BPM and Agile

Experience Report – Southern Fried Agile

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Topic: A firsthand experience report implementing Agile methodologies in conjunction with Business Process modeling tools and techniques.

Learn about the myths, challenges, approach used to implement a successful BPM solution. Learn why BPM and Agile are a match made in heaven when using the correct tool set. Learn about implementing incrementally with a BPM tool

Why this talk?

- Been in Financial Services doing software development for 20+ years
- Have used Workflow/BPM technologies for 10+ years
- Practicing Agile since 1999, Kent Beck's first edition *Extreme Programming Explained: Embrace Change*. (Thank you James Collins)
- Explaining our experiences and where we continue to improve.

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Aerogel allusion courtesy of James Collins, Southern Fried agilest



- What is BPM
- Agile and BPM
- What worked well
- What didn't work well
- Summary

The problem space.

Financial Services respond to Legal Orders

- When any Bank is served with a legal order by a state, federal agency or civil litigant to *attach* funds or property held by a bank on behalf of a customer
- All legal orders require immediate attention to eliminate bank exposure to a potential loss or imposition of penalties. Debtors listed on the legal order may or may not be our bank's customer.
- Example: A debtor owes the Internal Revenue Service back taxes.

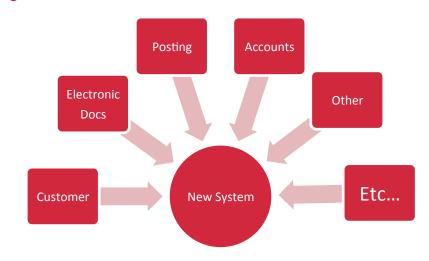
Example Legal Order Types

- Levies
- Child Support Orders
- Garnishments

Target Solution Goals

- 1. Automate case processing
- 2. Improve accuracy
- 3. Ensure meeting spirit of legal order SLA's.

Integration Points



Critical to success

Incremental bite size pieces

- Implement, learn, adjust

Minimum Viable Ship

- No gold plating
- Using the product as its intended to be used
- Eliminate no/low value features that could be added later

Demo Often

- show working, finished product as the sub assemblies are completed

Total Transparency

Sized, visible backlog of bite size pieces

Definition of Done

- Done means done, accepted, it can go to production in this state
- If the right people aren't available to Accept, get them, make them available

Test All the Freaking Time

- Constantly be testing
- Constantly be Accepting
- Automate everywhere possible

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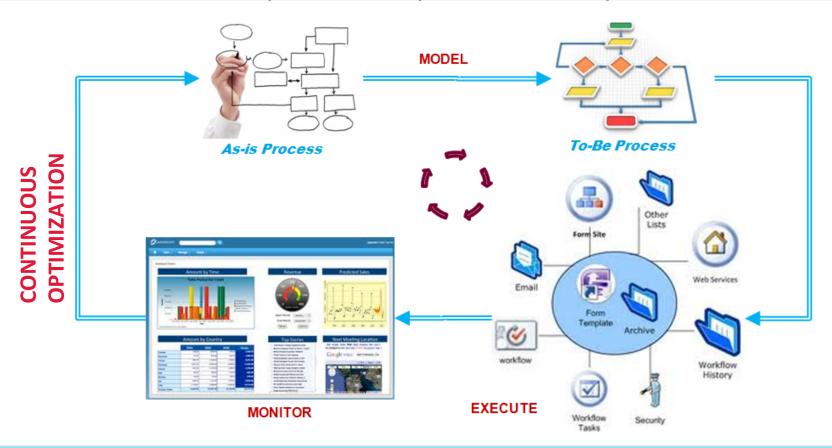


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BPM Brings Visibility and Control to Customer Value Delivery

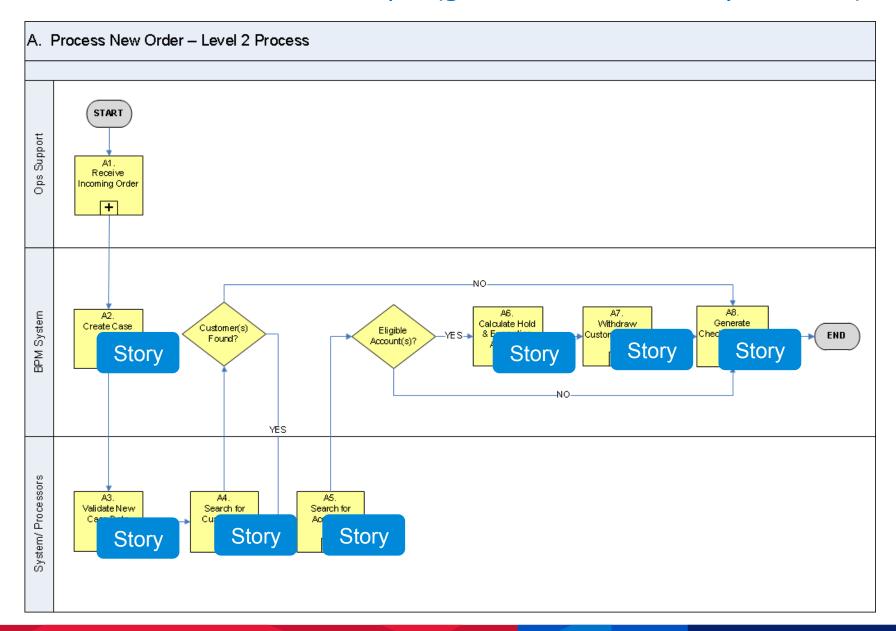
BPM is a management practice and technology that helps businesses manage their core processes as assets by providing visibility, control and flexibility to change dynamically.

BPM technology helps manage process design, automation and ongoing optimization to achieve compliance, operational efficiency and customer centricity.

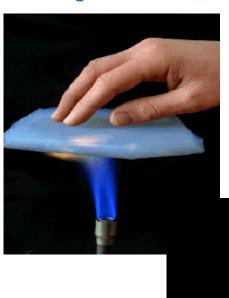


BPM embodies continuous process improvement.

"To-Be" Level 2 Process Example (general reference only, not real)



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Parable of 2 Watch Makers

Noble Prize winner Herbert Simon's

• There once were two watchmakers, named Hora and Tempus, who made very fine watches. The phones in their workshops rang frequently and new customers were constantly calling them. However, Hora prospered while Tempus became poorer and poorer. In the end, Tempus lost his shop. What was the reason behind this?





The watches consisted of about 1000 parts each. The watches that Tempus made were designed such that, when he had to put down a partly assembled watch, it immediately fell into pieces and had to be reassembled from the basic elements. Hora had designed his watches so that he could put together sub-assemblies of about ten components each, and each sub-assembly could be put down without falling apart. Ten of these subassemblies could be put together to make a larger sub-assembly, and ten of the larger sub-assemblies constituted the whole watch

Watch Maker Parable, continued

- Complex systems will evolve from simple systems much more rapidly if there are stable intermediate forms present in that evolutionary process than if they are not present
 - Incremental Bite size pieces that are DONE
 - Demo Often, adjust as needed
 - Minimum Viable Ship, incremental add on
 - Transparency to stakeholders
 - Test all the freaking time
- BPM by nature is modular
- Agile loves bite size pieces
- Improvement cycle should be frequent and constant

..... Why we wanted to use Agile with BPM

BPM and Agile summary



Strategy and Investment



Strategy > Goals > Initiatives >



Lightweight **Business Case**

People & Process

Business Transformation



MODEL

To-Be Process

Project

Execution













Rapid Delivery through Iterative & Incremental Development











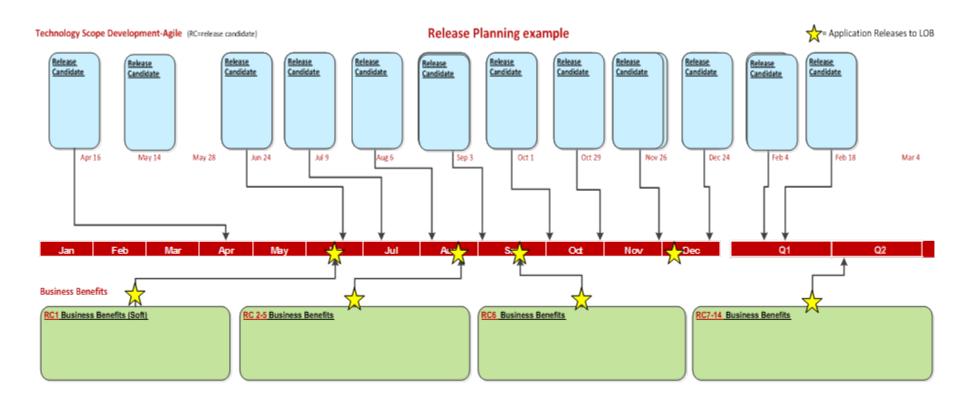




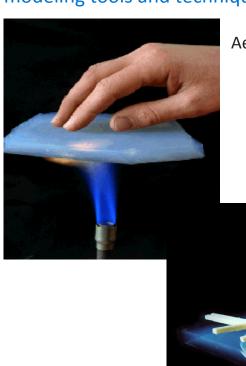


Production Releases

Project Release Plan: Simple to Complex



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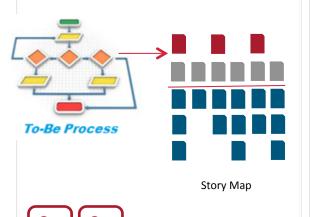
What worked well..

- Process Models are a natural Epic level break down
- External system/service Integrations running in parallel
- Co-location of Analysis, Design and Development skills
- Product Owners LOVE visibility to execution
- Team work and spirit from autonomy and accountability

Process->Epic -> Story -> Execution

Product Initiation Sprint

1-2 week sprint to explore, refine, and plan product delivery

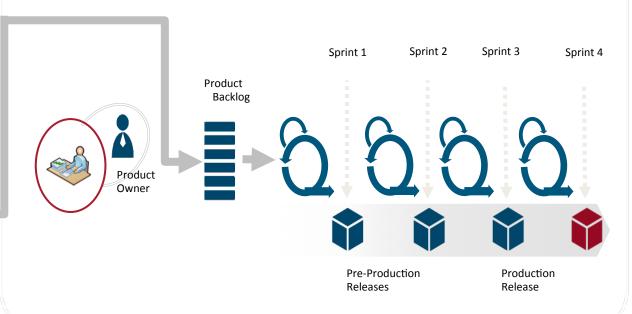


Release Plan Initial Backlog

Etc.

Product Delivery Sprints

2 to 8 two week sprints to iteratively and incrementally develop and deliver releases comprised of the most valuable features.



User Personas

Process layer and Service Layer

Horizontal vs. Vertical implementation

As a principle Generally demand vertical

Implementation

But could form small Kanban team to develop In parallel to process layers.

Allowed learning of mature SOA interfaces, and enable smoother Processes implementation stories.

Could also recompose the team to focus on Process layers if the integration work went faster

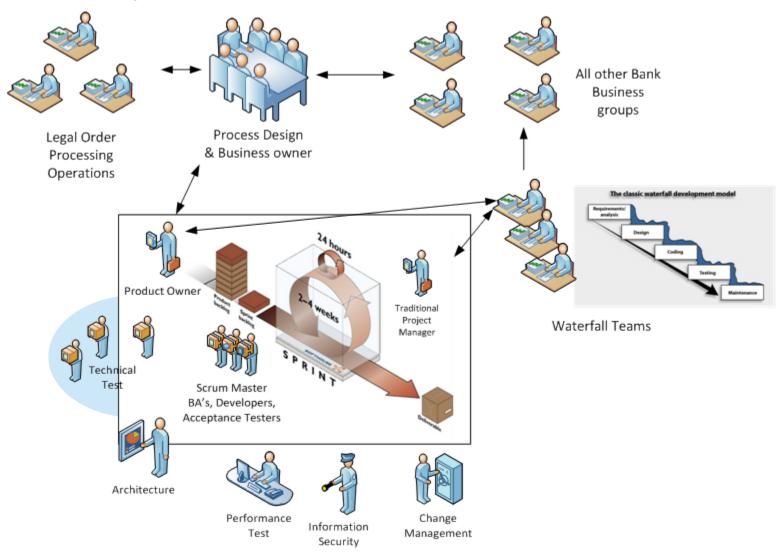
Presentation
Domain
Integration



Service Oriented Legacy systems

Product Owner and dev team tightly coupled

Partner relationships



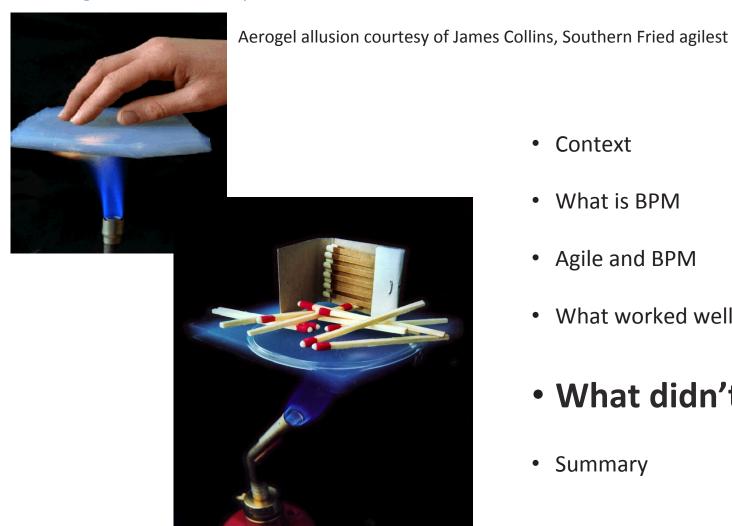
Agile and BPM marriage

Break down of the Critical to Success factors and how Agile and BPM both contributed



Critical to success	Agile	врм
Release Planning	Great techniques for incorporating Release Train planning	As-is/To-Be models are a great foundation for release planning
People / Process	Individuals and interactions over processes and tool	Great at thinking about people, roles, work management before tools
Incremental bite size pieces	Sprints and bite size stories	A framework and pattern language to implement quick bite size activities
Minimum Viable Ship	Key Agile focusing technique.	BPM Products come with a minimum set of capabilities to be used out of the box
Demo Often	Sprint cadence resulted in frequent working software	Product had a demo foundation out of the box
Total Transparency	Velocity, team dynamics, etc	Get working software faster
Definition of Done	Inherent in good practices	Was one of our process sore points.
Test All the Freaking Time	Key in Agile Engineering practices	We still struggle to automate well. But tools are there, we are improving

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What is BPM

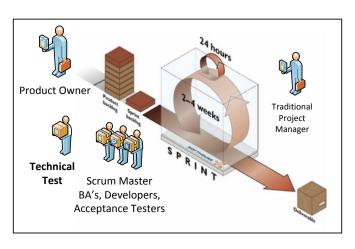
Context

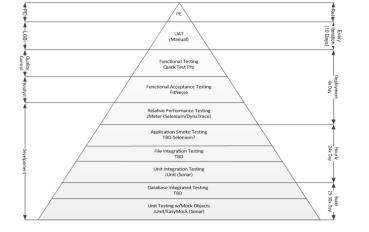
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Functional Testing (Quality Control)

What we wanted:

- Testing Pyramid includes Unit Test, Data integration, File integration, Acceptance testing, UI testing, etc..
- Highly integrated test function: Single team
- Automation at every level
- TDD And TATFT ¹





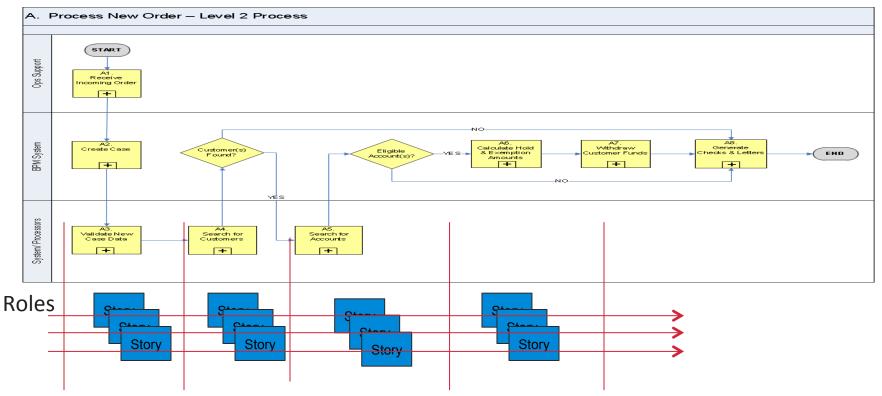
Where we messed up:

- Testing team is an external function
- Testing team thinks waterfall
- Different test components were not well coordinated
 - Automating Unit Tests (Tool testing itself)
 - Automating Functional (Selenium automating http)
 - Manual testing distinct functions from other pieces
- Tools for a packaged product are different.
- Defect tracking Quality Center vs Rally
- Lag of test creation to iteration
- Development team didn't take enough accountability for testing

1. See Brian Liles Ruby Hoedown 2008: Lightning Talk: TATFT - Test All the F***in Time



Short cut some BPM principles...



- 1. Continually refer to business goals, To-Be models, and work management framework
- 2. Establish roles and hierarchies , Some big design up front ⊗
- 3. Adjust To-Be process as needed per changes in business conditions throughout project (Be agile with target state process definition with direction from Product Owner)
- 4. Design workflow execution models based on To-Be business process definition
- 5. Discuss process design as a team to prevent redundancy and to ensure most efficient approach is used (i.e. Consistency Parade)
- 6. Avoid narrow focus on user story without keeping broader process context in mind

Team Stability

- Absorption of a new tool and paradigm on internal staff
- Team member continuity: New tools required temporary consultants from product vendor. Transitioning to longer term players was disruptive
- Didn't foster enough common/joint ownership
- User Story writing and grooming became too detailed with some design implications
- Often too many meetings robbing productive time from scrum team members
- Struggles with sizing/ pointing stories consistently relative to other stories, resulting in sprint over-commitment and ambiguous team velocity
- Inadequate collaboration between technical and business teams on work management design items that are foundational for business workflow

Example: Design for user role hierarchy not validated with business, causing extensive hierarchy rework later

Too many chickens...

What we wanted

- A team with...
 - Autonomy
 - Mastery
 - Purpose *

Challenges of this project:

- A lot of moving parts
- Many external teams to coordinate
- A lot of early complexity to start, felt compelled to have heavy PMs
- Too many chiefs thwarted self organization

What we did:

- Aligned back to more traditional Agile with an internal Coach
- Get the team back engaged and owning the solution
- Shrink the chiefs



^{*} From Drive: The Surprising Truth About What Motivates Us by Daniel Pink:

Under invested or wrongly managed some routines

Scrum & Kanban Routines

- Iteration Routines
 - Iteration Planning
 - Story Tasking
 - Team Commitment
 - Daily Standup
 - Iteration Review
 - Demo
 - Retrospective
- Pre/Post Iteration
 - Iteration Pre-Planning
 - Candidate Story Review
 - Velocity Tracking
 - Release Planning

- Dependent Team Discussions.
- Backlog Maintenance
- Story Writing*
- Prioritize the Backlog
- Story Review/Grooming
- Estimating (Story Points)

Software Eng Practices

- Pairing
- Peer reviews
- Coding Standards (Industry plus self defined)
- Test Driven Development
- Automated Unit Testing
- Automated Acceptance Tests
- Work In Progress (WIP) Limits (Swarming)
- Continuous Integration
- Automated Build, Scan, Deploy & Report
- Quality tracking and Technical Debt monitoring in Sonar

Bolded areas were either under or wrongly invested

Under invested or wrongly managed some routines

What happened with these routines:

Retrospective, Release Planning, Story Writing*, Prioritize the Backlog, Pairing,
 Peer reviews , Automated Unit Testing, Automated Acceptance Tests,
 Continuous Integration, Automated Build, Scan, Deploy & Report

Theory

- Our traditional Agile development has all been home grown software
- Complexity of execution could grow with the team
- A product with a pattern like BPM introduced immediate complexity with engineering practices
- Testing was too narrow on stories and ignored the process view, needed to marry them
- Engineering practices needed to be 'invented' and drew time from execution
- Progress on many of these practices didn't fully develop until recently

A Commercial Off the Shelf Product bring a mature level of complexity out of the box, the team didn't have a chance to mature along side the construction of the solution

The Agile team grew slower than the software

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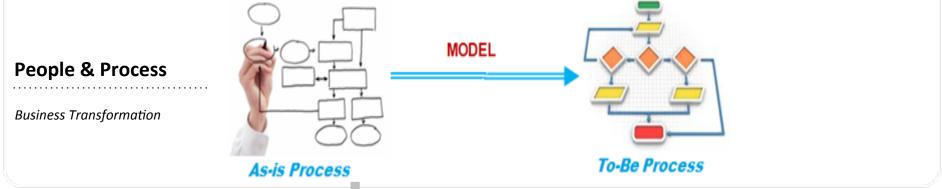


Strategy and Investment



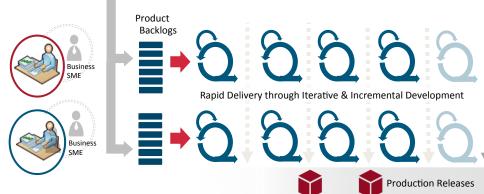
Strategy > Goals > Initiatives >





Project

Execution



What did we cover....



- Overview of the BPM model paradigm
- Accepting some BPM upfront design for business transformation



 How an Agile team exploits the modular nature of BPM to delivery in small increments



• Missteps for a new team running fast without stretching ©



Agile routines and their importance

