Effective Agile Requirements

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About Me

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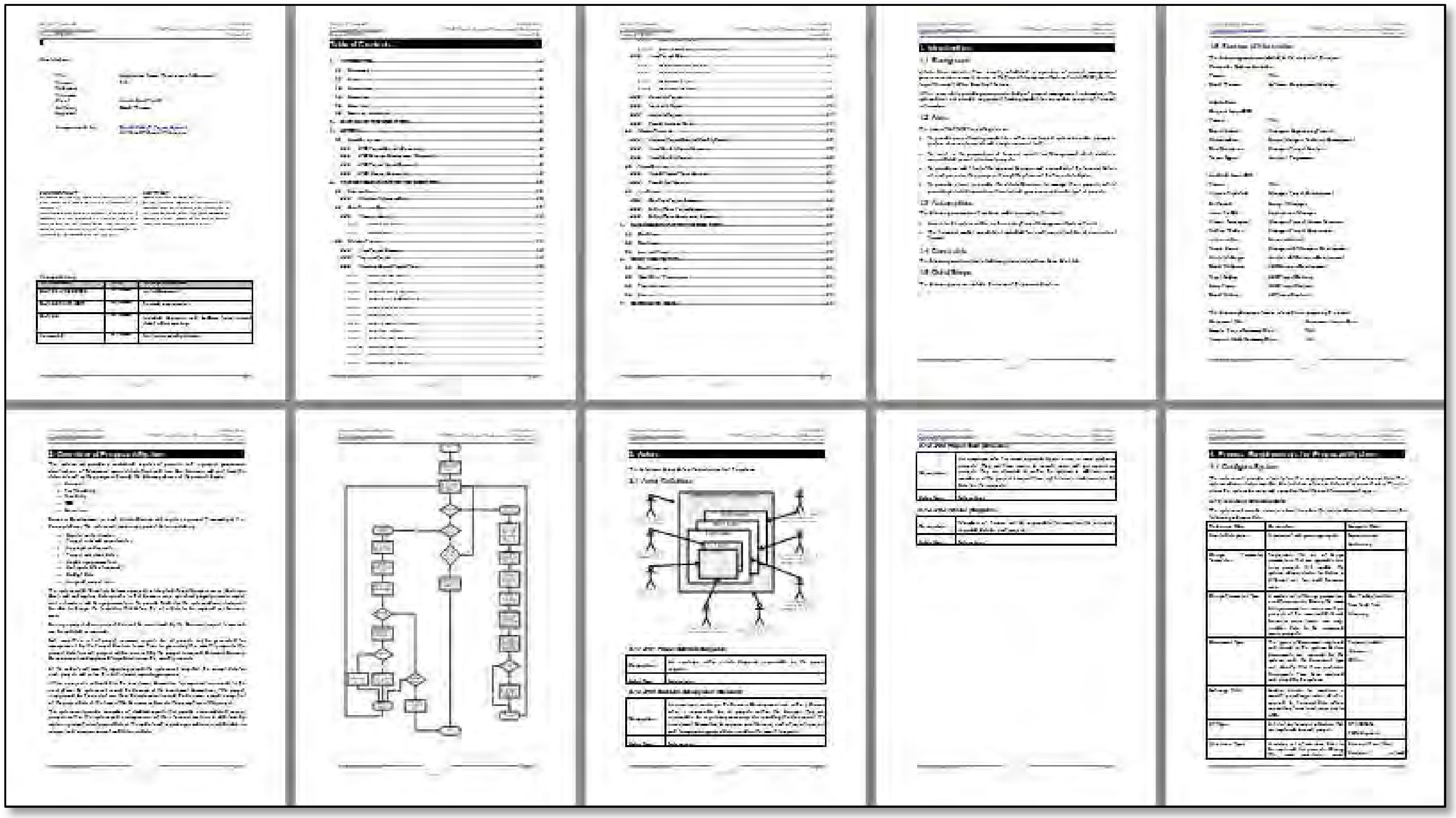
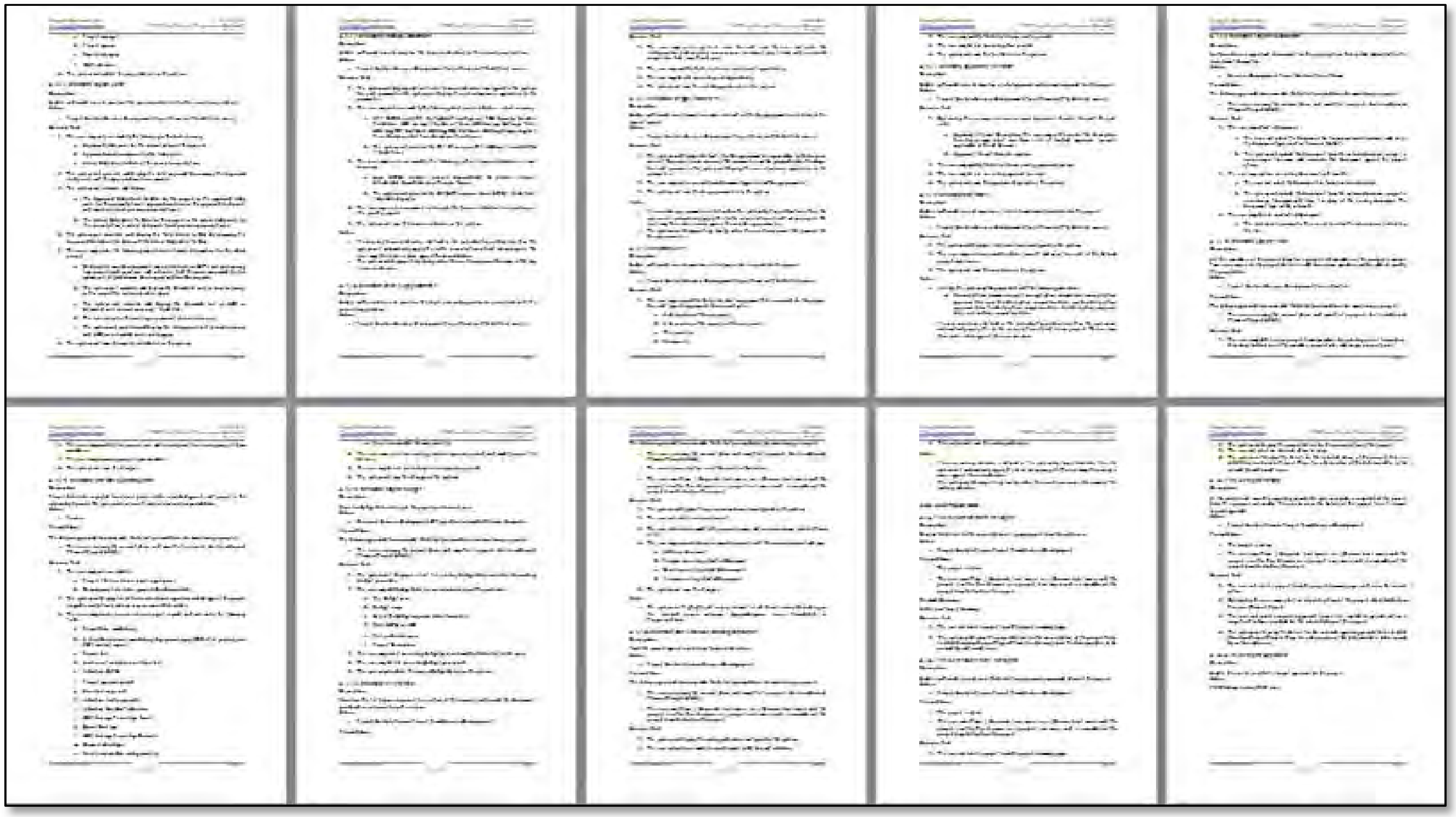
Here’s a typical requirements document …



Is anyone going to actually read this?



Requirements or *Specifications*?

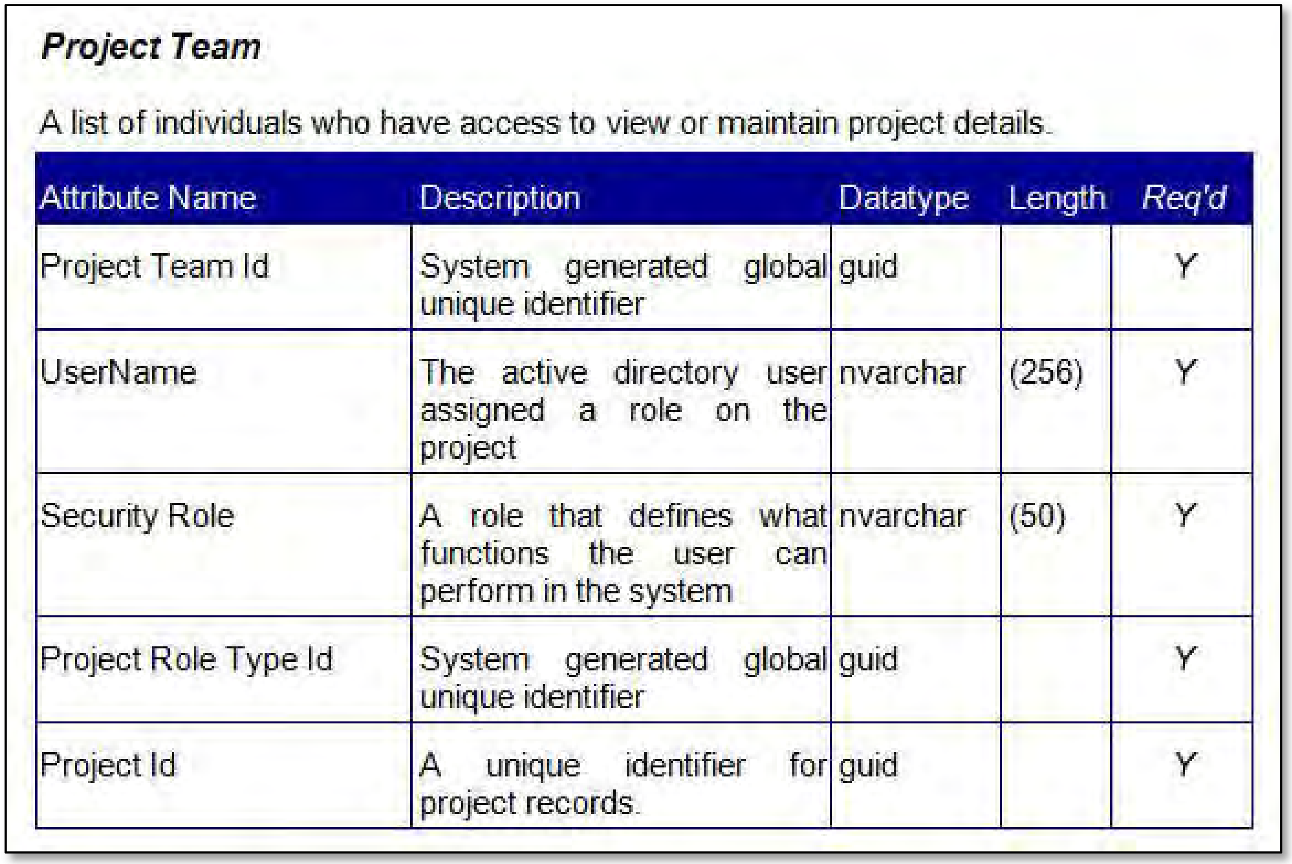
What’s the difference?

- Requirement => Needs & Wants “what”
- Specification => Implementation “how”

  -> Often detached from need

- Users want us to deliver on Needs & Wants
- Tip: Think of Requirements as ‘Desirements’

Usually you get a bit of both …



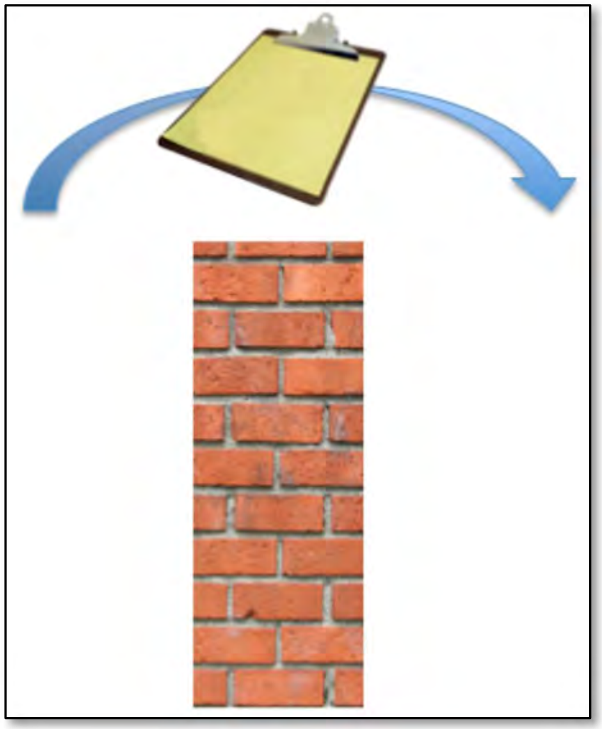
Project Team

A list of individuals who have access to view or maintain project details.

Attribute Name	Description	Datatype	Length	*Req'd*
Project Team Id	System generated global unique identifier	guid		*Y*
UserName	The active directory user assigned a role on the project	nvarchar	(256)	*Y*
Security Role	A role that defines what functions the user can perform in the system	nvarchar	(50)	*Y*
Project Role Type Id	System generated global unique identifier	guid		*Y*
Project Id	A unique identifier for project records.	guid		*Y*

Specifications …

- Are ambiguous
- Are authoritative
- Suppress conversation
- Suppress real discovery



Requirements come in many flavors …

Action
Workstream
story
Theme
Defect
Test
Objective
Scenario
Bug
Use
case
Journey
Feature
Epic
Initiative
User
Behavior
Workflow
Funtionality

Enter the User Story

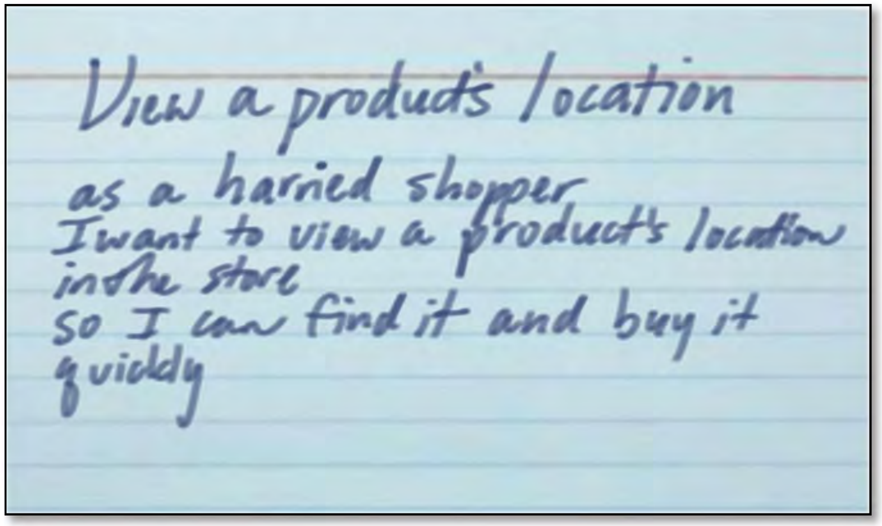
A User Story is …

- A need from the user’s perspective
- Barely sufficient to identify the requirement
- A planning item – a token for a conversation
- Incomplete – a deferred conversation
- Ideally written by anyone

User Story format != a User Story

<TITLE>

- As a <user>
- I want <something>
- So I can <need/reason>



View a product's location

as a harried shopper
I want to view a product's location
in the store
so I can find it and buy it
quickly

Three C’s

- Card
  - The user story (historically written on a card or sticky)
- Conversation
  - Talking with users and customers
  - An *exchange* of thoughts, opinions, and feelings
- Confirmation
  - Acceptance criteria or tests

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User Stories Gain Detail Over Time

- Start with a title
- Add a concise description

```
    As a [type of user],
    I want [some goal],
    so that [some reason]
```

Remember — that's just a thinking template. No need to write all your stories this way.

- Add other relevant notes or sketches
- Add acceptance criteria

Stories need Acceptance Criteria

- Must be objectively verifiable statements
  - Describes a user story’s “behavior”
  - Functional, non-functional, performance, etc.

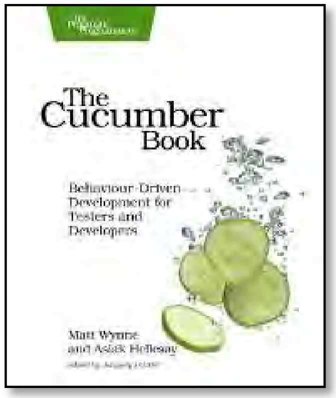
- Examples:
  - Editor tools comply with site design
  - Two second or less for query and page response

Write Acceptance Criteria as Tests

```
Given I have a valid account
 and my balance is $100
 and the ATM has enough cash
When I withdraw $80
Then I should receive $80 in cash
 and my account balance should be $20
 and my card should be returned
```

BDD? Gherkin? What the Cuke?!

- Behavior Driven Development
  - The behavior you want drives what gets developed, not a specification document
- Given/When/Then is "Gherkin" syntax
  - JBehave, Rspec, Cucumber
  - SpecFlow, MSpec


The Cucumber Book
Behaviour-Driven Development for Testers and Developers
Matt Wynne and Aslak Hellesøy

specflow
Cucumber for .NET

www.specflow.org

When are we ready to code?

The Product Backlog

- A collection of user stories for a software product is referred to as the *product backlog*
- The product backlog is ordered in a way that the most valuable (and ready) items are at the top

INVEST in Good User Stories

- Independent
- Negotiable
- Valuable
- Estimable
- Small
- Testable

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Definition of Ready

- A team’s explicit and visible criteria that a user story must meet prior to being accepted into the next sprint
  - Typically based on INVEST
  - Analogous to the definition of “done“

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What’s the ROI?

Value = The “R”

- Unfortunately, “value” is hard (impossible?) to estimate or measure
  - Market value? Risk reduction? Capability building?
  - It’s one of the “unicorn” metrics (along with *productivity* and *technical debt*)
- That said, there are practices for assessing value
  - MoSCoW, Prioritization Poker, $100 method
  - Involve your stakeholders

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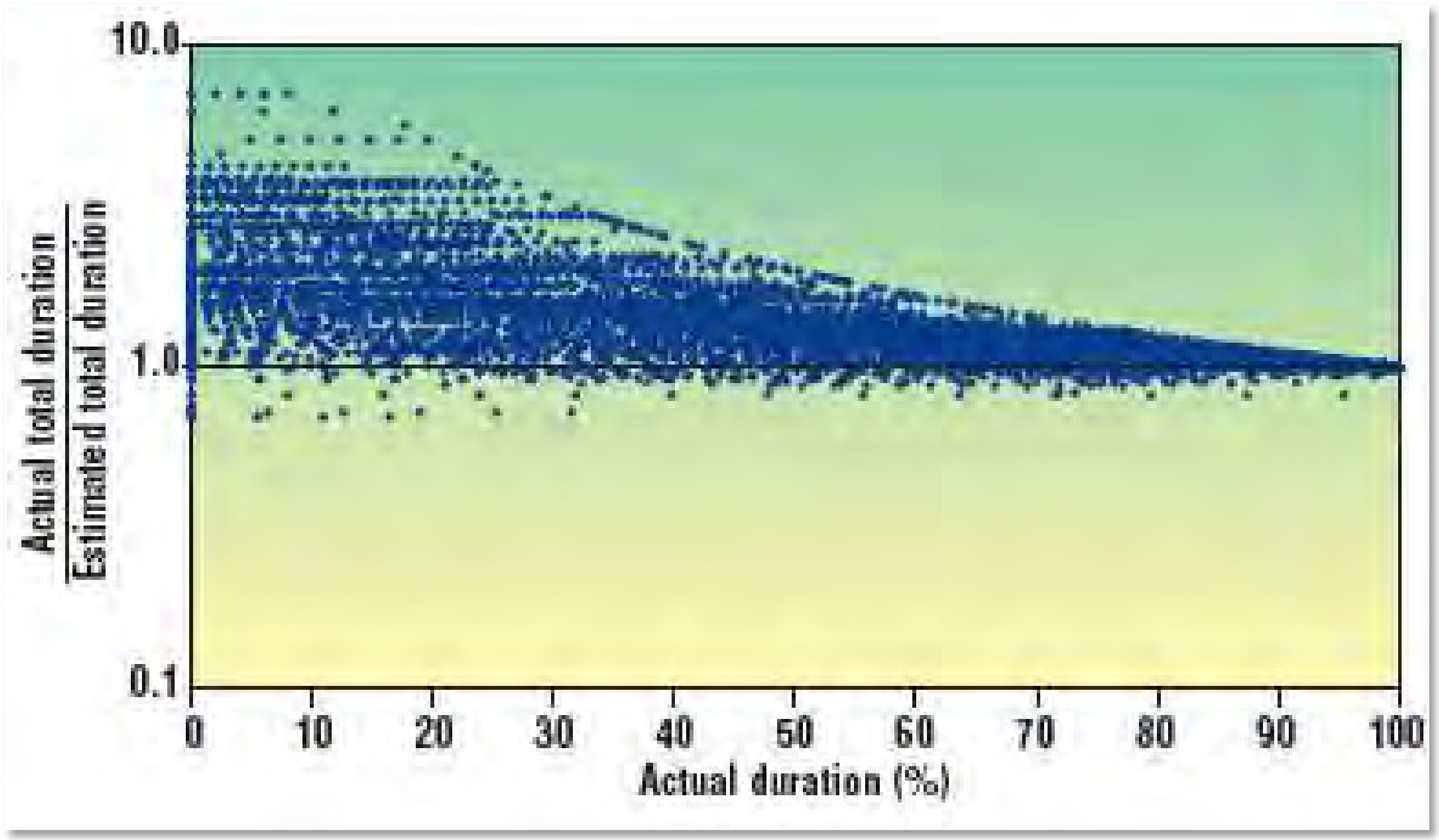
Size/Effort = The “I”

- The “cost” of an item is estimated by the development team – those doing the work
- Estimates should be in an abstract unit of measure
  - Hours, days, or $ will imply a commitment, plan, or budget
- Planning Poker® and affinity estimation practices

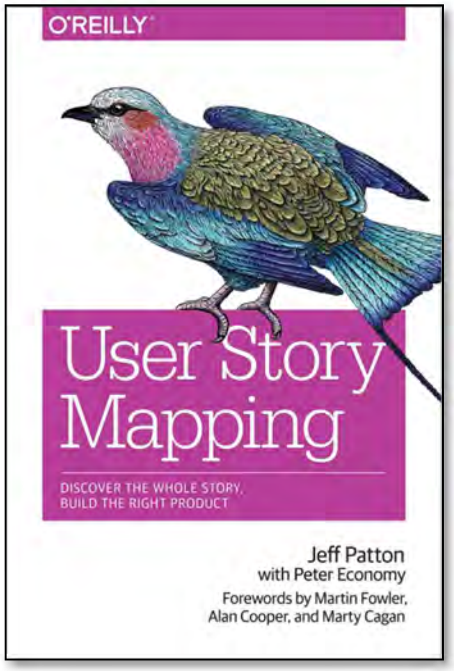
Estimation becomes more accurate over time



Source: IEEE Software May/June ‘06, Todd Little

A one-dimensional product backlog can’t really tell us the whole story

Enter the Story Map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User Story Mapping

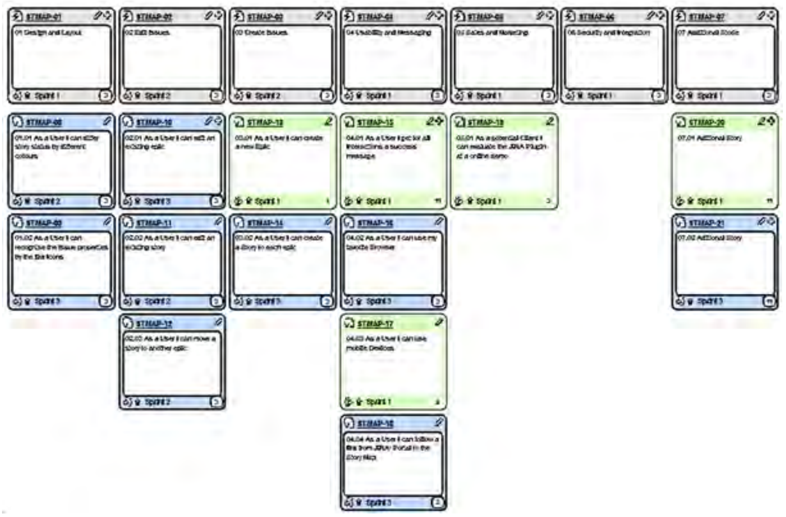
DISCOVER THE WHOLE STORY, BUILD THE RIGHT PRODUCT

Jeff Patton
with Peter Economy

Forewords by Martin Fowler, Alan Cooper, and Marty Cagan

The Story Map

- A two-dimensional backlog
  - At the top are large user stories sometimes called “epics”
  - Below the epics are the actual story cards ordered by the product owner
  - The first horizontal row typically contains the essential capabilities



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Story Maps …

- Help map goals to activities to user stories
- Show the relationships of larger stories to their child stories
- Help confirm the completeness of your backlog
- Provide a useful context for ordering the backlog
- Help plan releases in complete and valuable slices of functionality

Retrospective …

- Strive for agile software requirements
  - Ensure your backlog contains “what’s” and not “how’s”
  - User stories make for lightweight requirements
  - User stories evolve over time
  - Ensure the product backlog is regularly refined
  - Development team estimates and even re-estimates
  - Do all of the above at the last responsible moment

Remember …

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