#### Scrum

- 3 Roles,
- 3 Ceremonies,
- 3 Artifacts,
- 3 Best Practices
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- 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



### 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 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



- The Team:
  - Participates in design
    - To gain understanding of problem/solution space



- 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



- 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'

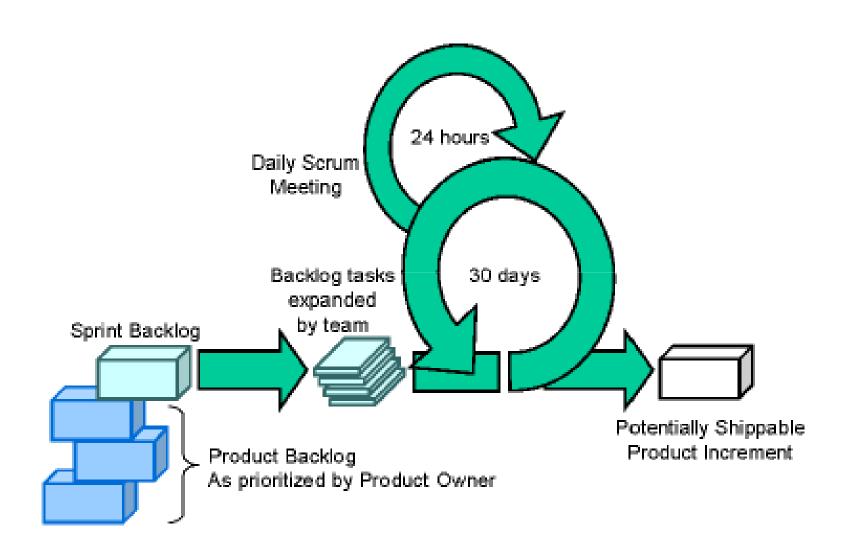


### Scrum's THREE ROLES- with Boundaries!!

- 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**





- Sprint Planning
- Daily Scrum
- Sprint Review (retrospective)



- 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



- 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-ay basis
- Product owners know the score on a daily basis
  - Can pull the plug at ANY time



- 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?



- 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



# Sample Product Backlog

	Item#	Description	Est	Ву
Very High				
	1	Finish database versioning	16	KH
	2	Get rid of unneeded shared Java in database	8	KH
	52	Add licensing		
	3	Concurrent user licensing	16	TG
	4	Demo / Eval licensing	16	TG
		Analysis Manager		
	5	File formats we support are out of date	160	TG
	6		250	MC
High			eversion.	A SHARE
	1 .	Enforce unique names	-	100
	7	In main application	24	KH
	8	In import	24	AM
		Admin Program		-
	9		4	JM
		Analysis Manager		1.0
		When items are removed from an analysis, they should show		
	10	up again in the pick list in lower 1/2 of the analysis tab	8	TG
		Ouery	-	
	11	Support for wildcards when searching	16	T&A
	12		16	T8.4
	13	- International Actions	12	T&A
		Population Genetics		
	14	Land Control C	400	T&M
	15		400	T&A
	16	1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.	240	T&N
	17	Study Variable Manager	240	T&A
	18	The Control of the Co	320	T&N
	19	Add icons for v1.1 or 2.0		-
		Pedigree Manager	*	
	20	Validate Derived kindred	4	KH
Medium		107-15		
	(6)	Explorer	(E)	19
		Launch tab synchronization (only show queries/analyses for		
	21	logged in users)	8	T8.4
	22	Delete settings (?)	4	T&A



- 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



# Artifact #2: Sprint Backlog Sample

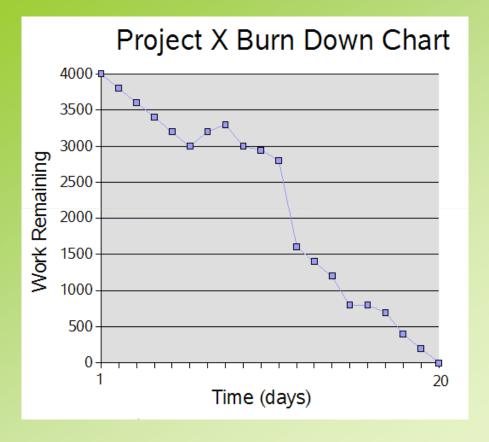
Tasks	Mon	Tues	Wed	Thurs	Fri
Code the user interface	8	4	8		
Code the middle tier	16	12	10	4	
Test the middle tier	8	16	16	11	8
Write online help	12				
Write the foo class	8	8	8	8	8
Add error logging			8	4	



- Artifact #3: Burndown Chart
  - Provides visibility into the Sprint
  - Illustrates progress by the team
  - Work on the Horizontal, Time on the Vertical



Sample BurnDown Chart





### Scrum's ARTIFACTS

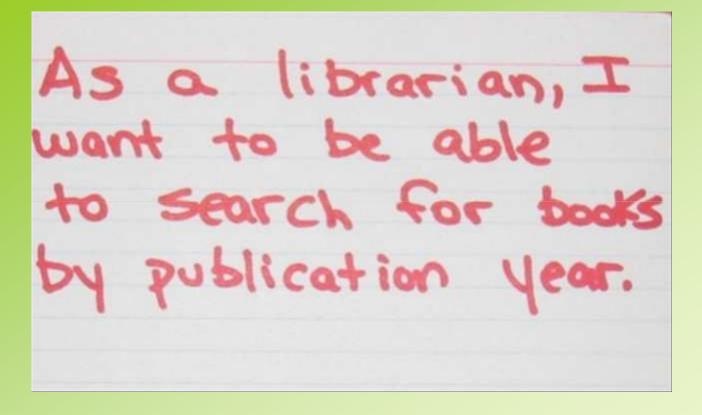
- Artifacts are VISUAL AIDS
- Many people perceive and recognize VISUALLY
- Elementary School teachers have known this for HUNDREDS of years
- There is nowhere you can look inside a co-located Scrum workspace, where you are not 'bombarded' with visual validation (or not) on how you are doing



- 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



Sample User Story:





- 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 concensus estimate is formed



Best Practice #2: Planning Poker

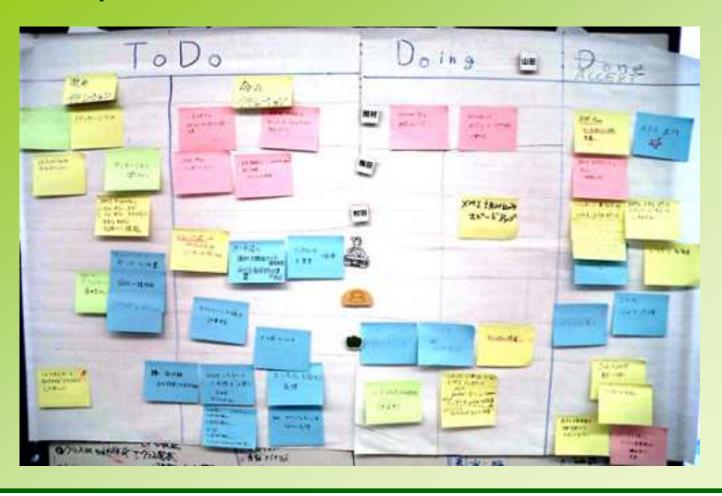




- Best Practice #3: Use of the Scrum Board
  - Scrum Board is a rows-and-columns depictions of work-in-progress
  - Items of work are rows, work status labels are columns
  - Work is addressed from top to bottom
  - Work migrates from left to right on the board



Sample Use of the Scrum Board





### Thanks!

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