

The Addison-Wesley Signature Series

A KENT BECK
SIGNATURE
BOOK

IMPLEMENTING LEAN SOFTWARE DEVELOPMENT

FROM CONCEPT TO CASH

MARY AND TOM
POPPENDIECK



Forewords by Jeff Sutherland and Kent Beck

Principles of Lean Software Development

Eliminate Waste

The three biggest wastes in software development are:

Extra Features

We need a process that allows us to develop just those 20 percent of the features that give 80 percent of the value.

Churn

If you have requirements churn, you are specifying too early.

If you have test and fix cycles, you are testing too late.

Crossing Boundaries

Organizational boundaries can increase costs by 25 percent or more. They create buffers that slow down response time and interfere with communication.

Build Quality In

If you routinely find defects in your verification process, your process is defective.

Mistake-Proof Code with Test-Driven Development

Write executable specifications instead of requirements.

Stop Building Legacy Code

Legacy code is code that lacks automated unit and acceptance tests.

The Big Bang Is Obsolete

Use continuous integration and nested synchronization.

Create Knowledge

Planning is useful. Learning is essential.

Use the Scientific Method

Teach teams to establish hypotheses, conduct many rapid experiments, create concise documentation, and implement the best alternative.

Standards Exist to Be Challenged and Improved

Embody the current best known practices in standards that are always followed while actively encouraging everyone to challenge and change the standards.

Predictable Performance Is Driven by Feedback

A predictable organization does not guess about the future and call it a plan; it develops the capacity to rapidly respond to the future as it unfolds.

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