



Software Test & Performance *CONFERENCE* *SPRING*

Software Test & Performance Conference Spring 2007 Proceedings CD-ROM

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Seven Low-Overhead Software Process Improvement Methods

Minimum Metrics for Meaningful Management

Involving Users Meaningfully in Testing

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Effectively Training Your Offshore Test Team

How to Turn Your Testing Team Into a High-Performance Organization

Joshua Hendrick

Designing JUnit Test Cases for Effective Functional Testing

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—Theresa Harmon,
Business Applications
Developer, Pharmacare
Specialty Pharmacy

Irv Badr has nearly 20 years of development experience in software architecture and modeling industries, designing communication infrastructure for medical devices, data and telecom networking, digital cable transmission and industrial controls. He also served as technical lead for real-time operating systems and modeling tools with TimeSys Corporation and with Artisan Software. Mr. Badr has a bachelor's degree in biomedical engineering from the University of Illinois and a technical MBA from Northwestern University; he is currently a senior product marketing manager for Telelogic.

Scott Barber is the CTO of PerfTestPlus, Inc., Executive Director of the Association for Software Testing (AST) and co-founder of the Workshop on Performance and Reliability (WOPR). A recognized expert in performance testing and analysis,



he combines experience and a passion for solving performance problems with a scientific approach to produce accurate results.

Mr. Barber is an international keynote speaker, trainer, consultant and writer of articles for a variety of publications, including Software Test & Performance Magazine.

Ryan Berg is a co-founder and lead security architect of Ounce Labs, an innovator of software vulnerability risk-management solutions, based in Waltham, Mass. Prior to Ounce Labs, Mr. Berg co-founded Qiave



Technologies, a pioneer in kernel-level security, which was sold to WatchGuard Technologies in 2000. He also served as a senior software engineer at GTE Internetworking, leading the architecture and implementation of new managed firewall services. Mr. Berg holds patents, and has patents pending, in multi-language security assessment, intermediary security assessment language, communication protocols and security management systems.

Michael Bolton is the co-author (with senior author James Bach) of Rapid Software Testing, a course that presents a methodology and mind-set for testing software expertly in uncertain conditions and under extreme time pressure.

A testing trainer and consultant, Mr. Bolton has over 15 years of experience in the computer industry testing, developing, managing and writing about software. He is the founder of DevelopSense, a Toronto-based consultancy. He was with Quarterdeck

Corporation for eight years, during which he delivered the company's flagship products and directed project and testing teams both in-house and around the world.

Shaun Bradshaw serves as director of quality solutions for Questcon Technologies. He's responsible for managing Questcon's team of senior practice managers in the areas of quality solutions development and service delivery, and also works with clients to improve their quality assurance and software test processes.



Hans Buwalda leads LogiGear's Action Based Testing (ABT) research and development and oversees the practice of ABT methodology. Mr. Buwalda is an internationally recognized expert in action-based test automation, test development and testing technology management. He's also a speaker



at international conferences, delivering tutorials and workshops, as well as presenting testing concepts such as ABT, the three Holy Grails of test development, Soap Opera Testing, and Testing in the Cold. In 2001, Mr. Buwalda co-authored "Integrated Test Design and Automation" (Addison-Wesley). He holds an M.S. in computer science from Free University, Amsterdam.

Poonam Chitale is a senior quality engineer at IBM Rational who has worked in white-box testing and test automation for over 10 years. She holds a master's degree in computer science from Pune, India. At IBM Rational for the past seven years, she has been primarily involved with development and maintenance of automated tests for PurifyPlus for the Windows product line.

Frank Cohen has the answers when enterprises need to build, test and solve performance and scalability problems in complex interoperating information systems. Mr. Cohen's articles appear on IBM developerWorks, and he is the



author of "FastSOA: The Way to Use Native XML Technology for SOA Governance, Scalability and Performance (Morgan Kaufmann, 2006) and "Java Testing and Design: From Unit Tests to Automated Web Tests" (Prentice Hall, 2004). He is the principal maintainer of the popular TestMaker open-source test utility and framework, and

director of solutions engineering at Raining Data, publisher of the TigerLogic XQuery engine and native XML database.



Jeff Feldstein is currently a manager of software development at Cisco Systems Inc. During his 24-year career, he has been a software developer, tester, development manager and computer consultant; for the past five years, he has been involved with software testing and has managed a team of developers who write software test tools.

His specialties include internetworking, real-time embedded systems, communications systems, hardware diagnostics and firmware, databases and test technologies. Mr. Feldstein is one of the highest-rated speakers at previous Software Test & Performance conferences.

Matthew Fisher is a senior security engineer for SPI Dynamics and has specialized in Web application security assessments for many years. A native Washingtonian, he has performed countless assessments of Web applications within the DoD and the federal government, as well as some of the largest commercial institutions around the globe, and is registered as a subject matter expert to the Defense Information Services Agency. Prior to joining SPI Dynamics, Mr. Fisher worked at Computer Sciences and Digex, where he acted as lead technical adviser on large-scale enterprise Web applications for Fortune 500 companies. He is a contributing author to the book "Google Hacking for Penetration Testers" (Syngress, 2004) and is currently working on his own book, titled "Web Application Security: A Guide for Developers and Penetration Testers." In addition, Mr. Fisher leads the Washington, D.C., OWASP chapter.



Bob Galen is a Principal Consultant of RGalen Consulting Group, L.L.C., based in Cary, North Carolina. Mr. Galen has held director-, manager- and contributor-level positions in both software development and quality assurance organizations. He has nearly 25 years of experience working in a wide variety of domains at companies including Bayer, Bell & Howell Mail Processing, EMC, Lucent, Unisys and Thomson.

Mr. Galen regularly speaks at international conferences and professional groups on topics related to software development, project management, software testing and team leadership. He is a certified Scrum Master and a member of the Agile Alliance. In 2005 he published the book "Software Endgames—Eliminating Defects, Controlling Change and the Countdown to On-Time Delivery" with Dorset House. The book's focus is how to successfully finish your software projects.

Robin Goldsmith has been president of the Go Pro Management consultancy since 1982. He works directly with and trains professionals in business engineering, requirements analysis, software acquisition, project management, quality assurance and testing. Previously



he was a developer, a systems programmer/DBA/ QA and a project leader with the City of Cleveland, leading financial institutions and a "Big 4" consulting firm. Author of numerous articles and the recent book "Discovering REAL Business Requirements for Software Project Success" (Artech House, 2004),

Mr. Goldsmith was formerly international vice president of the Association for Systems Management and executive editor of the Journal of Systems Management. Mr. Goldsmith has an A.B. from Kenyon College, an M.S. from Pennsylvania State and a J.D. from Boston University.

Michael Hackett is a founding partner of LogiGear and is responsible for the direction and development of the company's training program. He has in-depth experience in software engineering and the testing of applications developed for deployment across multiple platforms. Mr. Hackett writes and teaches a software testing curriculum for LogiGear University, and for the U.C. Berkeley Extension. He is also co-author of "Testing Applications on the Web: Test Planning for Mobile and Internet-Based Systems" Second Ed. (Wiley, 2003), and holds a B.S. in engineering from Carnegie Mellon University.



Joshua Hendrick is a member of Parasoft's Professional Services team and has previously worked as a software engineer in Parasoft SOA Solutions group. He has contributed to the development of Parasoft Java-based SOA and Web services testing solutions, including development from an Eclipse environment. Mr. Hendrick earned his B.S. in computer science from the University of California, Davis, where he worked actively as a programmer in the biological and agricultural engineering department research lab. His experience with SOA and Web services includes development of automated testing methodologies for SOA and working with numerous Parasoft customers worldwide to ensure secure, reliable, and compliant Web services.



Lester Hoffman has 25 years' experience supporting software product planning and rollout, including user acceptance testing, user training and documentation, and product launch strategy development. In the product planning process, he has extensive experience with in-depth business analysis and requirements specification, and has co-authored detailed manuals on systems development life-cycle and documentation development methodology. He also has extensive experience serving as the translator between developers and the businesspeople/customers served by the product. He has designed and co-developed the user interface for a number of financial and project management software products.

With a Ph.D. in cognitive psychology and instructional design from Harvard, Dr. Hoffman has been involved in various aspects of product rollouts, including acceptance testing, for over 20 software development products for such Fortune 500 clients as Bank of America, IBM,

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Merrill Lynch, Northern Telecom, Federal Express, Avon Cosmetics, Citigroup, JP Morgan Chase, ITT, Lockheed Martin and AT&T.

Mukesh Jain is quality manager at Microsoft, driving improvement in the quality of online service in Microsoft's Global Foundation Services. He has 11+ years of experience with various positions ranging from developer, QA, and project manager to quality manager. He has led multinational companies in India with Six Sigma, ITIL, MOF, TSP/PSP, ISO 9000 and SEI CMM Level 3–5 implementation and certification.

He holds a degree in computer science. He is a Six Sigma Black Belt, TSP coach, PSP instructor, SEI-certified PSP developer and engineer, ISO 9000 internal auditor, CQA, CQIA, CSQA, CSTE and Microsoft Office specialist.



He has presented several papers on the subject of software quality and project management at Microsoft and other companies and at international conferences, including IEEE, QAI, ASQ, SPIN, PNSQC, PMI and SEI.

Asya Kamsky is a senior staff member in the professional services division of Coverity, Inc., where she specializes in source code analysis and automated software testing. She has over 20 years of industry experience ranging from companies like Cisco, DEC, GE,



DEC, Lawrence Berkeley Labs and Merrill Lynch to cutting-edge start-ups like E-Greetings, Elemental Security, RouteScience and TGV Inc. Her career has spanned work in software testing, networking, data-

base technologies, security and the Web. In 2000, she received the Computerworld Smithsonian medal for excellence in IT. Ms. Kamsky received a B.S. in computer science from Cornell University and an M.S. from New York University.

Adam Kolawa is the co-founder and CEO of Parasoft, a leading provider of Automated Error Prevention (AEP) software solutions. Dr. Kolawa's years of experience with various software development processes have resulted in his unique insight into the high-tech industry and the ability to successfully identify technology trends. As a result, he has orchestrated the development of several



successful commercial software products to meet growing industry needs to improve software quality—often before the trends have been widely accepted.

Dr. Kolawa, co-author of "Bulletproofing Web Applications" (Hungry Minds, 2001), has contributed to and written over 100 commentary pieces and technical articles for publications such as The Wall Street Journal, CIO, Computerworld, SD Times, Dr. Dobbs' Journal and IEEE Computer; he has also authored numerous scientific papers on physics and parallel processing. His recent media engagements include appearances on the BBC, CNN, CNBC and NPR.

Dr. Kolawa holds a Ph.D. in theoretical physics from the California Institute of Technology and has been granted 10 patents for his recent inventions. In 2001, Dr. Kolawa was awarded the Los Angeles Ernst & Young's Entrepreneur of the Year Award in the software category.

Patrick Lightbody leads product management for quality assurance solutions and directs open source strategies at Gomez Inc. Prior to joining Gomez, he launched Autorigate, the creator of a hosted QA solution, and managed the professional services team at collaboration software provider Jive Software.

Mr. Lightbody also serves as the CEO and Chairman of OpenSymphony Group, Inc., a nonprofit open source group dedicated to the creation of high-quality, open source Java-based components. Additionally, he is the founder of OpenQA, an open source group dedicated to bringing quality open source testing tools to market.

Mr. Lightbody is a published author and an established leader in the enterprise Java community, presenting at several industry conferences, including JavaOne, OSCON and The Ajax Experience. He received his bachelor's degree in computer science from the University of California, San Diego.

William Louth is the CTO of JInspired and the product architect of JInspired's application-performance management and automated runtime-diagnostics solution, JXInsight. He has extensive experience in delivering large-scale distributed systems in the banking and telecom industries.



In the enterprise business unit at Borland, he designed and prototyped enterprise-application performance-modeling and simulation tools while providing expert performance-tuning and capacity-planning advice to its large U.S. and European customer accounts. He has also

provided expert performance management and architectural advice to many other leading software companies, including HP Software, where he helped establish the software performance-engineering team for its next-generation IT-management product platform.

Mr. Louth has previously presented sessions at JavaOne and Borland DevCon on application deployment and performance management. He has also written articles for Java Report and co-authored a chapter in the Sun Press book "J2EE in Practice."

Robert C. Martin has been a software professional since 1970. In the last 35 years, he has worked in various capacities on literally hundreds of software projects. He has authored landmark books on agile programming, Extreme Programming, UML, object-oriented programming and C++ programming. He has published dozens of articles in various trade journals. The former editor of the C++ Report, today he is one of the software industry's leading authorities on agile software development and is a regular speaker at international conferences and trade shows.

Mr. Martin is the founder, CEO and president of Object Mentor Inc., a sister company to Object Mentor International. Like OMI, Object Mentor is comprised of highly experienced software professionals who provide process improvement consulting, object-oriented software design consulting, training and development services to major corporations around the world.



development and the use of solutions to improve productivity throughout the development process.

Hung Q. Nguyen is CEO and founder of LogiGear, a software quality engineering firm offering training, testing services and test automation products. He is author and co-author of several software testing books, including "Testing Applications on the Web," Second Ed. (Wiley, 2003) and "Testing Computer Software," Second Ed. (Wiley, 1999).



Mr. Nguyen writes and teaches a software testing curriculum for LogiGear University, as well as for U.C. Berkeley and the U.C. Santa Cruz Extension. He holds a B.S. in quality assurance from Cogswell Polytechnical College, is a graduate of a Stanford Graduate School of Business Executive Program, and is a certified quality engineer.



Jeff Nielsen is chief scientist at Digital Focus, a leader in agile software development and integration services. Mr. Nielsen pioneered Digital Focus's use of agile methods and now spends much of his time helping clients adopt and customize agile development practices in the enterprise IT

environment.

A seasoned technologist, Mr. Nielsen has over 19 years of commercial software development experience as a tester, developer, architect, project manager, executive and coach. He spearheaded the first large-scale Extreme Programming Project at Digital Focus in 200—a real-time, Web-based auction system that continues to process billions of dollars of trades annually. Since then, he has led or coached a variety of teams for clients, including America Online, British Telecom, Fannie Mae, Gannett, Sallie Mae and VeriSign.

Thomas O'Mara has more than 25 years of experience with PC-based computing, ranging from Fiber Optic Gyroscope data acquisition using the stack-based FORTH language to Web-based applications utilizing the .NET Framework and ASP.NET. In between, there were C, Visual Basic, and various database and middle-ware initiatives.

Mr. O'Mara has been working with and writing articles about .NET technology since early 2001. He has considerable direct performance-tuning experience on a Web-based ASP.NET banking software application for large credit unions.



BJ Rollison is a test architect with Microsoft's Engineering Excellence group, where he designs and develops technical training curriculum in testing methodologies and test automation. Mr. Rollison has more than 16 years of computer industry experience, most of that with Microsoft. In 1996, he became a test manager in Microsoft's Internet Client and Consumer Division, responsible for shipping several client products and a Web server. He moved to Microsoft's Internal Technical Training group in 1999 as the director of test training, planning and organizing training for more than 6,000 Microsoft testers. Mr. Rollison also teaches software testing courses at the University of Washington, and sits on the advisory boards at the University of Washington and Lake Washington Technical College.

Neeraj Sangal is president of Lattix, a company specializing in software architecture management solutions and services. He has analyzed many large proprietary and open-source systems. Prior to Lattix, Mr. Sangal was president of Tendril Software, which pioneered model-driven EJB development and synchronized UML models for the Java programming language. Tendril was acquired by BEA/WebGain. Prior to Tendril, he managed a distributed development organization at Hewlett-Packard.



Dean Stevens has been involved with developing and delivering world-class hardware, software and service products for more than 20 years. Prior to joining Symbio, Mr. Stevens founded and served as the CEO of China TechSource, an outsourcing broker for Chinese services firms. Additionally, he has operated a consulting firm that worked with corporations to resolve

"This conference is great for developers and their managers, as well as business-side people."

*—Steve Margenau,
Systems Analyst, Great
Lakes Educational Loan
Services*

executive management and execution issues. Mr. Stevens has demonstrated success managing global remote development, multi-company projects and distributed virtual organizations. He began his career writing Fortran code for a CDC mainframe, and is a graduate of the University of Idaho.

Tom Stracener was one of the founding members of nCircle Network Security. While at nCircle, he served as the head of vulnerability research from 1999 to 2001, developing one of the industry's first quantitative vulnerability-scoring systems, and co-inventing several patented technologies. Mr. Stracener is an experienced security consultant, penetration tester and vulnerability researcher. One of his patents, "Interoperability of vulnerability and intrusion detection systems," was granted by the USPTO in October 2005. He is the senior security analyst for Cenzic's CIA Labs and the architect of Cenzic's Application Penetration Testing Methodology.

Mary R. Sweeney has been developing, using and testing relational database systems for more than 20 years for such companies as Boeing and Software Test Labs. She's the author of "Visual Basic for Testers" (Apress, 2001) and "A Tester's Guide to .NET Programming" (Apress, 2006). Ms. Sweeney is a college professor with a degree in mathematics and computer science from Seattle University. She's an MCP in SQL Server, and is on the board of IIST (International Institute of Software Test).



Robert Walsh is president and manager of applications development at Envision Ware, Inc. Based in an Atlanta, Ga., suburb, the company specializes in providing software solutions for public and academic libraries.

Mr. Walsh holds a B.S. in secondary mathematics education from Mississippi State University. He's largely a self-taught programmer, but has over 9 years of professional programming experience, mostly with C and C++.



In 2002, Mr. Walsh was first introduced to agile software development methodologies, and began looking for ways that EnvisionWare's software development processes might benefit from agile techniques. He implemented a homegrown hybrid involving elements from Scrum and Extreme Programming, and continues to entertain ways to improve and refine the process.