Agile - Process innovation

Waterfall

- Analysis → Design → Coding → Testing

Agile

- Analysis → Testing → Design → Coding → Testing

Adapted from the Cutter Consortium. "Agile Software Development"

Agile caused a problem

User Experience

- Deployment
- Implementation
- Design
- Analysis

Autodesk

World Usability Day, November 14, 2006

© 2006 Autodesk

Copyright 2006 by Lynn Miller. All rights reserved.
This doesn't work - we tried it

Agile

This really doesn't work
So what did work?

- Developer track: Production code
- Interaction designers track: User contact

Cycle Zero: Release planning

**Identify critical capabilities to achieve goal**
- Interviews, contextual inquiry, usability tests
- Email, discussion forums, trade shows
- Result: 20 possible issues

**Prioritize**
- Survey of non-purchasers
- Results allowed us to rank the 20 issues
- Found 5 we absolutely had to add

**Iteration planning meeting**
- Initial plan (2 week cycles)
- Make sure 5 critical issues will be fixed
- Rough schedule, first 2 iterations solid

No detailed requirements. No designs.
**Cycle 1: Developer track**

- Underlying architecture work
- Critical features with little user interface design required

**Cycle 1: Interaction designers**

- Design, create prototypes, usability test, and iterate
- Field studies to understand user needs, e.g., contextual inquiry
Cycle 2: Developers

- Take the verified designs and start making them a reality

Cycle 2: Interaction designers

- Usability test completed code for integration and implementation issues
- Use data gathered in the last cycle to create designs for next cycle
- Field studies for detailed information needed for upcoming cycles
And so on…

- Communication between the two tracks is essential for success

How did this affect UCD?

**Agile doesn’t affect:**
- Identifying the target audience
- Determining what data is needed
- Data collection techniques
- Facilitation and moderating skills
- Design skills

**These had to change:**
- Frequency of user contact – now every cycle
- Timing of interface design – completed just before needed
- Deliverables to developers – minimize documents
- Working relationship with developers – much closer
What we found

Parallel track structure gave us:

- Less wasted time
  - Didn't design things that got dropped
- Better designs
  - Validated before implementation
- Deeper feedback
  - Small set of new features each cycle
- Feedback acted on
  - Process allows change to schedule

We didn't want to go back to the waterfall process.

Questions?

For more information:


lynn.miller@autodesk.com