ABOUT THE SURVEY AND THIS REPORT

The 3rd Annual ‘State of Agile Development’ survey was conducted and sponsored by VersionOne. This global survey ran in June and July of 2008 and received 2,319 completed surveys with 3,061 total respondents from 80 countries. This survey was not intended to gauge the overall adoption of Agile development practices within the software development industry. Its goal was to report on the status of organizations currently implementing or practicing Agile methods. Survey results are based on those that have practiced Agile methods in some capacity within their organizations.

This document includes the full data report without significant analysis. VersionOne will be releasing a more detailed analysis report that will include trending information from the 2006 and 2007 surveys where applicable. Please watch for this report to be released in early fall 2008. This report will be available on the VersionOne web site. To sign up for the Agile Chronicles newsletter, please visit www.VersionOne.com/acnewsletter.

The survey organizers would like to thank the many organizations and individuals that helped make this year’s survey the most comprehensive yet. Without the promotional help or support from organizations like the Agile Alliance, APLN, Scrum Alliance, DSDM® Consortium, Agile Austin, various user and Yahoo!™ groups, InfoQ™, Dr. Dobb’s Journal®, Agile Journal™ and CM Crossroads™, the ‘State of Agile Development’ survey would not have the breadth and depth of respondents participating. As in past years, there were also many individuals within our community that did a fantastic job in promoting and supporting the survey including (but not limited to!): David Anderson, David Laribee, Mike Cohn, David Hussman, Scott Killen, Mitch Lacey and many others.
THE RESPONDENTS

Survey Open: June-July, 2008
Total Respondents: 3061
Completed Surveys: 2319 (results based on completed surveys)
Countries Represented: 80

Have you taken part in past State of Agile Development Surveys?

2006: 0.5%
2007: 8.7%
2006 & 2007: 4.9%
Neither: 68.9%
Can’t Remember: 17.0%

Which role below best describes your current position in your company?

- Project Manager: 18%
- Developer: 12%
- Team Lead: 11%
- VP/Director of Development: 10%
- Development Manager: 10%
- Consultant/Trainer: 8%
- Architect: 7%
- CIO/CTO: 4%
- QA/Tester: 4%
- President/CEO/COO: 3%
- Product Manager: 3%
- IT Staff: 2%

What situation below best describes your current level of exposure to Agile development?

- Currently leading an Agile development team: 38%
- Agile coach or consultant: 17%
- Current member of an Agile development team: 16%
- Considering introducing Agile within a team for the first time: 12%
- Previously a member of an Agile development team: 7%
- I have heard of it - but not in depth - learning more now: 7%

How long have you personally been practicing Agile development methods?

- Never: 5%
- < 6 Months: 13%
- 6 - 12 Months: 18%
- 1 - 2 Years: 23%
- 2 - 5 Years: 30%
- > 5 Years: 11%
THE ORGANIZATIONS

How large is your total software organization?
(including employees related to all aspects of software development and delivery)

- >250: 32%
- 5-20: 19%
- 21-50: 16%
- 101-250: 13%
- 51-100: 16%
- <5: 5%

What percent (%) of your company’s software projects use an Agile methodology?
(closest estimate)

- 0%: 5%
- 5%: 16%
- 10%: 14%
- 25%: 15%
- 50%: 16%
- 75%: 18%
- 100%: 17%

How long has your company been practicing Agile development methods?

- Never: 5%
- <6 Months: 15%
- 6-12 Months: 21%
- 1-2 Years: 26%
- 2-5 Years: 27%
- >5 Years: 7%

How many separate locations or sites do you have using Agile?
(not including individual remote team members)

- 11+: 3%
- 6-10: 5%
- 3-5: 23%
- 2: 18%
- 1: 41%
- Don’t Know: 10%
- DO NOT Plan to Use: 16%
- DO NOT Outsource: 43%

Are any of your Agile teams currently distributed?

(individual members from a single team in different locations)

- NO: 43%
- YES: 57%

Do you currently use or plan to use Agile development methods on outsourced development projects?

- Currently Use: 21%
- Plan to Use: 20%
- DO NOT Plan to Use: 16%
- DO NOT Outsource: 43%
TRANSITION & IMPLEMENTATION

What was the MOST IMPORTANT reason for adopting Agile within your team or organization?

- Accelerate Time-to-Market: 22%
- Enhance Ability to Manage Changing Priorities: 21%
- Increase Productivity: 12%
- Enhance Software Quality: 10%
- Improve Alignment Between IT and Business: 9%
- Improve Project Visibility: 6%
- Reduce Risk: 6%
- Simplify Development Process: 4%
- Other: 3%
- Improved/Increased Engineering Discipline: 2%
- Reduce Cost: 2%
- Enhance Software Maintainability/Extensibility: 2%
- Improved Team Morale: 1%

What are/were the organization’s greatest concerns regarding the adoption of Agile development?

- Lack of Up-Front Planning: 46%
- Loss of Mgmt Control: 37%
- Lack of Documentation: 36%
- Lack of Predictability: 35%
- Lack of Engineering: 24%
- Inability to Scale: 22%

What role most closely identifies the initial champion of Agile development within your organization?

- VP / Director of Development: 25%
- Project Manager: 13%
- Development Manager: 13%
- CIO/CTO: 9%
- Team Lead: 7%
- President/CEO/COO: 7%
- Developer: 7%

Which Agile methodology do you follow most closely?

- Scrum: 49.1%
- Scrum/XP: 22.3%
- Extreme Programming (XP): 8.0%
- Custom/Hybrid: 5.3%
- Don’t Know: 3.7%
- Agile Unified Process (AgileUP): 2.2%
- Other: 2.2%
- Feature-Driven Development (FDD): 2.1%
- Lean Development: 1.9%
- Dynamic Systems Development Method (DSDM): 1.4%
- OpenUP: 0.6%
- Agile Modeling: 0.6%
- Crystal: 0.5%

What are the barriers to further adoption of Agile in your current organization? (select all that apply)

- Ability to change organizational culture: 45%
- General resistance to change: 44%
- Personnel with the necessary Agile experience: 42%
- Management Support: 32%
- Project Complexity or Size: 23%
- Customer Collaboration: 22%
- Confidence in ability to scale Agile methods: 17%
- Perceived time to transition: 14%
- Budget Constraints: 10%
PRACTICES

Note: We have included 2007 data (where available) for this section as it underscores an important change in year-over-year results. There has been a significant increase in both management and engineering practices as indicated below.

Which of the following do you employ within your Agile methods?
(select all that apply)

- Iteration Planning +21%  
  - 2008: 65%  
  - 2007: 46%
- Unit Testing +17%  
  - 2008: 60%  
  - 2007: 45%
- Daily Standup +20%  
  - 2008: 55%  
  - 2007: 38%
- Release Planning +18%  
  - 2008: 54%  
  - 2007: 37%
- Continuous Integration +15%  
  - 2008: 50%  
  - 2007: 35%
- Automated Builds (2007 DATA N/A)  
  - 2008: 65%  
  - 2007: 60%
- Burndown (2007 DATA N/A)  
  - 2008: 62%  
  - 2007: 60%
- Retrospectives +20%  
  - 2008: 59%  
  - 2007: 39%
- Refactoring +0%  
  - 2008: 59%  
  - 2007: 59%
- Coding Standards (2007 DATA N/A)  
  - 2008: 57%  
  - 2007: 50%
- Velocity +14%  
  - 2008: 52%  
  - 2007: 38%
- Test-driven Development (TDD) +11%  
  - 2008: 49%  
  - 2007: 38%
- Open Work Area +10%  
  - 2008: 44%  
  - 2007: 34%
- Collective Code Ownership +5%  
  - 2008: 41%  
  - 2007: 36%
- Digital Taskboard (2007 DATA N/A)  
  - 2008: 36%  
  - 2007: 36%
- Analog Taskboard (2007 DATA N/A)  
  - 2008: 35%  
  - 2007: 35%
- Taskboard Combined +31% (note: 2007 did not differentiate between analog & digital taskboards)  
  - 2008: 41%  
  - 2007: 30%
- On-site Customer +7%  
  - 2008: 36%  
  - 2007: 29%
- Pair Programming +7%  
  - 2008: 31%  
  - 2007: 24%
- Behavior Driven Development (BDD) (2007 DATA N/A)  
  - 2008: 7%  
  - 2007: 7%
- Kanban (2007 DATA N/A)  
  - 2008: 6%  
  - 2007: 6%
AGILE DELIVERS

What percentage of Agile projects have been successful from the perspective of your organization?

(choose closest answer)

Successful Projects

- 0% Projects: 4.8%
- 10% Projects: 3.7%
- 25% Projects: 3.8%
- 50% Projects: 11.5%
- 75% Projects: 21.2%
- 90% - I can say 100% but pretty close: 37.6%
- 100% - I can’t remember a project using Agile methods that wasn’t considered successful: 17.4%

What do you think was the leading cause of failed (unsuccessful) Agile projects?

- Company philosophy or culture at odds with core agile values: 23%
- Lack of experience with agile methods: 21%
- External pressure to follow traditional waterfall phases and practices: 12%
- Unwillingness of team to follow agile practices: 11%
- Lack of cultural transition: 8%
- Lack of management support: 7%
- Insufficient training: 5%

Please try to estimate specific improvements you have actually realized from implementing Agile practices?

<table>
<thead>
<tr>
<th>% Improvement Realized</th>
<th>&gt;25%</th>
<th>25%</th>
<th>10%</th>
<th>NONE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased Productivity</td>
<td>25%</td>
<td>31%</td>
<td>33%</td>
<td>11%</td>
</tr>
<tr>
<td>Accelerated Time-to-Market</td>
<td>30%</td>
<td>26%</td>
<td>26%</td>
<td>17%</td>
</tr>
<tr>
<td>Reduced Software Defects</td>
<td>30%</td>
<td>25%</td>
<td>29%</td>
<td>16%</td>
</tr>
<tr>
<td>Reduced Cost</td>
<td>13%</td>
<td>17%</td>
<td>36%</td>
<td>35%</td>
</tr>
</tbody>
</table>
## AGILE DELIVERS

What value have you actually realized from implementing Agile practices?

<table>
<thead>
<tr>
<th>Feature</th>
<th>Significantly Improved</th>
<th>Improved</th>
<th>No Benefit</th>
<th>Worse</th>
<th>Much Worse</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve Project Visibility</td>
<td>41.5%</td>
<td>41.8%</td>
<td>15.0%</td>
<td>1.2%</td>
<td>0.4%</td>
</tr>
<tr>
<td>Increase Productivity</td>
<td>23.6%</td>
<td>50.5%</td>
<td>15.6%</td>
<td>2.1%</td>
<td>0.3%</td>
</tr>
<tr>
<td>Enhance Software Quality</td>
<td>24.0%</td>
<td>44.3%</td>
<td>19.9%</td>
<td>2.8%</td>
<td>0.4%</td>
</tr>
<tr>
<td>Reduce Cost</td>
<td>7.6%</td>
<td>30.4%</td>
<td>39.5%</td>
<td>5.4%</td>
<td>0.6%</td>
</tr>
<tr>
<td>Simplify Development Process</td>
<td>19.5%</td>
<td>48.1%</td>
<td>19.8%</td>
<td>4.3%</td>
<td>0.4%</td>
</tr>
<tr>
<td>Improved/Increased Engineering Discipline</td>
<td>17.8%</td>
<td>42.0%</td>
<td>25.5%</td>
<td>3.3%</td>
<td>0.6%</td>
</tr>
<tr>
<td>Improved Team Morale</td>
<td>29.8%</td>
<td>44.1%</td>
<td>14.1%</td>
<td>3.8%</td>
<td>1.0%</td>
</tr>
<tr>
<td>Enhance Ability to Manage Changing Priorities</td>
<td>50.5%</td>
<td>42.1%</td>
<td>6.6%</td>
<td>0.6%</td>
<td>0.2%</td>
</tr>
<tr>
<td>Accelerate Time-to-Market</td>
<td>23.6%</td>
<td>41.3%</td>
<td>21.6%</td>
<td>2.4%</td>
<td>0.2%</td>
</tr>
<tr>
<td>Reduce Risk</td>
<td>16.6%</td>
<td>48.0%</td>
<td>23.6%</td>
<td>2.1%</td>
<td>0.3%</td>
</tr>
<tr>
<td>Manage Distributed Teams</td>
<td>6.9%</td>
<td>22.1%</td>
<td>41.1%</td>
<td>3.8%</td>
<td>0.8%</td>
</tr>
<tr>
<td>Improve Alignment Between IT and Business</td>
<td>27.5%</td>
<td>38.8%</td>
<td>19.6%</td>
<td>1.6%</td>
<td>0.3%</td>
</tr>
<tr>
<td>Enhance Software Maintainability/Extensibility</td>
<td>16.6%</td>
<td>39.3%</td>
<td>28.5%</td>
<td>2.9%</td>
<td>0.6%</td>
</tr>
</tbody>
</table>
AGILE TOOLING

Which of the following specific tools do you currently use? (select all that apply)

Wiki
- Currently Use: 57%
- Plan To Use: 7%
- Would Like To Use: 7%
- Don’t Need: 9%

Spreadsheet
- Currently Use: 69%
- Plan To Use: 3%
- Would Like To Use: 3%
- Don’t Need: 26%

Unit Test Tool
- Currently Use: 73%
- Plan To Use: 12%
- Would Like To Use: 11%
- Don’t Need: 4%

Taskboard
- Currently Use: 62%
- Plan To Use: 10%
- Would Like To Use: 15%
- Don’t Need: 13%

Automated Build Tool
- Currently Use: 70%
- Plan To Use: 12%
- Would Like To Use: 12%
- Don’t Need: 5%

Agile Project Management Tool
- Currently Use: 45%
- Plan To Use: 15%
- Would Like To Use: 23%
- Don’t Need: 17%

Traditional Project Management Tool
- Currently Use: 41%
- Plan To Use: 3%
- Would Like To Use: 4%
- Don’t Need: 52%

Automated Acceptance Test Tool
- Currently Use: 37%
- Plan To Use: 23%
- Would Like To Use: 33%
- Don’t Need: 7%

Refactoring Tool
- Currently Use: 41%
- Plan To Use: 12%
- Would Like To Use: 32%
- Don’t Need: 16%

Requirements Management Tool
- Currently Use: 35%
- Plan To Use: 14%
- Would Like To Use: 28%
- Don’t Need: 23%

Continuous Integration Tool
- Currently Use: 57%
- Plan To Use: 16%
- Would Like To Use: 20%
- Don’t Need: 7%

Index Cards
- Currently Use: 49%
- Plan To Use: 5%
- Would Like To Use: 11%
- Don’t Need: 35%

Bug Tracker
- Currently Use: 80%
- Plan To Use: 7%
- Would Like To Use: 6%
- Don’t Need: 8%

Don’t Need 9%

*Vendors X and Y requested not to be identified.

What Agile tools do you currently use or plan to use in the next 12 months?