



# DevOps for Defense

June 2018

Value Stream Mapping

Erik Nielsen

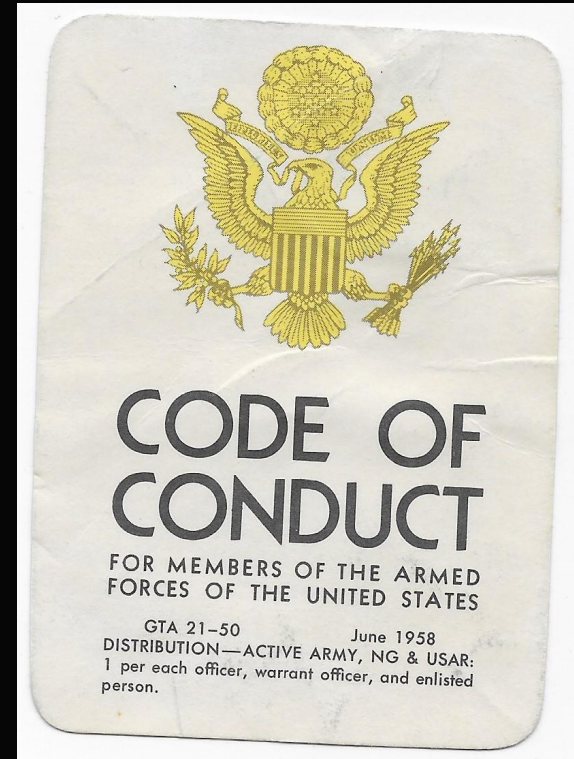
Writing Good Agile Stories

Paddy Fotovich

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# DevOps for Defense Meetup: Code of Conduct

- UNCLASSIFIED ONLY!!!!
- Treat each other with respect and professionalism.
- Do not talk about private, sensitive, or proprietary work.
- Do talk about your experiences, needs, desires to improve work in our domain.
- Do share your thoughts.
- Do learn from others.
- Do respect & tip your bartenders!



# Value Stream Mapping

Erik Neilsen



# What is value stream mapping?

A value stream map is a lean technique designed to capture the flow of information or materials to produce a product or a service to a customer.

It's different from a process map in that

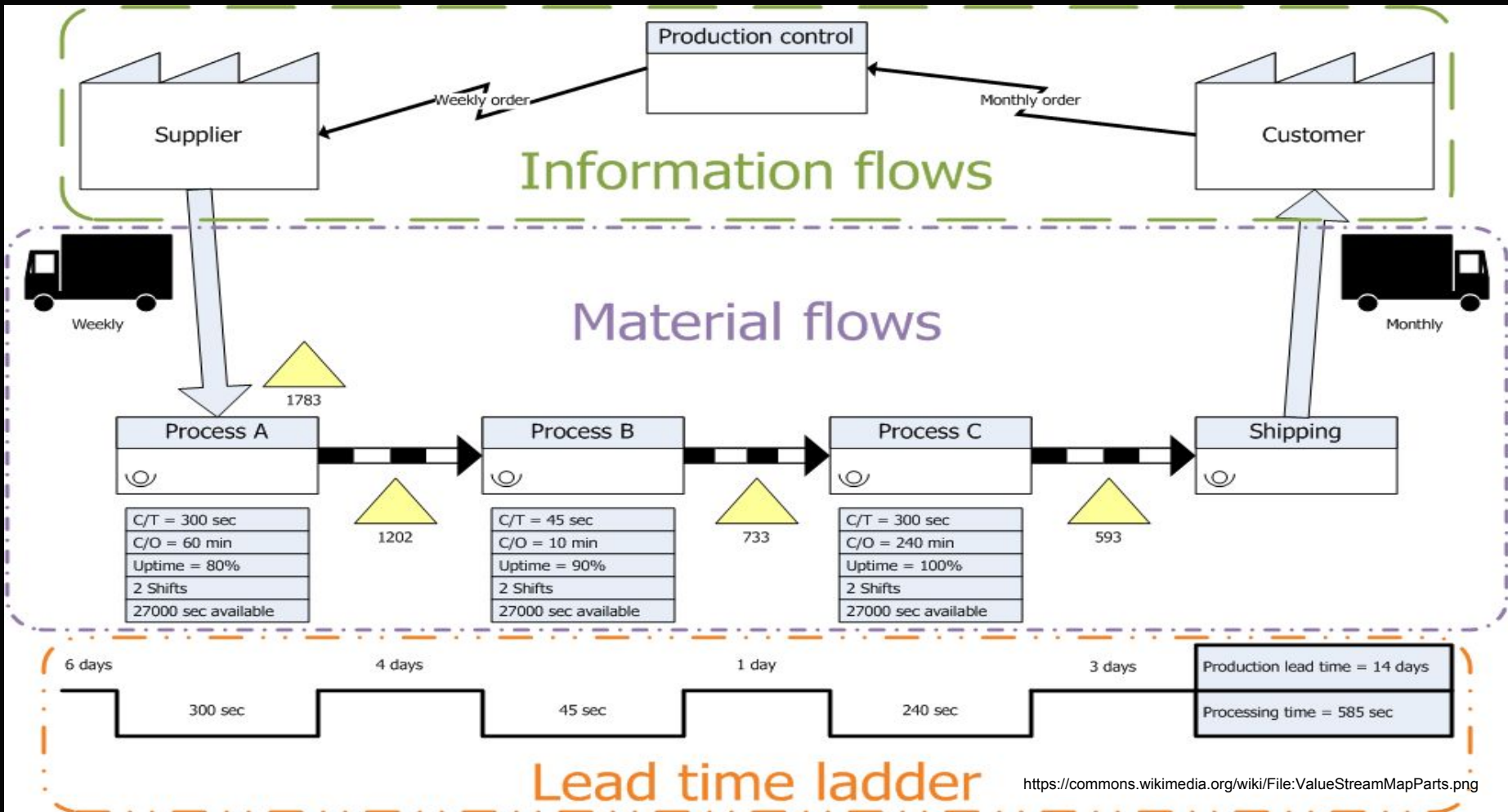
- It captures a broader range of information than a process map
- It is at a higher level than a process map (think 5-10 boxes max)
- It tends to be broader (materials to finished product)
- It is used to start the more detailed conversation for projects or kaizens

# Why do we do value stream mapping?

Unlike a process map, a value stream map also includes the information flow of the various processes. The information flows tend to be hidden unless they are investigated.

The concept is to look at the bigger picture of the flow, not just trying to optimize a small part of the process.

It gives multidisciplinary groups a common language when describing the process, it helps break communication stovepipes.



# What are we trying to do?

Two main goals with value stream mapping

Increase flow - how do we get more throughput?

How do we eliminate waste?

# How do we increase throughput?

Identify bottlenecks and load level our process

Look at the cycle times for the each step of the process

Look at the change over times for each step of the process

How can we improve these?

This becomes our “to be” process, lean/six sigma/kaizen events get us plans on how to close the gap



# What is waste?

In simple terms, waste is anything a customer isn't going to pay for.



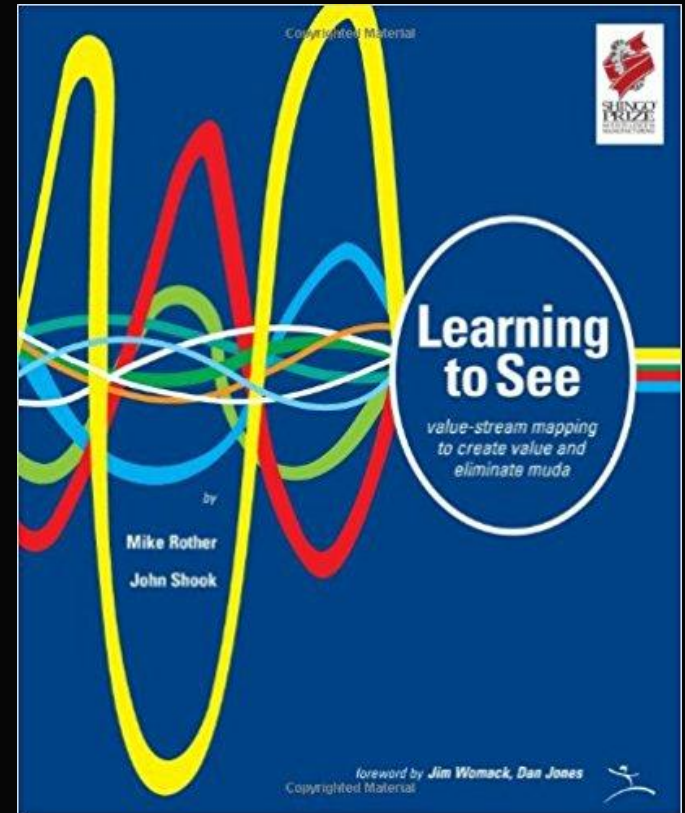
# Templates available

Plenty of templates are available via the web

Quality Companion in Minitab will calculate all of the needed values for you

# Resource

Learning to see by Mike Rother and John Shook (~\$65 on Amazon)



# Writing Good Agile Stories

Paddy Fotovich



Follow the INVEST  
guidelines for good  
user stories!



I	independent
N	negotiable
V	valuable
E	estimable
S	small
T	testable

# Why Use a User Story

User Stories are the cornerstone of many Agile methodologies

- ▶ Describe functionality
- ▶ Quantify size
- ▶ Schedule what to do

# Simply put...

A user story is a brief narrative, written from the point of view a user, detailing something the user wants and why

- ▶ Typically in the form of

“As a <user role>, I want <something> so that < why>.”

- ▶ Some Examples

- As a general, I want to shoot down missiles launched at the US so that lives are not lost.
- As a student, I want to register for classes online so that I don't have to travel to campus to register.
- As a customer, I want to delete an item from my order because I don't want it anymore.

# Characteristics of a User Story

As a <user role>, I want <something> so that < why>.

- ▶ Brief – contains just enough detail
  - ▶ Identifies functionality – what value is being added
  - ▶ Provides context – who wants it and why
- 
- As a general, I want to shoot down missiles launched at the US so that lives are not lost.
  - As a student, I want to register for classes online so that I don't have to travel to campus to register.
  - As a customer, I want to delete an item from my order because I don't want it anymore.



# Properties of a User Story

Additional information typically associated with a User Story

- ▶ Story Points

An arbitrarily unitless measurement used to indicate the amount of effort required to implement the User Story

- ▶ Acceptance Criteria

A detailed description identifying success conditions of the User Story



# Examples

- ▶ As a general, I want to destroy missiles launched at the US so that lives are not lost.
  - ▶ Story Points: 1,000,000,000
  - ▶ Acceptance Criteria:
    1. Identify hostile missile
    2. Activate countermeasure
    3. Identify successful destruction
- ▶ As a student, I want to register for classes online so that I don't have to travel to campus to register.
  - ▶ Story Points: 400
  - ▶ Acceptance Criteria:
    1. Logged into site
    2. Identify classes for registration
    3. Accept selected classes
    4. Receive registration confirmation
- ▶ As a customer, I want to delete an item from my order because I don't want it anymore.
  - ▶ Story Points: 3
  - ▶ Acceptance Criteria:
    1. Item from shopping cart identified
    2. Prompted to verify deletion
    3. Item removed from shopping cart
    4. Shopping cart updated

# Uses of a User Story

- ▶ Design
  - ▶ User Stories identify the features of the program
  - ▶ General, broad scoped, User Stories are decomposed into detailed, narrower scoped, User Stories to flesh out details of the program
  - ▶ Used instead of the typical wall of “Thou shall...” text associated with traditional requirements analysis
- ▶ Size
  - ▶ Program “size” can be determined based on the aggregated Story Point count
- ▶ Schedule
  - ▶ User Stories can be prioritized to indicate order of completion

# Group Exercise: Lean Coffee

1. Each table has a facilitator.
2. The facilitator has a short introduction to an aspect of continuous experimentation and improvement.
3. Everyone write down questions on the subject. Place them in the middle of the table.
4. The group votes on questions by placing a dot on the card. 3 votes per person.
5. Question with most dots goes first. Set a timer for 5 minutes and discuss.
6. After 5 minutes, either vote (thumbs up/down) to keep going or move on to the next question.



# Agenda: Finish with a Lean Coffee

1. DevOps Transition:  
Fear, Uncertainty, &  
Doubt
2. Finding Wait/Waste in  
Your Value Stream
3. Breaking Down Work  
into Unambiguous  
User Stories



# DevOps Resources

<https://www.meetup.com/DevOps-for-Defense/>  
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## Books / Publications:

- The Phoenix Project
- The DevOps Handbook
- Continuous Delivery
- Lean Enterprise
- Lean Startup
- The State of DevOps Report
- Turn This Ship Around!

## Conference Presentations (YouTube):

- DevOps Enterprise Summit (DOES)
- Velocity
- GoTo

