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Application for "Commonalities in Agile Methodologies" Workshop,

Position Statement

I advocate an agile approach called Lean Development, a set of practices based on Lean Production approaches used in manufacturing and Lean Design approaches used in product development. Lean Development practices have four major thrusts:

1. Add Nothing But Value

     Anything which does not add customer value is waste. This includes: (1) paperwork, (2) waiting time, and (3) project control. Identify and systematically eliminate all waste.

2. Center on Those Who Add Value

     The development team must be the focus of (1) decision-making authority, (2) resources, (3) information, and (4) organizational energy. Workers develop and improve their own processes.

3. Pull Value From Customers

     Value-generating activity is initiated by the customer and flows rapidly through the system. To adapt to changing customer needs, irreversible decisions are made as late as possible. *

4. Optimize Across Organizations

     Local measurements tend to optimize individual areas at the expense of the overall system. Agreements between organizations must provide incentives for achieving overall value.

* Note that delaying decisions as long as possible has broad implications in the design of systems. There is much to be learned by studying product development techniques which embody this principle, particularly at Toyota, where products emerge from a narrowing set of constraints.

I am writing a book called *Lean Development, A Software Development Manager's Toolkit* (to be published by Addison Wesley). Part 1 (Basic Tools) is posted at www.poppendieck.com/ld.htm.

Comparison to Other Agile Methods

Lean Development is largely a set of management practices, while I find that many other agile methodologies are focused on development practices. Scrum is an exception to this; it is clearly focused on software development management. I find that Scrum is completely compatible with Lean Development, and in fact, is the best instance of Lean Development that I have seen. Whenever I am looking for good examples of Lean Development practices, I use Scrum.

Very few agile methodologies are incompatible with Lean Development. XP can obtain much justification for its practices in Lean Development theory. Since the theory behind Lean Development is proven in many fields beyond software development, this gives a broader foundation to many of the XP practices.

While Lean Development is compatible with most agile methodologies, lessons from other fields can extend some of these methodologies. For instance, there is general caution when discussing leadership and functional organizations in most agile methodologies. Lean organizations usually have a successful matrix structure which includes strong technical leadership championing the customer, coupled with teaching/coaching behavior on the part of functional management.

I am of the opinion that there is no one single 'best practice,' since each situation has different drivers that determine what is important. Instead, we need tools for making decisions based on general principles. A Lean Development Toolkit will lead one organization toward a different set of practices than another organization, and this is as it should be.