Agile project management with Scrum (part 2)

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Based on the book “Agile Project Management with Scrum”

Scrum outline

• Roles: Product Owner, Team, Scrum Master
• Scrum flow
  • Vision
  • Create Product Backlog
  • Sprints
  • Sprint Planning
• In this part
  • Daily Scrum, Sprint Review, Retrospective, Product Backlog, Sprint Backlog, Burndown chart

Covered in part 1
Daily Scrum

• Every day, the Team gets together for a 15-minute meeting called a **Daily Scrum**
• Each Team member answers 3 questions
  • What have you done on this project since the last Daily Scrum?
  • What do you plan to do between now and the next Daily Scrum?
  • What impediments stand in the way of you meeting your commitments to this Sprint and this project?

The purpose of this meeting is to synchronize the work of all Team members daily, and to schedule any meeting that the Team needs.

Daily Scrum – additional notes

• If a Team member cannot attend, he must attend by telephone or report his status by another member
• Only one person talks at a time, everyone else listens
• Chickens are not allowed to talk, make observations, or made faces during the meeting. If too many chickens attend, the SM can limit their attendance
Sprint review meeting

• An informal meeting held at the end of the Sprint
• 4-hour time-boxed meeting
• The Team presents what was developed during the Sprint to the Product Owner, and any other stakeholders who want to attend
• This meeting is intended to bring people together and help them collaboratively determine what the Team should do next

Sprint review – additional notes

• Functionality that isn’t “done” cannot be presented (see definition of “done” in the next slide)
• A Team member starts with presenting the Sprint goal, committed PB, and completed PB, however the majority of the review is spent on presenting functionality
• At the end, stakeholders are asked for their feedback and the PO discusses potential rearrangement to the PB
• Stakeholders are free to provide any comments
Sprint = increment of shippable functionality

- A Sprint is an increment of potentially shippable product functionality
- At the end of a Sprint, the PO might choose to immediately implement the functionality
- Therefore the increment should consist of
  - Thoroughly tested, well-structured, and well-written code
  - Code built into an executable
  - Documented user operation either in Help files or in user documentation

Sprint retrospective meeting

- A meeting held by the Scrum Master (SM) after the Sprint review, and before the next Sprint planning
- Attended only by the SM, Team, and PO (PO is optional)
- 3-hour time-boxed meeting
- The SM encourages the Team to revise its development process, within the Scrum framework and practices, to make it more effective and enjoyable for the next Sprint

SM asks the Team members to answer 2 questions:
1. What went well during the last Sprint?
2. What could be improved in the next Sprint?

Note: the SM should not provide answers but facilitate the Team’s search for better ways for the Scrum process to work for it.
Scrum Artifacts

Product Backlog (PB)

- Lists the requirements for the system/product being developed
- The PO is responsible for the contents, prioritization, and availability of the PB
- The PB is dynamic and never complete
  - the PB used in the project plan is only an initial estimate of the requirements
  - The PB evolves as the product and the environment in which it will be used evolves
  - Management constantly changes it according to what is appropriate for the product, for competitiveness and usefulness
Product Backlog

- This is an example for a real Product Backlog used in a project for developing Scrum Project Management software in 2003
- Ken Schwaber was the Product Owner
- We will explain its structure in the next slides

![Product Backlog](image)

**Figure 1-4** Product Backlog

Product Backlog

- The rows are the PB items, separated by Sprint and Release subheadings
- E.g., rows above **Sprint-1** represent tasks worked on in that sprint

![Product Backlog](image)

**Figure 1-4** Product Backlog
Product Backlog

The next 3 columns are the initial estimate, the complexity factor, and the adjusted estimate.

The complexity factor increases the estimate due to project characteristics reducing the productivity of the team.

These columns represent all the Sprints.

When a PB item is first thought, its estimated work is inserted in the current Sprint.

E.g., identify the only item that was not thought of for the first Sprint.

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**Figure 1.4** Product Backlog
Burndown chart (1)

- A *burndown chart* shows the amount of work remaining during time.
- It helps in visualizing work remaining (and done) and the progress of the Team (how fast it’s being done).

![Burndown chart](image1)

**Figure 1-5** Burndown chart

Burndown chart (2)

- The intersection of a *trend line* with the horizontal axis indicates the estimated completion of work at that time.
- This also allow to predict the completion date where functionality is added or removed.

![Burndown chart](image2)

"Trend line" during the 3rd Sprint

**Figure 1-5** Burndown chart
**Sprint Backlog (1)**

- Holds the tasks the Team defines for turning the PB for that Sprint into an increment of potentially shippable product functionality
- An initial task list is created in the second part of the Sprint planning
- Tasks should be defined to take 4-16 hours to finish. Longer tasks are placeholders for tasks that haven’t yet been appropriately defined
- Only the Team can change the SB

**Sprint Backlog (2)**

- The rows represent the tasks
- The columns represent the 30 Sprint days
- Once a task is defined, the person working on that task places its estimated time in the appropriate Sprint day
- Team members are responsible to keep the SB visible to all (e.g., in a public folder), and keep it up-to-date (adding new tasks, and updating the status of current tasks)
Final remarks

• We have provided knowledge about the Scrum process
• However that knowledge doesn’t qualify you to manage a project with Scrum
• For this, you need some practice and understanding of Scrum being applied in real situations
• You are invited to read the book which mainly discusses the practice of Scrum

Agile Project Management with Scrum
Ken Schwaber