Implementing Agile Teams 3/4/09 - 3/5/09

Agile – Lessons from Industry
Agile Software Development Track 2
ITEA 2012 Annual Technology Review
Don Young
Technical Account Mgr, Rally SW
dyoung@rallydev.com

**50% faster and 25% more productive**

<table>
<thead>
<tr>
<th>Before Agile</th>
<th>With Agile</th>
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</thead>
<tbody>
<tr>
<td>Only 10% of software projects successful</td>
<td>50% Faster to market</td>
</tr>
<tr>
<td>37% Faster to market</td>
<td>25% More productive</td>
</tr>
<tr>
<td>16% More productive</td>
<td>Defect counts show 50% in schedule cut</td>
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On an Agile team, quality is everyone’s job!

**Action: Reduce waste with Agile**

- Work on highest priorities
- Minimize work-in-progress
- Reduce rework by surfacing defects before release to customers
- Reduce thrash

“We’ve done 13 releases in six months. Without Rally, we maybe would have done half that number. We are dramatically more efficient.”
Rob Sherman, Engineering Program Manager, Sermo
Implementing Agile Teams

Iteration Mechanics

- Daily Meeting
- Iteration 2-4 Weeks
- Value Stream
- Iteration Demo, Review, & Retrospective

Testing and Coding are One Process

- In the Iteration, Testing and Coding occur at the same time
- A programmer picks the first dev task
- The tester picks the first test task.
- Typical test tasks include defining test data, designing test approaches, evaluating risk, etc.
- Testers, Developers and Product Owners continue to clarify story requirements, brainstorm testability approaches and collaborate as a team.

Effective Dev & Test Practices

- Agile Developers are responsible for Unit Testing
- Developer Unit Testing free Testers to Automate Acceptance Tests and do Exploratory Testing

Use continuous integration and a stop-the-line mentality.

Getting to Done

<table>
<thead>
<tr>
<th>Story Done</th>
<th>Release Done</th>
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<tbody>
<tr>
<td>All code checked in</td>
<td>Stress tested</td>
</tr>
<tr>
<td>All developer tests pass</td>
<td>Performance tested</td>
</tr>
<tr>
<td>All acceptance tests pass</td>
<td>Security validation passes</td>
</tr>
<tr>
<td>Help text is written</td>
<td>Disaster recovery plan tested</td>
</tr>
<tr>
<td>Product Owner accepted</td>
<td></td>
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Iteration Done

Product backup complete
Performance tested
Defects fixed or postponed

Alternate Flow: IV&V as a Final Phase in Release Value Stream
What does a tester do?

- Is co-located and fully integrated into the team
- Helps the business stakeholders define acceptance criteria and examples
- Contribute and estimate testing tasks required to implement user stories.
- Automate acceptance tests where possible
- Perform exploratory (ad hoc) testing
- Perform non-functional testing
- Report to SQA and share learning within their skill center.

12 Adoption Failure Modes

- "Checkbook commitments" from executive management
- A culture that does not support change
- Ineffective use of the retrospective
- Failure to pay attention to the infrastructure required
- Inability to get everyone involved in the planning meetings
- Unavailable product owner, or too many product owners who can't agree
- Bad Scrum Masters
- Not having an onsite evangelist for remote locations
- Teams lacking authority and decision-making ability
- Not pulling testing forward into Definition of "Done"
- Continuing to rely on a performance appraisal system
- Reverting to form, embracing the evil we know

The collaboration model changes, but the skills are still needed.
Guidelines for Successful Fed Agile Rollout

- Good metrics collection to prove success
- For contracts: Feds are Product Owners, Contractors (with Agile experience or Agile coaches) comprise rest of Scrum team
- Use experienced Scrum masters
- Teach and support teams to be “self-managed”
- Fixed length iteration lengths (Sprints)
- Use collaborative on-line tools in support of Agile methods and metrics collection

Guidelines for Successful Fed Agile Rollout

- Agile training and coaching for new teams
- Agile introduction for management/COTARs
- Use Agile IT contracting strategies
- Start small, show success then expand
- Large orgs (many Scrum teams) use Scrum of Scrum for inter-team communication/coordination

Proven Results

- Dev Productivity
  - 25% > with Agile vs. traditional
  - 10% < variability with Agile vs. traditional
- Delivery Speed
  - 50% faster Agile vs. traditional
  - 30% more time on task with Agile vs. traditional

Additional Resources

- ADAPT Resource page
  - [http://www.afei.org/WorkingGroups/ADAPT/Pages/Resources.aspx](http://www.afei.org/WorkingGroups/ADAPT/Pages/Resources.aspx)
- Rally’s Web Site
  - [www.rallydev.com](http://www.rallydev.com)
  - Resources & Community for white papers, chalk talks, etc.
  - Rally’s Gov’t microsite
    - [http://www.rallydev.com/industry/government](http://www.rallydev.com/industry/government)
Take the Next Step…

- Attend a local Agile interest group
- Sign up for one of Rally’s public Rally Live webinars (www.rallydev.com/events)
- Request a conversation with your Rally sales team (Request a Call button at bottom of every page at www.rallydev.com)

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Don Young
Rally SW
Technical Account Manager, Fed and DoD

dyoung@rallydev.com
571.207.5405