

改善

Kaizen is a philosophy that
*focuses on continuous improvement
throughout all aspects of life.*

Supporting Healthy Team Behaviors

Using Application Lifecycle Management



About Dave

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Overview

- **Demystifying ALM**
- **Areas**
- **Practices**
- **Assessing Current Capabilities**
- **Kaizen with ALM**

Demystifying ALM

Because It Sounds Very NOT Agile

ALM Defined

Application lifecycle management (ALM) is the marriage of business management to software engineering made possible by tools that facilitate and integrate requirements management, architecture, coding, testing, tracking, and release management.

-- Wikipedia, 5/8/2009



Yikes!

ALM Defined 2.0

ALM is an improvement tool for the things we do to deliver excellent software

**Explainable
to my Mom**

ALM is a Way to Ask Questions

- **What does it take to deliver software well?**
- **How well are you doing those things?**
- **How is that going for you?**
- **What are you doing about it?**

ALM Assertions

- **There are necessary disciplines in software development**
- **There are effective behaviors in each discipline**
- **We can measure how effectively each discipline is performed through behaviors**
- **Improvement comes by deliberately pursuing it**

*But, that seems like
a big fat hairy deal.*

*Can be.
Depends*

Areas

The Disciplines of Delivering Software

Microsoft's ALM Areas

- **User Experience (UX)**
- **Requirements Management**
- **Quality & Test**
- **Code Quality**
- **Architecture & Design**
- **Project Management**
- **Software Configuration Management**
- **Deployment & Operations**
- **Data Management**

Regardless of SDLC, these things exist.

“How well do we do each of these things?”

Practices

The Things We Do

Areas Are Supported by Practices

- **Practices are the things done in support of each Area**
- **ALM asserts there are known good practices**
- **Tools are important to successful Practices**
 - Tools optimized for the specialist using them.
 - Everyone needs tools developers, project managers, program managers, IT helpdesk, system administrators, developers, or testers.
 - Tools that seamlessly integrate, allowing passing outputs between each other.

Code Quality Practices

- **We Want**

- Readability
- Ease of maintenance, testing, debugging, fixing, modification and portability
- Low complexity
- Low resource usage

These are the things we do to get them.

- **Practices**

- Code Writing
- Code Analysis
- Code Reuse
- Code Reviews
- Quality Metrics

How well do we do each of these?

What tools do we do these with?

User Experience (UX) Practices

We Want

- Easy to use
- Feature discoverability
- Intuitive navigation
- Fast
- Attractive

What tools do we do these with?

Practices

- UI Design
- UI Prototyping
- UX Integration
- End-User Documentation

How well do we do each of these?

Assessing Current Capabilities

Recognizing Reality

Questions

Area: Code Quality

Practice: Code Writing

- Are there standards in place for writing secure code?
- Do unit tests pass locally before a check-in?
- Is there a well-defined general coding practice for namespaces, function and variable names?
- Do I merge locally before merging to Source Control?

1. *Never*
2. *Almost Never*
3. *Sometimes*
4. *Almost Always*
5. *Always*

Questions

Area: Code Quality

Practice: Code Reviews

- Are effective code reviews carried out?
- Is code often checked in that fails unit tests?
- Are peer reviews used?
- Is any evidence produced during code reviews?

1. Never
2. Almost Never
3. Sometimes
4. Almost Always
5. Always

Online ALM Assessment

Microsoft Online ALM Maturity Assessments for

▪ Individuals

- Quick overview of your IT Capability.
- 10-20 minutes
- Questions about the team, not just about you

▪ Teams

- Targeted questions for each department role within the capability
- 20-30 minutes per team member
- Measure the effectiveness of your current processes

<http://tinyurl.com/dzyp9h>

Kaizen with ALM

A Tool for Continuously Improving

Applying Kaizen with ALM

1. Find areas of chief concern
2. Choose one to improve
3. Decide how to improve it
4. Try it
5. Measure the effect
6. Repeat

Optimizes
the whole.

*ALM is a very
Lean idea.*

Why We Care

- **Mature organizations can respond deliberately to change**
 - Requirements
 - Tools
 - Processes
- **Time spent on “How do we do business?” is often wasteful.**
- **Time spent on “What business shall we do?” is often profitable.**
- **ALM is a mechanism for improving craftsmanship**

Healthy Team Behaviors

- **Healthy Team Habits with Team System**
 - <http://link.pluralsight.com/e2v>
- **Some Healthy Team Habits**
 - Clear Understanding of Done for Our Work
 - Test as You Create
 - One Get to Get Everything
 - Automate, Automate, Automate
 - Check-in Frequently
 - Share Your Code
 - Don't Break the Build
 - Demonstrate Bugs with Failing Tests

ALM Summary

- **Application Lifecycle Management is a measurement framework**
- **A Great Tool for Kaizen**
 - In teams
 - For individuals
- **Embraces Agile Software Development**