

Lecture03: Software Processes (Agile)

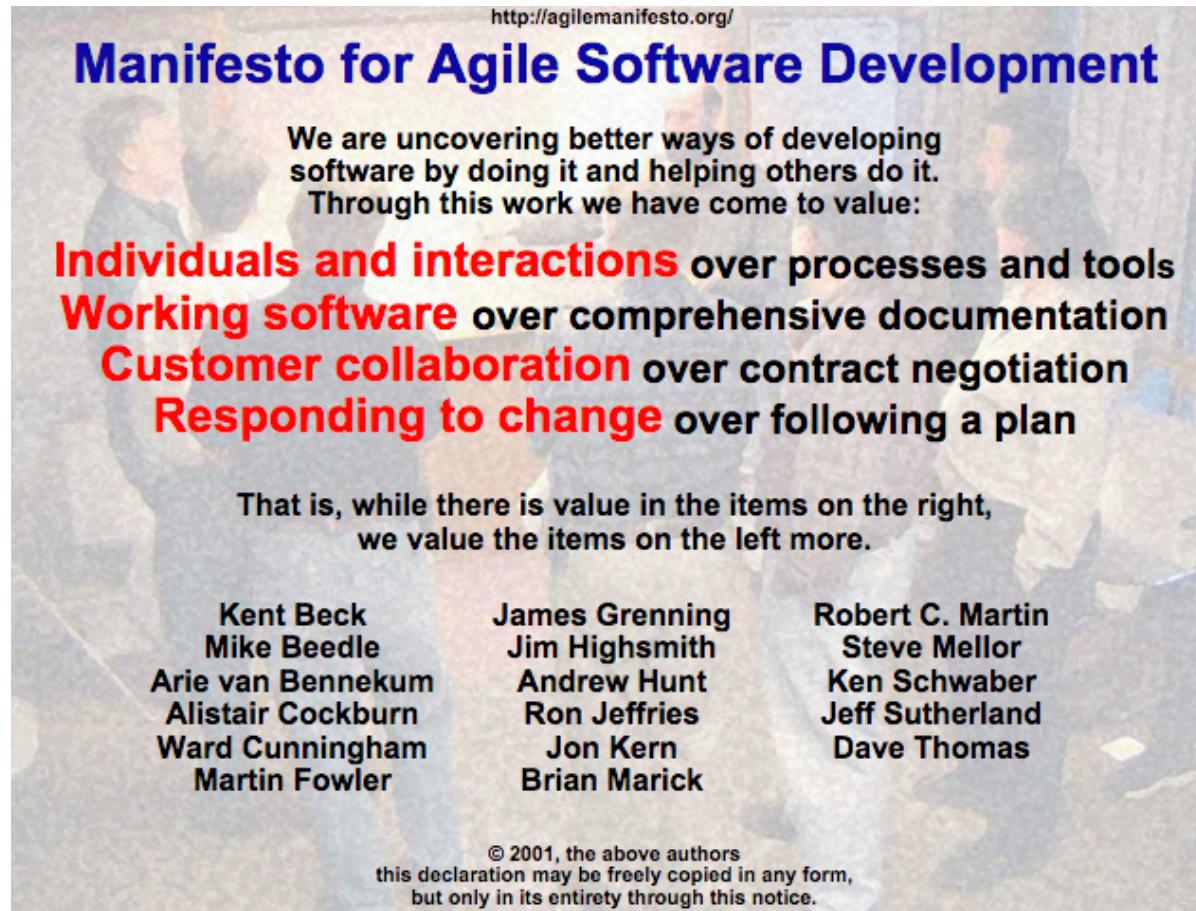
EGCI341: SOFTWARE ENGINEERING (WEEK 02)

Agile [1]



In February 2001, 17 software developers met at the Snowbird, Utah resort, to discuss lightweight development methods. They published the Manifesto for Agile Software

Manifesto for Agile Software Development [1]



Waterfall Model



Construction

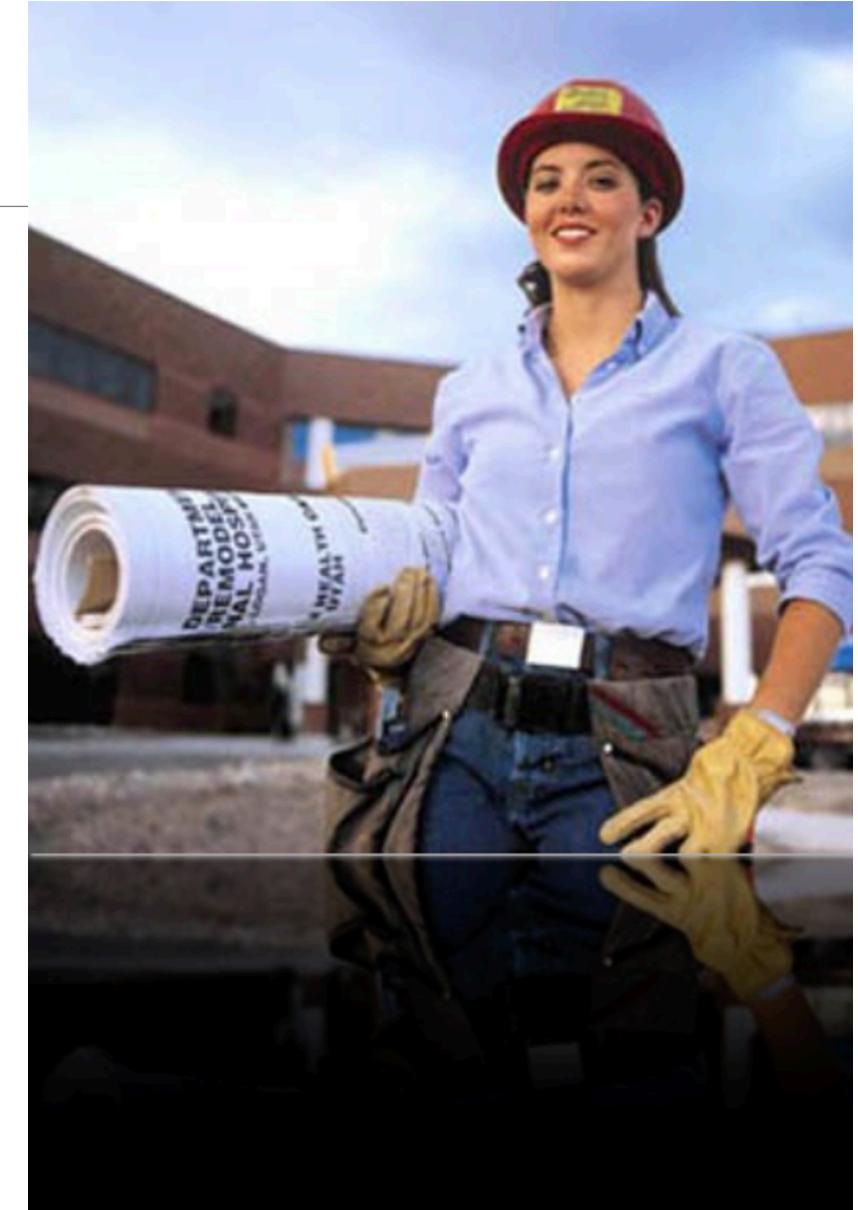
Civil Construction

- Architect
- Engineering
- Labor Work

Software Construction

- Software Architecture
- Software Engineering
- Software Worker (Programmer)

- We were forced to believe in this?
- How many ways can we construct the building?
- How many ways can we construct software?
- As long as, user can change , adjust software to fit into their requirements.



Solution

Software Development
is Craftsmanship



Methodology

Team Structure

Team Discipline

Individual Discipline

Before Agile

Team Structure

- Silo
- Clearly responsibility

Team Discipline

- Document Oriented
- Each step has clearly definition of document standard
- Timeline is king
- Change is bad !!!

Individual Discipline

- Mostly make something “done” but not “right”
- Mostly said “please do not change it”
- Mostly make it for last, not for change

Finally

Our software is same as building.
Once it done you cannot change it.

Agile

Team Structure

- One single team
- Break the damn silo

Team Discipline

- Change is good
- We love change
- Eliminate unchangeable module

Individual Discipline

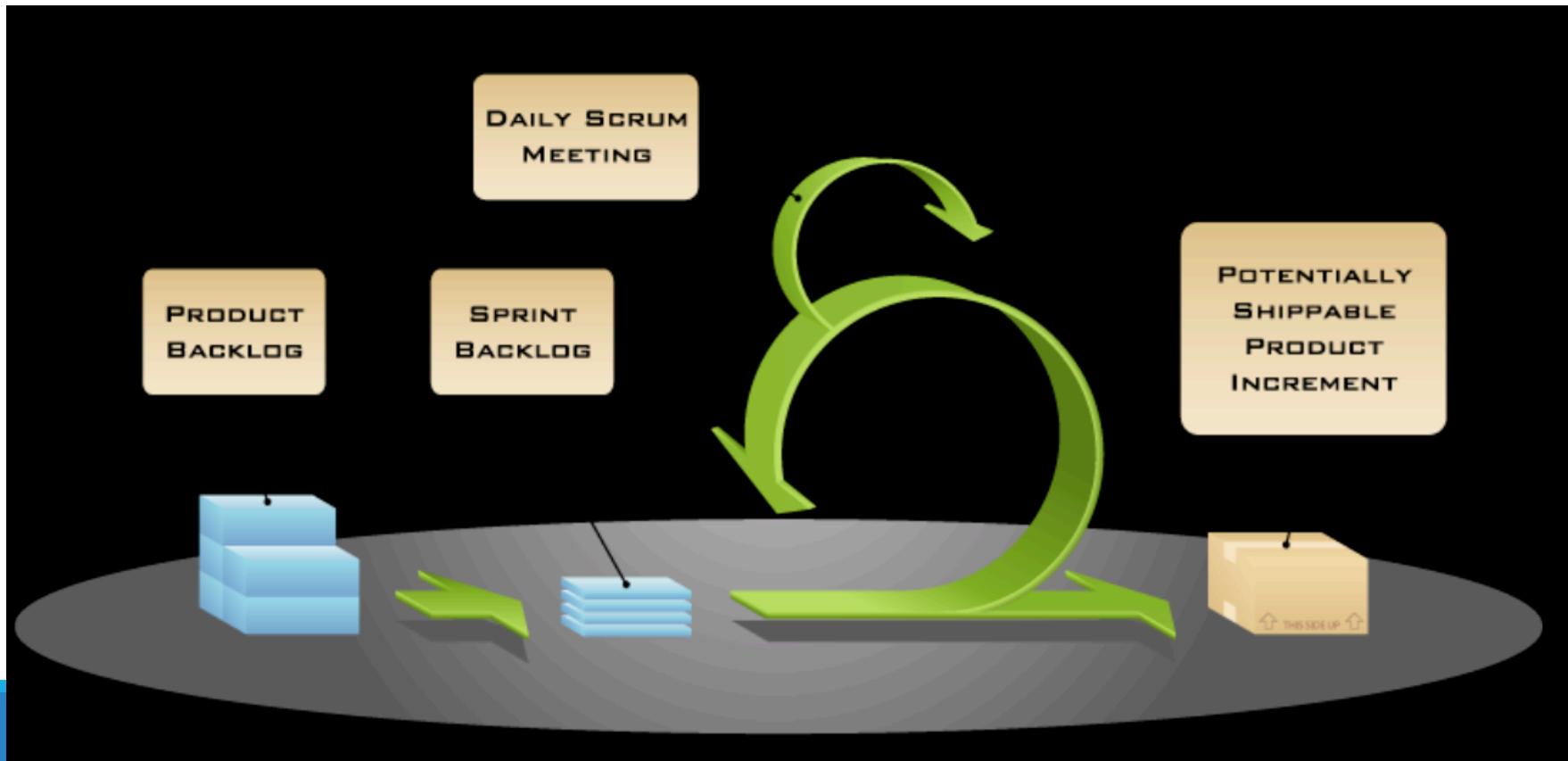
- Super clear and have to follow
- Test : Code : Refactor

Agile Manifesto [2]



Scrum [3]

- Framework for running projects
- Define a set of activities for moving faster

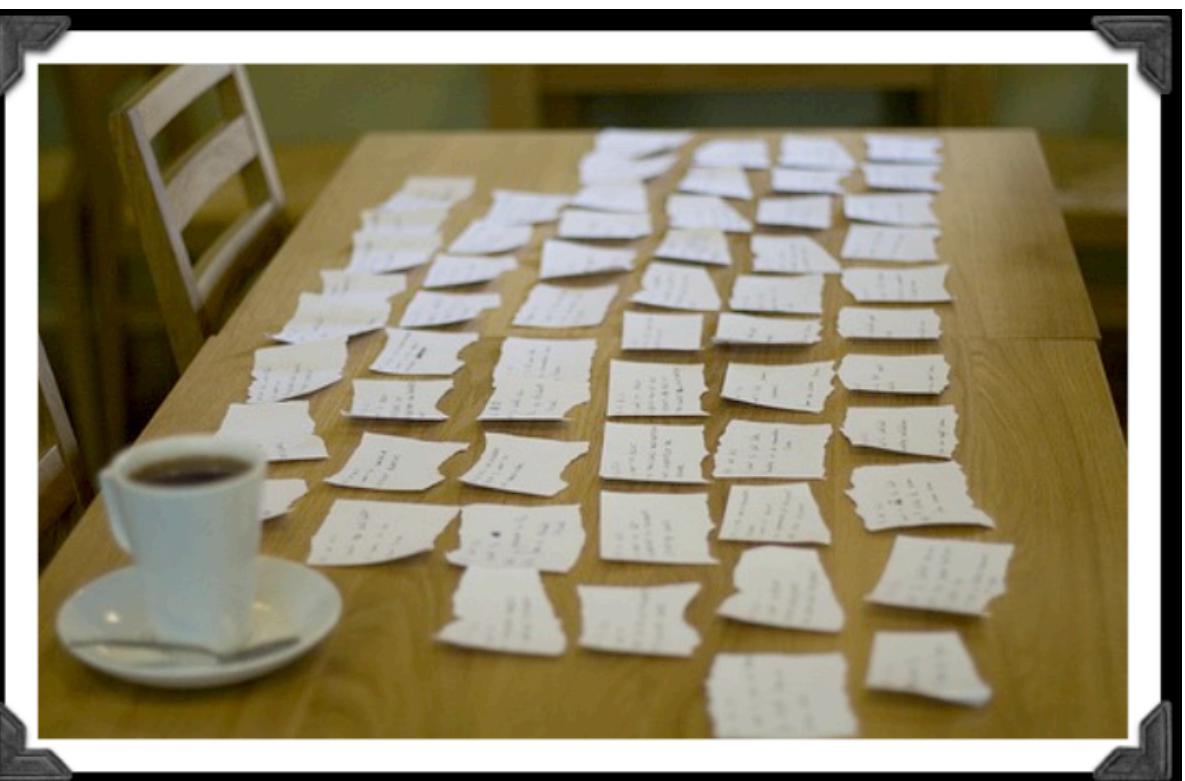


User Stories [4]

Create Preferred Customer

As a Customer, when I purchase more than \$50,000 in goods I become a Preferred Customer so that I can receive a 10% discount on all prices.

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Example: Sprint for Email Client S/W Development



Scrum Board [4]



Daily Meeting (client representative can join) [4]



Daily Meeting (Morning) [4]



Meeting Summary (Evening) [4]



Tools

Project Management

Software Development

Software Testing

Software Delivery



We need tools

PM Tools (Scrum Board) [4]



JIRA Dashboards Projects Issues Agile Create issue

Team Scrum Board

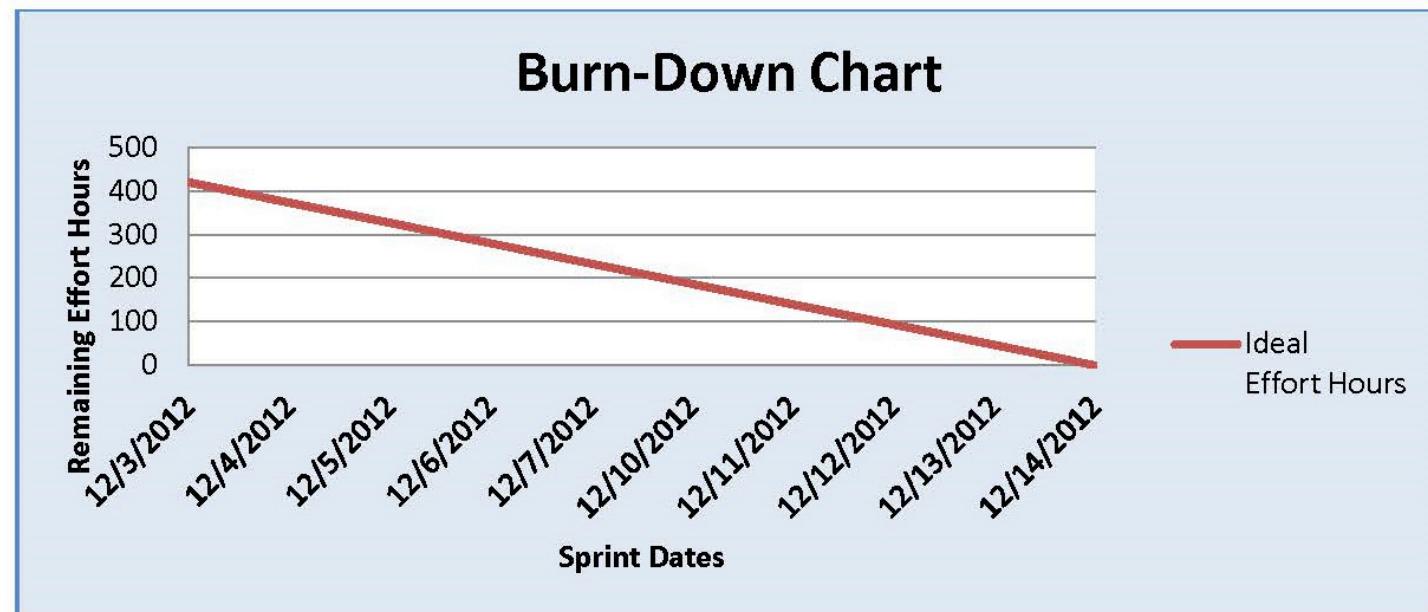
SPRINT: Sprint 3 QUICK FILTERS: Product UI Server Only My Issues Recently Updated

Plan Work Report Board

To Do	In Progress	Done
<p>+ TIS-28 ↑ Research options to travel to Pluto</p> <p>● TIS-8 ↑ Requesting available flights is now taking > 5 seconds</p>	<p>+ TIS-27 ↑ Add Phobos and Deimos Tours as a Preferred Travel Partner</p> <p>● TIS-10 ↑ Bad JSON data coming back from hotel API</p> <p>+ TIS-20 ↑ Engage Saturn Shuttle Lines for group tours</p>	<p>● TIS-9 ↑ After 100,000 requests the SeeSpaceEZ server dies</p> <p>💡 TIS-16 ↑ Establish relationship with local office supplies company</p> <p>● TIS-7 ↑ 500 Error when requesting a reservation</p>

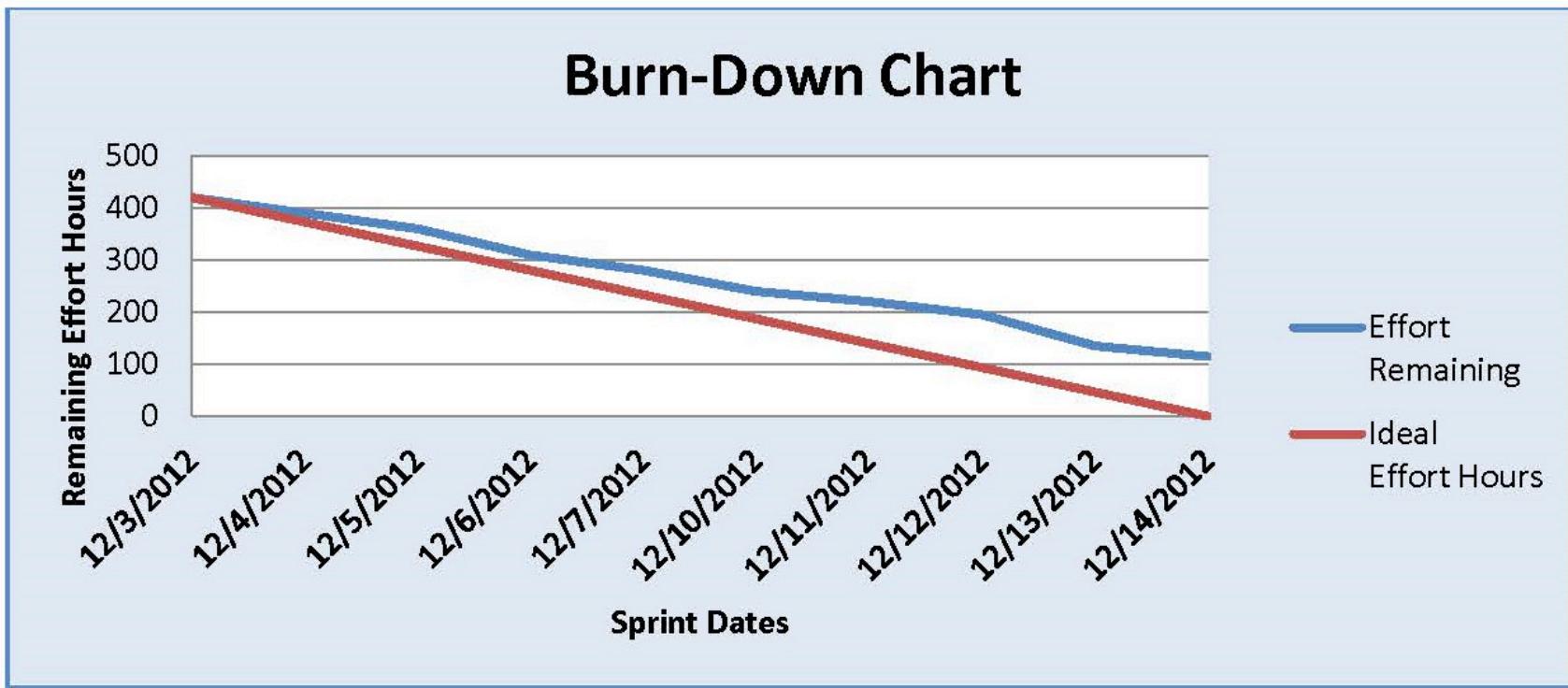
Sprint Burndown Chart

- Sprint Duration – 2 weeks
- Team Size - 7
- Hours/Day – 6
- Total Capacity – 420 hours

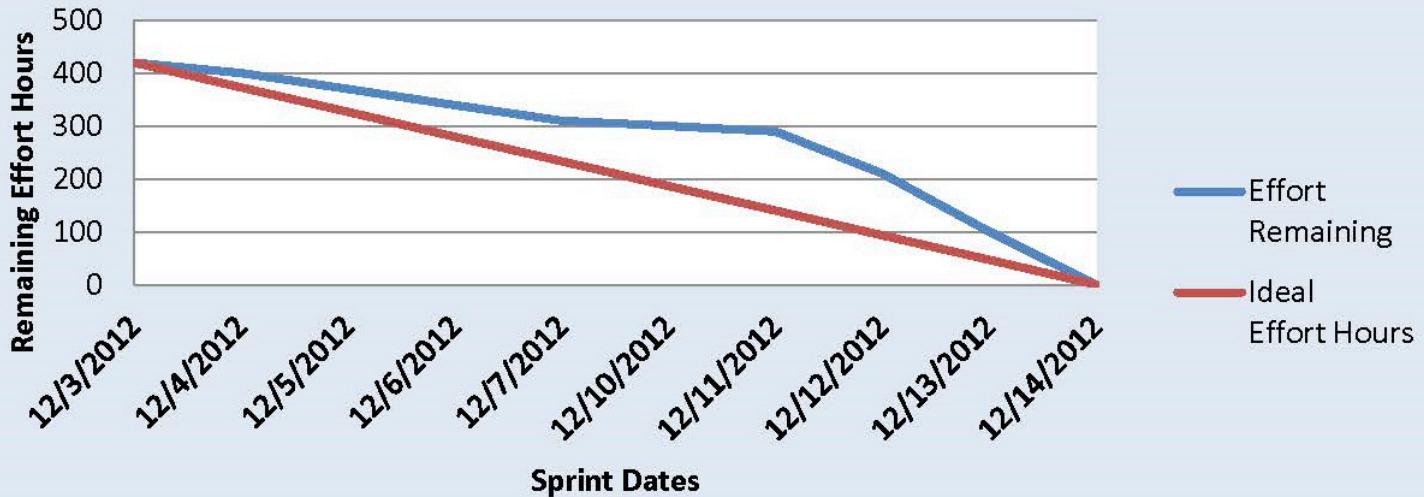


Interpreting the burn-down chart

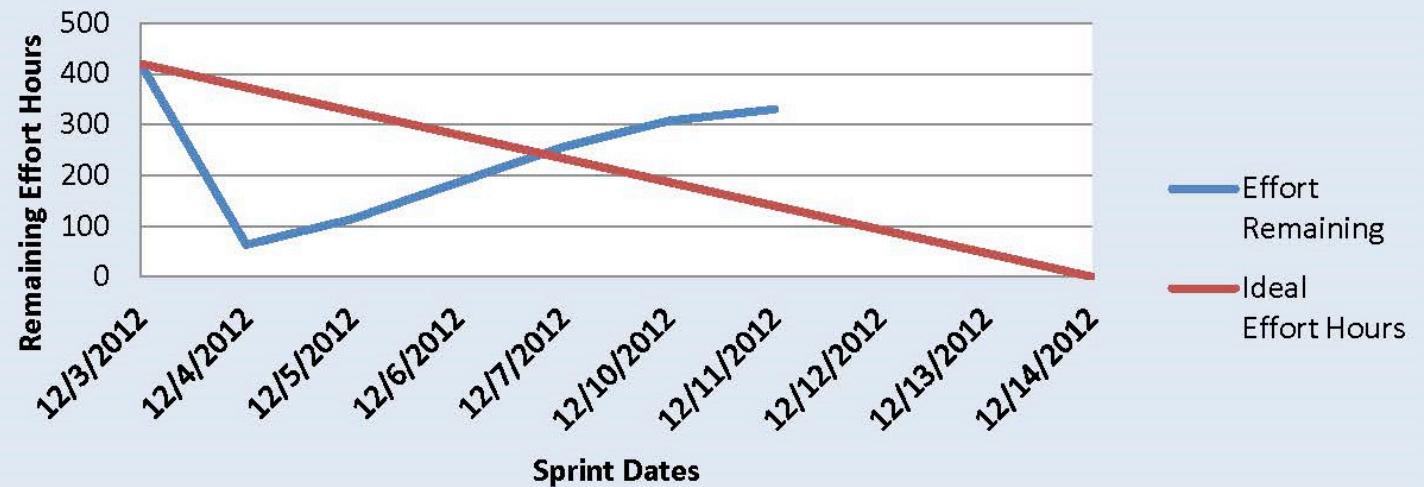
- If the **blue line is above the red line**, it means we are going at a slower pace and may not be able to complete all the commitments.
- If the **blue line is below the red line**, it shows that we are going at a better rate and may be able to finish earlier.



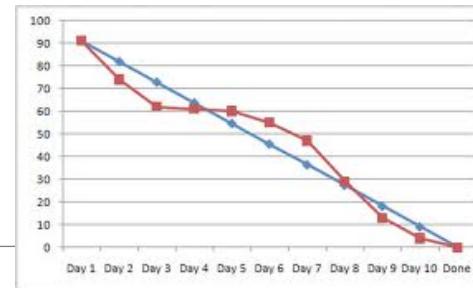
Burn-Down Chart



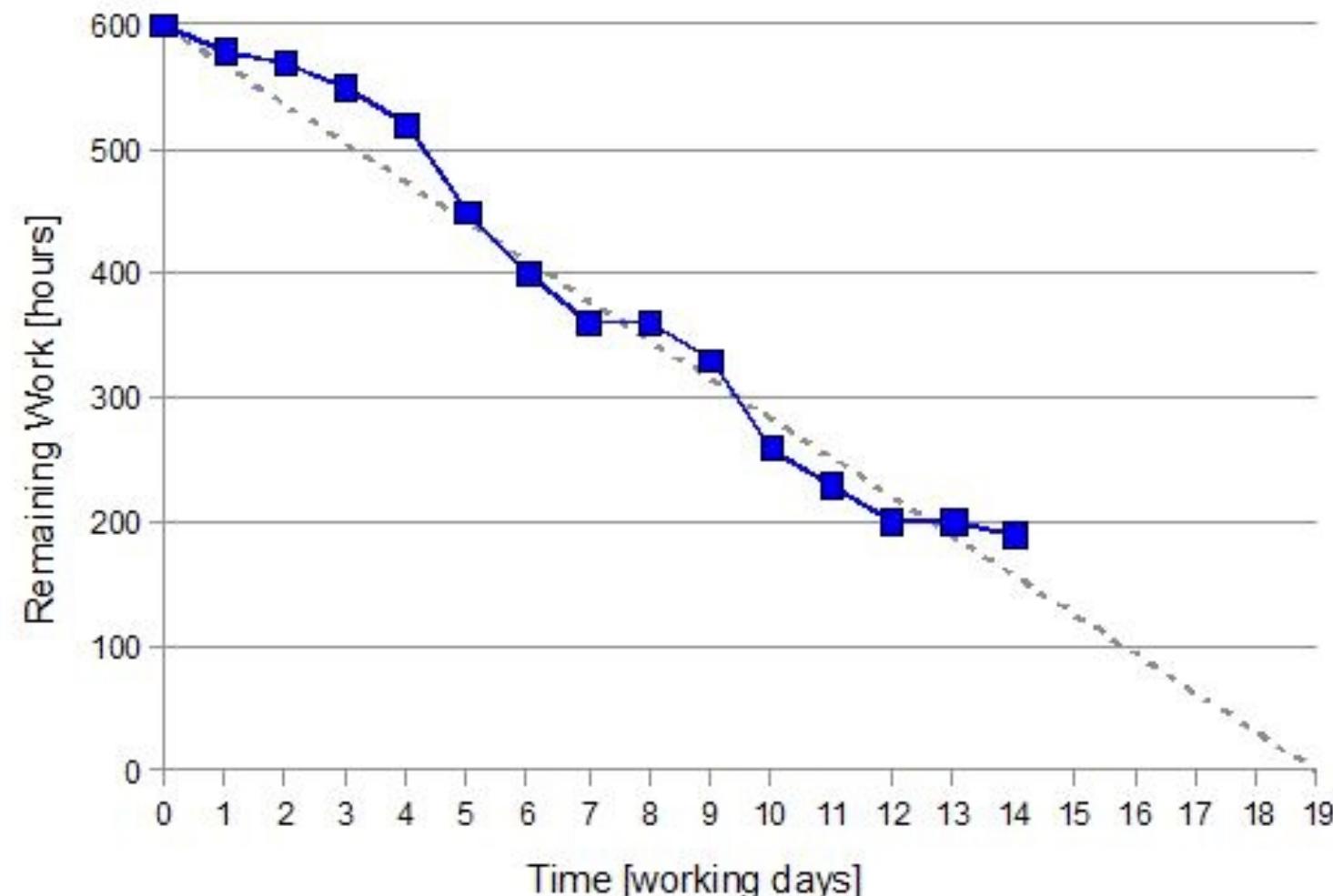
Burn-Down Chart



Sprint Burndown Chart



Sprint Burndown Chart





Teams in Space

Scrum: Teams in Space

Configure



Backlog

QUICK FILTERS: Product Recently updated Only my issues Server UI

Backlog

Agile board

Releases

Reports

All issues

Components

Add-ons

PROJECT SHORTCUTS

Mars Team HipChat Room

Space Station Dev Roadmap

Teams in Space Org Chart

Orbital Spotify Playlist

Hyperspeed Bitbucket Repo

+ Add shortcut

VERSIONS

EPICS

> Sprint 1 14 issues

3 6 5

All issues

SeeSpaceEZ Plus

Large Team Support

Space Travel Partners

Summer Saturn Sale

Afterburner Plus

Local Mars Office

Hyper-speed shuttles

New launch platforms

Delicious Space Nutrition

Spacetainment

Sprint 2 6 issues

Start sprint

Start: 10 Aug 2015 — Release: 9 Oct 2015



TIS-25 Engage Jupiter Express for outer solar system travel

SeeSpaceEZ Plus 5

TIS-37 When requesting user details the service should return prior trip info

Large Team Support 1

TIS-9 After 100,000 requests the SeeSpaceEZ server dies

Local Mars Office 1

TIS-7 500 Error when requesting a reservation

Large Team Support 1

TIS-10 Bad JSON data coming back from hotel API

Space Travel Partners 5

TIS-18 Enable Speedy SpaceCraft as the preferred individual transit provider

Large Team Support 1

Backlog 49 issues

Create sprint

TIS-25 Engage Jupiter Express for outer solar system travel

Local Mars Office 5

TIS-37 When requesting user details the service should return prior trip info

Space Travel Partners 1

TIS-9 After 100,000 requests the SeeSpaceEZ server dies

Space Travel Partners 1

TIS-7 500 Error when requesting a reservation

Local Mars Office 1

[5]

Dashboard

Charts

Project indicator

Project burnup chart (in points)

Sprint	All Points	Done Points
R1S1	0	0
R1S2	4	2
R1S3	7	4
R1S4	21	13
R1S5	29	14
R1S6	32	18
R1S7	42	18
R1S8	46	25
R1S9	48	27

Project | Stories | Tasks

Activities

- Vincent Barrier has created Story Probleme avec la selection multiple ?
02/21/2011 19:53:19
- Admin Admin has posted a comment on Story Release planning cumbersome
02/21/2011 17:51:13
- Claude Aubry has created Story Release planning cumbersome
02/21/2011 11:58:09
- Claude Aubry has posted a comment on Story Update indicators
02/19/2011 19:43:48
- Admin Admin has updated Story Impossible de supprimer une équipe créée par admin
02/19/2011 15:38:10
- Vincent Barrier has posted a comment on Story Manque suivant précédent dans backlog
02/19/2011 15:37:01
- Vincent Barrier has posted a comment on Story Allonger listes de valeurs
02/19/2011 15:32:40
- Vincent Barrier has posted a comment on Story Update indicators
02/19/2011 15:30:28
- Claude Aubry has created Story Update indicators
02/19/2011 14:58:10
- Claude Aubry has accepted as Story Allonger listes de valeurs
02/19/2011 14:53:03
- Claude Aubry has accepted as Story Allonger et ordonner listes des marges de gauches
02/19/2011 14:52:58

Project description

Le suivi du développement d'IceScrum avec IceScrum...
Following IceScrum development with IceScrum

Release vision

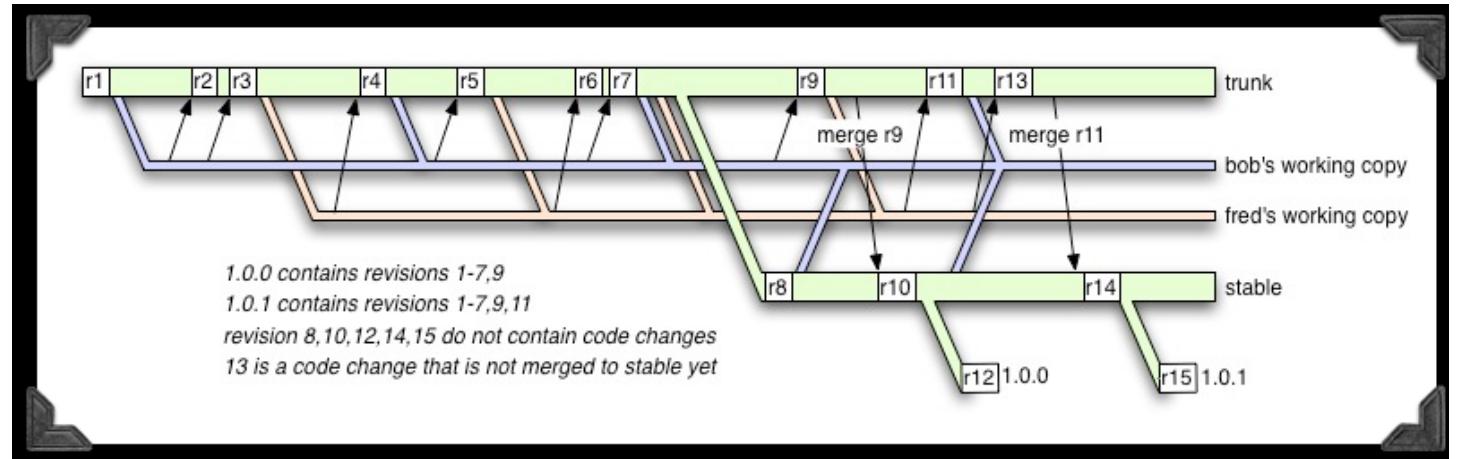
No vision currently defined

Current definition of done

No definition currently defined

Version Control

- Github
- Bitbucket



The Agile: Scrum Framework at a glance

Inputs from Executives,
Team, Stakeholders,
Customers, Users



Product Owner



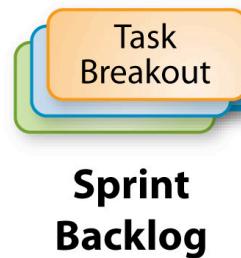
The Team



Product Backlog

Team selects starting at top as much as it can commit to deliver by end of Sprint

Sprint Planning Meeting



Sprint Backlog



Sprint end date and team deliverable do not change



Burndown/up Charts



Sprint Review



Finished Work



Sprint Retrospective

[6]

Any Questions?

:O)

Thank you

References

1. <https://www.scrum.org/resources/blog/1-challenge-agile-projects>
2. <http://blog.soshace.com/en/2016/08/11/agile-software-development-scrum-part-1/>
3. <https://www.mountaingoatsoftware.com/agile/scrum/resources/overview>
4. ทวิร พานิชสมบัติ @roofimon Scrum Master@OpenDream (SIPA)
5. <https://www.atlassian.com/software/jira>
6. <https://www.c-sharpcorner.com/UploadFile/d9c992/the-agile-scrum-framework/>

Practice

Write the product backlogs for this system?

Room Reservation System

Input: Who, Date-Time, Duration, Room No.

Each students write the product backlog to the backlog table uniquely.

Backlog Table

Sprints
