WIP:
A Tragedy in 278 Parts

Basic techniques for improving service delivery
Welcome!

Goal

Improve service delivery
Welcome!

Goal

Improve service delivery

Techniques

Optimize the right things
Avoid the tragedy of WIP
Keep your options open

Exercise

A room full of WIP
Optimize the Right Things
How Long Does it Take?

Customer lead time (Time to market)

Queue time (waiting)  Time in process (TIP)

Great Idea!

I love it!

We should get started.

Ok, all good!
How Long Does it Take?

Time in Process (TIP)

What is this thing?

I think it works.

Now?

Nope!

Yep!

Whew! Ship it!
# How Long Does it Take?

## Time in Process (TIP)

<table>
<thead>
<tr>
<th>Analysis &amp; Design</th>
<th>Code</th>
<th>Test (and fix)</th>
<th>Ship</th>
</tr>
</thead>
<tbody>
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</tr>
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<td></td>
<td>Yes! Yep!</td>
<td></td>
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</tbody>
</table>
How Long Does it Take?

Time in process (TIP)

Wait time = 18 days
Touch time = 2 days

- Analysis & Design
- Code
- Test (and fix)
- Ship
How Long Does it Take?

Time in process (TIP)

Wait time = 18 days

Touch time = 2 days

Flow efficiency = \[
\frac{\text{Touch time}}{\text{Wait time} + \text{Touch time}} = \frac{2d}{18d + 2d} = 10\% \text{ efficiency}
\]
What is Your Goal?

I love it! (Wow, that was fast!)

Flow efficiency
10% efficiency
Get things done

I should get started … (but, I’m so busy)

“Resource” efficiency
100% efficiency
Keep people busy
Your Goal

I love it!
I love it!
I love it!
I love it!
I love it!
I love it!

Keep value moving!
We Have Lots of Work!
(Don’t we have both efficiencies?)
The Tragedy of WIP
Let’s Juggle!
Work Interacts (through workers) …
... and Impacts Throughput

![Graph showing Lead Time vs. WIP](image)

\[ TP = \frac{\text{WIP}}{\text{Lead Time}} \]

You are here
How Much WIP is Bad?
Our Answer …

Between one and two work items per person - closer to one!

See: http://www.rallydev.com/agilemetrics
But … but … how can we get there?

Only start the really important things

For every two items you finish, start one new one

For every “expedite,” pull an existing item out

Say “not yet” more

Be creative
Options and Commitment

Balancing expectations and flexibility
When do you Commit?

Customer Lead Time
(Time to market)

Queue Time
(waiting…)

Time in Process
(TIP)

When do your customers believe you?
Avoid Empty Commitments

An untrusted commitment has no meaning (but lots of stress)

- Treat work here as options
- Changing our minds here is cheap
- Changing here has a cost
- These are committed

www.rallydev.com
Commit Later! (And Mean it)

Options have value

Options expire

Never commit early unless you know why
Limit Commitments in Progress

Lead Time vs. WIP

- Target Range
- Commit to here
- Not to here

Work items in progress (Items)

Lead Time (days)

Throughput (items per day)
Summary: Three Simple Guidelines

1. Keep work moving
2. Do less at once
3. Commit when it means something
Get Where you Need to be!
Time to Deliver!
Simulation Objectives

Visualize models for scheduling work

Visualize models for assigning people

Recognize implications of workflow decisions
Relevant Agile Themes

• Limiting WIP
• Flowing work to teams
• Cross-functional teams
• Generalists vs. specialists
• Saturation principle
Goal is to Deliver Projects

• Each person listed on a card must spend 10 seconds touching the card while collaborating
  – Count to 10 slowly as a group
  – Collaboration counts as a two or more people touching the card at the same time
  – Can collaborate in multiple phases, but must always have at least two people touching the card to count

• When all of the people on the card have collaborated, the project is done and can be deployed
  – Deployment involves handing the card to the time-keeper at the front
Roles

- Project Managers / Epic Owners / Product Owners
  - Proper title of role varies with ruleset by round
  - Generally responsible for owning the project cards
- Builders
  - No special sub-roles or limitations for today’s group
  - Can expand game with analyst / dev / test / ops specialties if needed for your context
Round One – Worst Case Scenario

Special rules for this round!

- PMs collect their projects at beginning of round
- PM must remain at their table
- Builders may move freely
- PMs are in competition to deliver the most projects

Basic Rules

- All assigned people must contribute
  - At least 2 touching to count
  - Count to 10 slowly as a group
- Deploy when all items done
  - Take to front of room
Round Two – Generalists at Work

Special rules for this round!

- **Builders can fill in for any listed name**
- **Builders cannot fill in for multiple names on same project**
- PMs collect their projects at beginning of round
- PM must remain at their table
- Builders may move freely
- PMs are in competition to deliver the most projects

Basic Rules

- All assigned people must contribute
  - At least 2 touching to count
  - Count to 10 slowly as a group
- Deploy when all items done
  - Take to front of room
Round Three – Flow Work to Teams

Special rules for this round!

- **Epic Owners** collect work from front and deliver to teams
- **Builders** sit in teams of five and cannot leave local space
- Builders can fill in for any listed name
- Builders cannot fill in for multiple names on same project

Basic Rules

- All assigned people must contribute
  - At least 2 touching to count
  - Count to 10 slowly as a group
- Deploy when all items done
  - Take to front of room
Round Four – Saturation

Special rules for this round!

- **Builders sit in teams of** ten **and cannot leave local space**
- **Load projects maximally before starting new work**
- **Product Owners collect work from front and deliver to their team**
- Builders can fill in for any listed name
- Builders cannot fill in for multiple names on same project

Basic Rules

- **All assigned people must contribute**
  - At least 2 touching to count
  - Count to 10 slowly as a group
- **Deploy when all items done**
  - Take to front of room
Ideas for Additional Rounds

• Prioritize work by WSJF
  – Score by value delivered
• Limit certain slots by “role”, using BA / Dev / Test
  – Round with waterfall style
  – Round with cross-role pairing
• Allow solo person to work, require 15 count
Questions?
Available for questions at the Rally booth directly after this session
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AGILE 2014

ICEBAR

Don’t Miss Rally’s Fire & Ice Party

Join us today from 7 - 10 PM at ICEBAR.
Buses will leave the Gaylord starting at 6:30 PM!