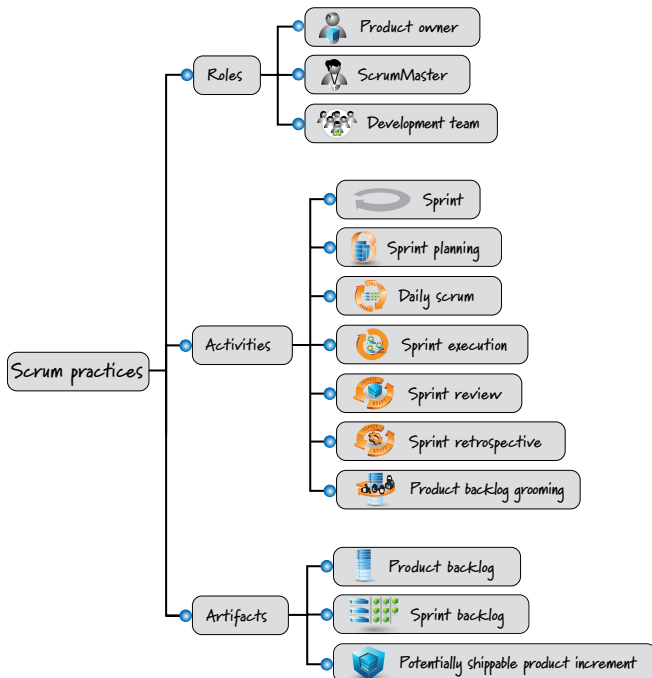


OVERVIEW OF THE SCRUM FRAMEWORK

This document provides a visual overview of the Scrum framework, with a primary focus on its practices, including roles, activities, and artifacts. The content and pictures in this overview are from Ken Rubin's book *Essential Scrum: A Practical Guide to the Most Popular Agile Process*.

OVERVIEW

Scrum is a refreshingly simple, people-centric framework for organizing and managing work. It is built on a specific set of foundational values, principles, and practices.



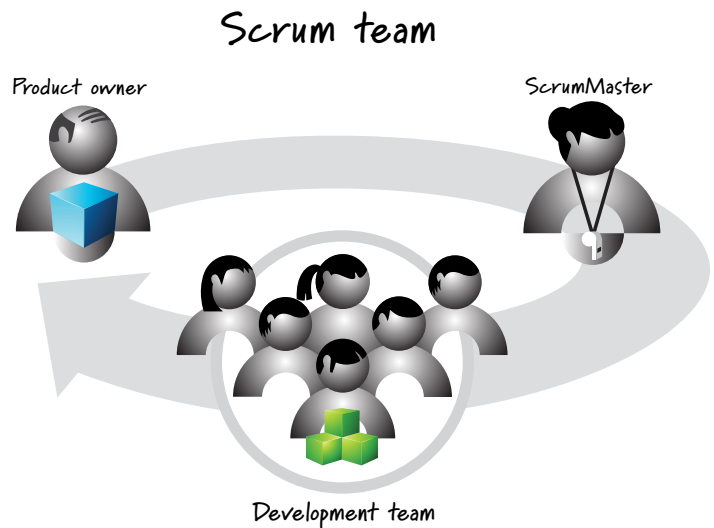
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Organizations typically add their own unique approaches to the Scrum framework, creating a version of Scrum that is uniquely theirs.

SCRUM ROLES

Scrum development efforts consist of one or more Scrum teams, each made up of three Scrum roles: product owner, ScrumMaster, and the development team.

There can be other roles when using Scrum, but the Scrum framework requires only the three listed here.



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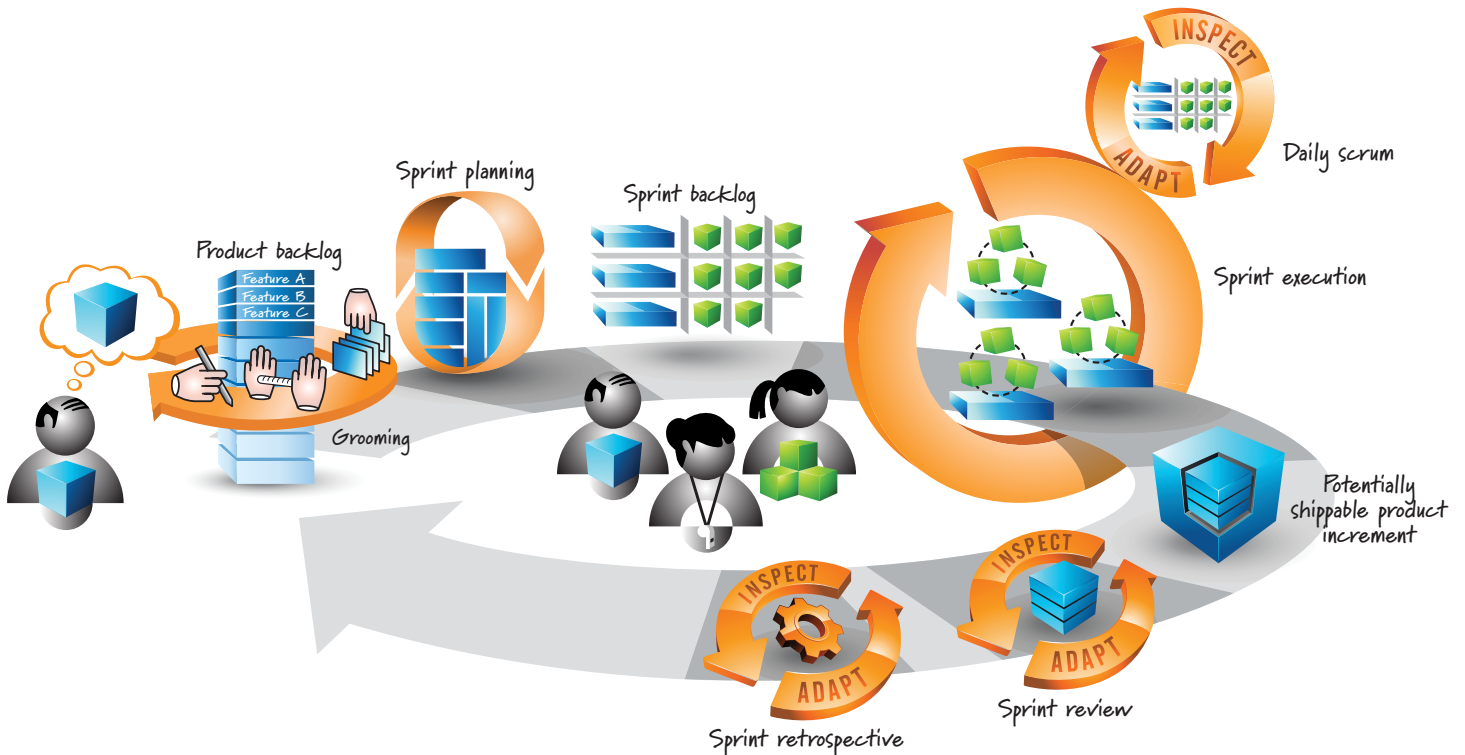
The **product owner** is the empowered central point of product leadership. He decides which features and functionality to build and the order in which to build them. The **ScrumMaster** acts as coach, facilitator, and impediment remover. She helps everyone involved understand and embrace the Scrum values, principles, and practices to help the organization obtain exceptional results from applying Scrum. The **development team** is a diverse, cross-functional collection of all of the



types of people needed to design, build, and test a desired product. The development team self-organizes to determine the best way to accomplish the goal set out by the product owner. Development teams can be as small as three people but are typically five to nine people in size.

SCRUM ACTIVITIES AND ARTIFACTS

The figure below illustrates most of the Scrum activities and artifacts and how they fit together. Elements of the diagram are discussed in the sections that follow.



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SCRUM SUMMARY

In this picture, the blue items represent scope, green items represent tasks, and orange items represent process. Starting on the left side of the figure and working clockwise around the main looping arrow (the sprint), here is a summary of the Scrum framework.

The product owner has a vision of what he wants to create (the blue cube). Because the cube can be large, through an activity called grooming (also called refinement), it is broken down into a set of features (the blue bricks) that are collected into a prioritized list called the product backlog.

A sprint starts with sprint planning, encompasses the development work during the sprint (called sprint execution), and ends with the sprint review and sprint retrospective. The sprint is represented by the large, looping arrow that dominates the foundation of the figure.

The number of items in the product backlog is likely to be more than a development team can complete in a short-duration sprint (of a few weeks). For that reason, at the beginning of each sprint, the development team must determine a subset of the product backlog items it believes it can complete — an activity called sprint planning, shown just to the right of the product backlog.

To acquire confidence that the development team has made a reasonable commitment, the team members often create a second backlog during sprint planning, called the sprint backlog. The sprint backlog describes, through a set of detailed tasks, how the team plans to design, build, integrate, and test the selected subset of features from the product backlog during that particular sprint.

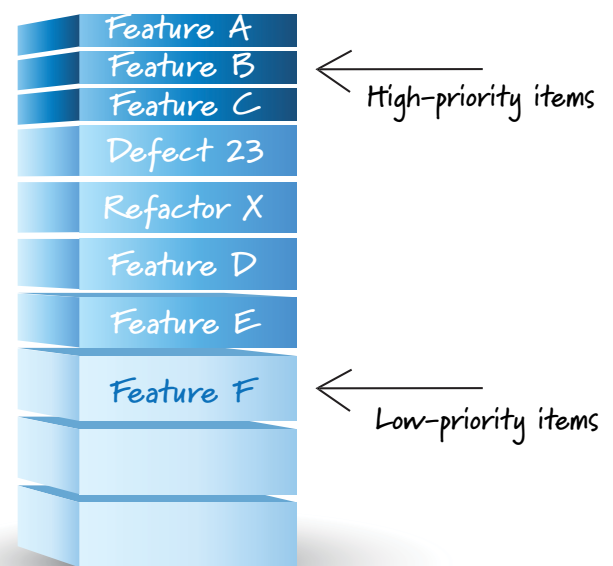
Next is sprint execution, when the development team performs the tasks necessary to realize the selected features. Each day during sprint execution, the team members help manage the flow of work by conducting a synchronization, inspection, and adaptive planning activity known as the Daily Scrum. At the end of sprint execution, the team has produced a potentially shippable product increment that represents some, but not all, of the product owner’s vision.

The Scrum team completes the sprint by performing two inspect-and-adapt activities. In the first, called the sprint review, the stakeholders and Scrum team inspect the product being built. In the second, called the sprint retrospective, the Scrum team inspects the Scrum process being used to create the product. The outcome of these activities might be adaptations that will make their way into the product backlog or be included as part of the team’s development process.

Let’s look at each element in a bit more detail.

PRODUCT BACKLOG

Scrum teams try to always do the most valuable work first. The prioritized list of this work is called a product backlog. For new products, this backlog initially contains those features required to meet the product owner’s vision. For ongoing product development, the product backlog might also contain new features, change requests, defects, and more.



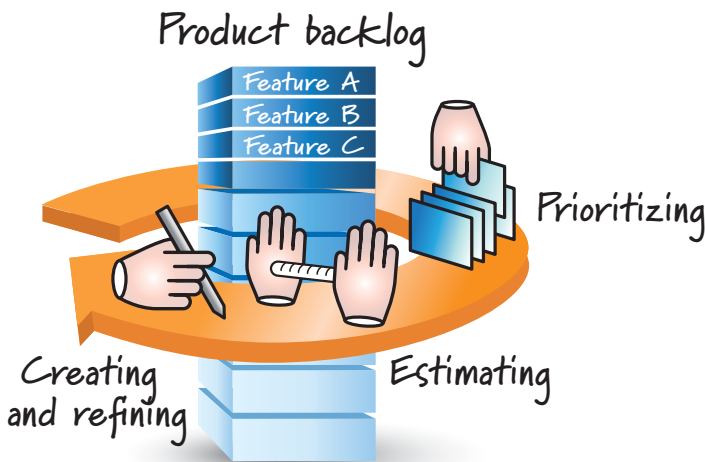
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In the product backlog, some of the product backlog items (blue bricks) are larger and others are smaller. And some are lighter blue and others are darker blue. Larger bricks are meant to represent larger pieces of functionality and the smaller bricks to mean small pieces. Lighter blue means lightly detailed and darker blue means more detailed. The product backlog items near the top of the product backlog — the high-priority items — are smaller and darker blue, representing product backlog items that are in a “ready” state. They are ready in the sense that they are sufficiently defined and well understood so that if the development team

were to move them into a sprint during sprint planning, the team members are reasonably confident they can complete them by the end of the same sprint. Some Scrum teams formalize this idea by establishing a “definition of ready” — a set of criteria for determining when a product backlog item is in the ready state.

PRODUCT BACKLOG GROOMING (REFINEMENT)

The product owner, with input from the stakeholders and development team(s), is ultimately responsible for maintaining the product backlog, which evolves and changes throughout the project. The activity of creating and refining the product backlog items, estimating them, refining them, and prioritizing them is often known as grooming (also referred to as refinement). The product owner ultimately owns the grooming process; however, members of the development team typically budget 5% to 10% of their total capacity each sprint to assist the product owner with product backlog grooming.

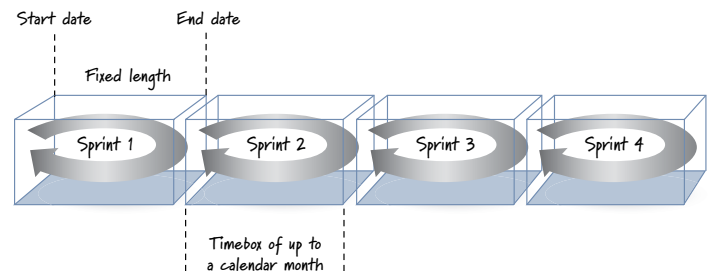


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SPRINTS

In Scrum, work is performed in iterations or cycles called sprints, each lasting up to a calendar month (with the most common duration being two weeks). The work completed in each sprint should create

something of tangible value to the customer or user. Sprints are timeboxed so they always have a fixed start and end date, and generally they should all be of the same duration.

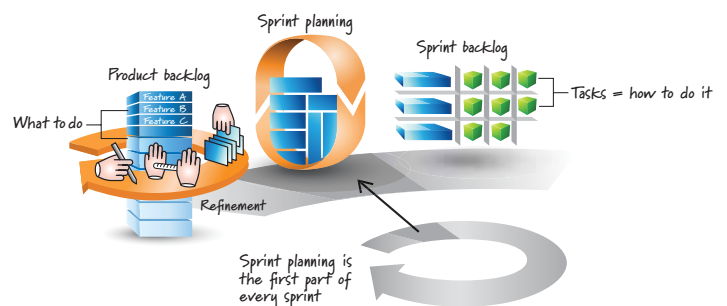


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A new sprint immediately follows the completion of the previous sprint. As a rule we do not permit any goal-altering changes in scope or personnel during a sprint; however, business needs sometimes make adherence to this rule impractical.

SPRINT PLANNING

Every sprint begins with sprint planning. During sprint planning, the team and product owner agree on a sprint goal. The team then selects a subset of high-priority ready items from the product backlog that can be completed during one sprint, assuming the team works at a sustainable pace.



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To acquire confidence in what it can get done, many development teams break down each targeted feature into a set of tasks (although they are not required to do so). The collection of these tasks (or any other artifacts),



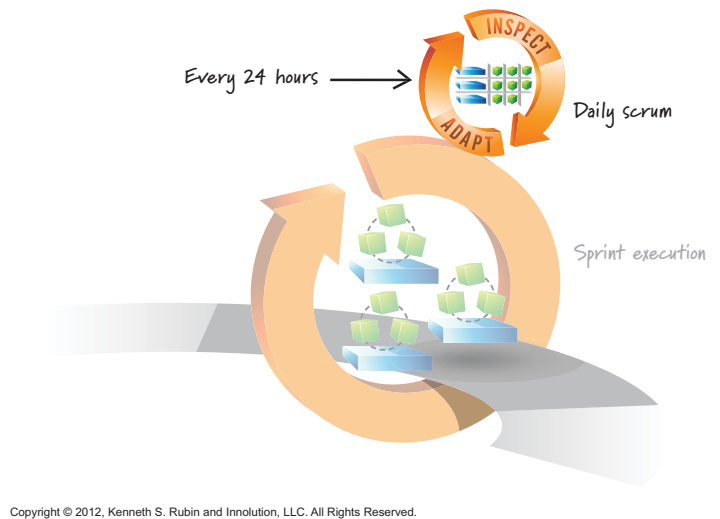
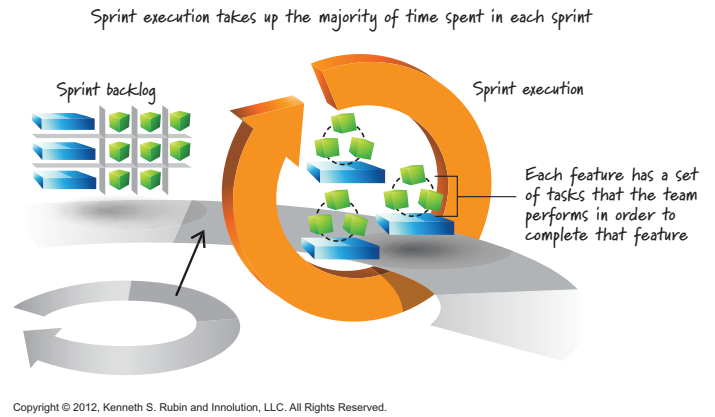
along with their associated product backlog items, forms a second backlog called the sprint backlog.

SPRINT EXECUTION

Sprint execution is the period of time during which the development team, guided by the ScrumMaster's coaching, performs all of the task-level work necessary to get done the features agreed to during sprint planning. In this context, "done" means there is a high degree of confidence that all of the work necessary for producing good-quality features has been completed. During sprint execution, nobody tells the development team in what order or how to do the task-level work in the sprint backlog. Instead, team members define their own task-level work and then self-organize in any manner they feel is best for achieving the sprint goal.

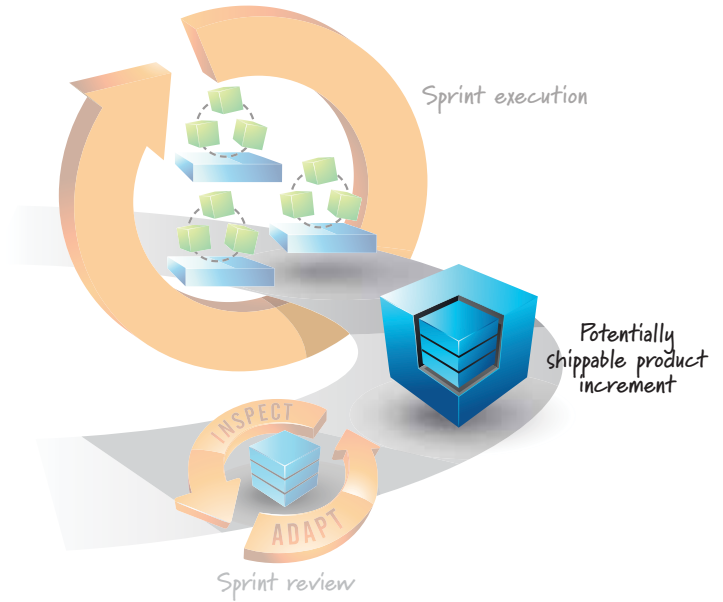
DAILY SCRUM

Every day of the sprint, the development team meets for a 15-minute inspect-and-adapt activity known as the Daily Scrum. An important goal of the Daily Scrum is to help a self-organizing team better manage the flow of its work during sprint execution. A common approach for conducting a Daily Scrum meeting is for development team members to share with each other what they did yesterday, what they are planning to do today, and any obstacles they are facing. This meeting is frequently referred to as a daily stand-up, because team members are encouraged to stand to keep the meeting brief.



DONE

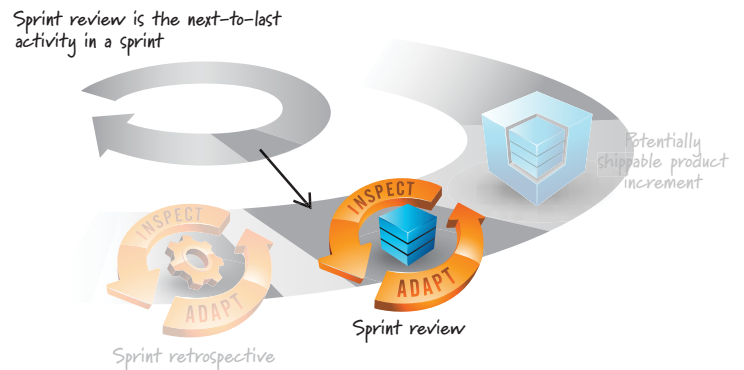
In Scrum, we refer to the completed work at the end of the sprint as a potentially shippable product increment. Done, or potentially shippable, means completed to a high degree of confidence and being of such quality that the work could be shipped to end customers at the end of a sprint. Being potentially shippable, however, does not mean the results will actually be delivered to customers. Shipping is a business decision based on factors such as whether there is enough functionality, or whether our customers can consume change at this rate; potentially shippable refers to a state of confidence.



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SPRINT REVIEW

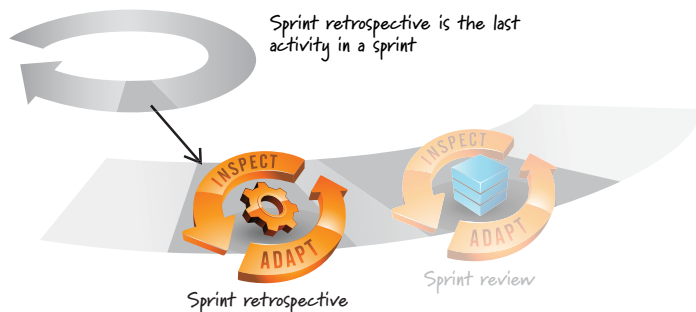
The sprint review occurs at the end of every sprint and is a time to inspect and adapt the product. The sprint review is intended to foster conversation about the just-completed functionality. Participants include the product owner, ScrumMaster, development team, stakeholders, customers, and anyone else interested in the outcome of the sprint. A successful review results in bidirectional information flow. The people who aren't on the Scrum team get to sync up on the development effort and help guide its direction. At the same time, the Scrum team members gain a deeper appreciation for the business and marketing side of their product by getting frequent feedback on the product's success at delighting customers or users.



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SPRINT RETROSPECTIVE

The sprint retrospective occurs at the end of every sprint and is a time to inspect and adapt the process. In the spirit of continuous improvement, the ScrumMaster, product owner, and development team come together to discuss what is and is not working with Scrum and associated technical practices. The goal is to help a good Scrum team become great. At the end of a sprint retrospective, the Scrum team should have identified and committed to a practical number of process improvement actions that will be undertaken by the Scrum team in the next sprint.



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CLOSING

After the sprint retrospective, the entire sprint cycle begins again, starting with the next sprint planning session.

ESSENTIAL SCRUM AND KEN RUBIN

The content of this document is based on the book *Essential Scrum: A Practical Guide to the Most Popular Agile Process*, by Kenneth S. Rubin. The images in this document are part of the Visual AGILExicon® (pronounced Visual Agile Lexicon), a freely available set of vibrant, four-color icons for composing graphically rich and visually appealing three-dimensional representations of Agile and Scrum concepts. You can learn more about the *Essential Scrum* book at www.essentialscrum.com and more about the Visual AGILExicon® at www.innolution.com/resources/val-home-page.

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