

LEARNING MADE EASY



3rd Edition

# Scrum

for  
**dummies**<sup>®</sup>  
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Learn the simplicity of  
scrum and how it brings results

Apply an iterative and incremental  
approach in any industry

Improve your organizational  
and personal agility

**Mark C. Layton**

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Agile Trainer, Mentor, & Community Builder

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Agile Coach & Trainer





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3rd Edition

**by Mark C. Layton, Steven J Ostermiller,  
& Dean J. Kynaston**

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**dummies**<sup>®</sup>  
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## Scrum For Dummies® , 3rd Edition

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# Introduction

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Welcome to *Scrum For Dummies*. Scrum is an agile product development framework with proven results in decreasing time to market by 30–40 percent, improving product quality, and heightening customer satisfaction — all while lowering costs by 30–70 percent. Scrum accomplishes these results through integrating business and development talent, improved communication models, increased performance visibility, regular customer and stakeholder feedback, and an empirically based inspect-and-adapt mentality. You can solve even the most complex problems more effectively by using scrum to increase your bottom line.

## About This Book

---

The goal is to explicitly demonstrate how you can use scrum for any product or solution, not just software development. This book is intended to be a field manual for the application of scrum in real-world situations. Although it covers scrum fundamentals in detail, this book also delves into how to get out and experience the amazing benefits of scrum.

By design, scrum is easy to explain, but the application and mastery are often difficult. Old habits and organizational mindsets need to be shifted and new ways embraced. For this reason, we've included success stories so that you can see how scrum can fit into your situation.

The main thrust of understanding scrum lies in the three accountabilities, three artifacts, and five events that form its foundation — each of which is thoroughly covered in this book. We also include common practices that we and others in the field use so you can choose what works best for your product. Throughout the book, we use the word *product* to describe a channel for delivering value to a defined customer, whether a physical product, project, service, outcome, or even something more abstract.

Scrum isn't technical. In fact, its basic tenet is common sense. In many cases, we've wrapped this information within the technology world and used technical terms to help explain it. Where useful, we've defined these terms.

We also cover common practices from scrum experts throughout the world. You can learn so much from others who use this framework in a seemingly limitless spectrum.

Scrum falls under an umbrella of approaches to project management called *agile project management*. Neither *scrum* nor *agile* practices are proper nouns. *Scrum* is a framework for organizing your work, whereas *agile* is an adjective used to describe a variety of practices that align with the values of the Agile Manifesto and the 12 Agile principles. Scrum and agile are not identical or interchangeable, but you frequently see them used interchangeably in many written sources, especially online. In this book, you will see terminology from both scrum and agile because scrum is a frequently used subset of agile practices.

## Foolish Assumptions

Several books about scrum are available, but this one differs in its practicality. Each of the authors has nearly two decades of experience with agile methods and scrum, and we bring this experience to you in a practical guide. We make no assumptions about what you already know: You don't need to be a rocket scientist or a whiz programmer; all you need are a problem to solve and a passion for getting it done in the best way possible. We give you examples ranging from building jet fighters to organizing a family vacation. We focus on the steps necessary to get scrum's magic working for you.

Our audience includes code programmers, sales professionals, human resource specialists, publishers, marketers, product manufacturers, executives, midtier managers, families, educators who are looking for a way to engage their students, and many others.

If you're in the technology industry, you've probably heard the terms *agile* and/or *scrum*. Maybe you've even worked in a scrum environment but want to improve your skills and vocabulary in this area and bring others in your firm along with you. If you're not in technology, you may have heard that scrum is a great way to run projects, which is true. Perhaps scrum is new to you, and you're searching for a way to make your project more accessible, or maybe you have a great idea burning inside and don't know how to bring it to fruition. Whoever you are, a simpler way exists to run your project, and that way is called *scrum*. Within these pages, we show you how to use it.

# Conventions Used in This Book

If you do an online search, you may see the words *agile*, *scrum*, roles, meetings, documents, and various agile methodologies and frameworks (including *scrum*) capitalized. We shied away from this practice for a couple of reasons.

To start, none of these items are really proper nouns. *Agile* is an adjective that describes a number of product development items: agile projects, agile teams, agile processes, and so on. But it is not a proper noun, and except in chapter or section titles, you will not see us use it that way in this book.

For readability, we did not capitalize agile-related roles, meetings, and documents. Such terms include *agile project*, *product owner*, *scrum master*, *developers*, *user stories*, *product backlog*, and more. You may, however, see these terms capitalized in places other than this book.

Some exceptions exist. *The Agile Manifesto* and *The Agile Principles* are copyrighted material. The Agile Alliance, Scrum Alliance, and Project Management Institute are professional organizations. A Certified ScrumMaster and a PMI-Agile Certified Practitioner are professional titles.

# Icons Used in This Book

The following icons in the margins indicate highlighted material that we think will be of interest to you.



TIP

Tips are ideas that we'd like you to take note of. These ideas are usually practical advice that you can apply to the given topic.



WARNING

This icon is less common than the others in this book. The intent is to save you time by bringing to your attention some pitfalls you're better off avoiding.



TECHNICAL  
STUFF

If you don't care much about the technical stuff, you can skip these paragraphs without missing much. If technical stuff is your thing, you may find these sections fascinating.



REMEMBER

This icon marks something we'd like you to take special note of, such as a concept, idea, or best practice that we think is noteworthy.

# Beyond the Book

You can find an online Cheat Sheet for this book at [www.dummies.com](http://www.dummies.com). The Cheat Sheet covers

- » *The Agile Manifesto*
- » The principles behind scrum
- » The roadmap to value we frequently reference throughout this book
- » A snapshot of various definitions for roles, artifacts, and activities related to scrum
- » A summary of scrum community resources

Go to [www.dummies.com](http://www.dummies.com) and type this book's title into the search field to find the Cheat Sheet.

## Where to Go from Here

To start getting scrum working for you, you can begin applying it on smaller projects to get the feel of it. Soon, you'll be handling your most important projects similarly. This book applies to a diverse set of readers and is organized to allow you to find specific areas of interest relevant to you. Each chapter can be a reference whenever you have a technical question or want to see an example of scrum in real life.

- » If you're new to scrum, begin with Chapter 1 to understand introductory concepts and terminology; then work your way through Chapter 7 to find out about the entire framework. As you continue past Chapter 7, you see how to apply scrum in any situation.
- » If you're familiar with scrum and want to learn more about how it applies to many industries, check out Chapters 8 through 11, and read about scrum being practiced in various industries.
- » If you're a product owner, scrum master, or business leader and want to know more about scrum on a larger scale, start by reading Chapter 13 and all of Part 6 for valuable resources.
- » If you're familiar with scrum and want to know how it can help you address daily life, read Chapters 17 and 18 for inspiration and examples.

# 1

## **Getting Started with Scrum**

## **IN THIS PART . . .**

Connect scrum with the principles of agile product development.

Use constant feedback through transparency and adaptation to elevate the success rates of product goals.

Become tactically flexible to create strategic stability.

- » Seeing essential scrum principles
- » Identifying scrum values and structure

## Chapter **1**

# The Basics of Scrum

**S**crum is an exposure framework based on empiricism, meaning people who employ the scrum framework gain knowledge from real-life experience and make decisions based on that experience. It's a way of organizing your work — releasing a new smartphone, coordinating your daughter's fifth-grade birthday party, or exposing whether your approach is generating intended results. If you need to get something done, scrum provides a structure for increased efficiency and more effective results.

Within scrum, common sense reigns. You focus on what can be done today with an eye toward breaking future work into manageable pieces. You can immediately see how well your effort is working, and when you find inefficiencies in your approach, scrum enables you to act on them by making adjustments with clarity and speed.

Although empirical process controls go back to the beginning of time in the arts, its modern-day usage stems from computer modeling. For example, in sculpting, you chisel away, check the results, make any adaptations necessary, and chisel away some more. The empirical exposure model means observing or experiencing actual results rather than simulating them based on research or a mathematical formula and then making decisions based on these experiences. In scrum, you break your work into actionable chunks, observing your results every step of the way. This approach allows you to immediately make the necessary changes to stay on track.

# The Bird's-Eye Basics

Scrum isn't a methodology; it's a new way of thinking. It isn't a paint-by-numbers approach in which you end up with a product or outcome; it's a simple framework for clearly defining accountabilities and organizing your actionable work so that you're more effective in prioritizing and more efficient in completing the work selected. Frameworks are less prescriptive than methodologies and provide appropriate flexibility for the processes, structures, and tools that complement them. When this approach is used, you can clearly observe and adopt complementary methods and practices and quickly determine whether you're making real, tangible progress. You create usable results within weeks, days, or (in some cases) hours.

Like the process of building a house brick by brick, scrum is an iterative, incremental approach. It gives you early empirical evidence of performance and quality. Roles are distinct and self-ruling, and individuals and teams are given the required autonomy and tools to get the job done. Lengthy progress reports, redundant meetings, and bloated management layers are nonexistent. Scrum is the approach to use if you just want to get the job done.



TECHNICAL  
STUFF

*Scrum* is a term that comes from the rough-and-tumble game of rugby. Huddles, or scrums, are formed with the forwards from one side interlocking their arms with their heads down and pushing against the forwards from the opposing team, who are also interlocking arms with their heads down. The ball is then thrown into the midst of this tightly condensed group of athletes. Although each team member plays a unique position, all team members play both attacking and defending roles and work together to move the ball down the field of play. Like rugby, scrum relies on talented people with varying responsibilities and domains working closely together in teams toward a common goal.

We want to emphasize — and have written two-thirds of this book on — an overlooked concept of scrum: its amazing versatility. People who know about scrum commonly think that it's customized for software, information technology (IT), or tech use, but that's just the tip of the iceberg. Applications for using scrum can be found everywhere, including large, small, tech, artistic, social, and even personal use. In Chapters 8 through 18, we show you how. Be forewarned! Scrum is such an addictive framework that you'll be using it to coach your kid's soccer team, plan your neighborhood watch, and even ratchet up your exercise routine.

## Roadmap to value

Throughout this book, we discuss techniques some expert scrum practitioners apply as common practice extensions to scrum. These techniques complement,

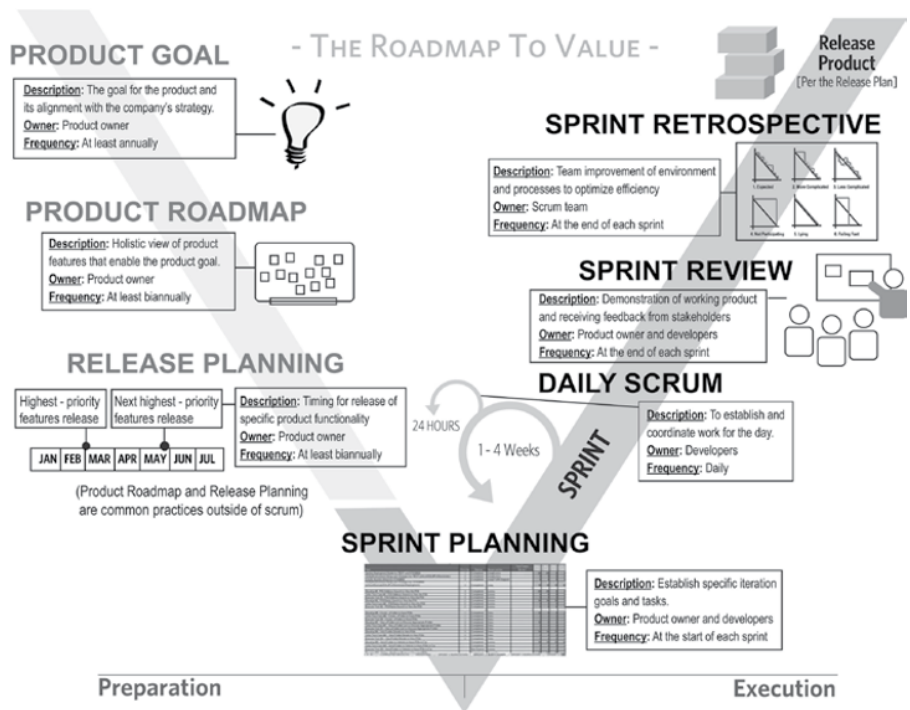


not replace, the scrum framework. We point out the differences when they occur. All the common practices we include and recommend are tried and tested — always with a clear understanding these practices are outside the basic scrum framework and are suggested for consideration in your own situations.

We call this aggregation of scrum and vetted common practices the “roadmap to value.” This roadmap consists of seven elements that walk you through the goal of your product to the task level and back again in a continual, iterative, and incremental process of inspection and adaptation. In other words, the roadmap to value helps you see what you want to achieve and progressively break that goal into pieces through an iterative cycle that leads to real results every day, week, and month.

You know that billion-dollar idea that’s been lurking in the back of your head for years? Follow the roadmap to value. It will show you the feasibility or fallacy of your idea and where to make your improvements — step by step, piece by piece.

Figure 1-1 shows a holistic view of the roadmap to value. This figure shows that you begin with the product goal; work through planning; and then enter the cyclical world of sprints, reviews, and retrospectives.

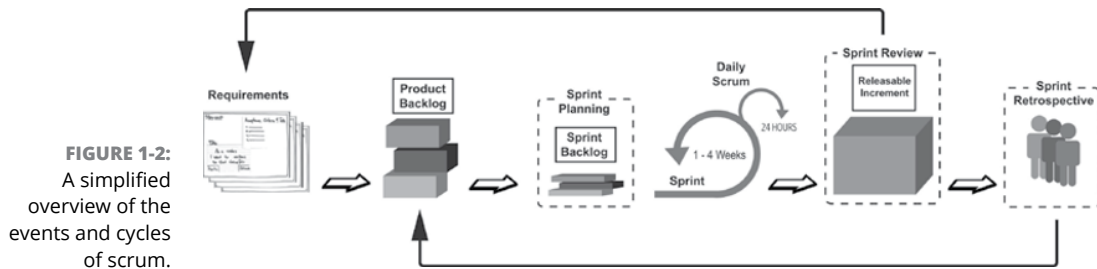


**FIGURE 1-1:**  
The roadmap to value.

# Scrum overview

The scrum process is simple and circular, with constant and transparent elements of inspection and adaptation. First, a deliberately ordered to-do list — called a *product backlog* — is created and maintained. Then top-priority items are selected for a fixed, regular period — called a *sprint* — during which the scrum team strives for a predetermined and mutually agreed upon sprint goal.

Figure 1-2 shows a scrum overview.



**FIGURE 1-2:** A simplified overview of the events and cycles of scrum.

The scrum process allows you to adapt quickly to changing market forces, technological constraints, regulations, new innovations, family preferences, and almost anything else you can think of. The key is the ongoing process of working on the highest-priority items to completion. Each of the highest-priority items gets fully developed and tested through the following steps:

1. Requirement elaboration
2. Design
3. Development
4. Comprehensive testing
5. Integration
6. Documentation
7. Approval



REMEMBER

The seven steps to fully build the scope of each requirement are performed for every item. Every requirement taken on during a sprint, no matter how small or large, is fully built, tested, and approved or rejected. When a backlog item is approved and deemed “releasable,” you know it works. Hope and guesswork are taken out of the equation and replaced by reality. You showcase these tangible results to stakeholders for feedback. This feedback generates new items that are placed in the product backlog and prioritized against existing known work.



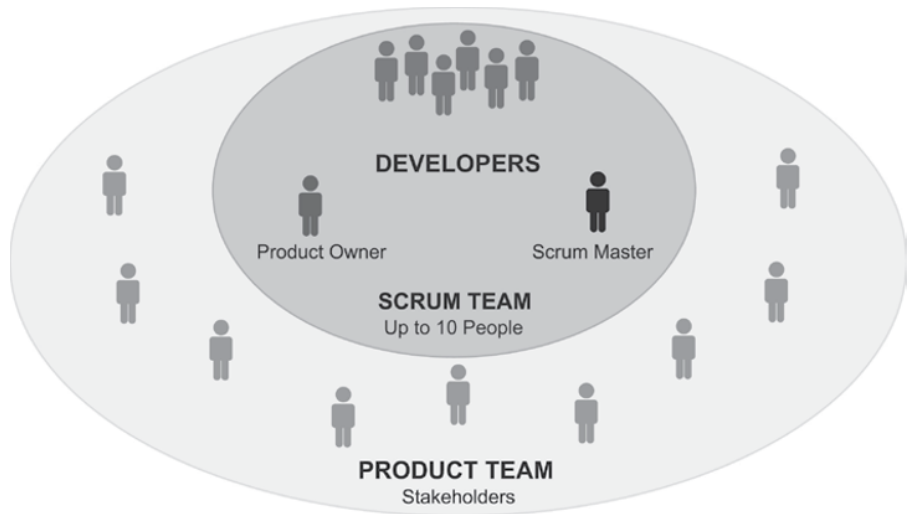
TIP

What’s more important: efficiency or effectiveness? Hands down, it’s effectiveness — working on the right thing at the right time. Don’t worry about efficiency until you figure out how to be effective. A very efficient team working on the wrong things is a waste of time. A super-effective team, however, can easily learn efficiency. Always work on the *right* things first. As economist and management author Peter F. Drucker said, “There is nothing so useless as doing efficiently that which should not be done at all.”

The scrum cycle is run again and again. The constant flow of feedback and emphasis on developing only the highest-priority items helps you reflect what your customers are looking for, deliver it to them faster, and deliver it with higher quality.

## Scrum teams

No matter what the scope of your product is, your scrum team will have similar characteristics. The sizes of teams vary somewhat, but the roles or accountabilities remain the same. We discuss the specific accountabilities in detail throughout this book. Figure 1-3 depicts a scrum team.



**FIGURE 1-3:**  
A scrum team has the developers at its core.

The developers are the heart of a scrum team — the folks who work together to create the product, service, or solution itself. They work directly with a product owner and scrum master, who align business and development priorities for the organization and eliminate distractions so that the developers can focus on “developing” a quality result.



REMEMBER

Don't get hung up on the term "developer," thinking it refers to software development. Developers on a scrum team are simply the people with the skills needed to take an idea and "develop" it into something of value for the customer. Someone who writes software code is just one example of a scrum developer. There are many other skills a developer on a scrum team may possess, such as testing, writing, configuring, molding, waxing, teaching, designing, and so on. The word "developer" is used throughout this book to simplify, not exclude.

Stakeholders aren't scrum roles, but we include them in Figure 1-3 because they affect your product, service, or solution. Stakeholders can be internal or external. Marketing, legal, compliance team members, in-laws, and especially users and customers are examples of stakeholders.

The scrum team itself has ultimate accountability. Team members self-manage to figure out how to achieve their objectives within the environment in which they find themselves.

## Governance

Scrum has three accountabilities that are equal in status yet separate and independent in function:

- » **Product owner:** The *why, what, and when* (not *how much*)
- » **Developers:** The *how* and *how much*
- » **Scrum master:** The *improvement and environment for success*

Each role has a defined purpose directly designed to enhance the team's productivity.

The creators of scrum didn't happen to devise these accountabilities by chance but through years of experience in working with all kinds of teams. They saw good, bad, and ugly combinations and found that the best results came from these three accountabilities.



TIP

We prefer that each person in a scrum team be a full-time participant dedicated solely to the scrum team's objectives. Don't thrash your team members across several priorities or use part-time players. How many professional football teams have part-time players or those who play for several teams? None.



REMEMBER

In scrum, no single person is above another. Everyone is a peer; no one is a boss or underling to anyone else on the team. *We* is the operative word rather than *I*. Scrum teams thrive on psychological safety, vulnerability, and trust — key attributes of peer-level team members.

# Scrum framework

Scrum is a framework that provides clarity of responsibilities through roles, visibility through artifacts, and opportunities for inspection and adaptation through events. Within this structure, scrum is a container for other practices, processes, and tools that are appropriate for meeting the specific needs of a team, organization, product, or service.



REMEMBER

Scrum has:

- » Five values
- » Three accountabilities
- » Three artifacts
- » Five events

Each framework element fits within the scrum process, which is iterative and incremental. You incrementally create and improve your product, and you incrementally improve your process and environment with this simple framework, as follows:

## » Values

- Commitment
- Focus
- Openness
- Respect
- Courage

## » Accountabilities

- Product owner
- Developers
- Scrum master

## » Artifacts

- Product backlog
- Sprint backlog
- Increment

## » Events

- Sprint
- Sprint planning
- Daily scrum
- Sprint review
- Sprint retrospective



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In the scrum world, *artifacts* are lists of work to be done or work products that have been done and are deemed valuable and usable. Unlike archaeological artifacts, scrum artifacts aren't set in stone. Scrum teams continually inspect and assess artifacts to make sure that they're digging in the right direction.

Successful implementation of the scrum framework depends on people's ability to embrace the five scrum values in their culture and thinking. The new way of working needs to change the day-to-day habits of teams and individuals.

Each role, artifact, and event in scrum has a set purpose. You place your work in the scrum framework, moving through the roadmap to value (discussed earlier in this chapter), but the actual tools and techniques for accomplishing your goals are your own. Scrum doesn't tell you how to achieve your goal; it merely provides a framework within which you can clearly see what you're doing.



REMEMBER

Scrum is an empirical process control framework. It is actually process-agnostic; it does not tell you the processes to use to create your outcomes.

Scrum is simple, but it's not easy. Scrum is much like getting into shape physically. In concept, you need to exercise more and take in fewer calories; in practice, the process can be complex.

Following are some common practices that complement scrum and have produced incredible successes. (Extra elements are shown in *italic*.) Here, we've expanded the scrum framework with recommended practices:

## » Accountabilities

- Product owner
- Developers
- Scrum master