HandBook - IrontLab

# Scrum

### What is it?

Scrum is a lightweight framework that helps people, teams and organizations generate value through adaptive solutions for complex problems.

In a nutshell, Scrum requires a Scrum Master to foster an environment where:

1. A Product Owner orders the work for a complex problem into a Product Backlog.
2. The Scrum Team turns a selection of the work into an Increment of value during a Sprint.
3. The Scrum Team and its stakeholders inspect the results and adjust for the next Sprint.
4. *Repeat*

Scrum is founded on empiricism and lean thinking. Empiricism asserts that knowledge comes from experience and making decisions based on what is observed. Lean thinking reduces waste and focuses on the essentials.

Scrum employs an iterative, incremental approach to optimize predictability and to control risk. Scrum engages groups of people who collectively have all the skills and expertise to do the work and share or acquire such skills as needed.

Scrum combines four formal events for inspection and adaptation within a containing event, the Sprint. These events work because they implement the empirical Scrum pillars of transparency, inspection, and adaptation.

### Scrum Values

***Commitment, Focus, Openness, Respect, and Courage***

These values give direction to the Scrum Team with regard to their work, actions, and behavior. The decisions that are made, the steps taken, and the way Scrum is used should reinforce these values, not diminish or undermine them. The Scrum Team members learn and explore the values as they work with the Scrum events and artifacts. When these values are embodied by the Scrum Team and the people they work with, the empirical Scrum pillars of transparency, inspection, and adaptation come to life building trust.

### Scrum Team

The fundamental unit of Scrum is a small team of people, a Scrum Team. The Scrum Team consists of one Scrum Master, one Product Owner, and Developers. Within a Scrum Team, there are no sub-teams or hierarchies. It is a cohesive unit of professionals focused on one objective at a time, the Product Goal.

Scrum Teams are cross-functional, meaning the members have all the skills necessary to create value each Sprint. They are also self-managing, meaning they internally decide who does what, when, and how.

Members:

* Scrum Master:The scrum master helps to keep the team accountable to their commitments to the business and also remove any roadblocks that might impede the team’s productivity. The role of a scrum master is to coach and motivate team members, not enforce rules to them.
* Product Owner: Is the Team member who knows what the customer wants and the relative business value of those wants. He or she can then translate the customer’s wants and values back to the Scrum team.he must have the authority to make all decisions necessary to complete the project, in other words, the Product Owner is responsible for managing the [Product Backlog](https://www.visual-paradigm.com/scrum/what-is-product-backlog-in-scrum/)
* Developers: Development Teams are structured and empowered by the organization to organize and manage their own work. The resulting synergy optimizes the Development Team’s overall efficiency and effectiveness.

### Scrum Events

Sprint

They are fixed length events of one month or less to create consistency. A new Sprint starts immediately after the conclusion of the previous Sprint.The big advantage of the short time frame of a sprint is that developers are forced to focus on pushing out small, incremental changes rather than large, sweeping changes. As a result, far less debugging is required, and clients using the software can get a more seamless experience with the product.

Sprint Planning

Though the sprint itself might not last long, there's a lot of careful planning behind it — what goals should be achieved, how long it should last, and when to start.Sprint planning involves product owners working with [Software Engineers](https://www.codecademy.com/resources/blog/what-does-a-software-engineer-do/?utm_source=ccblog&utm_medium=ccblog&utm_campaign=ccblog&utm_content=cw_what_is_sprint_blog) and various technical teams to ensure that the sprint outcomes are relevant and achievable.

Spring Daily

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

Sprint Review

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

Sprint Retrosprective

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

### Scrum Artifacts

Scrum’s artifacts represent work or value. They are designed to maximize transparency of key information. Thus, everyone inspecting them has the same basis for adaptation.

Each artifact contains a commitment to ensure it provides information that enhances transparency and focus against which progress can be measured:

* For the Product Backlog it is the Product Goal.
* For the Sprint Backlog it is the Sprint Goal.
* For the Increment it is the Definition of Done.

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.

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.

Increment

An Increment is a concrete stepping stone toward the Product Goal. Each Increment is additive to all prior Increments and thoroughly verified, ensuring that all Increments work together. In order to provide value, the Increment must be usable.

**Story points** are a unit of measurement for estimating the effort required to complete a work item on the backlog. They are a number that the Developers on the Scrum Team come up with and agree on during the Backlog Refinement or Sprint Planning event.Most teams choose to follow the Fibonacci sequence (0, 1, 1, 2, 3, 5, 8, 13, 21, etc.).

**Velocity** is a metric for the total amount of work that the Scrum Team has completed in a given sprint. Teams that estimate their work items in story points also measure their velocity in story points

Bibliography: https://scrumguides.org/scrum-guide.html

# GIT