Sprint with Scrum and get the work done

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Executive summary

- Scrum is an Agile process that allows practitioners to focus on delivering the highest business value in the shortest time.
- It also allows practitioners to rapidly and repeatedly inspect actual working software (every two weeks to one month).
- The client sets the priorities. Teams self-organize to determine the best way to deliver the highest priority features.
- Every two weeks to one month, you can see working software and decide to release it as is, or continue to enhance it for another Sprint.
- Project teams were able to seamlessly integrate Capability Maturity Model Integration (CMMI) and Scrum.
What is Scrum?

• Scrum is an Agile process framework that allows organizations to continuously direct the project toward early delivery of real business value through the frequent and regular delivery of high quality software.

• SCRUM is not an acronym. The term Scrum comes from Rugby—a football game, where a close circle of people collaborate as a team to drive the ball towards the goal. This emphasizes agile teamwork that gets its strength from all of the team members working together towards the same goal.
Why Scrum?

- Early measurable return on investment
- High visibility and control over the project progress
- Early and continuous customer feedback
- Empowered product owner
- Incremental delivery
- Agile change management is adaptive to changing business needs
- Helps align information technology with the business
- Reduces product and process waste
Scrum: Process overview

- Product Backlog as prioritized by product owner
  - Backlog Tasks expanded by team
  - 10 - 30 days
  - 24 hours
  - Daily Scrum meeting
  - Potentially Shippable Product Increment

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Scrum phases

Seven-phase Scrum approach adopted in projects:

- Initiation
- Product Backlog
- Sprint Planning
- Sprint Monitoring
- Product Increment
- Sprint Review
- Sprint Retrospective
Scrum – Initiation phase

In the Initiation phase, the project team develops the business case and vision for each release, assembles the team, and identifies the role of each team member. The initial Product Backlog is also reviewed to determine if enough work is available, and the activities are sequenced to produce the project schedule.

The Scrum Initiation phase is completed with the development of the initial Release Plan.

Key Initiation phase deliverables:

• Scrum Release Charter
• Release Plan (high-level)
Scrum – Product Backlog phase

In the Product Backlog phase, the project team reevaluates the priorities of the Product Backlog before the start of every Sprint. During this phase, the project teams provide high-level estimates to complete each Sprint for the product owner.

Key product backlog phase deliverable:

• Product Backlog
Scrum – Sprint Planning phase

In the Sprint Planning phase, the project team develops the Sprint Goals by breaking the selected items into Sprint Backlog tasks and allocating the work to the project team members.

Key sprint planning phase deliverable:

• Sprint Backlog
• Project Work Plan (Implemented using the Team Foundation Software)
Scrum – Sprint Monitoring phase

In the Sprint Monitoring phase, the Sprint development is monitored on a daily basis to identify any impediments for removal by management. The Sprint and Product Backlog progress is analyzed using the Product Burn-down, Sprint Burn-up/Burn-down, and Progress of Release Backlog charts.

Key sprint monitoring phase deliverable:

• Sprint Backlog – Burn charts (Team, Development, Analysis, Test etc.)
Sprint Burn Chart (sample 1)

Completed: 579

Capacity: 479

Added: 100

Not completed: 4
Sprint Burn Chart (sample 2)
# Sprint Task Board (sample 3)

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Scrum – Daily meeting

Parameters:
• Daily
• 15 minutes
• Stand-up

Daily stand-up meeting is not a problem-solving meeting. Three main questions are answered in these meetings by the product owner, scrum master, and team members:
• What did we do yesterday?
• What will you do today?
• Is there anything in your way?

These meetings are not status meetings—they are commitments in front of peers.
Scrum – Product Increment phase

In the Product Increment phase, the project team makes necessary changes required for the implementation of Backlog Requirements into packets by opening the packets, performing domain analysis, designing, developing, implementing, testing, and documenting the changes. The development consists of the micro-process of discovery, invention, and implementation.

Key product increment phase deliverable:

• Sprint Backlog
• Test Cases and Test Results
Scrum – Sprint Review phase

In the Sprint Review phase, the project team members identify functionality that was not delivered or was not delivered as expected, and requests that such functionality be placed in the Product Backlog for prioritization. The team then discusses potential rearrangements of the Product Backlog with the stakeholders based on the feedback, and what went well and what did not go well in the Sprint.

Key sprint review phase deliverables:

• Updated Product Backlog
• Updated Sprint Backlog
Scrum – Sprint Retrospective phase

In the Sprint Retrospective phase, the process improvements are made at the end of every Sprint to ensure that the project team is always improving the way it works and devising solutions to the most vexing problems, which helps to build team ownership and self management.

Key sprint retrospective phase deliverable:

•Lessons learned
Scrum – Cost to manage change

Traditional Waterfall approach to cost of change

New cost of change using Scrum

Cost of change

Time

Project lifecycle

Requirements Design Code Test Integrate
Scrum – Lessons learned

• Preparing for change: Best way to engage the team for change is to communicate the plan to move the team to the Agile model

• Team creation: Have like-minded people with a positive attitude who can boost team morale and focus on attaining the goal set by stakeholders—an agile evangelist on the team can’t work alone

• Collaborating with the team: One of the core principles of Agile Methodology is collaboration, so it makes sense that the implementation of this approach would exude its virtues

• Expect some hindrances on the road: Change is never easy—making the transition from the Waterfall to Agile Methodology means leaving behind a certain comfort level among the team members
Scrum – Lessons learned (cont’d.)

• Don’t dictate: Stakeholders who are responsible for the project are there to facilitate the team and to help them get around the road blocks that they are facing.

• Automation: The fast-paced development and cross-silo coordination necessary for a successful Agile project requires organizations to visualize the scope of the project and the project schedule, orchestrate the integration and testing process, and enforce adherence to Agile processes. Tools such as TFS (Team Foundation Software) will help the project teams

• Implement, assess, and refine: When the project has to be piloted to use the Agile approach, hold a postmortem, or post-launch review to openly discuss where the process could be improved
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