An Introduction to Kanban for Scrum Users

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About the Speaker

Chief Strategy Officer of Telerik
Board Member of the Scrum Alliance
CSP, CSM, PMP
Active in the community:
- International conference speaker for 15+ years
- Co-moderator and Founder of NYC .NET Developers Group [http://www.nycdotnetdev.com](http://www.nycdotnetdev.com)
MBA from the City University of New York
Has worked at startups:
- CTO and Co-Founder of Corzen, Inc. (TXV: WAN)
- Co-founder and advisor of Triton Works (London Stock Exchange: UBM)
- CTO of Zagat Survey (Acquired by Google in 2011)
Session Note

- This is not a rah rah session on Kanban
- This is not a “Scrumban” talk either
- Just a simple introduction so you can evaluate how to incorporate any features into your current process
- How you do that is up to you
Mixed Methods are the Norm

- Adhere to Single Agile: 31%
- Mix of Agile Methods: 36%
- Mix Agile and Non-Agile: 31%
- No Agile At All: 2%

Source: Forrester/Dr. Dobb’s Global Developer Technographics Survey, Q3 2009
Agenda

- Defining Agile and Kanban
- Using Kanban to manage projects
- How to implement Kanban
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The Agile Manifesto—a statement of values

- **Individuals and interactions** over **Process and tools**
- **Working software** over **Comprehensive documentation**
- **Customer collaboration** over **Contract negotiation**
- **Responding to change** over **Following a plan**

Source: www.agilemanifesto.org
Influential Agile Methodologies

- XP (The Past)
- Scrum (The Present)
- Kanban (The Future?)
What is Kanban?

- An agile methodology that stresses pulling individual work items to completion
  - Focuses on visualization
- Focuses on just in time delivery of raw materials
  - Workers get what they need when they need it, no sooner (Lean)
  - Limit Work in Progress
Where did Kanban Come From?

- Comes from the famous Toyota Production System
  - Part of the Lean Manufacturing Movement
  - Part of Six Sigma
- Japanese for “signal card”
  - Kaizen-promotes continuous improvement
Kanban Cards
Flow

- Kanban is about flow
- Pull system - work is pulled through the system by demand
- Batch v flow (individual work items)
- Where there is inventory, there is no flow
- Flow and pull are linked:
  - Keep the entire value stream moving towards the customer at the rate the customer consumes
Agenda

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Kanban for Technology Projects

Define a work flow and visualize it

- Organize a queue
- Limit work in progress (WIP) for each queue
  - Allows you to constantly evaluate process improvements
- Allow work to flow through the system in a controlled way (not iterative)
  - No sprints!

Evolutionary by design

- Change is built into the model
- Communication is about flow
Core Practices of Kanban

- Define and visualize the workflow
- Limit Work-in-progress
- Measure and Manage Flow
- Make Process Policies Explicit
- Use Models to Suggest Improvement

For more info: http://finance.groups.yahoo.com/group/kanbandev/message/9261
### Kanban Flow

<table>
<thead>
<tr>
<th>Stage</th>
<th>Status</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Next</td>
<td>Ongoing</td>
<td>Feature / story: Date when added to board</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hard deadline (if applicable)</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>= priority</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>= panic</strong></td>
</tr>
<tr>
<td></td>
<td>Done</td>
<td>Task / defect: Description=task, description=defect, description=completed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>reporter=blocked, who is doing this right now</td>
</tr>
<tr>
<td>Analysis</td>
<td>Ongoing</td>
<td>Date when added to board</td>
</tr>
<tr>
<td></td>
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<td>Hard deadline (if applicable)</td>
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<td><strong>= priority</strong></td>
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<td></td>
<td><strong>= panic</strong></td>
</tr>
<tr>
<td>Development</td>
<td>Ongoing</td>
<td>Task / defect: Description=task, description=defect, description=completed</td>
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<td></td>
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<td>reporter=blocked, who is doing this right now</td>
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<tr>
<td></td>
<td>Done</td>
<td>Date when added to board</td>
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<td><strong>= priority</strong></td>
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<td><strong>= panic</strong></td>
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<tr>
<td>Acceptance</td>
<td>Ongoing</td>
<td>Date when added to board</td>
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<td>Hard deadline (if applicable)</td>
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<td>Prod</td>
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<td>Hard deadline (if applicable)</td>
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</tr>
</tbody>
</table>

### What to pull first
1. Panic features (should be swarmed and kept moving. Interrupt other work and break WIP limits as necessary)
2. Priority features
3. Hard deadline features (only if deadline is at risk)
4. Oldest features
Demo

Kanban Board
Agenda

- Defining Agile and Kanban
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Building a Kanban Process
Building a Kanban Process #1

- Define a process flow
  - Identify queues (swimlanes)
- Visualize it on a board
Building a Kanban Process #2

Set your first work in progress limits
  First time you *may* have to guess
Building a Kanban Process #3

- Break down each work item to about the same size
  - Or you can use separate swim lanes: small, medium, and large
  - Put items in the queue
- Pull the first items through the system
  - Establish your cycle time
- Define how long it takes to pull an item through the system
  - Will determine your new work in progress limits
  - Evaluate if the WIP limits are correct and readjust
  - Evaluate if the Queues are appropriate
Building a Kanban Process #4

- Establish a delivery cadence
- Establish regular meetings/reviews
- Borrow from Scrum/XP
Building a Kanban Process #5: Kaizen

- Constantly improve your process
- Daily meeting facing the board to evaluate your flow
- Continue to tweak the WIP limits and queue
- Formalize the improvement process
  - Have regular formal change meetings
  - Remember “be agile”
Kanban has few rules

- No daily scrum
- No prescription for engineering practices
- No iterations
- No estimation
  - Uses metrics
Be careful!

- The lack of rules can lead to a lack of discipline
- But the lack of rules allows you to mix and match
- An opportunity to bring in some of the tenants of Scrum
References

Anderson, Kanban in Action: http://www.agilemanagement.net/Articles/Weblog/KanbaninAction.html

Questions?