

Scrum is an agile way to manage a project, usually software development. Agile software development with Scrum is often perceived as a methodology; but rather than viewing Scrum as methodology, think of it as a framework for managing a process.

In the agile Scrum world, instead of providing complete, detailed descriptions of how everything is to be done on a project, much of it is left up to the Scrum software development team. This is because the team will know best how to solve the problem they are presented.

This is why in Scrum development, for example, a sprint planning meeting is described in terms of the desired outcome (a commitment to a set of features to be developed in the next sprint) instead of a set of Entry criteria, Task definitions, Validation criteria, Exit criteria (ETVX) and so on, as would be provided in most methodologies.

Scrum relies on a self-organizing, cross-functional team. The scrum team is self-organizing in that there is no overall team leader who decides which person will do which task or how a problem will be solved. Those are issues that are decided by the team as a whole.

ScrumMaster

Who can be thought of as a coach for the team, helping team members use the Scrum process to perform at the highest level. In the Scrum process, a ScrumMaster differs from a traditional project manager in many ways, including that this role does not provide day-to-day direction to the team and does not assign tasks to individuals. A good ScrumMaster shelters the team from outside distractions, allowing team members to focus maniacally during the sprint on the goal they have selected. The product owner is responsible for prioritizing the backlog during Scrum development, to ensure it's up to par as more is learned about the system being built, its users, the team and so on. The Scrum Master is accountable for establishing Scrum as defined in the Scrum Guide. They do this by helping everyone understand Scrum theory and practice, both within the Scrum Team and the organization.

Scrum Masters are true leaders who serve the Scrum Team and the larger organization.

The Scrum Master serves the Scrum Team in several ways, including:

- Coaching the team members in self-management and cross-functionality;
- Helping the Scrum Team focus on creating high-value Increments that meet the Definition of Done;
- Causing the removal of impediments to the Scrum Team's progress; and,
- Ensuring that all Scrum events take place and are positive, productive, and kept within the timebox.

The Scrum Master serves the Product Owner in several ways, including:

- Helping find techniques for effective Product Goal definition and Product Backlog management;
- Helping the Scrum Team understand the need for clear and concise Product Backlog items;
- Helping establish empirical product planning for a complex environment; and,
- Facilitating stakeholder collaboration as requested or needed.

The Scrum Master serves the organization in several ways, including:

- Leading, training, and coaching the organization in its Scrum adoption;
- Planning and advising Scrum implementations within the organization;
- Helping employees and stakeholders understand and enact an empirical approach for complex work; and,
- Removing barriers between stakeholders and Scrum Teams.

The product owner (PO)

is the other role, and in Scrum software development, represents the business, customers or users, and guides the team toward building the right product. The Product Owner is accountable for maximizing the value of the product resulting from the work of the Scrum Team. How this is done may vary widely across organizations, Scrum Teams, and individuals.

The Product Owner is also accountable for effective Product Backlog management, which includes:

- Developing and explicitly communicating the Product Goal;
- Creating and clearly communicating Product Backlog items;
- Ordering Product Backlog items; and,
- Ensuring that the Product Backlog is transparent, visible and understood.

The Product Owner may do the above work or may delegate the responsibility to others. Regardless, the Product Owner remains accountable.

For Product Owners to succeed, the entire organization must respect their decisions. These decisions are visible in the content and ordering of the Product Backlog, and through the inspectable Increment at the Sprint Review.

The Product Owner is one person, not a committee. The Product Owner may represent the needs of many stakeholders in the Product Backlog. Those wanting to change the Product Backlog can do so by trying to convince the Product Owner.

While the ScrumMaster focuses on helping the team be the best that it can be, the product owner works to direct the team to the right goal. The product owner does this by creating a compelling vision of the product, and then conveying that vision to the team through the product backlog.

WHAT IS SPRINT?

Sprints are at the centre of the Scrum framework, and we use them to manage our work. Actually, this might have been the primary reason you asked about the differences between Sprints and Scrum.

Fundamentally, a Sprint is an iteration or a time box that lasts from 1 week to 1 month, repeated continuously over a project's life, and is at the scrum framework's heart. We would decide on the Sprint length at the beginning of the project.

Usually, if the project needs more agility or goals are changing fast, the team will employ shorter Sprints. If the project is a bit more stable, like in infrastructure implementation, Sprint can be longer. The group could try different timeframes and stick with the most effective for the type of project.

WHAT IS PART OF THE SPRINT?

The key, though, is what happens during the lifecycle of a Sprint, which contains all work and other framework pieces like prescribed meetings:

Sprint Planning

Sprint Planning initiates the Sprint by laying out the work to be performed for the Sprint. This resulting plan is created by the collaborative work of the entire Scrum Team.

The Product Owner ensures that attendees are prepared to discuss the most important Product Backlog items and how they map to the Product Goal. The Scrum Team may also invite other people to attend Sprint Planning to provide advice.

Sprint Planning addresses the following topics:

Topic One: Why is this Sprint valuable?

The Product Owner proposes how the product could increase its value and utility in the current Sprint. The whole Scrum Team then collaborates to define a Sprint Goal that communicates why the Sprint is valuable to stakeholders. The Sprint Goal must be finalized prior to the end of Sprint Planning.

Topic Two: What can be Done this Sprint?

Through discussion with the Product Owner, the Developers select items from the Product Backlog to include in the current Sprint. The Scrum Team may refine these items during this process, which increases understanding and confidence.

Selecting how much can be completed within a Sprint may be challenging. However, the more the Developers know about their past performance, their upcoming capacity, and their Definition of Done, the more confident they will be in their Sprint forecasts.

Topic Three: How will the chosen work get done?

For each selected Product Backlog item, the Developers plan the work necessary to create an Increment that meets the Definition of Done. This is often done by decomposing Product Backlog items into smaller work items of one day or less. How this is done is at the sole discretion of the Developers. No one else tells them how to turn Product Backlog items into Increments of value.

The Sprint Goal, the Product Backlog items selected for the Sprint, plus the plan for delivering them are together referred to as the Sprint Backlog.

Sprint Planning is timeboxed to a maximum of eight hours for a one-month Sprint. For shorter Sprints, the event is usually shorter.

Daily Scrum

The purpose of the Daily Scrum is to inspect progress toward the Sprint Goal and adapt the Sprint Backlog as necessary, adjusting the upcoming planned work.

The Daily Scrum is a 15-minute event for the Developers of the Scrum Team. To reduce complexity, it is held at the same time and place every working day of the Sprint. If the Product Owner or Scrum Master are actively working on items in the Sprint Backlog, they participate as Developers.

The Developers can select whatever structure and techniques they want, as long as their Daily Scrum focuses on progress toward the Sprint Goal and produces an actionable plan for the next day of work. This creates focus and improves self-management.

Daily Scrums improve communications, identify impediments, promote quick decision-making, and consequently eliminate the need for other meetings.

The Daily Scrum is not the only time Developers are allowed to adjust their plan. They often meet throughout the day for more detailed discussions about adapting or re-planning the rest of the Sprint's work.

Sprint Review

The purpose of the Sprint Review is to inspect the outcome of the Sprint and determine future adaptations. The Scrum Team presents the results of their work to key stakeholders and progress toward the Product Goal is discussed.

During the event, the Scrum Team and stakeholders review what was accomplished in the Sprint and what has changed in their environment. Based on this information, attendees collaborate on what to do next. The Product Backlog may also be adjusted to meet new opportunities. The Sprint Review is a working session and the Scrum Team should avoid limiting it to a presentation.

The Sprint Review is the second to last event of the Sprint and is timeboxed to a maximum of four hours for a one-month Sprint. For shorter Sprints, the event is usually shorter.

Sprint Retrospective

The purpose of the Sprint Retrospective is to plan ways to increase quality and effectiveness.

The Scrum Team inspects how the last Sprint went with regards to individuals, interactions, processes, tools, and their Definition of Done. Inspected elements often vary with the domain of work. Assumptions that led them astray are identified and their origins explored. The Scrum Team discusses what went well during the Sprint, what problems it encountered, and how those problems were (or were not) solved.

The Scrum Team identifies the most helpful changes to improve its effectiveness. The most impactful improvements are addressed as soon as possible. They may even be added to the Sprint Backlog for the next Sprint.

The Sprint Retrospective concludes the Sprint. It is timeboxed to a maximum of three hours for a one-month Sprint. For shorter Sprints, the event is usually shorter.

Product Backlog

The Product Backlog is an emergent, ordered list of what is needed to improve the product. It is the single source of work undertaken by the Scrum Team.

Product Backlog items that can be Done by the Scrum Team within one Sprint are deemed ready for selection in a Sprint Planning event. They usually acquire this degree of transparency after refining activities. Product Backlog refinement is the act of breaking down and further defining Product Backlog items into smaller more precise items. This is an ongoing activity to add details, such as a description, order, and size. Attributes often vary with the domain of work.

The Developers who will be doing the work are responsible for the sizing. The Product Owner may influence the Developers by helping them understand and select trade-offs.

Commitment: Product Goal

The Product Goal describes a future state of the product which can serve as a target for the Scrum Team to plan against. The Product Goal is in the Product Backlog. The rest of the Product Backlog emerges to define “what” will fulfill the Product Goal.

A product is a vehicle to deliver value. It has a clear boundary, known stakeholders, well-defined users or customers. A product could be a service, a physical product, or something more abstract.

The Product Goal is the long-term objective for the Scrum Team. They must fulfill (or abandon) one objective before taking on the next.

Sprint Backlog

The Sprint Backlog is composed of the Sprint Goal (why), the set of Product Backlog items selected for the Sprint (what), as well as an actionable plan for delivering the Increment (how).

The Sprint Backlog is a plan by and for the Developers. It is a highly visible, real-time picture of the work that the Developers plan to accomplish during the Sprint in order to achieve the Sprint Goal. Consequently, the Sprint Backlog is updated throughout the Sprint as more is learned. It should have enough detail that they can inspect their progress in the Daily Scrum.

Commitment: Sprint Goal

The Sprint Goal is the single objective for the Sprint. Although the Sprint Goal is a commitment by the Developers, it provides flexibility in terms of the exact work needed to achieve it. The Sprint Goal also creates coherence and focus, encouraging the Scrum Team to work together rather than on separate initiatives.

The Sprint Goal is created during the Sprint Planning event and then added to the Sprint Backlog. As the Developers work during the Sprint, they keep the Sprint Goal in mind. If the work turns out to be different than they expected, they collaborate with the Product Owner to negotiate the scope of the Sprint Backlog within the Sprint without affecting the Sprint Goal.

What is a backlog?

Let's start with a little repetition and the basic question: what is a backlog? The exact definition is: "A backlog is a collection of unfinished work or matters that need to be taken care of". In (agile) project management, the backlog thus represents a list of project-related tasks that need to be finished in order to complete the project. In Scrum, a distinction is made between the following two types of backlogs.

What is a product backlog?

The name product backlog comes from the fact that it collects all the requirements for the finished product. It is a list consisting of all the steps necessary to complete the entire project and develop the defined target product. In Scrum, the individual tasks are also referred to as product backlog items. Important: The product backlog is not to be confused with the usual statement of work, as it is a dynamic and customizable list. The product owner is responsible for the product backlog. They are in charge of the quality and maintaining of the list. He prioritizes the tasks according to different criteria. In doing so, they estimate the effort required for the individual steps and prioritize by how much they benefit the customer. The higher the product backlog item is prioritized, the higher it is on the list and the more detailed its individual characteristics are described.

What is a sprint backlog?

Recap: a fundamental element of the agile Scrum method are regular and repeatable workflows, the so-called sprints. In this process, pre-selected tasks or project requirements are worked on within a set period of time. The "to-do list" that collects all tasks of a sprint is called sprint backlog. This list therefore only contains items that can be completed during the agile sprint. The goal of each sprint should be to develop a functional intermediate product (increment). During the sprint planning it is decided which prioritized tasks from the product backlog should be implemented in the upcoming sprint. After the requirements for the next sprint have been defined, they are divided into tasks that can be completed within one day. These are also called sprint backlog tasks.

Product backlog	Sprint backlog
Contains <u>all</u> project tasks	Contains individual tasks from the product backlog
Subdivided into product backlog items	Subdivided into sprint backlog tasks
Works toward a defined product goal	Works toward a functional intermediate product
Managed by the product owner	Managed by the sprint team
List of all the items that need to be completed for developing the end product	List of items to be completed in each sprint
Product owner collects the backlog from the customer and assigns to the team	The team collects the backlog from the PO and decides the time frame to complete during each sprint
Specific to the end goal	Specific to the sprint
Will vary based on the customer vision	Will vary based on the product vision as defined by the PO
The entire set of work in progress	The subset of the product backlog
Independent of the sprint backlog	Purely dependent on the product backlog
All product features listed and story points are assigned to every user story individually	For every sprint, the to-do list is the sprint backlog. The task is disintegrated from the user story to allow the team to estimate the time for completion in hours.
Planning poker tool is used to estimate time for each product backlog	-
Product owner owns it	Scrum team owns
Until the completion of the entire project, the PO will maintain the backlogs	Every new sprint will get new backlogs added by the team

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