

# **SCOTT BARBER**

Chief Technologist PerfTestPlus, Inc.



### **PROFESSIONAL OVERVIEW:**

**Scott Barber** is the Chief Technologist of <u>PerfTestPlus</u>, Vice President and Executive Director of the <u>Association for</u> <u>Software Testing</u> and Co-Founder of the <u>Workshop on Performance and Reliability</u>. Scott's particular specialties are testing and analyzing performance for complex systems, developing customized testing methodologies for individual organizations, testing in agile environments, teaching software testing, embedded systems testing, testing biometric identification and security systems, group facilitation and authoring instructional materials. Scott is an international keynote speaker and contributor to various software testing publications. He is a member of IEEE, ACM, American MENSA, the Context-Driven School of Software Testing and is a signatory to the Manifesto for Agile Software Development. Scott is active in his personal mission of improving the state of performance testing across the industry by collaborating with other industry authors, thought leaders and expert practitioners as well as volunteering his time to establish and grow related industry organizations. His tireless dedication to the advancement of software testing in general and specifically performance testing is often referred to as a hobby in addition to a job due to the enjoyment he gains from his efforts.

# TRAINING COURSES INSTRUCTED:

- **Performance Testing Software System (PTSS):** via PerfTestPlus
  - > Identify and describe the nine core principles common to successful performance testing projects
  - > Learn concise, universal heuristics and models for rapid application of those principles
  - > Learn to determine and apply oracles to software system performance criteria
  - > Explore how to apply the core principles into your team's development process
  - > Examine an approach to planning ahead without reducing your ability to react to change
  - > Improve your ability to communicate performance testing concepts to non-performance testers
  - > Explain statistical and mathematical concepts critical to analyzing and reporting performance test results
  - > Practice rapidly designing performance tests that will achieve your performance testing objectives
- Just-In-Time Software Testing (JIT): via Software Quality Engineering or PerfTestPlus
  - > Test projects that have few or no written requirements
  - > Conduct testing "triage" to find important bugs more quickly
  - > Learn to plan and schedule testing in a dynamic, unpredictable world
  - > Practice session-based exploratory testing to find show-stopper bugs and change the way you test
  - > Gain the confidence you need to succeed
  - > Learn to blend exploratory, scripted, and automated testing
- Black Box Software Testing (BBST): via the Association for Software Testing and PerfTestPlus
  - > Learn how to investigate software for defects
  - > Learn how to plan the investigation of software
  - > Learn how to report the results of your investigation
  - > Learn how to tell whether you're doing a good job at with your investigation

#### • Performance, Load and Stress Testing (PLT): via Software Quality Engineering

- > Setting performance goals and objectives
- > Testing system performance, response time, and throughput
- > Testing the ability to handle load and stress and identify bottlenecks
- > Evaluating whether system resources are being utilized efficiently
- > Testing system robustness and capability to recover from errors
- > Testing across different configurations or versions
- > Testing systems for scalability ("Gee, it worked in the lab ...")
- > Automating performance, load, and stress testing

- <u>Mastering Test Design (MTD)</u>: via Software Quality Engineering
  - > Design effective and efficient test cases using both formal and informal approaches
  - > Examine both functional and structural approaches to test design
  - > Practice test case design techniques using instructor supplied case studies or your own project

# **TECHNICAL TESTING COMPETENCIES:**

Technical Testing Competent implies an ability to effectively use, read, apply, customize, script in, and/or install with no more learning curve than is required to transition between particular versions of the tool or application. Technical Testing Competent does not imply greater than mid-level competency as a developer, administrator or DBA in any particular technology.

- Languages: C#, C++, VUc, VB6, SQA Basic, Perl, Java, JavaScript, JSP, HTML, PHP, ASP, Fortran 77/90, Unix Script, PL/SQL, SQL\*Plus, UCML, UML, IDEF
- <u>Operating Systems and Environments:</u> Win 2003/XP/2000/NT/98/95/CE/Tablet, Unix(Solaris 7, Linux), Palm OS, HP/UX, Symbian, OMAP, Macintosh, OS/2, Novell
- Databases: Oracle, MS SQL Server, SQL Anywhere, DB2, MS Access, Egypt
- <u>Testing Tools:</u> Microsoft Visual Studio Team System, OpenSTA, Radview WebLoad, TestExplorer, BBTestAssistant, Rational TestStudio, TestManager, Rational Functional Tester, Rational Performance Tester, Borland SilkPerformer, SilkTest, HP (Mercury) LoadRunner, WinRunner, QuickTestPro, TestDirecter, Custom
- <u>Technologies/Applications:</u> Apache, IIS, Weblogic, WebSphere, iPlanet, Java/J2EE, VB, Cold Fusion, SAP, PeopleSoft, Sieble, Oracle Financials, Wireless/Embedded, Custom
- <u>Other Software:</u> Visual Studio (Professional, Team Edition and Team Foundation Server), SciTE, JCreator, MS Office, OpenOffice, SmartDraw, Visio, DreamWeaver, Visual Café, FastStone Capture, CSDiff, ExamDiff, PerfMon, PerfMeter, Top, WebTrends, Crystal Reports, ErWin

### **DEVELOPMENT and TESTING METHODOLOGY/APPROACH COMPETENCIES:**

Methodology/Approach Competent implies having first hand experience with and the ability to work in, manage, implement, compare and contrast, customize and/or train teams in accordance with the principles set forth by a methodology or approach. Methodology/Approach Competent should not be equated to recommending a particular methodology or approach.

- <u>Agile:</u> Extreme Programming (XP), Scrum, Agile
- Highly Structured: STEP, CMM/CMMI, ISO, IEEE, Waterfall, Spiral, V-model, Six Sigma
- Adaptable: Context-Driven, Rational Unified Process

### **EXPERIENCE:**

#### 2005-Current; Chief Technologist and President, PerfTestPlus, Inc.

As President, Chief Technologist and principle consultant of PerfTestPlus, Scott helps organizations to resolve their challenges related to test automation, testing effectiveness, system performance investigation and validation, and testing methodology. He takes a variety of approaches to accomplish these tasks including; packaged and custom-built training classes, individual mentoring, on the job training, expert consulting and publications based on the needs of the audience. His breadth of experience, approach, initiative, problem-solving ability and desire to help individual organizations find and implement solutions that are right for them make him a valuable asset to any individual or team involved in testing software or managing those who test software.

#### 2005-Current; Association for Software Testing

The Association for Software Testing (AST) is a nonprofit professional society dedicated to the advancement, understanding and practice of software testing. The AST serves a community of scholars, students, and software development practitioners by providing forums for discussion of all aspects of software testing through conferences, publications, web sites, and other services common to professional societies.

2007-Current – Vice President, Operations 2007-Current – Executive Director 2006-Current – Member, Executive Committee 2006-Current – Member, Board of Directors 2005-Current – Founding Member

#### 2004-Current; Co-Founder, Workshop On Performance and Reliability

In 2004, Scott Barber and Ross Collard Co-Founded what was to become the premier venue for practitioners of software performance testing to share collaborate on, and critique one another's advancements and challenges. The Workshop On Performance and Reliability (WOPR) is an ongoing series of invitation-only, minimal-cost workshops for experienced performance testers and related professionals. WOPR emphasizes mutual learning, hands-on experiences and practical problem solving. During these semi-annual meetings, subject matter experts and experienced working practitioners discuss pertinent state-of-the-art and state-of-the-practice topics.

#### 2004-Current; Technical Advisor, Stanley Reid Consulting

As a member of the Technical Advisory Board for Stanley Reid Consulting, Scott provides software testing expertise, conducts technical screenings for job seekers and serves as a link between SRC and a large network of software testing experts, trainers, job seekers and consultants.

#### 2004-2005; Software and System Test Manager, AuthenTec, Inc.

While working for AuthenTec, Scott managed all aspects of testing and quality assurance for hardware and software associated with fingerprint sensors designed to be deployed on a variety of platforms as either integrated or external devices. Those platforms include PC, WinCE, Symbian, OMAP and others. In addition to the management tasks, tested device drivers, API's, sample programs and SDKs for delivered versions of the sensors and developed an agile process conforming to ISO 9001 certification standards. This position blended testing concepts from Black-Box Software Testing, Hardware Testing, Embedded Software Testing and Biometric Testing.

### 2000-2004; Performance Testing Services Manager, Noblestar Services Corporation

As Performance Testing Services Manager, Scott was responsible for a broad range of Performance Testing related tasks including: proposals, scoping projects, staffing recommendations, training, lead technical resource for sales and marketing, pricing models and services offerings. As the Senior Performance Tester/Analyst he developed the corporate approach guiding performance testing engagements based on a track record of success in between testing engagements with dozens of high profile clients.

#### 1999-2000; Systems Administrator, IMAKE Software and Services, Inc.

During his tenure at IMAKE, Scott served primarily as a systems administrator for change and configuration management systems for the company's top client. Additionally, he updated and streamlined the existing change and configuration management process, configured Rational ClearCase and DDTS using triggers, Perl and Unix script and designed custom reports using Crystal Reports, SQL\*Plus and ASP for a web based reporting application with an Oracle back-end.

#### 1998-1999; Information Engineer, SRA International, Inc.

Scott served in various roles on a long-term contract focused on improving the in-transit visibility of military equipment during emergency combat deployments while with SRA. His roles centered on determining the best wireless/embedded devices and back-end architecture for identifying the location of in-transit military equipment and viewing that information through an easily searchable web interface. Some of his other roles included; business and system analysis, data modeling and business process re-engineering.

#### 1994-2000; Captain, United States Army (Active 1994-98, Reserve 1998-2000, ARR 2000-02)

Scott's active duty career culminated as the company commander of HHC Division, 101st Airborne Division (Air Assault) responsible for training, health, discipline and morale of over 350 soldiers, and \$15 M of military equipment. Additionally, he managed computer and automation systems; developed, defended and maintained an annual operating budget of over \$350,000 within 0.2% of projections; and developed a revolutionary, 18-month training program to instruct non-combat units in convoy defense techniques.

# **SELECT PUBLICATIONS:**

# <u>Microsoft patterns & practices</u>

- > Performance Testing Guide for Web Applications, J.D. Meier, Scott Barber, Carlos Farre, Prashant Bansode
- > Improving .NET Application Performance and Scalability Reviewer and Contributed Forward
- "Performance Testing Guidance for VSTS" Multiple Modules
- <u>SearchSoftwareQuality.com</u>: "Peak Performance" Monthly Column (2007-Current)

# • <u>Compuware</u>

- "Get performance requirements right think like a user"
- > "Neat data, but what does it mean? Analyzing performance test results"

# <u>Software Test and Performance Magazine</u>

- > "Peak Performance" Monthly Column (2005-6)
- "Diagnosing Symptoms of Poor Performance"
- "Performance Tuning: Detecting and Eliminating Bottlenecks"

# <u>Better Software Magazine</u>

- "Hurry Up & Wait: When Industry Standards Don't Apply"
- "Investigate Performance Early, Validate Performance Last"
- "High-Performance Testing"

# <u>IBM Developerworks</u>

- "User Community Modeling Language (UCML) for Performance Test Workloads"
- > "User Experience, not Metrics" & "Beyond Performance Testing" Series' of Articles
- "Automated Testing for Embedded Devices"

# **SELECT PRESENTATIONS:**

- EuroSTAR, Keynote, 2006
- Google Tech Talk, "Visual Application Usage Modeling", 2006
- **STPCon** (multiple), 2004-07
- STARs East and West (multiple), 2004-07
- Web Site Evolution by IEEE, "Creating Performance Models without Empirical Data", 2004
- Massachusetts Institute of Technology, "Automated Testing of Embedded Devices", 2004

# **SELECT PEER WORKSHOPS (Invitation Only):**

- Workshop on Regulated Environment Software Testing (WREST), 2007
- Workshop on Open Certification (WOC), 2007
- Workshop on Heuristic and Exploratory Techniques (WHET), 2006 (Exploratory Testing), 2007 (Boundaries)
- Workshop On Performance and Reliability (WOPR), 2003 (Realism), 2004 (Robustness), 2005 (High Availability), 2006 (Innovations), 2007 (Critical Incidents), 2007 (Tools)
- Workshop on Teaching Software Testing (WTST), 2006 (Critical Incidents), 2007 (Techniques)
- London Exploratory Workshop on Testing (LEWT), 2006
- Software Test Manager's Roundtable (STMR), 2004, (Outsourcing), 2005 (Planning and Assessing Tester Training)
- Software Testing In Financial Services (STiFS), 2006 (Unique?), 2006 (Agile), 2007 (Performance), 2007 (Domain Knowledge)
- Exploratory Testing Research Summit (ExTRS), 2006
- Austin Workshop on Test Automation (AWTA), 2005 (Open-Source Web Test Tools)

# SELECT CERTIFICATIONS & AUTHORIZATIONS:

- Just-In-Time Software Testing, Authorized Instructor
- Performance, Load & Stress Testing, Authorized Instructor
- Mastering Test Design, Authorized Instructor
- Black Box Software Testing, Instructor in Training
- Certified Coach, National Youth Sports Coaches Association
- MCSE Certified on Windows NT 4.0
- A+ Computer Maintenance and Repair Certified
- Rational Certified Consultant, Performance Testing, TeamTest and Rational Unified Process

# FORMAL EDUCATION/TRAINING:

- 2007 Black Box Software Testing Instructor's Course by Cem Kaner & Rebecca Fiedler
- 2007 Rapid Software Testing by James Bach & Michael Bolton
- 2003 Group Facilitation Skills, Community At Work
- 2001 Masters of Science Information Technology, American Intercontinental University
- 1998 Graphical Representation of Information by Dr. Edward R. Tufte
- 1996 Executive Risk Management Seminar via U.S. Army
- 1994 Bachelor of Science Civil Engineering, Virginia Polytechnic Institute and State University

# **AFFILIATIONS:**

- Association for Software Testing
- IEEE
- ACM
- American MENSA
- Context-Driven School of Testing
- Signatory of the Manifesto for Agile Software Development
- Computer Measurements Group