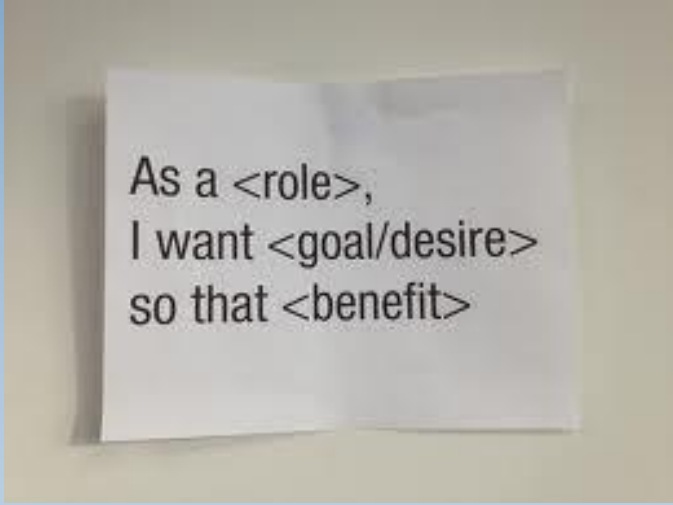


# RefineM's January 2014 Lunch & Learn Webinar

## Writing Agile User Stories



As a <role>,  
I want <goal/desire>  
so that <benefit>

# Agenda

1. What is Virtual Lunch & Learn
2. Your expectations from this webinar – why are you here?
3. Introduction – myself
4. Writing (Agile) User Stories
  - a. User Story Basics
  - b. Writing User Stories
  - c. Information Gathering for User Stories
  - d. *Estimating User Stories*
  - e. *Planning User Stories*
5. Upcoming learning opportunities from RefineM
6. How to get 1 PDU for this webinar?
7. Q & A

# RefineM's Virtual Lunch & Learn

**This is a monthly webinar delivered during the lunch hour in the first week (Wednesdays) of every month.**

*This month it is on first Friday.*

**It's designed to help you learn while you eat lunch, providing a relaxed environment to enhance your experience.**

**The monthly webinars will cover a variety of Project Management/ Agile topics.**

# Your Expectations

What are your expectations from this webinar?

Why are you here today?

## RefineM

**Helping organizations turn their project management capability into a *competitive advantage***

- \* CEO/Consultant since Dec 2011
- \* Agile Coaching/Adoption
- \* Project Management/ Process Improvement Consulting and Training
- \* Project Management Products (for PMs, Executives and Agile Practitioners)
- \* Board Member – SWMO Chapter since 2009

My professional journey b/f RefineM



- \* 20+ years of Successful Project Leadership
  - \* Led 100s of projects of all sizes, successfully
  - \* Recovered many projects, saved millions of \$
  - \* Implemented numerous process improvements
  - \* Coached/mentored 100s of PMs, and some executives

# User Story Basics

User Story Definition

User Story Format

Stories, Epics, and Themes

Who Writes Them and Why

Story Points

# Why User Stories?

- \* According to Mike Cohn, author of *User Stories Applied: For Agile Software Development*, “Software requirements is a *communication problem*.”

Source: Cohn, Mike (2004). *User Stories Applied: For Agile Software Development*. Boston: Addison-Wesley.

# Project Roles

To succeed, a project relies on a lot of different people, from different backgrounds and filling different roles, communicating and finding common ground.

## Business Side

Customers

Users

Business Analysts

Domain Experts

## Technical Side

Developers

IT Support

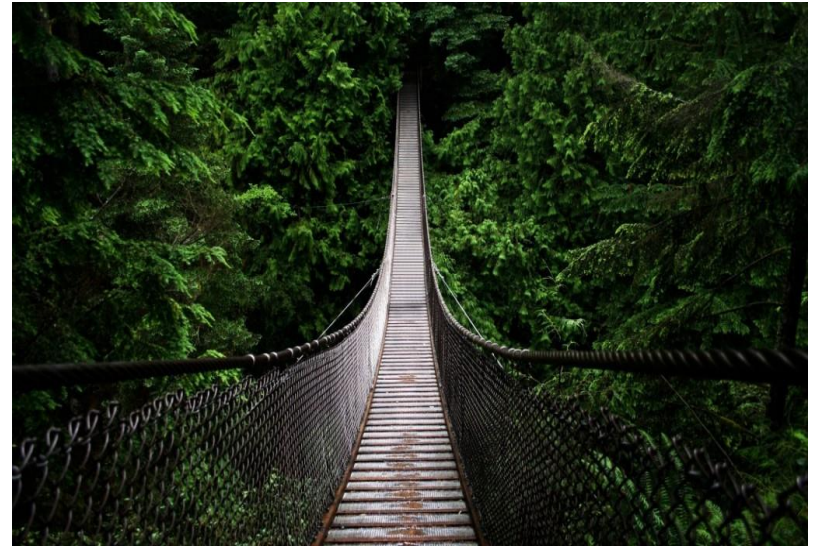
QA can be on either side or both.

*Cohn: “If either side dominates these communications, the project loses.”*



# Why User Stories?

- \* User Stories serve as a bridge between the developers and the customers.
- \* The story itself should be high-level so that business users, developers, project team, and other stakeholders can communicate about it intelligently...



*...but it needs just enough detail that developers can use it to estimate the development effort*

# Why User Stories?

- \* User Stories encourage the free flow of communication between customers and developers using a common language.
- \* This free flow leads to a more accurate understanding and refinement of requirements.
- \* With more accurate requirements, developers can provide more accurate estimates.
- \* With more accurate estimates, it is easier to plan iterations and adhere to the fixed time and cost that is part of Agile development.

*Good user stories benefit both the customer and the developers.*

# What is a User Story?

- \* A User Story is a requirement (business function) that adds value to the user.
- \* It details a scenario that includes a user's role, what the user wants to achieve, and the benefit of achieving that function.

*Simply put, a user story is a way of describing something that a user wants in the final product.*



# User Story Example

“As a human resources manager, I want to be able to sort personnel data by paid time off so I can see which employees are not using their full allotted vacation time.”

“As a <role>, I want/need <goal> in order to <benefit>.”

OR:

“To achieve <benefit>, as a <role>, I want/need <goal>.”

# Format of the User Story

- \* There are three main parts of a user story.
  - \* Story Card: The story is written on the front of an index card, typically 4"x 6".
  - \* Conversation: Discussion about the card is recorded.
  - \* Confirmation: The back of the card contains information about how the user story will be tested and verified.

*As a volunteer, I want to be able to see future events on the organization web site so I can plan them on my calendar.*

# User Story Components: Card

- \* User Stories are written on a card.
  - \* It can be an index card, 4" x 6", or some sort of card software.
  - \* **Microsoft Word tables or Excel spreadsheets can also be used.**

	A	B	C
1	As A...	I Want...	So That...
2	Project Manager	To sort the bug tracking log by date	I can keep a running log of bugs by date for my reports.
3	QA tester	To add time spent to the bug tracking log.	I can keep track of my time spent fixing each bug.
4	Business User	To be able to run queries on the bug tracking lo	I can generate charts based on the bug tracking data for executive summaries.
5			
6			
-			

Jeffries, Ron (30 August 2001). Essential XP: Card, Conversation, Confirmation.  
<http://xprogramming.com/articles/expcardconversationconfirmation/>

# User Story Components: Card

## \* Why a card?

- \* The card does not contain all the information that makes up the requirement. *Just enough to identify the requirement and what the story is.*
- \* The card is a “token” for the requirement, containing notes written while clarifying the requirement. *It is meant to be passed back and forth between customer and developer, refined and clarified as it is being implemented.*

*As a volunteer, I want to be able to see future events on the organization web site so I can plan them on my calendar.*

Jeffries, Ron (30 August 2001). Essential XP: Card, Conversation, Confirmation.  
<http://xprogramming.com/articles/expcardconversationconfirmation/>

# User Story Components: Conversation

- \* Conversation is where the requirement is communicated through people talking about it.
- \* When and how long?
  - ✓ During release planning when the story is estimated
  - ✓ During iteration planning when the story is scheduled
  - ✓ Over a period of time in between
- \* Supplementing the conversation
  - ✓ Documents can be used to supplement the conversation
  - ✓ The best supplements are examples

Jeffries, Ron (30 August 2001). Essential XP: Card, Conversation, Confirmation.  
<http://xprogramming.com/articles/expcardconversationconfirmation/>



# User Story Components: Confirmation

- \* Confirmation is where the acceptance testing for the user story comes in.
  - ✓ Customer needs to be involved in defining the acceptance test.
  - ✓ Programmers or QA team/testers can conduct the acceptance test but customer needs to have a role in setting its parameters so that it is meaningful to the customer.

*In confirmation,*

*final details get hammered out about the user story's implementation  
so that customer and developers are on the same page*

# Who Can Benefit from User Stories?

*As a volunteer, I want to be able to see future events on the organization web site so I can plan them on my calendar.*

As this example shows, anyone can benefit from a user story.

# Stories, Epics, and Themes

- \* Some stories are so large that they could be split up into more specific parts. Those stories are known as **epics**.

*For example, “As a human resources manager, I need to be able to query the database” could be considered an epic because there are many ways to split this story.*

- \* A related set of stories is referred to as a **theme**. Themes can often be sorted by functionality.

*For example, any stories related to the database could constitute a theme.*

# Who Writes User Stories?

- \* Typically, the customer team is more involved in writing user stories than the developers.
- \* Who is on the customer team?
  - ✓ Product Owner
  - ✓ Business Analysts
  - ✓ Testers
  - ✓ Interaction Designers
  - ✓ above all . . . **Users.**

# Why the Customer Team?

- \* They have the product vision and can most closely capture what they want the product to do.
- \* They are better positioned to capture functional requirements without bogging down in technical details.

*This does not mean that the developers have no role.*

*The developers will be crucial in identifying whether something is feasible from a technological standpoint and how best the organization's technological resources can achieve it.*

# Story Points

- \* Story points are some unit estimate of how long it will take developers to complete a story.
- \* For example, a story with 4 story points should take twice as long as one with 2 story points.
- \* Story points are used for planning releases and calculating velocity of the team. They are also useful for splitting stories.

# What are Story Points equivalent to?

In some organizations, story points are tied to a time equivalent, like person-hour or person-day.

Other organizations use relative estimating techniques such as Fibonacci to schedule story points.

What is important is not exactly how long something will take, but rather how long each story will take in comparison to the rest.

# Writing User Stories

The INVEST Model  
Other Guidelines



# INVESTments

Bill Wake, an XP practitioner, created the acronym INVEST in 2003 to describe the features of an effective user story. Stories should be:

**I**ndependent

**N**egotiable

**V**aluable

**E**stimable

**S**mall

**T**estable



# INVEST

## Independent

Negotiable

Valuable

Estimable

Small

Testable

As much as possible, user stories should be independent of each other because that way they can be scheduled more easily in iterations.

Not all stories can be fully independent; *for example, “sorting by paid time off” requires that a “paid time off” field be added and populated, and that requires the database to exist in the first place, and so on.*

What if too many stories have dependencies? *then this places a constraint on planning and scheduling iterations.*

# INVEST

Independent

**Negotiable**

Valuable

Estimable

Small

Testable

- ❖ User stories are not considered as set in stone until iterations begin.
- ❖ Up until that point, team members and stakeholders should be able to negotiate over points on the story card.
  - ✓ Does the story add value in the way it should?
  - ✓ Is it small enough or does it need to be broken further?
  - ✓ What is the story's success criteria and how should we test it?
- ❖ These are a few of the questions that can be hammered out before iterations begin.



# INVEST

Independent

Negotiable

**Valuable**

Estimable

Small

Testable

- ❖ The goal of Agile is to provide constant value to the customer.
- ❖ For this reason, each user story should strive to achieve a benefit that adds tangible value to the customer in some way.



# INVEST

Independent

Negotiable

Valuable

**Estimable**

Small

Testable

There are many ways to estimate user stories.

The “estimable,” means

- ✓ Is the user story specific and clear enough that a team can get together and reasonably state what is required to fulfill the story,
- ✓ Clarify the story’s level of complexity, and determine how long it will take to fulfill the story?



# INVEST

Independent

Negotiable

Valuable

Estimable

**Small**

Testable

- ❖ User stories, as the basic unit, are most effective when they are small.
- ❖ If the story is an epic, or one that is so large that it cannot be accomplished in one sprint, then it should be broken down into smaller, more manageable parts.



# Why Small?

\* User Stories are best when they are small for three reasons:

1. Smaller stories are likely to satisfy the other parts of INVEST. *A large story is more likely to be dependent on other stories and will be harder to negotiate, estimate, and test.*
2. Smaller stories are usually more specific. *This makes them easier to estimate and test.*
3. Because small stories are more specific, they are easier to fit into a theme. *When a story is more focused, it is easier to relate it to other stories, so it can be put into a theme more easily. This allows for better organization of user stories.*

# INVEST

Independent

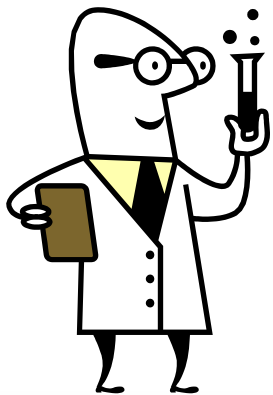
Negotiable

Valuable

Estimable

Small

**Testable**



- ❖ A user story that is testable has a clear set of criteria for success and means to test that criteria.
- ❖ For the example of the human resources manager needing to set a vacation, the success criterion is “able to sort by paid time off.” The test would be a user attempting the sort and succeeding without any errors.



# More Tips

- \* Sometimes it can be good to start with epics. Doing this helps in establishing functionality without committing to details.
  - ✓ *This can be a good idea, but one thing to keep in mind is that many teams struggle with how to split stories early on. Since epics will have to be split, this might be a better approach when teams have more Agile experience.*
- \* Another recommendation is to keep the user story information visible and accessible.
  - ✓ *Use a board or a wall to keep them in physical format, or an Intranet site for stories in digital format.*

# Pitfalls to Avoid

- \* Not Defining the User Well Enough.
  - ✓ *“As a user I want . . .” –but who is the user? **Be specific.***
- \* Not Knowing Exactly What the User Wants.
- \* Not Communicating the Business Value.
  - ✓ *These two pitfalls are why information gathering is important*
- \* Not Collaborating Enough.
  - ✓ *Remember, one of the key Agile principles is collaboration. Make sure that business and developers are working together and having a conversation about the card.*
- \* Not Including Confirmation.
  - ✓ *If there is no confirmation or not enough testing, it is hard to know when the story is done, and that leads to unnecessary work.*

# Gathering Information for User Stories

User Interviews

Questionnaires

Observation

Story-Writing Workshops

# User Interviews

- \* Talking to people who will use the software is a common method for gathering information about requirements.
- \* Tips to have a good interview
  - ✓ Avoid vague questions, like “What does it need to do?”
  - ✓ Prefer open-ended, context-free questions
    - *Example: What areas of the software need the fastest performance?*
    - *The purpose is to avoid a simple “yes” or “no” and instead get a more expanded idea of what the user has in mind.*

# Questionnaires

- \* Questionnaires should be avoided as a means of gathering requirements, but can be used to refine requirements at a later stage.
- \* Why questionnaires should be avoided?
  - ✓ One-way communication
  - ✓ Too closed-ended: yes or no, or scale of 1-5
  - ✓ Cannot receive feedback in a timely manner from everyone who needs to provide it

# Observation

\* Observation simply means watching someone who is using the software.

✓ Advantages:

- Direct feedback
- Unscripted feedback
- Find areas that might not have been exposed otherwise

✓ Disadvantages

- Difficult to set up sometimes

# Story-Writing Workshops

- \* In story-writing workshops, the customer team gets together and starts writing user stories. There is no evaluation at this time, just writing.



# Questions?



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# More Learning Opportunities From RefineM

- \* **All About User Stories – On Feb12, 2014 – 7 PDUs**
  - ✓ 1-day class delivered in person, from 8:30am-4:30pm CT
  - ✓ Venue – eFactory, 405 N Jefferson Ave, Springfield, MO, USA
- \* **MS Project 2013 (Basic) – Mar13&14, 2014 – 7 PDUs**
  - ✓ Instructor led virtual course, 2 sessions (4 hours each day)
- \* **MS Project 2013 (Advance) – Apr02&03, 2014 – 7 PDUs**
  - ✓ Instructor led virtual course, 2 sessions (4 hours each day)
- \* **PMP Exam Prep Course – Starts Apr11, 2014 – 36 Hours/PDUs**
  - ✓ Instructor led virtual course, 8 sessions (4 hours every Friday)
  - ✓ Includes a full length mock test, and tips & tricks to pass the exam
- \* **Art & Science of Agile – On Apr16, 2014 – 7 PDUs**
  - ✓ 1-day class delivered in person, from 8:30am-4:30pm CT
  - ✓ Venue – eFactory, 405 N Jefferson Ave, Springfield, MO, USA

# How to Claim 1 PDU for this Webinar?

- \* PDU Category – B, Continuing Education
- \* Program Title – Webinar on “Writing Agile User Stories”
- \* Date Started – Today’s date
- \* Date Completed – Today’s date
- \* Hours Completed – 1.00
- \* Provider
  - ✓ Name – RefineM
  - ✓ Phone # 417-414-9886
  - ✓ Email – [nks@refinem.com](mailto:nks@refinem.com)
- \* PDUs Claimed – 1.00

# Questions?



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