

Application Services Estimating Workshop

Presented by SOMTech PMO

3/18/22

Agenda

- ▶ Objectives
- ▶ Why Estimate?
- ▶ What the 2020 Scrum Guide says
- ▶ Estimating Techniques
- ▶ Survey Question/Discussion (using Jamboard)
- ▶ Story Points
- ▶ Estimating Exercise
- ▶ Conclusion/Wrap Up

Why Estimate?

- ▶ Business needs to know when they are going to get their product/project
- ▶ Helps determine how much work to include in a sprint
- ▶ Enables planning & forecasting
- ▶ Reliable estimates builds stakeholder trust
- ▶ Increases predictability
- ▶ Align Priorities



The 2020 Scrum Guide does not mention estimating at all like prior versions! But it does mention refinement and size.

What the 2020 Scrum Guide says...

Breaking down work
sound familiar? Like
WBS in project
management

“Product Backlog refinement is the act of breaking down and further defining Product Backlog items into smaller more precise items. This is an ongoing activity to add details, such as a description, order, and size. Attributes often vary with the domain of work.”

- ▶ A Product Backlog item might have the following attributes:
 - ▶ A description
 - ▶ An order
 - ▶ A size

Estimating Techniques - Traditional Project Management

Technique	Description
Rough Order of Magnitude (ROM)	High level estimate done early in the initiation phase (or pre-planning phase) with a wide variance -25% to + 75%
Analogous (Top-Down)	Using historical data from a similar activity or project to estimate duration or cost (i.e. ball park estimate)
Bottom-Up	Aggregate of lower level component estimates (of WBS) to estimate duration or cost
Three-Point (Triangular)	3 estimates based on Most Likely, Optimistic, and Pessimistic using formula $tE=(tO+tM+tP)/3$

 These techniques are Absolute estimation (i.e. effort) based on hours, days, weeks

Estimating Techniques - Agile/Scrum

Technique	Description
T-shirt sizing	Sizing a story or feature i.e. XS, S, M, L
Affinity	Grouping items that are like sized (can be done using T-shirt sizing)
Story Points	Units of measure for expressing an estimate of the overall effort required to fully implement a product backlog item or any other piece of work (<i>points assigned based on complexity, amount of work, risk/uncertainty</i>)
Dot Voting	Team votes on user stories of their choice using dots

Key Difference with Traditional vs. Agile

Absolute (Traditional)

Specific/Actual



Relative (Agile)

Comparing/Sizing

○
1

○
2

○
8

Survey Question/Discussion

What do you like and/or find challenging about estimating with story points so far?

Please use this Jamboard to submit your feedback with sticky notes:

https://jamboard.google.com/d/1yblK9uYbo2sxPbIKuzUcbml15bZ-_vV_8grs76Uh6tE/edit?usp=sharing

Survey Question - Feedback

Submit feedback on sticky note

Harder to estimate or vote when you don't know a lot about the necessary work involved.

How deep of an overview should you steep yourself in on projects that you're not working on?

Lack of knowledge

I still have to use the cheat sheet, but easy to convert hours to points.

finding the right amount of time to spend on estimating a story

I went hours first and then story points after - not sure if that's just skirting the point.

Found I underestimated my time.

I feel that top down estimates (even at the Story level) by their nature can't be very specific

I find I'm frequently annoyed at the need to trans-code between story points and hours. I have to keep a tab open on the Fibonacci values.

I appreciate the fact that we aren't initially trying to assign hours

The estimate feels quite vague but with the potential to become clearer as we have more sprints

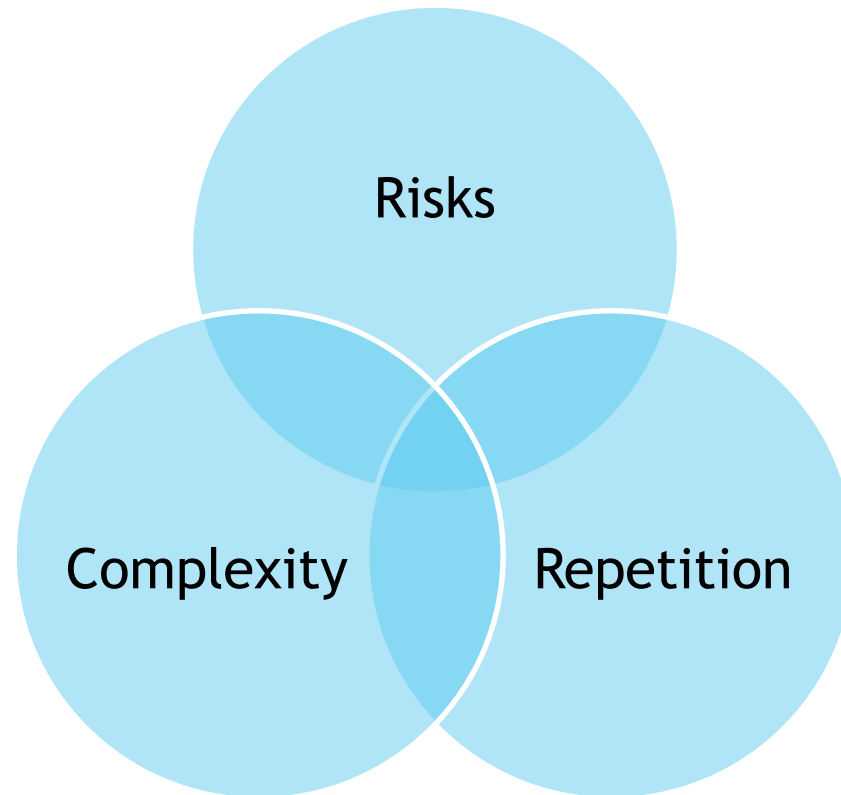
Story Points

Where do Story Points come from?

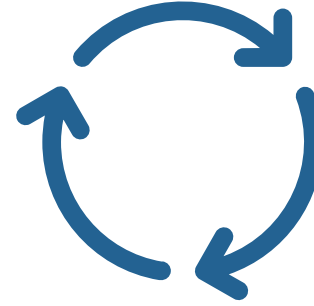
- ▶ Concept from Extreme Programming (XP) back in the 90's!
- ▶ Stories were originally estimated in time, i.e. “ideal days”.
- ▶ “Ideal Days” confused stakeholders which initiated the change to using the term “points”.
- ▶ Scrum practitioners adopted the use of story points.

Story Points

3 Key Components



Story Points



- ▶ **Product Backlog Refinement** is the act of adding detail, estimates, and order to items in the Product Backlog.
- ▶ This is an ongoing process in which the Product Owner and the Development Team collaborate on the details of Product Backlog items.
- ▶ During Product Backlog refinement, items are reviewed and revised.
- ▶ The Scrum Team decides how and when refinement is done.
- ▶ Refinement usually consumes no more than 10% of the capacity of the Development Team. However, Product Backlog items can be updated at any time by the Product Owner or at the Product Owner's discretion.

- from the 2017 Scrum Guide

Estimating Exercise



- ▶ You will be divided into **2 teams** in separate break out rooms
- ▶ Each team will work together to estimate story points for these Features/Stories [Estimating Workshop 20220318 Features Backlog - Boards \(vcu.edu\)](#)
- ▶ Development environment is what AS currently uses
- ▶ You can use planning poker <https://storypoints.app/>
- ▶ You are *basing it on what is known at this point* so please avoid over-analyzing 😊
- ▶ At the end of the **20 min.** timeframe, we will review each team's estimates and compare/discuss

Estimating Exercise

What takeaways do you have from this workshop & estimating exercise?

Please use this Jamboard to submit your feedback with sticky notes:

<https://jamboard.google.com/d/1Tw5cgb3u3kOrSO8prbUcqfrgS9DtaQlpzc57Yv5ruE4/edit?usp=sharing>

Estimating Exercise - Feedback

Confusion as to whether things like design, deployment, and testing should be included in estimates

Most critical factor: defining scope.

When do you determine the additional details?

we needed more refinement before estimating

Supporting Resources

Recording & slides of this training will be available to the team:

Lynne will post in DevOps after the training

Scrum related documents in our SOMTech PMO doc library:

<https://vcuhealth.sharepoint.com/sites/SOMTech/SOMTech%20PMO/Forms/AllItems.aspx>

Scrum Alliance

<https://www.scrumalliance.org/>

One of the founders of XP software development that came up with points (looking backwards!):

<https://ronjeffries.com/articles/019-01ff/story-points/Index.html>

Scrum term first used in this Harvard Business Review article from 1986:

https://hbr.org/1986/01/the-new-new-product-development-game?cm_sp=Article-_-Links-_-Comment