AGENDA & LEARNING POINTS

1. Open
2. Agile Overview
3. Scrum Basics
4. How-to trial Scrum
5. Close

Learning Points

Present → Discuss

©2010 Paul I. Pazderski; Edited: 5/26/2010 8:32:00 AM   Maintained online. Printed for reference only.
AGILE MANIFESTO -- 4 AGILE VALUES

We are uncovering better ways of developing software by doing it and helping others do it.

Through this work we have come to value:

Individuals and interactions over Processes and tools

Working software over Comprehensive documentation

Customer collaboration over Contract negotiation

Responding to change over Following a plan

That is, while there is value in the items on the right, we value the items on the left more.
1. Our highest priority is to **satisfy the customer** through **early and continuous** delivery of valuable software.

2. **Welcome changing requirements**, even late in development. Agile processes harness change for the customer's competitive advantage.

3. **Deliver** working software **frequently**, from a couple of weeks to a couple of months, with a preference to the shorter timescale.

4. **Business** people and **developers** must **work together daily** throughout the project.

5. Build projects around **motivated individuals**. Give them the environment and support they need, and **trust** them to get the job done.

6. The most efficient and effective method of conveying information to and within a development team is **face-to-face conversation**.

7. **Working software** is the primary measure of progress.

8. Agile processes promote sustainable development. The sponsors, developers, and users should be able to maintain a **constant pace indefinitely**.

9. Continuous attention to **technical excellence** and **good design** enhances agility.

10. **Simplicity**—the art of maximizing the amount of work not done—is essential.

11. The best architectures, requirements, and designs emerge from **self-organizing teams**.

12. At regular intervals, the **team reflects** on how to become more effective, then **tunes and adjusts** its behavior accordingly.
ARE YOU A AGILE MANIFESTO SIGNATORY?

- 8826 Signatories as of: 21 April 2010
- From all over the world
- Anyone can add their info
- Please join at: http://agilemanifesto.org/
- ... its free!
Techniques or Methodologies Used

- Scrum: 84%
- Iterative: 47%
- eXtreme Programming (XP): 38%
- Test-driven development (TDD): 38%
- Waterfall: 33%
- Lean: 26%
- Feature-driven development (FDD): 18%
- Agile modeling: 17%
- Six Sigma: 10%
- Capability Maturity Model Integration (CMMI): 9%
- Rational Unified Process (RUP): 9%
- ISO 9000: 8%
- Spiral: 6%
- Adaptive Software Development (ASD): 5%
- Other: 5%
- Behavior-driven development (BDD): 5%
- Unified Process (UP): 5%
- Agile Data Method: 4%
- Microsoft Solutions Framework (MSF) For Agile: 4%
- Other derivative of the Unified Process (AUP, OUP, etc.): 3%
- Dynamic Systems Development Method (DSDM): 3%
- Crystal: 2%

Source: Forrester Research December 2008
Global Agile Company Online Survey

Base: 241 technology industry professionals in a variety of roles, including but not limited to development (numbers have been rounded)
“Please select the methodology that most closely reflects the development process you are currently using.”

(select only one)

Scrum: 10.9%
Agile Modeling: 6.0%
Feature-driven development (FDD): 3.8%
Test-driven development (TDD): 3.4%
eXtreme Programming (XP): 2.9%
Lean development: 2.1%
Microsoft Solutions Framework (MSF) for Agile: 1.8%
Agile Data Method: 1.6%
Adaptive Software Development (ASD): 1.3%
Six Sigma: 0.9%
Crystal: 0.3%
Behavior-driven development (BDD): 0.2%
Dynamic Systems Development Method (DSDM): 0.2%

Do not use a formal process methodology: 30.6%

Iterative development: 16.3%
Rational Unified Process (RUP): 2.7%
Spiral: 1.6%
Waterfall: 8.4%

Capability Maturity Model Integration (CMMI): 2.5%
ISO 9000: 2.5%

Base: 1,298 IT professionals

Source: Forrester/Dr. Dobb’s Global Developer Technographics® Survey Q3 2009
Product Backlog → Sprint Backlog → Sprint → Working increment of the software

- 24 h
- 30 days
SCRUM BASICS – 3 X 3

**3 Roles**
- Product Owner
- Scrum Master
- Scrum Team

**3 Activities**
- Sprint Planning
- Daily Scrums
- Sprint Review

**3 Artifacts**
- Product Backlog
- Sprint Backlog
- Burndown Chart(s)
EXAMPLE – MOVING

Project: Family moving from one home to another
- Product Owner: Mother
- Scrum Master: Daughter
- Scrum Team: entire Family
- Product Backlog: all Items

1. Prep & Organize
   a. Subject matter research
   b. Option selection
   c. Move Budget
2. Buy new Home
3. Sell old Home
4. Move from old to new

Items: Activities & Deliverables
Sprints: 10 at 2 weeks each

• Sprint Backlog: subset of Items
  For example “Options” Tasks:
  1) Identify Options for Buying
  2) Identify Options for Selling
  3) Identify Options for Moving
  4) Estimate, compare, & choose best options
EXAMPLE – MOVING

- **Sprint Planning:**
  
  *Pre-Planning*: Sprint-0 vs. Sprint-1
  
  Id Product Backlog, Items, Sprints
  
  Roles ... all the stuff here!
  
  *Regularly*: estimate, prioritize, allocate & adjust.

- **Daily Scrums:** at breakfast
  
  Ask 3 Scrum Questions of everyone:
  
  1. *What did you do yesterday?*
  2. *What will you do today?*
  3. *What issues do you face?*
  
  Each person takes Tasks for next day. Scrum Master updates Burndown Chart.

- **Burndown Chart:** track Tasks
  
  Estimate 100 total.
  
  10 per Sprint.
  
  2 lines: estimated & actual

- **Sprint Review:** See how’s it going?
  
  Review done Items & their Tasks.
  
  Decide changes on next Sprint.
EXAMPLE – BURNDOWN CHART
**Impediment**: Issue, Problem, Block

**Work Increment**: Sprint Goal
Working part of end-product usable by Customer; software, manuals, configuration, process, etc.

**Scrum Board**: Location to manage Project info (physical or electronic)

**Velocity**: features (tasks or points) per sprint

**Abnormal Termination**: cancel Sprint if unable to deliver & re-plan

**Guidelines**: improve, adapt, & change practices as needed.
Product Burndown Chart
Sprint Burndown Chart
Release Burndown Chart
Estimation – Planning Poker
Release Plan
“Done” criteria
Story Cards
Spikes
Epics
Just enough

... what’s your favorite?
TRY SCRUM – SELECT PHASE

- Trial in controlled environment
- Select stable phase
- Select well-defined phase
- Map Phase to Scrum – Minimal

Diagram:
- Requirements
  - Design
    - Implementation
    - Verification
    - Maintenance
- Key elements:
  - Product Owner
  - Scrum Master
  - Scrum Team
  - Sprint Planning
  - Daily Scrums
  - Sprint Review
  - Product Backlog
  - Sprint Backlog
  - Burndown Chart(s)
- Process:
  - 24h cycle
  - 30 days cycle
  - Working increment of the software
TRY SCRUM – MAP THE 3 ROLES

- **Product Owner ➔ maybe**
  - Real Client (best)
  - Client Rep / BA
  - Product Manager
  - Project Manager

- **Scrum Team**
  - Workers, directly working in Phase
  - Everyone else ➔ silent observers

- **Scrum Master**
  - You (for starters)
  - Let Scrum Team choose (later)
TRY SCRUM – MAP THE 3 ARTIFACTS

- Product Backlog ➔
  - List Phase Deliverables
    - (Only Mandatory)
      + Implementation Phase Plan(s)
      + Implementation Report(s)
      + Detailed Design(s)
      + Interface Definition(s)
      + Code Module(s)
      + Unit Test(s)

- Prioritize & Guesstimate Deliverables
TRY SCRUM – MAP THE 3 ARTIFACTS

- **Sprint Backlog ➔**
  - *List Common Tasks (Only Mandatory)*
  - + Draft Deliverable
  - + Peer-Review Deliverable
  - + Rework/Finalize Deliverable
  - + Approve/Publish Deliverable

- **Prioritize & Guesstimate Tasks**
Try Scrum – Map the 3 Artifacts

- Burndown Chart
  + Decide which Burndown to try
    - Project/Phase Burndown
    - Sprint Burndown
  + Consider if Burndown can replace any traditional Report(s)
TRY SCRUM – MAP THE 3 ACTIVITIES

❖ Sprint Planning (1/2)

Pre-Planning - one time:

+ Consider Sprint-0 vs. Sprint-1
+ Map Scrum Roles
+ Id Product Backlog (Deliverables)
+ Prioritize Deliverables (rank order)
+ Guesstimate Deliverables
+ Id Tasks
+ Id Sprints - e.g. 6 at 2 weeks each
+ Id Time & Place for Daily Scrums
TRY SCRUM – MAP THE 3 ACTIVITIES

- Sprint Planning (2/2)

Regular Planning – each Sprint:
+ Select Sprint Backlog (Guesstimate)
+ Prioritize All Tasks (Rank order)
+ Guesstimate Specific Tasks (adjust)
TRY SCRUM – MAP THE 3 ACTIVITIES

Daily Scrums (<15min!)

- Every Scrum Team member answers 3 Scrum Questions:
  1. What did you do yesterday?
  2. What will you do today?
  3. What issues do you face?

- Members pick Tasks for next day
- Scrum Master updates Burndown
TRY SCRUM – MAP THE 3 ACTIVITIES

- Sprint Review (1/2)

The Demo – Team with Client(s)

+ Present Deliverable(s)
+ Review progress
+ Preview next-steps
+ Get feedback – pros & cons
TRY SCRUM – MAP THE 3 ACTIVITIES

- Sprint Review (2/2)

The Retrospective – just the Team

+ Review progress
+ Review Client feedback
+ Identify improvements:
  × What to keep doing
  × What to stop doing
  × What to start doing
TRY SCRUM – EXPANDING & ALTERNATES

- Add a phase
  + Design or Verification

- Try another phase
  + Requirements or Maintenance

- Try an IT department
  + QA, CM, PMO, ...

- Try a Business department
  + HR, BA, Sales, Marketing
AGILE & SCRUM – MORE INFO

- Scrum Alliance
  http://www.scrumalliance.org/

- Agile Alliance
  http://www.agilealliance.org/

- APLN Chicago (Agile Project Leadership Network)
  http://www.aplnchicago.org/

- Paul I. Pazderski (Software Process Consultant Inc.)
  spcinc13@yahoo.com  Cell: 224-595-8846

Have fun with SCRUM!