Agile Project Management with Scrum

Java User Group Switzerland
August 25, 2008
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www.scrum-breakfast.com

About…

- Peter Stevens, CSM, CSP
- 1982 - 85 System Software Engineer, Microsoft
- [many interesting things]
- 2005 Discovered Scrum
  - Applied Scrum to various projects big & small at namics
- April 2008, Independent Scrum Trainer and Coach
  - Scrum Evangelist
  - Scrum-breakfast.com
  - Agilesoftwaredevelopment.com
- Certified Scrum Practitioner
Why are we here?

Agenda

- What is Scrum?
  - Ceremonies
  - Roles
  - Artifacts: Planning & Monitoring
- Scrum and other Frameworks & Methodologies
- Getting Started
- Discussion
What is Scrum?

Goal of Software Development

Wish List ................................. Finished Software
Sprint Cycle - Implementation

Wish List ----> Plan ----> Do ----> Demo ----> Finished Software

- Quality
- Scope
- Cost
- Time

Sprint Cycle – Time Boxed Iterations

Wish List ----> Plan ----> Do ----> Demo ----> Finished Software

- Quality
- Scope
- Cost
- Time

2 – 4 Weeks, fix

Repeat
Roles & Responsibilities

The role of the Development Team includes:

- **Duties**
  - Solves the problem that has been posed by the Product Owner
  - Estimates the effort of the Product Backlog Items
  - Implements the solutions

- **Rights & Privileges**
  - Decide “How”
  - Organize & manage themselves
  - Cross Functional

- **Responsibility**
  - Collective Responsibility for the Success of the Sprint and (by extension) the Project.

Team

Photo © Michael Chamberlin - Fotolia
**Product Owner**

- **Duties**
  - Create and Prioritize Product Backlog
  - Negotiate Sprint Contract with the Team
  - Represent Interests of all Stakeholders ("Chickens")

- **Rights & Privileges**
  - Determine When Product can be Released

- **Responsibilities**
  - Overall Responsibility for Product
  - Assure Financing
  - Optimize ROI every Sprint

**ScrumMaster**

- **Duties**
  - Moderate Scrum Meetings
  - Eliminate Impediments
  - Help the Product Owner Create and Prioritize the Product Backlog to generate the maximum ROI
  - Source of Scrum Know-How
  - Ensure that the everybody play by the rules (and thereby protects the team)

- **Responsibilities**
  - Responsible for success of the project
  - Assure Transparency and act to eliminate impediments
Other Roles

- Management
- Customers
- Users
- Other Stakeholders

Artifacts – Planning & Control

- Planning
  - Release Backlog
  - Sprint Backlog
  - Task Board
- Burn Down Charts
  - Release
  - Sprint
- Other Charts
# Product Backlog

<table>
<thead>
<tr>
<th>As a</th>
<th>I want [to understand]</th>
<th>So that (I can)</th>
<th>Business Value</th>
<th>Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>ScrumMaster</td>
<td>Scrum</td>
<td>Help team &amp; mgmt. implement Scrum</td>
<td>100</td>
<td>8</td>
</tr>
<tr>
<td>Developer</td>
<td>How Scrum changes my job</td>
<td>Decide if it’s good for me</td>
<td>90</td>
<td>3</td>
</tr>
<tr>
<td>Early Adopter</td>
<td>why the Scrum Process works</td>
<td>convince others to try it</td>
<td>80</td>
<td>2</td>
</tr>
<tr>
<td>Early Adopter</td>
<td>Change process</td>
<td>Chart a promising course to introduce Scrum</td>
<td>70</td>
<td>3</td>
</tr>
<tr>
<td>Product Owner</td>
<td>Estimating and Planning</td>
<td>Create the product backlog</td>
<td>60</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td>20</td>
</tr>
</tbody>
</table>

# Sprint Backlog

<table>
<thead>
<tr>
<th>As a</th>
<th>I want [to understand]</th>
<th>So that (I can)</th>
<th>Commit</th>
<th>Estimate (Points)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ScrumMaster</td>
<td>Scrum Process</td>
<td>Help team &amp; mgmt. implement Scrum</td>
<td>Yes</td>
<td>5</td>
</tr>
<tr>
<td>ScrumMaster</td>
<td>Scrum Roles &amp; Artifacts</td>
<td>Help team &amp; mgmt. implement Scrum</td>
<td>Cond.</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td>8</td>
</tr>
</tbody>
</table>
# Task Board - Results of Sprint Planning

<table>
<thead>
<tr>
<th>Waiting</th>
<th>Open</th>
<th>Done</th>
<th>Impediment</th>
</tr>
</thead>
<tbody>
<tr>
<td>As a S-M…</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>understand the</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scrum Process</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Create Slides</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Find Pictures</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Review</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Save backup</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Estimate: 13 hrs</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Tasks are estimated in hours

---

# Task Board – Start of Day 1

<table>
<thead>
<tr>
<th>Waiting</th>
<th>Open</th>
<th>Done</th>
<th>Impediment</th>
</tr>
</thead>
<tbody>
<tr>
<td>As a S-M…</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>understand the</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scrum Process</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Create Slides</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Find Pictures</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Review</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Save backup</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Estimate: 13 hrs</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Create Slides 8
### Task Board – After Day 1

<table>
<thead>
<tr>
<th>Waiting</th>
<th>Open</th>
<th>Done</th>
<th>Impediment</th>
</tr>
</thead>
<tbody>
<tr>
<td>As a S-M... 5 understand the Scrum Process</td>
<td>Create Slides 7</td>
<td></td>
<td>Need new Office</td>
</tr>
<tr>
<td>Review 3</td>
<td>Find Pictures 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Save backup 0</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Estimate: 12 hrs

### Task Board – After Day 2

<table>
<thead>
<tr>
<th>Waiting</th>
<th>Open</th>
<th>Done</th>
<th>Impediment</th>
</tr>
</thead>
<tbody>
<tr>
<td>As a S-M... 5 understand the Scrum Process</td>
<td>Create Slides 5</td>
<td>Find Pictures 0</td>
<td></td>
</tr>
<tr>
<td>Review 3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Save backup 0</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Estimate: 8 hrs
### Task Board – After Day 3

<table>
<thead>
<tr>
<th>Waiting</th>
<th>Open</th>
<th>Done</th>
<th>Impediment</th>
</tr>
</thead>
<tbody>
<tr>
<td>As a S-M... 5 understand the Scrum Process</td>
<td>Create Slides 0</td>
<td>Find Pictures 0</td>
<td></td>
</tr>
<tr>
<td>Review 3</td>
<td>Save backup 0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Estimate: 3 hrs

### Task Board – After Day 4

<table>
<thead>
<tr>
<th>Waiting</th>
<th>Open</th>
<th>Done</th>
<th>Impediment</th>
</tr>
</thead>
<tbody>
<tr>
<td>As a S-M... 5 understand the Scrum Process</td>
<td>Create Slides 0</td>
<td>Find Pictures 0</td>
<td></td>
</tr>
<tr>
<td>Review 0</td>
<td>Save backup 0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Estimate: 0 hrs
Sprint Progress

Sprint Burn Down Chart – Sprint 1

Ideal Progress

Actual Progress

Release Progress

Release Burn Down Chart After Sprint 1

Ideal / Plan

Actual Progress
Estimating Completion

Release Burn Down Chart After Sprint 1

How to React to Forecast Delays?

Reduce Scope

Increase Velocity
How to Increase Velocity?

- Good
  - Remove Impediments
- Risky
  - Increase Team Size
  - Lower Quality Standard
- Bad
  - Increase Pressure on Team

Other Useful Charts

- Test Burn Up Chart
  - Acceptance Tests Defined/Passed
  - Unit Tests Defined/Passed
- Budget Burn Down Chart
  - Budgeted Money Remaining
Scrum and Other Agile Frameworks

<table>
<thead>
<tr>
<th>Personal</th>
<th>Team</th>
<th>Division</th>
<th>Company</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic</td>
<td>Agile</td>
<td></td>
<td>Lean</td>
</tr>
<tr>
<td>Release</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Month (Sprint)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Day</td>
<td>Scrum</td>
<td>XP</td>
<td></td>
</tr>
</tbody>
</table>

Scrum and other Methodologies

- **Methodology**
  - RUP
  - Hermes
  - Princ2

- **Framework**
  - XP
  - Scrum
  - Lean
What happened to the Project Manager?

<table>
<thead>
<tr>
<th></th>
<th>S-M</th>
<th>P-O</th>
<th>Team</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select Team Members</td>
<td>initial</td>
<td></td>
<td>once established</td>
</tr>
<tr>
<td>Select Tools</td>
<td>shared</td>
<td>shared</td>
<td></td>
</tr>
<tr>
<td>Plan Tasks</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Ensure satisfactory implementations</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Define and Impose Standards</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Coordinate Work</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Budget</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scope</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Set Priorities</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commit to Delivery Dates</td>
<td>shared</td>
<td>shared</td>
<td></td>
</tr>
<tr>
<td>Assign Tasks</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Communicate with the Customer</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Remove Impediments</td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Getting Started: Introduction Patterns
Pattern 1: Just Do It

- Get support of immediate management for an “experiment”
- Get some coaching and/or training
- Kick-Off with a Retrospective/Get support of team
- Go slow with Engineering Changes

![Diagram showing Plan, Do, Demo, and Improve]

Pattern 2: Sprint Zero – converting an existing project

- Indication:
  - Initiative comes from a “Scrum Champion” / Future Scrum Master
  - Can happen under pressure / Get Help If You Need It
- Steps
  - Identify Product Owner
  - Introduce Team to Scrum (S-M)
  - Propose a Definition of Done (Team)
  - Assemble Product Backlog with Initial Priorities (S-M & P-O)
  - Estimate Tasks (Team)
  - Review Prioritization (P-O, S-M)
  - Hold First Sprint Planning Meeting
- Caution:
  - Changing Engineering Practices Simultaneously
Pattern 3: Corporate Introduction

Establish
Promote
Diversify
Initiate
Sponsor

Professionalize
Consolidate
Integrate

More Information

Besten Dank für Ihre Aufmerksamkeit.
More Information…

- Blogs
  - scrum-breakfast.com (Peter Stevens, English)
  - inside-scrum.blogspot.com (JP König, German)

- Next Scrum-Kurs (in German)
  - September 9 & 10, 2008 Agile Project Management with Scrum
  - September 11, 2008 Sprint Zero with Scrum and Target Process
  - 20% Rebate for Jugs & /ch/open Members, Registration Deadline: September 1

- Scrum Books
  - Agile Project Management with Scrum, by Ken Schwaber
  - Agile Estimating and Planning, by Mike Cohn
  - User Stories Applied, by Mike Cohn

Review

- What is Scrum?
  - Ceremonies
  - Roles
  - Artifacts: Planning & Monitoring

- Scrum and other Frameworks & Methodologies
- Getting Started

- Discussion
  - How does the role of the developer change with Scrum?