

# Lean Software Development An Agile Toolkit

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**Leading Lean Software Development** - Mary Poppendieck 2009-10-21  
Building on their breakthrough bestsellers Lean Software Development and Implementing Lean

Software Development, Mary and Tom Poppendieck's latest book shows software leaders and team members exactly how to drive high-value change throughout a software

organization—and make it stick. They go far beyond generic implementation guidelines, demonstrating exactly how to make lean work in real projects, environments, and companies. The Poppendiecks organize this book around the crucial concept of frames, the unspoken mental constructs that shape our perspectives and control our behavior in ways we rarely notice. For software leaders and team members, some frames lead to long-term failure, while others offer a strong foundation for success. Drawing on decades of experience, the authors present twenty-four frames that offer a coherent, complete framework for leading lean software development. You'll discover powerful new ways to act as competency leader, product champion, improvement mentor, front-line leader, and even visionary. Systems thinking: focusing on customers, bringing predictability to demand, and revamping policies that cause inefficiency Technical excellence: implementing low-dependency architectures, TDD, and

evolutionary development processes, and promoting deeper developer expertise Reliable delivery: managing your biggest risks more effectively, and optimizing both workflow and schedules Relentless improvement: seeing problems, solving problems, sharing the knowledge Great people: finding and growing professionals with purpose, passion, persistence, and pride Aligned leaders: getting your entire leadership team on the same page From the world's number one experts in Lean software development, *Leading Lean Software Development* will be indispensable to everyone who wants to transform the promise of lean into reality—in enterprise IT and software companies alike.

[A Guide to the Project Management Body of Knowledge \(PMBOK® Guide\) - Seventh Edition and The Standard for Project Management \(BRAZILIAN PORTUGUESE\)](#) - Project Management Institute Project Management Institute 2021-08-01

PMBOK® Guide is the go-to resource for project management practitioners. The project management profession has significantly evolved due to emerging technology, new approaches and rapid market changes. Reflecting this evolution, The Standard for Project Management enumerates 12 principles of project management and the PMBOK® Guide &- Seventh Edition is structured around eight project performance domains. This edition is designed to address practitioners' current and future needs and to help them be more proactive, innovative and nimble in enabling desired project outcomes. This edition of the PMBOK® Guide:

- Reflects the full range of development approaches (predictive, adaptive, hybrid, etc.);
- Provides an entire section devoted to tailoring the development approach and processes;
- Includes an expanded list of models, methods, and artifacts;
- Focuses on not just delivering project outputs but also enabling outcomes; and
- Integrates with

PMI standards+™ for information and standards application content based on project type, development approach, and industry sector.

**Agile Estimating and Planning** - Mike Cohn  
2005-11-01

Agile Estimating and Planning is the definitive, practical guide to estimating and planning agile projects. In this book, Agile Alliance cofounder Mike Cohn discusses the philosophy of agile estimating and planning and shows you exactly how to get the job done, with real-world examples and case studies. Concepts are clearly illustrated and readers are guided, step by step, toward how to answer the following questions: What will we build? How big will it be? When must it be done? How much can I really complete by then? You will first learn what makes a good plan-and then what makes it agile. Using the techniques in Agile Estimating and Planning , you can stay agile from start to finish, saving time, conserving resources, and accomplishing more. Highlights include: Why

conventional prescriptive planning fails and why agile planning works How to estimate feature size using story points and ideal days-and when to use each How and when to re-estimate How to prioritize features using both financial and nonfinancial approaches How to split large features into smaller, more manageable ones How to plan iterations and predict your team's initial rate of progress How to schedule projects that have unusually high uncertainty or schedule-related risk How to estimate projects that will be worked on by multiple teams Agile Estimating and Planning supports any agile, semiagile, or iterative process, including Scrum, XP, Feature-Driven Development, Crystal, Adaptive Software Development, DSDM, Unified Process, and many more. It will be an indispensable resource for every development manager, team leader, and team member.

**Tribal Unity (paperback)** - Em Campbell-Pretty 2016-10-11

Are you ready to create a one team culture?

Tribal Unity is a real world, practical guide for leaders committed to making their organisation a great place to work. Based in the true story of how one inspiring leader transformed a highly toxic organisational culture, into an internationally recognised case study of success. Tribal Unity shares proven patterns that are revolutionising the way teams of teams connect and perform. Em Campbell-Pretty is an internationally acclaimed business strategist, speaker and one of Australia's leading Enterprise Agile consultants. After 20 years in senior business roles within multinational blue chip corporations, Em discovered Agile and became passionate about the chance it provides to align business and IT around the delivery of value. Today Em is instrumental in empowering Australia's largest enterprises in improving the effectiveness of their teams.

*Extreme Programming Explained* - Kent Beck 2004

Accountability. Transparency. Responsibility.

These are not words that are often applied to software development. In this completely revised introduction to Extreme Programming (XP), Kent Beck describes how to improve your software development by integrating these highly desirable concepts into your daily development process. The first edition of Extreme Programming Explained is a classic. It won awards for its then-radical ideas for improving small-team development, such as having developers write automated tests for their own code and having the whole team plan weekly. Much has changed in five years. This completely rewritten second edition expands the scope of XP to teams of any size by suggesting a program of continuous improvement based on.

**Office 2010 For Seniors For Dummies** -  
Faithe Wempen 2010-04-22

Clear, easy-to-understand instructions for seniors who want to get the most out of Microsoft Office 2010 Seniors are buying computers—both desktops and laptops—in

record numbers to stay in touch with family and friends, connect with peers, research areas of interest, make purchases online, or learn a new skill. Assuming no prior knowledge of Microsoft Office, this book is aimed at seniors who are interested in maximizing the capabilities of Microsoft Word, Excel, PowerPoint, and Outlook. Written in large typeface and featuring enlarged figures and drawings to make the book easier to read, this fun and friendly book begins by showing you how to start each application and maneuver the interface. You'll benefit from detailed explanations on how to accomplish specific tasks through the use of examples and templates. Targets seniors who are interested in using the Microsoft Office suite for any number of reasons: keep in touch with family and friends, research topics of interest, shop online, learn a new skill, and more Assumes no prior knowledge of Microsoft Office and walks you through each application: Word (documents), Excel (spreadsheets), PowerPoint

(presentations), and Outlook (e-mail) Features a large font for text and enlarged figures and drawings to make the book accessible and easy to read Explains how to open each application and navigate the interface, and clearly demonstrates how to accomplish specific tasks in each application Includes helpful examples and templates of letters, faxes, a budget grid, and more to assist with the learning process With age comes wisdom—and with Office 2010 For Seniors For Dummies comes the information you need to establish positive Office 2010 habits!

Lean Software Development - Mary Poppendieck  
2003-05-08

Lean Software Development: An Agile Toolkit  
Adapting agile practices to your development organization  
Uncovering and eradicating waste throughout the software development lifecycle  
Practical techniques for every development manager, project manager, and technical leader  
Lean software development: applying agile

principles to your organization In Lean Software Development, Mary and Tom Poppendieck identify seven fundamental "lean" principles, adapt them for the world of software development, and show how they can serve as the foundation for agile development approaches that work. Along the way, they introduce 22 "thinking tools" that can help you customize the right agile practices for any environment. Better, cheaper, faster software development. You can have all three—if you adopt the same lean principles that have already revolutionized manufacturing, logistics and product development. Iterating towards excellence: software development as an exercise in discovery  
Managing uncertainty: "decide as late as possible" by building change into the system.  
Compressing the value stream: rapid development, feedback, and improvement  
Empowering teams and individuals without compromising coordination  
Software with integrity: promoting coherence, usability,

fitness, maintainability, and adaptability How to "see the whole"-even when your developers are scattered across multiple locations and contractors Simply put, Lean Software Development helps you refocus development on value, flow, and people-so you can achieve breakthrough quality, savings, speed, and business alignment.

*Software Architect's Handbook* - Joseph Ingeno  
2018-08-30

A comprehensive guide to exploring software architecture concepts and implementing best practices Key Features Enhance your skills to grow your career as a software architect Design efficient software architectures using patterns and best practices Learn how software architecture relates to an organization as well as software development methodology Book Description The Software Architect's Handbook is a comprehensive guide to help developers, architects, and senior programmers advance their career in the software architecture domain.

This book takes you through all the important concepts, right from design principles to different considerations at various stages of your career in software architecture. The book begins by covering the fundamentals, benefits, and purpose of software architecture. You will discover how software architecture relates to an organization, followed by identifying its significant quality attributes. Once you have covered the basics, you will explore design patterns, best practices, and paradigms for efficient software development. The book discusses which factors you need to consider for performance and security enhancements. You will learn to write documentation for your architectures and make appropriate decisions when considering DevOps. In addition to this, you will explore how to design legacy applications before understanding how to create software architectures that evolve as the market, business requirements, frameworks, tools, and best practices change over time. By the end of

this book, you will not only have studied software architecture concepts but also built the soft skills necessary to grow in this field. What you will learn Design software architectures using patterns and best practices Explore the different considerations for designing software architecture Discover what it takes to continuously improve as a software architect Create loosely coupled systems that can support change Understand DevOps and how it affects software architecture Integrate, refactor, and re-architect legacy applications Who this book is for The Software Architect's Handbook is for you if you are a software architect, chief technical officer (CTO), or senior developer looking to gain a firm grasp of software architecture.

### **Agile Management for Software**

**Engineering** - David J. Anderson 2003-09-17

A breakthrough approach to managing agile software development, Agile methods might just be the alternative to outsourcing. However, agile development must scale in scope and discipline

to be acceptable in the boardrooms of the Fortune 1000. In Agile Management for Software Engineering, David J. Anderson shows managers how to apply management science to gain the full business benefits of agility through application of the focused approach taught by Eli Goldratt in his Theory of Constraints. Whether you're using XP, Scrum, FDD, or another agile approach, you'll learn how to develop management discipline for all phases of the engineering process, implement realistic financial and production metrics, and focus on building software that delivers maximum customer value and outstanding business results. Coverage includes: Making the business case for agile methods: practical tools and disciplines How to choose an agile method for your next project Breakthrough application of Critical Chain Project Management and constraint-driven control of the flow of value Defines the four new roles for the agile manager in software projects—and competitive IT

organizations Whether you're a development manager, project manager, team leader, or senior IT executive, this book will help you achieve all four of your most urgent challenges: lower cost, faster delivery, improved quality, and focused alignment with the business.

*The Lean Mindset* - Mary Poppendieck

2013-09-20

What company doesn't want energized workers, delighted customers, genuine efficiency, and breakthrough innovation? *The Lean Mindset* shows how lean companies really work—and how a lean mindset is the key to creating stunning products and delivering amazing services.

Through cutting-edge research and case studies from leading organizations, including Spotify, Ericsson, Intuit, GE Healthcare, Pixar, CareerBuilder, and Intel, you'll discover proven patterns for developing that mindset. You'll see how to cultivate product teams that act like successful startups, create the kind of efficiency that attracts customers, and leverage the talents

of bright, creative people. The Poppendiecks weave lean principles throughout this book, just as those principles must be woven throughout the fabric of your truly lean organization. Learn How To Start with an inspiring purpose, and overcome the curse of short-term thinking Energize teams by providing well-framed challenges, larger purposes, and a direct line of sight between their work and the achievement of those purposes Delight customers by gaining unprecedented insight into their real needs, and building products and services that fully anticipate those needs Achieve authentic, sustainable efficiency without layoffs, rock-bottom cost focus, or totalitarian work systems Develop breakthrough innovations by moving beyond predictability to experimentation, beyond globalization to decentralization, beyond productivity to impact Lean approaches to software development have moved from novelty to widespread use, in large part due to the principles taught by Mary and Tom Poppendieck

in their pioneering books. Now, in *The Lean Mindset*, the Poppendiecks take the next step, looking at a company where multidiscipline teams are expected to ask the right questions, solve the right problems, and deliver solutions that customers love.

### **Engineering and Managing Software**

**Requirements** - Aybüke Aurum 2006-04-07

Requirements engineering is the process by which the requirements for software systems are gathered, analyzed, documented, and managed throughout their complete lifecycle. Traditionally it has been concerned with technical goals for, functions of, and constraints on software systems. Aurum and Wohlin, however, argue that it is no longer appropriate for software systems professionals to focus only on functional and non-functional aspects of the intended system and to somehow assume that organizational context and needs are outside their remit. Instead, they call for a broader perspective in order to gain a better

understanding of the interdependencies between enterprise stakeholders, processes, and software systems, which would in turn give rise to more appropriate techniques and higher-quality systems. Following an introductory chapter that provides an exploration of key issues in requirements engineering, the book is organized in three parts. Part 1 presents surveys of state-of-the-art requirements engineering process research along with critical assessments of existing models, frameworks and techniques. Part 2 addresses key areas in requirements engineering, such as market-driven requirements engineering, goal modeling, requirements ambiguity, and others. Part 3 concludes the book with articles that present empirical evidence and experiences from practices in industrial projects. Its broader perspective gives this book its distinct appeal and makes it of interest to both researchers and practitioners, not only in software engineering but also in other disciplines such as business

process engineering and management science. [Lean Enterprise](#) - Jez Humble 2020-07-20  
How well does your organization respond to changing market conditions, customer needs, and emerging technologies when building software-based products? This practical guide presents Lean and Agile principles and patterns to help you move fast at scale—and demonstrates why and how to apply these paradigms throughout your organization, rather than with just one department or team. Through case studies, you'll learn how successful enterprises have rethought everything from governance and financial management to systems architecture and organizational culture in the pursuit of radically improved performance. Discover how Lean focuses on people and teamwork at every level, in contrast to traditional management practices Approach problem-solving experimentally by exploring solutions, testing assumptions, and getting feedback from real users Lead and manage

large-scale programs in a way that empowers employees, increases the speed and quality of delivery, and lowers costs Learn how to implement ideas from the DevOps and Lean Startup movements even in complex, regulated environments

**Agile Project Management For Dummies** - Mark C. Layton 2012-05-08

Presents a step-by-step guide to effectively manage the computer software development process.

**Agile Project Management** - Jim Highsmith 2009-07-10

Best practices for managing projects in agile environments—now updated with new techniques for larger projects Today, the pace of project management moves faster. Project management needs to become more flexible and far more responsive to customers. Using Agile Project Management (APM), project managers can achieve all these goals without compromising value, quality, or business

discipline. In Agile Project Management, Second Edition, renowned agile pioneer Jim Highsmith thoroughly updates his classic guide to APM, extending and refining it to support even the largest projects and organizations. Writing for project leaders, managers, and executives at all levels, Highsmith integrates the best project management, product management, and software development practices into an overall framework designed to support unprecedented speed and mobility. The many topics added in this new edition include incorporating agile values, scaling agile projects, release planning, portfolio governance, and enhancing organizational agility. Project and business leaders will especially appreciate Highsmith's new coverage of promoting agility through performance measurements based on value, quality, and constraints. This edition's coverage includes: Understanding the agile revolution's impact on product development Recognizing when agile methods will work in project

management, and when they won't Setting realistic business objectives for Agile Project Management Promoting agile values and principles across the organization Utilizing a proven Agile Enterprise Framework that encompasses governance, project and iteration management, and technical practices Optimizing all five stages of the agile project: Envision, Speculate, Explore, Adapt, and Close Organizational and product-related processes for scaling agile to the largest projects and teams Agile project governance solutions for executives and management The "Agile Triangle": measuring performance in ways that encourage agility instead of discouraging it The changing role of the agile project leader

### **Scrumban - Essays on Kanban Systems for Lean Software Development** - Corey Ladas

2009-01-01

Corey Ladas' groundbreaking paper "ScrumBan" has captured the imagination of the software development world. Scrum and agile

methodologies have helped software development teams organize and become more efficient. Lean methods like kanban can extend these benefits. Kanban also provides a powerful mechanism to identify process improvement opportunities. This book covers some of the metrics and day-to-day management techniques that make continuous improvement an achievable outcome in the real world. ScrumBan the book provides a series of essays that give practitioners the background needed to create more robust practices combining the best of agile and lean.

**Agile for Everybody** - Matt LeMay 2018-10-10  
The Agile movement provides real, actionable answers to the question that keeps many company leaders awake at night: How do we stay successful in a fast-changing and unpredictable world? Agile has already transformed how modern companies build and deliver software. This practical book demonstrates how entire organizations—from

product managers and engineers to marketers and executives—can put Agile to work. Author Matt LeMay explains Agile in clear, jargon-free terms and provides concrete and actionable steps to help any team put its values and principles into practice. Examples from a wide variety of organizations, including small nonprofits and global financial enterprises, bring to life the on-the-ground realities of Agile across industries and functions. Understand exactly what Agile is and why it matters Use Agile to address your organization's specific needs and goals Take customer centricity from theory into practice Stop wasting time in "report and critique" meetings and start making better decisions Create a harmonious cycle of learning, collaborating, and delivering Learn from Agile experts at companies like IBM, Spotify, and Coca-Cola

**Agile Leadership Toolkit** - Peter Koning  
2019-08-23  
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. See inside book for details.

Agile Testing - Manfred Baumgartner  
2021-09-09

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.

Agile Software Development - Thomas Stober  
2009-10-03

Software Development is moving towards a more agile and more flexible approach. It turns out that the traditional "waterfall" model is not supportive in an environment where technical, financial and strategic constraints are changing almost every day. But what is agility? What are today's major approaches? And especially: What is the impact of agile development principles on the development teams, on project management and on software architects? How can large enterprises become more agile and improve their business processes, which have been existing since many, many years? What are the limitations of Agility? And what is the right balance between reliable structures and flexibility? This book will give answers to these questions. A strong emphasis will be on real life project examples, which describe how development teams have moved from a waterfall model towards an Agile Software Development

approach.

*Agile Database Techniques* - Scott Ambler  
2012-09-17

Describes Agile Modeling Driven Design (AMDD) and Test-Driven Design (TDD) approaches, database refactoring, database encapsulation strategies, and tools that support evolutionary techniques Agile software developers often use object and relational database (RDB) technology together and as a result must overcome the impedance mismatch The author covers techniques for mapping objects to RDBs and for implementing concurrency control, referential integrity, shared business logic, security access control, reports, and XML An agile foundation describes fundamental skills that all agile software developers require, particularly Agile DBAs Includes object modeling, UML data modeling, data normalization, class normalization, and how to deal with legacy databases Scott W. Ambler is author of Agile Modeling (0471202827), a contributing editor

with Software Development  
([www.sdmagazine.com](http://www.sdmagazine.com)), and a featured speaker  
at software conferences worldwide

**Disciplined Agile Delivery** - Scott W. Ambler  
2012-05-31

Master IBM's Breakthrough DAD Process Framework for Succeeding with Agile in Large, Complex, Mission-Critical IT Projects It is widely recognized that moving from traditional to agile approaches to build software solutions is a critical source of competitive advantage. Mainstream agile approaches that are indeed suitable for small projects require significant tailoring for larger, complex enterprise projects. In Disciplined Agile Delivery, Scott W. Ambler and Mark Lines introduce IBM's breakthrough Disciplined Agile Delivery (DAD) process framework, which describes how to do this tailoring. DAD applies a more disciplined approach to agile development by acknowledging and dealing with the realities and complexities of a portfolio of interdependent

program initiatives. Ambler and Lines show how to extend Scrum with supplementary agile and lean strategies from Agile Modeling (AM), Extreme Programming (XP), Kanban, Unified Process (UP), and other proven methods to provide a hybrid approach that is adaptable to your organization's unique needs. They candidly describe what practices work best, why they work, what the trade-offs are, and when to consider alternatives, all within the context of your situation. Disciplined Agile Delivery addresses agile practices across the entire lifecycle, from requirements, architecture, and development to delivery and governance. The authors show how these best-practice techniques fit together in an end-to-end process for successfully delivering large, complex systems--from project initiation through delivery. Coverage includes Scaling agile for mission-critical enterprise endeavors Avoiding mistakes that drive poorly run agile projects to chaos Effectively initiating an agile project

Transitioning as an individual to agile  
Incrementally building consumable solutions  
Deploying agile solutions into complex  
production environments Leveraging DevOps,  
architecture, and other enterprise disciplines  
Adapting your governance strategy for agile  
projects Based on facts, research, and extensive  
experience, this book will be an indispensable  
resource for every enterprise software leader  
and practitioner--whether they're seeking to  
optimize their existing agile/Scrum process or  
improve the agility of an iterative process.

[Service Design Patterns](#) - Robert Daigneau  
2011-10-25

Web services have been used for many years. In  
this time, developers and architects have  
encountered a number of recurring design  
challenges related to their usage, and have  
learned that certain service design approaches  
work better than others to solve certain  
problems. In *Service Design Patterns*, Rob  
Daigneau codifies proven design solutions for

web services that follow the REST architectural  
style or leverage the SOAP/WSDL specifications.  
This catalogue identifies the fundamental topics  
in web service design and lists the common  
design patterns for each topic. All patterns  
identify the context in which they may be used,  
explain the constituent design elements, and  
explore the relative strengths and trade-offs.  
Code examples are provided to help you better  
understand how the patterns work but are kept  
general so that you can see how the solutions  
may be applied to disparate technologies that  
will inevitably change in the years to come. This  
book will help readers answer the following  
questions: How do you create a web service API,  
what are the common API styles, and when  
should a particular style be used? How can  
clients and web services communicate, and what  
are the foundations for creating complex  
conversations in which multiple parties  
exchange data over extended periods of time?  
What are the options for implementing web

service logic, and when should a particular approach be used? How can clients become less coupled to the underlying systems used by a service? How can information about a web service be discovered? How can generic functions like authentication, validation, caching, and logging be supported on the client or service? What changes to a service cause clients to break? What are the common ways to version a service? How can web services be designed to support the continuing evolution of business logic without forcing clients to constantly upgrade? This book is an invaluable resource for enterprise architects, solution architects, and developers who use web services to create enterprise IT applications, commercial or open source products, and Software as a Service (SaaS) products that leverage emerging Cloud platforms.

[The Journey to Enterprise Agility](#) - Daryl Kulak  
2017-05-05

This is the first book to seriously address the

disconnection between nimble Agile teams and other groups in the enterprise, including enterprise architecture, the program management office (PMO), human resources, and even business executives. When an enterprise experiments with practice improvements, software development teams often jump on board with excitement, while other groups are left to wonder how they will fit in. We address how these groups can adapt to Agile teams. More importantly, we show how many Agile teams cause their own problems, damaging scalability and sustainability, by requiring special treatment, and by failing to bridge the gaps between themselves and other groups. We call this phenomenon “Agile illth.” Adopting a set of “best practices” is not enough. All of us, Agile teams and the corporate groups, must change our intentions and worldviews to be more compatible with the success of the enterprise. Join us on the journey to enterprise agility. It is a crooked path, fraught with danger,

confusion and complexity. It is the only way to reach the pinnacles we hope to experience in the form of better business value delivered faster for less cost.

**Continuous Delivery** - Jez Humble 2010-07-27

Winner of the 2011 Jolt Excellence Award!

Getting software released to users is often a painful, risky, and time-consuming process. This groundbreaking new book sets out the principles and technical practices that enable rapid, incremental delivery of high quality, valuable new functionality to users. Through automation of the build, deployment, and testing process, and improved collaboration between developers, testers, and operations, delivery teams can get changes released in a matter of hours—sometimes even minutes—no matter what the size of a project or the complexity of its code base.

Jez Humble and David Farley begin by presenting the foundations of a rapid, reliable, low-risk delivery process. Next, they introduce the “deployment pipeline,” an automated

process for managing all changes, from check-in to release. Finally, they discuss the “ecosystem” needed to support continuous delivery, from infrastructure, data and configuration management to governance. The authors introduce state-of-the-art techniques, including automated infrastructure management and data migration, and the use of virtualization. For each, they review key issues, identify best practices, and demonstrate how to mitigate risks. Coverage includes • Automating all facets of building, integrating, testing, and deploying software • Implementing deployment pipelines at team and organizational levels • Improving collaboration between developers, testers, and operations • Developing features incrementally on large and distributed teams • Implementing an effective configuration management strategy • Automating acceptance testing, from analysis to implementation • Testing capacity and other non-functional requirements • Implementing continuous deployment and zero-downtime

releases • Managing infrastructure, data, components and dependencies • Navigating risk management, compliance, and auditing Whether you're a developer, systems administrator, tester, or manager, this book will help your organization move from idea to release faster than ever—so you can deliver value to your business rapidly and reliably.

### **Implementing Lean Software Development -**

Mary Poppendieck 2007

"This remarkable book combines practical advice, ready-to-use techniques, and a deep understanding of why this is the right way to develop software. I have seen software teams transformed by the ideas in this book." --Mike Cohn, author of Agile Estimating and Planning  
"As a lean practitioner myself, I have loved and used their first book for years. When this second book came out, I was delighted that it was even better. If you are interested in how lean principles can be useful for software development organizations, this is the book you

are looking for. The Poppendiecks offer a beautiful blend of history, theory, and practice." --Alan Shalloway, coauthor of Design Patterns Explained "I've enjoyed reading the book very much. I feel it might even be better than the first lean book by Tom and Mary, while that one was already exceptionally good! Mary especially has a lot of knowledge related to lean techniques in product development and manufacturing. It's rare that these techniques are actually translated to software. This is something no other book does well (except their first book)." --Bas Vodde "The new book by Mary and Tom Poppendieck provides a well-written and comprehensive introduction to lean principles and selected practices for software managers and engineers. It illustrates the application of the values and practices with well-suited success stories. I enjoyed reading it." --Roman Pichler "In Implementing Lean Software Development, the Poppendiecks explore more deeply the themes they introduced in Lean

Software Development. They begin with a compelling history of lean thinking, then move to key areas such as value, waste, and people. Each chapter includes exercises to help you apply key points. If you want a better understanding of how lean ideas can work with software, this book is for you." --Bill Wake, independent consultant

In 2003, Mary and Tom Poppendieck's *Lean Software Development* introduced breakthrough development techniques that leverage Lean principles to deliver unprecedented agility and value. Now their widely anticipated sequel and companion guide shows exactly how to implement Lean software development, hands-on. This new book draws on the Poppendiecks' unparalleled experience helping development organizations optimize the entire software value stream. You'll discover the right questions to ask, the key issues to focus on, and techniques proven to work. The authors present case studies from leading-edge software organizations, and offer practical exercises for

jumpstarting your own Lean initiatives. Managing to extend, nourish, and leverage agile practices Building true development teams, not just groups Driving quality through rapid feedback and detailed discipline Making decisions Just-in-Time, but no later Delivering fast: How PatientKeeper delivers 45 rock-solid releases per year Making tradeoffs that really satisfy customers Implementing Lean Software Development is indispensable to anyone who wants more effective development processes--managers, project leaders, senior developers, and architects in enterprise IT and software companies alike.

[Lean Architecture](#) - James O. Coplien 2011-01-06  
More and more Agile projects are seeking architectural roots as they struggle with complexity and scale - and they're seeking lightweight ways to do it Still seeking? In this book the authors help you to find your own path Taking cues from Lean development, they can help steer your project toward practices with

longstanding track records Up-front architecture? Sure. You can deliver an architecture as code that compiles and that concretely guides development without bogging it down in a mass of documents and guesses about the implementation Documentation? Even a whiteboard diagram, or a CRC card, is documentation: the goal isn't to avoid documentation, but to document just the right things in just the right amount Process? This all works within the frameworks of Scrum, XP, and other Agile approaches

Lean-Agile Software Development - Alan Shalloway 2009-10-22

Agile techniques have demonstrated immense potential for developing more effective, higher-quality software. However, scaling these techniques to the enterprise presents many challenges. The solution is to integrate the principles and practices of Lean Software Development with Agile's ideology and methods. By doing so, software organizations leverage

Lean's powerful capabilities for "optimizing the whole" and managing complex enterprise projects. A combined "Lean-Agile" approach can dramatically improve both developer productivity and the software's business value. In this book, three expert Lean software consultants draw from their unparalleled experience to gather all the insights, knowledge, and new skills you need to succeed with Lean-Agile development. Lean-Agile Software Development shows how to extend Scrum processes with an Enterprise view based on Lean principles. The authors present crucial technical insight into emergent design, and demonstrate how to apply it to make iterative development more effective. They also identify several common development "anti-patterns" that can work against your goals, and they offer actionable, proven alternatives. Lean-Agile Software Development shows how to Transition to Lean Software Development quickly and successfully Manage the initiation of product

enhancements Help project managers work together to manage product portfolios more effectively Manage dependencies across the software development organization and with its partners and colleagues Integrate development and QA roles to improve quality and eliminate waste Determine best practices for different software development teams The book's companion Web site,

**Lean Enterprise Software and Systems -**

Brian Fitzgerald 2013-11-26

This book contains the refereed proceedings of the 4th International Conference on Lean Enterprise Software and Systems, LESS 2013, held in Galway, Ireland, in December 2013. LESS fosters interactions between practitioners and researchers by joining the lean product development and the agile software development communities in a highly collaborative

environment. Each year, the program combines novelties and recent research results that make new ideas thrive during and after the conference. This year, the conference agenda was expanded to incorporate topics such as portfolio management, open innovation and enterprise transformation. The 14 papers selected for this book represent a diverse range of experiences, studies and theoretical achievements. They are organized in four sections on lean software development, quality and performance, case studies and emerging developments.

Lean Software Development - Mary Poppendieck 2003

In Lean Software Development, Mary and Tom Poppendieck identify seven fundamental "lean" principles, adapt them for the world of software development, and show how they can serve as the foundation for agile development approaches that work. Along the way, they introduce 22 "thinking tools" that can help you customize the

right agile practices for any environment. Better, cheaper, faster software development. You can have all three - if you adopt the same lean principles that have already revolutionized manufacturing, logistics, and product development: Iterating toward excellence: software development as an exercise in discovery; managing uncertainty: "decide as late as possible" by building change into the system; compressing the value stream: rapid development, feedback, and improvement; empowering teams and individuals without compromising coordination; software with integrity, promoting coherence, usability, fitness, maintainability, and adaptability; and how to "see the whole" - even when your developers are scattered across multiple locations and contractors. Simply put, Lean Software Development helps you refocus development on value, flow, and people - so you can achieve breakthrough quality, savings, speed, and business alignment.

*Agile Software Requirements* - Dean Leffingwell  
2010-12-27

"We need better approaches to understanding and managing software requirements, and Dean provides them in this book. He draws ideas from three very useful intellectual pools: classical management practices, Agile methods, and lean product development. By combining the strengths of these three approaches, he has produced something that works better than any one in isolation." -From the Foreword by Don Reinertsen, President of Reinertsen & Associates; author of *Managing the Design Factory*; and leading expert on rapid product development Effective requirements discovery and analysis is a critical best practice for serious application development. Until now, however, requirements and Agile methods have rarely coexisted peacefully. For many enterprises considering Agile approaches, the absence of effective and scalable Agile requirements processes has been a showstopper for Agile

adoption. In Agile Software Requirements, Dean Leffingwell shows exactly how to create effective requirements in Agile environments. Part I presents the “big picture” of Agile requirements in the enterprise, and describes an overall process model for Agile requirements at the project team, program, and portfolio levels Part II describes a simple and lightweight, yet comprehensive model that Agile project teams can use to manage requirements Part III shows how to develop Agile requirements for complex systems that require the cooperation of multiple teams Part IV guides enterprises in developing Agile requirements for ever-larger “systems of systems,” application suites, and product portfolios This book will help you leverage the benefits of Agile without sacrificing the value of effective requirements discovery and analysis. You’ll find proven solutions you can apply right now—whether you’re a software developer or tester, executive, project/program manager, architect, or team leader.

*Choose Your WoW!* - Scott W. Ambler 2020  
“Hundreds of organizations around the world have already benefited from Disciplined Agile Delivery (DAD). Disciplined Agile (DA) is the only comprehensive tool kit available for guidance on building high-performance agile teams and optimizing your way of working (WoW). As a hybrid of all the leading agile and lean approaches, it provides hundreds of strategies to help you make better decisions within your agile teams, balancing self-organization with the realities and constraints of your unique enterprise context. The highlights of this handbook include: #1. As the official source of knowledge on DAD, it includes greatly improved and enhanced strategies with a revised set of goal diagrams based upon learnings from applying DAD in the field. #2 It is an essential handbook to help coaches and teams make better decisions in their daily work, providing a wealth of ideas for experimenting with agile and lean techniques while providing specific

guidance and trade-offs for those "it depends" questions. #3 It makes a perfect study guide for Disciplined Agile certification. Why "fail fast" (as our industry likes to recommend) when you can learn quickly on your journey to high performance? With this handbook, you can make better decisions based upon proven, context-based strategies, leading to earlier success and better outcomes"--

*Sooner Safer Happier* - Jonathan Smart  
2020-11-10

It's no secret that we are living in the Digital Age. Technology companies make up seven of the world's ten largest firms by market capitalization. And the key to their success is the key to all modern organizations. Jonathan Smart, business agility practitioner, thought leader, and coach, reveals the patterns and antipatterns that will help organizations from every industry deliver better value sooner, safer, and happier through high levels of engagement, inclusion, and empowerment. Through his decades of

experience in the technology world, Smart provides business leaders with a blueprint for creating a world-class organization of the future. Through Agile and Lean ways of working, business leaders can empower teams to improve production, grow together, and create better services for their customers. These better ways of working have overflowed from the IT department to every corner of successful organizations, taking root in every industry from aerospace to accounting, insurance to shipping. This book is not about software development. It is not a book about the computer industry. This book is about applying agility across the entire organization. It's a book that will put you at the front of change and ahead of the competition.

*Scaling Software Agility* - Dean Leffingwell  
2007-02-26

"Companies have been implementing large agile projects for a number of years, but the 'stigma' of 'agile only works for small projects' continues to be a frequent barrier for newcomers and a

rallying cry for agile critics. What has been missing from the agile literature is a solid, practical book on the specifics of developing large projects in an agile way. Dean Leffingwell's book *Scaling Software Agility* fills this gap admirably. It offers a practical guide to large project issues such as architecture, requirements development, multi-level release planning, and team organization. Leffingwell's book is a necessary guide for large projects and large organizations making the transition to agile development." —Jim Highsmith, director, Agile Practice, Cutter Consortium, author of *Agile Project Management* "There's tension between building software fast and delivering software that lasts, between being ultra-responsive to changes in the market and maintaining a degree of stability. In his latest work, *Scaling Software Agility*, Dean Leffingwell shows how to achieve a pragmatic balance among these forces. Leffingwell's observations of the problem, his advice on the solution, and

his description of the resulting best practices come from experience: he's been there, done that, and has seen what's worked." —Grady Booch, IBM Fellow Agile development practices, while still controversial in some circles, offer undeniable benefits: faster time to market, better responsiveness to changing customer requirements, and higher quality. However, agile practices have been defined and recommended primarily to small teams. In *Scaling Software Agility*, Dean Leffingwell describes how agile methods can be applied to enterprise-class development. Part I provides an overview of the most common and effective agile methods. Part II describes seven best practices of agility that natively scale to the enterprise level. Part III describes an additional set of seven organizational capabilities that companies can master to achieve the full benefits of software agility on an enterprise scale. This book is invaluable to software developers, testers and QA personnel, managers and team leads, as well

as to executives of software organizations whose objective is to increase the quality and productivity of the software development process but who are faced with all the challenges of developing software on an enterprise scale.

### **Introduction to Disciplined Agile Delivery**

**2nd Edition** - Mark Lines 2018-01-15

Introduction to Disciplined Agile Delivery 2nd Edition provides a quick overview of how agile software development works from beginning-to-end. It describes Disciplined Agile Delivery (DAD), the first of four levels of the Disciplined Agile (DA) process decision framework, and works through a case study describing a typical agile team's experiences adopting a DA approach. The book describes how the team develops the first release of a mission-critical application while working in a legacy enterprise environment. It describes their experiences from beginning-to-end, starting with their initial team initiation efforts through construction and finally

to deploying the solution into production. It also describes how the team stays together for future releases, overviewing their process improvement efforts from their Scrum-based beginnings through to a lean continuous delivery approach that fits in with their organization's evolving DevOps strategy. The DAD framework is a hybrid of existing methods such as Scrum, Kanban, Agile Modeling, SAFe, Extreme Programming, Agile Data, Unified Process and many others. DAD provides the flexibility to use various approaches and plugs the gaps not addressed by mainstream agile methods. In a nutshell, DAD is "pragmatic agile." DAD describes proven strategies to adapt and scale your agile initiatives to suit the unique realities of your enterprise without having to figure it all out by yourself. Here's an overview of what each chapter covers: Chapter 1: Introduction. This chapter provides a quick overview of the book and a brief history of Disciplined Agile. Chapter 2: Reality over Rhetoric. This chapter explores

several common myths about DAD and more importantly disproves them. Chapter 3: Disciplined Agile Delivery in a Nutshell. This chapter provides a brief yet comprehensive overview of DAD. Chapter 4: Introduction to the Case Study. This chapter introduces us to the team, describes the market opportunity that they hope to address, and describes the environment in which they're working. Chapter 5: Inception. The team's initiation effort includes initial requirements modeling and planning with their stakeholders in a streamlined manner, initial architecture modeling, setting up their physical work environment, setting up the start of their tooling infrastructure, initial risk identification, and finally securing stakeholder support and funding for the rest of the first release. Chapters 6 through 10: Construction. These chapters each describe a single Construction iteration, sharing the team's experiences during each of those two-week timeboxes. Chapter 11: Transition. The two-week transition phase focuses on final

testing and fixing, training the support/help-desk staff, finishing a few short end-user "how to" videos, and deploying the solution into production. Chapter 12: The Road to Disciplined DevOps. This chapter overviews the team's improvement efforts over the next few releases, describing how they evolve from the agile Scrum-based lifecycle to a leaner approach and eventually to continuous delivery. All of this dovetails into their organization's efforts to implement a Disciplined DevOps strategy. Chapter 13: Closing Thoughts. This chapter overviews the disciplined agile resources that are available to you. Appendix: The Disciplined Agile Framework. This short appendix overviews our ongoing work on the Disciplined Agile framework to address the full scope of an agile business. At 111 pages, you should find this book to be a quick, informative read. What's Different in This Edition: Chapter 3 was completely rewritten to reflect the changes to DAD. Chapter 12 was rewritten to describe how the team

evolved into a Disciplined DevOps strategy. Appendix A was rewritten to reflect the latest release of the DA framework. General updates were made throughout the book.

### **Agile Software Development Quality**

**Assurance** - Stamelos, Ioannis G. 2007-02-28

"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.

Lean, Agile and Six Sigma Information Technology Management - Peter K. Ghavami 2008

In the face of growing customer expectations, turbulent economic conditions and increasing IT complexity, ideal execution of IT strategies have never been more important and challenging.

This book is about methods of delivering the most value at the lowest cost. It offers a collection of business and technical problem solving techniques to solve many of the recurring IT problems in your firm. If you are looking to transform your IT organization into a lean, high velocity, high quality and high precision machine that can deliver amazing results with less, this book is for you. Simply apply the Lean, Agile and Six Sigma methods outlined in this book and see the remarkable improvements in customer satisfaction and return on your IT investments. The lessons in this book are for the entire management team, for those who want to achieve perfection with IT, for the senior executive, the IT strategist and the practitioners alike.

**Agile Software Development Ecosystems** - James A. Highsmith 2002

Traditional software development methods struggle to keep pace with the accelerated pace and rapid change of Internet-era development.

Several "agile methodologies" have been developed in response -- and these approaches to software development are showing exceptional promise. In this book, Jim Highsmith covers them all -- showing what they have in common, where they differ, and how to choose and customize the best agile approach for your needs. KEY TOPICS: Highsmith begins by introducing the values and principles shared by virtually all agile software development methods. He presents detailed case studies from organizations that have used them, as well as interviews with each method's principal authors or leading practitioners. Next, he takes a closer look at the key features and techniques associated with each major Agile approach: Extreme Programming (XP), Crystal Methods, Scrum, Dynamic Systems Development Method (DSDM), Lean Development, Adaptive Software Development (ASD), and Feature-Driven Development (FDD). In Part III, Highsmith offers practical advice on customizing the optimal agile

discipline for your own organization. MARKET: For all software developers, project managers, and other IT professionals seeking more flexible, effective approaches to developing software. Slack - Tom DeMarco 2002-04-09 If your company's goal is to become fast, responsive, and agile, more efficiency is not the answer--you need more slack. Why is it that today's superefficient organizations are ailing? Tom DeMarco, a leading management consultant to both Fortune 500 and up-and-coming companies, reveals a counterintuitive principle that explains why efficiency efforts can slow a company down. That principle is the value of slack, the degree of freedom in a company that allows it to change. Implementing slack could be as simple as adding an assistant to a department and letting high-priced talent spend less time at the photocopier and more time making key decisions, or it could mean designing workloads that allow people room to think, innovate, and

reinvent themselves. It means embracing risk, eliminating fear, and knowing when to go slow. Slack allows for change, fosters creativity, promotes quality, and, above all, produces growth. With an approach that works for new- and old-economy companies alike, this revolutionary handbook debunks commonly held assumptions about real-world management, and gives you and your company a brand-new model for achieving and maintaining true effectiveness.

**Agile Software Development** - Alistair Cockburn 2006-10-19

“Agile Software Development is a highly stimulating and rich book. The author has a deep background and gives us a tour de force of the emerging agile methods.” —Tom Gilb The agile model of software development has taken the world by storm. Now, in Agile Software Development, Second Edition, one of agile’s leading pioneers updates his Jolt Productivity award-winning book to reflect all that’s been learned about agile development since its

original introduction. Alistair Cockburn begins by updating his powerful model of software development as a “cooperative game of invention and communication.” Among the new ideas he introduces: harnessing competition without damaging collaboration; learning lessons from lean manufacturing; and balancing strategies for communication. Cockburn also explains how the cooperative game is played in business and on engineering projects, not just software development. Next, he systematically illuminates the agile model, shows how it has evolved, and answers the questions developers and project managers ask most often, including · Where does agile development fit in our organization? · How do we blend agile ideas with other ideas? · How do we extend agile ideas more broadly? Cockburn takes on crucial misconceptions that cause agile projects to fail. For example, you’ll learn why encoding project management strategies into fixed processes can lead to ineffective strategy decisions and costly

mistakes. You'll also find a thoughtful discussion of the controversial relationship between agile methods and user experience design. Cockburn turns to the practical challenges of constructing agile methodologies for your own teams. You'll learn how to tune and continuously reinvent your methodologies, and how to manage incomplete communication. This edition contains important new contributions on these and other topics: · Agile and CMMI · Introducing agile from the top down · Revisiting "custom contracts" · Creating change with "stickers" In addition, Cockburn updates his discussion of the Crystal methodologies, which utilize his "cooperative game" as their central metaphor. If you're new to agile development, this book will help you succeed the first time out. If you've used agile methods before, Cockburn's techniques will make you even more effective.

**Designing Distributed Systems** - Brendan Burns 2018-02-20

Without established design patterns to guide

them, developers have had to build distributed systems from scratch, and most of these systems are very unique indeed. Today, the increasing use of containers has paved the way for core distributed system patterns and reusable containerized components. This practical guide presents a collection of repeatable, generic patterns to help make the development of reliable distributed systems far more approachable and efficient. Author Brendan Burns—Director of Engineering at Microsoft Azure—demonstrates how you can adapt existing software design patterns for designing and building reliable distributed applications. Systems engineers and application developers will learn how these long-established patterns provide a common language and framework for dramatically increasing the quality of your system. Understand how patterns and reusable components enable the rapid development of reliable distributed systems Use the side-car, adapter, and ambassador patterns to split your

application into a group of containers on a single machine Explore loosely coupled multi-node distributed patterns for replication, scaling, and

communication between the components Learn distributed system patterns for large-scale batch data processing covering work-queues, event-based processing, and coordinated workflows