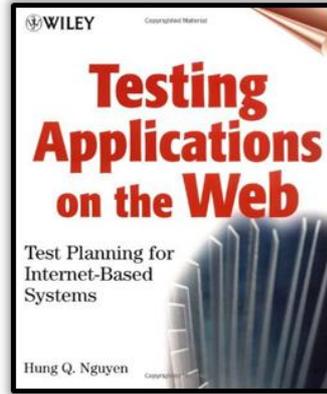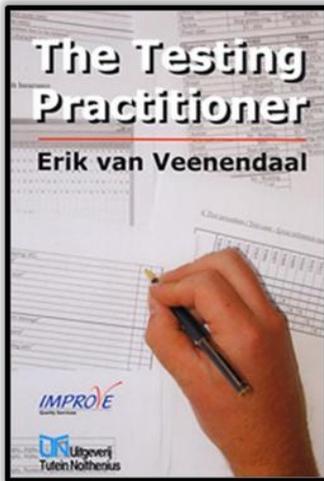
The SIGiST Library

Did you know that the SIGIST has a range of testing books that you can borrow for free?
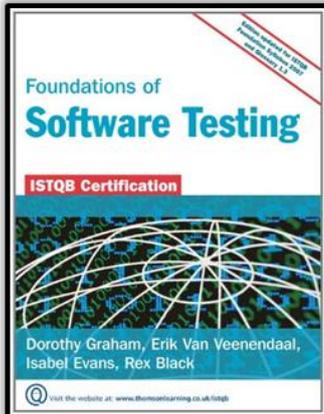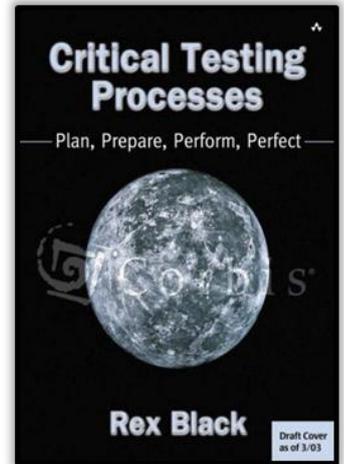
Please email Matt at sigistlibrary@bcs.org for a list of available books and instruction on how to borrow a book from the SIGiST library.

ISO / IEC / IEEE 29119 Parts 1, 2 and 3, published in 2013, are available from the SIGiST library.
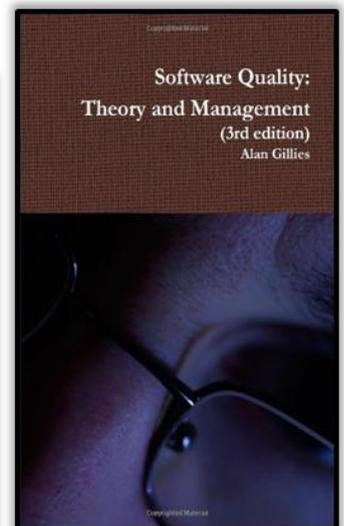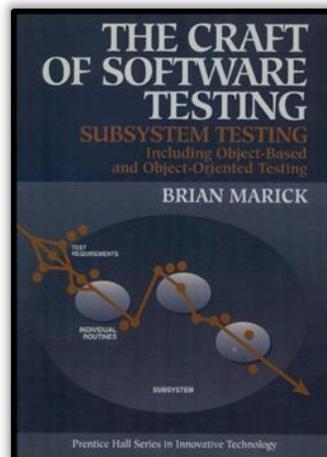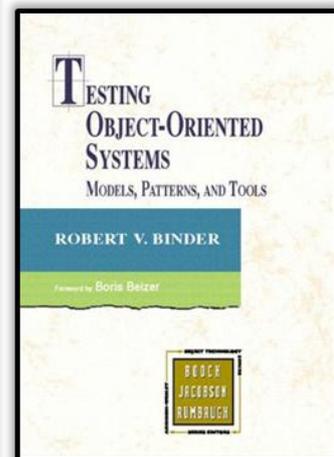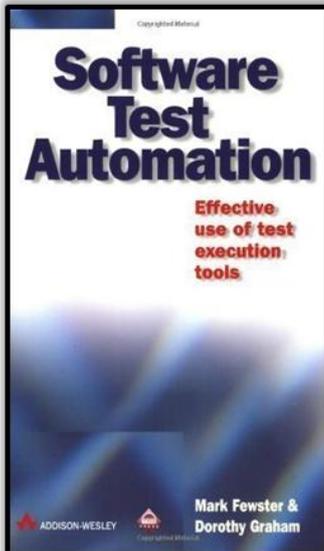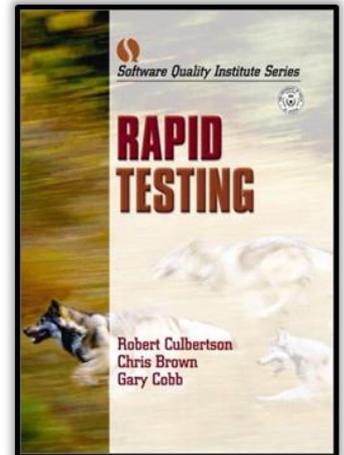
RMI Auto Test
How Quality can accelerate "Speed-to-Market"

Shajahan Pulikkal, UST Global

Abstract

RMI Auto Test is an Automation approach for Java Remote Method Invocation projects. This helps identify defects in the core functionality of a project even before the application front end is stabilized. This ensures a tester can be involved right from the start of the project which eventually results in the proper utilization of the resource.

RMI Auto Test Overview

The aim of RMI Auto Test is to identify bugs in the core functionalities of an application thereby reducing the overall cost of the project. The project starts with setting up an RMI server where the core functionality is available and gets executed upon initiation from different RMI clients. The static RMI client environment should be ready by that time, through which the RMI clients can access the remote methods. The test scenarios and test data needs to be identified for the respective functions available in the RMI server. From the tester perspective he / she has to come up with all the possible positive and negative test cases / scenarios along with the test data. Test cases / scenarios should be very realistic and should be written in such a manner that a third party coming in should be able to proceed with the testing of different scenarios, without having deep knowledge in all the

requirements. All the written test scenarios have to cover the entire set of requirements for the functions in the RMI server. A test data template has to be prepared that can handle different server details, remote method details and different argument values.

The sample functions should be tested from the RMI client environment created. Then we have to create java code that will do the compilation process of dynamically generated java codes in the previous steps. A separate java code is created to compile the dynamically created java files according to the input test data. Java code is created to execute the remote functions dynamically according to the data available in the test data sheet.

Why RMI Auto Test?

Normally a tester has to put in lot of effort during the last stages of a project and is less utilized during the initial project phases. People always wonder how a tester can be utilized efficiently during the entire project cycle. The concept of developing this project - RMI Auto Test enables a better utilization process.

Normally when a project starts developers and testers will be analyzing the requirements. Developers go on with designing and coding of the application where most time will be consumed. At this juncture, testers will be developing the test

scenarios and test data for the corresponding application, which is relatively little effort required compared to the developers. This is because a developer will be developing the core functionality first and later on go with the User interface (UI) development. Once the development is ongoing a tester is utilized for test scenarios design and test data setup. From this point a tester has to wait for the UI to be ready to start with the real test execution for corresponding requirements. If the core functionality can be delivered to testing team, they can do the test execution with the scripts available and at the end stage they can do the integration testing too. Here a person will be wondering what advantages are there for the project.

The advantage comes if there are bugs found in the core functionality developed. If a tester is able to report bugs at an early point, the developer will get more time for fixing issues and thus give a better quality product to the end user. If the tester starts testing during the later stages of development, the developer has to put in more effort for fixing the issues. Also the COST of fixing the bug will be less if it is detected earlier in a development cycle. Hence RMI Auto Test stands apart as a unique tool for the testers by adding value to the service provided by them.

RMI Auto Test Process Flow

RMI Auto Test works with a RMI client environment that can access the remote methods. Once the functionality is set up in the server to link different clients with this server, we need to set up client files and interface file in all the clients. RMI Auto Test creates these two types of files namely interface file and client file for declaration of remote methods and for remote method invocation by passing the arguments respectively. We need to compile both client and interface file so RMI Auto Test will compile these two types of files and create .class files (executable files). Then the RMI Auto Test will start invocation of remote methods using the executable class file according to data given in the test data. The test data will be kept upon and start invoking the clients thereby creating java files dynamically. The tool will do the compilation for all these dynamically created java files. According to a user's wish, different test data can be provided which is suitable to cover both the positive and negative scenarios. Whatever the test data is, java files will be created dynamically during test execution. Different users will have different test data for testing the functionality. With one PC we can set up the RMI server and then create multiple clients.
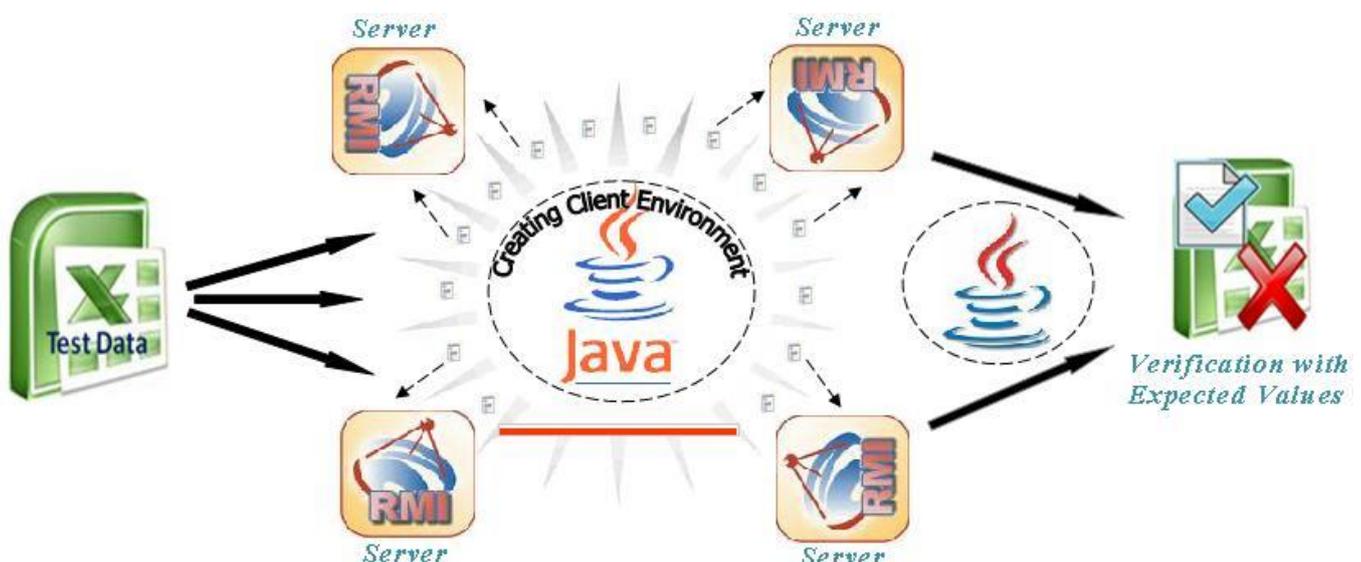
On completion of testing with RMI Auto Test, defect coverage for the core functionalities which is of high severity and priority is ensured. Each individual function can be tested in the development stage itself. Core functionality has to be developed by developer during the time by which a tester will be preparing the test scenarios, detailed test cases and test data. By the time the developer completes the core functionality development, the tester will have all the details to start test execution. During the UI development stage the tester will be able to identify major defects that can break the whole application. Once the UI is completed the developer can start fixing the defects and finally the integration testing started. This tool will generate different RMI client environments dynamically according to the given test data values.

The RMI Clients will be set up with the help of interface file name, server IP address and bind name. Each functional element, with function name and the arguments will be set up along with the input and output. The test data template will be in the form of a Microsoft Excel template which will get executed and show results with GREEN for passed scenarios and RED for failed scenarios. The RMI Auto Test execution will create multiple java files which have to be cleaned up on completion of testing. For this, delete functionality is incorporated.

Key benefits of RMI Auto Test

RMI Auto Test helps to do RMI testing in early project stages, even before the front end applications are stable.

RMI Auto Test will setup a client environment based on specified test data values.

RMI Auto Test can test multiple RMI servers at same time.

Creates different java interface files for each server and also does the compilation process.

Creates different client files for invoking each remote method.

RMI Auto Test directs the results in to the data file by executing the generated client files.

RMI Auto test ensures early involvement of testers in the project life cycle.

RMI Auto test impacts cost of Quality positively by clearing the entire major defects in the early stages of projects and reducing the external failure cost.

Since all the major defects are found in the early stage of development there is low probability for changes down the line in project life cycle. Hence speeding up the SDLC process, there by leading to a speedy delivery to market.

Shajahan Pulikkal has been with UST Global for over four years. He is has eight 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

The annual EuroSTAR Software Testing Conference is Europe's leading software testing conference & exhibition and this year takes place in Dublin, Ireland from 24-27 November 2014.

Since 1993, the EuroSTAR Conference has been recognised as the premier software testing event on the European testing calendar and continues to provide an unrivalled learning and networking opportunity for software testing professionals.

The four day event centres on an exceptional conference programme featuring intensive full-day and half-day tutorials; active workshops; over 40 track sessions and thought-leading keynote presentations from some of the world's leading software testers.

Recognised international software testing experts will present their ideas on a wide range of topics including: Agile Testing; Test Strategy; Big Data; Mobile Testing; Security Testing; Test Automation; Test Design and Test Management.

The conference also features a vibrant Expo where companies showcase the latest tool and service innovations in software testing. This year the Expo is set to include the biggest ever Test Lab – a live testing environment where attendees can learn and demonstrate their software testing knowledge.

The EuroSTAR Conference presents IT companies with an excellent opportunity to learn from the very best the global software testing industry has to offer as well as the chance to network and discuss with over 1000 like-minded professionals from across Europe and around the globe.

For details on the 2014 EuroSTAR Conference programme and to learn more please visit:
http://bit.ly/1hBacUM

For details of the fees to attend EuroSTAR, please visit:
http://www.eurostarconferences.com/attend-eurostar-conferences/pricing

Win a free EuroSTAR conference place!

Want to attend EuroSTAR for FREE? Attend the SIGiST on Thursday 3rd July 2014 and be in with a chance to win a free EuroSTAR conference place!

Defect prevention in a reduced test window

Dave Pavey

Testing windows get squeezed. This is just a fact of life that anyone who has worked in testing for a few years will know. Go-live dates get fixed in stone for all sorts of business, contractual and statutory reasons. When development teams start reporting delivery date slippages and missing delivery dates, the consequence is a reduced testing period.

In these circumstances, most Test Managers typically have the following responses (not all good) in an effort to complete as much of the originally planned test execution as possible:

- High-light the increased risks and seek clarification of quality acceptance criteria
- Apply test prioritisation (and de-scoping)
- Apply prioritisation of defect fixes
- Implement test war-rooms and frequent re-planning in response to the latest development plans
- Increased use of resources (often including long days and weekends)
- Placing pressure and urgency on testers (and other project resources) to do things quickly
- Overlap phases of testing

But the old adage that "prevention is better than cure" couldn't be truer in these circumstances. Applying techniques for defect prevention is widely accepted as being the cheapest and quickest way to deliver a quality system. This is just as relevant in an environment where the test window is being squeezed. When the

pressure is on, it's easy to ignore or forget this wisdom.

Towards the end of a project, Project Managers and Test Managers tend to focus all their energy and resources on driving through the latest test cycle and getting the priority-1 defects fixed. Whilst these tasks are important, all too often I see this being achieved by diverting resources off everything else, including diverting resources from defect prevention tasks. This results in an inevitable spiral of quality decline.

When projects are running late, development teams are also under pressure to deliver quickly. This often results in corners being cut during design, or code being delivered before it has been fully unit tested. When defect prevention measures are also abandoned, then the likely outcome is that not only will the code be late, but it will also be of lower quality and stand little chance of passing the quality criteria in time for the fixed go-live date.

Test Managers can't afford to take their eyes off the quality ball. The last thing you need in a shortened test window is the latest code deliveries being of lower quality than normal.

Defect prevention tasks can include:

- Maintaining a broad knowledge of the end-to-end solution so that business risks can be assessed

- A detailed understanding of the dependencies between build components and the evolving system - so that design and regression risks can be identified
- Arranging peer reviews and code hand-offs between developers and testers
- Static testing prior to code delivery

Often, a continued pro-active approach to defect prevention by the Test Manager is sufficient to maintain a quality culture throughout the whole project when time pressures come into play, which gives the project its best chance of success.

Dave Pavey is a contract Test Manager currently working at NFU Mutual. He has over 30 years' experience in IT with the last 10 years specialising in test management, mostly in financial services and banking. Prior to this, Dave founded and managed a small IT consultancy for 8 years – a winner of the Gloucestershire Small Business of the Year award. Dave's earlier career started in programming, then moving to analysis and eventually project management.

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

Intelligent Testing™

The slides and recordings from the first two "Intelligent Testing" conferences are available at

http://testandverification.com/conferences/intelligent-testing/

and include a wide range of talks from Dot Graham on Automation, to Rolls Royce on Intelligent Testing in Complex Environments.
Paul Gerrard is now confirmed as a keynote speaker for the third Intelligent Testing conference where he will be elaborating on a 'New Model of Testing'. The conference will be held on 12th November and registration is now open at

http://www.eventbrite.co.uk/e/intelligent-testing-tickets-1837499279

Event Listings

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

July

6th World Congress for Software Quality
1- 3 July 2014
London, UK
http://www.wcsq6.com/

SIGiST (25th Anniversary)
3 July 2014
London, UK
http://www.bcs.org/server.php?show=nav.9264

UK Test Management Forum
31 July 2014 (TBC)
London, UK
http://uktmf.com/

September
SIGiST
4 September 2014
London, UK
http://www.bcs.org/server.php?show=nav.9264

October
STARWEST
12 - 17 October 2014
Anaheim, US
http://starwest.techwell.com/

November

Agile Testing Days 2014
10 - 13 November 2014
Potsdam / Berlin, Germany
http://www.agiletestingdays.com/

Intelligent Testing
12 November 2014
Bristol, UK
See details on page above

EuroSTAR
24 – 27 November 2014
Dublin, Ireland
http://www.eurostarconferences.com/

December
SIGiST
4 December 2014
London, UK
http://www.bcs.org/server.php?show=nav.9264

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

The BCS Personal Development Plan (PDP) uptake is going well, with 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.

Specialist Group in Software Testing

THE TESTER

SIGiST Autumn Conference
Thursday 4th September 2014

50

IN THIS ISSUE

From the Editor

Welcome to the autumn edition of The Tester. Somewhere over the last 25 years of the SIGiST and the publication of The Tester, the issue numbers have 'drifted' and this isn't exactly issue 50, but let's celebrate a golden summer here in the UK!

The autumn conference takes place at our regular venue of the **Barbican**, City of London. The autumn conference is also the time when the annual SIGiST **AGM** is held. This will take place before our regular proceedings. There are a number of committee positions up for election in September. Check out the AGM notice on page 3 for full details and see if you would like to volunteer.

Abstracts for the conference talks and workshops are available from page 6, and there are a couple of articles to read in this edition. Contact me if you would like your own article published.

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

Conference Booking Instructions

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

https://events.bcs.org/book/889/

Join our Linked-In Group:

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

Follow us @SIGiST

Conference Agenda

	BCS SIGiST - Autumn 2014 Conference Thursday 4th September 2014 Barbican Centre, Silk Street, London, EC2Y 8DS.	
08:30	Coffee & Registration, Exhibition opens	
09:15	**SIGiST Annual General Meeting 2014**	
09:25	**Introduction and Welcome** Stuart Reid, SIGiST Chair	
09:30	Opening Keynote	
	The Assertive Tester Declan O'Riordan	
10:30	**Open Microphone and Networking session**	
10:45	Tea / coffee break	
11:15	**TBC** Ole Hansen	**Morning Workshop** **Rethinking Test Design (forget test techniques, it's test modelling that you need to know)** Paul Gerrard
11:45	**The Webcowgirl's Guide to Implementing Software Automation** Tonnvane Wiswell	
12:15	**Shifting Left – A case study of process improvement using statistical process control & test analytics** Mike Jarred & Ilca Croufer	
13:00	Lunch break Opportunity to visit the Vendor Exhibition	
14:00	**Agile and CI for embedded software and tool development** Russell Gallop	**Afternoon Workshop** **Introduction to Statistical Process Control** Ilca Croufer
14:25	**Testing Your Mind** David Orr	
14:50	**Panel Discussion Session** How do testers get more involved in the earlier stages of projects?	
15:30	Tea / coffee break	
16:00	Closing Keynote	
	Internet of Everything – what is it, and how do we test it? Paul Gerrard	
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 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 4th September 2014. The venue for this meeting will be the Barbican Centre, London.

Agenda

❖ Welcome and Introductions

❖ Apologies for absence

❖ Minutes of the 2013 AGM (and matters arising)

❖ Reports
  - Chair
  - Treasurer
  - Standards committee

❖ Committee elections
  - Chairperson
  - Vice Chairperson
  - Marketing secretary
  - Treasurer

❖ To consider any nominated business

Items for inclusion on the AGM agenda should be emailed to 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 20 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: http://www.volunteer.bcs.org/Rules	At least 10 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.	At least 5 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 items 4 and 5 below), but may only hold one position. In the event that someone is elected to more than one position then they must immediately decide which position they wish to take up and vacate the other positions. The second-placed candidates for the vacated positions are then elected to those positions.
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).

SIGiST Conference 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.

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

Declan O'Riordan
"The Assertive Tester"

Does the Assertive Tester exist in the world of work? Darwinism is driving the Aggressive Tester to extinction, and Passive Testers with their companions the Passive-Aggressive Testers now roam the planet in their millions. The Passive Testers do not regard themselves as equals because they place greater weight on the rights, wishes and feelings of others. Being passive results in failure to communicate thoughts or feelings and results in Passive Testers doing things they really do not want to do in the hope that they might please others. This also means that they allow others to take responsibility, to lead and make decisions for them. The Passive Tester uses requirement specifications to create tests, seeking clarification of ambiguities where necessary but never challenging the completeness of the requirements. The Passive Test Manager has no idea how to lead Penetration Testers (for example) beyond complete delegation to test the whole system for all vulnerabilities, perhaps in one arbitrary week.

An Assertive Tester would not be aggressive; on the contrary, they would stand up for what they believe in an honest and appropriate way while respecting the thoughts, feelings, opinions and beliefs of others. An Assertive Tester would object if presented with requirements definitions and design specifications that only captured what the customer wants the system to do, and contained nothing to prevent attackers

from doing what they would like to do with the system through misuse. The Assertive Tester might make statements to interested parties along these lines: "In order to test this system for security I need you to explain how and where un-trusted data is validated". When leading Penetration Testers, the Assertive Test Manager would provide clear directions such as "I require you to verify the client-side validation is matched on the server-side to prevent attackers using intercepting proxies by-passing the browser validation".

Let's use the example of security testing and the attacker-defender mind-sets to understand how an Assertive Tester uses rational argument to speak in the best interests of themselves and their organisations. With this insight, is it possible for any of us to become Assertive Testers?

Declan O'Riordan - 33 years in IT. 26 years in Testing. BA Data Processing (Sunderland). MBA (Open University).

Tonnvane Wiswell
"The Webcowgirl's Guide to Implementing Software Automation"

Implementing test automation in an organization can seem like a daunting task. But there's a repeatable series of steps to follow to make it happen – planning, implementing, and supporting. Using my experiences rolling out test automation at Betfair and The Post Office and with a

"cowboy" motif, I will show how "roundup, rodeo, and riding fences" can help you get test automation up and running successfully in your organization. I will also show failure points based on my third attempt and give an update on my fourth. At the end, attendees should come away with a clear path to follow at their own organization.

Tonnvane Wiswell has been testing since 1998, when the dotcoms hadn't bombed. dinosaurs roamed the earth, and Amazon thought it was acceptable to sit workers at converted doors instead of desks. Since then, her favourite gigs have been at Expedia.com in Seattle, where she spent 3 years leading flights projects, and Post Office Limited, where she rolled out two different test automation projects. She also loves theatre and blogs reviews actively at webcowgirl.wordpress.com.

Mike Jarred & Ilca Croufer
"Shifting left – A case study of process improvement using statistical process control and test analytics"

We all struggle at times to relate to executives and stakeholders of the testing process, and demonstrate the value of testing. Do these problems / situations resonate with you?

- The value of testing not being universally accepted
- Testing perceived as a bottleneck (due to poor software quality released into testing and related impacts being "hidden" in the testing stage)
- Inadequate resources to support all the work required from the test function
- Testing process improvement being driven by practitioners, but not necessarily aligned to business objectives

This talk explores how the IDBS Testing Group addressed these and other challenges, by using data collected from the testing process and using Statistical Process Control to drive quality improvements into the early stages of the development lifecycle. A positive consequence of the quality initiatives we put in place was to establish high levels of trust and credibility with our senior management team, and we have been able to implement departmental & cross divisional change in IDBS as a result. We will present the results of the latest stage of IDBS journey of improvement, including the introduction of;

- A single "head of" role to combine the development and testing department into one Software Delivery Team, focussing on quality improvements.
- Portfolio Management Office to ensure alignment of Software Delivery effort with understood commercial priorities
- Formalised Business Analysis
- Working parties to examine how to improve early lifecycle processes

Mike Jarred is a testing practitioner with over two decades of experience in Software Testing and Quality Management gained in a diverse range of industry domains. Mike currently works for IDBS as their Director of Software Delivery and is responsible for Software Development & Testing. Mike is passionate about testing and using information generated by project teams to improve both software quality, and to initiate organisational improvement. Outside of IDBS Mike mentors Test Managers, as well as attending and speaking at conferences to continue his education in testing.

Ilca Croufer is an experienced tester who has worked for IDBS since 2010. She has developed valuable skills in test planning, test case design, test management and now works in the IDBS PfMO as a Data Scientist. She holds a Bachelor's of Science in Mathematics, and is enthusiastic about applying her domain expertise to the testing field. For the last couple of years, her focus has been on Statistical

Process Control and the use of metrics and data analytics to drive continuous process improvement.

Russell Gallop
"Agile and CI for embedded software and tool development"

Agile methods and continuous integration grew out of the forward thinking Smalltalk and Java communities. They are now pretty standard in pure software environments due to the decreases in defects and release time. Adopting these techniques in development of embedded software or tools however presents additional challenges. Hardware may be scarce or unreliable. Software may have real-time constraints to meet. Testing may require a trained eye looking over the output. This talk aims to outline some of the problems that may be encountered in trying to implement these practices and approaches to resolving or avoiding them.

Russell Gallop has worked in the fields of embedded processors, software and tools for over 10 years, on both the design and verification sides. During that time he has developed and set up a number continuous integration systems. He has worked with Scrum and Kanban agile processes. He believes that these practices when well implemented can make a big difference to the productivity and working environment of developers and testers. He now works for SN Systems as a Senior Software in Test in the Playstation 4 compiler team.

David Orr
"Testing your Mind"

Have you ever felt like your project is testing your mind? Or testing your patience?

I believe that as testers, passionate about the job we do, we're exposed to huge

psychological strain on our projects for many reasons, here are some examples:

- time pressure - rarely received builds on time or less testing time available due to delays
- knowing that project management and business owners are relying heavily on our work
- having to deliver the bad (and sometimes surprising) news to some developers that their code is not actually perfect
- needing to re-enter a whole batch of test data because somebody messed up the set you've just spent three days preparing
- repeating a set of tests that have been invalidated because the environment wasn't configured properly
- Switching development models during a project, *e.g.* from Agile to Waterfall / V-Model or Waterfall / V-Model to Agile / Rapid Application Prototyping

There is no question that testers face similar challenges to the above throughout their projects and but I've come to realise there is a need for a positive, collaborative approach across all channels and it's important to end conversations/reports on a positive note.

David Orr is a Senior Test Analyst at Sopra, currently working with clients in the Public Sector and Utilities. Graduated with BA Honours in Business and Economics from the University of Stirling in 2008. He resides in Dunblane, in Central Scotland.

Attended EuroSTAR Testing Conference in Gothenburg, 2013 and loved the experience as it was both thought provoking and challenging which has encouraged David to aim to present at conferences himself.

Away from work is a highly active individual who enjoys sports such as football, golf, badminton, tennis and many more. Is generally a very outgoing individual who looks to engage with friends, colleagues and enjoys meeting new

people. Other interests include reading and psychology.

Ilca Croufer
"Introduction to Statistical Process Control" [Workshop]

Statistical Process Control is a tool used for quality control and improvement based on objective data and statistical analysis.

As test practitioners and managers, we are often faced with challenges such as;

- Demonstrating testing's value to executives
- Battling the perception of testing being a bottleneck
- Needing to communicate where lifecycle changes could be best applied to improve quality and productivity.

In the last two years, I have seen the Testing department in the company I work for address these issues by using Statistical Process Control and the intelligent use of data provided by projects.

The test group have become drivers for change, and a provider of valuable information & insight enabling senior managers to make informed decisions.

This workshop will demonstrate how Statistical Process Control (SPC) can be used to drive good decision making in your workplace.

You will learn about the principles of Statistical Process Control and Process Variation. You will use these principles to construct and analyse a Control Chart; and apply different Root Cause Analysis techniques to areas for improvement identified by using the control chart.

This workshop is for anyone interested in a hands-on approach to Statistical Process Control. It will not address company specific problems or show how we solved our internal challenges; it will however equip attendees with the necessary skills to apply a generic approach to specific challenges in their test departments or projects.

Equipment:
Bring a ruler and a calculator.

Ilca Croufer is an experienced tester who has worked for IDBS since 2010. She has developed valuable skills in test planning, test case design, test management and now works in the IDBS PfMO as a Data Scientist. She holds a Bachelor's of Science in Mathematics, and is enthusiastic about applying her domain expertise to the testing field. For the last couple of years, her focus has been on Statistical Process Control and the use of metrics and data analytics to drive continuous process improvement.

New SIGiST White Paper Scheme Launched

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

Do you have an existing paper you would like to repurpose and make more widely available through the SIGiST website?
- Then please send us the paper with three keywords for searching.

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

If you have been thinking of writing or publicising an existing paper then this is the ideal opportunity. Please email your existing paper (with keywords) or your proposal to the SIGiST Programme Secretary Mike Bartley.

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

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

Intelligent Testing™

The slides and recordings from the first two "Intelligent Testing" conferences are available at

http://testandverification.com/conferences/intelligent-testing/

and include a wide range of talks from Dot Graham on Automation, to Rolls Royce on Intelligent Testing in Complex Environments. Paul Gerrard is now confirmed as a keynote speaker for the third Intelligent Testing conference where he will be elaborating on a 'New Model of Testing'. The conference will be held on 12th November and registration is now open at

http://www.eventbrite.co.uk/e/intelligent-testing-tickets-11837499279

Cost Effective Test Environment Service - Centralized
Faster time to market at reduced cost

Shankar Mani, UST Global

Abstract

An enterprise application consists of several interrelated systems hosted on multiple technologies and platforms. Managing and provisioning of these test environments are complex, costly and consumes a lot of time. Testing can get delayed (up to 50 % or more) and this will eventually impact the time to launch the application in the market. To tackle this centralized test environment service approach can be implemented which will be cost effective and provides higher test coverage of business critical functions and also eliminates environmental bottlenecks during test execution phase.

Test Environment Management- Understanding the Challenges

- Managing and provisioning multiple environments which reside on heterogeneous technologies, OS platforms and hardware
- Forecast demand, plan, build and provisioning for multiple/ concurrent environment request from different teams
- Standardization of activity in test environment governance, delivery, support and management
- Reusability, sharing and maintaining test data / code base of test environments for multiple projects / applications across organization

Roadmap to a Centralized Test Environment Service:

Centralized Test Environment Service is a managed service based approach, which is defined to support the entire system landscape of an organization through an organized and structured environment service delivered, to meet higher quality at a reduced cost and facilitating faster delivery of test environments .Centralized Test environment service provided can be leveraged for System Testing, System Integration Testing, Performance Testing, Infrastructure Testing, User Acceptance Testing and Operational Acceptance testing activities in an organization.

Activities that should be planned to transform from the current environments service model to Centralized Test Environment Service are outlined below:

- Initiate SWOT analysis (Strength, Weakness, Opportunity & Threat) on the existing test environment management / service in your

organization which may be a distributed function / responsibility handled by test, development, deployment or infrastructure teams

- Analyze the SWOT analysis results and map the priority action items (policies, processes, tools, industry best practices, governance, etc.) to the organization software delivery requirements.
- Build a dedicated Centralized Test Environment Service team based on the above actions

o Environment Operational Governance Service
- ❖ Policies & Processes to standardize service
- ❖ Service Level KPI's to be defined for test environments
- ❖ Risk & Issue management
- ❖ Demand Management, Work Forecast Management
- ❖ Vendor Management & Services for test environment(hardware & software)
- ❖ Service Improvement Plan & Audits

o Environment Delivery Service
- ❖ Environment Delivery Plan
- ❖ Effort Estimates and Cost for projects
- ❖ Environment Management Plan(Environment details, Booking schedule , Risk & Issues)

- ❖ Provision Test Environment with right software versions
- ❖ Access and privileges provided to test environment users
- ❖ Reports & Dashboards for stakeholders
- ❖ Test Data and Test Media management

o Environment Support Service
- ❖ Incident / defect Tracking and Management   to closure
- ❖ New Deployments, Monitoring & Version Validations
- ❖ Environment Refresh
- ❖ Timely support to teams during environment usage based on SLA & RACI matrix

o Environment Infrastructure Management & Maintenance
- ❖ Capacity Planning and environment upgrade management based on projects and demand
- ❖ Infrastructure Management : Hardware, Software, Applications, Networks and licensing management
- ❖ Timely service and contracts renewals for test environment(hardware & software)

Pictorial view to the above process is depicted below for rolling this service in an organization.
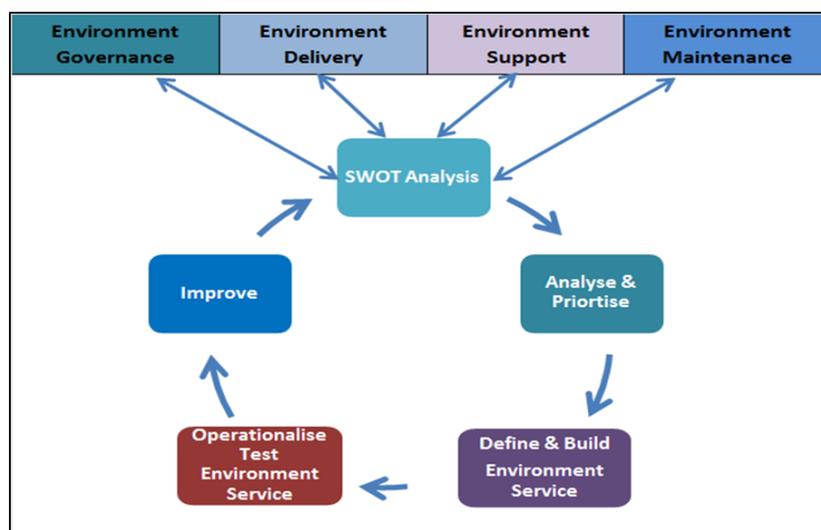
Summary:

Centralized test environment service will play a pivotal role in meeting your client's business demands and enables faster time to market of the software delivery. This supports big programme rollouts in the organization spanning different applications and multiple releases.

The centralized test environment service has a comprehensive approach and will enable your teams to reap the below benefits:

- Dedicated environment team owning complete accountability for all test environment activities which help them to seamlessly plan, build and provision environments for the requests from multiple teams in an organization
- Best practices built for the environment activities enabling you to standardize the environment in an organization with a projected savings of 30 %
- Optimized and effective utilization of test environment enables the cost reduction of infrastructure and resources by at least 20 %
- Faster time to market of software delivery at least by 25 %
- Minimize the test environment downtime during test execution phase which will reduce cost and enable software to be delivered on time to market.
- Improved environment provisioning lead time and control over code drops in test environments
- Improved test coverage and high quality testing achieved with the availability of integrated test environments which is representative of "live" production

Shankar Mani has been a testing professional for the last 10 years and worked in different sectors Retail, Financial services & Logistics. Currently works at UST Global as a Test Manager in the Retail space. As an engineer in computer science he has managed and executed large scale system integration testing programs for various retail clients.

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

----

The annual EuroSTAR Software Testing Conference is Europe's leading software testing conference & exhibition and this year takes place in Dublin, Ireland from 24-27 November 2014.

Since 1993, the EuroSTAR Conference has been recognised as the premier software testing event on the European testing calendar and continues to provide an unrivalled learning and networking opportunity for software testing professionals.

The four day event centres on an exceptional conference programme featuring intensive full-day and half-day tutorials; active workshops; over 40 track sessions and thought-leading keynote presentations from some of the world's leading software testers.

Recognised international software testing experts will present their ideas on a wide range of topics including: Agile Testing; Test Strategy; Big Data; Mobile Testing; Security Testing; Test Automation; Test Design and Test Management.

The conference also features a vibrant Expo where companies showcase the latest tool and service innovations in software testing. This year the Expo is set to include the biggest ever Test Lab – a live testing environment where attendees can learn and demonstrate their software testing knowledge.

The EuroSTAR Conference presents IT companies with an excellent opportunity to learn from the very best the global software testing industry has to offer as well as the chance to network and discuss with over 1000 like-minded professionals from across Europe and around the globe.

For details on the 2014 EuroSTAR Conference programme and to learn more please visit:
http://bit.ly/1hBacUM

For details of the fees to attend EuroSTAR, please visit:
http://www.eurostarconferences.com/attend-eurostar-conferences/pricing

One Application but two very different approaches to Quality

Tina Knudsen, Capgemini

When I went to the job interview for my currently position, the interviewer kept saying that I was going to become a tester / test manager in a project – and not for a product. I must admit that I didn't pay much attention to that; when you have been working with Quality Assurance and test for more than a decade in as different areas as Fashion and Content Management for Tools and Groceries, you have learnt that applications are applications – no matter the business they relate to. So I my head I just heard this as potatoes-potatoes.

I got the job, and the days showed me the differences and the benefits. Below I am going to describe both situations and the differences inherent in moving from a project to a product perspective.

When I joined, the situation was that there was one major customer on the project. Having almost exclusively one customer gives you the option to please in a degree I have never tried before. And unfortunately I properly never will try it again. You never needed to have any serious doubt about anything in relation to how the application was supposed to work. Of course we had specifications, contracts and so forth, but in any case of doubt you just picked up the phone and asked the customer directly. And that also went the other way. Everything in the everyday was very easy going and informal.

But all coins have a back side as well. The paying customer naturally decided what to include in the software they paid for. And that also indirectly dictated the quality. You can design a feature in several ways. Maintainability and scalability includes things in product world that seems less important when you are working in a one customer project. Here you would often put your focus on the functionality – and leave ideas about making future maintenance easier and coping with *e.g.* changed environment behind.

After the arrival of new customers and promising future opportunities, we are now going to leave the life in the project world and become a product – taking and giving the benefits that come along.

In the project we had this:

- The delivered application should not work per se. It should be testable.
- Waterfall as development method (maybe leaning on cowboy-coding)
- Application only grew by customer paid features
- GUI: The Customer more or less decided all labels, tooltips, *etc.*
- Manual Test: Customer data was the best.
- Unit Test: Again customer data is the best

- Automated GUI test: and once again - customer data is the best

The phrase "The road to hell is paved with good intentions" were in the back of our heads when we decided what steps we would like to start with. We have really tried to keep our eyes at the goal and not spend time on nice Quality Assurance stuff which - observed in isolations – seemed fine. Any unique product needs its own combination of quality assurance and it surely also change over the product lifetime. So at the moment we have decided to go for:

Quality Assured deliveries - using ISTQB and TMap® Next

Best test data: Created by equivalence - and border analysis etc.

Development method: SCRUM

Single main line

Controlling feature delivery with Feature Toggling

Controlling QA with at deployment pipeline including unit, end-to-end, and manual tests

Quality Assured deliveries - using ISTQB and TMap® Next

I am a strong believer of the Agile Manifesto – and I read the part "Working software over comprehensive documentation" as documentation needed – just don't do documentation that is not needed or maintained. In our case the documentation (and processes) is now made as a mixture of the ISTQB and TMap® Next (from Sogeti).
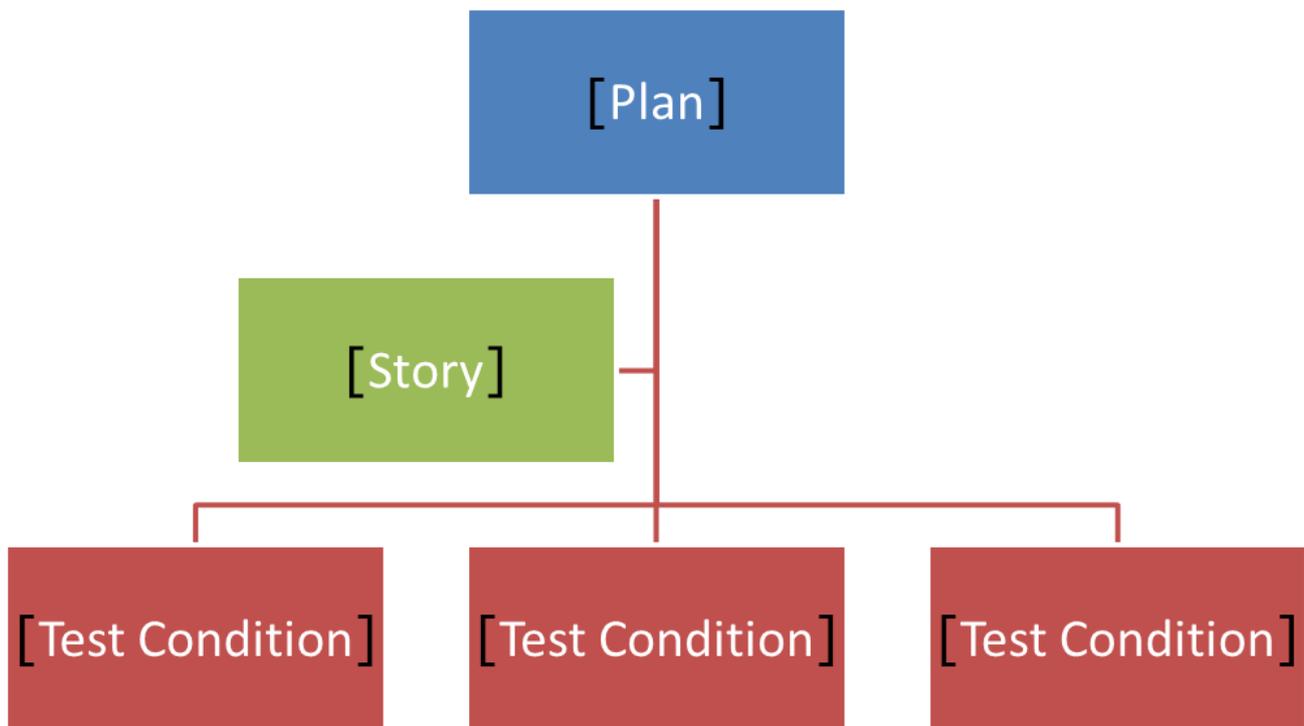

Figure: Comprehensive documentation: Stories get corresponding test stories that are split into test task that again holds logical test cases along with equivalent classes and border analysis to use as parameters for the test. No full test cases are written.

Above all we have a test policy and all larger new features have a test plan that correspond to the test policy. We use SCRUM as our development method and from that we get the features explained as stories. Stories get corresponding test stories that are split into test task which again holds logical test cases along with equivalent classes and border analysis to use as parameters for the test. No fully test cases are written. This is making the maintainability of documentation feasible – though it requires quite high domain knowledge to the tester. The main future goal is also only to manually test what is left behind by the unit- and end-to-end-test.

From TMap® Next we have adopted the Product Risk Analysis tool (PRA). We want to test smarter – not harder. And when you can't test everything, the risk based approach is the only way to go.

The product risks are determined in cooperation with the client and the other parties involved. The Product Risk Analyses (PRA) is comprised of two steps: Make an inventory of the risks that are of interest and classify the risks. During the risk assessment the test goals are formulated. The extent of the risk is dependent on the chance of failure (how big the chance is that it goes wrong?) and it depends on the damage for the organization if it actually occurs. The risk determines the thoroughness of the test. Risk class A is the highest risk and C is the lowest. The test is subsequently focused on covering the risks with the highest risk as early as possible in the test project.

		Chance of Failure		
		High	Medium	Low
Damage in case of failure	High	A	B	B
	Medium	B	B	C
	Low	C	C	C

Figure: Product Risk Analysis – Finding the risk class:
Product Risk = Chance of failure x Damage
Where Chance of failure = Chance of defect x Frequency of use

The manual test is also combined with bug hunts and exploratory testing.

Feature Toggling

We are working forward towards modularization of the code, but with a legacy codebase of more than half a million lines that is not a job, that is done overnight.

Our legacy code is in no way designed to take customer specific features into account. To meet this challenge we have chosen to feature toggle a lot of functionality. We use "feature toggling" in the sense that we only have the limitation in features via the user-interface of the application – everything is always included anyway – just not all visible to all customers. But this adds yet another factor to the matrices of possible setups.

At the moment we place the highest priority on having a standard system which gets most of the Quality Assurance attention, even though no customers are running the standard system. The next level of attention goes to the customer specific setup. But total test is no longer done here. The test is limited to where there are differences from the standard setup. This way of working takes a lot more resources and requires a significant amount of documentations compared to what we are used to, but until we have fully modularized solution we see this as the only way. Disregarding the fact of the Quality Assurance burdening per customer is rising every time we get a new customer on board or we are adding a new feature to be tested with the different setups.

"End-to-end test"

Until recently, we had automated GUI test. It was very huge and it really covered a lot of the application. Perhaps a little too much: The test tried to cover way to many details that should have been tested on unit test test level. It came more and more unstable and hard to maintain as the lines of code where growing. A change in personnel and almost no documentation of the test design made the maintainability almost impossible. Having more than one major customer and a new applications server just killed the automated GUI test. Instead we are going for an automated end-to-end test in the code layers just before the GUI. The test doesn't execute through the GUI, but can be described as end-to-end because it still holds the "contract" as if you had the GUI included in the test.

To make this come easy you need to design your code to become "testable". The development department is struggling to get everything in line with model-view-control pattern where you separate GUI logic from the presentation. The architecture is also designed so that you – if you should want to in the future – can combine with GUI test, using the already designed test. To do this you need to a "runner for the GUI". The benefit of this way forward is that you can test both with and without the GUI – with the same tests, which will have effect on the execution time and the feedback cycle.

In some cases (mainly because of legacy-code that aren't true to the model-view-control pattern) it is difficult to implement the test. In cases like that we try to make server calls that simulate the client.

It is the developer's responsibility that the code works as they think it is intended when they design the unit- and integration test. When we move to the top level of the v-model the testers take over the responsibility: The testers specify the test – and the developers only implement it.

Continuous integration

In the past the one major customer had a very strong influence on the release cycle and when new features were added. To meet this we used Feature Branches. Almost every new feature was developed in an isolated branch and where then afterwards merged to one or sometimes several release branches. It takes no math gene to calculate that this calls for a lot of test. When we had the automated GUI test, this was in some way feasible. But when the automated GUI test died, this was no longer a realistic way of working (Please also remember the matrices of setups growing when we move from a single customer setup to a multi-customer setup).

In the everyday work this means that all new features are now a developed within a shared mainline. The developers are all running working copies of the mainline and several times a day they merge their commits to the mainline. On the mainline we then run automated unit- and "end-to-end"-test along with the manual testing.

The test is driven and maintained by the developers. And that is also new to us. In the future the test will be maintained along

with the code. As a natural part of the development.

The end-to-end test is also run as a part of a build pipeline. The pipeline is running every time a commit is made to the repository. And every run is seen as a potential release candidate – and it is the pipelines job to dismiss candidates before they even land in the Quality Assurance

department. The pipeline currently has the following steps: build/unit test – end-to-end test – manual test – release (make the final distribution and place on the FTP). Therefore a commit that can't execute the entire end to end test will never make it to a manual test, and can therefore not be released.
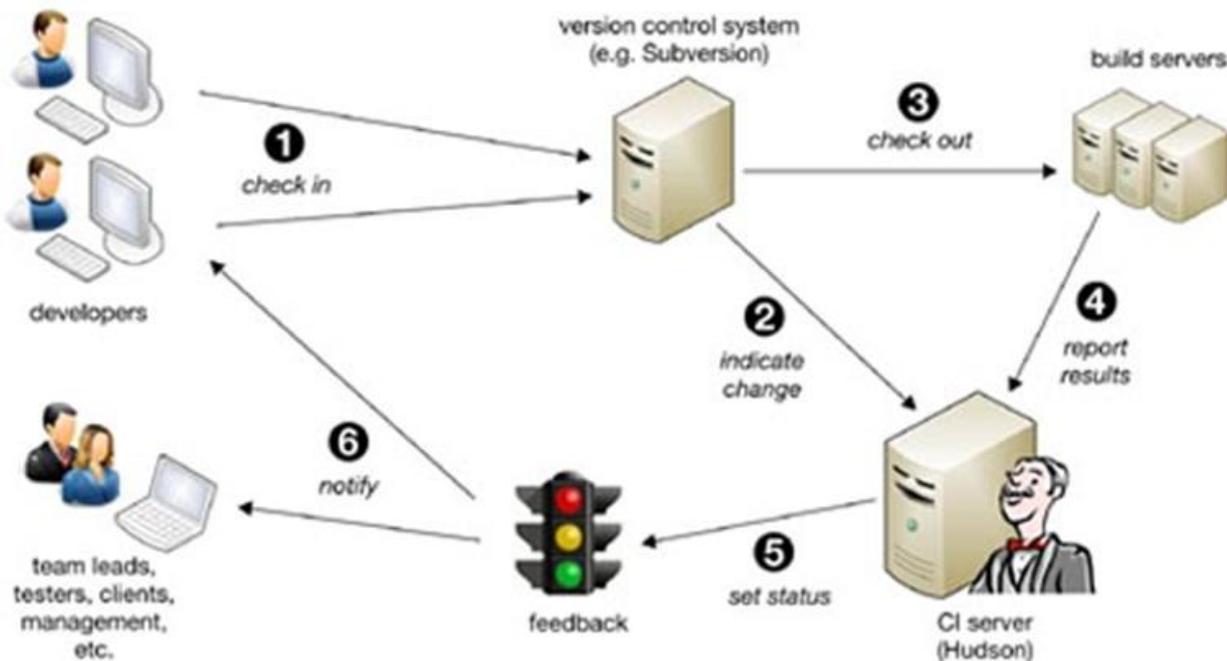

Figure: A typical continuous integration cycle: "Continuous Integration (CI) is a software development practice where members of a team integrate their work frequently; usually each person integrates at least daily - leading to multiple integrations per day. Each integration is verified by an automated build (including test) to detect integration errors as quickly as possible. Many teams find that this approach leads to significantly reduced integration problems and allows a team to develop cohesive software more rapidly." (Martin Fowler, http://martinfowler.com/articles/continuousIntegration.html)

Test farm: VMware

When you are having only one major customer there can be almost no discussion about the ideal test data. It should mirror customer data – and the same goes for the setup in general. In our case we didn't go all the way here. We had something which was deemed to be "close enough". The customer was running a clustered windows environment, but they had accepted that we did the test on single Solaris servers (The client was running on windows pc´s – with no official demands for test versions)

Now we are running Jboss on Linux. Using VMware. And test data is mainly created by considering equivalence classes and border analysis. Combined this with the insight knowledge we have learned from testing with customer data.

The VMware is giving us the option of almost unlimited test environment and the option to swap between setups in no time. In our earlier setup with few physically machines this was not an option. And now we can save snapshots of every deliver. Before we had to choose what was important to save.
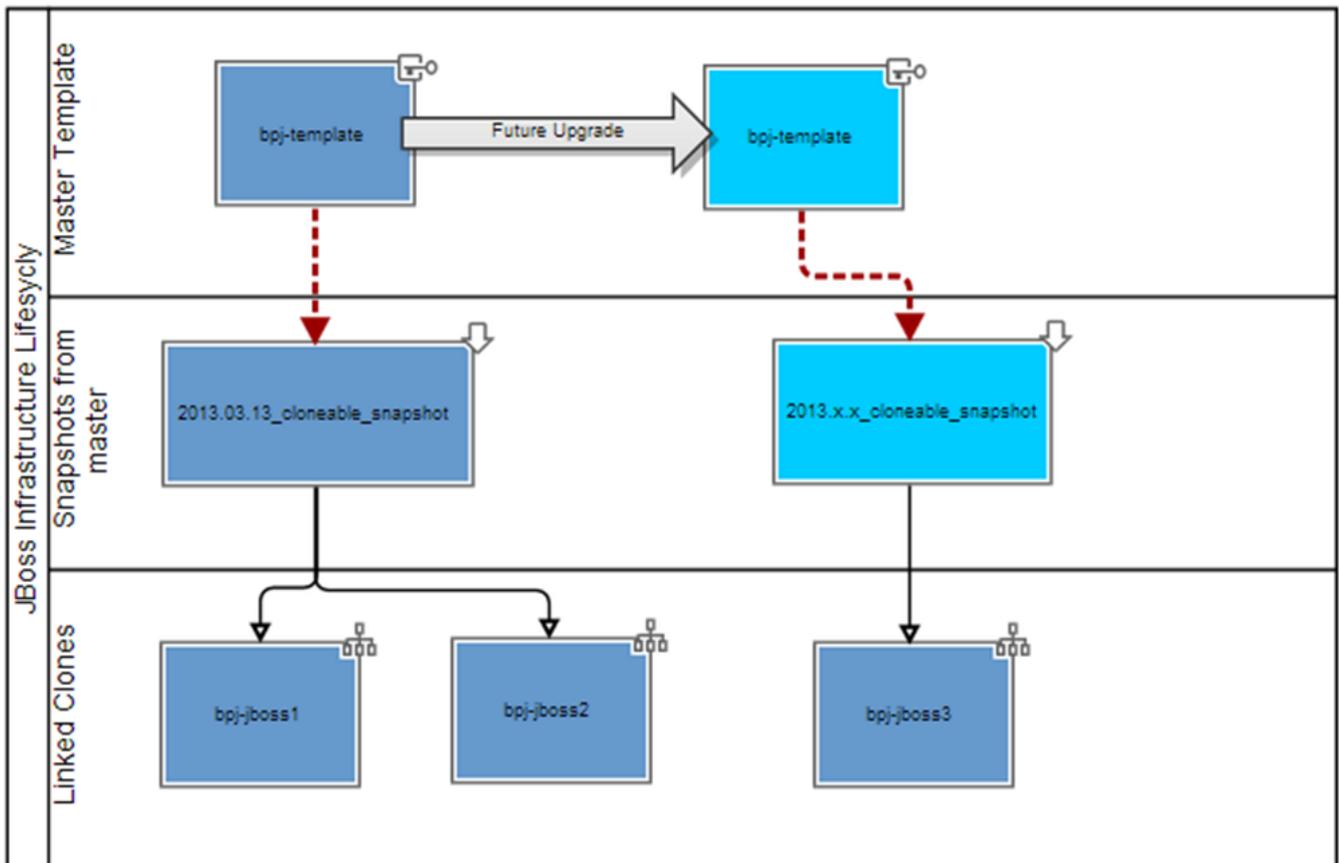
Figure: It's important to use the correct snapshot before beginning a cloning process.
Each snapshot represents a different state of the SOURCEVM (the VM from which a new clone is made) and might not always match each and every possible Bookplan release. Therefore, the Snapshot description field is used to store the supported Bookplan Version / Branch information which is updated manually along the release process.

Leaderships/management challenges.

It is not easy to change the way people have been working for years just by sending out an email. And we have never expected it to happen like that. But we have spent quite a lot of time discussing how to move forward. In general it was easy to describe what we wanted – and but hard to get it done.

As a tester it was hard to trust that the developers took over some of the test design. And as a developer it was hard to accept that the design in general had to change be course of the test. We have taken the fights and surely we had to pick our battles. At the end of the day we all had to accept the art of opportunities – but with an intact team spirit that was crown from e.g. a newborn architecture/design group and SCRUM as a development process we made it come true.

Tomorrow's Quality assurance

As I have tried to describe, we have been forced to make some milestone decisions. It is not hard to dream up a perfect product with a perfect Quality Assurance solution that matches it. The real challenge is to give the best possible Quality Assurance that match the product you have at any given moment. And that was a very important lesson learned. But together with the developers I have a dream about a modulated Bookplan product with fully implemented continuous integrations where any individual developer's work is only a few hours away from the shared project state and can be integrated back in minutes. Any integration errors are found rapidly and will be fixed rapidly. Test design and Self-Testing is just a natural thing and it includes automated unit- and "end-to-end"-test (including all business

logic which is now placed in the service layer) that covers as much as possible. Manuel test will then be reduced to small health checks, first-time test of new features and explorative testing combined with bug hunts. The responsibility of the

quality assurance will then be spread across more people and again I can say one of my most loved sentences again: "Quality cannot be tested into products it has to be built in by design".

Figure: We have been forced to make some milestone decisions. It is not hard to dream out a perfect product with a perfect Quality Assurance solution that matches it. The real challenge is to give the best possible Quality Assurance that match the product you have at any given moment. And that was a very important lesson learned.

The journey itself is also worth something – and even though you know you have far to go – you might be better off not knowing how far.

Sometimes the fastest way is not the best way to go to a destination. Sometimes you need to stop a take a look at the scenery to make sure you are going in the right direction. And maybe you even need to take a u-turn or ask for help to get back on track. The journey itself is also worth something. What you have leaned on your way can never be taken away from you again. And in the quality assurance world

you are always working with a moving target.

I will end this paper with a quote from Adams Douglas and tell you all that I have enjoyed the journey so far.

"Space is big. You just won't believe how vastly, hugely, mind-bogglingly big it is. I mean, you may think it's a long way down the road to the chemist's, but that's just peanuts to space."

— Douglas Adams, The Hitchhiker's Guide to the Galaxy

Tina Knudsen has been working with Quality Assurance for more than a decade. She is employed as a Programme Test Manager and holds an Academy Profession Degree Program in Computer Science and several certifications (e.g. in ISTQB and ITIL).
Test has been the red tread trough all of her professional life. Already in high school she started with static test – as she was doing review for misspelling on the local newspaper. She has also tried electrical test of bare circuit board and other similar things.

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

Event Listings

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

September

SIGiST
4 September 2014
London, UK
http://www.bcs.org/server.php?show=nav.9264

October

STARWEST
12 - 17 October 2014
Anaheim, US
http://starwest.techwell.com/

November

Agile Testing Days 2014
10 - 13 November 2014
Potsdam / Berlin, Germany
http://www.agiletestingdays.com/

Intelligent Testing
12 November 2014
Bristol, UK
See page 10

EuroSTAR
24 – 27 November 2014
Dublin, Ireland
http://www.eurostarconferences.com/

December 2014

SIGiST
4 December 2014
London, UK
http://www.bcs.org/server.php?show=nav.9264

March 2015

SIGiST
4 March 2015
London, UK
http://www.bcs.org/server.php?show=nav.9264

May

Belgium Testing Days
18 - 21 May 2015
Brussels, Belgium
http://btdconf.com/

June

SIGiST
4 March 2015
London, UK
http://www.bcs.org/server.php?show=nav.9264

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

The BCS Personal Development Plan (PDP) uptake is going well, with 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.

Specialist Group in Software Testing

THE TESTER

SIGiST Winter Conference
Thursday 4th December 2014

From the Editor

Welcome to the winter edition of The Tester. As we '*go to press*' there are still some details to add to the winter conference agenda. Check these out on the SIG website over the coming month. Abstracts for the conference talks and workshop are available from page 4.

The winter conference takes place at our regular venue of the **Barbican**, City of London. Look out for an announcement about future venues at the conference.

Also have a read of the article in this edition from a first-time SIG speaker, and the benefits he got from speaking. Check out the SIG website for details of how to become a speaker yourself:
http://www.bcs.org/category/10880

And if you want to become a published author, contact me if you would like your own article presented here.

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

Conference Booking Instructions

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

https://events.bcs.org/book/890/

Join our Linked-In Group:

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

Follow us @SIGiST

Conference Agenda

	BCS SIGiST - Winter 2014 Conference Thursday 4th December 2014 Barbican Centre, Silk Street, London, EC2Y 8DS.	
08:30	Coffee & Registration, Exhibition opens	
09:25	**Introduction and Welcome** Stuart Reid, SIGiST Chair	
09:30	Opening Keynote **Be a success testing in the financial service sector** Al Lines	
10:30	**Open Microphone and Networking session**	
10:45	Tea / coffee break	
11:15	**Don't Leave Things to Chance** David Oxley, McAfee	**Morning Workshop*** **Programming For Testers. It is Easy!** Graham Thomas, Independent Consultant & Phill Isles
11:45	**5-Star Wars – prevent your users from striking back!** Roy Nuriel, Perfecto Mobile	
12:15	**One Application, but two very different approaches to Quality Assurance** Tina Knudsen, Capgemini Sogeti	
13:00	Lunch break Opportunity to visit the Vendor Exhibition	
14:00	**Book Review: More Agile Testing: Lisa Crispin, Janet Gregory** Pete George	**Afternoon Workshop*** **Programming For Testers. It is Easy! (Continued)** Graham Thomas, Independent Consultant & Phill Isles
14:10	**Cross-platform accessibility fundamentals for testers** Jon Gibbins, Dig Inclusion **Accessibility - Supporting organisations create accessible desktop websites and software to a pan-disability audience** Grant Broome, Dig Inclusion	
14:50	**Panel Discussion Session** TBC	
15:30	Tea / coffee break	
16:00	Closing Keynote **TBC** TBC	
17:00	- Closing Remarks -	

The SIGiST committee reserves the right to amend the programme if circumstances deem it necessary.
*The workshop has limited places, to avoid disappointment please book in advance. There is only one workshop in December, split over over the morning and afternoon slots, *i.e.* the afternoon session is a continuation of the morning session. **To participate in the workshop, please bring a laptop with you that you can install software on to**.

SIGiST Conference Venue

The SIGiST conferences have been held at the Barbican Centre, City of London, since September 2013. 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.
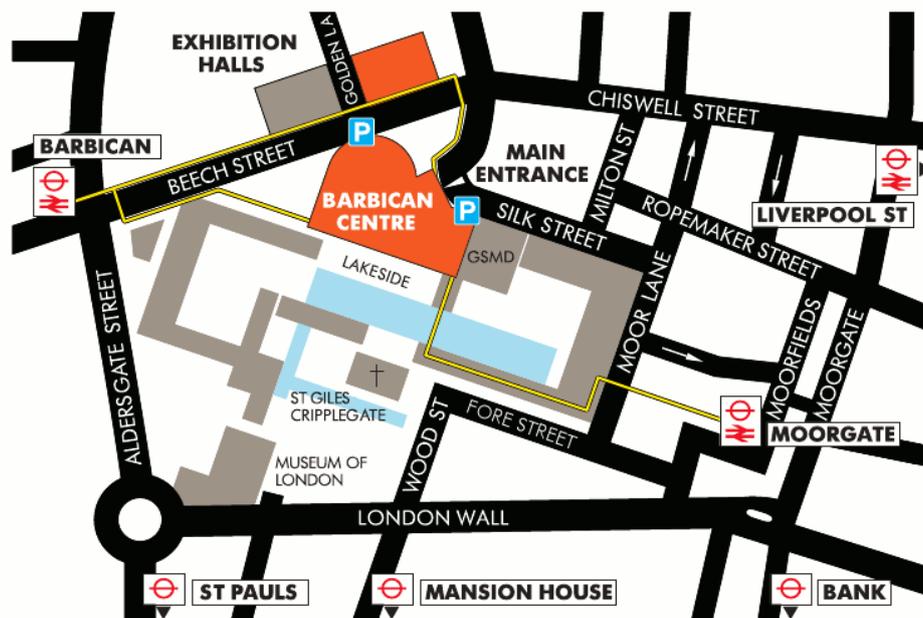
The SIGiST conference will be located in Frobisher Auditorium 1, Frobisher Room 1 and the Conservatory Terrace, on the fourth floor of the Barbican. These will be clearly sign-posted on the day. From the Lakeside entrance, take a lift (just inside the doors) to the fourth floor.

Presentation Abstracts and Speaker Biographies

Al Lines
"Be a success testing in the financial service sector"

A retrospective on life, based from testing within the finance sector and what you need to be successful.

Examples of how the industry has and is changing and how this impacts us as testing professionals.

- Updating your skills/learning continually
- Be adaptable in your role
- What seems important as a tester may not be to the Business and vice versa Here

Al Lines has over 20 years' experience in the finance sector, having gained expertise in different security types with each role. For over a decade he has focused on the QA and testing space, helping projects successfully deliver to production.

Wishing to give back to the community, he has been involved in the working group for the new ISO standard in testing (29119) over the last few years.

In his spare time, he studies the quality aspects of a range of alcoholic drinks.

Dave Oxley
"Don't Leave Things to Chance"

Despite years of effort there is still a prevailing industry perception that you can add Quality to a product through System Testing. This drives the idea that testing equals quality. We'll look at the entire engineering lifecycle to test the hypothesis that Testing can inject Quality. Changing the perception and implementation of how you test can reduce traditional testing time, so is there a valid excuse for not making the shift?

Why would you wait for the next release to increase the Quality & Security of the software you're working on?

- Why does testing default to system testing in people's minds?
- Is any method better than any other?
- Change can be done mid project without affecting scope and time.

Dave Oxley is currently the Quality & Security Champion for Network Security at McAfee, Part of Intel Security. Dave has spent the last 18 years running teams in development, support and testing. Since 2010 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.

Roy Nuriel
"5-Star Wars – prevent your users from striking back!"

Releasing a 5-star app is expected but not easily achieved. Some 44% of mobile app bugs are found by the end user and 63% of testers admit that they're unable to sufficiently test across the devices and OS versions required for full coverage. When mobile apps fail due to poor quality and performance, users strike back with bad app reviews!

End users rank UI, performance and functionality issues as the most frequently encountered problems. In order to build 5-star app, an organization must embed a robust continuous integration process that enables dev/test teams to accelerate their velocity without compromising app quality. Attendees will leave this session with an actionable plan for integrating enterprise quality tools and practices to win the 5-star war.

- Know your customers and learn what need to be tested
- Continuous Integration and Automation as key for success
- Scaling your mobile app quality using a continuous quality mobile cloud lab

Roy Nuriel is the Director of Product Management at Perfecto Mobile, responsible for overseeing the MobileCloud™ offering. Roy brings over 12 years of experience to Perfecto Mobile, specializing in Enterprise Software. Over the course of his career, his roles have spanned across engineering, product delivery and product management. He has spearheaded complex projects as an innovation lead, growing ideas into market leading solutions, and is an expert in software quality, application lifecycle management (ALM) and end-to-end IT Management.

Prior to joining Perfecto Mobile, Roy held a number of senior positions at HP Software and Mercury, and was responsible for HP Software, ALM, and automation products. In his last role he was responsible for building a new product

line that addressed agile processes and other modern development practices.

Roy holds a B.Sc. in Computer Science from the Hebrew University in Israel.

Tina Knudsen
"One Application but two very different approaches to Quality Assurance."

Based on a real life experience this talk will describe the journey from quality assurance of a project to quality assurance of the same code and functionality – but now as a product.

Management had taken the decision about growing the project into a product. This was done on a strategic level – without concerns about how this should be implemented at operational level. An innovation challenge was given. And it was accepted. Test management had to take the lead within several areas, a weight to carry but also an opportunity to gain influence. As a result of this many things had to be changed – including Quality Assurance and testing. We were forced to rethink an already working Quality Assurance process into a new form in order to ensure that it covered the need of a product focused process.

The Quality Assurance needed to be improved iteratively to correspond to the moving target. The challenge was to give the best possible Quality Assurance that matched the product you had at any given moment. And that was a very important lesson learned.

The presentation will be based on a practical example, describing how we used milestone decisions to innovate our Quality Assurance process to match the diversities we found when we started growing into the product world.

Tina Knudsen has been working with Quality Assurance for more than a decade. She holds an Academy Profession Degree Program in Computer Science and several certifications (e.g. in ISTQB and ITIL).

Test has been the red tread trough all of her professional life. Already in high school she started with static testing – as a reviewer for misspelling on the local newspaper. She has also tried electrical testing of bare circuit boards and other similar things.

Lately she has been a tester and test manager in a health care application. Previously she has worked in varying different areas including, for example, Quality Assurance of metadata management and cost calculation for the fashion industries.

Tina Knudsen is a member of Danish IT and she is an active member in the Danish Experience Group Testing and Quality Assurance West.

Pete George
"Review of 'More Agile Testing' by Lisa Crispin & Janet Gregory"

A review of Crispin & Gregory's recently published book *More Agile Testing*.

Pete George is an experienced test specialist and trainer working predominantly in Agile contexts. He is an accredited trainer for BCS, iSQI and Belbin and delivers training courses and coaching in the areas of Agile and software testing. He is a big fan of Crispin & Gregory's approach of just passing on what they've learned, rather than advocating prescriptive 'silver bullets'..

Jon Gibbins
"Cross-platform accessibility fundamentals for testers"

Providing practical advice for testers to ensure software works on multiple devices. Tools and tips to help speed up the testing process.

The talk covers the basics of mobile accessibility and also includes a demonstration of the accessibility features available on iOS and Android.

- Mobile accessibility introduction
- Strategy, including international standards and guidelines
- General accessibility principles
- Overview of iOS accessibility features
- Overview of Android accessibility features

- Testing tips
- How people with disabilities use mobile assistive technology
- Mobile accessibility principles

Jon Gibbins has been working in accessibility for over a decade and is a recognised figure in the industry. As DIG Inclusion's technical expert, Jon helps teams of developers and testers to understand accessibility and deliver accessible products. He currently specialises in mobile accessibility, including testing, training and development.

Grant Broome
"Accessibility – Supporting organisations create accessible desktop websites & software to a pan-disability audience"

In a modern society, inclusive services are not merely a bonus, they are an expectation. Developers have both a moral and legal obligation to ensure that everyone regardless of ability are able to use their services.

In this talk, Grant Broome from DIG Inclusion will be providing some useful guidance on how to ensure that your products and services are accessible to the widest possible audience, and demonstrating how people who might be

blind or who have sever motor impairments use technology to access digital services.

- Why Digital inclusion is important
- How people with disabilities access digital services
- What you can do to meet legal and moral obligations

Grant Broome is a web accessibility specialist with over a decade of experience consulting with agencies on how to make their online content accessible to people with disabilities. He has audited hundreds of websites and provides a variety of accessibility training courses.
Grant has worked closely with a number of charities including the Shaw Trust, RNIB and Thalidomide Trust which has given him a very special insight into the specific needs of the individuals he has worked with.

Graham Thomas & Phill Isles

"Programming for Testers - It is easy!"
[Workshop]

We hear a lot these days about how testers should learn to code, become more technical, and have more development orientated skills. Unless you came into software testing as a 'burnt out' developer, it is unlikely that you have coding skills, or a deep understanding of the technical ins and outs of your current systems landscape. What can you do about it? Programming is hard? How can you learn to code and still master your current workload, which keeps on relentlessly increasing.

This workshop will show you how easy it actually is, as a tester, to learn how to program. The hard part is always how to start. We will show you 3 simple steps and get you up and running with Python. You will write the simplest "Hello World"

program. However, we will not stop there. We will then show you the 'next step', and get you to write more complex programs.

This sounds great, "*But when I am back in the office sitting in front of the screen doing this on my own suddenly it will get much harder.*" To combat that we will arm you with some of the most useful on-line information available. Someone, somewhere on the planet, has already found the answer to your problem, and most likely created a YouTube video showing you the answer!

And there is more. As a Tester you know that just writing code is not enough. It has to be shown to work. So not only will we write some code, we will 'Test' it as well. To make this even more enjoyable, together we will write programs to control a simple USB Robotic Arm, connected to a Raspberry Pi computer, on which we will run and 'Test' our code. We Testers can have <u>fun</u> too!

This session is targeted at Testers, although Developers are also welcome. To participate, you <u>must</u> bring a laptop that you can: download to, install software on, and edit the path variable. (If you can't download and install software, i.e. your machine is a secure build, you will still be able to write code in text files that may be transferred to another machine for compilation and running.)

Equipment:
Bring a laptop.

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 a UK bank. He has worked in the field of software testing since 2000, mainly in the finance arena, but also has test experience in media.*

Phill'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.

Of people who responded to a SIGiST survey:

More than three quarters would recommend others to attend the conference, with value coming from:

<div align="center">

Good presentations and content
Meeting people and networking
Workshops

</div>

New SIGiST White Paper Scheme Launched

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

Do you have an existing paper you would like to repurpose and make more widely available through the SIGiST website?
- Then please send us the paper with three keywords for searching.

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

If you have been thinking of writing or publicising an existing paper then this is the ideal opportunity. Please email your existing paper (with keywords) or your proposal to the SIGiST Programme Secretary Mike Bartley.

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

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

Software Conferences: Why Should I Speak?

David Orr, Sopra

I wanted to let you know about an interesting experience I had recently at the SIGiST Autumn conference. If you have never been to such an event, now is the time! I'll try and detail some of the reasons for attending.

Attending such software conferences provides a great opportunity to delve deeper into unknown territory or to scratch beneath the surface of current trends, take DevOps or Shift Left for example. You never know, you may be amazed by the variety of talks on offer from presenters with varied experience levels and there are usually some interesting personal stories which we can all relate to!

To get involved all you need to do is turn up and then listen, share, communicate and network. Be prepared to keep an open mind and don't be afraid to ask questions or engage in friendly debate. Prior to attending such an event, my own thoughts on this, were, 'What's the point in going to these events?' Aren't they only for experts?'. These questions were duly answered when I finally succumbed and signed up to attend , my eyes were well and truly opened to what a worthwhile experience it can be, you'll leave with new ideas, contacts and enhanced knowledge.

I've worked in places where I felt the environment was isolated and enclosed, by this I mean I was too focused and concentrated on doing things by using only the methods followed on the project. I suppose what I am saying is, start thinking outside the box, take that step into the

unknown, why standstill when you can move forward. I did just this and when I started exploring online blogs, websites and finally going to conferences, I realised there was so much more out there to learn.

All of this led me to ask questions of myself. What if I were to speak at an event? I started thinking about and discussing this with some colleagues who had presented before. So what were my concerns about speaking as a novice?

1. *I don't like public speaking*
2. *I don't have the required knowledge for presenting*
3. *Nobody will want to listen to my talk*
4. *I don't know how to go about applying for a talk*
5. *What's the point in sharing?*
6. *Only so called experts should speak at these sessions*
7. *I'll be too nervous, what if I come unstuck in front of the audience*
8. *There will be too many people listening*

These are only some of the thoughts I had and am sure you may have similar fears or concerns. Let me answer some these for you below following the same number sequence as above:

1.   Do you really hate public speaking? When was the last time you gave a structured and well prepared talk? If you take the time to prepare and build up to the conference by performing dry runs with your team or even family members, this will help make you more comfortable and confident.

2.   You may not be the most experienced person at the get together but you have had your own experiences so just share them, talk about things like the challenges you've faced and discuss real examples outlining what went well, what went wrong and the lessons you've learned. People like to hear personal stories that they can empathise with, as well as more expert driven ones.

3.   This is why there is a submission process which enables the committee to establish the suitability of your talk. Make your submission and see what feedback you get. This will enable you to progress your talk and it's an ideal starting point as you can learn from both negative and positive feedback.

4.   Search for some conferences online, ask colleagues about them and once you have a few in mind, simply go to the websites to find out more about the submission and review process and don't be afraid to phone or email the committee members. I had an unsuccessful submission for this year's EuroSTAR, however, the feedback came with this link: http://gerrardconsulting.com/?q=node/640 which gives some nice tips. Also, if you know someone who has experience presenting, ask them for some advice.

5.   By sharing your thoughts and ideas, it lets you evolve and learn new things. Use it as chance to engage with fellow attendees. If nobody shared then we would all be worse off.

6.   Experts had to start somewhere too; most of these conferences like to host a good range of speakers and the fact that

you might be considered a novice is taken into account by everyone in attendance. People will look to encourage you and support you on the day.

7.   If you prepare, you will be fine and everyone gets nervous, don't be worried by this as it helps to keep you focused and alert.

8.   You don't need to start by presenting the opening keynote at the EuroSTAR, look for a smaller conference like SIGiST to start with and aim for EuroSTAR.

These are just some of the barriers that I put up when posed with the dilemma, ' To present or not to present?' Initially, my thinking was "no way", however, after some positive discussions I decided to give it a go on Thursday, September, 4th 2014, at the SIGiST conference. This was a great challenge for me being a novice but through hard work, lots of preparation (I'm sure my Dad and my team at Scottish Government are more pleased than I am, that it's over) and the great support of my family and colleagues, I managed to produce a twenty minute presentation based on my experiences.

I only really addressed the concerns above, after reflecting on the whole process, from preparing my submission to giving the talk. In the spirit of sharing, I thought it was best to let you know. I hope you'll take the time to attend a conference or present soon. Explore new avenues, you can meet new friends and there is usually a good pub in close proximity for some post event beers!

David Orr is a Senior Test Analyst at Sopra, currently working with clients in the Public sector. He graduated from the University of Stirling in 2008 with a BA Honours in Business and Economics and resides in Dunblane, central Scotland.

David attended the EuroSTAR Testing Conference 2013 in Gothenburg and loved the experience, he found it thought provoking and challenging and it inspired him to present at conferences.

Away from work, David is a highly active individual who enjoys taking part in sports such as football, golf, badminton and tennis. He is a very outgoing individual who likes to engage with friends and colleagues and enjoys meeting new people.

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

----

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

The annual EuroSTAR Software Testing Conference is Europe's leading software testing conference & exhibition and this year takes place in Dublin, Ireland from 24-27 November 2014.

Since 1993, the EuroSTAR Conference has been recognised as the premier software testing event on the European testing calendar and continues to provide an unrivalled learning and networking opportunity for software testing professionals.

The four day event centres on an exceptional conference programme featuring intensive full-day and half-day tutorials; active workshops; over 40 track sessions and thought-leading keynote presentations from some of the world's leading software testers.

Recognised international software testing experts will present their ideas on a wide range of topics including: Agile Testing; Test Strategy; Big Data; Mobile Testing; Security Testing; Test Automation; Test Design and Test Management.

The conference also features a vibrant Expo where companies showcase the latest tool and service innovations in software testing. This year the Expo is set to include the biggest ever Test Lab – a live testing environment where attendees can learn and demonstrate their software testing knowledge.

The EuroSTAR Conference presents IT companies with an excellent opportunity to learn from the very best the global software testing industry has to offer as well as the chance to network and discuss with over 1000 like-minded professionals from across Europe and around the globe.

For details on the 2014 EuroSTAR Conference programme and to learn more please visit:
http://bit.ly/1hBacUM

For details of the fees to attend EuroSTAR, please visit:
http://www.eurostarconferences.com/attend-eurostar-conferences/pricing

The Intelligent TeSTING CONFERENCE

Improving the Efficiency and Effectiveness of Software Testing

Tuesday 18 November | 12:30 - 17:10 | UWE, Bristol, UK

Following on from the success of the earlier conferences, TVS will be hosting the third Intelligent Testing Conference in Bristol in November. This half day conference will once more put the focus on how to improve the efficiency and effectiveness of software testing.   So if you are interested in learning about new ways to improve your software testing, want to share your testing challenges and leave with new ideas or are keen to network with fellow professionals, then join us for what will be another stimulating, entertaining and rewarding event.

KEYNOTE ADDRESS: **A New Model for Testing** - *Paul Gerrard, Gerrard Consulting*
Paul is a distinguished software test expert, author of several testing books, host of the UK Test Management Forum and also Chair of the Eurostar 2014 Software Testing Conference in Dublin. Paul will propose a "New Model For Testing" and identify the capabilities and skills that all testers need to acquire, practice and excel in to be successful.

Service Virtualisation and its Benefit to Testing - *Andrew Thompson, Parasoft*
Service Virtualisation is a relatively new 'buzzword' that is gaining visibility and Andrew will discuss the real benefits that Service Virtualisation can bring to testing and why companies should investigate its use. Andrew is one of Parasoft´s senior solution architects and has helped companies such as Lloyds Bank, Screwfix, P&O Ferries, Lockheed Martin and Fidelity to successfully implement Service Virtualisation.

Application Security Testing – *Where are we now? - Declan O´Riordan, TVS*
What is getting better and what is getting worse? Is the balance with network security and penetration testing working and what part is the project team playing in application security? Declan is the Head of Security Testing at TVS and has helped organisations such as the Commonwealth Games, the European Commission, European Medicines Agency, Argos Retail Group, Aviva Insurance, and several blue-chip retail banks implement their test strategies.

ADDITIONAL SPEAKERS

- **Automated Software Defect Prediction Using Machine Learning**
  Dr Leandro L. Minku, Research Fellow, University of Birmingham

- **The SEI Personal Software Process: Improve Yourself!**
  Dr Roderick Chapman, Director, Protean Code Ltd

Registration and refreshments starts at 12:30 and time is available throughout the afternoon to network with your fellow professionals.

For the full agenda and to register for this FREE half day conference, visit:
http://www.testandverification.com/intelligent-testing/

EVENT SPONSORS

TVS
Test and Verification Solutions

PARASOFT®

Register Now FREE

Event Listings

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

November

Agile Testing Days 2014
10 - 13 November 2014
Potsdam / Berlin, Germany
http://www.agiletestingdays.com/
(Almost fully booked!)

Intelligent Testing
18 November 2014
Bristol, UK
See details on page above

EuroSTAR
24 – 27 November 2014
Dublin, Ireland
http://www.eurostarconferences.com/

December 2014

SIGiST
4 December 2014
London, UK
http://www.bcs.org/server.php?show=nav.9264

March 2015

SIGiST
4 March 2015
London, UK
http://www.bcs.org/server.php?show=nav.9264

May

STAR*EAST*
3 - 8 May 2015
Orlando, US
http://stareast.techwell.com/

Belgium Testing Days
18 - 21 May 2015
Brussels, Belgium
http://btdconf.com/

June

SIGiST
4 March 2015
London, UK
http://www.bcs.org/server.php?show=nav.9264

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

The BCS Personal Development Plan (PDP) uptake is going well, with 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.