



1

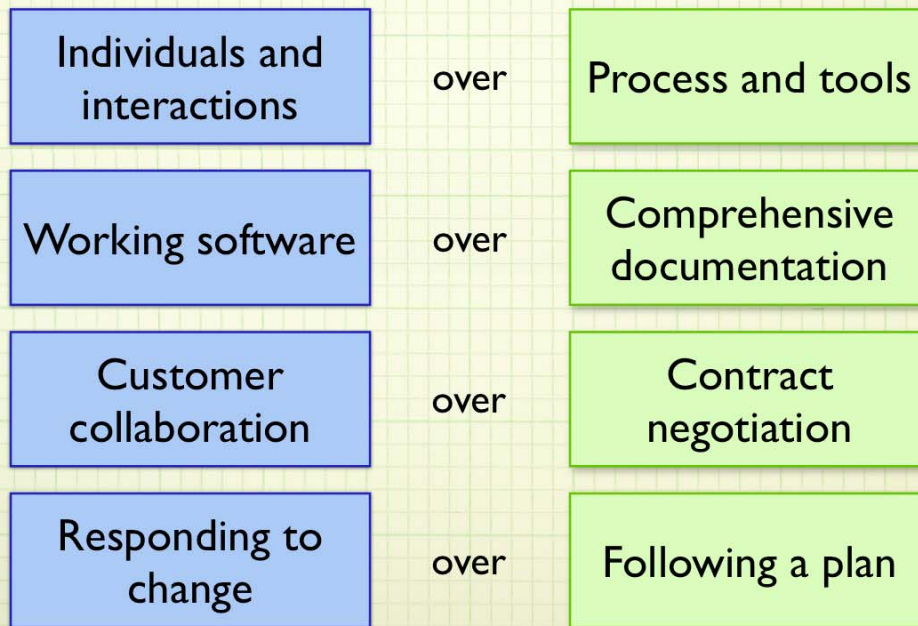
Mike Cohn

- Founding member and director of Agile Alliance and Scrum Alliance
- Founder of Mountain Goat Software
- Doing Scrum since 1995
- Started my career as a programmer



2

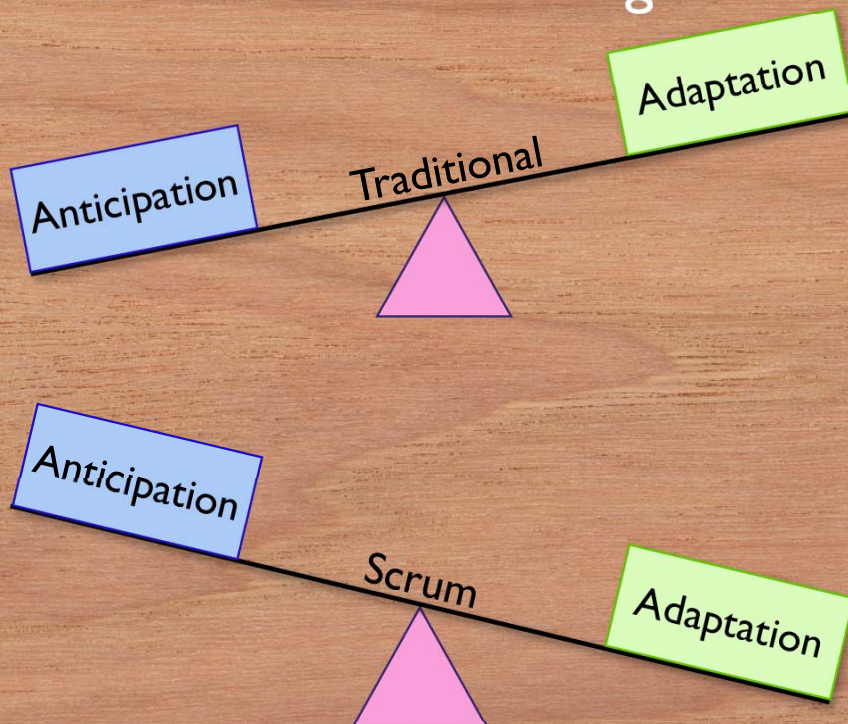
The Agile Manifesto



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It shouldn't be all-or-nothing



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Agenda

- ☒ Scrum overview
- ☐ Product backlog
- ☐ Sprints and sprint backlog
- ☐ Tracking progress
- ☐ Scrum meetings



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We're losing the relay race

“The... ‘relay race’ approach to product development...may conflict with the goals of maximum speed and flexibility. Instead a holistic or ‘rugby’ approach—where a team tries to go the distance as a unit, passing the ball back and forth—may better serve today’s competitive requirements.”

Hiroataka Takeuchi and Ikujiro Nonaka, “The New New Product Development Game”, Harvard Business Review, January 1986.



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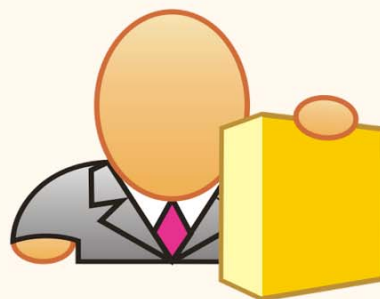
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Roles and responsibilities

Product owner

- Defines the features of the product
- Prioritizes features according to market value
- Makes scope/schedule tradeoff decisions
- Responsible for the profitability of the product
- Adjusts priorities as more is learned
- Accepts or rejects work results



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Roles and responsibilities

ScrumMaster

- Ensures that the team is fully functional and productive
- Enables close cooperation across all roles and functions and removes barriers
- Shields the team from external interferences
- Ensures that the process is followed. Participates in daily scrum, sprint review, sprint retrospective and planning meetings



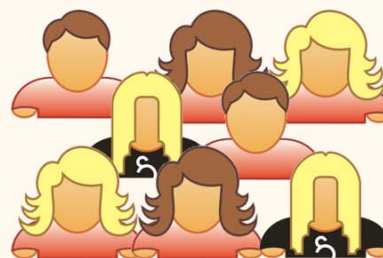
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Roles and responsibilities

The team

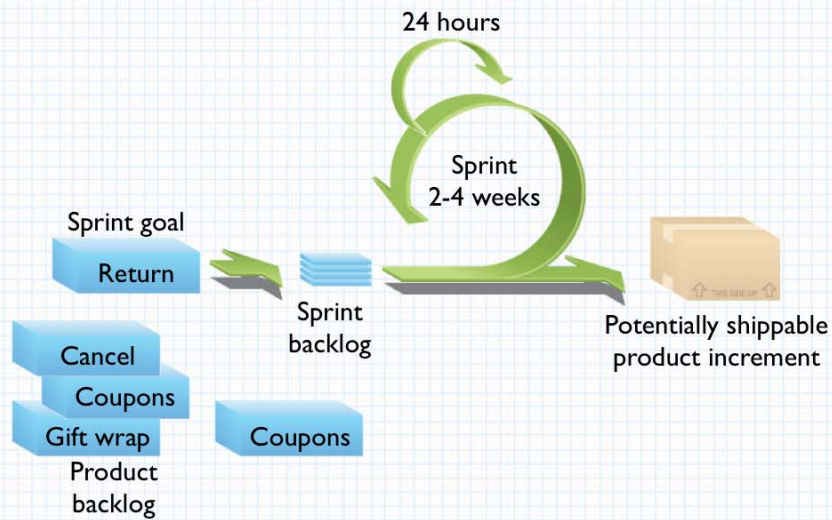
- Cross-functional, 5-9 members
- Selects the sprint backlog
- Has the right to do everything within the boundaries of the project guidelines to reach the sprint goal
- Organizes itself and its work
- Demos work results to the product owner



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Scrum



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Scrum

- Is results-oriented
- Is commitment-driven
- Is value-focused
- Empowers and respects teams



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Product backlog



This is the
product backlog

- The requirements
- A list of all desired work on the project
- Ideally expressed such that each item has value to the users or customers of the product
- Prioritized by the product owner
- Reprioritized at the start of each sprint



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A sample product backlog

Backlog item	Estimate
Allow a guest to make a reservation	3
As a guest, I want to cancel a reservation.	5
As a guest, I want to change the dates of a reservation.	3
As a hotel employee, I can run RevPAR reports (revenue-per-available-room)	8
Improve exception handling	8
...	30
...	50



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User stories as backlog items

Card

- Stories are traditionally written on note cards.
- May be annotated with notes, estimates, etc.

Conversation

- Details behind the story come out during conversations with product owner

Confirmation

- Acceptance tests confirm the story was developed correctly



Source: XP Magazine 8/30/01, Ron Jeffries.

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Samples from a travel website

As a user, I want to reserve a hotel room.

As a frequent flyer, I want to rebook a past trip so that I save time booking trips I take often.

As a vacation traveler, I want to see photos of the hotels.

Use this template

"As a <user role>, I want <goal> so that <reason>."



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?

Write some user stories about things some "users" of the software development process would want.

As a developer, I do not want to be forced to work excessive amounts of overtime.

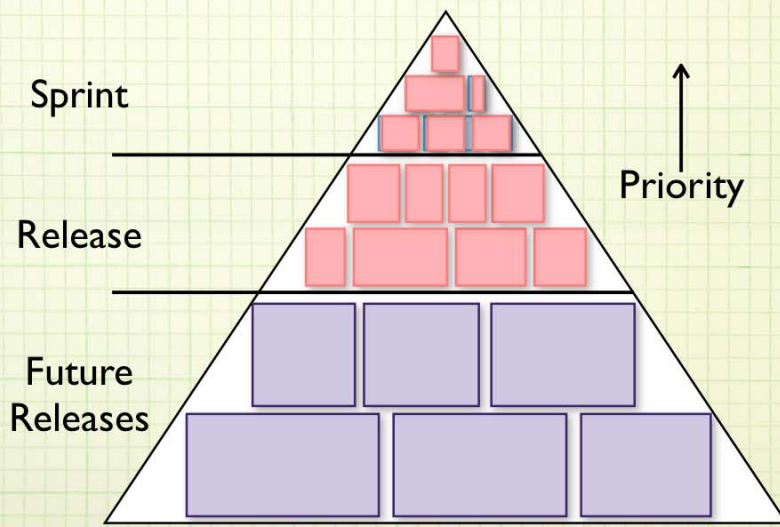
As a customer, I want a high degree of predictability of scope and date.



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The product backlog iceberg



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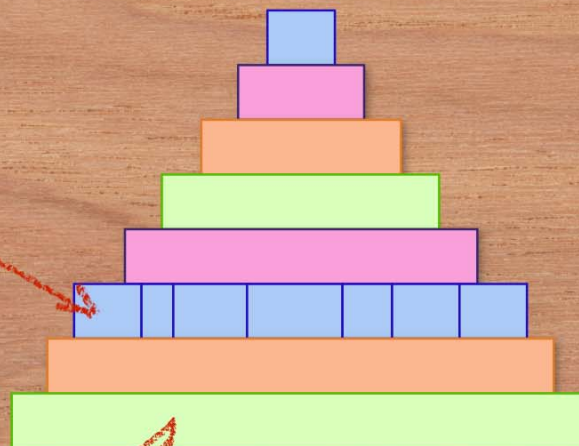
Some additional useful terms

Theme

A collection of related user stories

Epic

A large user story



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An example

As a VP Marketing, I want to review the performance of historical promotional campaigns so that I can identify and repeat profitable ones.

Clearly an epic

As a VP Marketing, I want to select the timeframe to use when reviewing the performance of past promotional campaigns, so that I can identify and repeat profitable ones.

Epics???

As a VP Marketing, I can select which type of campaigns (direct mail, TV, email, radio, etc.) to include when reviewing the performance of historical promotional campaigns.



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An example

As a VP Marketing, I want to see information on **direct mailings** when reviewing historical campaigns.

As a VP Marketing, I want to see information on **television ads** when reviewing historical campaigns.

As a VP Marketing, I want to see information on **email ads** when reviewing historical campaigns.



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A sample sprint backlog

Tasks	Mon	Tue	Wed	Thu	Fri
Code the user interface	8	4	8	0	0
Code the middle tier	16	12	10	4	0
Test the middle tier	8	16	16	11	8
Write online help	12	0	0	0	0
Write the foo class	8	8	8	8	8
Add error logging			8	4	0



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Potentially shippable product increment

At the end of each sprint, the team must produce a potentially shippable product increment

Potentially shippable \neq shippable

- High quality,
- tested,
- complete,
- what it does it does well



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Always deliver

- You must have a potentially shippable product increment at the end of each sprint
- Do not miss the end of the sprint
 - The deadline is sacred
 - Drop scope if necessary

Dropping scope from a sprint is not the same as dropping scope from a release



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Sprints

1

Is there such a thing as an “analysis sprint” where requirements are pulled together?

2

Is there such a thing as a “testing sprint”?

3

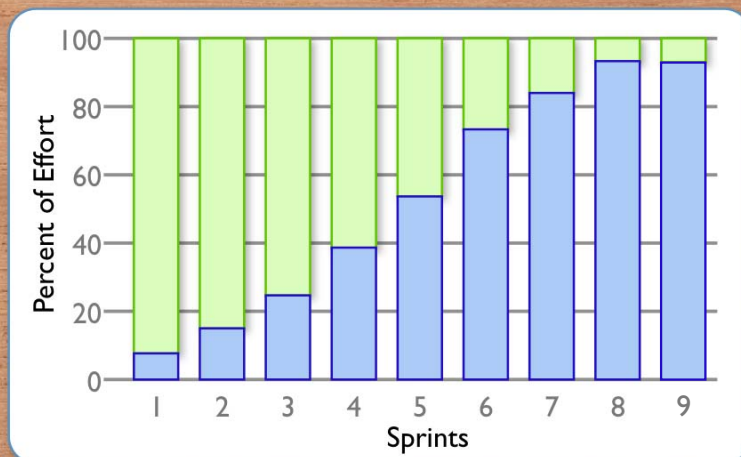
What is a “stabilization sprint”? Does it sound like a good idea?



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Architecture built over time



Architecture

User-visible
functionality

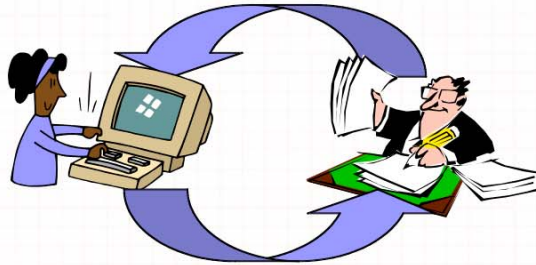


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Reciprocal commitments

The team commits to delivering some amount of functionality



The business commits to leave priorities alone during the sprint



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No changes during a sprint

- What the team commits to—and what the product owner agrees to—during sprint planning should be what is delivered

However, keep in mind that...

- We start with vague requirements
- Our understanding of those requirements is refined during the sprint



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Abnormal terminations

- If change cannot be kept out of a sprint...
 - The sprint may be abnormally terminated
- An extreme circumstance, not done very often
- Raises visibility of priority changes



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Deciding to abnormally terminate

- Team can request an abnormal termination if they feel they cannot meet the sprint goal
- Product owner makes the decision

After abnormally terminating...

- All work from the current sprint is undone
- Code reverts to where it was at the end of the prior sprint
- Next step is to plan a new sprint

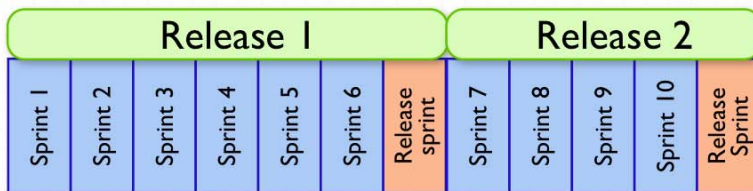


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Release sprints

- Always target a potentially-shippable product increment
- But, some polishing can occur in a release sprint or hardening sprint
 - Mean Time Between Failure (MTBF) testing
 - Some stress, performance or usability testing
 - Compliance testing, documentation touchups



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A product backlog

Story	Points	Done
As the site editor, I can add an article to the site.	5	✓
As a site visitor, I want to read a new article on the front page about once a week.	5	✓
As the site editor, I can include a teaser with each article.	3	
As a site member who has read a teaser on the front page, I want to read the entire article.	5	
As a site visitor, I can do a full-text search of article body, title, and author name.	8	
As a site visitor, I can subscribe to an RSS feed of articles.	5	
As a site visitor, I can post comments about articles so that others can read them.	13	

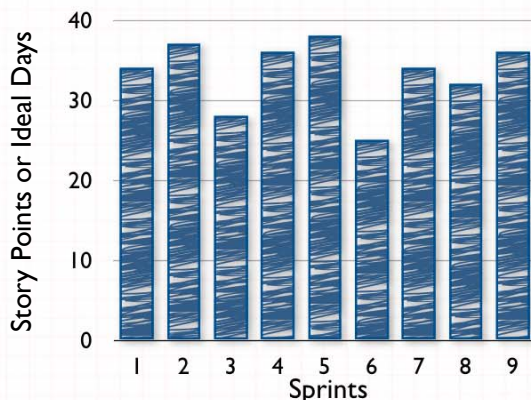


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Velocity

- A useful long-term measure of the amount of work completed per sprint
- Most useful over at least a handful of sprints



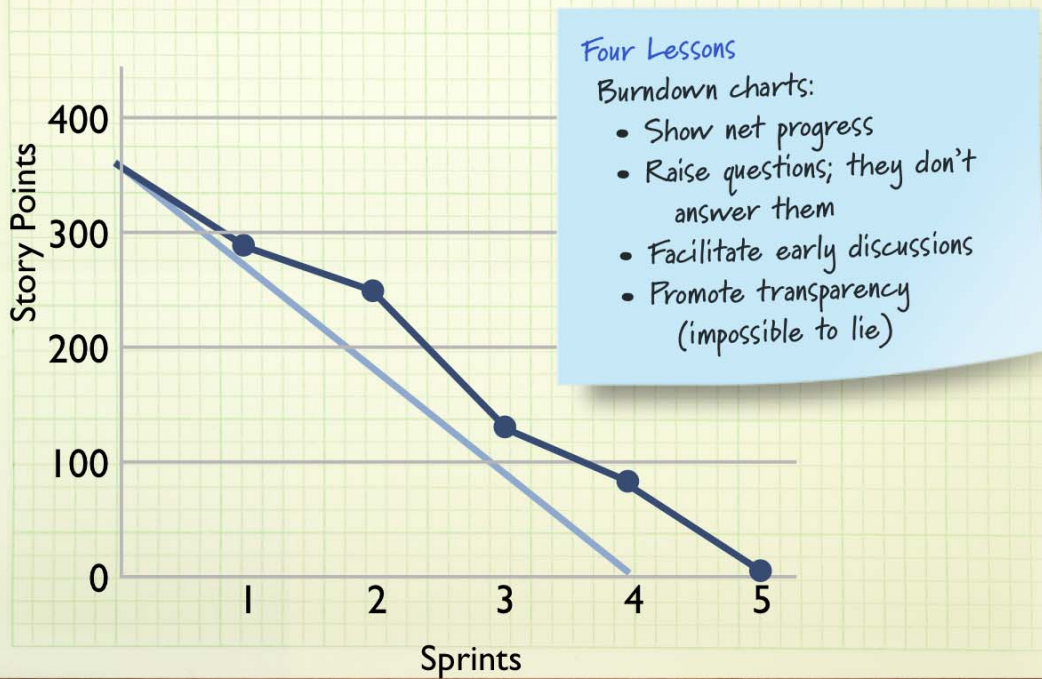
Velocity is measured in the units you use to estimate product backlog items



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When will this project be released?



Four Lessons

Burndown charts:

- Show net progress
- Raise questions; they don't answer them
- Facilitate early discussions
- Promote transparency (impossible to lie)



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Knowing more precisely where we are at the end of sprint is very powerful.

?

What would be the impact in your organization of knowing how the project is going each sprint?



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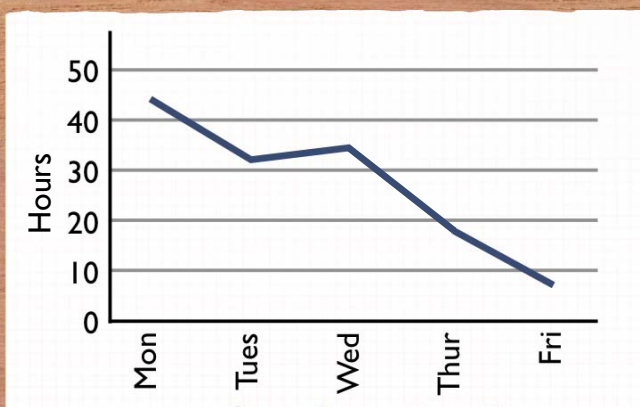
A sprint burndown chart



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Tasks	Mon	Tues	Wed	Thur	Fri
Code the user interface	8	4	8		
Code the middle tier	16	12	10	7	
Test the middle tier	8	16	16	11	8
Write online help	12				



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Task boards

Story	To Do	In Process	Done
<p>As a user, I...</p> <p>8</p>	<p>Code the...</p> <p>Design a...</p> <p>Test the...</p> <p>Figure out how...</p> <p>8</p>	<p>MC</p> <p>SC</p>	
<p>As a novice user, I...</p> <p>8</p>	<p>Code the...</p> <p>Design a...</p> <p>Test the...</p> <p>8</p> <p>4</p>	<p>DC</p>	

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Tests are more temporary than stories

Don't Stress

Notes	Story	To Do	Tests Spec	In Process	To Verify	Done
	Bugs					
	Adoption Agreement					
	GUI					
	THT					
	IT					
	Confirm File					
	ABR ABR					
	Program Agreement					

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Velcro at Yahoo!



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Agenda

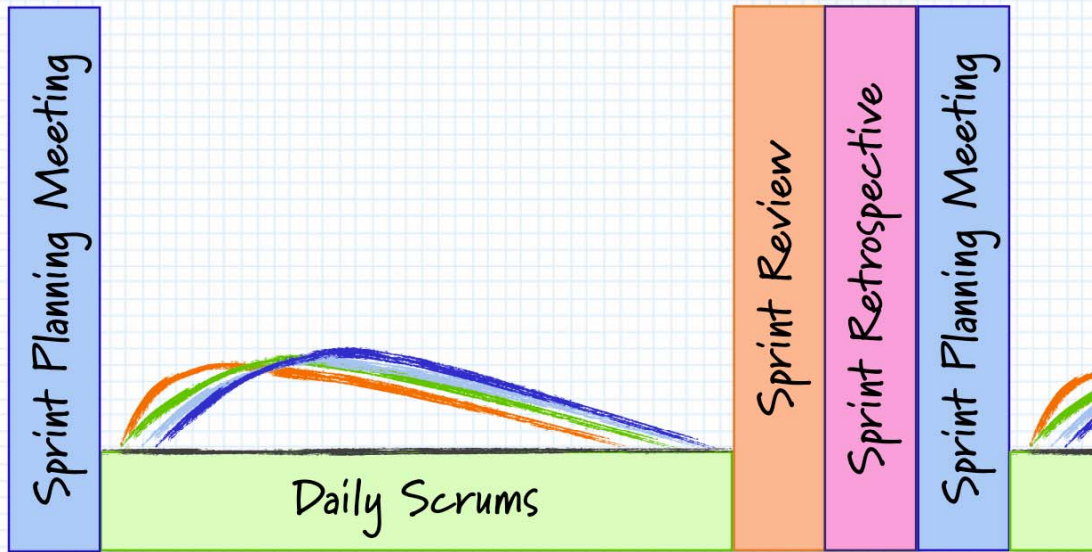
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Scrum meetings



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Sprint planning meeting

First half

- Analyze and evaluate product backlog
- Select sprint goal

Sprint goal

Second half

- Decide how to achieve sprint goal (design)
- Create sprint backlog (tasks) from product backlog items (user stories / features)
- Estimate sprint backlog in hours

Sprint backlog



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Sprint planning

- Team selects items from the product backlog they can commit to completing
- Sprint backlog is created
 - Tasks are identified and each is estimated (1-16 hours)
 - Collaboratively, not done alone by the ScrumMaster
- High-level design is considered

*As a vacation planner,
I want to see photos
of the hotels.*

Code the middle tier (8 hours)
Code the user interface (4)
Write test fixtures (4)
Code the foo class (6)
Update performance tests (4)



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The daily scrum

- Parameters
 - Daily
 - 15-minutes
 - Stand-up
- Not for problem solving
 - Whole world is invited
 - Only team members, ScrumMaster, product owner, can talk
- Helps avoid other unnecessary meetings



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Everyone answers 3 questions

1. What did you do yesterday?
2. What will you do today?
3. What, if anything, is in your way?

- These are not status for the ScrumMaster
- They are commitments in front of peers



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The sprint review

- Team presents what it accomplished during the sprint
- Typically takes the form of a demo of new features or underlying architecture
- Informal
 - No slides
 - 2-hour prep time guideline
- Whole team participates
- Invite the world



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Sprint retrospective

- Periodically take a look at what is and is not working
- Typically 30–60 minutes
- Done after every sprint
- Whole team participates
 - ScrumMaster
 - Product owner
 - Team



Start / Stop / Continue

- Whole team gathers and discusses what they'd like to:

Start doing

Stop doing

Continue doing

*This is just one
of many ways to
do a sprint
retrospective.*



A start, stop, continue list

Start

- Showing the software to customers early
- Specifying acceptance tests early and with customers
- Doing code inspections
- Getting FitNesse into the nightly builds
- Trying to finish one story before moving to the next

Stop

- Being disrespectful of QA

Continue

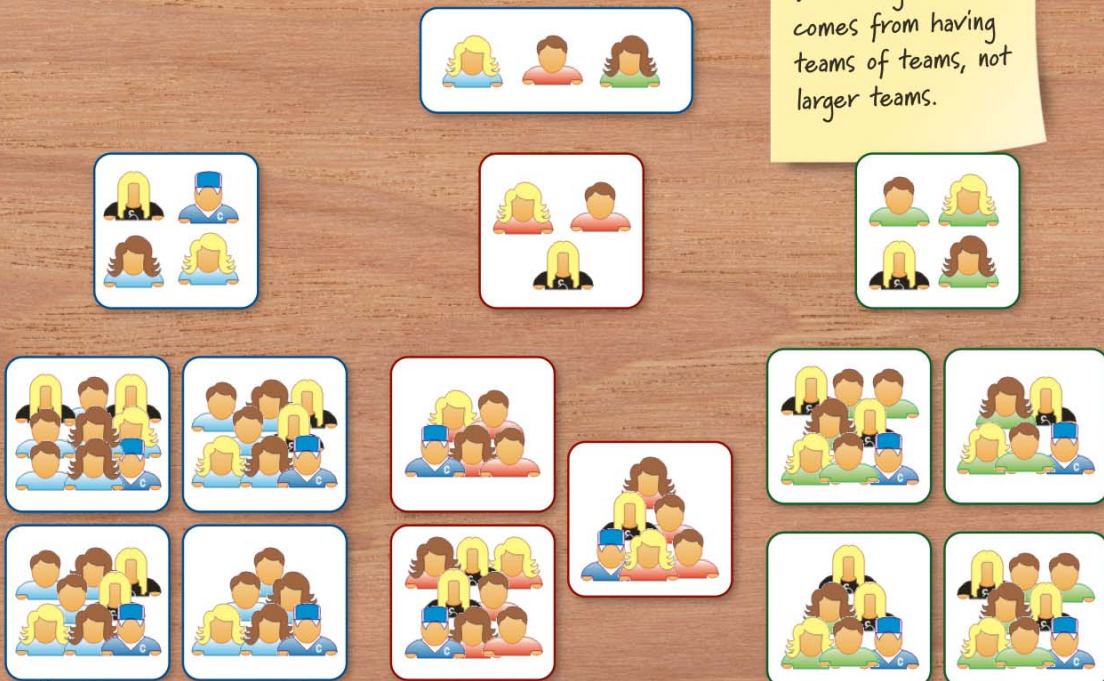
- Making progress with the canonical database
- Emphasizing test automation

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Scrum of scrums meeting

Scalability in Scrum comes from having teams of teams, not larger teams.



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Is Scrum right for you?

Yes, probably...

- But remember that Scrum requires empowered teams
 - Can you allow the team the freedom to self organize?
- Do your teams have the discipline to be agile or do they equate agile to lazy?
- Will you have the courage and stamina to resolve the issues that Scrum surfaces?
 - The problems were always there, but now they're more visible
- Remember, Scrum is an approach, not a list of rules



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Upcoming public classes

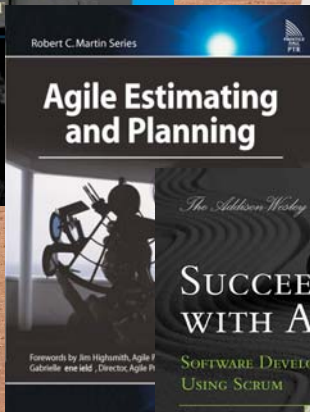
Date	What	Where
July 19–20 July 21–22	Certified ScrumMaster Certified Scrum Product Owner	Orlando
August 23–24 August 25–26	Certified ScrumMaster Succeeding with Agile	Dallas
September 13–14 September 15–16	Certified ScrumMaster Certified Scrum Product Owner	Cupertino
October 11 October 12–13 October 14	User Stories for Agile Requirements Certified ScrumMaster Agile Estimating & Planning	Boulder
November 8–9 November 10–11	Certified ScrumMaster Succeeding with Agile	San Diego

See
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