• 3 Roles,
• 3 Ceremonies,
• 3 Artifacts,
• 3 Best Practices
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Scrum’s THREE ROLES

• The actors in Scrum: Product Owner, Scrum master, Team.
• Product Owner: Own and prioritizes the Product Backlog
• Scrum Master: Facilitates the Scrum process
  – NOT a traditional Project Manager !!
• Team: Produces Increments of Shippable Product Functionality
Scrum’s THREE ROLES

• The Product Owner:
  – Defines and Prioritizes Features
    • Owns the gathering of requirements
  – Agrees to Iteration Ground Rules
    • Set length of calendar time for Sprint
      – (2,3,4 weeks typical)
    • Does not interfere with Sprint (no scope creep)
    • Can pull the plug at any time (has the power)
    • Honors rules and the Scrum process during Sprints
Scrum’s THREE ROLES

• Scrum Master: A Boundary Manager
  – Supports the Team
  – Facilitates the Daily Scrum meeting. Asks each developer:
    • What did you do yesterday?
    • What are you doing today?
    • What is in your way?
    • Listens and watches carefully during Scrum meeting
      – Pays careful attention to non-verbal cues
  – Removes Impediments in Way of Team
    • Secures resources (monitors, rooms, etc)
  – Communicates to Product Owner
Scrum’s THREE ROLES

• The Team:
  – Participates in design
  • To gain understanding of problem/solution space
Scrum’s THREE ROLES

• The Team:
  – Selects subset of prioritized Product Backlog for Sprint commitment
    • Estimates the effort
    • Fills the timebox with work
    • Commits to the work as a team
Scrum’s THREE ROLES

• The Team:
  – Self organizes:
    • Everyone commits to ALL TASKS necessary during the Sprint
    • Determines the nature of self-organization
  – Teams select work for each Sprint
  – Teams self-organize
  – Teams have a ‘velocity’
Scrum’s THREE ROLES- with Boundaries!!

• **Product Owner**
  - A role with tasks, and authority
    • Each element here has a BOUNDARY

• **Scrum Master**
  - A role with tasks, and authority
    • Role, tasks and authority have BOUNDARIES

• **Team**
  - A role (populated by multiple persons)
    • The role, and tasks and authority has clear BOUNDARIES
Scrum Process Diagram

- Daily Scrum Meeting
- Backlog tasks expanded by team
- 24 hours
- 30 days
- Sprint Backlog
- As prioritized by Product Owner
- Potentially Shippable Product Increment

Sprint Backlog

Product Backlog

New Technology Solutions Inc.

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Scrum’s THREE CEREMONIES

- Sprint Planning
- Daily Scrum
- Sprint Review (retrospective)
Scrum’s THREE CEREMONIES

• Ceremony #1: Sprint Planning Meeting
  – Product Owner reviews:
    • Vision, Roadmap, Release Plan
  – Team reviews:
    • Estimates for each item on Backlog that is a candidate for the Sprint
  – Team pulls the work:
    • From the Product Backlog onto the Sprint Backlog
Scrum’s THREE CEREMONIES

• Ceremony #2: The Daily Scrum
  – By and for the Team
  – Other may attend and NOT speak
  – Team members speak, others listen
  – Team stays on task with the 3 questions, divergences are addressed offline outside of this meeting
  – Visibility, clear understanding on a day-by-day basis

• Product owners know the score on a daily basis
  – Can pull the plug at ANY time
Scrum’s THREE CEREMONIES

• Ceremony #3: Sprint Review Meeting
  – Part 01: Product Demo
    • Led by Product Owner
  – Part 02: Sprint Retrospective
    • Led by Scrum Master
    • What worked?
    • What didn’t?
    • What adjustments can we make now?
Scrum’s THREE ARTIFACTS

- Artifact #1: Product Backlog
  - A list of features, prioritized by business value
  - Each feature has an associated estimate, provided by the ACTUAL team who will do the work
  - Backlog items come in from diverse sources, including the Team
Scrum’s THREE ARTIFACTS

- Sample Product Backlog

<table>
<thead>
<tr>
<th>Item #</th>
<th>Description</th>
<th>Est</th>
<th>By</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Very High</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Finish database versioning</td>
<td>15</td>
<td>KH</td>
</tr>
<tr>
<td>2</td>
<td>Get rid of unnecessary shared Java in database</td>
<td>8</td>
<td>KH</td>
</tr>
<tr>
<td>3</td>
<td>Add licensing</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>4</td>
<td>Concurrent user licensing</td>
<td>15</td>
<td>TG</td>
</tr>
<tr>
<td>5</td>
<td>Demo / Eval licensing</td>
<td>15</td>
<td>TG</td>
</tr>
<tr>
<td>6</td>
<td>Analysis Manager</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>File formats we support are out of date</td>
<td>160</td>
<td>TG</td>
</tr>
<tr>
<td>8</td>
<td>Round-trip Analyses</td>
<td>250</td>
<td>MC</td>
</tr>
<tr>
<td></td>
<td><strong>High</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Enforce unique names</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>10</td>
<td>In main application</td>
<td>24</td>
<td>KH</td>
</tr>
<tr>
<td>11</td>
<td>In import</td>
<td>24</td>
<td>AM</td>
</tr>
<tr>
<td>12</td>
<td>Admin Program</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>13</td>
<td>Defer users</td>
<td>4</td>
<td>JM</td>
</tr>
<tr>
<td>14</td>
<td>Analysis Manager</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>15</td>
<td>Query</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>16</td>
<td>Support for wildcards when searching</td>
<td>16</td>
<td>T&amp;A</td>
</tr>
<tr>
<td>17</td>
<td>Sorting of number attributes to handle negative numbers</td>
<td>15</td>
<td>T&amp;A</td>
</tr>
<tr>
<td>18</td>
<td>Horizontal scrolling</td>
<td>12</td>
<td>T&amp;A</td>
</tr>
<tr>
<td>19</td>
<td>Population Genetics</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>20</td>
<td>Frequency Manager</td>
<td>400</td>
<td>T&amp;M</td>
</tr>
<tr>
<td>21</td>
<td>Query Tool</td>
<td>400</td>
<td>T&amp;M</td>
</tr>
<tr>
<td>22</td>
<td>Additional Editors (which ones)</td>
<td>240</td>
<td>T&amp;M</td>
</tr>
<tr>
<td>23</td>
<td>Study Variable Manager</td>
<td>240</td>
<td>T&amp;M</td>
</tr>
<tr>
<td>24</td>
<td>Haplotypes</td>
<td>320</td>
<td>T&amp;M</td>
</tr>
<tr>
<td>25</td>
<td>Add icons for v1.1 or 2.0</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>26</td>
<td>Pedigree Manager</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>27</td>
<td>Validate Derived kindred</td>
<td>4</td>
<td>KH</td>
</tr>
<tr>
<td></td>
<td><strong>Medium</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>Explorer</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>29</td>
<td>Launch tab synchronization (only show queries/analyses for logged in users)</td>
<td>8</td>
<td>T&amp;A</td>
</tr>
<tr>
<td>30</td>
<td>Delete settings (?</td>
<td>4</td>
<td>T&amp;A</td>
</tr>
</tbody>
</table>
Scrum’s THREE ARTIFACTS

• Artifact #2: Sprint Backlog
  – Topmost subset of the Product Backlog, loaded onto the Sprint’s “timebox”
  – Usually has more detail attached, including planned hours and primary person responsible to do the work during the Sprint
  – Is the list of work the Team is addressing during the current Sprint
Scrum’s THREE ARTIFACTS

• Artifact #2: Sprint Backlog Sample

<table>
<thead>
<tr>
<th>Tasks</th>
<th>Mon</th>
<th>Tues</th>
<th>Wed</th>
<th>Thurs</th>
<th>Fri</th>
</tr>
</thead>
<tbody>
<tr>
<td>Code the user interface</td>
<td>8</td>
<td>4</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Code the middle tier</td>
<td>16</td>
<td>12</td>
<td>10</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Test the middle tier</td>
<td>8</td>
<td>16</td>
<td>16</td>
<td>11</td>
<td>8</td>
</tr>
<tr>
<td>Write online help</td>
<td>12</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Write the foo class</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Add error logging</td>
<td>8</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Scrum’s THREE ARTIFACTS

• Artifact #3: Burndown Chart
  – Provides visibility into the Sprint
  – Illustrates progress by the team
  – Work on the Horizontal, Time on the Vertical
Scrum’s THREE ARTIFACTS

- Sample BurnDown Chart

![Project X Burn Down Chart](http://www.NewTechUSA.com)
Scrum’s ARTIFACTS

- Artifacts are VISUAL AIDS
- Many people perceive and recognize VISUALLY
- Elementary School teachers have known this for HUNDREDS of years
- There is nowhere you can look inside a co-located Scrum workspace, where you are not ‘bombarded’ with visual validation (or not) on how you are doing
Scrum’ THREE BEST PRACTICES

• Best Practice #1: User Stories
  – Plain-english requirements, written on common 3X5 index cards
  – Form: As [a type of user] I want to [perform a specific action] such that [result]
  – Example: “As a web user, I want to make a reservation, such that I may secure my lodging”
  – Stories that are big are called EPICS
  – Acceptance criteria goes on card back
Scrum’ THREE BEST PRACTICES

- Sample User Story:

As a librarian, I want to be able to search for books by publication year.
Scrum’ THREE BEST PRACTICES

• Best Practice #2: Planning Poker
  – A way for the team to do estimates
  – Each participant has cards numbered 1, 2, 3, 5, 8, 13, 21
  – Values represent ‘story points’ of effort
  – Players discuss feature, then throw down a card together
  – Differences are noted and discussed, then process repeats till a consensus estimate is formed
Scrum’s THREE BEST PRACTICES

- Best Practice #2: Planning Poker
Scrum’ THREE BEST PRACTICES

• Best Practice #3: Use of the Scrum Board
  – Scrum Board is a rows-and-columns depictions of work-in-progress
  – Items of work are rows, work status labels are columns
  – Work is addressed from top to bottom
  – Work migrates from left to right on the board
Scrum’ THREE BEST PRACTICES

• Sample Use of the Scrum Board
Thanks!

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