

PRESENTATION - Day 3 - 10/7/2007

Building a Leading QA Organization

[Shmuelik Knishinsky, Interviewee](#)



Building and positioning of the QA organization in a correct way enable to place it as a leading organization in R&D and company level. It is not so easy to perform such process and achieve the required results. Moreover it requires time and other resources that in general are very expensive. The situation is more difficult when the QA organization has a negative credit or bad stigma and it is considered as a "nice to have" in some cases throughout the PLC (Product Life Cycle) process.

The QA is considered as a major link of the PLC chain before releasing the products from the factory gate. From this place we can position the QA organization as a leader and as a significant contributor for quality improvement in the entire organization. The presentation is a combination of my self experience in performing this kind of tasks, in a different organization levels and practically presents the following elements:

- Mission & Goals definition
- Effective sale to stakeholders for achieving their support
- Professional and managerial tools
- The method
- Measurements
- The routine

Test Process Improvement - A Case Study

[Geoff Thompson, Experimentus Ltd](#)



A few years ago I was lucky enough to be given 1m and the objective of improving testing for one of the UK's leading Life Assurance companies. This presentation takes the audience through the background to the project, how it was established and what it aimed to deliver.

We will look at the project structure, how I staffed it and what issues that created. We will also take a look at some of the "political" pressures I was put under whilst trying to deliver.

The project did deliver its full agreed scope, on time and well within budget, but wasn't seen as a success by everyone.

I will show the audience where things did go wrong, and how I would do things differently next time.

I will also include my tips for a successful process improvement project. Three learning points:

- Process Improvement models and how they help
- Some simple hints & tips that could help you to reap savings in project time & effort
- Insight into how a Process Improvement project should be structured

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V Model - Adding Real Value to the Test Process

[Geoff Thompson, Experimentus Ltd](#)



All too often you hear presentations telling you that the V Model is outdated and gives no or little benefit, the new lifecycle models are always the best! Don't believe it, there is life in the old dog yet.

In this presentation I will talk through a successful practice based example of the use of the V Model on a £1.68m project. I will describe how the real strengths of the V Model (early test planning, risk based approaches and the use of the model to identify weak or missing lifecycle deliverables) were fully employed. The result was that 6 weeks were shaved off of the system test execution timeline, which in turn reduced the whole project lifecycle costs by £288,000, on a business critical piece of software that had traditionally been stuck in System test and UAT for up to 8 weeks at a time! I will talk through how the V Model principals were used to ensure that the programme had a total focus on quality, through design and build, and how without scrimping on the testing, he was able to show the added value of testing.

Three learning points:

- Understanding of how best to implement the V Model for the greatest benefit
- Some simple hints & tips that could help you to reap savings in project time & effort
- Insight into how best to employ the Fundamental Test Process

PLM-Under Hood

[Rami Azulay, Orcanos](#)

The development lifecycle has become one of the most challenging tasks for the success of high tech companies. There many methods that provides solutions and ways to implement the development process; in some cases it requires high investment in human resource and in some cases high investment in tools but not always it fulfill the needs of the organization to get as much as they can get for as little investment they put it in.

The combination of tools and methods should balance between the two and by using the encapsulation method, which create hierarchic relation between one state of the development process to the next one, we gain a true ROI which is effective and clear to the organization using that method.

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Extension of Noun and Verb Technique

[Vipul Kocher, Puretesting](#)



This paper presents an Extension of Noun and Verb Technique. This technique can help create test cases ranging in complexity from simple to very complex. The technique allows creation of scenario based tests as well as individual feature/field validation tests.

Using Quality Center as an Enterprise Methodology Tool

[Sarit Klugman, Consultant](#)

QC is mercury tool to design and manage the testing process.

The lecture will deal with the ways Quality Center supports the testing process: plan, design, detailed design and execution. Discuss techniques to use QC for all testing levels in parallel: from Unit test to Acceptance test. Give a detailed example of a testing methodology of a large company and how it was supported by the tool.

Improvement of the Testing Process using the TPI Model

[Alon Linetcki, Sela Group](#)

In the presentation I shall discuss the TPI-model for Test Process Improvement, which is based on state-of-the-art test process improvement practices observed and analyzed by Martin Pol and Tim Kooman from Sogeti Netherlands, on of the leading testing company in Europe.

The model gives practical guidelines for assessing the maturity level of testing in an organisation and for a step by step improvement of the process. The purpose of such an improvement could be reaching CMM level 3 or to have a framework for test process improvement in your organizations.

The model consists of 20 key areas, each with different levels of maturity. The levels of all key areas are set out in a maturity matrix. Each level is described by several checkpoints. Improvement suggestions, which help to reach a desired level, are a part of the model. The introduction is based on a successfully running workshop by SELA and ElectroMind. TPI is a registered trademark of Sogeti Netherlands.

Key points:

- How good is our testing process
- Why should we use a test improvement model
- Description of the TPI-model and the main key areas for improvement
- How do I use the model
- Tips for successful implementation

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The Enemy Within: Testing Windows Registry Keys

[Michael Stahl, Intel](#)

- The presentation describes why registry keys pose a risk and why they should be accorded special attention when testing an application.
- A strategy for mitigating the potential quality risk posed by registry keys entries is proposed. The strategy includes suggestions for coding standards and for tests.
- The presentation includes demonstrations of registry keys handling by common commercial applications (positive and negative examples).
- The presented ideas are simple, practical and can be put to immediate use in the participants organization.

Customer Bugs Analysis

[Ester Zabar, BMC](#)

A tool measuring the quality of QC was implemented several years ago in Control/M&D LOB in BMC. This presentation overviews the targets, implementation & results of this process.

QC is a very important stage in a new version/product life cycle. We were looking for a tool/process of measuring the quality of QC & a means to detect holes in QC sieve to improve quality.

For every new version/product - we conduct a quarterly analysis of the defects found & reported by customers.

Each defect is analyzed by 4 parameters:

- Reported by QC & tests available?
- Reported by QC but no tests available (Found by the way).
- Covered by test but not comprehensive enough or the tester missed it
- No tests available at all

The total number of defects found by customers is compared to total number of defects by QC on time scale passing from release date:

- Low percentage of defects found by customers indicates of high QC quality
- High percentage of defects found by customers indicates of low QC quality. It also indicates on the "problematic" areas where more coverage is required.

Based on the outcome of the analysis we can show:

- The quality of testing
- Identify areas in the product where tests improvement is required & focus our efforts on them to raise quality.

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Scripted Testing and Exploratory Testing

Amos Uzan, BMC

Most SW development companies and matured testing organizations already acknowledged the necessity of a structured testing approach within the SW development life cycle.

ST (scripted testing) is a well known technique and approach among organizations: A very formal one which is backed up with clear standards and procedures, enables the test manager with a high level of monitoring and control, while organizing the work for the test engineer.

ET (Exploratory Testing) brings with it the freedom and creativity (that were lost to some extent) to the Testers. ET magnifies the Test engineer's responsibility and commitment to the testing results on the one hand and decreases the monitoring and control ability of the test manager on the other. ET also brings us closer to a client-like way of working, and lowers the testing costs (which is something any test manager is asked to do these days).

Each of the techniques has its advantages and disadvantages; each can be preferable in one context but doesn't fit in another context. It seems that the best strategy to conduct testing is to combine the two.

We at BMC, implement such a combination in the QA organization which I'm managing. I'll be glad to share our experience combining the ST and ET in my presentation.

Automating from Day One

Ofer Prat, BMC

This presentation describes a test automation project with a few interesting characters:

- Test automation of a brand new product
- Start automating from project's day one
- Cover new features, as well as regressions
- Using Data Control driven approach
- Modelling product's business logic to produce expected results on the fly
- Project ended with sudden unhappy result...

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Product Quality - from Guessing to Knowing

Rachely Mendelovich, Converse

When preparing to go-live with an application, project manager often cross his/her fingers and hope for the best. Most of the times what the project manager knows about the quality of the product is what the QA manager tells him, what is the number of defects found, their severity and that's about that.

The presentation discusses a mean to evaluate risk areas based on Orthogonal Defect Classification to predict and assure product quality before release. The tool presented in the presentation is a target matrix and the alignment of results with it.

Performance & Load Good Practice

Noam Zilberman, amdocs

Performance Test is usually one of the last stages in the testing life cycle, on the other hand most of the performance are the hardest to fix and have severe impacts on the customer experience.

Usually when we term a performance issue we refer to the following:

- Severe degradation in response time
- System crashes (memory leaks, over utilization of system resources)
- Any other issue, which happen while the system is under load/stress

One option to detect these defects is to build a production like environment and to conduct load and stress tests on the system.

There are two caveats in the approach:

- Defects are detected late in the game.
- Building a production like environment is expensive.

The challenge is to do performance test while keeping low costs and detecting the issues as early as possible.

There are 3 alternatives paths in the attempt to reduce test efforts:

- Conduct static analysis on the entire code.
- Perform dynamic load test on selected flows on a scaled down environment
- Combine a hybrid approach of doing both static and dynamic

Experience shows that the hybrid approach is probably the most cost effective. In this lecture we will cover the pros and cons of each option and will provide tips for efficient use of performance test.

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Test Design and Execution in ALM

[Shai Koenig, Converse](#)

- DIME - Development Information Management Environment - is a highly integrated and collaborative ALM (Application Lifecycle Management) environment for managing product definition, development and delivery processes and information. DIME combines information management and workflow capabilities to facilitate the management of:
- Product lines, products, components - their releases and builds
 - Product services
 - Feature requests, their marketing requirements and their commitments
 - Defect reports and resolution management
 - Development requests, their technical requirements and their commitments
 - Customer projects, the work decomposition that they generate and their commitments
 - Testware and its execution
 - Documents related to the development process
 - Project, release and feature Risks
- and the many inter-relationships between these various elements.

DIME's capabilities include information management, automatic task assignment and workflow, automatic notifications and reminders, automatic generation of documents, document management, metrics, queries and reports, etc. DIME is complemented by an advanced reports and queries facility.

This presentation will describe the testware management and test execution management capabilities of DIME. The presentation will show how various levels of testing (unit testing, integration testing, validation testing) are supported and how test information is managed. Emphasis will be placed on how the support for the various phases and levels of testing are integrated into the larger DIME ALM information and process model.

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TEA - Test Escape Analysis

[Ganit Goren, Polycom Israel](#)

An escape is a defect that wasn't discovered by test teams. Instead, the defect was found by customers. When problems are exposed by customers, they are quite costly. The purpose of Escape Analysis is to ensure that continual improvement is made on your software product and on your testing and development processes. This will be done through analyzing defects that have escaped development and test and making preventative plans to avoid future similar escapes.

Continual improvement of the test processes will increase effectiveness of test environments and methods, decrease number of customer-found defects and therefore cost, and improve product quality, reputation, and sales.

This session will introduce the audience with the concept of TEA, the techniques being used, measurements and metrics being collected and lessons learned.

XML Tester Tool for Performance

[Oren Zehavi and Oren Levin, Polycom Israel](#)

The vision behind XML Tester is a drastic simplification of the entire testing process. By using it, the feature testing process produces automated test cases rather than manual test cases. The result is an overall testing process that is both simpler and more comprehensive:

- Manual regression testing is eliminated. The process automatically converts each manual test case into an automated test case.
- Higher coverage of regression testing is achieved. In the past, some features from prior releases never got tested in a new release because of time constraints. If every test case is automated, this problem disappears.
- Bug fix verification is automated. There is no need to manually verify that defects have been corrected. The automated test case that identified the defect will also perform bug fix verification through automated regression testing.
- Full regression testing becomes possible also for maintenance versions. Each product feature is vulnerable to product changes during the release cycle. If every test case is immediately automated, then continuous regression testing throughout the cycle ensures that subsequent builds do not affect functionality.

In this session we would like to share with the audience our new automation approach, to introduce the self developed tool and to demonstrate its benefits, to suggest way for developing your own tools and ways to relate these tools to existing test aid tools being used. We would also like to share our experience and lessons learned with home made test tools.



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Integration of Systems of Systems

Bernard Homés, Tescro



“Systems of Systems” is the integration of multiple systems in one complex system. Complex systems include multiple sub-systems, such as integrated defense systems, aircraft flight control systems and other systems such as travel reservation systems. Systems of Systems integration involves risk management, and necessitates the implication of Quality and Testing resources throughout the development lifecycle of the project. Verification and validation of the full (completed) system is often difficult, if not impossible. Multiple parallel timelines as well as multiple and concurrent objectives often run at cross purpose.

This presentation will clarify some of the different aspects involved in Systems of Systems conception and integration. After this presentation, the participant will be able to understand the challenges and tackle integration and tests of large systems. The training will enrich the participant's view in management of complex systems, and broaden his/her awareness of easy-to-overlook aspects. This course uses many examples to illustrate the possible risks, and includes an exchange of views so that the audience can address their particular topics.

Risk Management on a Shoe String

Bernard Homés, Tescro



There is no need to wait for the company's maturity level to reach CMMI level 3 before implementing practices to enhance the awareness and processing of risks. Risk management allows identifying, tracking, avoiding and/or mitigating potential negative aspects inherent to projects.

Different methods exist for tracking and managing risks. This presentation focuses on the aspects that one must learn to use, and also identifies some difficulties that arise. A special focus will be provided on risk management applied to software, via testing and qualification in large and complex systems. Upon completing this quick training, the participant will be able to manage risks without investing in ponderous, expensive risks management tools, and tackle real-life risk tracking problems.

The presentation will enrich and deepen the participant's experience in managing large and complex systems using the simple management practices and easy-to-use templates. This presentation uses many examples to explain theoretical material, and includes exchange of views in order for the audience to have a practical (and pragmatic) solution to reduce their risks.

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Testing Automation using Building Block method

Omer Shita, BMC

- A general explanation about the Building Block's methodology
- Full 4 stage description of how to create a new Building Block from scratch
- An example of real use of building blocks in real automatic script
- Analysis of 4 different scenarios in which the AUT's GUI changed and requires script code modifications.

Challenges:

- Increase ROI in automation:

Using the Building Block methodology in our Automatic test scripts give us massive time saving and less code modification as results of the principle of code centralization.

- Lower code complexity:

The use of Building Blocks in Automated script's code gives us the ability to combine less experienced QA persons in the automation developing team due to uncompleted code.

The Management Behind Test Management

Amir Shoval, NDS

This presentation demonstrates how NDS met its test management challenges using the Mercury's enterprise test management tool Test Director/Quality Center. NDS test management customers sometimes differ greatly in their needs.

Different groups have different:

- Approaches to development and test processes
- Test automation solutions
- Metrics and tracking methods
- Documentation

We had to meet these needs while preserving an overall uniform process. In this presentation you will see up close how we customized Test Director/Quality Center to suit our needs.

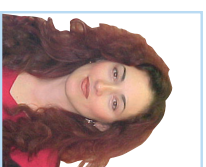
Model Driven Testing

[Michael Kzakov, Metaphor Vision](#)

Two years ago the IT Division of Bank Hapoalim made a strategic decision to adopt Model Driven Development (MDD) as its major development methodology. In this approach, UML models of different kinds define and drive an automatic creation of development artifacts documentation, code, database schemas, etc. Model Driven Testing (MDT) constitutes an important part of the overall solution. It allows defining of test descriptions as model entities in terms of test suites, manual and automatic tests, test steps, testing data pools, arbitration rules and verdicts, and so on. To support creation of testing models, specially designed MDT language, based on standard OMG UML 2.0 Testing Profile, was established.

Most elements of above testing models may be produced automatically from the corresponding analysis models. For example, keywords-based automatic tests facilitate the knowledge regarding storyboards, involved screens and controls, captured in analysis. Testing models, in turn, are automatically transformed into testing artifacts of HP/Mercury QC-QTP testing environment.

The presentation provides details on the MDT methodology, models and tools, and describes the challenges, benefits, and lessons learnt.



Dear Colleagues, testing professionals. It is a great pleasure for Sela and for me to be a part of this world class event. Sela foresaw the development of the Software Testing profession and the need for highly skilled professionals a few years ago, and this event is clearly a milestone in this development.

Sela is fortunate to be able to contribute to the testing community by being a "Single Point of Contact" to a wide range of testing services such as:

Training young bright new talents, producing courseware, providing consulting and outsourcing services, Sela also provides offshore solutions in Software testing around the globe from Singapore and east through India, Russia, Eastern Europe and the Americas. As part of our efforts to service the Israeli community of Software testing professionals, we have translated and produced the Hebrew version of "Effective and Efficient Software Testing" book by Mr. Rex Black, and are constantly providing International experts a stage alongside Israeli once. Sela is proud to have hosted distinguished lecturers such as Mr. James Bach, Mr. Steve Allott, Mr. Hans Schaefer and many more.

Sela-youniversity is ITCB's (Israeli testing Certification Board) certified training provider and offers its CTHL Certified tester foundation level course both publicly and as on-site course.

[Moran Gimpel, CEO, SELA Youniversity](#)



[Yaron Tsubery, President, ITCB](#)

The ITCB - Israeli Testing Certification Board is proud to be a sponsor and take an active part in the first international conference of SIGIST Israel.

One of our goals is to serve the Israeli testing community, and we are delighted to have this great opportunity, which enables Israeli SV testing professionals to take part in a professional event on of international magnitude here at home in Israel.

This event is a unique opportunity for you to acquire knowledge from world leading SV testing experts, to leverage your testing experience and to create networking contacts with peer members from different companies and countries.

This event is a good example of ITCB and SIGIST Israel collaboration meant to contribute to our common goal by promoting testing as profession in Israel. We would like to wish you a joyful and learning experience in this event.