Project Management the Agile Way
YOUR PRESENTERS

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THE RUNDOWN:

2 min. 1. Take the Temperature of the Room

3 min. 2. Agile Primer: A Fundamental Concept

15 min. 3. Breakout Exercise #1: Pennies in a Bottleneck

5 min. 4. Discussion: Lessons Learned

40 min. 5. Breakout Exercise #2: Build a (Miniature) House

5 min. 6. Discussion: Lessons Learned

5 min. 7. Agile Project Management: “Flipping the Iron Triangle”

5 min. 8. Growing Pains: Cultural Challenges You’ll Face in Government

10 min. 9. Restrospective and Q&A

1 hr 30 min. TOTAL
Taking the Temperature

Got PM Experience?
Taking the Temperature

Got Agile Experience?
“Adaptive Teams form the heart of agile project management. They blend freedom with responsibility, flexibility with structure. Accomplishing this requires teams with a self-organizing structure and self-disciplined individual team members.” – Agile Project Management, Jim Highsmith
You’re touring Rome and get hungry, so you duck into a local bakery…
Which Would You Prefer?

or
Why Agile?

“The Best Thing Since Sliced Bread”
EXERCISE #1
A Different Sort of “Bread”
A Requirements Officer, a Developer, Tester and a Deployer Walk into a Bar...

1. Break out into Groups of 10 People:
   - 6 Timers
   - 4 Speed Demons
2. Round One: Waterfall Style
3. Round Two: Incremental Waterfall Style
4. Round Three: Agile Style
5. Discussion
Round One: Waterfall Style

- The **requirements person** starts with a stack of 10 pennies and is told to flip all 10 pennies, one at a time, and restack. Once the flipping and stacking is complete, the whole stack is moved to the **developer**, who repeats the process, passes on to the **tester**, completes the process, and passes to **deployment**, who repeats the process. Timing ends.

- At the same time, the **timekeeper** for each individual role times and keeps track of the time until the times are written on the board. The **PM** and **other role** time their respective times and write them on the board.
Round Two: Incremental Waterfall Style

• The requirements person starts with a stack of 10 pennies and is told to flip and stack 5 pennies, then pass that stack on to the developer. The requirements person starts with the second stack of 5, and passes when complete. The developer, in the mean time, flips and restacks their first 5 pennies, and passes to the tester. This continues until the two stacks of 5 have been flipped and restacked by all four roles. Timing ends and written on the board.

• At the same time, the timekeeper for each individual role times and keeps track of the time until the times are written on the board. The PM and other role time their respective times and write them on the board.
Round Three: Agile Style

- The **requirements** person starts with a stack of 10 pennies and is told to flip one penny at a time, passing one penny at a time to the **developer**. The **developer** is told to do the same, flip one and pass to the **tester**, so on and so forth, until all pennies have been flipped through **deployment**. Timing ends.

- At the same time, the **timekeeper** for each individual role times and keeps track of the time until the times are written on the board. The **PM** and **other role** time their respective times and write them on the board.
DISCUSSION
EXERCISE #2
Build a (Miniature) House
Volunteers

Clients:
• Have a strong vision of a dream house (single story)
• Can stay the entire duration of the workshop

Architects:
• Have some kind of design/architecture background, or
• Good at conversation, presentations and drawing
Supplies

- 2 sheets of sticky
- 2 pencils
- 20 index cards
- 4 sheets of large stock
Build a (Miniature) House

1. Break out into Groups of 5 People:
   - 1 Client
   - 1 Architect
   - 3 Builders

2. Round One: Waterfall Style
3. Round Two: Agile Style
4. Discussion
Round One: Waterfall Style

1. **Client** talks to **architect** and describes their dream house (single story) while architect writes down specifications (client station). [3 minutes]

   **Good questions (try to drill in from high to low priority items):**
   - # and type of rooms: beds, baths, living areas, laundry, garage, etc.
   - Arrangement, # and locations of living/kitchen areas, halls, windows, doors
   - Type / style of doors, windows, roof, patio(s), etc.

2. After talking with client, **architect** draws floor plan (team station) [3 minutes]

3. **Architect and builders** build. [10 minutes]
Round One / Step 1 / Client Station

**Client**: describe your dream house

**Architect**: ask questions & takes notes (written)

Good questions (try to drill in from high to low priority items):
- # and type of rooms: beds, baths, living areas, laundry, garage, etc.
- Arrangement/locations of living/kitchen areas, halls, windows, doors
- Type / style of doors, windows, roof, patio(s), etc.

T = 3 MINUTES
Round One / Step 2 / Team Station

**Architect**: Draws floorplan and explains his drawing and notes to his team.

**Team/Builders**: Ask questions to ensure understanding

$T = 3$ MINUTES
Round One / Step 3 / Team Station

**Architect & Builders:** Split up work and build the rooms, walls, roof, draw windows/doors, etc… then assemble

Walls must be taped to floorplate for **final delivery**

T = 10 MINUTES
Round Two: Agile Style

1. **Architect** draws exact same floor plan (team station) [1 minute]

2. After taking a first stab at the floor plan, **architect** gets feedback from **client** and **architect** corrects specifications [1 minute]

3. **Architect** corrects floor plan [1 minute]

4. **Architect and builders** build. [5 minutes]

5. - 8. **Team** gets feedback from **client** and repeats steps 3 - 5 [7 minutes]
Round Two / Step 1 / Team Station

**Architect**: Copy the first floorplan

T = 1 MINUTE
Round Two / Step 2 / Client Station

**Client**: Reviews plan, critiques & requests changes

**Architect**: Takes notes *(written)* and gets clarification

*Focus on big-ticket items (i.e., not on finishes, appliances, doors, etc.)*

- Number, type and arrangement of rooms: beds, baths, living areas, laundry, garage, etc.

**T = 1 MINUTE**
Round Two / Step 3 / Team Station

**Architect**: Updates preliminary floorplan and explains his drawing and notes to his team.

**Team/Builders**: Ask questions to ensure understanding

T = 1 MINUTE
Round Two / Step 4 / Team Station

**Architect & Builders**: Split up work and build the rooms, walls, roof, draw windows/doors, etc…

Walls must be **attached to floor plate** for delivery to client

\[ T = 5 \text{ MINUTES} \]
Round Two / Step 5 / Client Station

Client: Reviews work, critiques & requests changes
Architect: Takes notes (written) and gets clarification

Get into more detail. Now’s the time for the ‘little things’
• Locations of ancillary spaces (e.g., foyer, mudroom, laundry),
• Arrangement and style of doors, windows, roof, patio(s), etc.

T = 1 MINUTE
Round Two / Step 6 / Team Station

**Architect**: Marks up model and explains changes to his team.

**Team/Builders**: Ask questions to ensure understanding

T = 1 MINUTE
Round Two / Step 7 / Team Station

**Architect & Builders**: Split up work and adjust/build the rooms, walls, roof, draw windows/doors, etc…

Walls must be taped to floorplate for **final delivery**.

T = 5 MINUTES
DISCUSSION
Agile Project Management

Flipping the Iron Triangle
Flipping the Iron Triangle – Waterfall/Traditional

Requirements (Scope)
Fixed

Plan Driven

Date (Schedule/Time)  Estimated  Resources (Cost)
Agile Methods encourage requirements to change as often as necessary to ensure the customer receives the best **value** for the resources committed.
Which Would You Prefer?

or
Flipping the Iron Triangle – Working in a Time Box

In an established Agile process, everything is time-boxed including:

• Iterations: 2-4 weeks
• Releases: 1-6 months
• Meetings: 15 minutes for Daily Stand Ups
Flipping the Iron Triangle – New Way of Planning

<table>
<thead>
<tr>
<th>Waterfall/Traditional</th>
<th>Agile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detailed Planning Early</td>
<td>Detailed Planning Just in Time (JIT)</td>
</tr>
<tr>
<td>Measures on intermediate deliverables</td>
<td>Measures based on code</td>
</tr>
<tr>
<td>Demonstrate at the end</td>
<td>Demonstrate always</td>
</tr>
<tr>
<td>Weekly Status Meetings</td>
<td>Daily Stand-Up Meeting</td>
</tr>
<tr>
<td>Protect the Scope</td>
<td>Protect the Date</td>
</tr>
</tbody>
</table>
Flipping the Iron Triangle – The Biggest Change

The Battle of Date vs. Scope – Schedule Always Wins!
DONE is better than perfect
Cultural Challenges You’ll Face Implementing Agile in Government

Growing Pains
Cultural Challenges You’ll Face Implementing Agile in Government

Not as Simple as Flipping a Switch
Cultural Challenges You’ll Face Implementing Agile in Government

Cannot be Applied ‘on top’ of a Waterfall Project!

AGILE IS NOT SIMPLY A BUTTERY, YUMMY GLAZE
Cultural Challenges You’ll Face Implementing Agile in Government

1. Habit of “Big Design Up-Front” (BDUF)
2. Over-interpretation of the Paperwork Reduction Act
3. Firm Fixed Price is common contract type and poor choice for Agile [It’s like: “A weekend in Paris or nothing”.]
4. Difficult to scale the small team dynamics to an enterprise level
5. Culture of accepting years and months as acceptable iteration times.
6. No culture of prototyping or experimentation.
7. New change initiatives abound.

C/o: 18F Consulting: How to Run an Agile Project in Government
We need to realize that representing the voice of the customer is a skillset in its own right... if we want to remain relevant, we need to reconsider the importance of customer engagement, culturally.

I don't see a lot of feedback from customers. I think we're very insulated from customer feedback.

There’s confusion over what a ‘product owner’ is. Often it’s whoever is the most senior person on the project or owner of the system, not someone engaged with the customer... Successful agile teams who work closely with users are building software quickly and successfully.
Modular contracting tries to minimize those risks by accepting minimized failures, so - if you do fail - you fail fast and fail small and then adjust and in that real-time feedback loop you build for real needs
Why Agile?

U.S. CIO’s 25 Point Implementation Plan asks for useable functionality delivered at least every 6 months
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