

Today's Agenda:

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- Speaker Introduction
- 50,000' Overview
 - What is Agile/Scrum Project Management?
 - Where has it been used successfully?
 - Why is it being used?
 - How does it enable success?
 - What is PMI's view of Agile/Scrum?
 - Exercise: Is it a good fit for you?
- Dive into the Details • How is it done?
- Wrap Up

Speaker Introduction (cont'd):

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• We offer PMP Exam Prep and ScrumMaster certification classes.

- We also offer three 1-day seminars:
 - Project Management Boot Camp a super accelerated introduction to the team-based project management technique's used at Intel® and Siemens.
 - <u>Crash Course in Leadership</u> scientific and quantitatively-proven techniques for revolutionary outcomes!
 - Masters Course in Estimating and Risk
 - <u>Management</u> mastering the skills of Estimating combined with Risk Management so you avoid painful, tragic lessons...













50,000' Overview: What is Agile/Scrum Project Management?				
REAL WORLD OPERATIONS Customer Customer Performing Organization Customer ENEDS JUST- IFICATION INITIATE INITERMEDIATE PHASES CLOSE - OUT OPERATIONS				
PMBOK INITIATE PLAN EXECUTE MONITOR & CLOSE				
AGILE/SCRUM FEASIBILITY PLAN DEVELOP ADAPT DEPLOY				

What is Agile/Scrum Project Management?

Traditional:

- Plan-driven focus. Collect customer requirement
- up front.
- Best for fixed scope.
- Uses estimated dates & costs.
- Assumes defined process to
- control reality.
- Uses CCB to manage change.
- aka "Waterfall"

<u>Agile / Scrum:</u>

- Value-driven focusOngoing customer communication
- Best for unclear (or changeable or estimated) scope

- Rank-orders priorities
- Uses fixed dates & cost
- Assumes empirical process to adapt to reality.
- aka "Lean", "Extreme", "Spiral", and "Evolutionary"



Where has it been used successfully?

Case Study #1

- Challenges and Issues:
 - Support faster, more accurate mapping
 - Add data for new highways and developmentsImprove and correct data as new information as obtained
 - Resolve discrepancies between satellite and terrestrial mapping

 - Respond to new technologies and version upgrades
 Use fewer mapping resources but maintain delivery timetable
 - Manage architecture revisions of a DB with 4.59 billion graphic images

50,000' Overview:

Where has it been used successfully?

Case Study #1

Project Challenges:

- Create global system to replace existing regional/market segment
- Simultaneously refresh technology stack eliminating unsupported legacy systems
- Retain time-to-market delivery, improve quality, and decrease costs



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Regional/Market Systems

50,000' Overview:

Where has it been used successfully?

Case Study #1

Lessons Learned – What Went Well

- Due to project size "Scrum of Scrums" (SoS) was a good choice
- SoS achieved effective, united global team
- Incremental, iterative progress delivered largescale, complex system successfully
- Ability to inspect and adapt the design made implementation possible
- Investment in relationship building and monthly





Where has it been used successfully? Case Study #1

<u>Lessons Learned</u> – What Could Improve

- Better mix of technical and business SMEs
 - Too optimistic regarding speed and effectiveness of cross training
 - Underestimated difficulty of ramping up domain, engineering, and PM skills
- Shifting developer mindset to Scrum
- More aggressive identification of best practices and training on Sprinting



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50,000' Overview:

Where has it been used successfully?

Case Study #1

Are We Sticking With Scrum? You Bet!

Reasons Why:

Improved business value with ability to deliver incremental, proven, working releases
Maintained much better transparency and communication on prioritized needs than







Where has i Case Study #	it been used succ 2	essfully?	Knowledge transfer and carry
Cu	rrent subscription	services portfoli	0
Anti-Virus	Firewall	Parental Control	Spam Control &
features	features	features	Anti-Phishing
Real time protection	Intrusion prevention	· On-the-fly website	features
· Proactive protection	Network connectivity	categorization	Spam & Phishing
Fast reaction times	control levels	· Definable Profiles for	detectors
 Multiple scanning 	Reversing of blocked	children and teenagers	Automatic threat
technologies	hacking attempts	Internet time-usage	removal
· Security alert service	 Traffic inspection 	controls	Integrated Outlook
	tools	 Tamper-proof install 	controls
	Analysis of packet logs	Automatic updates	Automatic updates
			100

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50,000' Overview: Where has it been used Case Study #2	successfully?
 Project Challenges: Scope changes causing 25% variance between Baseline and Final Estimate Balance two different goals: 	Schedule Estimates
 Optimize time and fit to market Optimize cost to market across platforms and product-lines 	0 50 100 150 250 Project length in calendar days

Where has it been used successfully?

Case Study #2

Lessons Learned – What Went Well

- Fully engaged multiple, large teams in bigger projects
- Optimized local, near-shore, and off-shore teams in the entire development process
- Used questions and open items to find answers that aligned with vision and goals
- Leveraged teams that had unilaterally embraced
 Agile/Scrum
- Delivered "working software" and delivered "early and often"





Where has it been used successfully? Case Study #2

Lessons Learned - What Could Improve

- - More training, sooner
- More cross-silo integration analysis
- Replicate best practices from R&D into normal Operations units



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50,000' Overview:

Where has it been used successfully? Case Study #2

Will We Continue With Scrum? Yes.

Reasons Why:

- Quick decision making (wrong decision is better than no decision)
- Product managers now define what adds the most customer value
- Project budgets are a lot easier to manage and
- Risk management is now part of the daily work... and it shows!



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50,000' Overview:

Where has it been used successfully?

Case Study #3 – <u>Anecdote</u>: Amazon.com

"Two Pizza Teams" at Amazon.com Source: Fast Company

- At an offsite retreat, Jeff Bezo's managers told him teams need to communicate more.
- Jeff said, "No, teams are too big and wasting time communicating not doing."
- Jeff said, "The rule is If you can feed the team with 2 pizzas, then it is too large!"
- Two Pizzas = Teams of 5 to 7 people
- - Bottom of the page deals





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Why is it being used? What is the value? Agile/Scrum addresses issues such as:

- Customers who don't know their requirements
- The IKIWISI (I'll know it when I see it) syndrome
- Insulating developers from day-to-day interruptions
- Optimizing Time-to-Market development
- Rationalizing Cost-to-Market development
- Validating business value optimization
- Uncovering hidden process/system problems
- Preventing negative results from cascading
- Handling "funding limitations" and "cancel for convenience" clauses

50,000' Overview:

Why is it being used? What is the value?

Agile/Scrum addresses issues such as:

- Need for rapid delivery of business value
- Reducing overall project risks
- Adapting to changing market or business requirements
- Improving stakeholder visibility into progress
- Reducing delivery schedules to meet market windows
- Improving reliable to support business competitiveness
- is being built

Why is it being used? What is the value?

Seven Benefits

2. Priorities Aligned to Value



- 4. Optimized Risk Management
- 5. Create Value Now, Not Promises Later!
- 6. Rationalize Necessary Changes
- 7. Adapt to the Future, *Not Cling to the Past!*

50,000' Overview:

Agile/Scrum Value Proposition

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In a Nutshell:

Scrum provides an proven process that addresses the high risks presented by complex and/or unknown elements of a project at the <u>beginning</u> as opposed to the <u>end</u> of the project

Why is it being used? What is the value?

Remember, Stakeholders *quickly forget* a postponed or cancelled feature, but a <u>late</u> project <u>delivery</u> they <u>remember</u> ... *forever*!

The key question is, "Can you become a new breed of leader?"

50,000' Overview:

How does Agile/Scrum enable success?

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The Standish Group's CHAOS Summary 2009 Report, shows:

Marked decrease in project success rates:

• Successful Projects = 32% (defined as delivered on time, on budget, with

• Challenged Projects = 44% (defined as late, over budget, and/or missing required features

• Failed Projects = 24% (defined as cancelled prior to completion or

Conclusions include:

• Success rates are down and failures are up significantly.

• Failure rates are the highest in over a decade.

Boston, MA, April 23, 2009 The Standish Group International, Inc. www.standishgroup.com.





How does Agile/Scrum enable success? Agile/Scrum Faces Reality

Is a 1-in-3 chance of success a good career gamble?

Why Do Projects Fail?

Parkinson's Law: Work will fill the amount of time allotted to complete it. Student Syndrome:

Work will not <u>begin</u> until the <u>latest</u> possible start time.

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How does Agile/Scrum enable success? Why Do Projects Fail? (cont'd)

Murphy's Law:

Anything that can go wrong, will go wrong.

Finagle's Law:

Whatever can go wrong will go wrong, <u>and</u> at the worst possible time, in the worst possible way!

Flanagan's Precept:

Both Murphy and Finagle were incurable optimists.

Stenbeck's Law:

Termites not tornadoes undermine most projects. Failure creeps in imperceptibly and inexorably if the PM isn't vigilant

50,000' Overview:

How does Agile/Scrum enable success? Why Do Projects Fail? (cont'd)

Brooks' Law:

Adding manpower to a late project makes it later!

Mythical Man-Month (by Fred Brooks)

- Costs vary as a function of men and months. Progress does not!
- Using the Man-Month to measure (estimate) a job is a dangerous and deceptive myth.
- A common estimation fallacy is confusing effort with progress. A second fallacy is assuming all will go well.
- When slippage occurs, adding labor may be like dousing a fire with gasoline

50,000' Overview: How does Agile/Scrum enable success? Why Do Projects Fail? (cont'd) Consider this illustration:					beck's COM		
Buffer posit	on when <u>F</u>	Estimating:	Task 1	Buffer Delay	Task 2	Buffer Delay	
<u>Buffer</u> posit	ion when <u>I</u>	Executing: De	lay Buffer	Task 1	Delay	Buffer	Task
As Planned							
Task 1	Buffer	Task 2	Buffer	Task 3	Buffer	Task 4	
As Execute Buffer	<u>d:</u> Task 1						
		Delay B	uffer	Task 2	1		
Copyright, John Stenbeck's	PM8020.com, 2008,	all rights reserved.		D	elay Buffer	Task	3



How does Agile/Scrum enable success?

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When do the most scheduling error occur?

- Testing because it is the most linear
- Compounds because it is late in the project
- Usually occurs without warning

Common Agile Myths:

- · Framework with no discipline; Process without planning
- Deliverables without documentation; No documentation required
- Development <u>without</u> Analysis
- Cowboy coding Pass them "light" specs and turn them loose
- All or Nothing Agile must be used in it's <u>purest</u> form

50,000' Overview: What is PMI's view of Agile/Scrum?

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PMI Chairman of the Board, Ricardo Vargas' quotes:

• "Those who think there is <u>only one way</u> to do project management are <u>misinformed</u>."

• "Scrum is very target oriented; it's about speed, and change is part of the process so every two to four weeks, they produce something that the client can use which keeps them aligned."

• "Everything you use that brings you to success is helpful. The <u>great professional</u> will know how and when to use each of them – Traditional and Scrum – and create a very interesting package to <u>build better results</u>. In my perception, there is no conflict with that."

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The PMI Agile Community of Practice Launches

What is PMI's view of Agile/Scrum?

• The PMI Agile Community of Practice (CoP) launched and will celebrate at the upcoming **Agile 2009 Conference in Chicago**.

• This group of PMI <u>agilists</u> is sending speakers to present, hand out marketing materials, and facilitate sessions.

• This community of practice is PMI's first newly formed virtual community in several years. It is dedicated to raising awareness of agile practices and techniques among PMI's members.

• The PMI Agile CoP is focusing on <u>building</u> an <u>emerging</u> knowledge base. Only PMI members can join the PMI Agile CoP.

50,000' Overview:

Is Agile/Scrum a good fit for you?

Consider the follow questions:

- How can we deliver projects when requirements change?
- How can we ensure the customer will still need our project when we deliver it?
- How can we make sure we pursue projects and features that deliver the most value to the company?
- How can we improve productivity?

50,000' Overview: Final 3 Overview Slides

Agile Manifesto:

- Individuals and Interactions over Processes and Tools
- Working Software over Comprehensive Documentation
- Customer Collaboration over Contract Negotiation
 - Responding to Change over Following a Plan

Think of over as "before" or "above" or "preferred".

Agile is reliable, not repeatable. Repeatability is input driven. Reliability is <u>results</u> driven!

50,000' Overview: Final 3 Overview Slides

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Characteristics of Agile/Scrum:

- 1. Iterative and incrementa
- 2. Risk mitigation via use of time boxes
- 3. Continuous delivery of value
- 4. Team ownership of quality
- 5. Value-based prioritization of requirements
- 6. Dedicated, self-managing teams
- 7. Strong collaboration with customer

50,000' Overview:

Final 3 Overview Slides

Characteristics of Successful Agile/Scrum Teams:

- 1. Customer-value oriented
- Individual competer
- 3. Small team size
- 4. Sustainable self-discipline
- 5. Intense collaboration
- 6. Reduced cost of information transfer
- 7. Reduced decision feedback time
- 8. Constant learning and adaptation
- Key Question: Can you be a new breed of leader?

How is it done?

- The People & Roles:
- Stakeholders & Project Sponsors



- owns the budget/profitability
- defines "done" and accepts o
- renews/ or revises priorities of features between Sprints

• Scrum Master

- owns the process, and enforces it
- removes impediments and shields team from interference
- ensures the team is productive and functioning fully

Dive into the Details:

How is it done?

The People & Roles: (cont'd)

• <u>Scrum Team</u>

- cross-functional, self-managing team of 5-9 people
 select the Sprint Backlog
- select the Sprint Bac
 has the right, and
- responsibility, to complete all of the work promised in the Sprint iteration, within the project boundaries
- organizes itself and the work plan
- demonstrates the work results to the Product Owner for acceptance during the Sprint Retrospective



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Dive into the Details:

- How is it done? <u>Step 1 – Project Initiation:</u>
- Define Project Justification
- Identify Product Owner
- Identify Team Members
- Document Product Overview
- Product Vision
- Product Features & Backlog

<u>Step 2 – Release Roadmap</u> <u>Step 3 – Flexibility Matrix</u>





How is it done?

Step 4 - Define High-Level Architecture



- Duration
- Sprint Length
- Number of Sprints
- <u>Step 6 Execute Project</u>
- Daily Stand-ups (Scrum)
- Burn Down Reports
- <u>Step 7 Retrospective</u>
- Demonstrate <u>Completed</u> Work
- Update Product Backlog



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Dive into the Details:

How is it done?

- <u>Step 1 Project Initiation:</u> (cont'd)
- Document Product Overview



Product Vision Questions:

- Do you know what you want developed?
- Who is it for? Why are we doing this?
- How is this in keeping with corporate strategic objectives?
- What are the benefits we expect from a successful deployment?

- What are the consequences if we fail?

- What are our competitors doing in this area



Dive into the Details:

How is it done?

<u>Step 1 – Project Initiation:</u> (cont'd) • Document Product Overview

• Product Vision (cont'd)

Product Vision Statements:

- FOR (target customer)
- WHO (statement of the need)
- THE (product name) is a (product category)
- THAT (product key benefit, compelling reason to buy)
- UNLIKE (primary competitive alternative)
- OUR PRODUCT (final statement of primary differentiation)





• Document Product Overview

<u>Step 1 – Project Initiation:</u> (cont'd)



- Creating User Stories The 3 C's
- 1. Card: As a user, I want to be able to... (i.e., buy online)
- 2. Conversation:

 - Product Owner: Notify them nicely it is invalid, and suggest try again with a different card.
- **3.** Confirmation (i.e., acceptance criteria):

 - Test that valid cards are accepted

Dive into the Details:

How is it done?

<u>Step 1 – Project Initiation:</u> (cont'd)

- Document Product Overview
 - Product Features & Backlog (cont'd)

Feature Estimating

- 1. Estimate feature effort in relative units called <u>Story Points</u>
- <u>Fibonacci</u> series = 0, 1, 3, 5, 8, 13, 21, 34, 55...
- Establish reference point and use Planning Poker



Dive into the Details: How is it done? Step 1 – Project Initiation: (cont'd) • Document Product Overview Prioritize Product Backlog Prioritized by Product Owner lighes Value Clearer focus and communication Prioritization of higher value features Value



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How is it done?

<u>Step 2 – Release Roadmap:</u> (cont'd)

• Release Roadmap

Release Roadmap

- Release Roadmap is a high-level list of
 features (i.e., User Stories to be included in each release
- This may evolve after Release Planning Meetings
- Story Cards are grouped together



Dive into the Details:

How is it done?

<u>Step 2 – Release Roadmap:</u> (cont'd) • Release Roadmap

Release Planning Meeting Guidelines

- Usually a half-day to one-day event done with the entire team
 Considers release drivers (i.e., regulatory requirement, major
- customer request, etc.Fix the release date and then define its feature set; or
- fix the feature set and then define the release date
- Determine feature candidates for inclusion in this Release
 Product Owner defines how much of the Product Backlog will
- be create in the current release (the Release Plan)
- The Scrum Team defines how many Sprints will be needed



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Dive into the Details: How is it done?

Step 3 – Flexibility Matrix

Step 4 - Define High-Level Architecture



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Dive into the Details:

How is it done?

<u>Step 5 – Define Project:</u> (cont'd)

- Define Project Duration
- Define Sprint Length and Number of Sprints

Sprint Planning Meeting Rules

(First Half – max 4 hours)
• Attendees are Stakeholders (optional), Product Owner, Team,

- and ScrumMaster
- Product Owner presents the Product Backlog to Team
- Based on Velocity of previous Sprints (i.e., how many Story Points were completed) Team selects what can be delivered
- during the Sprint, starting with highest priority • Team commits to Demonstrating the selected items to Product
- Owner and Stakeholders at conclusion of Sprint





How is it done?

<u>Step 5 – Define Project:</u> (cont'd)

- Define Sprint Length and Number of Sprints

Sprint Planning Meeting Rules (cont'd)

- (Second Half max 4 hours) Attendees are Product Owner (optional), Team, and

 - Team decomposes Sprint Backlog into Tasks
 Team defines Task order
 Team estimates Tasks in hours
 ScrumMaster collects information and creates Burn Down chart

Dive into the Details:

- How is it done?
- <u>Step 6 Execute Project:</u>
- Daily Stand-ups (Scrum)

Daily Standup meetings

- - Are there any impediments?
 - Self-assign new tasks?
- Dedicate a room (whiteboard & Post-Its for listing User Stories)









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Dive into the Details: How is it done?

- <u>Step 7 Sprint Retrospective:</u>
- Demonstrate Completed Work
- Update Product Backlog

Demonstrate Completed Work:

(Time-boxed to 4 hours)

- Only the selected Sprint Backlog that is DONE is presented
- Presented from environment below production
- Stakeholders and Product Owner may ask questions or request changes to completed work during presentation
- Obtain user acceptance
- Product Owner updates Product Backlog for next Sprint

Wrap Up:

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How Do You Get Certified?

- Major changes coming on October 1st
- Current process:
 - Take an approved certification class
 - Automatically certified for 2 years
 - Pass exam before end of 2-years
- Future process (starting 10/01/2009):
 - Take an approved certification class
 - Document experience in application for review
 - Pass exam within 90 days

Wrap Up:

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How Do You Get Certified?

ScrumMaster Certification Seminar

- Coming to Orange County (Santa Ana Holiday Inn)
- Thursday and Friday, September 3rd and 4th
- Two days 16 PDUs Only \$850 Early-bird

The URL for Registration: http://pm8020.com/zencart/index.php?main_page=index&cPath=3

Sold out 2 classes in San Diego, so hurry! Only planning 1 class in Orange County.



