

Weekend: Agile Methodologies

SCRUM Master

The SCRUM master is a facilitator for an agile development team. They have a deep understanding of SCRUM principles and how to enact them in a team. The SCRUM master is responsible for:

Helping the team to reach consensus on what can be achieved during a specific sprint.

Helping the team to reach consensus during the daily stand up.

Helping the team to stay focused and follow the agreed-upon rules for daily SCRUMs.

Removing obstacles that are impeding the team's progress.

Protecting the team from outside distractions.

Product Owner

The SCRUM product owner is typically a project's key stakeholder. Part of the product owner responsibilities is to have a vision of what he or she wishes to build, in conjunction with the customer's vision, and convey that vision to the SCRUM team. This is key to successfully starting any agile software development project. The agile product owner does this in part through the product backlog, which is a prioritized features list for the product.

SCRUM Events

Prescribed events are used in SCRUM to create regularity and to minimize the need for meetings not defined in SCRUM. All events are time-boxed events, such that every event has a maximum duration.

Other than the Sprint itself, which is a container for all other events, each event in SCRUM is a formal opportunity to inspect and adapt something. These events are specifically designed to enable critical transparency and inspection. Failure to include any of these events results in reduced transparency and is a lost opportunity to inspect and adapt.

Sprint

The heart of Scrum is a Sprint, a time-box of one month or less during which a "Done," which means it must be in useable condition and meet the Scrum Team's definition of "Done.", useable, and potentially releasable product increment(a sum of all the Product Backlog items completed during a Sprint and the value of the increments of all previous Sprints.) is created. Sprints best have consistent durations throughout a development effort. A new Sprint starts immediately after the conclusion of the previous Sprint. Sprints contain and consist of the Sprint Planning, Daily

stand up, the development work, the Sprint Review, and the Sprint Retrospective. During the Sprint:

No changes are made that would endanger the sprint goal.

Quality goals do not decrease.

Scope may be clarified and re-negotiated between the Product Owner and Development Team as more is learned.

Sprint Planning

The work to be performed in the Sprint is planned at the Sprint Planning. This plan is created by the collaborative work of the entire Scrum Team. The output of this is called the sprint backlog. The Sprint Goal is an objective set for the Sprint that can be met through the implementation of Product Backlog. It provides guidance to the Development Team on why it is building the Increment. It is created during the Sprint Planning meeting. Sprint Planning is time-boxed to a maximum of eight hours for a one-month Sprint. For shorter Sprints, the event is usually shorter. The Scrum Master ensures that the event takes place and that attendants understand its purpose. The Scrum Master teaches the Scrum Team to keep it within the time-box. Sprint Planning answers the following:

What can be delivered in the Increment resulting from the upcoming Sprint?

How will the work need to deliver the Increment be achieved?

Daily Stand-up

The Daily Scrum is a 15-minute time-boxed event for the Development Team to synchronize activities and create a plan for the next 24 hours. This is done by inspecting the work since the last Daily Scrum and forecasting the work that could be done before the next one. The Daily Scrum is held at the same time and place each day to reduce complexity. During the meeting, the Development Team members explain:

What did I do yesterday that helped the Development Team meet the Sprint Goal?

What will I do today to help the Development Team meet the Sprint Goal?

Do I see any impediment that prevents me or the Development Team from meeting the Sprint Goal?

Sprint Review /Demo

A Sprint Review is held at the end of the Sprint to inspect the Increment and adapt the Product Backlog if needed. During the Sprint Review, the Scrum Team and stakeholders collaborate about what was done in the Sprint. Based on that and any changes to the Product Backlog during the Sprint, attendees collaborate on the next things that could be done to optimize value. This is an informal meeting, not a status meeting, and the presentation of the Increment is intended to elicit feedback and foster collaboration. A demo of the increment is to be shown at this point as per the

MVPs(discussed later) set. This is a four-hour time-boxed meeting for one-month Sprints. For shorter Sprints, the event is usually shorter. The Scrum Master ensures that the event takes place and that attendants understand its purpose. The Scrum Master teaches all to keep it within the time-box. The Sprint Review includes the following elements:

Attendees include the Scrum Team and key stakeholders invited by the Product Owner.

The Product Owner explains what Product Backlog items have been “Done” and what has not been “Done”.

The Development Team discusses what went well during the Sprint, what problems it ran into, and how those problems were solved.

The Development Team demonstrates the work that it has “Done” and answers questions about the Increment.

The Product Owner discusses the Product Backlog as it stands. He or she projects likely completion dates based on progress to date (if needed).

The entire group collaborates on what to do next so that the Sprint Review provides valuable input to subsequent Sprint Planning.

Review of how the marketplace or potential use of the product might have changed what is the most valuable thing to do next.

Review of the timeline, budget, potential capabilities, and marketplace for the next anticipated release of the product.

The result of the Sprint Review is a revised Product Backlog that defines the probable Product Backlog items for the next Sprint. The Product Backlog may also be adjusted overall to meet new opportunities.

Sprint Retrospective

The Sprint Retrospective is an opportunity for the Scrum Team to inspect itself and create a plan for improvements to be enacted during the next Sprint. The Sprint Retrospective occurs after the Sprint Review and prior to the next Sprint Planning. This is a three-hour time-boxed meeting for one-month Sprints. For shorter Sprints, the event is usually shorter. The Scrum Master ensures that the event takes place and that attendants understand its purpose. The Scrum Master teaches all to keep it within the time-box. The Scrum Master participates as a peer team member in the meeting from the accountability over the Scrum process. The purpose of the Sprint Retrospective is to:

Inspect how the last Sprint went with regards to people, relationships, process, and tools.

Identify and order the major items that went well and potential improvements.

Create a plan for implementing improvements to the way the Scrum Team does its work.

SCRUM Artifacts

Scrum Artifacts provide key information that the Scrum Team and the stakeholders need to be aware of for understanding the product under development, the activities done, and the activities being planned in the project.

Product backlog

The Product Backlog is an ordered list of everything that might be needed in the product and is the single source of requirements for any changes to be made to the product. The Product Owner is responsible for the Product Backlog, including its content, availability, and ordering. The Product Backlog lists all features, functions, requirements, enhancements, and fixes that constitute the changes to be made to the product in future releases. Product Backlog items have the attributes of a description, order, estimate and value.

Sprint Backlog

The Sprint Backlog is the set of Product Backlog items selected for the Sprint, plus a plan for delivering the product Increment and realizing the Sprint Goal. The Sprint Backlog is a forecast by the Development Team about what functionality will be in the next Increment and the work needed to deliver that functionality into a “Done” Increment. The Sprint Backlog makes visible all of the work that the Development Team identifies as necessary to meet the Sprint Goal. The Sprint Backlog is a plan with enough detail that changes in progress can be understood in the Daily Scrum.

Increment

The Increment is the sum of all the Product Backlog items completed during a Sprint and the value of the increments of all previous Sprints. At the end of a Sprint, the new Increment must be “Done,” which means it must be in useable condition and meet the Scrum Team’s definition of “Done.” It must be in useable condition regardless of whether the Product Owner decides to actually release it.