INTEGRATING AGILE SOFTWARE DEVELOPMENT WITH:

- SIX SIGMA
- BUSINESS PROCESS MANAGEMENT
- CONFIGURATION MANAGEMENT

Presented By:

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Agenda

- Background
- Analysis Methodology
- Agile & Six Sigma
- Agile & Business Process Management
- Agile & Configuration Management

Questions / Comments:

Just speak up, Twitter or Email (afterwards)

Tweet Me: @TiceThoughts

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www.jasontice.com/agile2012slides.pdf

Learning Objectives

- Define the following Enterprise disciplines and explain why organizations use them:
  - Six Sigma
  - Business Process Management (BPM)
  - Configuration Management (CM)
- Highlight knowledge, skills and abilities of practitioners of other Enterprise disciplines
- Discuss how each of these disciplines can interact with Agile software development

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Additional Objectives

- Build relationships
- Experiment with a few analysis / decision tools
- Successfully complete “Operation After Lunch”
  - Share and leverage ‘your’ knowledge
  - 3 Exercises (Pro/Con 3 to 1, SWOT, Visualization)
  - Data collection to advance ideas
  - Follow Up (using your data)
  - Acceptance Criteria: Nobody falls asleep
- Continuation of work
  - Thoughts shared will be used to spawn future ideas
  - Watch for an upcoming blog post (week of 8/20/2012)

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Background

- My Background:
  - Did Microprocessor/FTL design & testing
  - Did Software Development (Assembly/Device Drivers, then OO)
  - Learned how to write tests (order agnostic)
  - Optimized and Standardized Build Systems (process tendencies)
  - Overcame multiple CM Disasters
  - Became a Six Sigma Green, Black Belt
  - Did BB projects to drive financial system improvements
  - Went to business school - started doing BPM
  - Joined an Agile Consultancy (Asynchrony)
  - Learned Agile & XP (write the tests first)
  - Did Agile development (learned to write other kinds of tests)
  - Supported an Enterprise Agile Transformation
  - Linked Agile Dev, Six Sigma, BPM & CM via Enterprise Architecture (EA)
  - Leading the ‘tech side’ of a large scale EA practice

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Background

- Enterprise Background:
  - Very Large IT enabled global logistics Enterprise
  - Multiple Process Centric Systems
    - Administered as separate programs
    - Duplicative systems / brittle interfaces
    - "Transformation" needed but struggling to "run”
  - Systems Centric Development patterns
  - Pre-dominance of waterfall SDLC
  - Stakeholders highly influenced by industry trends
  - Rigorous CM requirements - information assurance focus
  - Developed Six Sigma (CPI) competencies (active COE)
  - Simultaneous in-sourcing of BPM & Agile dev (new disciplines)
  - Ground everything via and into the Enterprise Architecture

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Analysis Methodology

- Patterns - ways to integrate Agile with other disciplines
- Services - activities & information needs to facilitate integration
- Messaging - communication strategies & activities for change management to promote success

Agile & Six Sigma

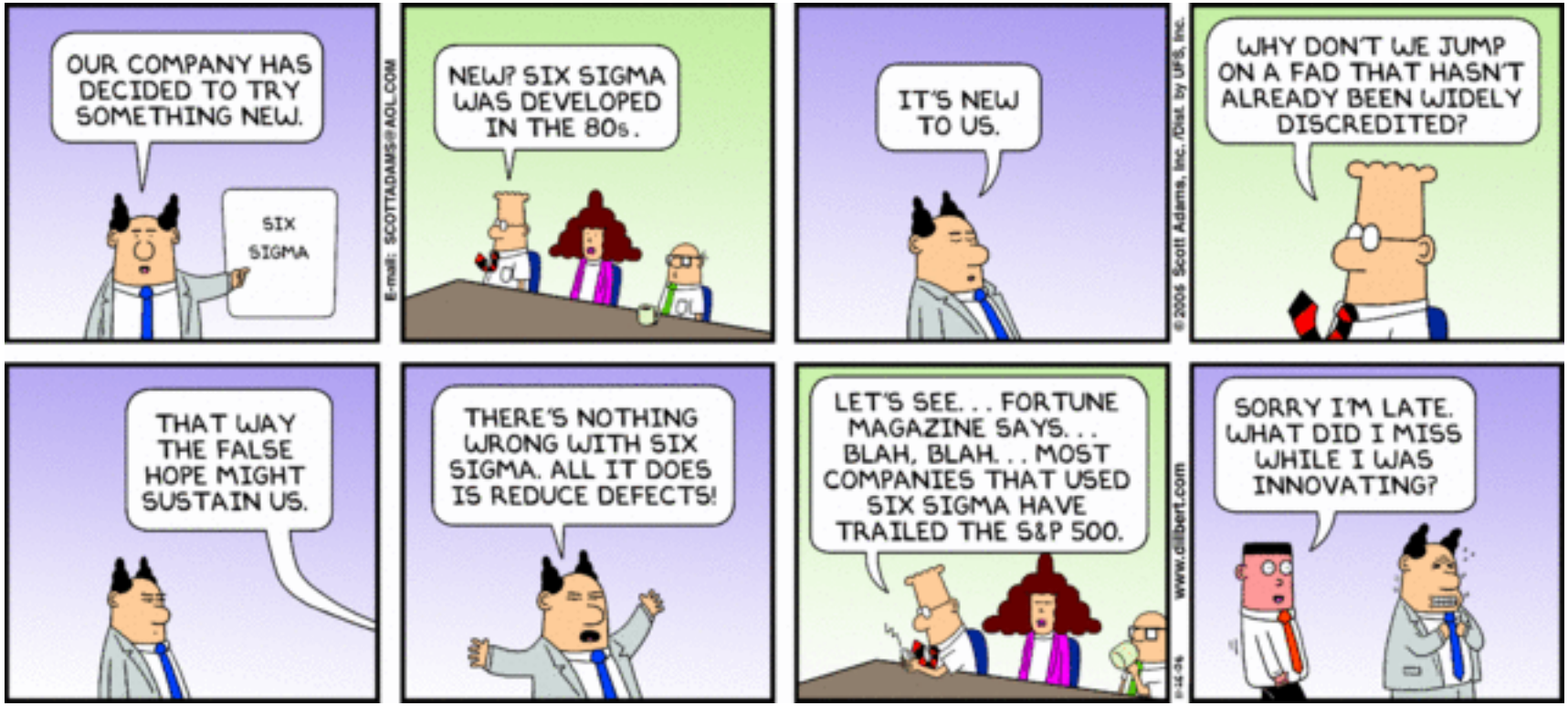

Image Source: Dilbert – Scott Adams
http://dilbert.com/dyn/str_strip/000000000/00000000/0000000/000000/00000/1000/400/1426/1426.strip.sunday.gif

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Six Sigma: Background

- Improve the quality of process outputs through rigorous quantitative (statistically significant) controls to identify and remove causes of defects and variability.
- Created by Motorola, popularized thanks to Jack Welch at GE.
- Source of solid quantitative data (both anticipated and achieved) to execute Enterprise strategy.

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Six Sigma Practitioners

- Names & Titles:
  - Apprentices / Junior Green Belts
  - Green Belts
  - Black Belts
  - Master Black Belts
- Required KSAs:
  - Process definition/decomposition
  - Root cause analysis
  - Measurement System design/implementation
  - Statistical/Mathematic analysis

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Flavors of Six Sigma

DMAIC

- **Define** the problem
- **Measure** the 'as-is'
- **Analyze** to find the root case
- **Improve** targeting the root cause
- **Control** the future state

Targeted at improving existing processes & products

DMADV

- **Define** what needs to be done
- **Measure** 'Critical To Quality' (CTQs) attributes
- **Analyze** high level designs or COAs
- **Design** detail based upon the best design / COA
- **Verify** intended results will be achieved

Targeted at optimizing new processes & products

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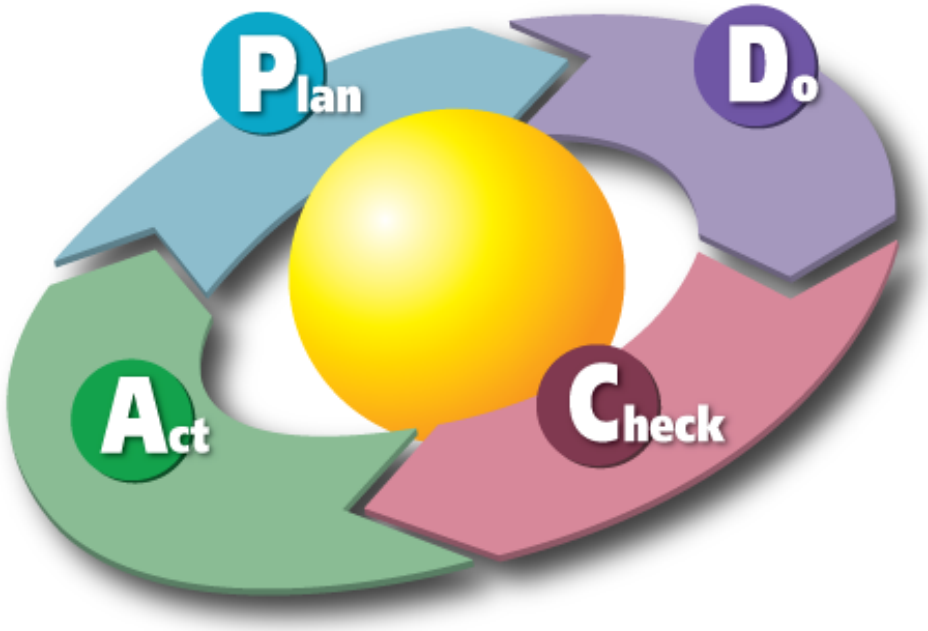
Kaizen: Any Similarities?

Improvement through small incremental and iterative changes



Potential benefits.

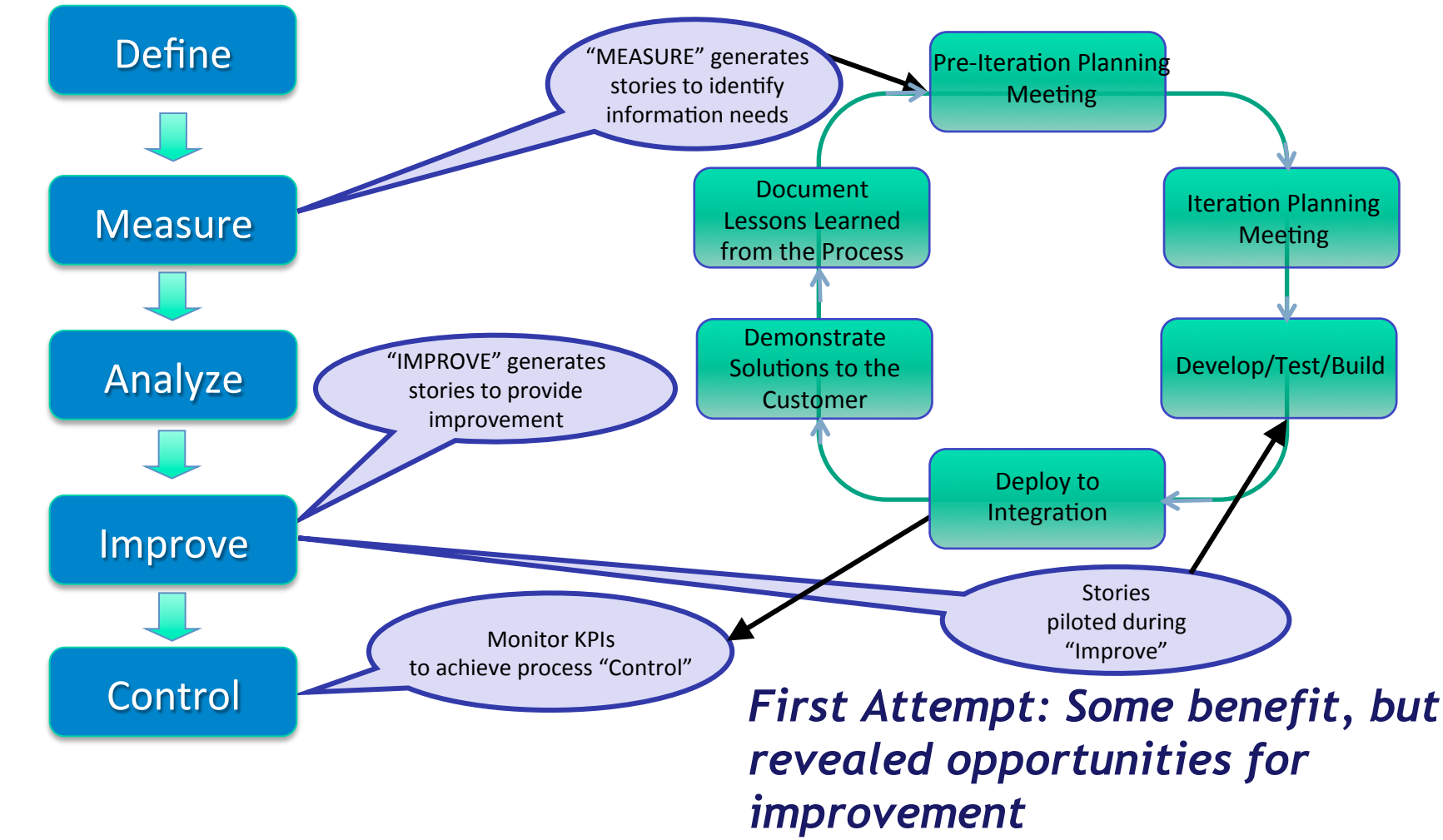
- Awareness of Kaizen benefits & techniques widely understood
- "Kaizen" to “Agile" linkages may resonate with new stakeholders

Image Source: Taking the First Step with PDCA
http://www.bulsuk.com/2009/02/taking-first-step-with-pdca.html

Patterns: Agile & Six Sigma

- Agile linked to tollgates
- Agile throughout the Six Sigma lifecycle
- Six Sigma to define/drive "patterns" vs. "projects"

Pattern: Agile linked to tollgates



First Attempt: Some benefit, but revealed opportunities for improvement

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Pattern: Agile linked to tollgates

Implementation:

- Black belt was a member of the Agile development team
- One war-room, whole-team approach, full-team pairing, etc
- Single set of stories (including Six Sigma stories), single Kanban board

Benefits:

- Understand the team's purpose - BB ensure business case was understood
- Knowledge / skill transfer - interested developers got primer on Six Sigma
- Development team had "rock solid" quantitative acceptance criteria

Challenges:

- Work imbalances & idle states - tollgates were too long
- Value stream was not optimized across the team
- Questionable benefit of mixing of extremely diverse skill sets
  - Are software devs really going to be Black Belts and vice-versa?

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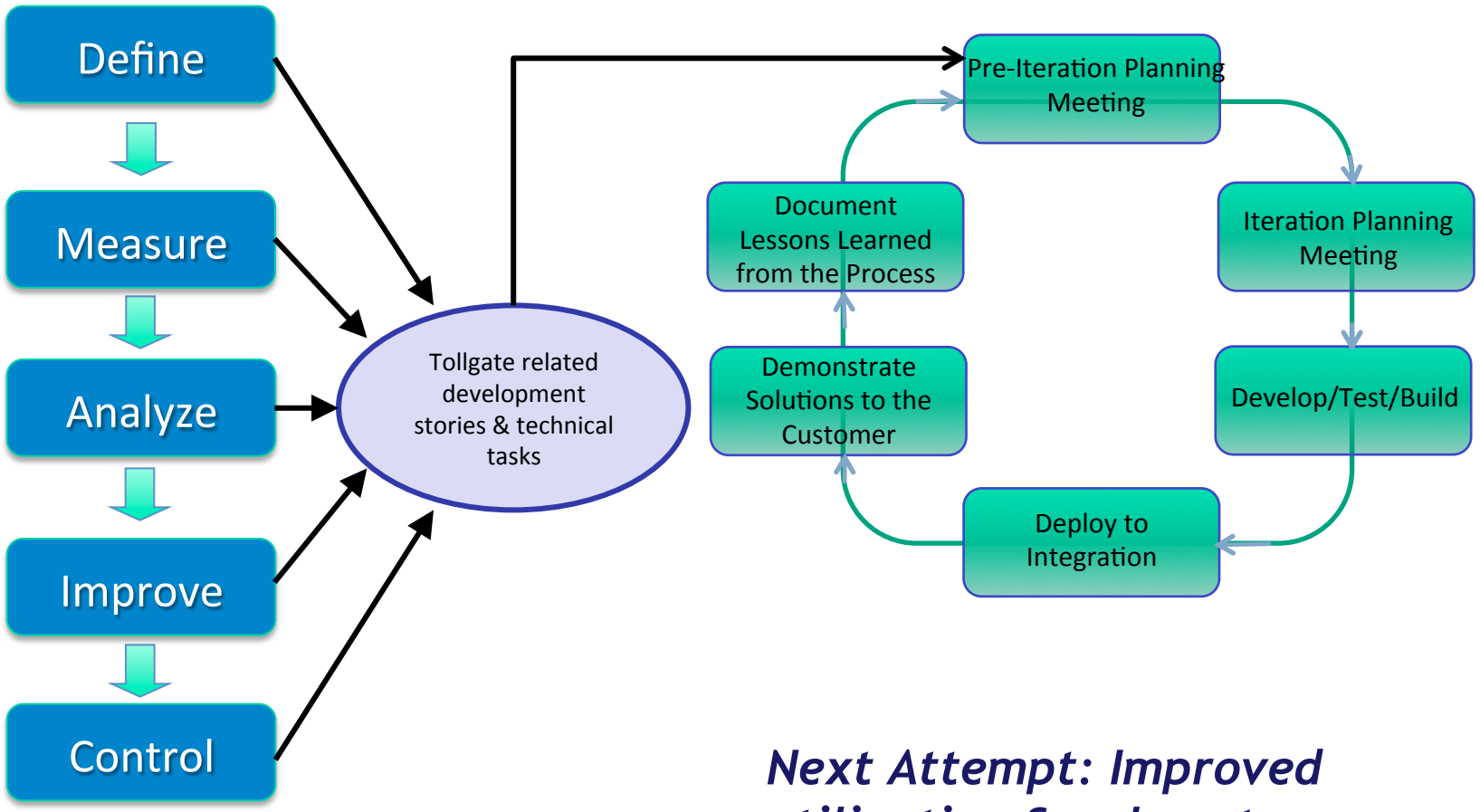
Pattern: Agile throughout the Six Sigma lifecycle

Lean / Six Sigma

Agile Software Development



Next Attempt: Improved utilization & value-stream

Pattern: Agile throughout the Six Sigma lifecycle

During or After "Define":

- Decide on an appropriate tech stack / engineering Spikes
- Build dev-test-demo-prod environments (what about PaaS/SaaS?)

During or After "Measure":

- Common measurement services, API, dashboards & reports
- Determine how to get data, create mock services (required for env)

During "Analyze":

- Use analysis data to draft stories and acceptance criteria
- UI / UX design work & dev team Spikes to prototype ideas

During "Improve":

- Implement documented user stories – receive customer feedback

During "Control":

- End-user training & mentoring, bug fixes, performance tuning

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Pattern: Six Sigma to define/drive "patterns" vs. "projects"

Implementation:

- Six Sigma and tech staff work together to define an improvement strategy around a common technical problem.
- See if a specific problem in a project, can be applied to multiple projects?
- Six Sigma defines the quantitative measures (acceptance criteria) by which "Control" (ROI) can be achieved.
- Agile Dev teams implement the "pattern" to achieve the desired control.
- Means to execute strategies to promote common patterns and software assurance across a large organization / Enterprise.

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Services For Six Sigma

Provide criteria for:

- Measurement system requirements
  - Implementation via logging
  - How much metrics data needs to be captured / persisted
  - Integration with external metrics services / software
- What needs to be measured (KPIs)
  - Agile Dev teams ensure the software can provide this data
  - Measurement requirements can drive design patterns
- What are key performance thresholds
  - Establish software / service SLAs (performance targets / acceptance criteria)
  - Requirements for alerting and/or notification features
- How will required parties use metric data collected
  - Bulk data exports for offline analysis
  - Performance dashboards / alerts within applications
  - Services needed to support external dashboards
  - Analytics within applications to identify improvements

Messaging For Six Sigma

Link process improvement goals to software dev activities

- Inputs to Agile dev - develop required Service Level Agreements (SLAs) to meet performance improvement objectives (service to reduce cycle time)
- Using ideas from Six Sigma to drive/confirm team improvements
  - Six Sigma Lite perhaps in Retros?

Messaging of Metrics:

- Six Sigma Metrics/KPIs - cycle time, number of defects/deviations, etc
- Agile Metrics - flow, velocity, escaped defects, etc
- Agile metrics should demonstrate progress toward achieving Six Sigma KPI

Use Six Sigma to synergize multiple projects and/or teams

- Targeted improvements around common 'patterns' or 'problems'
- Establish Enterprise SLAs to execute strategy and deliver results
- Measurable Enterprise level acceptance criteria spanning software dev activities

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Exercise: Thinking About Six Sigma

- Create 2 groups per table
- Determine a facilitator
  - Whoever most recently celebrated their birthday

- List up to 3 pros & 3 cons based related to integrating Agile & Six Sigma
- As a group decide what the ‘key’ takeaway is
- Capture the key criteria – why selected?
- Lightning sharing (from several tables)

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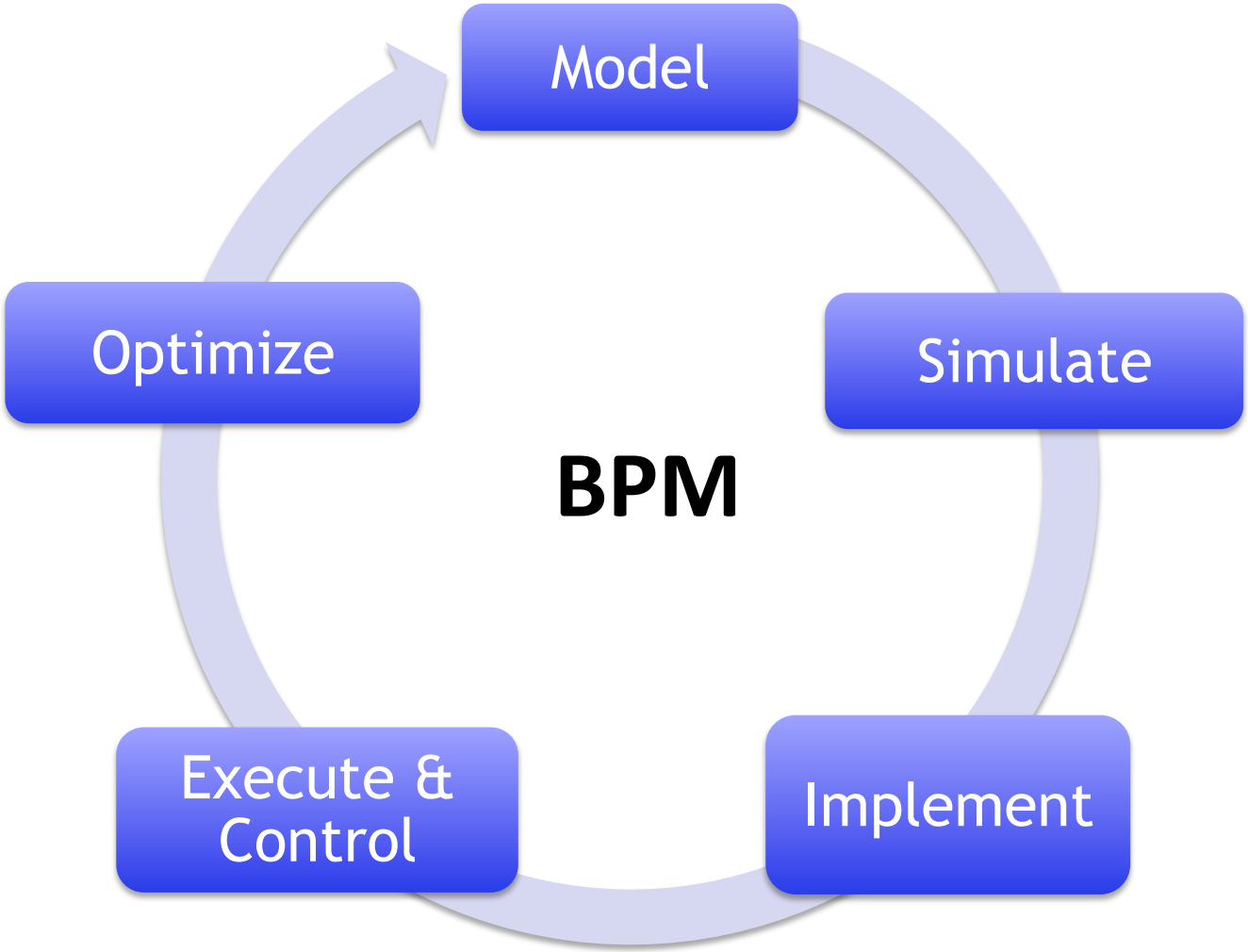
Agile & Business Process Management



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BPM Defined

Modeling a business process so that it can be orchestrated, executed, and optimized within a business process management system (BPMS) leveraging existing IT assets and services within the Enterprise.

--Enterprise specific definition

What this really means:

- Model the process
- Make the process executable
- Wire the process to services and/or create tasks
- The BPMS drives the process
- The BPMS analyzes/optimizes the process
- The BPMS can analyze the 'process ecosystem'

Value Proposition of BPM

Additional recapitalization of sunk costs in existing IT assets

- Use systems / services 'as-is' to orchestrate processes
- Use the BPMS to "bolt on" functionality and business rules to systems that cannot be changed

Improve process execution for "spreadsheet over Email" processes

- Reduce cycle time
- Understand and better distribute process load
- Improved awareness and dispatching

Additional value propositions

- Empower additional staff to improvements to IT enabled processes
- Determine which which processes (and activities) support value-add
- Generate & analyze data about how processes impact each other
- Understand which processes (and steps) are under/over loaded

BPM Myths

BPM allows for "codeless" development

- Some truth
- Modeling and process configuration become tool supported activities
- Integration of existing systems/services to the BPMS can be highly technical
- Software developers are better skilled at coding vs. using a BPMS

BPM allows for "real time" process improvement

- Can be true with several important notes
- Assumes full process execution (control of state) in the BPMS
- Required service/data/interactions are available
- There is value to testing a process

BPM Practitioners

- Understand process and process decomposition techniques
- Establish roles, groups, responsibilities specific to processes
- Understand information needs and capabilities of roles and groups
- Familiarity with value-streams and how to optimize them
- Many have a strong metrics, process improvement (Six Sigma) background
- Technically inclined, but not necessarily software developers
  - Software developers shy away from BPM since it is tool driven
  - Software developers build or configure the interfaces/services/ adapters to support BPM

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What can be Agile about BPM?

- Customer focused - visual practice
- Iterative
  - May generate need for targeted / rapid improvements
  - A "sweet spot" for Agile development to complement BPM
  - Kanban has become popular with BPM teams
- Tooling allows for rapid development, testing, delivery
  - Assumes the BPMS has been configured and data is available
- Whole team approach
  - Allows a different group of staff to improve the value-stream
- Continuously improving for the future
  - Analyze/optimize processes to determine future improvements
- Similar traits/patterns to software development
  - Can have bugs, need to be tested, have a lifecycle, etc

Patterns: Agile & BPM

- BPM done prior to development
- BPM done during development
- BPM done after/without development

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Pattern: BPM done prior to development

Benefits:

- Technical requirements for services / systems supporting the process
  - Information & data needs known up front
  - Contract-first service development
- BPM simulation establishes target SLAs
- Process model can be used as part of test strategies

Challenges:

- Working to avoid process-specific services
- Defining a small end-to-end process that adds value
- Establishing Enterprise criteria to justify BPM enablement

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Pattern: BPM done during development

Benefits:

- Fast demonstrable ROI
  - Incremental process and software releases
  - May require much coordination (MRC between dev and BPM)
- Optimized value-stream
  - BPM and development activities kept in sync
- Maintain proper / desired architecture
  - Fix 'code' the right way vs. 'kludges' in the BPMS

Challenges:

- Two moving targets to manage
  - Agile Services/Software Dev + Process Model & Orchestration
- Coordination of releases and versions
- Managing different requirement sources
  - Potential for scope creep and/or waste

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Pattern: BPM done after/without development

Benefits:

- IT capabilities & services stable throughout BPM lifecycle
- Provide new capabilities for legacy IT assets
- Implement improvements with reduced technical staff

Challenges:

- Required data or services may not be available
  - Potential impacts to desired outcomes
  - "Data Upload" upload pattern risks
- Managing "bolt on" functionality in the BPMS
  - Implications for changing BPMS tools
- Avoiding "automated yet over-complicated" processes
  - Putting capabilities in processes vs. services
  - Managing a collection of common sub-processes
  - Governance to ensure sub-processes are used

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Services for BPM

- Define how systems and services need to interact with the BPMS
  - Information exchanges
  - Web service contracts (WSDLs, etc)
- Use BPMS simulation activities
  - Establish target SLAs for software/system components
  - Use BPMS simulation as part of acceptance testing
- BPM inputs to story prioritization
  - Process / value-stream analysis – simulation data & ecosystem data
  - Coordinate process needs with IT capabilities
- Provide standard dashboards for performance metrics
  - Determine if Enterprise KPIs are needed
  - Define metrics to manage the "process ecosystem"
- Define a standard API to interface with the BPMS
  - Establish process & task naming conventions
  - Standards about what does in the BPMS vs. in code

Messaging for BPM

Benefits integrating of BPM and Agile development

- Determine acceptance criteria for contracts and interfaces
- Simulation data defines target SLAs and test scenarios
- BPM simulations can complement user acceptance testing
- Link process improvement strategies & goals to specific software development
- Determine common services/components to improve multiple processes
- Enable more staff (non-developer) to improve value-streams and supporting business processes

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Exercise: Thinking about BPM

Work with 1 or 2 other folks at your table

Do a SWOT analysis for Agile dev (internal) & BPM (external)

Strengths: • Advantages for Agile to support BPM	**Weaknesses:** • Disadvantages of Agile for integrating with BPM
Opportunities: • Benefits to Agile practices from doing BPM	**Threats:** • Agile practices put at risk by doing BPM

Determine a ‘key’ takeaway & reasoning why

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Agile & Configuration Management

Locking Things Up

- vs -

Frequent, Effortless, and Sustainable Continuous Updates

Configuration Management Defined

Configuration Management is a process for establishing and maintaining consistency of a product's performance and functional and physical attributes with its requirements, design, and operational information throughout its life.

- Source: Wikipedia

Question: Doesn't Continuous Integration do all of my CM for me?

CM Practitioners

- Good at keeping track at lots of details and variables
- Familiar with the technologies being used
- Be focused on optimization of the CM function
  - Automation of CM processes
  - Integration of CM specific information in different tools / repos
- Able to determine/leverage capabilities of CM tools
  - Avoid duplication of information
  - Determine authoritative sources
- With current tooling, CM should think beyond the spreadsheet
- Scope of CM and number of projects determines volume of CM need

Patterns: Agile & CM

- Ongoing CM (throughout the development cycle)
  - Work to automate CM activities via tooling
  - "CM as a service" (part of a SaaS offering)

Pattern: Ongoing CM

Benefits:

- Minimize additional 'work' for software developers
- Improve software assurance
- Minimize wait/waste states at beginning or end of dev cycles

Challenges:

- Maintain proper queuing through the release pipeline
- Avoid introducing artificial bottlenecks
- Achieving governance
  - Value stream optimized through common patterns
  - Uniform understanding of tooling and patterns

Services for CM

- Optimized patterns for CM tool use
- Project, build & repo templates that meet dev & CM reqs
- Maintain shared utilities, libraries, and components
  - Potential for EA linkages
- Capture and inventory of created IT assets
  - Additional EA linkages
- Standardized conventions for version & release identification
  - Mechanism to extend standard convention if needed
- Help with awareness and notification for software updates
  - Notifications can be linked to automation strategy

Messaging for CM

Benefits of an Enterprise CM function

- Only pay to setup CM once
  - Each team/project shouldn't need to figure out CM for itself
  - Achieve additional cost savings through economies of scale
  - Greater adoption of Enterprise CM drives ROI
  - Infrastructure / tools optimized for common CM functions
- An optimized & effective tool set
  - Avoid costly, error-prone ad-hoc data integrations between tool sets
  - Avoid paying for duplicative tools
- Linkages to common backup and software assurance strategies
  - Ensure important / less-visible software dev activities aren't omitted
  - Drives greater ROI and decreases non-development tasks
- Increased sustainability
  - Common patterns and practices between dev efforts
  - Reduced changing costs

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Exercise: Thinking about CM

Do CM Right Challenge

The Question: What needs to go into CM?

Draw a picture this captures:

#1 - What goes into CM (beyond source code)

#2 - Appropriate relationships of what is in CM

#3 - Relationship between different projects or teams in CM

It's a given that source code goes in CM – what else matters?

Perhaps stuff to include might be:

- Builds/Binaries/Executables (built from source, shared, third-party, etc)
- Business Process Components
- Unit Tests
- User Acceptance Tests
- Stories / Features / Requirements
- Enterprise Requirements
- Funding Lines/Governance Artifacts
- Env-specific application config files, Physical server config files, VM templates & infrastructure level CM

Conclusions

Agile development is complementary to:

- Six Sigma
- Business Process Management
- Configuration Management

Agile & Six Sigma: Top 3

- Use Six Sigma to generate quantitative acceptance criteria for software development activities
- Use Agile development to begin to realize Six Sigma ROI faster
- Use Six Sigma to define over-arching performance standards for software development to support Enterprise strategy

Agile & BPM: Top 3

- Use BPM to generate technical requirements for business process interfaces /contracts with services
- Use BPM simulations to generate Service Level of Agreements that IT systems (and supporting infrastructure) must achieve
- Use BPM simulations to augment acceptance test scenarios

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Agile & CM: Top 3

- CM processes must be optimized (ideally automated) to not impact efficiencies gained through Agile
- Properly envisioned patterns and templates to help CM are welcomed by developers
- A shared & common CM function offers the potential of significant ROI

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Questions & Comments

Thanks for attending!

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Backup

A $64,000 Question?

Is Six Sigma Agile?

- Hypothesis: It could be based upon some attributes.
- Possible decision factors: Project Scope, Tollgate cycle time, etc
- Perhaps best to let ‘Six Sigma’ be ‘Six Sigma’

Industry trends:

- Six Sigma is known for rigors to ensure large-scale, high ROI process improvement.
- Big successes (big scope) gets big press.
- The 'bigness' of Six Sigma challenges the 'smallness' of Agile.

Takeaways:

- Agile software development can be a key component 'big' successes
- Small Agile (Kaizen) improvements drive 'significant' impacts
- Agile development can strongly complement Six Sigma projects

Another $64,000 question?

Should you model and simulate a team's Agile development process in a BPM tool?

- **Probably Not!** *(aside from the obligatory high level sketch)*

Supporting Thoughts:

- Dev processes need to be flexible to support change & innovation
- Scope of process/activity & number of actors typically small
- Actors seek to improve and overcome challenges
  - As soon as you model it, it may change (for the better)
- Some developers are bothered by it
- 'Adaptive Case Management' may be a better approach
  - Define success criteria agnostic of how success is achieved
- If you must model - consider inputs/outputs to Agile dev
  - Non-automated integration/test/CM/release processes
  - Multi-party requirements approval & governance processes

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What about Kaizen?

- Japanese for "improvement" or "change for better"
- Not a part of Six Sigma, but highly related
- Kaizen techniques used to implement Six Sigma projects
- CPI COEs & SMEs often do both
  - Continuous Process Improvement Centers of Excellent and Subject Matter Experts often do both
- Kaizen specific techniques:
  - Toyota Production System
  - Quality Circles
  - Plan-Do-Act-Check (PDCA) Cycles

Pattern: Agile throughout the Six Sigma lifecycle

Implementation:

- Black belt was a member of the Agile development team
- One war-room, whole-team approach, team paired with BB, etc
- Single set of stories (including Six Sigma specific stories), single Kanban board

Benefits:

- Stronger "whole-team" approach - team maintained good understanding of business case
- Improved consistency of staff utilization - black belt helped with QA during later tollgates
- Tech staff pushed to not defer "difficult" problems until the end of the project (getting data/services, setting up builds/release scripts, etc)
- Metrics dashboards / alerts were available to support test activities
- Still applicable: Knowledge / skill transfer and "rock solid" quantitative acceptance criteria

Pattern: Agile throughout the Six Sigma lifecycle

Challenges:

- Utilization increased but not necessarily optimized
  - Dev team building environments vs. PaaS/SaaS
  - Black Belt supporting QA activities
- Sustainment of value-add work across all tollgates during repeated cycles

Bonus Pattern: Six Sigma on the boundaries of Agile development

Implementation:

- Six Sigma staff separate from Agile dev team
- Six Sigma staff operated via a shared bureau (Center of Excellence)
- Six Sigma project cycle and Agile iterations executed separately
- Six Sigma criteria integrated into details of Agile dev features/stories
- Agile Dev teams worked on projects which had stories ready to go

Bonus Pattern: Six Sigma on the boundaries of Agile development

Benefits:

- Optimized value streams for all staff
  - Perception of 'busy' work for dev teams mitigated
  - Black belts were able to support multiple dev teams
- Realized additional ROI through PaaS/SaaS offerings
- Strong quantitative acceptance criteria still present
- No 'out-of-balance' (risk prone) work activities
  - Risks learned writing too many acceptance tests up front

Challenges:

- Less understanding of Six Sigma and team vision amongst development staff
- Team leads had to ensure that focus on being 'proactive' was not lost
  - Configuration of metrics API & dashboards
  - Determine strategies to obtain data for testing and prod operations

A Six Sigma "pattern" driven Use Case

- Problem:
  - Network/datacenter maintenance required having more than a dozen application engineers on call to enable/disable applications
- Root Cause:
  - Lack of a common mechanism to enable/disable applications for system/network/data-center maintenance
- Six Sigma Defined:
  - A common pattern for a web service interface and admin application that could be retro-fitted to all applications
- Desired Control:
  - Datacenter staff could enable/disable/smoke-test all applications without the need for application engineering / support
- Outcome:
  - Recurring costs of maintenance windows were reduced - ROI achieved through reduction/elimination of on-call staff hours
  - The correlation of maintenance window labor cost to number of Enterprise applications was reduced

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Services For Six Sigma

Intended benefits:

- Additional source of acceptance criteria
  - Specific (measurable) service levels needed to achieve success
- Proactive measurement system design is typically more effective and efficient
  - Initial investment can support future Six Sigma (CPI) efforts
- Decreased time to realize ROI from Six Sigma efforts
  - Iterative deliveries offer incremental performance improvements

Messaging For Six Sigma

Six Sigma is a heavy methodology to improve Agile dev activities

- Six Sigma improves non-commodity complex processes
- Agile dev should be a simple (commodity-like) process

Elements of Six Sigma can help Agile teams

- Define quantitative criteria make improvements from Retrospectives measurable
- Generate short 'DMAIC' cycles within Retros
  - Increase whole team pairing by X
  - Ensure test suite execution time does not exceed Y
- Create a climate where Agile dev teams think more about metrics across all activities and end-to-end processes

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Is BPM software development?

No - it is a complementary and/or enabling practice

- Software dev provides the services and systems that support BPM processes

But

- BPM enabled processes can have bugs / errors
- BPM enabled processes should be tested
- BPM enabled processes have a lifecycle

Many Agile development techniques can be applied to BPM work

- Can and should utilize test driven design
- Continuous integration/testing of processes
- Strategies to accelerate process ROI (MRC for processes)

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Bonus Pattern: Development done without BPM

Benefits:

- Simplified solution architecture
  - No need to manage a BPMS / Simplified IT integrations
- Simplified customer relationship
  - Dev team works for the customer
- Implement systems/service specific to processes
  - Use software dev best practices
  - Avoid 'quirky' items needed for BPM integration

Challenges:

- No out of the box BPM capabilities
  - Automated analysis and/or optimization is lost
  - Custom code and/or other integration for optimization, etc
- Development staff needed for system enhancements
- Loss of BPMS provided capabilities to determine SLAs & testing

CM Automation Strategy

Motto: "If you build it, they will come."

- Provide a common CM repo and build system to dev teams
  - CM repo includes:
    - Source code management
    - Library / Binary / Dependency management
    - SDLC capabilities linked to technical artifacts (source, libraries, etc)
- Establish common project and build templates
- Use common builds to define common outputs for each dev pattern
- Automate deployment and testing of standard packages
- Establish governance to use standard builds
- Provide a flexible mechanism for needed customizations

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CM Challenges Experienced

- Automation challenges
  - KSA gaps (tool use / automation implementation)
  - Working around IA requirements
  - Lack of tools
- Lack of standards & governance
  - Working software vs. standardizing the process
- Resource challenges
  - Improving a live process as during execution
- Myth: "You can't automate if you can't route."
  - Solution: Automate around the air-gap

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Messaging for CM

Perceptions & challenges with Enterprise level CM

- Control Boards are inefficient
  - Kanban can help with this
- Determining an effective scope of governance
  - Manning challenges indicate other problems
  - Myth: CM cannot scale to an Enterprise level
  - Myth: Enterprise CM is too big to be automated
- Managing expectations across many stakeholders
  - Use quantitative measures (ROI, etc) to decide change requests
  - Use “scientific” criteria to drive evaluations (not emotions)