Issue 23

# THE TESTER

*March 2008 Issue*

## NEXT CONFERENCE

**Tuesday 18th March 2008**

# Testing with Agility *and* Discipline

- **Why was Test Driven Development not Driven by Testers?**
- **Can Policy Decisions be Trusted?**
- **How to get the most from Outsourcing**
- **How to Diagnose Bugs**
- **Don't take the P out of Testing**
- **Agile Testing: Is it just talk?**
- **Objective Coverage Measurement using the Classification Tree Method**
- **Birds of a feather**
- **Can the Software Testing community learn from the Hardware Verification Community?**
- **Testing in an Agile Environment**

## IN THIS ISSUE:

# FROM THE EDITOR

A Happy New Year!

I trust you have lots of new resolutions for 2008, one being to attend at least one SIGiST, another to encourage a colleague to come along too, maybe you will volunteer to present a paper at a future conference or write an article for The Tester?! We are looking forward to seeing you anyway! The SIGiST IS the main forum for testers in the UK.

Many thanks to our contributors for this edition. Firstly to Andy Buchanan for his article about the testing of bottlenecks, which seems an appropriate kind of subject for this time of year, just after the festive season. However his bottlenecks are not related to liquid consumption, rather to bottlenecks of the web application variety!

Peter Morgan, an experienced EuroSTAR attendee, has kindly provided an account of his visit to the most recent conference in Stockholm. It sounds as though they're getting better all the time, so perhaps it's worth putting 10-13th November in your diary for a potential visit this year when it will be held in The Hague. The theme will be *The Future of Software Testing* and please note that the Call for Papers is out now with a deadline of 7 March.

Don't forget to let us know that you are coming on Tuesday 18 March, best to do it now – and book any workshops at the same time!

Pam Frederiksen

Communications Secretary
Tel: 01483 881188 (Leysen Associates)
Fax: 01483 881189
Email: pam@leysen.com

**BCS SIGIST website: www.sigist.org.uk**

**SIGIST Standards Working Party: www.testingstandards.co.uk**

**SIGIST UML Testers Forum: www.umltesters.org**

**Future SIGiST conference dates**

**18th March 2008**

**18th June 2008**

**18th September 2008**

**9th December 2008**

## BOOKING INSTRUCTIONS

1. Download a booking form from:
   http://www.SIGiST.org.uk/bookingForm.pdf

***FAX TO:***

Gemma Liddiard
01793 417444

***OR POST TO:***

Gemma Liddiard

Specialist Groups Officer
First Floor, Block D
North Star House
North Star Avenue
Swindon
SN2 1FA

## ANNOUNCEMENTS

# SIGIST Library

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

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

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

If you would like to know more about the library and books available, or for any queries, please contact Sue Atkins on 01697 748 748 or email her at siglib@iotest.com. Alternatively, download the book loan form on the SIGIST website www.SIGiST.org.uk. Happy Reading!

# PROGRAMME COMMENTARY: TESTING WITH AGILITY *AND* DISCIPLINE

## Stephen Allott, Programme Secretary

Firstly let me thank all of the committee members for their advice and suggestions in helping me put together our March programme, the first SIGIST conference of 2008. Our theme this month "***testing with agility and discipline"*** has tried to build on the "***joined up testing"*** approaches of the last two conferences of 2007 and I believe the March event will help testers to take on board some new agile ideas whilst also learning from the disciplines of old.

This month the speakers are going to be challenging you and asking questions. Antony Marcano follows on from his very successful STAR West presentation in the USA and asks ***"Why was test driven development not driven by testers?"*** Professor Mike Holcombe invites us to think about why important policy decisions are made based on analysis software of poor quality and John Watkins asks if agile testing isn't just a lot of hot air!

We've tried to offer some practical advice based on real life experiences from Mike Hendry and Mike Bartley and Peter Quentin will explain the classification tree technique for designing effective test cases. Also, please don't miss the very knowledgeable and hugely entertaining James Lyndsay who will facilitate a workshop on "how to diagnose bugs" and will close off the day with an agile presentation.

Please do enjoy the conference and remember to book those workshop places early to avoid disappointment.

# NEXT MEETING – PROGRAMME

## BCS SIGIST – Testing with Agility *and* Discipline

**Tuesday 18th March 2008**
**Royal College of Obstetricians and Gynaecologists**
**27 Sussex Place, Regent's Park, London NW1**

| | | | |
|---|---|---|---|
| **08:30** | Coffee & Registration, Exhibition opens | | |
| **09:25** | **Introduction and Welcome**<br>*Stuart Reid, SIGIST Chairman* | | |
| **09:30** | Opening Keynote<br>**Why was Test Driven Development not Driven by Testers?**<br>Antony Marcano, etest associates | | |
| **10:30** | **Networking session and commercial break** | | |
| **10:45** | Coffee & opportunity to visit the exhibition | | |
| **11:15** | Can policy decisions be trusted?<br>Mike Holcombe<br>*University of Sheffield* | Workshop M1<br>How to get the most from outsourcing<br>Mike Bartley<br>ClearSpeed | Workshop M2<br>How to diagnose bugs<br>James Lyndsay<br>Workroom Productions |
| **12:00** | Don't take the P out of Testing<br>Mike Hendry<br>Unum | | |
| **12:45** | Lunch & opportunity to visit the exhibition | | |
| **13:45** | Agile Testing: Is it all just talk?<br>*John Watkins*<br>*IBM UK* | Workshop A1<br>Objective Coverage Measurement using the Classification Tree Method<br>*Peter Quentin*<br>*SQS UK* | Workshop A2<br>Birds of a Feather<br>Special interactive session back by popular demand |
| **14:30** | Can the SW Testing community learn from the HW Verification community?<br>Mike Bartley<br>ClearSpeed | | |
| **15:15** | Tea & opportunity to visit the exhibition | | |
| **15:45** | **Book Review**<br>*Sue Atkins* | | |
| **16:00** | Closing Keynote<br>**Testing in an Agile Environment**<br>James Lyndsay, Workroom Productions | | |
| **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.

# ABSTRACTS AND BIOGRAPHIES

## Opening Keynote Speaker:

### Opening Keynote: Antony Marcano
### Why was Test Driven Development not Driven by Testers?

For years, testers implored developers to do better unit testing. Our pleas seemed to fall mostly on deaf ears. Testers were constantly frustrated, finding bugs that should never have escaped the developers they worked with. Then, out of nowhere, a few developers started preaching Test Driven Development-test early and often, write unit tests before writing the code. Suddenly, unit testing was cool!

Why did testers fail to entice developers to test earlier, more, and better? Why is Test Driven Development a practice that was not driven by testers? Antony examines these questions and explains how he believes the testing community *can* become a driving force in improving software development practices in our organisations and in the industry.

To start with, if we want to be more influential in our projects, organizations and the industry at large we must broaden our horizons. We must do this in what we know and what we do and how we 'sell' the benefits of our suggestions.

Antony will discuss how he presents ideas so that they are seen to make things easier for everyone - not just ourselves. Peer respect and demonstration of benefit using concrete examples - not just vague requests for betterment – are key to no longer being resented as gatekeepers and naysayers but seen as essential to any smooth running, successful project.

***Antony Marcano*** *has a dozen years of experience in software development & testing across numerous sectors. Since 2000, much of Antony's work has been on extreme programming projects. Now, as a practitioner, mentor, coach, and consultant, he helps teams realize the benefits associated with agile development. A regular speaker at peer-workshops and conferences, Antony's views have been quoted in numerous publications including Corporate Insurance & Risk magazine, VNUNet, and the British Computer Society's journal The Tester. Antony is creator and curator of testingReflections.com, one of the most influential software testing sites on the Internet and is a Technical Editor for Better Software Magazine.*

### Mike Holcombe
### Can Policy Decisions be trusted?

Much of the focus of software testing and quality assurance is on systems that could have a direct impact on our lives: business and information systems, control systems, leisure software etc. However, there is a lot of software that is used by decision makers and others that we know little about - but the impact of the decisions taken on the basis of this software can be great.

One such area is scientific software - often used to model complex systems in biology, medicine, economics, meterology etc. There is convincing evidence that much of this software is of poor quality and full of faults. Yet policy makers will often believe what it is telling them and make important decisions based on this flawed data. We will look at some of this evidence and discuss ways of producing more reliable scientific software.

Illustrations will be taken from medical and economics modelling software. We conclude with some disturbing new work on how decisions that affect which medical treatments are approved in the UK are taken and the poor quality assurance mechanisms involved in this type of analysis.

***Mike Holcombe*** *is Professor of Computer Science at The University of Sheffield and a board member of the software company, epiGenesys. Mike has extensive research interests in software testing, agile software development, systems biology and economic modeling. He has also introduced novel ways of teaching software engineering by setting up a commercial company that senior students at Sheffield run.*

## Mike Hendry
## Don't take the P out of Testing

Testing is now seen by many companies in many industries as a Profession in its own right, and it has been recognised as an essential part of the development life cycle and business change in many more. Mike Hendry has created this recognition in two leading insurance companies and been instrumental in improving the quality of business solutions and delivering real benefit at both organisations.

For years Mike has attended the SIGiST and other conferences taking all he can get, filched loads of good ideas from scores of books and attended every course he could get his employers to pay for. This presentation seeks in some way to repay that debt and give something back to the testing community now that he has tested some of these teachings. In this presentation, Mike will share with you the things that have worked and those that have not, in building and managing a testing function. Many of the ideas can also be applied at a personal level as well. Although this has been proven within Financial Services, most of this is transferable to any industry.

***Mike Hendry*** *is Head of Corporate Acceptance Testing at Unum and is also the Secretary of the BCS Specialist Group in Software Testing. He has 16 years IT and Business Change experience in a variety of disciples including Project Management, Business Analysis, Application Development Management and of course his first love, Testing. Mike has spent all of his working life in the Financial Services industry (22 years) or in the Retail Drinks industry (as a part-time Barman for 10 years concurrent with his other jobs). This eclectic career path has given Mike a variety of experiences to draw upon and apply with a passion to his chosen professions of Testing and Leadership.*

## John Watkins
## Agile testing: is it all just talk?

In today's business and IT world "agile" is a term we seem to hear with increasing frequency. Senior managers demand that their businesses be agile to ensure they can keep abreast of consumer demands, competitive pressure and frequent legislative changes. Development and testing practitioners must increasingly challenge their use of heavy-weight methods and look to agile for solutions to more closely meet customer expectations, reduce delivery times, and increase quality.

Agile is frequently claimed to provide tangible benefits over the more traditional heavy-weight approaches, and there is a growing body of IT practitioners who are using the many different agile approaches that are available (such as XP, DSDM and Scrum). But how do agile approaches differ from traditional process, what techniques and methods do they employ, and what works and what doesn't work in agile?

This presentation will make use of a number of real-world agile case studies to review those aspects of agile methods that appear to provide genuine benefit, those that may need to be employed with care, and those whose use on a project may need to be challenged. As a final point, many of the agile approaches appear to hinge on close, effective and continuous communications. This presentation will explore whether agile really is all just talk.

***John Watkins*** *holds Masters Degrees in both Computer Science and Object-Orientation, has over 28 years experience in the field of software development, with some 20 years in the field of software testing, is a Chartered IT Professional, and is a Fellow of the British Computer Society. During his career as a testing professional, John has been involved at all levels and phases of testing, and has provided high level test process consultancy, training and mentoring to numerous Blue Chip Companies. John currently works for IBM's Software Group.*

*John's book on Testing Process (published by Cambridge University Press - "Testing IT : an Off-the-shelf Software Testing Process") is scheduled to be re-released as a second edition in 2008, and most recently, John has secured a contract for a second book on the subject of "Agile Testing" (also with Cambridge, and scheduled for submission in August this year).*

## Mike Bartley
## Can the SW Testing community learn anything from the HW verification community?

On the face of it the hardware verification and software testing communities should have a lot to learn from each other as they have comparable tasks:

- they both try to verify the functional correctness of complex designs with no chance of achieving complete coverage
- they are both driven by commercial pressures to generate as much confidence in a design prior to release
- they both have a number of non-functional requirements to consider

However, the two communities rarely interact. In this talk we look at the basics of both disciplines and then compare and contrast them. Starting from the basic development process models in each discipline, the presentation starts at the test analysis and design techniques and technologies, and progresses through to the testing process, management and signoff strategies. We ask if they are fundamentally different disciplines or is there sufficient common ground that software testers can usefully learn from hardware verification. For example:

- Do "test-design brainstorms" used in hardware have a place in software testing?
- Can pseudo-random stimulus generation with functional coverage used in HW verification also be applied usefully in SW testing?
- Do we have the tools?
- Are formal mathematical methods equally applicable?
- Can software testers learn from how signoff is commonly managed in hardware?

There is potentially a large, fruitful area of cross-fertilization and this talk hopes to investigate this, making practical recommendations to those involved in software testing what they can potentially learn from the hardware verification community.

***Dr Mike Bartley*** *graduated from Bristol University with a PhD in Mathematics. Since then he has studied with the Open University obtaining an MSc in SW Engineering and an MBA. He has been involved in both SW and HW testing for about 20 years. He started in software testing at IPL and Praxis, before moving to verify hardware at ST Microelectronics and Infineon. Most recently, as Test and Verification Manager at Panasonic and ClearSpeed in Bristol, he has been responsible for the testing and signing off complex HW/SW products. Mike spent 8 years as BCS Chairman in Bristol, has had numerous papers published, presented at a number of conferences, and has written on SW testing for the Open University.*

**James Lyndsay**

## Closing Keynote: Testing in an Agile Environment

It is hard to find a practical approach that allows a professional tester to achieve their full potential in an agile environment. Typical agile practices have characteristic effects on the work of a tester - and the expectations of experienced testers can be at odds with those of other experienced members in an agile team. How can a tester fit into an agile team and offer the best of his or her skills and insight? How does one make - or become - an 'agile tester'?

Using real-life examples, this talk attempts to give a flavour of what it is like to bring a test perspective into an agile project - and what it is like to be on an agile project that has a sudden need for testing skills. The talk will help testers recognise where they are bringing friction to an agile environment, help agile team members recognise where they may be incurring a 'testing debt' and identifies ways that testers can facilitate learning and bring value to an agile project.

***James Lyndsay*** *is a test strategist, based in London. He's been testing since 1986, and has worked independently since setting up Workroom Productions in 1994. As a consultant, he's worked in a variety of businesses and project styles; from retail to telecommunications, from rapidly-evolving internet start-ups to more traditional large-scale enterprise. He's worked to technical requirements for companies that make and sell software, to commercial requirements for companies that buy and use software, and to unexpected requirements everywhere. James was an internal irritant to the ISEB exam process for five years, is a regular speaker and occasional teacher, runs LEWT (the London Exploratory Workshop in Testing) and has won prizes for his papers.*

# WORKSHOPS

Please sign up early for these special interactive sessions as places are strictly limited to 12 participants on workshops M1 and A1 and 25 participants on workshops M2 and A2 : this is due to the room sizes so cannot be altered on the day.

Workshops M1 and M2 run in the morning and A1 and A2 run in the afternoon.

The exhibitors sometimes offer an impromptu discussion or presentation during the lunch period and these will be announced in the morning networking session. Please listen out for announcements.

| | | | | | |
|---|---|---|---|---|---|
| M1 | Mike Bartley | How to get the most from outsourcing testing | M2 | James Lindsay | How to diagnose bugs |
| A1 | Peter Quentin | Objective Coverage Measurement using the Classification Tree Method | A2 | Various | Birds of a Feather |

## M1 Mike Bartley

The overall goal of this workshop is to give practical advice as to how to avoid the pitfalls in outsourcing software testing and how to reap the many potential benefits and achieve the desired strategic goals. The speaker made a decision to outsource some of its software testing activities in mid-2006 for the following strategic goals:

- Improve company focus
- Improve company resource flexibility and so reduce time to market
- Quality improvement
- Cost variablization
- Cost reduction

This workshop will be a practical guide on how to achieve such objectives:

- Differences between outsourcing of test design and test execution
- How to identify projects suitable for outsourcing
- Managing and measuring the quality of the testing
- Ensuring suitable technical communication between engineers in the outsource organisation and engineers in ClearSpeed
- The day-to-day project management of the outsourced projects
  Taking final delivery and closing down a project
- Development of long-term relationships with the outsource organisations

## M2 James Lyndsay

Good testers need to be able to go beyond simply logging a problem. To give value to their stakeholders and integrate with their development teams, testers need to be able to investigate the problems that they find. Diagnostic skills will help a tester to isolate genuine problems from a rash of symptoms, to work out what lies behind field reports, and to communicate her bugs effectively by describing plausible models.

In this hands-on workshop, James Lyndsay uses a succession of practical exercises based on real problems including truncation, bottlenecks, boundaries and emergent behaviours.

Participants will select test conditions to isolate and emphasise a bug, analyse data to reveal connections and populations, and work with logs and events to arrive at sequences that reveal potential cause and effect. At the end of the workshop, participants will have an improved understanding of the techniques and principles of diagnosis that can be applied to issues found in their own systems.

Please note: bringing a laptop will help you get the most out of this session - see http://www.workroom-productions.com/SIGIST_20080318 for pre-course materials and exercises.

## A1 Peter Quentin

Equivalence partitioning is the simplest and most well known specification-based test design technique. However, in practice most functions depend on a combination of partitions; rather than the selection of just one. Therefore, simple equivalence partitioning is not as useful as it should be. The Classification Tree Method provides a systematic method for choosing tests based on combinations of partitions, removing the unfeasible or unwanted combinations from consideration. The classification tree created with the Classification Tree Method has the following advantages:

- it enables testers to document test design decisions
- test maintenance and having more than one person working on test design is made much easier
- it creates a record of the design when the specification is incomplete

A significant benefit of specification-based test design techniques is the potential to define objective coverage measures. Objective coverage measures have the following advantages:

- objectively knowing what is, and what is not, being tested is better than relying on subjective judgement
- it enables the tester to quantify and justify the testing that is being done
- when signed off, testers can be confident that the testing they carry out, and the testing that they are not carrying out, has been agreed

In this workshop, supported by a detailed paper, Peter shows how the Classification Tree Method can be used to design tests, to meet objective coverage measures, and enable coverage to be calculated.

***Peter Quentin*** *has been training people how to test software since 2000. He was Director of QBIT until 2006 when he joined SQS as the Training Product Manager. Most recently he authored SQS's ISEB Intermediate Certificate in Software Testing and ISEB Practitioner Certificate in Test Management training courses, both first in the world to be accredited. As well as regularly training and consulting for SQS, he is currently writing SQS's ISEB Practitioner Certificate in Test Analysis.*

## A2 Birds of a Feather

Back by popular demand, these interactive and facilitated discussions allow you the opportunity to be heard and get your point across in a small group (no more than 8) of like minded individuals. You'll discuss some of the burning testing issues of the day and we'll provide an experienced facilitator to guide the discussions along and to report back to the conference at the end of the day so that all can benefit from the issues discussed. Our suggested topics for this month include:

- I'm too busy to make any improvements to the way we test – help?
- Standards for software testing – do they really help or are they a burden?
- Do testers really have a professional career path?

- How can we get good test data and set up a decent test environment?
- Can test automation tools provide a real return on investment?

Participants are free to select a different topic on the day if none of the above seems to be burning issues for their particular group.

**… and Finally**

Please note that workshops run alongside the general conference sessions so why not bring along a colleague or two if your company is interested in both the general session as well as the workshops.

We value your support and so please enjoy the SIGIST 18th March 2008 conference and remember to continue to give us your feedback; we're here to design the programme that you want with the speakers and topics that interest you, the UK testing community.

Programme designed and created by Steve Allott, SIGIST programme secretary.

# ARTICLES

## ACCELERATE TESTING ACCURATELY WITH RAPID BOTTLENECK IDENTIFICATION

*According to research group Gartner, bugs discovered after release of new website applications can not only spell doom for a project, but also cost 80 to 1,000 times more to fix than if they were found during pre-deployment testing.*

As more businesses harness the power of having an online presence and using web-based applications to enhance their business, it becomes imperative that every element during the development of any web project goes ahead smoothly and efficiently, with as few glitches as possible. However, this isn't always possible because most major web-based initiatives involve some form of unforeseen delay that cause a slippage in the planned timescale. Moreover, these same ventures tend to have deadlines that cannot afford to be missed. The net result of this is that time becomes a precious but limited commodity, a scenario that quality assurance and testing specialists are unfortunately all too familiar with.

**So how do we deal with this?**

A common approach is to keep things simple. For example, on the eve before the opening day of a new sports stadium in the US, engineers tested the plumbing by getting the entire workforce together for a synchronised flushing of the toilets. A similar but labour-intensive approach is often applied to load-test new Web applications, with lots of people asked to log-in simultaneously.

Testing should also be quick, simple, and thorough, which is where Rapid Bottleneck Identification (RBI) comes in.

Every Web application has at least one bottleneck, usually an element of hardware, software or bandwidth which places defining limits on data flow or processing speed. Therefore applications will only be as efficient as their least efficient elements. It is these bottlenecks which directly impact performance and scalability.

Furthermore, bottlenecks can only be discovered and resolved one by one. And they can be found throughout an organisation's Web application infrastructure, at the system level (firewalls, routers, server hardware, etc), Web server level (hit rate, CPU, etc), application server level (page rate, memory, etc), or the database server level (queuing, connections, etc).

While this sounds like a recipe for an arduous testing process, there is a way to quicken the process.

**Throughput or Concurrency?**

80 per cent of all system and application problems come through limitations in throughput capacity - the measure of the flow of data that a system can support, measured in hits per second, pages per second or megabits per second (Mbps).

And only 20 per cent of issues are down to concurrency – or the number of independent users that a system can support.

Therefore, if most bottlenecks occur in the throughput, it makes sense for performance testing to focus most of its efforts there, instead of on levels of concurrent users, which has been the traditional focus.

This way of testing involves minimizing the number of user connections to a system while maximising the amount of work that is being performed by those user connections – pushing the Web application and the system to their maximum capacity.

At the system level this means adding basic files to the Web and application servers. Typically a large image is used for bandwidth tests, a small text file or image is used for hit-rate tests, and a very simple sample application page is used for page-rate testing.

If the system is unable to meet the requirements of the application, there is no need to continue testing until it has been improved, either by tuning its settings, boosting hardware capacity or increasing bandwidth.

Throughput testing at the application level means hitting key pages and user transactions with limited delay between requests to find the page-per-second capacity limit of the various components. The pages or transactions with the worst throughput are those in need of the most tuning.

Concurrency, however, is still an important part of testing. On the system and application level it can be limited by sessions and socket connections. It can also be hit by incorrect server configuration or code flaws.

Testing it involves increasing the number of users running with realistic page-delay times, while ensuring the increase is slow enough to harvest useful data throughout the testing.

**A faster, simpler way to test**

An initial focus on throughput testing saves time. For example, if you were testing a system expected to handle 5,000 concurrent users, each spending an average of 45 seconds on each page. If the application has a bottleneck that will limit its scalability to 25 pages per second, a typical concurrency test would have found the problem at approximately 1125 users, or 94 minutes into the test.

A throughput test would have uncovered the glitch in less than 60 seconds.

So, RBI can help speed testing along, but how is it kept simple? Very often, performance testing begins with overly complex scenarios exercising too many components, which makes it easy for bottlenecks to hide. By beginning with basic system-level testing you can check performance before the Web application is even deployed.

Furthermore, a modular approach simplifies things. For example, you start by testing the simplest possible test case and gradually build in complexity. If the simplest test case works, testing moves on – if the next stage fails you know where the bottleneck is.

This modular method also allows you to rule out previously tested components from the equation as you go forward. For example, if hitting the homepage shows no problem, but hitting the homepage plus executing a search shows a very poor performance, the cause of the bottleneck is in the search functionality.

**System and Application level testing**

Any performance testing should begin with an assessment of the basic network infrastructure supporting the Web application. If this cannot support the anticipated user load then even infinitely scalable application code will bottleneck.

After checking the system is up to the job, it's time to turn to the Web application itself. Again, the approach to testing should be that you start with the simplest possible test case and then add complexity. In a typical e-commerce application that would mean testing the homepage first, then adding in pages and business functions until complete real world transactions are being tested, first individually and then in complex scenario usage patterns.

Once this has taken place, transactions can be put into scenario concurrency tests. Any concurrency test must reflect what users really do on the site (for example, 50 per cent just browse, 35 per cent search, 10 per cent register and login and 5 per cent add to a shopping cart and make a purchase). However, virtual users testing the site must also execute the steps of those transactions using the same pace that real world visitors do.

So whether you conduct your performance testing in-house using automated tools or manually, or via a managed service, the important thing is that it is done methodically and rigorously – just ask the team from a major UK newspaper which saw its new website crash last year due to unforeseen traffic levels; or the world's second-largest stock market, which halted trading after a software upgrade had an undesired effect.

**Andy Buchanan**, European Director, Web Business Unit, Empirix

About Andy Buchanan:

Andy Buchanan has worked in the testing and monitoring industry for over 5 years and is known for his logical and straightforward approach to solving issues. Prior to working in the software vendor space Andy was responsible for the development and delivery of a number of Blue Chip web applications.

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## SCRIBBLINGS FROM STOCKHOLM

The largest-ever European software testing gathering took place in Stockholm at the beginning of December, with almost 1,200 people attending the EuroSTAR conference. There were delegates from 38 countries present, including Syria, Ghana and Peru, and

competitions for the available speaking slots meant that there were 8 disappointed people for each of those selected to speak.

This was the sixth EuroSTAR conference I have attended, but a “carefully conducted statistical survey” (a show of hands at the opening session) gave seemingly over 60% of those present as first-time attendees. There are always more from a country when on home territory, but the hordes of Swedes dwarfed those from any other nation, with over 400 from the home nation.

In amongst other activities, there was a place for a ‘statistical survey’, with the introduction of individual electronic voting for two of the sessions at EuroSTAR. Co-incidentally, both of these were run by Brits, with Dot Graham and Mark Fewster aiming more for a snap-shot of testing practices and attitudes, whilst Geoff Thompson and Graham Thomas focussed on a light-hearted general knowledge / testing knowledge quiz. Answers for this were analysed by age and other categories, added to the competitive nature.

Any view of such a conference will always be coloured by the mindset of the person attending – it cannot be objective. With 4 concurrent track-sessions in progress, as well as key-note addresses, there was plenty on offer. I had ear-marked my intended sessions before arriving in the Swedish capital, and surprisingly stuck with my choices.

As ever, some talks were more to my taste than others. I was particularly taken with a talk from Huub van der Wouden and Roger Derksen on testing the Terminal 5 baggage handling system at Heathrow. The new terminal opens on 27th March this year, and is a fixed date – baggage handling MUST work. No pressure there then.

From my perspective, the highlight of some truly inspiring presentations was Isabel Evans’ keynote address on a roadmap towards a regulated testing industry. Isabel’s passion for testing was mixed with one of her other loves, horticulture, to inspire us as a profession onwards and upwards. There was a mixture of anger and humour, candour and statistics, leading to a testing roadmap until 2057.

In a strange way, the highly controversial opening keynote address from Michael Bolton (speaking against testing certification schemes) set the tone for the conference. It made delegates ask why they believe in what they believe – always a good thing for testers to do.

The conference was for me the best EuroSTAR I have attended, a tribute to Stuart Reid and his program committee. As I winged my way home on the Thursday evening, the Gala dinner took place in the stunning surroundings of the Vasa museum. At the dinner, Erik van Veenendaal very deservedly received the Testing Excellence award, the best tutorial from the conference was given to Iris Pinkster and best paper was awarded to Zeger van Hese for his session “Software Testing: A Profession of Paradoxes?”. Meanwhile, I wondered about baggage handling, as I passed through Heathrow!

Next years conference chair is Bob van de Burgt of the Netherlands, with EuroSTAR 2008 taking place in The Hague, from November 10th → November 13th 2008. I hope to see you there.

**Peter Morgan**, freelance tester, Nicemove Ltd (morganp@supanet.com)

Issue 24

# THE TESTER

*June 2008 Issue*

## NEXT CONFERENCE

**Wednesday 18th June 2008**

# Is Traditional Testing Flexible Enough?

- Test the Terminal 5 Baggage Handling System
- SIGiST Annual General Meeting
- Implementing an Organisation Wide Testing Approach
- The New International Software Testing Standard
- Testing the NHS Spine
- An Agile Success Story
- Two Vital Documents for Testers
- Who Tested My Cheese?
- Web Testing Under the Bonnet
- How Testing Fits into Agile Methods
- What influences me in Software Testing

## IN THIS ISSUE:

# FROM THE EDITOR

Well, this is my last Editorial after twelve years as Communications Secretary of the SIGiST! I think the time is overdue for someone else to step into the role as I have held the post since its inception!

If you are interested in putting yourself forward for this particular role, then please send me an email at pam@leysen.com and I will be pleased to discuss the extent of the tasks required to be undertaken, the brief details of which are noted in this newsletter under the AGM details.

The AGM is in the morning of the next Conference on Wednesday 18 June and you will find included here a reminder of the election process and a list of all the roles which are up for re-election. Of course, the roles are all voluntary and non-paid.

I have thoroughly enjoyed my active part as a member of the SIGiST committee and we like to see new faces to take part in its organisation to input some fresh ideas. However, if you have got suggestions at any time with regards to how to improve the conferences etc but do not want to be part of the committee, don't forget that we would still like to hear from you!

Finally, I would like to thank all those who have contributed to The Tester over all these years and I look forward to reading it in the future!

Pam Frederiksen

Communications Secretary
Tel: 01483 881188 (Leysen Associates)
Fax: 01483 881189
Email: pam@leysen.com

**BCS SIGIST website: www.sigist.org.uk**

**SIGIST Standards Working Party: www.testingstandards.co.uk**

**SIGIST UML Testers Forum: www.umltesters.org**

**Future SIGiST conference dates**

**18th June 2008**

**18th September 2008**

**9th December 2008**

## BOOKING INSTRUCTIONS

1. Download a booking form from:
   http://www.SIGiST.org.uk/bookingForm.pdf

| *FAX TO:* | *OR POST TO:* |
|---|---|
| Gemma Liddiard<br>01793 417444 | Gemma Liddiard<br><br>Specialist Groups Officer<br>First Floor, Block D<br>North Star House<br>North Star Avenue<br>Swindon<br>SN2 1FA |

# ANNOUNCEMENTS

## CALL FOR NOMINATIONS

As Pam stated in the editorial, there are a number of roles that are up for re-election at the SIGiST AGM. These roles are:

- Chair person
- Vice Chairperson
- Treasurer
- Marketing secretary
- Communications secretary
- Membership secretary

If you would like to stand for any of these roles, please refer to the election process detailed later in this issue of the Tester. With the exception of the Communications Secretary, the existing committee members are standing for re-election. Below is a brief description of the Communication Secretaries role.

**Communications Secretary role**

The role encompasses running the Networking Session at each conference, attending committee meetings and involvement in the production of The Tester. The latter requires writing the Editorial, acquiring articles on testing for inclusion and co-ordinating the assembly of content with other committee members. The role also involves being a point of contact for general queries regarding the SIGiST.

## SPECIALIST GROUP IN SOFTWARE TESTING

## NOTICE OF ANNUAL GENERAL MEETING

Notice is hereby given that the Annual General Meeting of the British Computer Society Specialist Group in Software Testing (SIGiST) will be held on Wednesday 18th June 2008. The venue for this meeting will be the June 2008 SIGiST meeting held at the Royal College of Obstetricians and Gynaecologists – RCOG.

## Agenda

- Minutes of Previous AGM and Matters Arising

- Reports
  - Chair
  - Treasurer
  - Standards committee

- Constitutional changes
  - To be agreed

- Elections
  - Chair person
  - Vice Chairperson
  - Treasurer
  - Marketing secretary
  - Communications secretary
  - Membership secretary

- To consider any nominated business

Items for inclusion on the AGM agenda should be emailed to Michael.HENDRY@unum.co.uk. Additions to the agenda must be received no less than fourteen days prior to the meeting.

# SIGIST ELECTION PROCESS

Elections will normally take place at the SIGiST Annual General Meeting (AGM) in June. 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 2 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 (including a short job specification – 3 lines max.) should be announced prominently within 'The Tester' (normally in the edition advertising the AGM). Otherwise, for an Extraordinary Meeting, an email will be sent to all registered email addresses on the SIGiST database announcing the election(s). | Maximum 8 weeks prior to election. |
| Candidates must register their interest in standing for one of the positions with the SIGiST Secretary and provide an accompanying short manifesto (no more than a page of A4) describing what they expect to bring to the role. See section 4. of the SIGiST constitution for eligibility. | At least 4 weeks 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. | 3 to 4 weeks 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), but may only hold one position. In the event that someone is elected to more than one role then they must immediately decide which one role they wish to take up and vacate the other positions. The second-placed candidates for the vacated positions are then elected to those roles. |
| 2. If the nominations number equal to or less than the vacancies, the nominees will be deemed to have been duly elected without an election. |
| 3. Each candidate must create a short manifesto describing why they feel they are the right person for the role and send it to the Secretary of the SIGiST when they register their interest in standing for that role. |
| 4. A simple majority is required to be elected to a position. |
| 5. Only members as defined in section 4. of the SIGiST constitution may vote |
| 6. Voting is only allowed if the member is physically present at the AGM |
| 7. The formal voting process will take place on the day of the meeting (a simple show of hands). |

# SIGIST Library

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

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

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

If you would like to know more about the library and books available, or for any queries, please contact Sue Atkins on 01697 748 748 or email her at siglib@iotest.com. Alternatively, download the book loan form on the SIGIST website www.SIGiST.org.uk. Happy Reading!

# PROGRAMME COMMENTARY: IS TRADITIONAL TESTING FLEXIBLE ENOUGH?

## Stephen Allott, Programme Secretary

The nice thing about announcing the June programme is that it will be the summer when it takes place (hopefully we'll have one this year!). So plan your holidays of course, pack your bags and make sure to book a date in your diary for Wednesday 18th June to participate in what should prove to be a very thought provoking day for software testers.

We open with some insights into the testing of the Heathrow Terminal 5 baggage handling system by two experienced test managers from the Netherlands, Huub van der Wouden and Roger Derksen.

At the end of the last conference in March there was high drama when one of the delegates disagreed with the final speaker, James Lyndsay, on the approaches to agile testing. So we've invited the test manager of Sky Network Services, Gary Busby, to put forward his views and tell their success story.

Our theme for June attempts to build on the agility and discipline stories we heard in March and asks the question "Is traditional testing flexible enough?" So you'll hear about an organisational wide approach to testing from Graham Thomas as well as the new ISO software testing standard from Stuart Reid. This is balanced by Gary's success stories on agile testing and also we are fortunate to have Lasse Koskela from Finland explaining how he's made agile methods work. If you like large projects, complexity, and service oriented architectures you'll enjoy learning how Kevin Barrett of BT Global Services managed a new breed of programme when testing the NHS Spine. In a double workshop covering the morning and afternoon you can learn how to test web sites with Paul Gerrard. Please bring your laptop.

Regular attendees will note that we have a slight change to the timings this month to incorporate our AGM (this is your chance to have a say in how the specialist group in software testing should be run).

Let me summarise your plans for the summer; book a holiday, check in online and make sure you reserve 18th June for the summer SIGIST conference. As always, places on the workshops are limited so you get maximum interaction with our experts and so if you wish to go please convince your manager this is a valuable day of learning / networking and book early.

# NEXT MEETING – PROGRAMME

## BCS SIGIST – Is Traditional Testing Flexible Enough?

**Wednesday 18th June 2008**
**Royal College of Obstetricians and Gynaecologists**
**27 Sussex Place, Regent's Park, London NW1**

| | | | |
|---|---|---|---|
| **08:30** | Coffee & Registration, Exhibition opens | | |
| **09:15** | **Introduction and Welcome**<br>Stuart Reid, SIGIST Chairman | | |
| **09:20** | Opening Keynote<br>**Testing the Heathrow Terminal 5 Baggage Handling System**<br>Huub van der Wouden & Roger Derksen, Transfer Solutions, Netherlands | | |
| **10:20** | **BCS Specialist Group in Software Testing AGM** | | |
| **10:30** | **Networking session and commercial break** | | |
| **10:45** | Coffee & opportunity to visit the exhibition | | |
| **11:15** | Implementing an organisation wide testing approach<br>Graham Thomas<br>Independent Consultant | Workshop M1<br>Web testing under the bonnet (part 1)<br>Paul Gerrard<br>Gerrard Consulting | Workshop M2<br>How testing fits into agile methods<br>Lasse Koskela<br>Reaktor Innovations<br>Finland |
| **12:00** | The New International Software Testing Standard<br>Stuart Reid<br>Testing Solutions Group | | |
| **12:45** | Lunch & opportunity to visit the exhibition | | |
| **13:45** | Testing the NHS Spine<br>Kevin Barrett<br>BT Global Services | Workshop A1<br>Web testing under the bonnet (part 2)<br>Paul Gerrard<br>Gerrard Consulting | Workshop A2<br>What influences me in software testing<br>Graham Thomas<br>Independent |
| **14:30** | An agile success story<br>Gary Busby<br>Sky Network Services | | |
| **15:15** | Tea & opportunity to visit the exhibition | | |
| **15:45** | **Two vital documents for testers**<br>Peter Morgan | | |
| **16:00** | Closing Keynote<br>**Who tested my cheese? (Do testers have a job in the future?)**<br>Lasse Koskela, Reaktor Innovations, Finland | | |
| **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.

# ABSTRACTS AND BIOGRAPHIES

## Opening Keynote Speaker:

### Opening Keynote: Huub van der Wouden & Roger Derksen
### Testing the Heathrow Terminal 5 Baggage Handling System

London Heathrow Terminal 5 has opened on March 27th, as anyone watching the news will have noticed. More than 30 million passengers a year will pass through the new terminal, and to meet baggage handling needs a new system was constructed that can transport more than 70,000 bags a day.

The challenge for the baggage handling project team was how best to integrate and test this large and complex system, given the limited time that was available to test the software in its actual site environment.

In their presentation Huub and Roger explain the vital role that software emulation testing techniques played in factory integration testing. The advantages and limitations of these techniques are covered along with explanations of what can (and cannot) be achieved in the factory environment.

***Huub van der Wouden*** *is a senior consultant with Transfer Solutions, an IT consulting firm based in the Netherlands. He has been working with Vanderlande Industries, the manufacturer of the T5 baggage handling system, in various international projects in roles such as project manager, integration manager, and test manager. Huub has over 20 years of IT experience, and is an IPMA certificated project manager. Currently he is living in London, working as site test manager for the T5 Baggage System Project, and enjoying this immensely.*

*Contact: hgwouden@transfer-solutions.com*

***Roger Derksen*** *is a senior consultant with Transfer Solutions. He has been working with Vanderlande Industries as a test manager for several years. Roger is an ISEB certified test practitioner. For the T5 project he was responsible for factory integration testing. Currently he is working as test and integration manager within the 70MB programme of Amsterdam Airport Schiphol.*

*Contact: rderksen@transfer-solutions.com*

### Graham Thomas
### Implementing an organisation wide approach to testing

Over the last seven years I have been involved in several Test Improvement Programs. They have varied in size and nature but all have had the same aims. To improve testing, increase efficiency and effectiveness, and better support the overall development lifecycle.

What I will do in this presentation is use examples from two Test Improvement Programs, one small and one large, give a feel for what they were trying to achieve, the kind of progress that was made and impart some valued and hard won lessons learnt from their successes and failures.

There is no doubt that Testers want to do better testing. We all want to do a better job. If not for personal pride and satisfaction then because we want to improve, in order to get a better job and ultimately earn more money.

And Test Improvement Programs will help us do that, but only up to a point. Eventually, and sometimes sooner rather than later, you reach the point where to continue to improve the testing process you are going to have to change some practices, process and behaviours outside the testing team.

You need the business to set realistic timeframes and Project managers to create realistic plans. The development process must provide adequate and timely requirements, design and build information. Least of all you need better quality code, and when it isn't good quality you at least need it fixed in the order that your testing demands. And so on. . . .

You find yourself in the situation where you need to improve the other aspects of the development lifecycle to gain further benefits from your Test Improvement Program.

And to be successful, this level of organisational change can't be imposed or mandated. You are going to have to work with the other members of the development team to successfully bring about this change.

As the old joke goes, "How many Change Managers does it take to change a light bulb? Just one, but the light bulb has got to want to change!"

***Graham Thomas*** *is an independent consultant with over 25 years experience, specialising in software testing since the early 1990's. Recently he has focussed on testing change and program test management. He has worked for consultancies and end users across a wide range of industry sectors; retail, finance and insurance. He is a member of the BCS SIGIST Standards Working Party, acting as secretary since 2001. He has presented at conferences, seminars and testing groups since 1994.*

**Stuart Reid**
**The New International Software Testing Standard**

In May 2007 ISO started development of their first standard on software. ISO 29119 will eventually cover all aspects of software testing but will initially cover vocabulary, process, documentation and techniques. This presentation describes progress on the development of ISO 29119, how you can use it, and explains how you can contribute to its development.

***Stuart Reid*** *is Chief Technology Officer at Testing Solutions Group and has a PhD in Software Testing. He is Convener of ISO WG26, which is developing the new ISO 29119 Software Testing Standard and represents software testing on the BSI Software and Systems Engineering Committee. He is also Chair of the BCS Specialist Group in Software Testing (SIGiST) and its Standards Working Party, was previously Chair of the ISEB Software Testing Board and founded the ISTQB. He is a regular presenter at international testing conferences and events and was awarded the EuroSTAR Testing Excellence Award in 2001.*

**Kevin Barrett**
**Software Testing of the NHS Spine**

There is a new breed of IT programme which is large, complex and provides a services orientated architecture (SOA). These programmes, often in the government or public sector, raise a range of software testing challenges to be addressed. This presentation describes the successful verification and validation of one such programme for the NHS (National Health Service for England).

The NHS Spine at peak will manage the clinical records of 50 million patients, service the needs of 1 million plus users, and process in excess of 1,000 transactions per second. The scale and complexity of this programme has pushed the boundaries of all areas of software testing.

Developing a services orientated architecture (SOA) entails creating a complex web of internal and external interfaces; the users of the system are in fact other large, complex IT infrastructures. The technology used reflects the business complexity, and its "leading edge" nature brings its own testing challenges. Developing a testing strategy within this environment needs to incorporate all of these constraints.

The Spine system is in fact developed by a number of key development partners, who deliver into a central Integration and Testing function. Test Assurance has been woven into the end-to-end development process, providing an efficient and coherent series of test phases, which pivot off each other to provide a holistic approach to meeting the tough contractual obligations.

On a programme of this size, with the high volumes and high levels of availability involved, the non-functional aspects to testing are of paramount importance. Getting the best of the tools available and making the most of the test environments and resources are key elements to protect the volume, performance, security and operational aspects of the live service.

This presentation will share the unique, yet soon to be ubiquitous, challenges which faced the testing of the NHS Spine, and how we have conquered them to deliver a world-class service.

***Kevin Barrett**, BT Global Services (UK), is a lifelong test professional who manages one of the UK's largest and most successful testing functions. He is currently managing teams that are testing Billion Euro+ IT programmes operating with hundreds of testers on and offshore in complex environments. Kevin's unique insight in merging test and infrastructure functions has created teams that have consistently delivered to time, quality and budget.*

**Gary Busby**
**Agile – The Sky Network Services Story**

This is the story behind the methodology used in the software development of Sky Broadband. The success, pitfalls and experience in the transition to use Agile Methods to deliver business critical enterprise systems. The presentation focuses on the evolution of processes at SNS. The story covers:

- Team communication improvements
- Roles and responsibilities within the team
- Scaling up and down to cope with business demands
- Retrospectives
- The iteration cycle
- Pipeline management
- Prioritization of stories
- Iteration Planning to solidify the iteration content
- Enable long term planning of long term projects (Ring fencing resources)

***Gary Busby** is the Test and Release Manager at Sky Network Services and has 22 years of IT experience including management, software testing, project management, support and development roles. For the last 3 years at Sky Network Services he has been working with the development team in an Agile environment and exploring how QA could fit better into the Software Development Lifecycle. The test team has responsibility of over 15 applications with a test team of 12 utilizing automation while constantly improving the process.*

**Peter Morgan**
**Two Vital documents for testers**

What two documents are the most important to testers? Some would say the Functional Requirements, others the Test Policy. However, I would propose two others. Release Notes and Installation Instructions are vital documents, particularly if the majority of development work is done by a third party firm. Having a tailored version of a package, where there is an existing user-base, can present its own challenges. In this short presentation, Peter shares his experience, insights and frustrations. There may not be any amazing teaching points, but it is hoped that you will be left to muse, and maybe, just maybe, you will see a greater importance of these two documents.

***Peter Morgan*** *is a freelance testing practitioner with over 25 years wide-ranging experience within ICT. He is a member of the ISEB software testing Accreditation and Examination panels, and the UKSTAG. Peter is an attendee and occasional speaker at the London SIGiST, and a regular track-chair at EuroSTAR conferences. He tries to speak common sense and give small suggestions that can cause people to think, if not change the way they act.*

**Lasse Koskela**

## Closing Keynote: Who Tested my Cheese? (Do testers have a job in the future?)

Spencer Johnson's best-selling title from 1998, "Who Moved My Cheese?" talks about dealing with change. At 96 pages it's not a thick book - nor does it need to be - because the message is simple: We need to be prepared to go running off in search of new sources of cheese when the cheese we have runs out. And professional testing engineers around the world are increasingly finding that someone is moving their cheese - programmers are doing more and more testing every day. Observing this phenomenon expanding one has to ask, do testers have a job in the future? What's the role of test automation in all of this? Are the crafts of testing and programming about to merge? Is this all part of something bigger?

***Lasse Koskela*** *works as a coach, trainer and consultant, spending his days helping clients and colleagues at Reaktor Innovations create successful software products.*

*He has trenched in a variety of software projects ranging from enterprise applications to middleware products developed for an equally wide range of domains. In recent years, Lasse has spent an increasing amount of time giving training courses and mentoring teams on-site, helping them improve their performance and establish a culture of continuous learning.*

*When not working with clients, Lasse hacks on open source projects, moderates discussions at JavaRanch, or writes about software development--most recently a book on Test Driven Development. He is one of the pioneers of the Finnish agile community and speaks frequently at international conferences. You can contact him at lasse@ri.fi*

# WORKSHOPS

Please sign up early for these special interactive sessions as places are strictly limited to 12 participants on workshops M1 and A1 and 25 participants on workshops M2 and A2: this is due to the room sizes so cannot be altered on the day.

Workshops M1 and M2 run in the morning and A1 and A2 run in the afternoon.

The exhibitors sometimes offer an impromptu discussion or presentation during the lunch period and these will be announced in the morning networking session. Please listen out for announcements.

| | | | | | |
|---|---|---|---|---|---|
| M1 | Paul Gerrard | Web testing under the bonnet (part 1) | M2 | Lasse Koskela | How testing fits into agile methods |
| A1 | Paul Gerrard | Web testing under the bonnet (part 2) | A2 | Graham Thomas | What influences me in software testing |

**Workshop M1 and A1**
**Paul Gerrard, Web testing under the bonnet**

Most Web site functionality is server-based and can be accessed under the hood by sending HTTP packets directly to the server's application APIs. With this approach to test automation, changes in the GUI do not break tests, allowing you to automate more, tests and increase your productivity, and improve ROI. In this hands-on tutorial, Paul Gerrard discusses the four key elements that are necessary to perform under the bonnet testing

- a technical understanding of how most Web applications work
- ways to identify the tests that can be executed without accessing the GUI
- an easy-to-use automation tool and
- a safe test environment in which to experiment.

Paul demonstrates testing with a fully functional Web server and the free Web testing tool (Webdriver™) to provide an environment within which you create and run tests. If you bring your Windows laptop computer to class, you will be writing and running your own automated tests in less than an hour. This tutorial is designed for testers needing insights into common Web architectures; an understanding of HTML, CGI, HTTP, HTML forms and cookies; and how to test ASP, .NET, Perl, PHP, and other Web sites without accessing the GUI.

***Paul Gerrard*** *is the founder and Principal of Gerrard Consulting, a services company focused on increasing the success rate of IT projects. He has conducted assignments in all aspects of Software Testing and Quality Assurance. Paul has degrees from the Universities of Oxford and London. He founded the ISEB Tester Certificate Board, and is the host/organizer of the UK Test Management Forum and Summit conferences. He is a regular speaker at conferences in the UK, Europe and the USA and has won "Best Presentation" prizes at the EuroSTAR and BCS SIGIST conferences. With Neil Thompson, Paul wrote Risk-Based E-Business Testing—the standard text for risk-based*

*testing. This year, with Susan Windsor, Paul started a new company, Aqastra to provide training and retraining services with a more practical focus.*

**Workshop M2**
**Lasse Koskela, Quality Incorporated: How Testing Fits Into Agile Methods**

Testing or "QA" has long been considered the final frontier where the quality of our software products has been verified and any remaining defects identified and thrown back to development to be fixed. With the rise of Agile methods such as Scrum and XP, however, the concept of that final frontier is fading away. These highly iterative and incremental processes suggest that testing should be incorporated into short iterations, which brings up a host of interesting questions - starting from "is that even possible?"

In this interactive workshop, we explore questions around the topic of fitting testing and Agile methods through an iterative simulation and discuss the roles, responsibilities, and necessary skills of a testing engineer and what does this fusion mean in terms of organizational culture.

***Lasse Koskela*** *works as a coach, trainer and consultant, spending his days helping clients and colleagues at Reaktor Innovations create successful software products.*

*He has trenched in a variety of software projects ranging from enterprise applications to middleware products developed for an equally wide range of domains. In recent years, Lasse has spent an increasing amount of time giving training courses and mentoring teams on-site, helping them improve their performance and establish a culture of continuous learning.*

*When not working with clients, Lasse hacks on open source projects, moderates discussions at JavaRanch, or writes about software development--most recently a book on Test Driven Development. He is one of the pioneers of the Finnish agile community and speaks frequently at international conferences. You can contact him at lasse@ri.fi*

**Workshop A2**
**Graham Thomas, What Influences Me in Software Testing**

I would like to share, in the form a workshop, the things that influence me in software testing. The aim is to look at everything that currently influences me in the field of software testing, in the hope that it will also influence the audience. There are a number of areas to look at:

- Latest theories
- Practical experience
- Schools and approaches
- Methods and techniques
- Analogies and similarities
- Books versus blogs
- The thinkers of our time
- Popular culture
- And lots of other things

With the aim that through a series of highly interactive activities, the workshop will build a mind map of influences for software testing, that can be shared and may be of use to others.

No advance preparation is required, other than to bring an open mind. There is no pre-requisite skill level. All are welcome, but be prepared to contribute.

***Graham Thomas*** *is an independent consultant with over 25 years experience, specialising in software testing since the early 1990's. Recently he has focussed on testing change and program test management. He has worked for consultancies and end users across a wide range of industry sectors; retail, finance and insurance. He is a member of the BCS SIGIST Standards Working Party, acting as secretary since 2001. He has presented at conferences, seminars and testing groups since 1994.*

**… and Finally**

Please note that the workshops run alongside the general conference sessions and therefore you cannot possibly attend every session; so why not bring along a colleague or two if your company is interested in topics and information from both the general sessions as well as the workshops.

We value your support and so please enjoy our summer conference and remember to continue to give us your feedback; we're here to design the programme that you want with the speakers and topics that interest you, the UK testing community.

Programme designed and created by Stephen Allott, SIGIST programme secretary.

# ARTICLES

## Tracing Back to Requirements

At a time when IT budgets are shrinking and developers are under pressure to deliver faster, testers need to ensure that development projects are staying on track and that initial requirements are being met. So how can this be done?

Many of us in the testing arena become so immersed in the tests we are performing, that we end up only thinking about the part of the project we are working on, and almost forget the main purpose of the application and the business requirement behind that purpose. Although this is a problem we are all aware of, it is a trap that we can all too easily fall into. This is evident when we look at testing. Many people working in our field will perform a test, but will not remember to bear in mind the business requirements or prioritise the time constraints against the project risk itself. In an optimal working practice, tests and defects should be traced back to requirements as this will enable testers to assess the true impact that any issues have on the overall project and ultimately, the business itself.

### Definition

Requirements need to be defined at the outset of a development project to enable testers to track back to initial requirements. This definition process has to include everyone involved in the project from customers, to business sponsors and technical developers. Once defined the requirements will form a key part of any project, with all development and testing work stemming from them. However this isn't always the case as often a requirements document will be drafted and agreed, and then filed away never to be seen again. This is a bad practice – without referring back to initial requirements, how will developers know they are writing code that meets the project specifications? How can testers know if their test plans provide adequate coverage against the original requirements?

One way to ensure that requirements are always at the heart of a project is to use a requirements management tool. All work carried out on the project should stem from the requirements that are set within the tool. When setting requirements, business analysts

and project managers should include all associated data in order to assist the tester in tracing tests back to requirements later in the project. This data should include information like the priority of the requirement, its status and the risk to the business if the requirement is not completed, as well as information on the business sponsor who requested it and the particular software release the requirement is associated with. Essentially it is very important to spend time and effort defining and prioritising requirements as they will not only feed into test plan generation, but also shape the whole development project.

## Test plan generation

Test plan generation can often be difficult, especially with large-scale development projects. With many different facets to an application, deciding where to start testing can be tricky. Do you start by testing the customer facing part of the application, or do you start with the numerous reports and interfaces? This is a dilemma that test managers face day in day out; where should their test plan start and where should it end? The answer is simple, the test plan should be generated from the prioritised requirements set at the start of the project, and plotted against the available time and risk involved. Test managers should work out which parts of the application are most critical to the success of the project and the business' requirements and build their test plans around them, with an awareness of the time involved in each test. The test plan should place importance on high priority requirements to ensure their reliability and stability in the time allowed, rather than attempting to test every part of the application.

## Issue/defect generation

Once a test plan has been generated and is being executed it is inevitable that issues and defects will arise. This is often the point at which testers make mistakes by not considering the impact of the defect they have found on the whole project.

By tracing back to the business requirement and looking at the priority information, including time constraints, testers will be able to understand whether there is an urgency to resolve the test failure. In order to help the project accomplish its goals in the time available, testers must understand which defect to fix when and where that specific defect fits in the priority queue, as well as taking into account how long each defect will take to fix. If testers are using a requirements management tool they will also be able to trace a fault back to its original requirement, as well as analysing whether there any similarities to defects found by other testers. By tracing a path back to the requirement, the testers will be able to see what impact the failure will have on other elements of the project. The tester can then feedback this information to the project manager and developer responsible for the requirement, so that they can make adjustments to the code written or maybe even revise the initial requirement.

During this process, it is also important for testers to remember that after fixing a fault or changing the application, it will need retesting. This is where traceability is particularly critical – if testers do not understand which requirements these tests trace back to, they may run superfluous tests which will fail because the project does not meet a requirement, because that requirement no longer exists. In this case, test failure is a wake-up call for testers to put correct traceability procedures in place so that they do not waste any further time running unnecessary tests.

## Impact Analysis

Once a defect is found, the development team will make changes to the systems and code in order to rectify the problem.

The development team will then pass this 'fix' to the testing team, to run tests to prove its reliability and stability. It is at this point that tracing test defects back to requirements really shows its worth. By tracing both the defect and the 'fix' back to the

original requirement the team can gain a thorough understanding of the impact the 'fix' will have on the system. The test team can then prepare and run tests on all impacted parts of the system. Without tracing defects and fixes back to requirements it is very difficult for testers to ensure that they are testing all parts of a systems that have been impacted by a fix.

## Conclusion

By tracing test defects back to requirements and by putting requirements at the centre of any development project you can ensure that your testing efforts are prioritised and aligned with business needs and requirements. Tracing back to the business requirement not only ensures that you keep the project focused on meeting the goals agreed from the outset, but also that testers analyse how a test defect can impact a number of requirements due to their interdependent nature.

There have been many high profile failures in recent times. Sometimes these have happened because testing really hasn't been a priority. However, more often than not it's because people have not prioritised their testing efforts inline with their most critical business requirements. A broad-brush approach has been taken rather than time and efforts being focused on testing whether the most business critical elements of an application have been built to a satisfactory standard. By tracing back to requirements, and mapping efforts against them quality assurance teams can optimise testing programmes to ensure business needs are met. In addition, by using a requirements management tool they can automate the creation of test plans and scripts to reduce the time spent on mundane tasks and increase the time available to undertake tests.

**Gordon Alexander**
**Compuware**

Issue 25

# THE TESTER

*September 2008 Issue*

## NEXT CONFERENCE

**Thursday 18th September 2008**

# Testers of Tomorrow

- **The Nine Forgettings**
- **Value Flow Scorecards – For Better Strategies, Coverage and processes**
- **Our Most Valuable Asset Is Our Staff**
- **Integrated Volume Testing**
- **Joined Up Requirements – Business Goals to System Tests**
- **Test Managers Toolkit**
- **Software Testing As Co-dependent Behaviour**
- **Selenium – An Effective Weapon In The Open Source Armoury**
- **Project Management Lessons Learned From Pilots In Crisis**
- **How Can UML Help Us To Test**
- **Critical Thinking: A Brief Introduction And Debate**

## IN THIS ISSUE:



Please note that any views expressed in this Newsletter are not necessarily those of the BCS.

# FROM THE EDITOR

The last edition of the Tester was Pam Frederiksen's last after 12 years as the editor of the Tester. For those of you that attended the AGM, you will be aware that we did not have any nominations for the role of communications secretary and we are still looking for a volunteer to take up this role. Below is a brief summary of the role:

The role encompasses running the Networking Session at each conference, attending committee meetings and involvement in the production of The Tester. The latter requires writing the Editorial, acquiring articles on testing for inclusion and co-ordinating the assembly of content with other committee members. The role also involves being a point of contact for general queries regarding the SIGiST.

If anyone is interested in applying for this role please contact either Stuart Reid, SIGiST Chairman or Mike Hendry, SIGiST Secretary.

In the mean time, please see the exiting programme that Steve Allott has put together for our September conference.

Please remember that if anyone has any articles that they would like published in the Tester, to email them to Mike in the first instance.

Stuart Reid - Chairman

Email: sreid@testing-solutions.com

Mike Hendry – Secretary

Email: michael.hendry@unum.co.uk

**BCS SIGIST website: www.sigist.org.uk**

**SIGIST Standards Working Party: www.testingstandards.co.uk**

**SIGIST UML Testers Forum: www.umltesters.org**

**Future SIGiST conference dates**

**18th September 2008**

**9th December 2008**

## BOOKING INSTRUCTIONS

1. Download a booking form from:
   http://www.SIGiST.org.uk/bookingForm.pdf

| *FAX TO:* | *OR POST TO:* |
|---|---|
| Gemma Liddiard<br>01793 417444 | Gemma Liddiard<br><br>Specialist Groups Officer<br>First Floor, Block D<br>North Star House<br>North Star Avenue<br>Swindon<br>SN2 1FA |

# ANNOUNCEMENTS


## SOFTWARE & SYSTEMS QUALITY CONFERENCES UK

**29th and 30th September 2008, Queen Elisabeth II Conference Centre, Westminster.**

www.sqs-conferences.com/uk

**Never too busy?**

The theme for this year's SQC UK conference is the role of testing in improving productivity.

Everyone needs to pull their weight in an organisation. If a worker bee doesn't contribute to the hive, the entire colony is at risk (and no-one gets any honey). The same can be said of organisations whose departments aren't contributing effectively to the business.

With insight from many industries, SQC UK will tackle this sticky subject head on and discuss exactly what the testing community can do to boost productivity.

Our two day programme focuses on this topic and being split between management and practitioner streams will ensure a focus on issues directly relevant to you.

KEYNOTE SPEAKERS

Don't miss - Richard Noble - The man who brought the land speed record back to Britain achieving 633 mph in Thrust2

Tim Willoughby of the Local Government Computer Services Board Ireland presents on his experiences of the software eco-system from within and outside a fast moving R&D section in local government.

Brian Swain and Wayne Mallinson, will explain how to Profit From Applying Lean Principles to your Testing

Paul Gibson of IBM will bring you a case study illustrating how IBM have used Agile and Lean Principles with great results

**The Quality Advocate 2008 Award**

Amsphere and SQS are sponsoring The Quality Advocate 2008 award at this year's Software and Quality Conference (SQC) 2008 (29th and 30th September, Queen Elizabeth Conference Centre, Westminster).

We are looking for the person, who in your opinion, deserves recognition for outstanding performance in the field of software testing and quality assurance.

We are offering a prize of £1000 for the successful candidate and a prize of a Wii to the person who nominates the winner.

The prize will be awarded at the conference and the winner will also have free entry to the conference.

To register your nomination, send an email to uk@sqs-conferences.com including the name and email address of the nominee and nominator and a maximum of 50 words explaining why your nominee should win the award.

Registration closes on 12th September

We look forward to receiving your nominations.

# SIGIST Library

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

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

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

If you would like to know more about the library and books available, or for any queries, please contact Sue Atkins on 01697 748 748 or email her at siglib@iotest.com. Alternatively, download the book loan form on the SIGIST website www.SIGiST.org.uk. Happy Reading!

# PROGRAMME COMMENTARY: TESTERS OF TOMORROW

## Stephen Allott, Programme Secretary

I trust that by the time you read this you will have enjoyed a long hot English summer break, reduced your carbon footprint a little and read one or two new books on software testing. You'll be ready by now, I hope, to enjoy our autumn conference packed full of new ideas and one or two surprises as well.

The theme I have chosen for September 18th is ***Testers of Tomorrow*** which is intended to ask the question "what should we be doing to develop our skills, knowledge and competencies to deal with the ever increasing application complexity and business demands of our customers?"

I am honoured to be able to welcome as our keynote speaker from the USA the very knowledgeable and hugely entertaining Lee Copeland of SQE (Software Quality Engineering). If you haven't heard Lee speak about co-dependent behaviour before you are in for a real treat, and if you have, well I'm sure you'll enjoy his newest presentation "The Nine Forgettings" which will help both you and your organisation to grow.

I'm also delighted that Neil Thompson & Mike Smith have agreed to present their excellent talk from STARWest on Value Flow Scorecards. This is perhaps a new way to look at developing better test strategies, improving test coverage and your processes. I also know you will not want to miss hearing from the very experienced Martyn Caswell talking about a company's most valuable asset – its staff.

At our last conference in June, we heard how an airport tested its baggage handling systems. We stay on the theme of baggage but this time it's the trains, Eurostar to be precise. We're very fortunate to have Paula Longuehaye from Eurostar UK Ltd to tell us how she had to find "passengers" for five days of integrated volume testing.

Finally, joining it all together with a requirements case study from a major UK bank is John Cheesman, Principal Consultant with Strata Software.

**Please don't delay – book today at www.sigist.org.uk**

These one day events are becoming ever more popular. Attendance is up considerably on last year with 189 participating in the June conference. Please don't delay, book now to secure your place and avoid disappointment. The workshops sell out quickly and numbers are strictly limited to 12 or 25 participants depending on your choice. **Please note** (because people ask me every time) that the workshops run alongside some of the talks and so you cannot do both. You are testers so please read the specification carefully before you sign up.

The September workshops look so good I think you may want to try and attend them all (why not bring a colleague and swap notes). Maybe next time we can run a workshop on decision making – any takers?

Gwen Stuart, now with TCS, is going to take advantage of our special 15 minute session in the afternoon which I have renamed The Share Point. She'll share with us her test manager's toolkit. If there's something you would like to share with us, experiences, new ideas, thoughts, and even gripes please get in touch and get it off your chest. Ideally I'd always like to offer this slot in future conferences to first time or relatively inexperienced speakers.

# NEXT MEETING – PROGRAMME

## BCS SIGIST – Testers of Tomorrow

**Thursday 18th September 2008**
**Royal College of Obstetricians and Gynaecologists**
**27 Sussex Place, Regent's Park, London NW1**

| | | | |
|---|---|---|---|
| **08:30** | Coffee & Registration, Exhibition opens | | |
| **09:10** | **Introduction and Welcome**<br>Stuart Reid, SIGIST Chairman | | |
| **09:15** | Opening Keynote<br>**The Nine Forgettings**<br>Lee Copeland, Software Quality Engineering, USA | | |
| **10:15** | New ISTQB Advanced Level Examinations, Geoff Thompson, UK Testing Board | | |
| **10:30** | **Networking session and commercial break** | | |
| **10:45** | Opportunity to visit the exhibition during the tea/coffee break | | |
| **11:15** | Value Flow Scorecards: for better strategies, coverage and processes<br>Neil Thompson, TiSCL and Mike Smith, TSG | Workshop M1<br>Selenium: an effective weapon in the Open Source Armory<br>Komal Joshi<br>Atlantis Software | Workshop M2<br>Project management lessons learned from pilots in crisis<br>Lee Copeland<br>SQE, USA |
| **12:00** | Our most valuable asset is our staff<br>Martyn Caswell<br>Independent Consultant | | |
| **12:45** | Opportunity to visit the exhibition during the lunch break | | |
| **13:45** | Integrated Volume Testing<br>Paula Longuehaye<br>Eurostar UK Ltd | Workshop A1<br>How can UML help us to test?<br>Richard Warden<br>Software Futures | Workshop A2<br>Critical Thinking: A brief introduction and debate<br>Paul Gerrard<br>Aqastra |
| **14:30** | Joined-up Requirements: Business goals to system tests<br>John Cheesman<br>Strata Software Ltd | | |
| **15:15** | Opportunity to visit the exhibition during the tea/coffee break | | |
| **15:45** | **The Share Point**<br>Test Managers Toolkit, Gwen Stewart, TCS | | |
| **16:00** | Closing Keynote<br>**Software Testing as Co-dependent behaviour**<br>Lee Copeland, Software Quality Engineering, USA | | |
| **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.

# ABSTRACTS AND BIOGRAPHIES

## Opening Keynote Speaker: The Nine Forgettings

### Lee Copeland, Software Quality Engineering, USA

People forget things. Simple things like keys and passwords and the names of friends long ago. People forget more important things like passports and anniversaries and backing up data. But Lee Copeland is concerned with things that the testing community is forgetting — forgetting our beginnings, the grandfathers of formal testing and the contributions they made; forgetting organizational context, the reason we exist and where we fit in our company; forgetting to grow, to learn and practice the latest testing techniques; and forgetting process context, the reason that a process was first created but which may no longer exist. Join Lee for an explanation of these nine forgettings, the negative effects of each, and how to use them to improve our testing, our organization, and ourselves.

*With more than thirty years of experience as an Information Systems professional at commercial and nonprofit organizations,* **Lee Copeland** *has worked in applications development, software testing, and software process improvement. Lee has developed and taught numerous training courses on software development and testing issues and is a well-known speaker with Software Quality Engineering. The author of the popular reference book,* A Practitioner's Guide to Software Test Design, *Lee presents at software conferences around the world. He is a frequent contributor to StickyMinds.com and managing technical editor for* Better Software *magazine*.

### New ISTQB Advanced Level Examinations
### Geoff Thompson, UK Testing Board

ISTQB (International Software Testing Qualification Board) launches its 3 Advanced role based exams (Test Manager, Test Analyst and Technical Test Analyst) in the UK in September this year. The UK Testing Board (UKTB) is the UK based delivery arm of the ISTQB, who amongst other things, have responsibility for the role out of ISTQB exams into the UK. This short presentation will clarify the ISTQB exam details and provide an overview of the UK Testing Board.

***Geoff*** *is the Consultancy Director for Experimentus Ltd, a leading Software Quality Management consultancy based in the UK. He has over 20 years experience of test analysis, through to Test Management and Process Improvement. He is also a trained assessor and regularly performs Test Maturity Assessments (using TMMi). Geoff helped write the original ISEB Foundation syllabus, and chaired the working party that created the ISEB Practitioner syllabus in 2002. Working with a small international team, Geoff helped create the ISTQB, worked on both the development of the Foundation and Advanced exams and currently represents UK on the board.*

*He was a founder member of the TMMi Foundation and is Vice Chairman and Treasurer of the BCS SIGiST (Specialist Group in Software Testing) in the UK. Geoff also coauthored the largest selling testing book on www.amazon.co.uk – ISEB – A Software Testing Foundation. Geoff is a popular speaker at testing conferences such as EuroSTAR, SIGiST, SQC (UK and Germany), SEETest and Test2008 India*

### Networking Session and Commercial Break

As many of you know, I'm very keen to ensure that all the talks, presentations and workshops stick to the testing issues. However, for this short networking and commercial break session, anything goes (well, almost anything!). So you can advertise a job, tell us about your skills, inform us of an upcoming conference or event and

generally make the BCS specialist group in software testing aware of your products and services. It's a popular slot so only one person per company, please and just a couple of minutes each otherwise we'll all miss lunch.

## Value Flow Scorecards: for better strategies, coverage and processes
## Neil Thompson (TiSCL) and Mike Smith (Testing Solutions Group)

How do you know what your tests cover? Do your stakeholders know, and are they happy? Is your testing effective and efficient? Is it aligned to the needs and wants of your stakeholders? You will probably have heard these questions many times before, but were they satisfactorily answered? How did the answers relate to the context of your project / product?

In many industries, effectiveness and efficiency already means "lean" thinking and processes, or Goldratt's Theory of Constraints (ToC). But in the information systems industry, only the agile people seem to be using these concepts (yet). Neil argues that they are useful anywhere, and has spoken before on applying ToC to improve information systems lifecycles whether agile or not. Mike has already presented on Balanced Scorecards in IS. We now fully integrate these two respected structures, giving a powerful, versatile, simple-to-use framework for:

- tailoring test policies to organisation objectives, and balancing/improving test strategies and plans accordingly;
- separating "what" (test analysis) from "how" (test design) via test conditions, reviewed by stakeholders for coverage;
- treating the SDLC as a flow of value-adding, from raw materials (requirements) to live software.

We extend Kaplan & Norton's cascading BSC of objectives, lag/lead measures, targets & initiatives, incorporating:

- SMART/GQM indicators;
- IS quality views financial, customer, product, process and improvement (after Isabel Evans);
- 6-Sigma's chain of quality/risk, adding the supplier view;
- our treble-V-model, distinguishing validation-verification and leveraging test analysis (e.g. exploratory);
- Goldratt and systems thinking.

Although it integrates many concepts, this is a simple method to use - a table with objectives, measures, targets and initiatives as rows, and columns which align to the quality views for each step in the value flow. Use repositionable notes to clarify your thinking within and between cells. Benefits include:

- more complete, aligned and useful test policies, strategies and plans (avoiding mindless cut-and-paste);
- more appropriate and risk-focused test coverage, inspired and agreed by stakeholders (instead of "n-thousand test cases but what do they do?");
- process improvement which is tailored to your particular symptoms, values and context (but still fits within structure of TPI®, TMM™ etc if you wish).

***Neil Thompson*** *is an independent testing consultant and manager, co-author with Paul Gerrard of the 2002 book "Risk-based e-business testing". Over 30 years in IS, first with a computer manufacturer, then two leading software houses, an international user organisation, ten years as a management consultant with global firms, then independent since 1998. Wide and international perspective through diverse roles including programmer, systems analyst, maintainer and project manager. Neil spoke at the first EuroSTAR in 1993, then again in 1994, 1999, 2002, 2004 (best paper award) and 2006. Has presented to other bodies and conferences, including SIGiST,*

*STAREast (2003) and STARWest (2007 with Mike Smith).*

***Mike Smith** is MD of Testing Solutions Group (TSG) and has a broad background in systems development and testing stretching back over 30 years. He became an independent consultant in 1984, working on critical financial applications. Mike is the original author of the T-Plan test process management tool, and founded ImagoQA Ltd which was the largest independent test consultancy in the UK, also operating in the USA and Australia. Mike has authored and presented on test process, test management, IT governance and information traceability, notably at the first STAR conference (1992) and STARWest (2007). He holds leading roles in The UK Testing Board and ISTQB (International Software Testing Qualifications Board).*

## Our most valuable asset is our staff
## Martyn Caswell, Independent consultant

You hear it all the time "Our most valuable asset is our staff" yet how many companies actually put these words into practice? Recruitment nowadays can take up loads of your valuable time, money and resources so why do it when we can surely do better by simply developing and retaining our staff? Having managed large numbers of people directly for the majority of my career I have seen treatment of staff that borders on the edge of insanity – and is anyone therefore surprised when the member of staff leaves?

In this presentation, based on my 25 years of experience in staff management, I am exploring what has worked for me; I will share with you some of the tools and methods I have used to hugely reduce the attrition rate in my organisation.

How good is morale in your team? Could you improve it? What is stopping you? What are the factors that cause it to improve or worsen? What can YOU do about it? How can YOU influence your superiors that there is perhaps a better way of operating?

I hope that I will give you some thoughts to follow, some avenues to explore – or at least to provoke your conscience to discuss these issues within your organisation – or failing all this, that there are some amusing stories that you will not think possible.

*The majority of **Martyn Caswell's** career has been in the financial sector with the first 15 years spent working in high street banking. During the next 15 years he rose to a senior position in the bank where he specialised in software testing and quality assurance, often presenting at board level. Throughout his career he has developed a keen interest in staff matters – especially. This interest in people has continued since he left NatWest in 2004. Martyn has worked as a consultant for ElectroMind helping to develop soft skills training programmes and he has become increasingly involved in Education – specifically the linkage between Business and Education.*

## Integrated Volume Testing at Eurostar UK
## Paula Longuehaye, Eurostar UK Ltd

On 14th November 2007, Eurostar trains began running from St Pancras International on the new purpose-built high speed line to the Channel Tunnel. This followed an overnight transfer of the entire operation from Waterloo International.

The date of the move had been publicly announced one year in advance. All eyes would be upon Eurostar, and it was vital that the new operation should run as seamlessly as possible. This meant that every aspect of the operation – systems, equipment, procedures, staff familiarisation – must be ready for the move.

Eurostar's project director recognised that whilst all these elements can be tested in isolation, readiness is not proven until every aspect has been tested and shown to work together over a realistic time period with a realistic number of people involved. This was the rationale behind 'Integrated Volume Testing'.

In this presentation, we will look at this rationale in a little more detail, outline the planning that went into IVT, the challenges that were faced, and review the success of the exercise in relation to its objective.

***Paula Longuehaye*** *is the Environment and Energy Programme Manager at Eurostar where she has worked for the past 14 years. She has had a variety of challenging roles, from Customer Services Duty Manager, running the busy terminal at Waterloo International, to Commercial Project Manager, managing the implementation of the commercial aspects of Eurostar's move to St Pancras International and on to HS1. In June 2007 Paula was asked to organise the supply of 'passengers' for Eurostar's 'Integrated Volume Testing', a period of 5 days of dress rehearsals which preceded the move. It was a challenging experience for everybody involved, but played an invaluable part in the subsequent success of the new terminal.*

## Joined-up Requirements: Business Goals to System Tests
## John Cheesman, Strata Software Ltd

Getting test requirements right is a difficult business. This is partly due to the fact that the business, analysts and testers have different perspectives on requirements and how they should be organised and mapped, and partly due to the fact that requirements change so the organisation, mappings are priorities are constantly changing.

This presentation summarises an approach to structuring requirements which provides traceability between the business objectives of a project all the way through to the detailed test requirements on the software. This traceability structure enables multi-level project status checks, prioritisation and scope management, and provides a basis for risk-based testing and agile application development.

The approach is illustrated with a case study from a major UK bank using Compuware's requirements management tool (Optimal Trace) and HP's test management tool (Test Director).

***John Cheesman*** *is a Principal Consultant with Strata Software Ltd., specialists in Requirements management solutions and services. John specialises in business analysis, software specification and process-improvement, with a particular focus on pragmatic tool support. In former roles, John was European CTO for WebGain, and ran the UK Labs for Sterling Software's tool division where he was influential in the development of the Unified Modeling Language (UML). John is a regular speaker on analysis, specification and process topics and co-authored the book "UML Components" – a practical architecture and specification process, which has been published in 4 languages.*

## The Share Point: Test Managers Toolkit
## Gwen Stuart, TCS (Tata Consultancy Services)

Our very special fifteen minute session will hereinafter be called The Share Point, where new and relatively inexperienced presenters will have the opportunity to share their ideas, thoughts and suggestions with us.

The aim of this talk, Test Managers Toolkit, is to present a collection of tools and techniques that have been used successfully on projects to aid delivery. Focusing on the split between what needs to be reported and what the test manager needs to know to ensure that the project stays on track (or that any deviation happens in a controlled manner!). The toolkit covers both test specific and project deliverables, and which items are most relevant for particular stages in the project lifecycle.

***Gwen Stewart*** *is a Senior Test Manager at TCS (Tata Consultancy Services) and has 11 years experience in IT working in development, application support, testing, test environment support, test management and test process improvement. This has given me a wide view of all aspects of the development delivery lifecycle and an appreciation of the viewpoints and requirements of different customers at various points in the project timeline.*

## Closing Keynote: When Helping Doesn't Help – Software Testing as Co-dependent Behaviour

### Lee Copeland, Software Quality Engineering, USA

Vague requirements, undocumented design, poor code, and impossible schedules – the typical complaints of today's developers. Who's fault is it? It's "theirs," of course, clients, users, and managers. But could it also be ours? Could we be part of the problem? Codependent behavior is defined as "a way of getting needs met that doesn't get needs met. We do all the wrong things for all the right reasons." When we agree to develop systems without proper requirements we are teaching that requirements are not really necessary. When we agree to absurd schedules we are teaching that our legitimate needs do not matter. Wait! We may be part of the problem after all! This presentation will enable participants to understand the various aspects of codependency, recognize codependent behavior in themselves and others, evaluate the negative effects of their codependent behavior, and respond more appropriately through establishing their own personal boundaries of behavior.

*With more than thirty years of experience as an Information Systems professional at commercial and nonprofit organizations,* **Lee Copeland** *has worked in applications development, software testing, and software process improvement. Lee has developed and taught numerous training courses on software development and testing issues and is a well-known speaker with Software Quality Engineering. The author of the popular reference book,* A Practitioner's Guide to Software Test Design, *Lee presents at software conferences around the world. He is a frequent contributor to StickyMinds.com and managing technical editor for* Better Software *magazine*.

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# WORKSHOPS

Please sign up early for these special interactive sessions as places are strictly limited to 12 participants on workshops M1 and A1 and 25 participants on workshops M2 and A2: this is due to the room sizes so cannot be altered on the day.

Workshops M1 and M2 run in the **morning** and A1 and A2 run in the **afternoon**.

| Ref | Presenter | Workshop Title | What talks will I miss? | |
|---|---|---|---|---|
| M1 | Komal Joshi | Selenium: an effective weapon in the Open Source Armory | Value Flow Scorecards | Our most valuable asset is our staff |
| M2 | Lee Copeland | Project management lessons learned from pilots in crisis | | |
| Lunch Break | | | | |
| A1 | Richard Warden | How can UML help us test? | Integrated Volume Testing at Eurostar | Joined up requirements |
| A2 | Paul Gerrard | Critical Thinking: A brief introduction and debate | | |

The exhibitors sometimes offer an impromptu discussion or presentation during the lunch period and these will be announced in the morning networking session. Please listen out for announcements.

### Workshop M1 Komal Joshi
### Selenium: an effective weapon in the Open Source Armory

Selenium is one of the best tools for testing web applications, because of its ability to test java scripts. It's an **open source tool** and there are many variants of Selenium, serving different needs and supported by an active open source community. In this

workshop, we will discuss two most important and widely used tools from Selenium called Selenium IDE and Selenium RC.

Selenium IDE is a firefox plugin and has the ability to record user actions on any web page. These user actions can be recorded in HTML table like format called Selenese or they can be exported in any language (Well most of !!) of your choice. Selenium IDE can identify or locate elements on the web page using XPath, DOM signature or JQuery, which ensure that your automation is robust and will be very easy to maintain. Also, its simple and intuitive interface makes it very easy for novice users to quickly make progress. One of the main disadvantages of using Selenium IDE is, it's only available for firefox.

Selenium RC is superior to Selenium IDE because it is not limited to only firefox and it allows you to write automation in most of the higher level languages including Java, C-Sharp, Python, Perl, Ruby, and so on. This allows testers to write automation in the same language as that used by the development team. Also, since it is open source, if you want to develop scripts in some different language you just need to write a client driver for that language. Ability to script in these higher level languages ensures that we have access to the rich feature set and libraries provided by these languages. This ensures that automation is scalable, robust and can be integrated very easily with the development testing efforts, cruise control and so on.

This workshop will familiarize you with Selenium, its philosophy and there will be a practical demonstration of how it can be used to test web applications.

***Please note*** *that to gain maximum benefit from this workshop you should bring along your laptop with firefox installed.*

***Komal Joshi*** *started her career with IBM Rational where she worked on the entire Rational Product Suite including Rational Rose, Rational Clear Case, Rational Portfolio Manager and Rational Method Composer (the next generation of Rational Unified Process). She has been very active in generating intellectual property and her two disclosures were rated as publish and are published on IP.com. One of her disclosures related to Automation tools was rated successfully for filing patent by IBM. Komal has been actively maintaining a website dedicated to software testing www.testinggeek.com. Currently she has started her own venture Atlantis Software Limited offering services of software test consulting, test automation outsourcing, and web development. Atlantis Software Limited is also a reseller of IBM Rational Robot proxies. Komal has presented papers in many international software conferences such as* ***Rational User Conference***, ***Software Quality Symposium Asia Pacific****. Recently her paper has been selected for* ***Google Test Automation Conference*** *to be held on 23 Oct 2008 in Seattle, USA.*

## Workshop M2 Lee Copeland
## Project Management Lessons Learned from Pilots in Crisis

*Controlled Flight Into Terrain* is a marvelous book containing case studies of poor decisions made by pilots under extreme pressure. CFIT is an accident in which an otherwise serviceable aircraft, under the control of the crew, is flown (unintentionally) into terrain, obstacles, or water, with no prior awareness on the part of the crew of the impending collision. Based on three CFIT case studies, Lee examines what mistakes the crew made, why their decisions seemed correct at the time, and the forces operating on the decision making process. Then he takes those discoveries and applies them to our world of software development. Some learnings include consider entering a holding pattern, have a Plan B ready, beware of the loss of situational awareness, trust your co-workers but not too much, be aware of time dilation, and other key ideas.

*With more than thirty years of experience as an Information Systems professional at commercial and nonprofit organizations,* ***Lee Copeland*** *has worked in applications development, software testing, and software process improvement. Lee has developed and taught numerous training courses on software development and testing issues and is a well-known speaker with Software Quality Engineering. The author of the popular reference book, A Practitioner's Guide to Software*

*Test Design, Lee presents at software conferences around the world. He is a frequent contributor to StickyMinds.com and managing technical editor for Better Software magazine.*

## Workshop A1 Richard Warden
## How can UML help us test?

You are starting a new project and learn that the analysts are using UML to capture and model the requirements. You recall from your Foundation course that Use Cases are taught as a test technique, but you need to know much more if you are going to work with UML.

In this introductory workshop we will look at the most common models and explore how we can use them for test analysis and design. We can apply well-known test design techniques, such as those taught in ISEB/ISTQB training, to examine the behaviour described in more depth. Starting with Use Cases we will add models such as State, Sequence and Activity to increase test coverage. This workshop is for testers with no prior knowledge of UML. All materials will be provided on paper. If you have VISIO Professional (with the software templates that include UML) we can provide electronic versions, including UML V2 symbols.

***Richard Warden** is an independent IT consultant who has worked in the industry for more than 30 years. He started life as an analyst, systems designer and programmer and has led programming teams, developed and run test teams and served time as a project manager. Richard first came into contact with UML by chance in 1997 when, to his surprise, he was asked to be test manager for a new UML-based trading system for the Swiss Exchange. He was told the fact that he knew nothing about UML or financial trading systems was irrelevant – it was the testing bit they needed! Since then Richard has developed and delivered UML training and consultancy given to a range of clients. Richard sees his work these days as helping build bridges of understanding between developers and testers. He is an accredited tutor for both Foundation and Practitioner certificates in Software Testing.*

*Richard Warden's company website is at www.softwarefutures.ltd.uk.*

## Workshop A2 Paul Gerrard
## Critical Thinking: A Brief Introduction and Debate

Do you find it hard to critique the thinking or work of other people? Can you tell the difference between reason and rhetoric? Can you reason with others to make your point?

Most students take critical thinking modules that encourage them to challenge their teachers and the materials they use. At long last (some might say), critical thinking is gaining favour in the business community. Testers exist in a world of uncertainty where few things are what they seem. Critical thinking skills can help you to separate rhetoric from reason and arrive at your own conclusions about the world. They also help you to be assertive and better able to 'make your case' effectively.

This workshop is in two parts: firstly we'll look at the basic ideas of critical and crooked thinking; then we'll debate some topics in testing. If there is a testing mantra, statement or assertion made by a testing expert, book or training syllabus that troubles you - let's debate it. If there is a practice you want to use but can't convince your colleagues it's a good idea, bring it along and we'll discuss it.

***Paul Gerrard** is the founder and Principal of Gerrard Consulting and Co-Director of Aqastra. He has conducted assignments in all aspects of Software Testing and Quality Assurance. Previously, he has worked as a developer, designer, project manager and consultant for small and large developments using all major technologies and is the webmaster of gerrardconsulting.com and several other websites.*

*Paul has degrees from the Universities of Oxford and London, is Founding Chair of the ISEB Tester Qualification Board and the founder/host of the UK Test Management Forum conferences. He is a*

*regular speaker at seminars and conferences in the UK, continental Europe and the USA and has won several "Best Presentation" awards.*

*Paul has written many papers and articles, most of which are on the gerrardconsulting.com website. With Neil Thompson, Paul wrote "Risk-Based E-Business Testing" – the standard text for risk-based testing.*

**… and Finally**

I would like to formally thank Mo Shannon of BT for her help with the September conference programme. We're all volunteers on the committee and support from major organisations is always very much appreciated.

As always I appreciate our sponsors contribution to this event; please do go and see their exhibition stands, talk to them and find out what they all have to offer. Listen out for any special extra lunchtime talks that may take place on the day.

Please note that the workshops run alongside the general conference sessions and therefore you cannot possibly attend every session so why not bring along a colleague or two if your company is interested in topics and information from both the general sessions as well as the workshops.

We value your support and so please enjoy our autumn conference and remember to continue to give us your feedback; we're here to design the programme that you want with the speakers and topics that interest you, the UK testing community.

Enjoy the day – take home some new ideas, try them out and come back next year and tell us how successful you were. If you'd like to speak at a future conference please see our website or email me at stephen.allott@electromind.com or call 07734 761363.

Programme designed and created by Stephen Allott, SIGIST programme secretary.

Issue 26

# THE TESTER

*December 2008 Issue*

## IN THIS ISSUE:



**Tuesday 9th December 2008**

# Next Conference: The multi-skilled tester

## Keynote Presentations

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- **How we test at Microsoft**

## Track Sessions

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- **The Tester's Three Critical Cs: Criticism, Communication and Confidence**
- **Why bother with Test Strategies?**
- **Learning from the Testoff**
- **Database Regression Testing made easier with DbFit**

## Interactive Workshops

- **The Testoff**
- **Soft skills for testers**
- **Combinatorial Testing: Contextually the best practice!**

BCS

# FROM THE EDITOR

## Matt Archer, Editor

As you read this winter edition of *The Tester*, I will have been Editor for a little over a month. That leaves 4352 days before I reach Pam Frederiksen's record of 12 years! Pam's commitment to the SIGiST was outstanding. It's no surprise that under Pam's supervision *The Tester* was awarded the BCS Best Specialist Groups Magazine award and gained its exceptional reputation within the testing community.

What really makes me smile is that Pam is just one of thousands of people within the UK that are passionate about testing. If you share our passion then please join us at the next SIGiST conference on Tuesday the 19th of December, in London. Stephen Allott has organised another fantastic programme that I am certain you will enjoy, including two international keynote presentations from Bj Rollison – A Test Architect from Microsoft USA.

If you enjoy reading *The Tester*, then now is your chance to make it even better. I am currently sourcing articles for the spring edition of *The Tester* and I invite you all to contribute. 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. If you're not sure whether your material is ready for a wider audience, feel free to email your work-in-progress or a brief abstract and we can work from there.

I look forward to seeing you all at the conference next month and wish you all a Merry Christmas and a Happy New Year.

Matt Archer

The Tester Editor
BCS Specialist Group in Software Testing
matt.archer@ivarjacobson.com

# WEBSITE LINKS

**BCS SIGiST website: www.SIGiST.org.uk**

**SIGiST Standards Working Party: www.testingstandards.co.uk**

**SIGiST UML Testers Forum: www.umltesters.org**

# NEXT SIGIST CONFERENCE DATE

**Tuesday 9th December 2008**

## BOOKING INSTRUCTIONS

If you would like to attend the December conference, please visit www.bcs.org/events/registration to access our online booking and payment system.

Alternatively if you wish to pay by cheque, a booking form can be downloaded from http://www.bcs.org/upload/pdf/sigist-booking-form.pdf.

If you have a query relating to your booking please contact
Gemma Liddiard, Specialist Groups' Officer, Tel: (01793) 417656,
Email: gemma.liddiard@hq.bcs.org.uk.

## DATES FOR YOUR 2009 DIARY

When you get your Christmas diaries please make a note of our conferences for 2009 as attendance is on the increase and you must book early to secure your place.

| 2009 conference dates |
|---|
| Tuesday 17th March 2009 |
| Wednesday 17th June 2009 |
| Tuesday 22nd September 2009 |
| Thursday 10th December 2009 |

## TEST EDUCATION FOR FREE

Our SIGiST librarian, Sue Atkins, has kindly agreed to bring a selection of books from the SIGiST library to the December conference. For anyone attending, this presents an excellent opportunity to browse a range of testing books and identify any gaps in your testing knowledge. If you see something you like, you can take it away and read it in you own time – free of charge. The books will be displayed outside of the main hall.

# SIGiST Library

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

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

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

If you would like to know more about the library and books available, or for any queries, please contact Sue Atkins on 01697 748 748 or email her at siglib@iotest.com. Happy Reading!

# PROGRAMME COMMENTARY: THE MULTI-SKILLED TESTER

## Stephen Allott, Programme Secretary

The good tester develops skills for life, not just for Christmas. So before you break up for a well earned Christmas holiday I hope you are able to find time to enjoy our festive programme which has been designed to make you think about the skills you might need as a tester.

My experience as a consultant over this past year has been that as well as having to learn about ever more complex applications, test tools and techniques, testers are also finding they need to know a little more about the softer skills to help them do their jobs.

We kick-off the December conference with a potentially controversial talk on Exploratory Testing from Microsoft's engineering excellence leader, Bj Rollison. Matt Archer will then repeat his very well received talk from the SQC conference in October on test documentation and the legendary Dorothy Graham will explain the three critical Cs of testers (criticism, communication, and confidence). She's also offered to sing some festive carols during the morning break and after lunch.

Look out for our practical testing session in the morning workshop slot facilitated by Stewart Noakes and his team from TCL Group. If you want to try your hand at Exploratory Testing (ET) and maybe win a prize sign up early for this session as numbers are strictly limited to the first 25 participants.

After lunch, Geoff Thompson will use a real life case study to discuss the merits of test strategies and Stewart will provide some feedback and lessons learned from the testoff workshop.

We've two other great workshops in the afternoon, our slot for new and upcoming speakers (The Share Point) and a closing talk from Bj entitled "How We Test at Microsoft".

Please book early, especially if you want to attend a workshop and please get in touch with myself or my new deputy, Mo Shannon from BT, if you would like to speak in 2009. Look out for our call for papers for 2009.

I would like to wish you all a very Happy Christmas and a Prosperous New Year.

Stephen Allott

Programme Secretary
BCS Specialist Group in Software Testing
stephen.allott@electromind.com

**Please don't delay – book today at www.SIGiST.org.uk**

These one day events are becoming ever more popular. Attendance is up considerably on last year with 189 participating in the June conference. Please don't delay, book now to secure your place and avoid disappointment. The workshops sell out quickly and numbers are strictly limited to 12 or 25 participants depending on your choice. **Please note** (because people ask me every time) that the workshops run alongside some of the talks and so you cannot do both. You are testers so please read the specification carefully before you sign up.

# NEXT CONFERENCE – PROGRAMME

## BCS SIGiST – The Multi-Skilled Tester

**Tuesday 9th December 2008**
**Royal College of Obstetricians and Gynaecologists**
**27 Sussex Place, Regent's Park, London NW1**

| | | | |
|---|---|---|---|
| **08:30** | Coffee & Registration, Tools & Services Exhibition opens | | |
| **09:15** | **Introduction and Welcome**<br>Stuart Reid, SIGiST Chairman | | |
| **09:30** | Opening Keynote<br>**Exploratory Testing Exposed**<br>Bj Rollison, Microsoft, USA | | |
| **10:30** | **Networking session and commercial break** | | |
| **10:45** | Opportunity to visit the Tools & Services Exhibition and browse a selection of testing books from the SIGiST Library, during the tea/coffee break | | |
| **11:15** | **A thinking framework for context driven test documentation**<br>Matt Archer<br>Ivar Jacobson International | **Workshop M2**<br>**Testoff**<br>Stewart Noakes and team<br>TCL Group | |
| **12:00** | **The Tester's Three Critical Cs: Criticism, Communication, Confidence**<br>Dorothy Graham | | |
| **12:45** | Opportunity to visit the Tools & Services Exhibition and browse a selection of testing books from the SIGiST Library, during the lunch break | | |
| **13:45** | **Christmas Testing Carols**<br>Dorothy Graham and friends | | |
| **14:00** | **Why bother with Test Strategies?**<br>Geoff Thompson<br>Experimentus | **Workshop A1**<br>**Soft Skills for Testers**<br>David Hornsby<br>Independent | **Workshop A2**<br>**Combinatorial Testing: Contextually the best practice!**<br>Bj Rollison<br>Microsoft, USA |
| **14:45** | **Results of the Testoff**<br>Stewart Noakes<br>TCL Group | | |
| **15:15** | Opportunity to visit the Tools & Services Exhibition and browse a selection of testing books from the SIGiST Library, during the tea/coffee break | | |
| **15:45** | **The Share Point, Colin Moore-Hill, RWE Systems**<br>Database Regression Testing - made easier with DbFit: a Next Generation Testing Tool | | |
| **16:00** | Closing Keynote<br>**How we test at Microsoft**<br>Bj Rollison, Microsoft, USA | | |
| **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.

# ABSTRACTS AND BIOGRAPHIES

## Opening Keynote: Exploratory Testing Exposed

### Bj Rollison, Microsoft, USA

Exploratory testing as defined as "simultaneous learning, test design, and test execution" can be a powerful approach to testing in certain contexts. And, some testers continually promote exploratory testing (ET) as an approach that "finds important bugs fast" and "it can be orders of magnitude more productive than scripted testing." But, are these claims based on empirical evidence or emotional exaggeration? Since all approaches to testing are essentially exploratory in nature, the ET methodology as defined above is often contrasted with 'scripted testing' or the execution of test cases that are designed in advance and include finite steps to compare the actual result against an expected result. But, recent scientific research shows there is "no significant difference" in the number of defects found, or in the number of high severity type defects. A soon to be published study also concludes that prolonged ET does not significantly increase the probability of detecting additional defects within a given context. These studies are not suggesting that exploratory type testing is not a useful approach. In fact, because virtually all testing involves exploration it would be foolish to discount its value in the testing process. The effectiveness of ET and scripted tests is based on the skill, experience, and knowledge of the tester, and both approaches are effective in identifying different categories of issues. This talk dispels the unsubstantiated claims of ET based on scientific case studies, but also discusses how scripted test cases, exploratory type testing, and other approaches can be used in conjunction to more effectively test software and overcome the petulant pesticide paradox.

***Bj Rollison*** *is a Test Architect with Microsoft's Engineering Excellence group where he designs, develops, and teaches technical training to Microsoft's test and development engineers. He also provides consulting services on testing processes and adoption of best practices. Bj got his first computer in 1979 and taught himself Q-Basic, and started his professional career at a small OEM company in Japan in 1991 building custom solutions for small businesses. In 1994 he joined Microsoft and worked on several key projects including Windows 95 and Internet Explorer, and also served as the Director of Test responsible for managing the training programs for more than 6000 testers. Bj also teaches software testing courses at the University of Washington, sits on the advisory boards at the University of Washington and Lake Washington Technical College, and is co-author of "How We Test At Microsoft."*

## A Thinking Framework for Context Driven Test Documentation

### Matt Archer, Ivar Jacobson International

Whenever the topic of documentation is discussed, it always reminds me of the story of Goldilocks and the Three Bears. In this story, a family of three bears live in a house in the woods. One day, the bears go for a walk, leaving their house unlocked. While they are out, Goldilocks enters the house and discovers three bowls of porridge. The bowls have been heated to each bears' specific taste so when Goldilocks samples the porridge she finds that the father's porridge is "too hot", the mother's porridge is "too cold", but the cub's porridge is "just right".

Many testers experience a similar problem when using other testers' documentation as a basis for their own, only to discover that it results in "too much" or "too little"

information and does not fulfil their own written communication needs. Goldilocks could easily move from one bowl of porridge to another, however, we aren't always so fortunate, regularly finding ourselves with documentation that has become out-of-date, yet is too sparse or too unwieldy to maintain.

Working with too much or too little test documentation can significantly reduce the productivity of any test team. As testing matures as a profession, so must our ability to reason about documentation and select an approach that complements our own specific context. Hence, this talk will share a thinking-framework for making decisions that allow us to spend just the right amount of time documenting and leave the maximum amount of time for finding bugs.

The talk will begin by discussing documentation from past projects to reveal the foundation of the framework - the fact that our written communication needs move along a scale from being light and agile to formal and disciplined, depending on our context. Many factors affect our context as testers, so the second part of the talk will focus on the factors that change our written communication needs (often in relation to increasing or decreasing our use of other communication channels) and how these factors can be used to reason about the level of detail and formality of our documentation.

***Matt Archer*** *is a Test Strategist for Ivar Jacobson International and a regular speaker at software engineering events. He has taken breaks from testing to work as a project manager, analyst and developer, but his true passion will always be finding bugs. He has been involved in all aspects of testing, from creating automated tests to running process improvement initiatives. More recently, he has focused his attention on model-based testing and testing within iterative development lifecycles.*

## The Tester's Three Critical Cs: Criticism, Communication and Confidence

### Dorothy Graham

Testers are professional critics - our job is to criticize other people's work. Although criticism can have a positive meaning, it is most often taken as negative. When we communicate our criticism to other people, we are sometimes misunderstood and this can lead to serious problems, including losing confidence in ourselves.

This talk will examine how criticism and communication can be improved, to make us more effective in testing without damaging relationships. This presentation includes a communication model that helps to explain how and why personal interactions can go wrong. The "push" and "pull" styles of influencing can help us communicate better with our managers. We will look at the effect of our own confidence and how this is related to criticism and communication. We end with some tips for increasing your confidence.

- how to give (and receive) criticism effectively
- understand how communication can go wrong and how to improve it
- how to increase your confidence to be more effective in your work

***Dorothy Graham*** *has been in testing for over 30 years, and is co-author of 3 books (Software Inspection, Software Test Automation and Foundations of Software Testing).*

*Dot was the program chair for the first EuroSTAR Conference in 1993 and for the SIGIST for its first 7 years. She has been on the boards 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 is a popular and entertaining speaker at conferences and seminars world-wide and holds the European Excellence Award in Software Testing.*

## Why bother with Test Strategies?

### Geoff Thompson, Experimentus

The future of software testing depends on the approach taken by testers being more aligned with how projects are managed and not to effectively alienate themselves through their process. It is very important that we learn to be agile, and adapt to our context. This presentation will demonstrate the impact of a lack of agility, and too much dependence on the tried and tested methods we all are taught, and how the lessons learnt turned the project around and realized a significant and much needed success.

Many organizations are today adopting 'industry standard' methods for delivery. One such method is Prince2. This presentation will provide an insight into why railroading into a Prince2 environment the 'industry standard' test strategy to test case terminology does not always work.

The backbone of the presentation will be a real life case study where the presenter was responsible for implementing test process change into a Prince2 managed organisation, but it failed.

The project had a budget of £1m so you can imagine the panic that ensued when the first implementation was judged to have failed. We will look at why the implementation failed, and the actions that enabled success to be achieved.

Other examples taken from the presenter's experience of where intransient testers have held projects to ransom over process will also be explored, in an attempt to understand why this happens. This part of the presentation we will explore the way that as individuals we learn to adapt to our environments and how that impacts our ability to change whilst testing.

There are some very agile testers working within our community today doing brilliant jobs today, however, the key to the future of software testing is for test community to work together to be seen to aid not hold back progress.

***Geoff Thompson*** *is the Consultancy Director for Experimentus Ltd, he has experience of test analysis through to test programme management, assessment and process improvement, as well as quality focused strategic organisational reorganisations. He helped to write the original ISEB (Information Systems Examining Board) Foundation syllabus and chaired the working party that created the ISEB Practitioner syllabus in 2002. Working with a small international team he helped create the ISTQB (International Software Testing Qualifications Board) and currently the UK Representative to the Board and the Chairman of the UK Testing Board (see www.uktb.org.uk). He was also a founder member of the TMMi Foundation (see www.tmmifoundation.org.uk), am Vice Chairman of the BCS SIGiST (Specialist Group in Software Testing) in the UK. He is also co-author of the biggest selling testing book on www.amazon.co.uk – ISEB – A Software Testing Foundation.*

## Learning from the Testoff

### Stewart Noakes, TCL Group

The evolution of testing and how we as testers practice our craft is helped by sessions where we review what we did, learn from others and find new ways of doing things. Building on the Testoff workshop run in the morning, this presentation will look at what went well, what went badly and where we can learn from some of the cool things people did when faced with these unique testing challenges.

***Stewart Noakes****, Chairman TCL Group Ltd (www.tcl-global.com), started in testing in 1996 and has been an engineer, coach, trainer, mentor and consultant for companies including: GEC Marconi CIS, X/Team & Transition Consulting Limited (TCL). Having founded TCL in February 2000, Stewart has developed testing enterprises in the UK, USA and India and has been at the forefront of the practice development at TCL. Academically, he is a visiting lecturer at the University of Bristol, Faculty of Engineering Management, and a guest speaker at the University of Exeter for a variety of Masters and Undergraduate degree courses.*

*Read more about Stewart Noakes at the blog site: www.testingexperience.blogspot.com*

## Database Regression Testing made easier with DbFit: a Next Generation testing Tool

### The Share Point, Colin Moore-Hill, RWE Systems

I went to a SIGiST conference in September 2007 and heard the 'testobscessed.com', Elisabeth Hendrickson give a very passionate presentation called 'Test Automation: the next Generation' stating how development tools have become more powerful in the last several years with the advent of intellisense; keyword colouring; automated refactoring and tight integration with xUnit-style testing frameworks. While we've seen some huge leaps in development tools, the tools to support functional testing haven't kept pace.

One of the biggest steps forward in test automation which I am trying to include into my company's tool set are frameworks like FIT and Fitnesse that break down barriers between developers and testers or subject matter experts. While there is still a long way to go, and we're overdue for a major step forward in functional testing tools, I feel this is one such tool making moves in this direction is DbFit.

DbFit is a set of FIT fixtures which enables tests to be run directly against the Database, enabling database designers and developers to create and manipulate database objects in a relational tabular form, making testing and developing easier than xUnit style tools. Its main features are to allow regression testing of queries and SQL statements, functional testing for stored procedures and functions and to automate transaction controls and various short cut to make writing scripts easier and more efficient.

In this presentation I hope to show how easy it is to build up a set of regression tests in DbFit against an existing or new database.

**Colin Moore-Hill MBCS**, works within Corporate and Business Applications for RWE IT UK and is a *graduate of the Galway Mayo Institute of Technology, with a lifelong quality professional. Currently he is working as a Lead Technical senior test Analyst. He works with a variety of technologies, business and project styles, from Retail to Generation and Renewables. He has also previously worked within rapidly-evolving internet start-ups and more traditional large-scale enterprises. He has both manual and automated* systems *testing experience with a special interest in the involvement of testing tools for testers.*

## Closing Keynote: How we test at Microsoft

### Bj Rollison, Microsoft, USA

Microsoft ships a multitude of products in as many as 39 languages around the world. Many people are often curious as to how we do it and ask, "what process does Microsoft use to test its' software. The answer is difficult because there is no single process or approach to testing at Microsoft. This talk discusses our challenges as well as some of the common approaches and technologies used inside of Microsoft in its testing processes.

***Bj Rollison*** *is a Test Architect with Microsoft's Engineering Excellence group where he designs, develops, and teaches technical training to Microsoft's test and development engineers. He also provides consulting services on testing processes and adoption of best practices. Bj got his first computer in 1979 and taught himself Q-Basic, and started his professional career at a small OEM company in Japan in 1991 building custom solutions for small businesses. In 1994 he joined Microsoft and worked on several key projects including Windows 95 and Internet Explorer, and also served as the Director of Test responsible for managing the training programs for more than 6000 testers. Bj also teaches software testing courses at the University of Washington, sits on the advisory boards at the University of Washington and Lake Washington Technical College, and is co-author of "How We Test At Microsoft."*

## Morning Workshop M2: The Testoff

### Facilitated by... Stewart Noakes, Richard Morgan, Clare Batten and David Weston.

This Testoff is the perfect opportunity to show off your testing talents, share ideas and practices with others and have some fun doing it. Over the 90 minute session we will roll out a number of different environments, applications and gadgets for you to test in a competitive environment. Teams will be established on the day to tackle each of the testing challenges, and there will be contests for the most defects found, the best defects found and the most eccentric ('How did you ever find that?') defect.

You'll enjoy this session if you are a tester that likes to test stuff, if you are a great problem solver or if you like a challenge.

We'll give you everything you need on the day, but if you have any web tools or things you can bring on a USB key that help you with web testing that will be very useful for at least one of the items under test. You could also benefit from checking out blogs or podcasts on Exploratory Testing, Security Testing and Problem Solving.

Results from the Testoff will be presented in a special session in the afternoon where there will be an opportunity to learn from how people did things and take away useful hints and tips.

This is a practical session. Your hands will be on the keyboard! If you've never been to a Testoff before, then you can get a feel for what goes on at: https://pest.tcl.eu.com/

## Afternoon Workshop A1: Soft skills for testers

### David Hornsby, Independent Consultant

In this practical and very interactive session David Hornsby, an experienced life coach and NLP practitioner, will examine up to six different topics and themes that testers should consider adding to their soft skill set. Depending on the audience and their specific needs and requirements the depth of discussion and interaction for each topic will be tailored on the day.

***(1) Managing Change or Transition***

Change is often brought about by external forces or pressures and often against our wishes. How well do you cope with change? What strategies can you employ to help you, and others to embrace and enjoy the need to change?

***(2) Effective Communication***

Language is so much more than the words we use. Do you find that with some people it is easier to communicate than others? Want to find out why and discover the keys to effective communication? Learn the secrets of the great communicators, discover the language that is there for all to hear, but so few people hear it! Learn the skills for developing rapport, active listening and the messages you send though non-verbal communication.

***(3) Goals and Values***

How satisfied are you with your life at the moment? We tend to get used to what we have. We keep doing the same old things that we have always done and have always

worked. Our lives may be comfortable, but still there may be a nagging doubt: do I have everything I deserve right now?

***(4) Beliefs: The rules of your life***

Beliefs are the rules of your life, the rules you live by. These rules may be liberating and empowering and give you permission to get your goals and live your values. They may be obstructions, making goals impossible or leading you to believe you are not capable of getting them.

***(5) Time Management***

Do you feel the need to be more organised and/or more productive? Do you spend your day in a frenzy of activity and then wonder why you haven't accomplished much? Time management skills are so important in today's society when we are all being pressured to work harder and longer. This session will help you increase your productivity and stay cool and collected.

***(6) Effective Persuasion - or - How to Get Your own Way with Integrity***

Persuasion is a powerful force. We all rely heavily on our persuasive powers every day - whether it is trying to get people to agree with you, influencing others to make a decision, asking for something, or attempting to bring about changes of behaviour or attitude in others, your success depends on how persuasive you can be.

**David Hornsby** is a highly motivated, Professional Coach and Trainer. He has been coaching people all of his life in both personal and professional roles. A qualified Teacher and NLP Practitioner, with a Diploma Degree in Human Relations, David is also experienced in Business and Educational Management. In addition to personal coaching, David designs and runs group training programmes tailored to meet his clients' needs in all areas of Human Relations and Communication skills.

## Afternoon Workshop A2: Combinatorial Testing: Contextually the best practice!

### Bj Rollison, Microsoft, USA

Testing the interactions of complex input parameters with numerous possible variables is one of the most challenging problems we face as testers. And fault models predict that interaction between the variables of dependent parameters is a significant source of failures in complex systems.

Imagine you are assigned to test a feature with 20 parameters that are interdependent. There are 5 possible variable states for each parameter. The total number of possible combinations is greater than a half trillion; which means that at one test per millisecond it would take more than 3000 years to test all possible combinations. Which combinations do you test?

Pair-wise testing is a systematic procedure to effectively reduce the total number of tests by selecting a set of tests that evaluates each variable combination for each pair of parameters. Some people in the industry have suggested that pair-wise testing is not a 'best-practice' and provided several potential pitfalls. Unfortunately, those people failed to provide any alternative to the resolving problem of combinatorial testing, or any practical solutions to overcome the potential pitfalls.

This talk reiterates the identified potential pitfalls of combinatorial testing and provides pragmatic solutions to each potential pitfall using practical testing approaches and a freely available tool from Microsoft to overcome the difficulties sometimes encountered when applying this functional testing technique. This talk compares orthogonal arrays to coverage arrays, and then provides a detailed example of how to use a powerful, highly configurable combinatorial analysis tool to systematically test complex interdependent parameters.

***Bj Rollison*** *is a Test Architect with Microsoft's Engineering Excellence group where he designs, develops, and teaches technical training to Microsoft's test and development engineers. He also provides consulting services on testing processes and adoption of best practices. Bj got his first computer in 1979 and taught himself Q-Basic, and started his professional career at a small OEM company in Japan in 1991 building custom solutions for small businesses. In 1994 he joined Microsoft and worked on several key projects including Windows 95 and Internet Explorer, and also served as the Director of Test responsible for managing the training programs for more than 6000 testers. Bj also teaches software testing courses at the University of Washington, sits on the advisory boards at the University of Washington and Lake Washington Technical College, and is co-author of "How We Test At Microsoft."*