AGILE TESTING: HOW TO SUCCEED IN AN EXTREME TESTING ENVIRONMENT

In an IT world in which there are differently sized projects, with different applications, differently skilled practitioners, and onsite, offsite, and offshore development teams, it is impossible for there to be a one-size-fits-all agile development and testing approach. This book provides practical guidance for professionals, practitioners, and researchers faced with creating and rolling out their own agile testing processes. In addition to descriptions of the prominent agile methods, the book provides twenty real-world case studies of practitioners using agile methods and draws upon their experiences to populate your own agile method; whether yours is a small, medium, large, offsite, or even offshore project, this book provides personalized guidance on the agile best practices from which to choose to create your own effective and efficient agile method.

John Watkins has more than thirty years of experience in the field of software development, with some twenty-five years in the field of software testing. During his career, John has been involved at all levels and phases of testing and has provided high-level test process consultancy, training, and mentoring to numerous blue chip companies.

He is both a Chartered IT Professional and a Fellow of the British Computer Society, where he is an active member of the Specialist Group in Software Testing (SIGIST), previously serving on committees of the Intellect Testing Group (representing the U.K. technology industry) and the SmallTalk User Group.

He is author of Testing IT: An Off-the-Shelf Software Testing Process (Cambridge University Press, 2001) and currently works for IBM’s software group.
AGILE TESTING

How to Succeed in an Extreme Testing Environment

JOHN WATKINS
“To my Father, My Methodical Role-Model”
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Foreword

Bob Bartlett, CIO, SQS

It is fascinating to see that so many members of our global software development and implementation community are at last agreeing violently on the principles behind agile. It is gratifying to see developers and testers working side-by-side aiming for the same goals and supporting each other. If you didn’t know what agile was but could see productive, disciplined, and self-organizing teams engaged in developing working software prioritized by business value, you would know that whatever they are doing must be right. Testers in particular have benefited from greater pride in their work as they are accepted as equal partners in the software development team.

Agile development and testing is a thirty-year-old overnight success; in fact, most of the younger developers and testers who so enthusiastically promote this new way of developing software had almost certainly not been born when the likes of Barry Boehm and James Martin first began to develop the Rapid Application Development (RAD) method!

Agile certainly seems to be being promoted as the latest silver bullet for all software development problems; the topic is included at pretty much any software event, user group, or standards group you attend, and much of the IT literature is full of agile references. For example, I recently hosted a conference on Software and Systems Quality and invited as a keynote speaker a senior development manager from IBM, who spoke of the corporate-wide initiative – spearheaded by the Chairman – to implement agile methods and processes groupwide. He reported (with good evidence) that product teams have adopted an agile development method in order to be responsive to customer needs and deliver software on time and to budget, with much higher quality – measured by incredibly low rates of postrelease faults.

This is not to say that agile doesn’t have its detractors; many traditional IT development practitioners will tell you agile only works for small, simple, and well-bounded software development projects, where the customer and development team are co-located and staffed by experienced and capable practitioners. Why wouldn’t a project succeed under such circumstances? So what happens if the customer or some of the team are offsite (or even offshore)? What happens if the application is large, complex, and carries significant technological risk? What if you can’t afford
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to staff your development project with highly experienced, capable, motivated, and very expensive agile experts?

These are certainly some of the major challenges that agile must meet if it is going to be widely accepted, adopted, and used successfully. But in an IT world where there is no universal one-size-fits-all software development process, how can agile be successfully applied to small, medium, large, and onsite/offsite projects? How can agile be used to address complex, difficult, or special-needs IT projects? How can IT practitioners of varying experience and ability adopt and use agile best practices effectively?

There is certainly a risk that such a megatrend as agile becomes overhyped and overexploited commercially. However, the enthusiasm to share experiences and the availability of free and open tools and information is building the community belief and commitment. I have observed many times how intuitively people adopt the agile principles and practices – particularly testers, who embrace their new-found ability to contribute from the outset and “design in” quality on projects. The enthusiasm is contagious and the results of agile teams as seen in systems and software products show what can be produced when there is a dynamic and flexible approach to achieving well-understood goals relentlessly prioritized by business value.

This book is the product of a number of people who felt confident and committed enough to document their experiences in the hopes that others would share their positive results and success. Each case study tells a different success story and at first you may feel overwhelmed with good ideas and ways to develop software. Just bringing these stories together makes for a worthy and valuable book. I am pleased to see that the whole story is told from many perspectives, not just the testing side.

I have known John Watkins for about ten years now. During that time, I have seen and listened to him evangelize about testing and have supported events he has organized, such as the Rational Industry Testing Forum and the Rational Testing User Group – both of which I have spoken at. His passion for effective and professional testing has been constant, as has his commitment to the industry.

John has spoken several times at Software Quality Systems (S economy) events that I have organized, as well as at numerous industry-wide events. John was an invited keynote and session speaker at the Scandinavian Ohjelmistotestaus testing conferences, and spoke at the Software Quality Assurance Management (SQAM) testing conference in Prague. He has also been active in the British Computer Society (BCS) (having made Fellow in 1997) and the Object Oriented (OO) and Specialist Group in Software Testing (SIGiST) special interest groups (where he has spoken many times, sat on testing discussion panels, chaired “birds of a feather” sessions, and so forth). He helped me tremendously in setting up and running the Intellect Testing Group, where I was grateful to have him on the management committee and to have his participation by writing and presenting on test process.

John has done a tremendous job to elicit the contributions in this book, but he provides an even greater service by finding the common threads and practices and explaining why twenty-three different people shared in success. I am sure John feels proud that so many people can share in the creation of this book and the contribution to the “My Agile” process he describes.
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