Agile/Scrum Project Management:

- User Stories
- JIRA
- Estimation & Planning Poker
- Daily Scrum

Luc Peeters

ARTESIS PLANTIJN
HOGESCHOOL ANTWERPEN

User Requirements

1. Agile methodologie: incrementeel & iteratief

BE FLEXIBLE

IN AGILE
PEOPLE
MATTER

AGILE TEAMS AND CUSTOMERS
WORK
TOGETHER

DON'T WASTE
TIME
DOCUMENTING

Introduction to User Stories

User Stories

Mike Cohn

Norwegian Developer's Conference
6 June 2014

1

What problem do stories address?

- Software requirements is a communication problem
- Those who want the software must communicate with those who will build it

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Balance is critical

- If either side dominates, the business loses
- If the business side dominates…
  - …functionality and dates are mandated with little regard for reality or whether the developers understand the requirements
- If the developers dominate…
  - …technical jargon replaces the language of the business and developers lose the opportunity to learn from listening

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Resource allocation

- We need a way of working together so that resource allocation becomes a shared problem
- Project fails when the problem of resource allocation falls too far to one side

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Responsibility for resource allocation

If developers are responsible...

- May trade quality for additional features
- May only partially implement a feature
- May solely make decisions that should involve the business

If the business is responsible...

- Lengthy upfront requirements negotiation and signoff
- Features are progressively dropped as the deadline nears

Imperfect schedules

- We cannot perfectly predict a software schedule
  - As users see the software, they come up with new ideas
  - Too many intangibles
  - Developers have a notoriously hard time estimating
- If we can't perfectly predict a schedule, we can't perfectly say what will be delivered

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So what do we do?

We make decisions based on the information we have

...but do it often

Rather than making one all-encompassing set of decisions

...we spread decision-making across the project

This is where user stories come in

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Agenda

- ☐ What stories are
- ☐ Writing user stories
- ☐ Why user stories

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Three Cs

Card

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

Conversation

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

Confirmation

- Acceptance tests confirm a story was coded 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 vacation traveler, I want to see photos of the hotels.

As a user, I want to cancel a reservation.

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

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Where are the details?

- As a user, I can cancel a reservation.
  - Does the user get a full or partial refund?
    - Is the refund to her credit card or is it site credit?
  - How far ahead must the reservation be cancelled?
    - Is that the same for all hotels?
    - For all site visitors? Can frequent travelers cancel later?
  - Is a confirmation provided to the user?
    - How?

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Details as conditions of satisfaction

As a user, I can cancel a reservation.

- The product owner's conditions of satisfaction can be added to a story
- These are essentially tests

- ☐ Verify that a premium member can cancel the same day without a fee.
- ☐ Verify that a non-premium member is charged 10% for a same-day cancellation.
- ☐ Verify that an email confirmation is sent.
- ☐ Verify that the hotel is notified of any cancellation.

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Details added in smaller sub-stories

As a user, I can cancel a reservation.

As a premium site member, I can cancel a reservation up to the last minute.

As a non-premium member, I can cancel up to 24 hours in advance.

As a site visitor, I am emailed a confirmation of any cancelled reservation.

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Techniques can be combined

- These approaches are not mutually exclusive
- Write stories at an appropriate level
- By the time it's implemented, each story will have conditions of satisfaction associated with it

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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 ...

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 past ...

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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 TV 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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Agenda

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- ☐ Writing user stories
- ☐ Why user stories

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Logging in

- See how many user stories you can write about logging in.
- Examples:
  - As a registered user, I am required to log in so that I can access the system.
  - As a forgetful user, I can request a password reminder so that I can log in if I forget mine.

"As a <user role>,
I <want/need/can/
etc> <goal>
so that <reason>."

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Story-writing workshops

- Includes whole team plus possibly some external stakeholders
- Typically not done every sprint
- Brainstorm to generate stories
- Goal is to write as many stories as possible
  - Some will be “implementation ready”
  - Others will be epics
- No prioritization at this point

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Start with epics and iterate

© Co

Agenda

- ☑ What stories are
- ☑ Writing user stories
- ☐ Why user stories

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So why user stories?

- Shift focus from writing to talking

If requirements are written down

then

~~The user will get what she wants~~

At best she'll get what was written

"You built what I asked for, but it's not what I need."

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Words are imprecise

Entrée comes with soup or salad and bread.

Which is right?

- (Soup or Salad) and Bread
- (Soup) or (Salad and Bread)

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Examples

The user can enter a name. It can be 127 characters.

- Must the user enter a name?
- Can it be other than 127 chars?

The system should prominently display a warning message whenever the user enters invalid data.

- What does should mean?
- What does prominently display mean?
- Is invalid data defined elsewhere?

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Additional reasons

- Stories are understandable
  - Developers and customers understand them
  - People are better able to remember events if they are organized into stories†
- Support and encourage iterative development
  - Can easily start with epics and disaggregate closer to development time

†Bower, Black, and Turner. 1979.
Scripts in Memory for Text.

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Yet more reasons

- Stories are the right size for planning
- Stories support opportunistic development
  - We design solutions by moving opportunistically between top-down and bottom-up approaches†
- Stories support participatory design

†Guindon. 1990. *Designing the Design Process.*

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What if we had stories instead?

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Most importantly…

Don't forget the purpose

The story text we write on cards is less important than the conversations we have.

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Agile Scrum Tools:
1. JIRA Agile

Backlog (JIRA Agile)

JIRA Dashboards Projects Issues Agile Create Search

Backlog Board

QUICK FILTERS: Only My Issues Recently Updated

VERSIONS EPICS

- CMAPPCR-24 (iOS) Nieuwe controller: "Statistieken" — View Notes
- CMAPPCR-30 (Tridion) Tekst voor kind ouder dan 3 — Tekst kind ouder da...
- CMAPPCR-50 (iOS) Tekst tonen voor kind ouder dan 3 — Tekst kind ouder da...
- ~~CMAPPCR-101~~ (API) 500 error bij get promoties op test server
- CMAPPCR-108 (iOS) Aanpassen emailadres: opvangen 400 'Email address already taken'
- ~~CMAPPCR-111~~ (API) Video: afmetingen in HTML kleiner maken
- CMAPPCR-120 (iOS) Bij uploaden van meerdere foto's wordt slechts 1 bewaard
- CMAPPCR-134 (iOS) Foto's downscalen naar 1080 x 1920
- CMAPPCR-141 (API) Call voorzien voor deleten foto
- CMAPPCR-145 (iOS) Crash indien server niet bereikbaar
- ~~CMAPPCR-148~~ (API) TST server: aanmaken gebruiker geeft 503

Sprint 3b View Notes Android 8 issues

15/Sep/15 11:31 PM • 30/Sep/15 11:31 PM

- CMAPPCR-43 (Android) Notities consulteren en aanpassen — View Notes
- CMAPPCR-105 (Android) Uitbreiding Landingspagina: Knop "Toon Notities" — View Notes

Sprint Board (JIRA Agile)

JIRA Dashboards Projects Issues Agile Create Search

Active sprints: Sprint 3a View Notes iOS

7 days remaining Complete Sprint Board

QUICK FILTERS: Only My Issues Recently Updated

To Do	In Progress	Quality Assurance	Done
CMAPPCR-14 OPEN 6 sub-tasks (iOS) Notities consulteren en aanpassen			
CMAPPCR-20 (iOS) Nieuwe controller: "Detail Notitie"			
CMAPPCR-21 (iOS) Filters voor "Overzicht Notities"			
CMAPPCR-23 (iOS) Placeholder voor 'Mijn notities'			
CMAPPCR-146 (IOS) Foto deleten in bestaande notitie			
CMAPPCR-106 OPEN 1 sub-task (iOS) Uitbreiding Landingspagina: Knop "Toon Notities"			
CMAPPCR-107 (iOS) iPad: Layout Landingspagina zwangerschap - knoppen toevoegen voor notities			
Other Issues 12 issues			
CMAPPCR-16 (iOS) Uitbreiding Ontwikkelingslijn: Knop "Toon Notities" View Notes	CMAPPCR-120 (iOS) Bij uploaden van meerdere foto's wordt slechts 1 bewaard	CMAPPCR-30 (Tridion) Tekst voor kind ouder dan 3 Tekst kind ouder dan 3	~~CMAPPCR-101~~ (API) 500 error bij get promoties op test server
CMAPPCR-24 (iOS) Nieuwe controller: "Statistieken" View Notes	CMAPPCR-141 (API) Call voorzien voor deleten foto	CMAPPCR-108 (iOS) Aanpassen emailadres: opvangen 400 'Email address already taken'	~~CMAPPCR-111~~ (API) Video: afmetingen in HTML kleiner maken
CMAPPCR-50 (iOS) Tekst tonen voor kind ouder dan 3 Tekst kind ouder dan 3			~~CMAPPCR-148~~ (API) TST server: aanmaken gebruiker geeft 503
CMAPPCR-134 (iOS) Foto's downscalen naar 1080 x 1920			
CMAPPCR-145 (iOS) Crash indien server niet bereikbaar			

Issues/Stories (JIRA)

Issues: Open Issues

View all issues and filters

CMAPPCR-40
(Android) Notities aanpassen

CMAPPCR-34
(Android) Nieuwe controller: "Overz…

CMAPPCR-66
(Backend) Tekst kind > 3 jaar

CMAPPCR-50
(iOS) Tekst tonen voor kind ouder d…

CMAPPCR-60
(Backend) Gebruiker kan een notiti…

CMAPPCR-62
Media uploaden

CMAPPCR-64
(Backend) Gebruiker kan een overz…

CMAPPCR-63
Tags & milestones

CMAPPCR-61
Notitie aanmaken

CMAPPCR-91
(Tridion content) Info bij kind > 0 ja…

CMAPPCR-20
(iOS) Nieuwe controller: "Detail Not…

CMAPPCR-45
(Android) Nieuwe controller: "Detail…

CMAPPCR-48
(Android) Nieuwe controller: "Statis…

CMAPPCR-24
(iOS) Nieuwe controller: "Statistieken"

CMAPPCR-44
(Android) Filters voor "Overzicht No…

CM Skoebidoe App Change / CMAPPCR-43 (Android) Notities consulteren en aanpassen / CMAPPCR-45

(Android) Nieuwe controller: "Detail Notitie"

Edit | Comment | Assign | More | Start Analysis | Return to Customer Int... | Export

Details

Type:	Sub-task
Status:	OPEN (View Workflow)
Priority:	Normal
Resolution:	Unresolved
Labels:	Android
Sprint:	Sprint 3b View Notes Android

Description

- De nieuwe controller "Detail Notitie" is een detailview van 1 notitie - cfr screenshot
- Navigation presentation gebruiken: Hierarchy main list = overzicht notities, cfr. #CMAPPCR-19 > Detail Page = Detail Notitie = deze controller
- 'Back' knop links boven brengt terug naar het overzicht met de daarvoor toegepaste filter, cfr. #CMAPPCR-21

Attachments

Detail Notitie.png
88 kB 19/Aug/15 1:18 PM

Detail Notitie zwangerschap.pn
246 kB 19/Aug/15 1:38 PM

People

Assignee:
Michael Vanderpoorten
Assign to me

Reporter:
Luc Peeters

Votes:
0

Watchers:
1 Stop watching this issue

Dates

Created:
10/Aug/15 3:06 PM

Updated:
19/Aug/15 1:38 PM

Development

Create branch

Agile

Active Sprint:
Sprint 3b View Notes Android
ends 30/Sep/15

Agile Estimation with Story Points - by Mike Cohn

Video:

https://www.mountaingoatsoftware.com/presentations/agile-estimating

Agile Estimating

Mike Cohn

Norwegian Developer's Conference
6 June 2012

Agenda

- ☐ What is agile planning?
- ☐ Story points
- ☐ Ideal time
- ☐ Estimating with Planning Poker

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Product Backlog

As a user...	3
As a user...	5
As a user...	5
As a user...	2
As a user...	2

Iteration Backlog

Code the UI	12
Write tests	8
Code middle tier	4
Update docs	6
A	5

We're talking about these right now

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How long will it take...

...to drive to Paris?

...to read the last Harry Potter book?

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Estimate size; derive duration

Size → Calculation → Duration

300 kilograms → Velocity =20 → 300/20 = 15 iterations

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Measures of size

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Story points

- How long a user story will take (effort)
- Influenced by complexity, uncertainty, risk, volume of work, etc.
- Relative values are what is important:
  - A login screen is a 2.
  - A search feature is an 8.
- Basic math properties should hold
  - 5+5 = 10

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Estimating in zoo points

Lion

Kangaroo

Rhinoceros

Bear

Giraffe

Gorilla

Hippopotamus

Tiger

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Agenda

- ☑ What is agile planning?
- ☑ Story points
- ☐ Ideal time
- ☐ Estimating with Planning Poker

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Ideal Time

How long something will take if:

- it's all you work on
- no one interrupts you
- and everything you need is available

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Elapsed time vs. ideal time

Ideally

- Monday has 8 hours
- Each week has 40 hours

But instead

Each day has something like:

- 2 hours of meetings
- 2 hours of email
- 4 hours left for the project

"How long will this take?"

- Are you answering what is being asked?

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Two big advantages to story points

1. Story points are additive; time-based estimates may not be
2. Story points help avoid problems with unit confusion

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Confusing units

Product Backlog	
As a user...	30
As a user...	50
As a user...	50
As a user...	20
As a user...	20

Iteration Backlog	
Code the UI	12
Write tests	8
Code middle tier	4
Update docs	6
Automate tests	5

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Agenda

- ☑ What is agile planning?
  - ☑ Story points
  - ☑ Ideal time
  - ☐ Estimating with Planning Poker

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Planning Poker®

- An iterative approach to estimating
- Steps
  - Each estimator is given a deck of cards, each card has a valid estimate written on it
  - Customer/Product owner reads a story and it's discussed briefly
  - Each estimator selects a card that's his or her estimate
  - Cards are turned at the same time
  - Discuss differences (especially outliers)
  - Re-estimate until estimates converge

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Planning Poker®–an example

Estimator	Round 1	Round 2
Ana	5	8
Trond	5	8
Maria	8	8
Johannes	20	13

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Agile Estimation & Release Planning (Thoughtworks)

1. Estimate size with story points
2. Derive duration with velocity

1 - Product Backlog

2 - Estimate Each Item

How long is this going to take?

-1 day?
-1 week?
-Forever?

2 - Estimate Each Item

Is

likely to take longer than

?

How much longer?

How much longer?

Let’s create a unit

= 2

Let’s create a unit

= 2

then

= 6

2 - Estimate Each Item

2 - Estimate Each Item

- Stories will change
- Everyone estimates
- Points aren’t a unit of time
- Being consistent is more important than being accurate
- Estimates must include uncertainty

3 - Prioritise

3 - Prioritise

3 - Prioritise

3 - Prioritise

- It is important to help the client prioritise
- But the client has the final word
- Technical dependencies are relevant
- Priorities will change over time

4 - Assess Velocity

Points = Effort
Duration = ?

Iteration 1	Iteration 2	Iteration 3	Iteration 4	Iteration 5	Iteration 6
2	2	2	4	2	2
2	2	2	4	4	4
2	4	4	4	6	6
2	2	6	2	2	6
8	10	14	14	14	18

Iteration 1	Iteration 2	Iteration 3	Iteration 4	Iteration 5	Iteration 6
8	10	14	14	14	18

Velocity

4 - Assess Velocity

What’s our average Velocity likely to be?

4 - Assess Velocity

- Planned Velocity is useful only until we have real data - just an educated guess
- “Yesterday’s weather” is more important than average
- Iterations must create production-quality increments
- Velocity is specific for a team

5 - Candidate Schedule

Say planned
Velocity is 6

5 - Candidate Schedule

Say planned
Velocity is 6

Backlog is
34 points total

5 - Candidate Schedule

34 / 6 = 6 Iterations

5 - Candidate Schedule

Iteration 1	Iteration 2	Iteration 3	Iteration 4	Iteration 5	Iteration 6
2 $$$	6 $$	2 $	2 $	6 $	4 $
4 $$$		4 $$	4 $$		

5 - Candidate Schedule

- Ramp-up time usually has a huge impact
- Pay attention to cost/scope/time constraints
- Aim at delivering early and often

6 - Monitor and Adapt

Plans are not that important. Planning is.

6 - Monitor and Adapt

Real World Example

6 - Monitor and Adapt

- You can’t embrace change and have a plan written in stone
- Re-estimate whenever necessary
- Don’t try and force real life to look like your plan - It’s the other way around

Concluding

- This is just a framework - there are multiple variants
- The customer is a partner during estimation and planning
- Don’t try to change the world, change your plan

Estimation of Story Points by using Planning Poker

= 2x
DELIVER VALUE EARLY
RELATIVE
ABSOLUTE
~~6 wks?~~
~~8 wks?~~
3 mths
STORY POINTS
55 BUILD WALLS SWIMMING POOL
34 BUILD ROOF PLUMBING
21 WIRING
13 HEATING
8 DECORATE
5
3
2
1
0 CARPETS
FIBONACCI SEQUENCE:
1, 1, 2, 3, 5, 8,...
F(n+1) / F(n) = 1.618... ⇒ 60% incr.
STORY POINTS
AGILE ESTIMATING
VALUE POINTS
STORY VALUE BFTB
BUILD ROOF 34 144 4.2
WIRING 21 55 2.6
BUILD WALLS 55 89
HEATING 13 21 1.6
PLUMBING 34 55
CARPETS 2 2 1
DECORATE 8 2 0.25
SWIMMING POOL 55 1 0.01
WIRING
STORY P: 21
VALUE P: 55
BFTB: 55/21
= 2.6
BANG FOR THE BUCK
VALUE POINTS
144 BUILD ROOF
89 BUILD WALLS
55 WIRING PLUMBING
34
21 HEATING
13
8
5
3
2
1
0 SWIMMING POOL DECORATE CARPETS
BUILD WALLS SWIMMING POOL BUILD ROOF WIRING CARPETS PLUMBING
ITERATION 1
BUILD WALLS
ITERATION 2
BUILD ROOF
WIRING
ITERATION 3
HEATING
PLUMBING
ITERATION 4
CARPETS
DECORATE
ITERATION 5
SWIMMING POOL
FINISH

11:53 / 11:55

Agile Estimating and Planning: Planning Poker

Agile Estimating and Planning: Planning Poker

Start: zoek 2 stories: eenvoudig (2) & redelijk complex (8)

Or these.

1ste ronde

1ste ronde: extreme scores uitleggen

2de ronde: opnieuw scoren tot consensus

Planning Poker

Starcatcher: https://www.planningpoker.com/play/game/3RldmlgX

Daily Scrum

What is the Daily Scrum ?

Daily Scrum @ Microsoft