Agile Enterprise Engineering: Smart Application of Human Factors

The Art of Agile Practice: A Composite Approach for Projects and Organizations presents a consistent, integrated, and strategic approach to achieving "Agility" in your business. Transcending beyond Agile as a software development method, it covers the gamut of methods in an organization—including business processes, governance standards, project management, quality management, and business analysis—to show you how to use this composite approach to enhance your ability to adapt and respond to evolving business requirements. The book is divided into three parts: Introduces Agility and identifies the challenges facing organizations in terms of development and maintenance approaches Presents Composite Agile Method and Strategy (CAMS) as a carefully constructed combination of process elements and illustrates its application to development, business management, business analysis, project management, and quality Includes two Agile case studies, a comprehensive index, definitions of key acronyms, and appendices with a current list of Agile methods and interview summaries The book describes relevant metrics for the entire CAMS lifecycle and explains how to embed Agile practices within formal process-maps in projects. Filled with figures, case studies, and tables that illustrate key concepts, the text is ideal for a two- or three-day training course or workshop. It is also suitable for a 13-week education course for higher degree students that includes process discussions and consideration of Agile values at both software and business levels. The chapters are organized to correspond roughly to such lectures with an option to choose from the case study chapters.

Agile Testing

Master breakthrough new approaches to enterprise software delivery that address today's radically new development and business challenges • •Helps development leaders strategically balance agility and efficiency in response to massive new global economic and technical trends. •Offers specific, practical solutions for improving control, visibility, and efficiency. •By Alan W. Brown -- IBM Distinguished Engineer, IBM Rational CTO, and one of the world's leading experts on high-value enterprise software delivery. Globalization, rapid technology churn, and massive economic shifts have made today's enterprise software delivery challenges radically different that those faced just three or four years ago. In this book, IBM Distinguished Engineer Alan W. Brown offers deep new insights into today's best approaches to enterprise software delivery. Brown guides decision-makers in choosing solutions that respond to their new challenges, and successfully anticipate what's coming next. He provides a compelling vision for 'software supply chains': one that can help software leaders create global software factories that successfully balance agility and efficiency. Brown illuminates today's new revolution in enterprise software delivery, focusing on key drivers for change, their impact on the day-to-day work of software engineers, and how enterprise software organizations are being...
reformed in response. He introduces the modern 'software factory' concept, addressing key trends including global outsourced teams, collaborative application lifecycle management, and cloud-based virtual infrastructures; Replete with examples, this informative, practical book will help organizations surface crucial issues they may have overlooked, and then identify and leverage the best new ways to deliver software. From start to finish, it offers powerful new opportunities to reduce costs, standardize processes, improve control and visibility, and become far more responsive to the business.

Testing IT

This open access book, published to mark the 15th anniversary of the International Software Quality Institute (iSQI), is intended to raise the profile of software testers and their profession. It gathers contributions by respected software testing experts in order to highlight the state of the art as well as future challenges and trends. In addition, it covers current and emerging technologies like test automation, DevOps, and artificial intelligence methodologies used for software testing, before taking a look into the future. The contributing authors answer questions like: "How is the profession of tester currently changing? What should testers be prepared for in the years to come, and what skills will the next generation need? What opportunities are available for further training today? What will testing look like in an agile world that is user-centered and fast-paced? What tasks will remain for testers once the most important processes are automated?" iSQI has been focused on the education and certification of software testers for fifteen years now, and in the process has contributed to improving the quality of software in many areas. The papers gathered here clearly reflect the numerous ways in which software quality assurance can play a critical role in various areas. Accordingly, the book will be of interest to both professional software testers and managers working in software testing or software quality assurance.

Agile Testing

The Agile Software Tester is the must have book for any forward thinking software tester who wants to move forward in the fast moving and existing world of agile software development. This publication will introduce you to this challenging and yet rewarding world and help you build a fulfilling and enjoyable career. From manual testing to automation, it is all here. While many organisations have adopted the agile framework fully with a carefully planned strategy and 100% company commitment which means they are now reaping the benefits gained there are still plenty of software companies out there who have, for one reason or another, not. These companies still ignore the agile framework methodology or they have simply placed a taskboard in the centre of the office and stated ‘there, we are agile’. While it is true that the agile methodology is not for everyone and not every software development project is suited to the framework it is, however, the way forward for the majority of companies who are involved in software development. As agile has grown in popularity and usage over the decades the amount of literature about the subject has also grown. However most of the books currently available on the market focus on the project management or software development areas of the software development life cycle, there is still very little for the agile software tester to read. In the agile world; testing and the software tester are just as important as any other process or person and that is why I have written this book. Hopefully experienced and new testers alike will find some useful pointers within these humble pages which will help them enhance their career and enjoyment of testing software. Version 7

Agile Quality Assurance

Assisting organizations in improving their project management processes, the Project Management Maturity Model defines the industry standard for measuring project management maturity and agile and adaptive capabilities. Project Management Maturity Model, Fourth Edition provides a roadmap showing organizations how to move to higher levels of organizational behavior, improving project success and organizational performance. It’s a comprehensive tool for enhancing project management practices, covering areas critical to organizational improvement, such as the project management office, management oversight, and professional development. It also provides methods for optimizing project management processes and suggestions for
deploying the model as a strategic tool in improving business outcomes. New material in each chapter also outlines good practices for implementing adaptive an agile processes. The book also includes the Project Portfolio Management Maturity Model, which covers best practices for determining portfolio maturity, setting short-term priorities, implementing benefits realization management, improving portfolio management processes and tracking progress. The author, J. Kent Crawford, CEO of PM Solutions, describes the basics of project management maturity, including the benefits of assessing maturity, and presents a comprehensive framework for improving organization's processes. Chapters are based on the ten project management knowledge areas specified in the Project Management Institute's standard, the PMBOK® Guide. This edition provides new and revised materials based on the PMBOK® Guide including a fresh focus on agile and adaptive methods, benefits realization, and organizational change management. Organizations can use this book to: Determine the maturity of your organization's project management processes Gauge readiness for agile transformation Map out a logical path to improve your organization's processes Set priorities for short-term process improvement Track and visualize improvements in project management over time Learn to translate process maturity into business results After an objective assessment, an organization can set its goals for increasing the capability of its processes and develop a plan for reaching those goals. This book is ideal for anyone involved with improving the capability of an organization's project and portfolio management processes.

The Agile Software Tester: Software Testing In The Agile World

SAFe®: The World’s Leading Framework for Enterprise Agility “Philips is continuously driving to develop high-quality software in a predictable, fast, and Agile way. SAFe addresses this primary goal, and offers these further benefits: reduced time-to-market, improved quality, stronger alignment across geographically distributed multi-disciplinary teams, and collaboration across teams to deliver meaningful value to customers with reduced cycle time.”—Sundareshan Jagadeesan, SW CoE Program Director, Philips To succeed in today’s adapt-or-die marketplace, businesses must be able to rapidly change the way they create and deliver value to their customers. Hundreds of the world’s most successful companies—including Intel, Capital One, AstraZeneca, Cisco, and Philips—have turned to the Scaled Agile Framework® (SAFe®) to achieve agility at scale and maintain a competitive edge. SAFe® 4.5 Distilled: Applying the Scaled Agile Framework® for Lean Enterprises explains how adopting SAFe can quickly improve time to market and increase productivity, quality, and employee engagement. In this book, you will Understand the business case for SAFe: its benefits, the problems it solves, and how to apply it Get an overview of SAFe across all parts of the business: team, program, value stream, and portfolio Learn why SAFe works: the power of SAFe’s Lean-Agile mindset, values, and principles Discover how systems thinking, Agile development, and Lean product development form the underlying basis for SAFe Learn how to become a Lean-Agile leader and effectively drive an enterprise-wide transformation Register your book for convenient access to downloads, updates, and/or corrections as they become available. See inside book for details.

Software Engineering Techniques

Written by the founder and executive director of the Quality Assurance Institute, which sponsors the most widely accepted certification program for software testing Software testing is a weak spot for most developers, and many have no system in place to find and correct defects quickly and efficiently This comprehensive resource provides step-by-step guidelines, checklists, and templates for each testing activity, as well as a self-assessment that helps readers identify the sections of the book that respond to their individual needs Covers the latest regulatory developments affecting software testing, including Sarbanes-Oxley Section 404, and provides guidelines for agile testing and testing for security, internal controls, and data warehouses CD-ROM with all checklists and templates saves testers countless hours of developing their own test documentation Note: CD-ROM/DVD and other supplementary materials are not included as part of eBook file.

Project Management Maturity Model
This book contains the refereed proceedings of the 15th International Conference on Agile Software Development, XP 2014, held in Rome, Italy, in May 2014. Because of the wide application of agile approaches in industry, the need for collaboration between academics and practitioners has increased in order to develop the body of knowledge available to support managers, system engineers, and software engineers in their managerial/economic and architectural/project/technical decisions. Year after year, the XP conference has facilitated such improvements and provided evidence on the advantages of agile methodologies by examining the latest theories, practical applications, and implications of agile and lean methods. The 15 full papers, seven short papers, and four experience reports accepted for XP 2014 were selected from 59 submissions and are organized in sections on: agile development, agile challenges and contracting, lessons learned and agile maturity, how to evolve software engineering teaching, methods and metrics, and lean development.

**Succeeding with Agile**

This concise book provides a survival toolkit for efficient, large-scale software development. Discussing a multi-contextual research framework that aims to harness human-related factors in order to improve flexibility, it includes a carefully selected blend of models, methods, practices, and case studies. To investigate mission-critical communication aspects in system engineering, it also examines diverse, i.e. cross-cultural and multinational, environments. This book helps students better organize their knowledge bases, and presents conceptual frameworks, handy practices and case-based examples of agile development in diverse environments. Together with the authors' previous books, "Crisis Management for Software Development and Knowledge Transfer" (2016) and "Managing Software Crisis: A Smart Way to Enterprise Agility" (2018), it constitutes a comprehensive reference resource adds value to this book.

**Research Anthology on Agile Software, Software Development, and Testing**

In an IT world in which there are differently sized projects, with different applications, differently skilled practitioners, and on-site, off-site, and off-shored 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 propose your own agile method; whether yours is a small, medium, large, off-site, or even off-shore project, this book provides personalized guidance on the agile best practices from which to choose to create your own effective and efficient agile method.

**Effective Methods for Software Testing**

This book contains the refereed proceedings of the 14th International Conference on Agile Software Development, XP 2013, held in Vienna, Austria, in June 2013. In the last decade, the interest in agile and lean software development has been continuously growing. Agile and lean have evolved from a way of working -- restricted in the beginning to a few early adopters -- to the mainstream way of developing software. All this time, the XP conference series has actively promoted agility and widely disseminated research results in this area. XP 2013 successfully continued this tradition. The 17 full papers accepted for XP 2013 were selected from 52 submissions and are organized in sections on: teaching and learning; development teams; agile practices; experiences and lessons learned; large-scale projects; and architecture and design.

**Agile Software Testing**

The Agile Software Testing course covers the methodologies and testing approaches but also the techniques and tools used in software testing in agile projects. The first section of this course is on Methodologies and Testing Approaches. Agile software development lifecycles are comprised of short iterations...
with working software released at the end of each iteration. In this section, you will have overview of agile development and cover some of the different approaches, including Extreme Programming, Scrum, and Kanban. You will learn the key aspects of testing in an agile environment, as well as the skillset that an agile tester should have. More specifically we are going to cover the following: Agile Software Development Fundamentals which includes Agile Software Development and the Agile Manifesto, The Twelve Principles of the Agile Manifesto, The Whole Team Approach, Early and Frequent Feedback; Aspects of Agile Approach which includes Extreme Programming (XP), Scrum, Kanban, Collaborative User Stories, Creation of User Stories, Retrospectives, Continuous Integration, Release and Iteration Planning; Testing in Agile Approaches which includes Agile Testing and Development Activities, Agile Project Work Products, Agile Test Levels, Agile Testing and Configuration Management, Agile and Independent Testing; Test Status in Agile Projects which includes Communicating Test Status and Product Quality, Managing Risk Regression; Role and Skills of an Agile Tester which includes Skills of an Agile Tester, Role of an Agile Tester. The second section of this course is on Techniques and Tools. Agile approaches include the complementary techniques of test-driven development, acceptance test-driven development, and behavior-driven development. In this section, we will explore the key features of agile testing and how techniques such as black box testing can be applied in agile projects. We will also take a look at various tools that are available to agile testers, everything from task management and tracking tools, to communication and configuration tools. More specifically we are going to cover the following: Agile Testing and Risk Assessment which includes Test-driven and Behavior-driven Development, Test Levels, A Scrum Tester, Quality Risks in Agile Projects; Techniques in Agile Projects which includes Estimation of Testing Effort, Test Basis in Agile Projects, Definition of Done, Acceptance Test-driven Development, Functional and Nonfunctional Black Box Test Design, Exploratory Testing; Tools for Testing in Agile Projects which includes Task Management and Tracking Tools, Communication and Information-sharing Tools, Test Development and Configuration Tools.

**Software Testing**

How do successful agile teams deliver bug-free, maintainable software—iteration after iteration? The answer is: By seamlessly combining development and testing. On such teams, the developers write testable code that enables them to verify it using various types of automated tests. This approach keeps regressions at bay and prevents “testing crunches”—which otherwise may occur near the end of an iteration—from ever happening. Writing testable code, however, is often difficult, because it requires knowledge and skills that cut across multiple disciplines. In Developer Testing, leading test expert and mentor Alexander Tarlinder presents concise, focused guidance for making new and legacy code far more testable. Tarlinder helps you answer questions like: When have I tested this enough? How many tests do I need to write? What should my tests verify? You’ll learn how to design for testability and utilize techniques like refactoring, dependency breaking, unit testing, data-driven testing, and test-driven development to achieve the highest possible confidence in your software. Through practical examples in Java, C#, Groovy, and Ruby, you’ll discover what works—and what doesn’t. You can quickly begin using Tarlinder’s technology-agnostic insights with most languages and toolsets while not getting buried in specialist details. The author helps you adapt your current programming style for testability, make a testing mindset “second nature,” improve your code, and enrich your day-to-day experience as a software professional. With this guide, you will understand the discipline and vocabulary of testing from the developer’s standpoint. Base developer tests on well-established testing techniques and best practices. Recognize code constructs that impact testability. Effectively name, organize, and execute unit tests. Master the essentials of classic and “mockist-style” TDD. Leverage test doubles with or without mocking frameworks. Capture the benefits of programming by contract, even without runtime support for contracts. Take control of dependencies between classes, components, layers, and tiers. Handle combinatorial explosions of test cases, or scenarios requiring many similar tests. Manage code duplication when it can’t be eliminated. Actively maintain and improve your test suites. Perform more advanced tests at the integration, system, and end-to-end levels. Develop an understanding for how the organizational context influences quality assurance. Establish well-balanced and effective testing strategies suitable for agile teams.

**Testing in Scrum**

With plenty of ideas, suggestions, and practical cases on software quality, this book will help you to improve the quality of your software and to deliver high-
quality products to your users and satisfy the needs of your customers and stakeholders. Many methods for product quality improvement start by investigating the problems, and then work their way back to the point where the problem started. For instance audits and root cause analysis work this way. But what if you could prevent problems from happening, by building an understanding what drives quality, thus enabling to take action before problems actually occur? What Drives Quality explores how quality plays a role in all of the software development activities. It takes a deep dive into quality by listing the relevant factors of development and management activities that drive the quality of software products. It provides a lean approach to quality by analyzing the full development chain from customer requests to delivering products to users. I'm aiming this book at software developers and testers, architects, product owners and managers, agile coaches, Scrum masters, project managers, and operational and senior managers who consider quality to be important. A book on quality should be practical. It should help you, the reader of this book, to improve the quality of your software and deliver better products. It should inspire you and give you energy to persevere on your quality journey. What drives quality tries to do just that, and more. This book is based on my experience as a developer, tester, team leader, project manager, quality manager, process manager, consultant, coach, trainer, and adviser in Agile, Lean, Quality and Continuous Improvement. It takes a deep dive into quality with views from different perspectives and provides ideas, suggestions, practices, and experiences that will help you to improve quality of the products that your organization is delivering. This book views software quality from an engineering, management, and social perspective. It explores the interaction between all involved in delivering high-quality software to users and provides ideas to do it quicker and at lower costs.

**Software Product Management**

The authoritative guide to DAD, IBM's disciplined approach to applying agile practices in enterprise scale projects. Integrate enterprise discipline with powerful, widely-used agile practices into a proven solution for the entire software lifecycle. Scale agile strategies for complex development challenges, without compromising agile's advantages.

**Trends in Software Testing**

Testing IT provides a complete, off-the-shelf software testing process framework for any testing practitioner who is looking to research, implement, roll out, adopt, and maintain a software testing process. It covers all aspects of testing for software developed or modified in-house, modified or extended legacy systems, and software developed by a third party. Software professionals can customize the framework to match the testing requirements of any organization, and six real-world testing case studies are provided to show how other organizations have done this. Packed with a series of real-world case studies, the book also provides a comprehensive set of downloadable testing document templates, proformas, and checklists to support the process of customizing. This new edition demonstrates the role and use of agile testing best practices and includes a specific agile case study.

**Agile Software Development Quality Assurance**

Provides recommendations and case studies to help with the implementation of Scrum.

**Be Agile Do Agile**

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 propose your own agile method.
Software Testing and Continuous Quality Improvement, Third Edition

This book is focused on the advancements in the field of software testing and the innovative practices that the industry is adopting. Considering the widely varied nature of software testing, the book addresses contemporary aspects that are important for both academia and industry. There are dedicated chapters on seamless high-efficiency frameworks, automation on regression testing, software by search, and system evolution management. There are a host of mathematical models that are promising for software quality improvement by model-based testing. There are three chapters addressing this concern. Students and researchers in particular will find these chapters useful for their mathematical strength and rigor. Other topics covered include uncertainty in testing, software security testing, testing as a service, test technical debt (or test debt), disruption caused by digital advancement (social media, cloud computing, mobile application and data analytics), and challenges and benefits of outsourcing. The book will be of interest to students, researchers as well as professionals in the software industry.

Agile Testing

This book constitutes the thoroughly refereed post-conference proceedings of the Second IFIP TC 2 Central and East-European Conference on Software Engineering Techniques, CEE-SET 2008, held in Brno, Czech Republic, in October 2008. The 20 revised full papers presented together with a keynote speech were carefully reviewed and selected from 69 initial submissions. The papers are organized in topical sections on requirements specification, design, modeling, software product lines, code generation, project management, and quality.

Pro Application Lifecycle Management with Visual Studio 2012

Disciplined Agile Delivery

Software engineering requires specialized knowledge of a broad spectrum of topics, including the construction of software and the platforms, applications, and environments in which the software operates as well as an understanding of the people who build and use the software. Offering an authoritative perspective, the two volumes of the Encyclopedia of Software Engineering cover the entire multidisciplinary scope of this important field. More than 200 expert contributors and reviewers from industry and academia across 21 countries provide easy-to-read entries that cover software requirements, design, construction, testing, maintenance, configuration management, quality control, and software engineering management tools and methods. Editor Phillip A. Laplante uses the most universally recognized definition of the areas of relevance to software engineering, the Software Engineering Body of Knowledge (SWEBOK®), as a template for organizing the material. Also available in an electronic format, this encyclopedia supplies software engineering students, IT professionals, researchers, managers, and scholars with unrivaled coverage of the topics that encompass this ever-changing field. Also Available Online This Taylor & Francis encyclopedia is also available through online subscription, offering a variety of extra benefits for researchers, students, and librarians, including: Citation tracking and alerts Active reference linking Saved searches and marked lists HTML and PDF format options Contact Taylor and Francis for more information or to inquire about subscription options and print/online combination packages. US: (Tel) 1.888.318.2367; (E-mail) e-reference@taylorandfrancis.com International: (Tel) +44 (0) 20 7017 6062; (E-mail) online.sales@tandf.co.uk

The Art of Agile Practice
Agile Testing

A Comprehensive Collection of Agile Testing Best Practices: Two Definitive Guides from Leading Pioneers Janet Gregory and Lisa Crispin haven’t just pioneered agile testing, they have also written two of the field’s most valuable guidebooks. Now, you can get both guides in one indispensable eBook collection: today’s must-have resource for all agile testers, teams, managers, and customers. Combining comprehensive best practices and wisdom contained in these two titles, The Agile Testing Collection will help you adapt agile testing to your environment, systematically improve your skills and processes, and strengthen engagement across your entire development team. The first title, Agile Testing: A Practical Guide for Testers and Agile Teams, defines the agile testing discipline and roles, and helps you choose, organize, and use the tools that will help you the most. Writing from the tester’s viewpoint, Gregory and Crispin chronicle an entire agile software development iteration, and identify and explain seven key success factors of agile testing. The second title, More Agile Testing: Learning Journeys for the Whole Team, addresses crucial emerging issues, shares evolved practices, and covers key issues that delivery teams want to learn more about. It offers powerful new insights into continuous improvement, scaling agile testing across teams and the enterprise, overcoming pitfalls of automation, testing in regulated environments, integrating DevOps practices, and testing mobile/embedded and business intelligence systems. The Agile Testing Collection will help you do all this and much more. Customize agile testing processes to your needs, and successfully transition to them Organize agile teams, clarify roles, hire new testers, and quickly bring them up to speed Engage testers in agile development, and help agile team members improve their testing skills Use tests and collaborate with business experts to plan features and guide development Design automated tests for superior reliability and easier maintenance Plan “just enough,” balancing small increments with larger feature sets and the entire system Test to identify and mitigate risks, and prevent future defects Perform exploratory testing using personas, tours, and test charts with session- and thread-based techniques Help testers, developers, and operations experts collaborate on shortening feedback cycles with continuous improvement and delivery.

Analytic Methods in Systems and Software Testing

Practical, Proven Tools for Leading and Empowering High-Performing Agile Teams A leader is like a farmer, who doesn’t grow crops by pulling them but instead creates the perfect environment for the crops to grow and thrive. If you lead in organizations that have adopted agile methods, you know it’s crucial to create the right environment for your agile teams. Traditional tools such as Gantt charts, detailed plans, and internal KPIs aren’t adequate for complex and fast-changing markets, but merely trusting employees and teams to self-manage is insufficient as well. In Agile Leadership Toolkit, longtime agile leader Peter Koning provides a practical and invaluable steering wheel for agile leaders and their teams. Drawing on his extensive experience helping leaders drive more value from agile, Koning offers a comprehensive toolkit for continuously improving your environment, including structures, metrics, meeting techniques, and governance for creating thriving teams that build disruptive products and services. Koning thoughtfully explains how to lead agile teams at large scale and how team members fit into both the team and the wider organization. Architect environments that help teams learn, grow, and flourish for the long term Get timely feedback everyone can use to improve Co-create goals focused on the customer, not the internal organization Help teams brainstorm and visualize the value of their work to the customer Facilitate team ownership and accelerate team learning Support culture change, and design healthier team habits Make bigger changes faster This actionable guide is for leaders at all levels—whether you’re supervising your first agile team, responsible for multiple teams, or lead the entire company. Register your book for convenient access to downloads, updates, and/or corrections as they become available.

Encyclopedia of Software Engineering Three-Volume Set (Print)

Janet Gregory and Lisa Crispin pioneered the agile testing discipline with their previous work, Agile Testing. Now, in More Agile Testing, they reflect on all
they've learned since. They address crucial emerging issues, share evolved agile practices, and cover key issues agile testers have asked to learn more about. Packed with new examples from real teams, this insightful guide offers detailed information about adapting agile testing for your environment; learning from experience and continually improving your test processes; scaling agile testing across teams; and overcoming the pitfalls of automated testing. You'll find brand-new coverage of agile testing for the enterprise, distributed teams, mobile/embedded systems, regulated environments, data warehouse/BI systems, and DevOps practices. You'll come away understanding · How to clarify testing activities within the team · Ways to collaborate with business experts to identify valuable features and deliver the right capabilities · How to design automated tests for superior reliability and easier maintenance · How agile team members can improve and expand their testing skills · How to plan “just enough,” balancing small increments with larger feature sets and the entire system · How to use testing to identify and mitigate risks associated with your current agile processes and to prevent defects · How to overcome challenges within your product or organizational context · How to perform exploratory testing using “ personas” and “ tours” · Exploratory testing approaches that engage the whole team, using test charters with session- and thread-based techniques · How to bring new agile testers up to speed quickly–without overwhelming them Janet Gregory is founder of DragonFire Inc., an agile quality process consultancy and training firm. Her passion is helping teams build quality systems. For almost fifteen years, she has worked as a coach and tester, introducing agile practices into companies of all sizes and helping users and testers understand their agile roles. She is a frequent speaker at agile and testing software conferences, and is a major contributor to the agile testing community. Lisa Crispin, an experienced agile testing practitioner and coach, regularly leads conference workshops on agile testing and contributes frequently to agile software publications. She enjoys collaborating as part of an awesome agile team to produce quality software. Since 1982, she has worked in a variety of roles on software teams, in a wide range of industries. She joined her first agile team in 2000 and continually learns from other teams and practitioners.

What Drives Quality

This book is written by testers for testers. In ten chapters, the authors provide answers to key questions in agile projects. They deal with cultural change processes for agile testing, with questions regarding the approach and organization of software testing, with the use of methods, techniques and tools, especially test automation, and with the redefined role of the tester in agile projects. The first chapter describes the cultural change brought about by agile development. In the second chapter, which addresses agile process models such as Scrum and Kanban, the authors focus on the role of quality assurance in agile development projects. The third chapter deals with the agile test organization and the positioning of testing in an agile team. Chapter 4 discusses the question of whether an agile tester should be a generalist or a specialist. In Chapter 5, the authors turn to the methods and techniques of agile testing, emphasizing the differences from traditional, phase-oriented testing. In Chapter 6, they describe which documents testers still need to create in an agile project. Next, Chapter 7 explains the efficient use of test automation, which is particularly important in agile development, as it is the main instrument for project acceleration and is necessary to support state-of-the-art DevOps approaches and Continuous Integration. Chapter 8 then adds examples from test tool practice extending test automation to include test management functionality. Chapter 9 is dedicated to training and its importance, emphasizing the role of employee training in getting started with agile development. Finally, Chapter 10 summarizes the results of the agile journey in general with a special focus on testing. To make the aspects described even more tangible, the specific topics of this book are accompanied by the description of experiences from concrete software development projects of various organizations. The examples demonstrate that different approaches can lead to solutions that meet the specific challenges of agile projects.

Developer Testing

You can have the best coders in the world working in your teams, but if your project management isn’t up to scratch, your project is almost certain to be delayed, to come in over budget, and in some cases to fail entirely. By taking precise control of your application development process, you can make changes, both large and small, throughout your project’s life cycle that will lead to better–quality finished products that are consistently delivered on time
and within budget. Application lifecycle management (ALM) is an area of rapidly growing interest within the development community. Because its techniques allow you to deal with the process of developing applications across many areas of responsibility and across many different disciplines, its effects on your project can be wide ranging and pronounced. It is a project management tool that has practical implications for the whole team—from architects to designers, from developers to testers. Pro Application Lifecycle Management with Visual Studio 2012 focuses on the most powerful ALM tool available for the Microsoft .NET Framework: Visual Studio Team Foundation Server. It demonstrates the key concepts and techniques of ALM at first with a guide to the overall methodology, and then delves into architecture and testing—illustrating all of the concepts, tips and tricks using the tools TFS provides. The book serves as a complete guide to the ALM style—with no fluff and many relevant code samples and examples. After reading the book, you will understand how TFS can be used to generate continuous meaningful reporting on your project’s health for the decision makers on your team as well as for your project’s sponsors.

**Agile Processes in Software Engineering and Extreme Programming**

This book is for product managers, product owners, product marketing managers, VPs and Heads of Product, CEOs, and start-up founders. In short, it serves anyone interested personally or professionally in software product management. You’ll learn how to plan, coordinate and execute all activities required for software product success. It enables you to find the right balance for delivering customer value and long-term product success. The book offers a comprehensive introduction for beginners as well as proven practices and a novel, holistic approach for experienced product managers. It provides much-needed clarity regarding the numerous tasks and responsibilities involved in the professional and successful management of software products. Readers can use this book as a reference book if they are interested in or have the urgent need to improve one of the following software product management dimensions: Product Viability, Product Development, Go-to-Market / Product Marketing, Software Demonstrations and Training, The Market / Your Customers, or Organizational Maturity. The book helps product people to maximize their impact and effectiveness. Whether you’re a seasoned practitioner, new to software product management, or just want to learn more about the best-of-all disciplines and advance your skills, this book introduces a novel and “business” tested approach to structure and orchestrate the vital dimensions of software product management. You will learn how to create focus and alignment on the things that matter for product success. The book describes a holistic framework to keep the details that matter for product success in balance, taking into consideration the limiting factors, strategies and responsibilities that determine the overall product yield potential. It explains how to leverage and adapt the framework with regard to aspects like product viability, product development, product marketing and software demonstrations and training, as well as more general aspects like markets, customers and organizational maturity. The book focuses on the unique challenges of software product managers or any related roles, whether you are a founder of a small to mid-sized software company or working in the complex ecosystems of large software enterprises or corporate IT departments.

**Enterprise Software Delivery**

There are a few books on the market that discuss agile testing from a practitioner perspective. But this is the first book that looks at the organizational moves that are required to pull together an effective Agile Quality and Testing strategy. One that shows leaders and coaches how to effectively establish agile practices using the Three Pillars model. The book is chock-full of real world stories from two coaches who

**Agile Leadership Toolkit**

Software development continues to be an ever-evolving field as organizations require new and innovative programs that can be implemented to make processes more efficient, productive, and cost-effective. Agile practices particularly have shown great benefits for improving the effectiveness of software development and its maintenance due to their ability to adapt to change. It is integral to remain up to date with the most emerging tactics and techniques involved in the development of new and innovative software. The Research Anthology on Agile Software, Software Development, and Testing is a
comprehensive resource on the emerging trends of software development and testing. This text discusses the newest developments in agile software and its usage spanning multiple industries. Featuring a collection of insights from diverse authors, this research anthology offers international perspectives on agile software. Covering topics such as global software engineering, knowledge management, and product development, this comprehensive resource is valuable to software developers, software engineers, computer engineers, IT directors, students, managers, faculty, researchers, and academicians.

**Lean and Agile Software Development**

These days, more and more software development projects are being carried out using agile methods like Scrum. Agile software development promises higher software quality, a shorter time to market, and improved focus on customer needs. However, the transition to working within an agile methodology is not easy. Familiar processes and procedures change drastically. Software testing and software quality assurance have a crucial role in ensuring that a software development team, department, or company successfully implements long-term agile development methods and benefits from this framework. This book discusses agile methodology from the perspective of software testing and software quality assurance management. Software development managers, project managers, and quality assurance managers will obtain tips and tricks on how to organize testing and assure quality so that agile projects maintain their impact. Professional certified testers and software quality assurance experts will learn how to work successfully within agile software teams and how best to integrate their expertise. Topics include: Agile methodology and classic process models How to plan an agile project Unit tests and test first approach Integration testing and continuous integration System testing and test nonstop Quality management and quality assurance Also included are five case studies from the manufacturing, online-trade, and software industry as well as test exercises for self-assessment. This book covers the new ISTQB Syllabus for Agile Software Testing and is a relevant resource for all students and trainees worldwide who plan to undertake this ISTQB certification.

**Testing in Scrum**

These days, more and more software development projects are being carried out using agile methods like Scrum. Agile software development promises higher software quality, a shorter time to market, and improved focus on customer needs. However, the transition to working within an agile methodology is not easy. Familiar processes and procedures change drastically. Software testing and software quality assurance have a crucial role in ensuring that a software development team, department, or company successfully implements long-term agile development methods and benefits from this framework. This book discusses agile methodology from the perspective of software testing and software quality assurance management. Software development managers, project managers, and quality assurance managers will obtain tips and tricks on how to organize testing and assure quality so that agile projects maintain their impact. Professional certified testers and software quality assurance experts will learn how to work successfully within agile software teams and how best to integrate their expertise. Topics include: Agile methodology and classic process models How to plan an agile project Unit tests and test first approach Integration testing and continuous integration System testing and test nonstop Quality management and quality assurance Also included are five case studies from the manufacturing, online-trade, and software industry as well as test exercises for self-assessment. This book covers the new ISTQB Syllabus for Agile Software Testing and is a relevant resource for all students and trainees worldwide who plan to undertake this ISTQB certification.

**The Agile Testing Collection**

Get past the myths of testing in agile environments - and implement agile testing the RIGHT way. * For everyone concerned with agile testing: developers, testers, managers, customers, and other stakeholders. * Covers every key issue: Values, practices, organizational and cultural challenges, collaboration, metrics, infrastructure, documentation, tools, and more. * By two of the world's most experienced agile testing practitioners and consultants. Software testing has always been crucial, but it may be even more crucial in agile environments that rely heavily on repeated iterations of software capable of passing tests. There are, however, many myths associated with testing in agile environments. This book helps agile team members overcome those myths – and implement
testing that truly maximizes software quality and value. Long-time agile testers Lisa Crispin and Janet Gregory offer powerful insights for three large, diverse groups of readers: experienced testers who are new to agile; members of newly-created agile teams who aren’t sure how to perform testing or work with testers; and test/QA managers whose development teams are implementing agile. Readers will learn specific agile testing practices and techniques that can mean the difference between success and failure; discover how to transition ‘traditional’ test teams to agile; and learn how to integrate testers smoothly into agile teams. Drawing on extensive experience, the authors illuminate topics ranging from culture to test planning to automated tools. They cover every form of testing: business-facing tests, technology-facing tests, exploratory tests, context-driven and scenario tests, load, stability, and endurance tests, and more. Using this book’s techniques, readers can improve the effectiveness and reduce the risks of any agile project or initiative.

**Agile Processes in Software Engineering and Extreme Programming**

Quality is not the sole responsibility of QA. If the whole team doesn’t take quality seriously, the release of new features will always be delayed or worse, buggy software gets released. I have heard many people referring to QA as just a testing entity, which possibly means QA does nothing within the agile environment other than testing. In addition, speaking of agile software development QA, some people may also think that it is just for monitoring agile software development processes, or doing testing only on the project. In Agile Quality Assurance, Anthony Baah shows clear evidence of the benefits for using agileQA in the software development concept and the Quality. QA acts as a liaison between the agile team and the business to ensure agile development policy and practices are adhered to. The agile QA provides the agile system engineering lifecycle expertise and guidance to the business people, release management and stakeholders. The team ensures that all the systems of the project go through the agile system engineering lifecycle process successfully.

* PART I: Overview: Transitioning into Agile Transformation*

- Chapter 1 Agile Software Development Approach Transformation
- Chapter 2 What QA Team Stands For in Agile Software Development
- Chapter 3 The Evolving Role of QA
- Chapter 4 QA and the Agile Development
- Chapter 5 Scaling Agile QA
- Chapter 6 QA - Risks And Cost Reduction in Agile Software Development

* PART II: Agile Methodology: The Big Picture of Agile QA*

- Chapter 7 The Whole Team Approach
- Chapter 8 Agile QA vs Test Plans or Test Cases
- Chapter 9 QA to Determine if Testing Is Done
- Chapter 10 Agile QA vs Acceptance Criteria Development and Review
- Chapter 11 Tracking Production Defects
- Chapter 12 Improving Communication between Agile QA and Development Teams

This book will help you clearly understand the benefits obtained from Agile QA. QA team has the ability to contribute to improving agile work practices within the team environment, ensuring software development efficiency that helps to bring about competitive advantage within the agile software development organization. All these are accomplished by the team’s techniques utilized in finding escaped defects before they get into production environment. There are three hats QA wears which determine the type of helpful roles played in the agile software development. These include quality analyst to know the right things, quality assurer to build quality in, and quality ambassador to indicate if the whole agile team cares.

**Three Pillars of Agile Quality & Testing: Achieving Balanced Results in Your Journey Towards Agile Quality**

This book constitutes the refereed proceedings of the 4th Conference on Extreme Programming and Agile Methods, XP/Agile Universe 2004, held in Calgary, Canada in August 2004. The 18 revised full papers presented together with summaries of workshops, panels, and tutorials were carefully reviewed and selected from 45 submissions. The papers are organized in topical sections on testing and integration, managing requirements and usability, pair programming, foundations of agility, process adaptation, and educational issues.

**SAFe 4.5 Distilled**

A comprehensive treatment of systems and software testing using state of the art methods and tools. This book provides valuable insights into state of the art software testing methods and explains, with examples, the statistical and analytic methods used in this field. Numerous examples are used to provide understanding in applying these methods to real-world problems. Leading authorities in applied statistics, computer science, and software engineering
present state-of-the-art methods addressing challenges faced by practitioners and researchers involved in system and software testing. Methods include: machine learning, Bayesian methods, graphical models, experimental design, generalized regression, and reliability modeling. Analytic Methods in Systems and Software Testing presents its comprehensive collection of methods in four parts: Part I: Testing Concepts and Methods; Part II: Statistical Models; Part III: Testing Infrastructures; and Part IV: Testing Applications. It seeks to maintain a focus on analytic methods, while at the same time offering a contextual landscape of modern engineering, in order to introduce related statistical and probabilistic models used in this domain. This makes the book an incredibly useful tool, offering interesting insights on challenges in the field for researchers and practitioners alike. Compiles cutting-edge methods and examples of analytical approaches to systems and software testing from leading authorities in applied statistics, computer science, and software engineering Combines methods and examples focused on the analytic aspects of systems and software testing Covers logistic regression, machine learning, Bayesian methods, graphical models, experimental design, generalized regression, and reliability models Written by leading researchers and practitioners in the field, from diverse backgrounds including research, business, government, and consulting Stimulates research at the theoretical and practical level Analytic Methods in Systems and Software Testing is an excellent advanced reference directed toward industrial and academic readers whose work in systems and software development approaches or surpasses existing frontiers of testing and validation procedures. It will also be valuable to post-graduate students in computer science and mathematics.

The Future of Software Quality Assurance

The global economy and free market philosophy have resulted in higher global competition and increased expectations from customers. It is obvious that new approaches are needed to satisfy demands and many of them fall under a broad umbrella called agile. To capitalize fully on the benefits of agile, one must first understand the concepts that underpin it. In this book, we first identify many concepts that various approaches advocate for agile and group them into three areas forming a simple, robust system. Then, we describe the most useful agile methods in savage summaries regardless of the approach that promotes them, grouping them logically and showing how to use them. We have an agnostic agile model that can be useful to anyone using any form of agile. Both concepts for being agile and techniques for doing agile are summarized in this book and there are several ways to use this book. To understand the concepts of agile, consult Chapters 3, 4, and 5. Chapters 7, 8, and 9 will help you learn and perform agile tools and techniques.

Extreme Programming and Agile Methods - XP/Agile Universe 2004

"This book provides the research and instruction used to develop and implement software quickly, in small iteration cycles, and in close cooperation with the customer in an adaptive way, making it possible to react to changes set by the constant changing business environment. It presents four values explaining extreme programming (XP), the most widely adopted agile methodology"--Provided by publisher.

More Agile Testing

It is often assumed that software testing is based on clearly defined requirements and software development standards. However, testing is typically performed against changing, and sometimes inaccurate, requirements. The third edition of a bestseller, Software Testing and Continuous Quality Improvement, Third Edition provides a continuous quality framework for the software testing process within traditionally structured and unstructured environments. This framework aids in creating meaningful test cases for systems with evolving requirements. This completely revised reference provides a comprehensive look at software testing as part of the project management process, emphasizing testing and quality goals early on in development. Building on the success of previous editions, the text explains testing in a Service Orientated Architecture (SOA) environment, the building blocks of a Testing Center of Excellence (COE), and how to test in an agile development. Fully updated, the sections on test effort estimation provide greater emphasis on testing metrics. The book also examines all aspects of functional testing and looks at the relation between changing business strategies and changes to applications
in development. Includes New Chapters on Process, Application, and Organizational Metrics All IT organizations face software testing issues, but most are unprepared to manage them. Software Testing and Continuous Quality Improvement, Third Edition is enhanced with an up-to-date listing of free software tools and a question-and-answer checklist for choosing the best tools for your organization. It equips you with everything you need to effectively address testing issues in the most beneficial way for your business.

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