Considerations In Scrum Adoption

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Setting Context

For companies that have been doing Scrum for a while…

Not novices, not unaware…

Where does industry stand?

What are the challenges?

2011 Scrum Adoption Survey
• for organization questions, N=184
  - first two charts in this presentation
• for project questions, N=128
Scrum – Inspect & Adapt (Cohn 2010)

What Software Engineering Methods

- Other methods
- Unified Process (including RUP, AUP, OUP)
- Team Software Process (TSP)
- Crystal methods (including Crystal Clear)
- Feature Driven Development (FDD)
- Extreme Programming (XP)
- Scrum
**Usage of Scrum**

- Scrum is the normal way we build software: 50
- Scrum is one of the standard methods we use: 40
- We are currently piloting Scrum across the organization: 30
- We have piloted Scrum but no decision about adoption has been made: 20
- We are currently deploying Scrum across the organization: 10
- We are aware that Scrum exists: 0
- We never heard of Scrum before: 0

**Type of Software**

- Web-based software: 35
- Embedded system software: 30
- Commercial shrink-wrap: 25
- System software: 20
- Scientific / engineering: 15
- MIS / business software: 10
Industry

Telecommunications
Public utilities
Manufacturing
Insurance
Healthcare
Financial
Education
Aerospace
Defense
Government (non-defense)

Number of People on the Scrum Team

≥16
13 to 15
10 to 12
7 to 9
4 to 6
≤3
**ScrumMaster**

There is a project manager separate from the ScrumMaster

There is a project manager who acts as the ScrumMaster

There is a single ScrumMaster

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**Product Owner**

The Product Owner is co-located with the Development Team

The Product Owner integrates and reconciles the desires of multiple stakeholders

There is a single Product Owner who has the authority to set business priorities for the project
**Development Team**

- Development Team members are generalists who can work on any task.
- The Development Team works at a sustainable pace.
- The Development Team estimates the effort (e.g., story points) for items in the Product Backlog.
- Some (more than one) team members are part-time members.
- The Development Team is distributed across multiple geographical sites (a virtual team).
- One team member is located at a different geographical location.
- The Development Team is co-located (can easily see and hear colleagues).

**Requirements Volatility**

- >50% per month
- 20-50% per month
- 10-20% per month
- 5-10% per month
- 3-5% per month
- 1-3% per month
- <1% per month
Sprints

- variable length
- kanban-style continuous
- more than 6 weeks
- 4-6 weeks
- one month
- 3-4 weeks
- two weeks
- one week

Daily Scrum Meetings

- not done
- held as needed
- held multiple times per week but not necessarily daily
- held every day
Integration and Testing

as needed
weekly
frequently during the week
daily
multiple times per day

The Scrum Process -1

An architecture has been developed that provides an adequate design context for the work (and it evolves as necessary)
The principle of simple design is used, with design improvement (refactoring) as appropriate
There is a requirements specification maintained under change control
There is a “product vision” that clearly states the business goals for the product
The Scrum Process -2

- Each requirement (user story) is appropriately tested, and the test cases are included in the regression tests.
- Test-driven development is done.
- Pair programming is done.
- There is an appropriate emphasis on documentation.
- Technical debt is measured for the project.

The Scrum Process -3

- Risks are identified for the project and reviewed at the end of each Sprint.
- Appropriate and effective tools are available to support the work (e.g., automated test tools).
- A Sprint Retrospective Meeting is held at the end of Sprints to identify opportunities for process improvement.
- There is a common understanding within the Development Team of what "done" means for the items in the Sprint Backlog.
**Project Culture**

- The Development Team is self-organizing
- The Development Team is appropriately empowered to do its work
- There is an open, cooperative, collaborative relationship within the Development Team
- There is an open, cooperative, collaborative relationship with the customer (Product Owner)

**Quality of the Software**

- much higher
- higher
- about the same
- lower
- much lower
Cost

- much higher
- higher
- about the same
- lower
- much lower

Meeting Schedule Expectations

- much higher
- higher
- about the same
- lower
- much lower
Customer Satisfaction

Questions and Answers
Contact Information

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