Agile Projects for IT Partners
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Director, Agile Project Management Practice
Fellow, Cutter Consortium

Overview

Goals
• Delivering Enterprise Value (not projects)
• Improving Enterprise Agility (not just IT)

Topics
• An overview of Agile Project Management
• Defining enterprise value
• Determining the right performance measures (value vs schedule)
• Understanding roles and responsibilities
• Covenants versus contracts
Business Objectives: Reliability & Value

- Continuous Innovation
- Product Adaptability
- Reduced Delivery Schedules
- People & Process Adaptability
- Reliable Results

Sketching Package

- Plans, architecture & products co-evolved
- Two week development iterations
- Fixed deadline (Microsoft Tablet PC OS Launch)
- Envision-Evolve, Not Plan-Do
- A tale of 3 stories
  - Developing Version 1
  - Technical Debt
  - Agility in Version 2

Delivering Results in a Dynamic Environment

- Embrace Change
  - Fundamental mindset change—responding to change is more important than following a plan
- Focus on Customer Value
  - Deploy value early and often
  - Do the simplest thing possible
- Deliver Chunks of Functionality Incrementally
  - Capabilities and Stories
  - Stories always shippable
- Collaborate
  - Cross-functional teams
  - Constant interaction with Customers
- Reflect and Learn Continuously
What is Agility?

- Agility is the ability to create and respond to change.
- Agility is the ability to balance flexibility and structure.

“Be quick, but don’t hurry”
– John Wooden

The Envision Explore Cycle

**Envision Cycle**
- Product Vision
- Project Scope & Boundaries
- Release Plan

**Explore Cycle**
- Iteration Plan
- Review and Adapt
- Develop

Product: Simulation, Prototype, Actual Product, Engineering Breadboard, Key Artifacts
Traditional Gantt Chart—What does it emphasize?

CIX - Problem Domain Construction—JUNE (11.4 Person Yrs) (courtesy Jeff DeLuca)
BMW—Car Crashworthiness Design

- Computer simulations versus prototype
- 91 virtual crashes, 2 prototype ones
- 30% advantage in design (innovative ideas)
- Real crashes confirmed virtual ones
- 91 virtual crashes cost less than 2 prototypes
- Simplest virtual crashes took 2.5 days versus 3.8 months for prototypes


Problem Domains: Exploration versus Production

**Exploration Drilling** (Adaptation)  
**Production Drilling** (Optimization)
Project Exploration (Innovation) Factor (EF)

<table>
<thead>
<tr>
<th>Product Requirements Dimension</th>
<th>Information Technology Dimension</th>
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<tbody>
<tr>
<td></td>
<td>Bleeding Edge</td>
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<tr>
<td>Erratic</td>
<td>10</td>
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<tr>
<td>Fluctuating</td>
<td>8</td>
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<tr>
<td>Routine</td>
<td>7</td>
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<tr>
<td>Stable</td>
<td>7</td>
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</tbody>
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Project & Product Management

- Identify Exploration Projects
- Manage them differently
- Measure their success differently
## Project Management Strategies

**Project Management Strategy**
- Traditional
- Incremental
- Agile/Adaptive
- Extreme Agile

**Project Mgt & Technical Practices**
- Charter
- Risk Mgt
- Vision Mgt
- Iteration Plan
- Critical Path
- ...

### Exploration Factor
1. Uncertainty Ends (objectives/requirements)
2. Uncertainty Means (technology)

## The Declaration of InterDependence
- We increase return on investment by making **continuous flow of value** our focus.
- We deliver reliable results by engaging customers in frequent interactions and shared ownership.
- We expect uncertainty and manage for it through iterations, anticipation, and adaptation.
- We unleash creativity and **innovation** by recognizing that **individuals are the ultimate source of value**, and creating an environment where they can make a difference.
- We boost performance through **group accountability** for results and **shared responsibility** for team effectiveness.
- We improve effectiveness and reliability through **situational specific strategies**, processes and practices.

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An Overview of Agile Project Management

- Agile Project Relationships
- The Agile PM Framework—three key phases
- Focusing on Value

Agile Project Relationships
Story Planning a Show

Story Segment Writers
Delivery Staff

Behind the Scenes
Producers & Executive Management

Customer-Developer Interface

Project Community

Customer Team
- Product Manager
- Product Vision
- Story Name
- Story Priority
- Requirements Conversation
- Delivered Story
- Acceptance Tests

Development Team
- Project Manager

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What are the BIG steps in an Agile project?

Envision

Product Vision

Project Scope & Boundaries

Release Plan

Explore

Iteration Plan

Review and Adapt

Develop

Adapt

Adaptive Action

Retrospective

Customer Focus Group

Adaptive Action

Project Status

Practice: Product Visioning

- The Product Vision Box
- The Elevator Test Statement
A Product Vision Box Example

Grow the Business
- Develop insights into opportunities
- Make decisions with increased confidence
- Take actions that show results

Easy to Use
- Drag & Drop
- Emote Pictures
- Click to View

Surf the Wave

Product Vision Box Examples

Far Out travel
- Everything you want to know about travel
- Find great deals
- Organize your trip
- Talk to other travelers

WINDS
- See Your Through
- Real Time
- Configurable
- Interactive
The Envision Cycle

Envision-Explore rather than Plan-Do

The Envision Cycle

- Product Vision
- Project Scope & Boundaries
- Release Plan

Project Data Sheet

Project Name: CRM Development
Project Manager: Braxton Quivera
Project Start Date: 1/1/2005
Product Manager: Roger Jones
Clients: Executive Sponsor: Andrian Pol德拉
Marketing Business Objectives:
- Call Center Customer response survey -- 25% improvement
- Accounting Reduce sales cycle by 20%
- Sales Improve order accuracy increase to 98%

Project Objective Statement: Performance Attributes:
The objective is to build a web-based CRM Call Center volume of 5,500 calls/day application that includes sales tracking, order response time < .5 sec, management, sales management, and marketing. <1/2 day training required. The system needs to be operational by 6/30/06 and worldwide web access costs less than $2.5 million.

Trade-Off Matrix:

<table>
<thead>
<tr>
<th>Fixed</th>
<th>Flexible</th>
<th>Accept</th>
<th>Target</th>
</tr>
</thead>
<tbody>
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<tr>
<td>Schedule</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resource</td>
<td>+/- $10K</td>
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<tr>
<td>Stability</td>
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Project Delay Cost per Month: $15,000
Exploration Factor: 7

Capabilities:
- Sales Management
- Sales Analysis
- Prospecting
- Territory Management
- Marketing
- Lead Generation
- Lead Follow Up

Issues and Risks:
- Advertisement Placement Development costs will be hard to meet.
- Call Center Service Sales staff reluctant to embrace new system.
- Order Management Requirements agreement among user groups may be difficult.

Major Project Milestones:
- Marketing (except Call Ctr) 06/30/05
- Call Center 10/30/05
- Sales Management 01/30/06
- Order Management 05/30/06
Project Charter: Contract versus Covenant

- Value comes from partner satisfaction and quality.
- Contract: When in trouble, parties look for recourse or blame. Contracts focus on “my” best interest.
- Covenant: When in trouble, parties look for repair, not blame. Covenants focus on “our” best interest.
The Envision Cycle

Envision-Explore rather than Plan-Do

Product Vision

Project Scope & Boundaries

Release Plan

Release & Iteration Planning

Product Feature Backlog

Speculating Process

Release Plan

Iterations: 1 to 6 Weeks
The Focus of Stories

Business Focused Decomposition

Technically Focused Decomposition

Story Cards Can Be Very Informal

Ability to calculate the total amount of the sale.

Ability to Verify the adequacy of the Customer’s Credit Rating.

Ability Calculate the total quantity sold for an Item Description.
Release Plan (small project)

A Complete Release Plan

<table>
<thead>
<tr>
<th>Iteration 0</th>
<th>Milestone Iteration 1 (2 months)</th>
<th>Milestone Iteration 2</th>
<th>Milestone Iteration 3</th>
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<tbody>
<tr>
<td>Task...</td>
<td>Ability to ...</td>
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Plan: 12 11 12
Capacity: 12 12 12

Middleware decision
Adapt

Retrospective

Customer Focus Group

Adaptive Action

Project Status

A “Value” Story

“I recently asked a colleague [CIO] whether he would prefer to deliver a project somewhat late and overbudget but rich with business benefits or one that is on time and underbudget but of scant value to the business. He thought it was a tough call, and then went for the on-time scenario. Delivering on time and within budget is part of his IT department’s performance metrics. Chasing after the elusive business value, over which he thought he had little control anyway, is not.”

Cutter Sr. Consultant Helen Pukszta
Agile PM Focuses on Partner Value

Paul Young, VP Business Capabilities & Integration, MDS Sciex. Presentation at 2005 Information Management Forum.

- For a project, there might be a user requirements list of between 50 and 200 items. We tell our partners, “Which three to you want to do first? We’re going to give them all to you, but they’re going to come out one at a time. Which three do you want first?”

- “The most interesting thing I learned—I was totally shocked by this—was by the time you get to number 20, nobody is interested in the remaining 80 anymore. They would say: Forgot about that stuff. We didn’t know what we were talking about when we wrote that.”

- “If you had hired a service provider like xyz to build all those requirements, that would just be putting money in the middle of a room and setting it on fire.”

Balancing Commitment & Retaining Flexibility

- Multi-Level Value & Requirements Definition

- Release Level — Capability Cases, Release Stories
  - What we want
  - Identifies a commitment to the business or customer to deliver a particular business capability
  - Less flexible

- Iteration Level — Stories
  - How we deliver
  - Identifies a specific set of requirements that in combination with other stories deliver a full capability
  - More flexible
Outcome Performance Metrics

- Capabilities, Features, Use Cases, Stories enable outcomes
  - They are NOT outcomes! Scope is NOT an outcome!
  - Variable Priority—MoSCoW (from DSDM); Must have; Should have; Could have; Won’t have
  - Variable Implementation—Minimal, Optimal, Expansive (requirements & design)

It’s Not About Stories, It’s About Value

Cumulative Value Captured vs. Features (Stories) Delivered

- Actual Distribution
- Usual Assumption

50% 90% 50%
Intel’s 17 Standard Measures of Value

- Days of inventory reduction
- Days of receivables outstanding
- Headcount reduction
- Headcount productivity
- Headcount productivity
- System end-of-life
- Materials discounts
- Capital, hardware, and software avoidance
- Unit cost avoidance
- Factory uptime
- Scrap reduction
- Risk avoidance
- Time-to-Market
- Opening new markets
- Optimizing existing markets
- Cross selling
- Vendor-of-choice


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Jim Highsmith is one of a few modern writers who are helping us understand the new nature of work in the knowledge economy.

Rob Austin, Assistant Professor, Harvard Business School

This is the project management book we’ve all been waiting for - the book that effectively combines agile methods and rigorous project management. Not only does this book help us make sense of project management in this current world of iterative, incremental agile methods but the book is an all-around good read!

Lynne Ellyn, Sr. VP & CIO - DTE Energy

Finally a book that reconciles the passion of the Agile Software movement with the needed disciplines of project management. Jim’s book has provided a service to all of us.

Roy Singham, CEO, ThoughtWorks, Inc.

The world of product development is becoming more dynamic and uncertain. Many managers cope by reinforcing processes, adding documentation, or further honing costs. This isn’t working. Highsmith brilliantly guides us into an alternative that fits the times.

Preston G. Smith, principal of New Product Dynamics, coauthor, Developing Products in Half the Time