Agile Methods in a Product Development Setting

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Most people find the concept of programming obvious, but the doing impossible.

Successful Products

- Working Software
- Value for Company and Customers

Dealing with failure is easy: Work hard to improve. Success is also easy to handle: You've solved the wrong problem. Work hard to improve.

Agile Development

- High Risk Projects
- **Extended Teams**
- Testability

It is easier to change the specification to fit the program than vice versa.

Product Development

- Competitive
- Very High Risk/Low Information
- A Product is complete if it "achieves its business objective(s) on or before the desired date"

In computing, turning the obvious into the useful is a living definition of the word "frustration".

Key Agile Ideas for Product Development

- Product-Centric Deliverables
- Very Short Iterations
- **Eat Your Own Dogfood**

Is it possible that software is not like anything else, that it is meant to be discarded: that the whole point is to see it as a soap bubble?

Product-Centric Deliverables

- Tracks 'Done-ness' in terms of Company Value
- The Deliverable *Definition*
- The Acceptance Test

Programmers are not to be measured by their ingenuity and their logic but by the completeness of their case analysis.

Predictive Deadlock Detection

If the running software acquires two locks ("x", "y") two or more times such that at least once it holds x when it attempts to acquire y and at least once it hold y when it attempts to acquire x, a potential deadlock shall be signaled.

Predictive Deadlock Detection is acceptable when:

- "Nels" can run sample programs with lock order anomalies
- He is informed of the problem
- The exact lines of code where the second lock is acquired are shown

Very Short Iterations

- Manages Risk
- Maximizes Response to Information
- Regular 'Done-ness' Metric
- Iteration *Themes*

Around computers it is difficult to find the correct unit of time to measure progress. Some cathedrals took a century to complete. Can you imagine the grandeur and scope of a program that would take as long?

"Would you like Fries with that Shake?"

In this iteration we will display end to end Cross-Sell and Up-Sell, showing how 'Adele' sets up cross-selling and up-selling, how 'Michael' learns about products when browsing, and how 'Suzette' gathers statistics about Michael's interests after the fact.

Eat Your Own Dogfood

- Define the Absurdly Minimal Product
- Stub Out The Architecture
- Define the *Dogfood Milestone*

The computer is the ultimate polluter: its feces are indistinguishable from the food it produces.

The Absurdly Minimal Product

- > Runs on the command line
- Signals in text to Stdout
- Runs at least two stub analyzers
- At least one analyzer reports running condition of subject code

Miscellaneous Recommendations

- Customer Representation by Proxy: Product or Program Management
- A Defect is "Failure to Pass an Acceptance Test"; a Bug is "Anything You Can Put In The Read Me File"
- Only Make Promises You Can Keep in the Next Two Iterations
- Use Unit Tests to Prevent Regression and Facilitate Refactoring

Documentation is like term insurance: It satisfies because almost no one who subscribes to it depends on its benefits.

One More Time!

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If a listener nods his head when you're explaining your program, wake him up.

Thank you!