

TECHNOLOGY TRANSFER PRESENTS

RANDY RICE

**INNOVATIVE
SOFTWARE TESTING
APPROACH**

JUNE 14-15, 2010

**SOFTWARE TEST
AUTOMATION**

JUNE 16-17, 2010

VISCONTI PALACE HOTEL - VIA FEDERICO CESI, 37
ROME (ITALY)



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INNOVATIVE SOFTWARE TESTING APPROACH

ABOUT THIS SEMINAR

This workshop is designed for Software Developers and Testers that want to learn new and innovative ways to perform Software Testing. The topics covered in this workshop are appropriate for any level of Testing knowledge and experience, from foundation to advanced levels.

This workshop is 50% lecture and 50% interactive labs where you will be able to practice with others the techniques covered in the lectures.

In this workshop you will see added value to your Testing efforts by learning how to:

- Prioritize your Testing based on three views of risk - project, technical and Business
- Get the most Testing from the most compact set of test cases
- Identify the root causes of problems and correct them so they are not repeated
- Perform regression Testing so it does not become overwhelming
- Developers can perform unit Testing so that more defects can be found early in a project
- Design tests based on a variety of sources - Business and user scenarios, requirements, Use Cases and design models
- Implement Test Automation in new and creative ways

WHO SHOULD ATTEND

- Test Analysts
- Testers
- Test Engineers
- Software Developers
- Project Managers
- Test Managers
- QA Analysts

Please, bring your laptop to the seminar.

OUTLINE

1. Risk-based Testing

- How risk can be defined on software projects
- How to assess risk
- How to prevent being fooled by risk assessments
- Experience: Finding the risk in a project, finding the risk in software

2. Test efficiency (pair-wise, classification trees etc.)

- Why test efficiency is important
- The fault model behind pairwise Testing
- The research behind pairwise Testing
- How to create test cases using pairwise techniques
- Experience: Reducing the number of test cases from thousands to less than 100

3. Root cause analysis (defect analysis)

- What is root cause analysis?
- How to distinguish contributing causes from the root cause
- Examples from real life
- How to build a time line and causal factor chart
- Experience: Finding the root cause of a problem

4. Regression Testing

- What is regression Testing?
- How is regression Testing performed?
- How much regression Testing is enough?
- How to apply automation
- How to perform regression Testing in highly complex systems
- Experience: Defining a regression Testing strategy for a complex system

5. Exploratory Testing

- What exploratory Testing is
- What exploratory Testing isn't
- Common objections to exploratory Testing
- Benefits of exploratory Testing
- How to test when you have no specs or requirements
- How to perform exploratory Testing
- How to evaluate exploratory Testing
- How to get better at exploratory Testing
- Session-based Testing
- Experience: Performing a session-based test

6. Scenario-based Testing (Use Cases etc.)

- What is scenario-based Testing?
- How to find and/or define scenarios?
- Defining test cases from Use Cases
- Combining data with scenarios
- Controlling scenario-based Testing
- Experience: Designing a scenario-based test

7. Requirements-based Testing

- What is requirements-based Testing (RBT)?
- What's needed?
- How RBT is helpful
- Designing tests based on decision tables
- Experience: Designing tests based on a requirement

8. Model-based Testing

- What is model-based Testing?
- Examples of how design models can be used for designing tests

- How to perform model-based test design
- Experience: Designing tests based on a state-transition model

9. Creative uses of Test Automation

- Common uses of Test Automation
- Some open source and "do it yourself" tool strategies
- The benefits of small and random Test Automation

10. Workshop summary

ABOUT THIS SEMINAR

This course focuses on the basics of software Test Automation and expands on those topics to learn some of the deeper issues of Test Automation. This course is not specific to any particular tool set but does include hands-on exercises using free and cheap test tools.

The main objective of this course is to help you understand the landscape of software Test Automation and how to make Test Automation a reality in your organization. You will learn the top challenges of Test Automation and which approaches are the best ones for your situation, how to establish your own Test Automation organization, and how to design software with Test Automation in mind. You will also learn many of the lessons of Test Automation by performing exercises using sample Test Automation tools on sample applications.

You will leave the course with your own Test Automation strategy and plan for implementing it.

WHO SHOULD ATTEND

- Software Testers
- Test Analysts
- Test Designers
- Test Automators
- Test Managers and Leaders
- Software Developers

WHAT YOU WILL LEARN

- The purpose and value of automating software tests
- The common challenges and pitfalls of Test Automation and how to overcome them
- How to automate structural Testing
- How to automate functional Testing with modern approaches
- How Test Automation frameworks can be used to streamline Test Automation
- How to design tests that can be readily automated
- The deeper issues of creating Test Automation
- The Test Automation tools on the market
- Which tools are free or inexpensive
- How to make Test Automation a reality in your organization
- How to measure the benefits and value of Test Automation

OUTLINE

<p>1. Understanding Test Automation (1 hr.)</p> <ul style="list-style-type: none">• The relationship between test tools and Test Automation• The promise and value of Test Automation• Common measures and metrics for Test Automation• Examples of implementing Test Automation• Critical success factors for Test Automation <p>2. Surviving the Top Ten Challenges of Software Test Automation (1.5 hrs.)</p> <ul style="list-style-type: none">• The Top Ten Challenges<ul style="list-style-type: none">- Human-related- Process-related- Technical• How to overcome the challenges• Case Study and exercise <p>3. Structural Test Automation (1 hr.)</p> <ul style="list-style-type: none">• The role of structural Test Automation tools• How structural Test Automation tools work• Case Study and exercises <p>4. Functional Test Approaches (1.5 hrs.)</p> <ul style="list-style-type: none">• The role of functional Test Automation tools• Common Test Automation approaches<ul style="list-style-type: none">- Capture/playback- Scripting- Keyword or component-driven• Case Study and exercises	<p>5. Building a Framework for Test Automation (2 hrs.)</p> <ul style="list-style-type: none">• What is a Test Automation framework?• Why a framework is needed• Test process integration• Integration with other types of test tools• Case Study and exercises <p>6. A Process for Acquiring and Implementing Test Automation Tools (1.5 hrs.)</p> <ul style="list-style-type: none">• Acquiring Test Automation tools<ul style="list-style-type: none">- Process overview- Steps in the process- What is required for the process- How to implement the process• Implementing Test Automation tools<ul style="list-style-type: none">- Process overview- Steps in the process- What is required for the process- How to implement the process• Case Study and exercises <p>7. Deconstructing Test Automation (3 hrs.)</p> <ul style="list-style-type: none">• Diving deeper into capture/playback<ul style="list-style-type: none">- Automating a simple test- Modifying the script• Diving deeper into test scripting<ul style="list-style-type: none">- Automating a simple test by writing a script• Diving deeper into component and keyword-based testing<ul style="list-style-type: none">- Building a small set of automated test components- Assembling the components into a test• Case Study and exercises	<p>8. Managing Test Automation (1.5 hrs.)</p> <ul style="list-style-type: none">• Why testware management is needed<ul style="list-style-type: none">- Configuration Management for testware- Establishing and maintaining traceability- Measuring testware• The role of test management tools• Case Study and exercises <p>9. Cheap and Free Test Tools</p> <ul style="list-style-type: none">• The issues behind “free” tools• Helpful and effective Open-Source tools• Lesser expensive Test Automation tools <p>10. How to Make Test Automation a Reality in Your Organization</p> <ul style="list-style-type: none">• Assessing your organizational maturity• Which skills are needed• Integrating processes, tools and people• Viewing Test Automation as an ongoing project• Measuring the benefits and value of Test Automation <p>11. Summary (.25 hr.)</p> <ul style="list-style-type: none">• Top ten course points• Final questions and answers
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INFORMATION

<p>PARTICIPATION FEE</p> <p>Innovative Software Testing Approach € 1200</p> <p>Software Test Automation € 1200</p> <p>Special price for the delegates who attend both seminars € 2250</p> <p>The fee includes all seminar documentation, luncheon and coffee breaks.</p> <p>VENUE</p> <p>Visconti Palace Hotel Via Federico Cesi, 37 Rome (Italy)</p>	<p>SEMINAR TIMETABLE</p> <p>9.30 am - 1.00 pm 2.00 pm - 5.00 pm</p> <p>HOW TO REGISTER</p> <p>You must send the registration form with the receipt of the payment to: TECHNOLOGY TRANSFER S.r.l. Piazza Cavour, 3 - 00193 Rome (Italy) Fax +39-06-6871102</p> <p>within May 31, 2010</p> <p>PAYMENT</p> <p>Wire transfer to: Technology Transfer S.r.l. Banca Intesa Sanpaolo S.p.A. Agenzia 6787 di Roma Iban Code: IT 34 Y 03069 05039 048890270110</p>	<p>GENERAL CONDITIONS</p> <p>GROUP DISCOUNT</p> <p>If a company registers 5 participants to the same seminar, it will pay only for 4. Those who benefit of this discount are not entitled to other discounts for the same seminar.</p> <p>EARLY REGISTRATION</p> <p>The participants who will register 30 days before the seminar are entitled to a 5% discount.</p> <p>CANCELLATION POLICY</p> <p>A full refund is given for any cancellation received more than 15 days before the seminar starts. Cancellations less than 15 days prior the event are liable for 50% of the fee. Cancellations less than one week prior to the event date will be liable for the full fee.</p> <p>CANCELLATION LIABILITY</p> <p>In the case of cancellation of an event for any reason, Technology Transfer's liability is limited to the return of the registration fee only.</p>
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BOTH SEMINARS

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If anyone registered is unable to attend, or in case of cancellation of the seminar, the general conditions mentioned before are applicable.

first name

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job title

organisation

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postcode

city

country

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Stamp and signature

Send your registration form with the receipt of the payment to:
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info@technologytransfer.it
www.technologytransfer.it



SPEAKER

Randy Rice is a leading author, speaker and consultant in the field of software Testing and software quality. Mr. Rice, a Certified Software Quality Analyst, Certified Software Tester, Certified Software Test Manager and an ASTQB Certified Tester – Foundation Level (CTFL), has worked with organizations worldwide to improve the quality of their information systems and optimize their Testing processes. Mr. Rice has over 29 years experience building and Testing mission-critical projects in a variety of environments. He is a member of the American Software Testing Qualifications Board and has been published by *the Journal of the Quality Assurance Institute*, *Crosstalk*, *Client/Server Computing*, *Powersoft Applications Developer* and *Enterprise Systems Journal*. He is a regular speaker at international conferences on software testing in North America and Europe, and is also publisher of *The Software Quality Advisor*. He is co-author with William E. Perry of the books, “**Surviving the Top Ten Challenges of Software Testing**” and “**Testing Dirty Systems published**” by Dorset House Publishing Co. Mr. Rice served as chair of the Quality Assurance Institute’s International Software Testing Conference from 1995 – 2000 and was a founding member of the Certified Software Test Engineer (CSTE) certification program. As author and trainer of many software testing training courses, he has had the privilege of training thousands of software testers throughout North America. He is a frequent speaker at major testing conferences, including EuroStar, StarEast, StarWest, QAI’s International Software Testing Conference, Practical Software Quality Techniques, and the Software Technology Conference sponsored by the U.S. Dept. of Defense. He was a judge for the 2005 Codie awards for excellence in software Testing tools. He also serves on the board of directors for the American Software Testing Qualifications Board (ASTQB).