




The Methodology Impedance Mismatch

Agile Challenges in a Waterfall Enterprise

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Overview

What does that title mean?
Environment for Agile success
Impacts to Planning and Monitoring & Control
Managing infrastructure




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What is Impedance?

Impedance - Obstruction or opposition to passage or flow, as of an electric current or other form of energy.

In this context, Project Management ITTOs necessary to successfully manage a project.



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What is Impedance Mismatch?

Most Common Context – Stereos

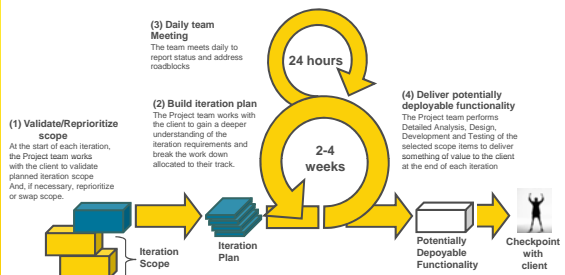
Most Recent IT Context – Persistence of Objects in Relational Databases

PM Context – Agile at the presentation layer; Waterfall in the Enterprise

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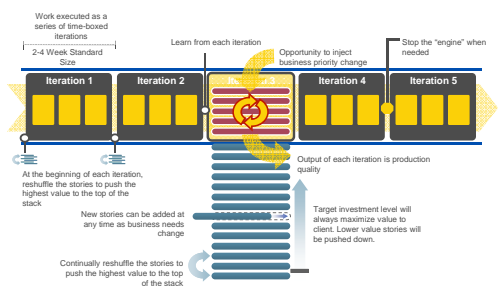
Quick Peek – The Iteration



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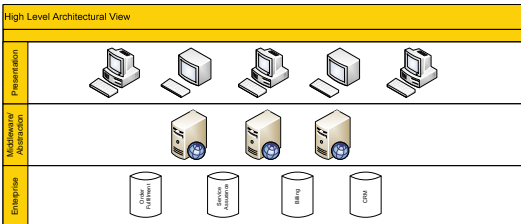
Quick Peek – The Release



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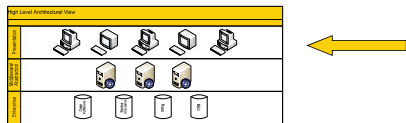
Environment Characteristics to Maximize Agile Success



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Environment Characteristics to Maximize Agile Success



- Changes are confined to the topmost Layer
- Application infrastructure already in place
- Existing scaling model based on empirical data (ideal) or vendor recommendation (acceptable)
- Dedicated client review environment
- Educated support organizations

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Planning Challenges

- How do you staff a PMO to support the effort?*
- How do you communicate status?*
- How do you scope your work?*
- How do you manage vendor labor and other purchases?*

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Human Resource Planning

Need at least 2 Project Managers per project

- 1 for the Agile Portion
- 1 for the overall effort

Need another PM to lead the effort to educate the Support Organizations:

- Testing
- Change Management
- Incident/Problem Management
- IT Operations

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Communication Planning

2 different reporting paradigms need to be merged

- Frequency - Agile: Daily & Informal / Traditional: Weekly & Formal
- Risks and Issues – Agile: Discussed / Traditional: Logged

Stakeholders and Suppliers need to be educated on Agile

- Need REPEATED exposure to and definition of important concepts
- Need to be shown the alignment of key milestones and activities
- PM needs to understand how to present information to bridge the MIM gap

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Scope Planning and Definition

Strategy for Requirement and Story Management

- Ensure strong traceability between them
- Clearly identify requirements and stories that have Enterprise impacts
- Clearly define what types of scope change can be handled with an Agile approach and which must be handled with more rigor

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Plan Purchases and Acquisitions

Iterative Development MAY drive Iterative Spend
Stakeholders with fiscal oversight MUST be onboard
- 1st reaction: "This project needs better planning."
- Not familiar with spending based on elaborative discovery

Procurement lead time SLAs will be challenged
- For software licenses and support, this can be a nuisance.
- For hardware, this can be a nightmare!!

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Monitoring & Control Challenges

How will the PM manage changes?
How will the PM report meaningful status to stakeholders?

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Scope, Cost & Schedule Control

CCB must review all changes

Is the impact confined to the Agile work?
If Agile only, can be managed by Agile processes.
- Determine business value
- Impact on Product Backlog
- Iteration placement

If Enterprise impact, needs to be managed via more traditional means:
- Formal Change Requests
- Scope Evaluation
- Level of Effort Collection

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Performance Reporting & Managing Stakeholders

How do you translate "story point burn down rate" into something your stakeholders understand?

How do you get informal feedback from the daily stand-ups into a formal weekly status report?

When a new stakeholder becomes engaged, how do you communicate project status?

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Infrastructure Deployment Challenges

Does the enterprise have the right technologies in place to support this effort?

Are all contracts in place to move forward?

Can the enterprise support the rapid rate of change that Agile demands?

- Procurement processes
- Build out processes

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Technology Vetting

Is the HW platform proposed supported by the operations team?

- Are you a "Big Blue" shop? Does the solution call for Sun?

Is the SW stack proposed supported by the operations team?

- OS, App Server, Web Server, DB, agents, monitoring, etc.

Does the application require any type of exception from a technology or security standpoint?

- X-windows, clustering, "sticky sessions", IP ports used, etc.

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Go Virtual or Go Home

The speed of Agile development requires rapid deployment of infrastructure.

Procurement and shipping timelines will be prohibitive to success of the effort.

Virtualization cuts weeks off the timelines for standalone hardware.

Supports robust responsiveness to request to scale vertically and/or horizontally.

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Summary

Initial efforts to introduce Agile Processes will require extensive up front planning

- HR, Communication, Scope, Procurement

Monitoring and Control is an ongoing effort in translation as well as communication.

Infrastructure can be a show-stopper if it is not handled appropriately.

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Books to help with the transition to Agile

Project Manager

- *[The Software Project Manager's Guide to Agility](#)*
ISBN-10: 0321502752

Enterprise

- *[Scaling Lean & Agile Development: Thinking and Organizational Tools for Large-Scale Scrum](#)*
ISBN-10: 0321480961

- *[Practices for Scaling Lean & Agile Development: Large, Multisite, and Offshore Product Development with Large-Scale Scrum](#)*
ISBN-10: 0321636406

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