

13A - One Size Fits . . .Someone Other Than Me

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Changing human behavior and software engineering mechanics is a messy business despite the theorists' best efforts to define a single model that can best guide organizations. This is because both are inherently non-linear, if for no other reason than humans are involved. It is well known that any system no matter how carefully constructed is inherently non-linear if it includes humans and that combining two or more non-linear systems will yield chaos (eventually). DCG has long recognized that to avoid the frightened users and cranky managers created when chaos ensues, organizations must apply controls (in the form of management theories, models, methodologies and tools) to make the system more predictable. Experience shows that one whole model is rarely effective or sufficient for providing the stability and predictability needed to prosper in a sea of chaos.

All too often, new approaches and models are sold as if they are the best things since sliced bread. Process zealots and evangelists make so much noise about *their* flavor of the month that even sensible managers and developers can be duped into trying out a new idea that instinct tells them cannot solve the whole problem. The Value Visualization Framework (VVF) is unique in that it takes a holistic view of the organization and facilitates the selection of the best practices (one or many) to meet the different needs based on clear definition of value. This avoids the need to "bet the business" on one particular methodology when maximum improvement, and more specifically, value can only or best be achieved by cherry picking combinations of parts of methodologies (that minimize risk).

One size does not fit all, even when the miracle of stretch fabric is invoked. All organizations face unique circumstances, it is in these unique circumstances that a single model or method will fail to foresee all eventualities.

Presenter:

Tom Cagley leads DCG's [Software Process Improvement](#), [IT Performance Improvement](#) and [Software Measurement](#) Consulting Practices. He has over 20 years experience in the software industry in which he has been a consultant since 1997. He was previously Metrics Practice Manager at Software Productivity Research. Earlier, he held technical and managerial positions in different industries as a leader in software methods and metrics, quality assurance and systems analysis. Mr. Cagley is a frequent speaker at metrics, quality and project management conferences. His areas of expertise encompass management experience in methods and metrics, quality integration, quality assurance and the application of the Software Engineering Institute's Capability Maturity Model® Integration (CMMI) to achieve process improvements.

Mr. Cagley is the current President of the International Function Point Users Group. He also is an active podcaster, hosting and editing the Software Process and Measurement Cast (www.spamcast.net) and blogger (www.tcagley.wordpress.com and www.ifpugpresident.wordpress.com).

Mr. Cagley earned his BS from Louisiana State University and has done extensive postgraduate work at Cleveland State University, Case Western Reserve University and Kent State University.

13B - Software Metrics are Not Just about Bugs!

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Software Metrics are not only about defects and tracking closure. Using the appropriate measurements and not using just enough is the key to making informed decisions in the planning, execution and delivery of software throughout the project lifecycle.

This presentation begins with a discussion of the types of metrics that provide usable information as well as practical methods including setting the trigger points for taking action. Real life examples will be given to reinforce the topic. Tony will wrap it all together by showing how and why metrics are integrated with the overall software project through quality assurance planning.

The presentation will finish with strategies for using the measurement results to manage risk, conduct high confidence re-plans and facilitate communications through solid management reporting.

Brief Outline:

- A. Project Lifecycle Phases
- B. Typical Metrics
- C. What Makes A Good Metric?
- D. Metrics Planning
- E. Using Metrics During The Project
- F. Integration With Quality Assurance Planning
- G. Risk Management
- H. Re-Planning
- I. Management Reporting

Presenter:

Tony Raymond is a technical management consultant with three decades of experience in the medical device industry as well as large corporate computing that includes enterprise storage environments. In that time Tony has lead efforts in Software and Hardware testing, Program Management, Quality Assurance, Platform Integration, Customer Satisfaction, Supplier management and Software development. Through this experience, professional associations and credentialing he has become a subject matter expert in the testing and delivery of products. He is the founder and president of New Harbor SQA, an independent consulting firm that works with organizations so that they may improve the productivity and performance of their software process, especially the testing and quality assurance activities.

13C - Incorporating VM Technology into Automated Testing Infrastructure

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Suppose, you have a task - you have to test an application and its variations on several operating systems localized to 7 to 8 different languages. You have to provide your test results several times per week and you have less than 24 hours to complete all tests in each run. To make matters worse, your budget allows you to afford only 5 to 6 average desktop PCs and you have only 1 to 2 people on your team. Sound challenging? We are talking about 100+ combinations of Operating Systems, languages, platforms and browsers here....

The answer is to bring together Test Automation and VM Technology. You are about to enjoy the benefits of the best of two worlds!

- VM Technology has been on the market for a few years already and it is rapidly revolutionizing the computing landscape. It reduces IT costs, improves efficiency, availability, flexibility, and manageability of infrastructure.
- Test Automation not only eliminates the need for repetitive no-value-added manual testing, it also provides consistent and reproducible results. Properly designed and maintained test automation reduces the level of spending on testing and defect fixing, and most importantly, it significantly improves productivity of the whole development organization (Development and QA).

In this presentation we will talk about implementation of test automation utilizing VM technology. We will cover:

- System design considerations
- Potential pitfalls
- Processes needed to be built-in
- Ways of organizing, processing and presenting test results
- Results achievable
- Case Studies

We will show you the perfect marriage of Test Automation and the VM Technology...

Presenter:

Dmitri oversees the complete cycle of a project engagement at qaSignature – starting with business development, to delivery and support. His background combines consulting (Accenture), software development and Quality Assurance. His expertise crosses such industries and fields as finance, marketing, manufacturing, insurance, medical imaging, FDA compliance. His business, qaSignature, Inc., is a test automation consulting company that builds, runs and maintains automated software testing solutions that eliminate the need for repetitive no-value-added manual testing.

13D - Transforming into Security Testers

Marc René, CTFL, CSTP
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The purpose of this presentation is to introduce a road map, through specific focused education, examples, and suggested actions that will move functional testers to security-minded testers. Understanding that there is no one-size-fits all solution to security testing, this presentation provides a framework for introducing security testing to organizations needing to consider improvements in security and data privacy within their testing teams. The road map will provide a robust and adaptable mechanism that will allow participants to implement specific changes at their organization.

“Transforming” means to change something dramatically, especially to increase its usefulness. Transforming functional testers into security-minded testers involves shifting perspective from requirements based testing to thinking at the fringes of the documented requirements. Recognizing that security is an emergent property of a system and that security requirements are seldom documented completely, testers need to understand where, and how to look for implementation gaps that can introduce security risks to their customers and their organization. Testers also need to change their management of private data in their day-to-day work to complete the transformation to security-minded testers. Risks can be introduced by using “production data” in the test environment, and testers need to understand how to manage test data in appropriate ways.

The presentation will also discuss the difficulties involved in security testing and the legal financial and reputation risks organizations face through recent examples from companies across the United States. Also discussed is the important perspective that testers provide and how testers can leverage their perspective to provide improvements in security. The importance of balance in considering security-testing improvements will also be discussed with a focus on how security fits with other “non-functional” requirement types. Other topics include data privacy as well as the system properties of confidentiality, integrity, and non- repudiation. The participants will be provided test planning checklists and industry examples that attendees can use to start “transforming” their own teams. Once the transformation is complete, the increased usefulness of security minded testers could be dramatic to an organization from many points of view, including legal, financial, and reputation.

Presenter:

Marc René, MSSE, CTFL, CSTP works at MetLife Auto & Home® where he is Director of Quality Services. René has been published in The Journal of Software Testing Professionals, Software Quality Professional, and Better Software magazine. He has spoken at the STAREAST Conference as well as other Quality, Testing, and Project Management Groups. René is also an Adjunct Professor in the Computer Science Department at Rhode Island College.

13E - Deploying ISO 9001 System with Six Sigma Concepts for Software Organizations

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Software development with Quality Management has been an IT trend for the last 15 years and this process needs continual improvement. There has been a growing need for companies to improve quality and reduce costs in order to compete in the marketplace. The ISO 9001 Quality Management System has become very popular in most of the software organizations.

Key benefits of deploying ISO 9001 and Six Sigma include: improving quality, customer satisfaction, consistency, process approach, metrics implementation, trained IT staff and document control. Effective Quality Management System and document control will be an important part for the developers, QA and other software professionals besides building the competitive advantage. The companies must use process approach and the business system for improvements to achieve true benefits.

The topic and discussion will focus on approaches taken in small, medium and large companies for ISO 9001 including Six Sigma concepts and document control.

Presenter:

Sanjay Patel has been involved in software development and ISO 9001 for 10 years and has been actively working with software companies in USA and India. Currently, he is principal of Perpetuating Technologies providing IT consulting, QMS development, software development and outsourcing services.

Sanjay is an ASQ member and has been involved with ASQ Worcester section and NEQC. He is a member of the NEQC conference committee. He is Certified Lean Six Sigma Black Belt and Certified Quality Management System Lead Auditor. He has a bachelor degree in computer information and business administration from Carnegie Mellon University.