

# Kanban & Making Your Production Scream

Presented by

Clinton Keith



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# Clinton Keith



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# Takeaway

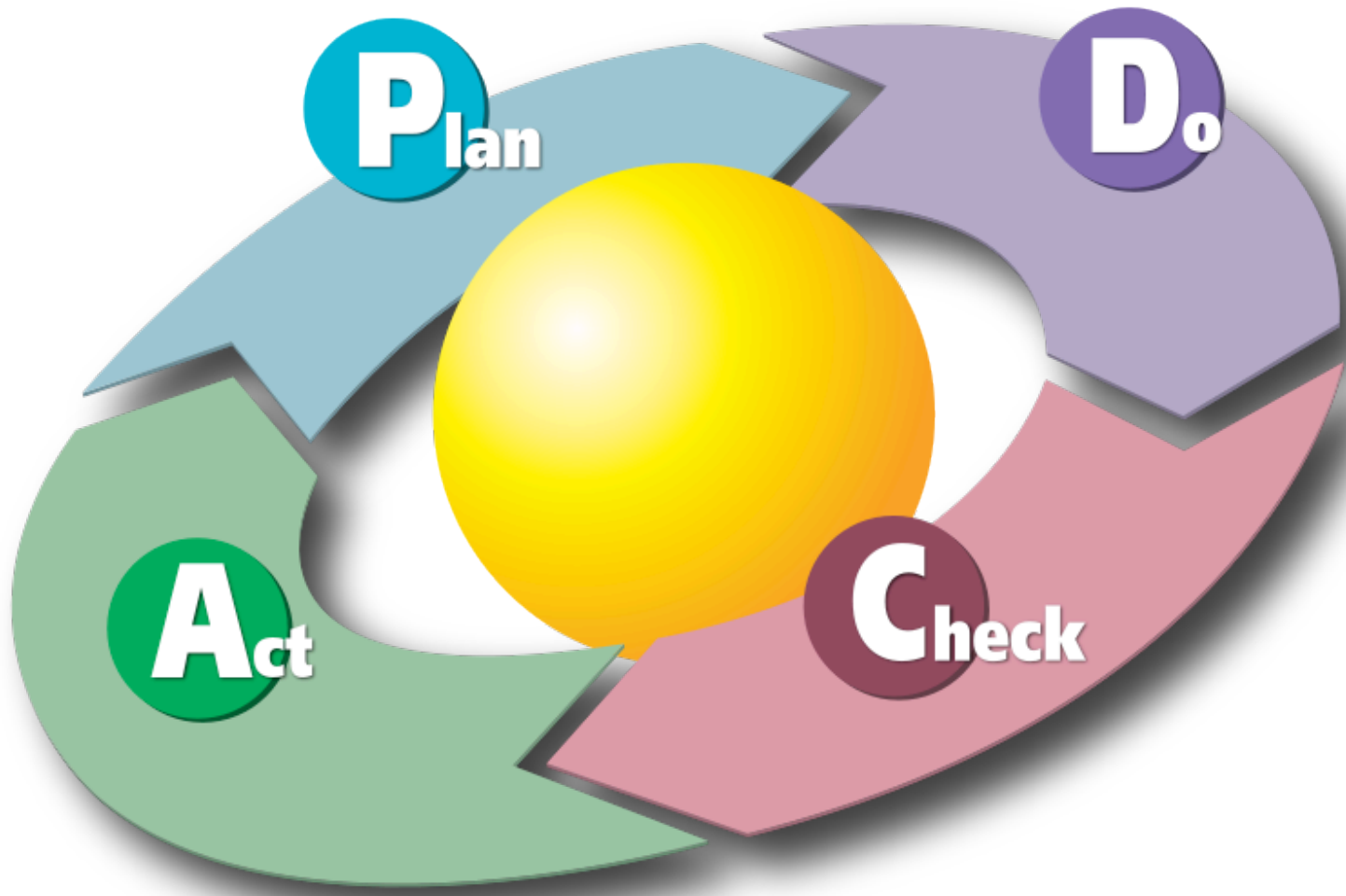
- Provide you with set of tools for production
- Demonstrate how Kanban is being used successfully today in game development
- Give you the ability to start doing this next week

Definition:  
"production"  
means  
content  
production

## Agenda

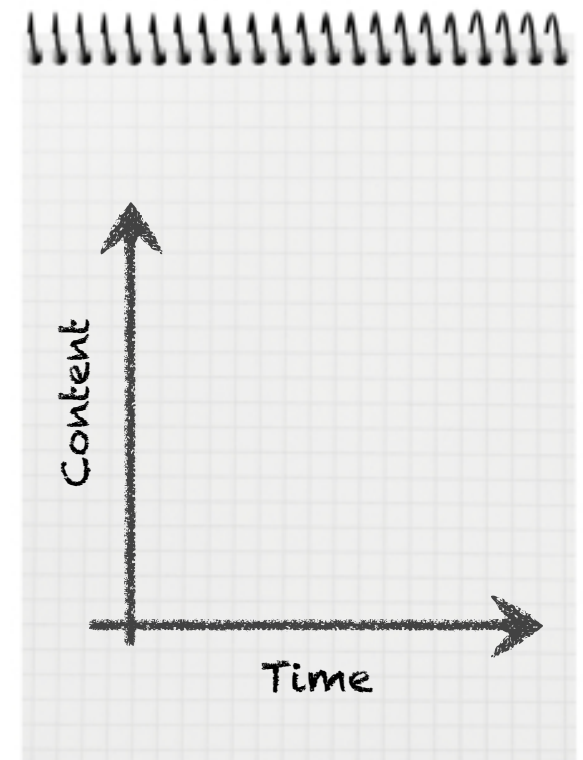
- Define kanban
- Setting it up
- Improving production
- Planning & kanban
- Examples
- Tools

# Kanban supports agility





What is this  
"Kanban" thing?



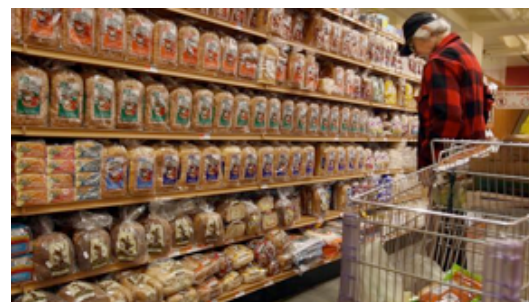
# What is kanban?

*Kanban – A tool for managing the flow of assets or information (or whatever) in a process.*

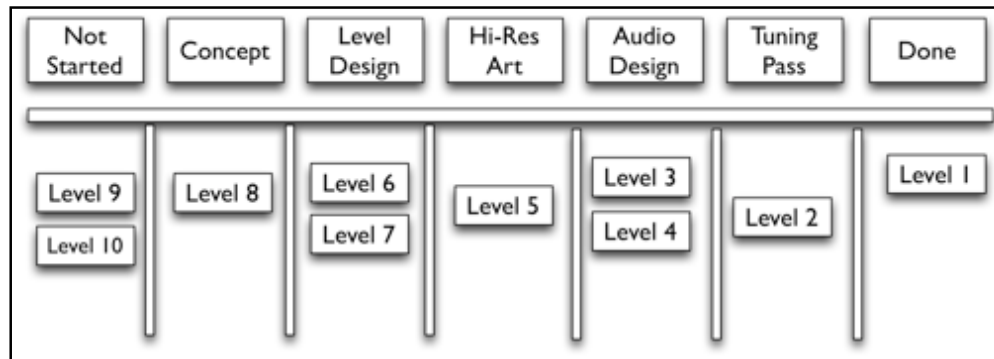
*The name 'Kanban' originates from Japanese, and translates roughly as "**signal card**"*



看板



# What does kanban mean to you?



Visualizing flow of valuable stuff actually being built, rather than relying on a plan of how it should be built

What's the difference?

- Reality trumps planning (& management theater)
- Planning typically doesn't prioritize quality tradeoffs and account for production problems and improvements

# Three Basic Rules

## Visualize Workflow

Have physical boards in prominent locations that show everyone what is going on. And have a clear goal for the delivery that everyone can understand

## Limit Work-in-Progress

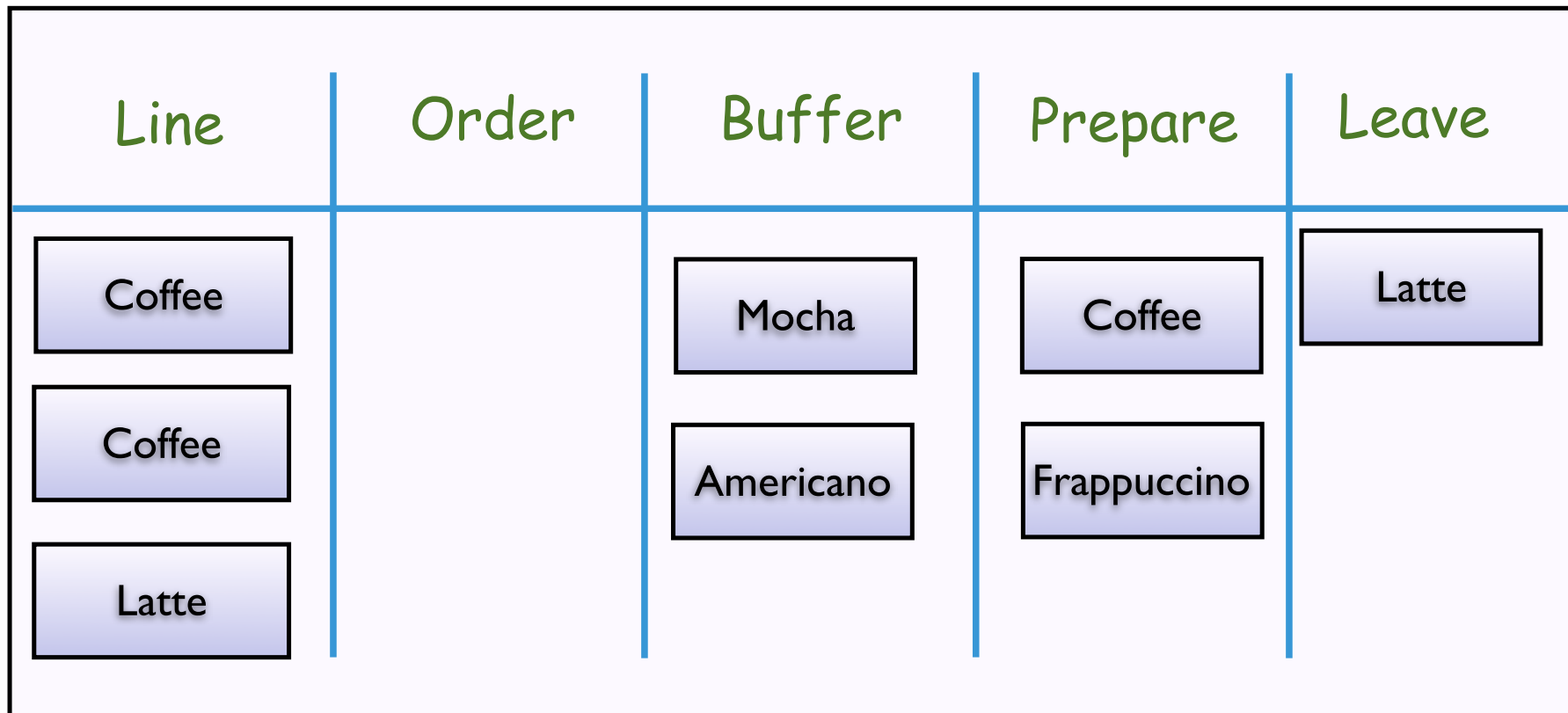
Get more done by doing less. Reduce multi-tasking and batching assets to reduce rework and improve quality

## Measure and Improve Flow

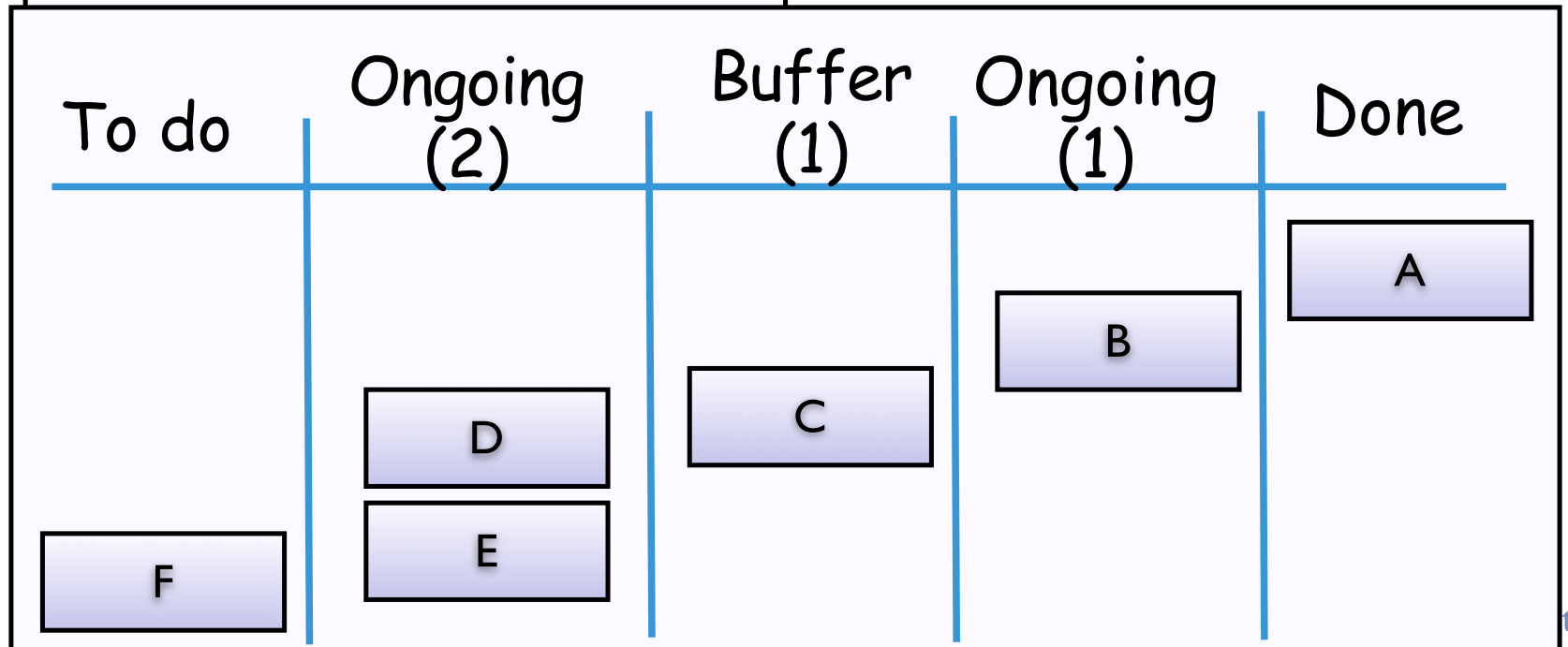
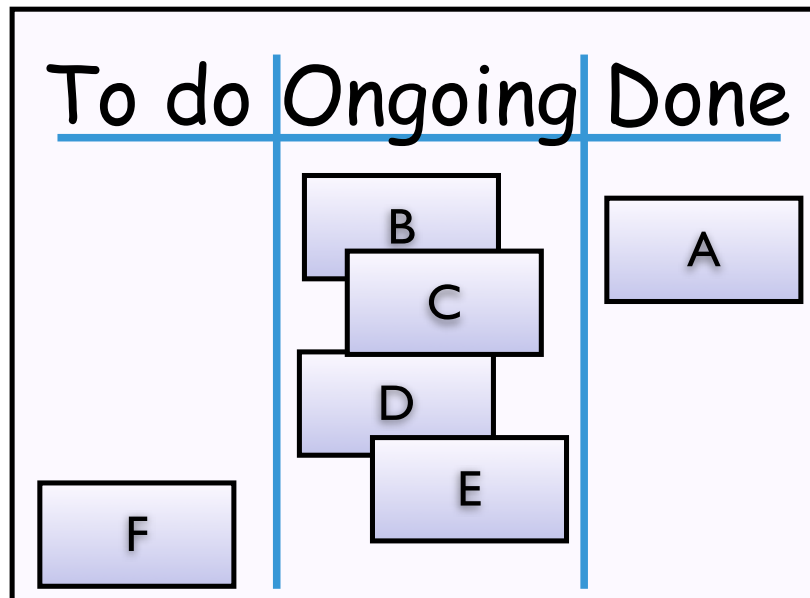
Track some simple metrics that show us whether our process is improving. Consistently seek ways to introduce **measurable** improvements



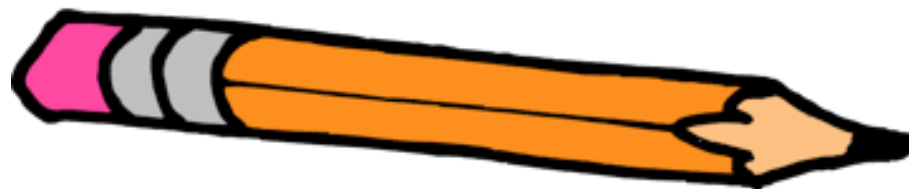
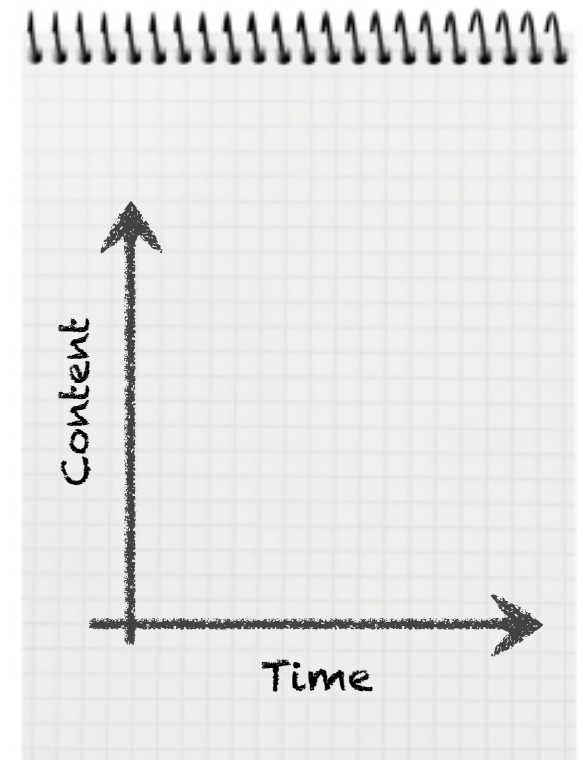
# Starbucks Kanban



# Scrum vs kanban

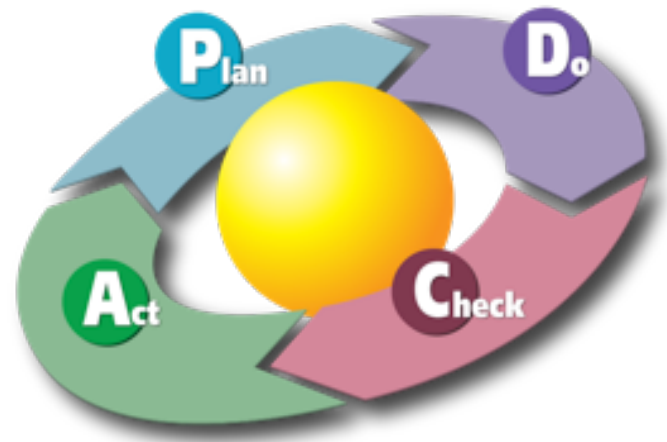


Setting up  
Kanban



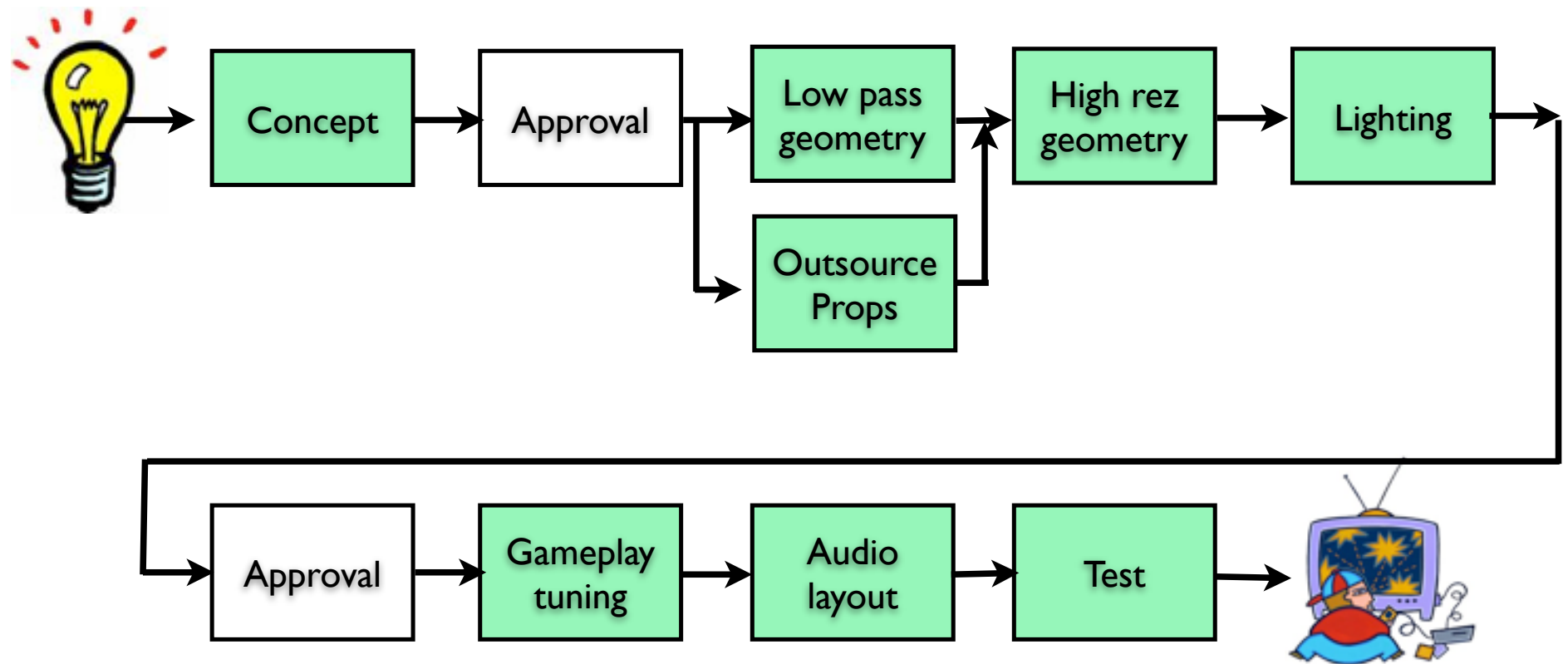
# Starting Kanban

- Start with what you have and use it to improve incrementally
  - Visualize your process
  - Map it
  - Add metrics
  - Inspect
  - Adapt



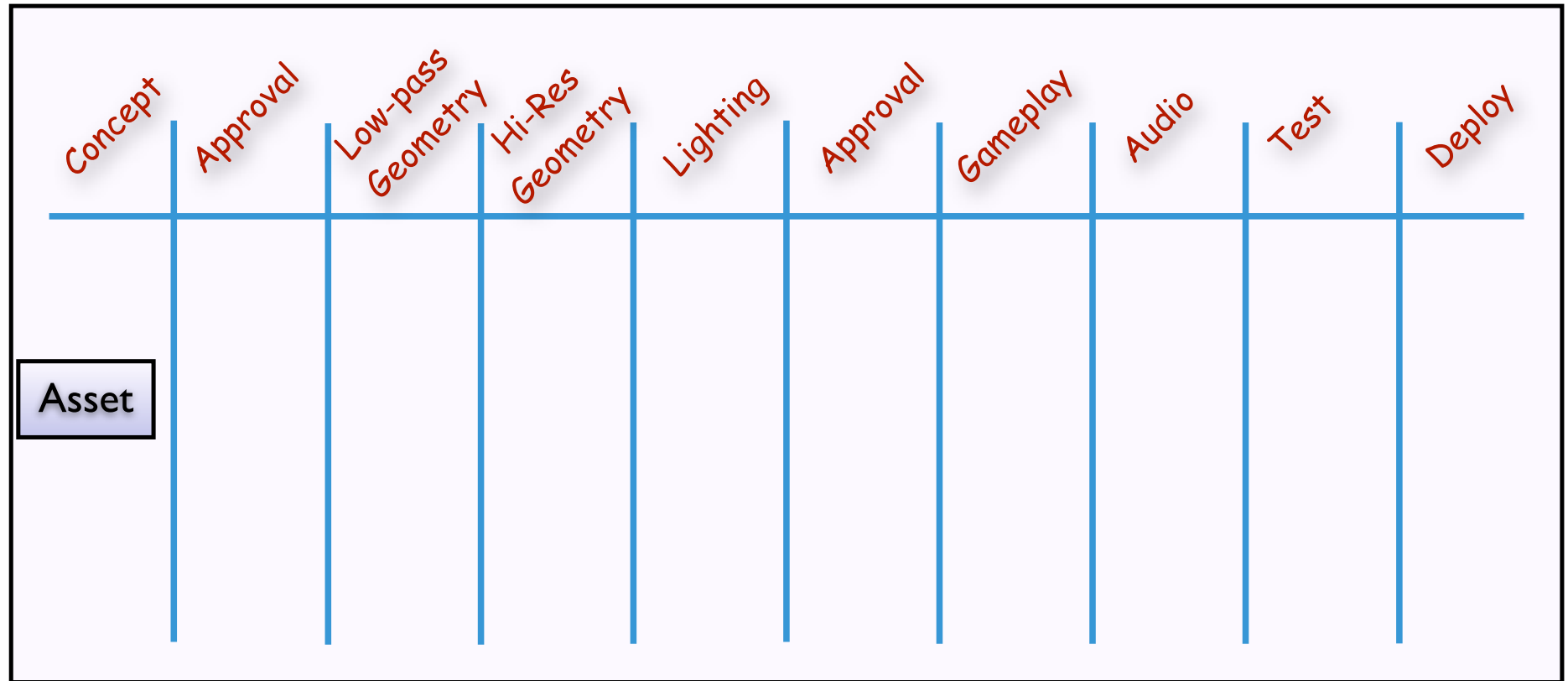


# Visualizing the value stream

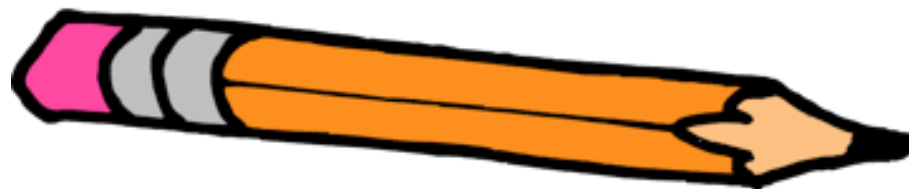
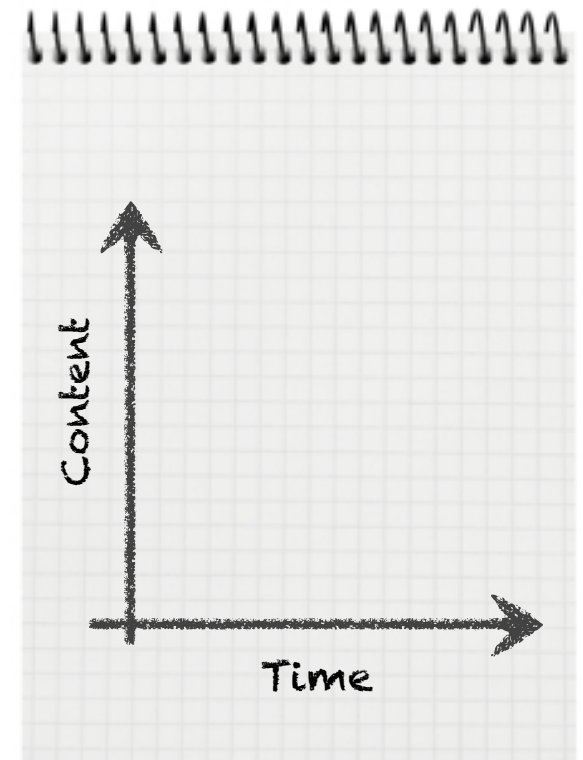


# Map it

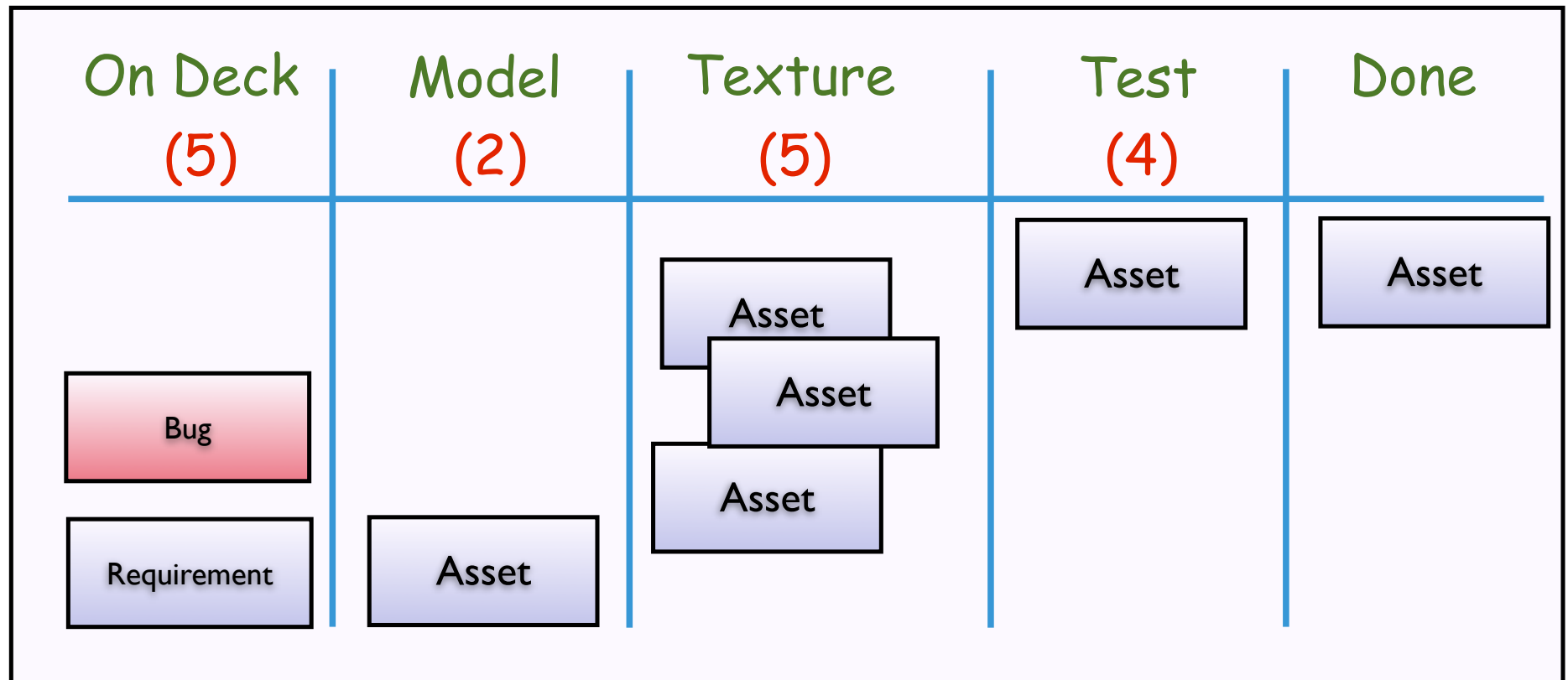
# Measure it



Improving  
Production

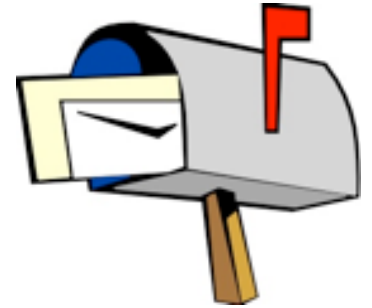


# Limit Work-in-Progress (WiP)



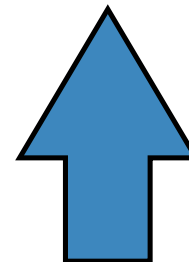
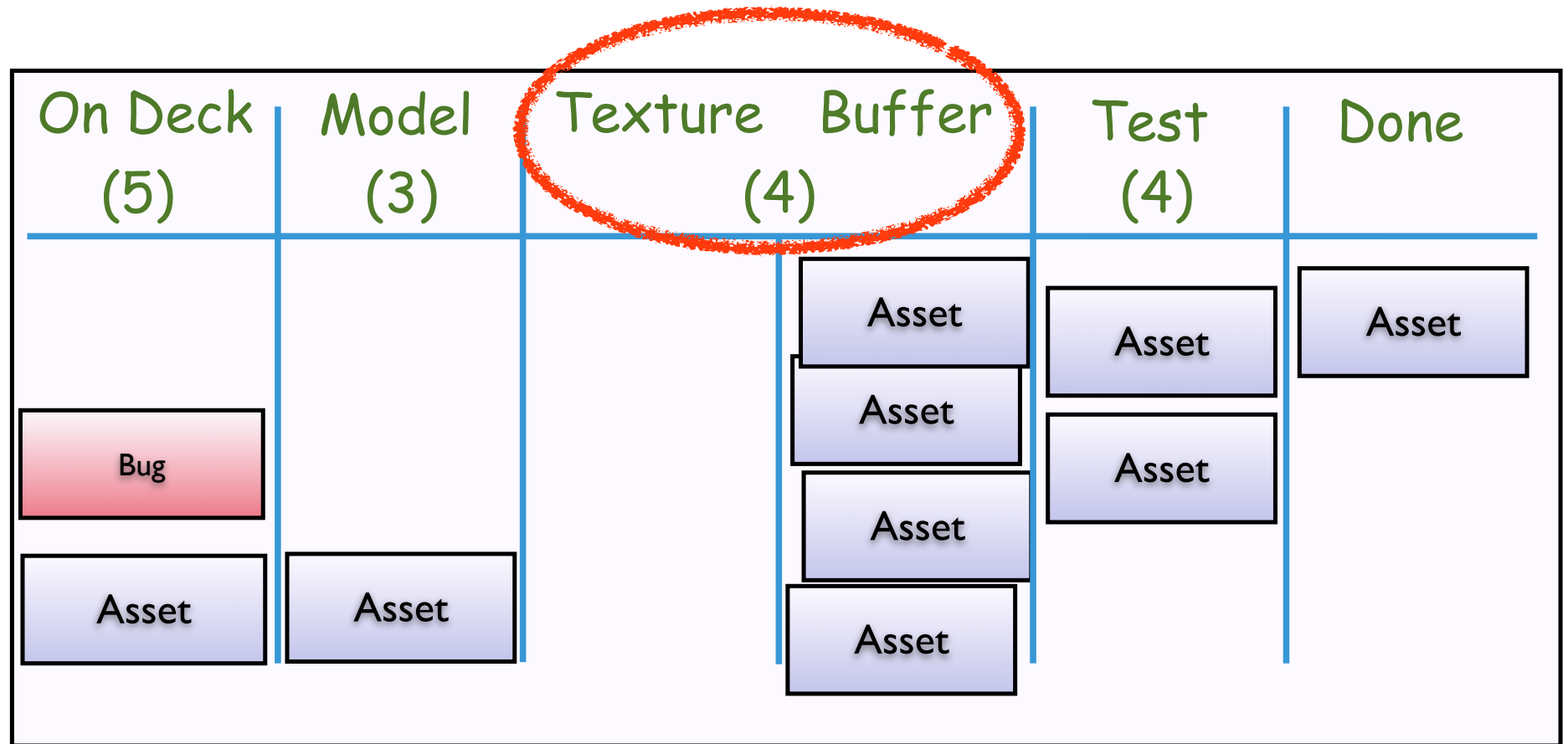


# Buffer for variation

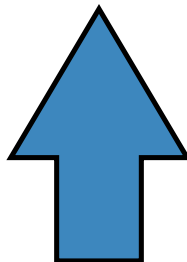
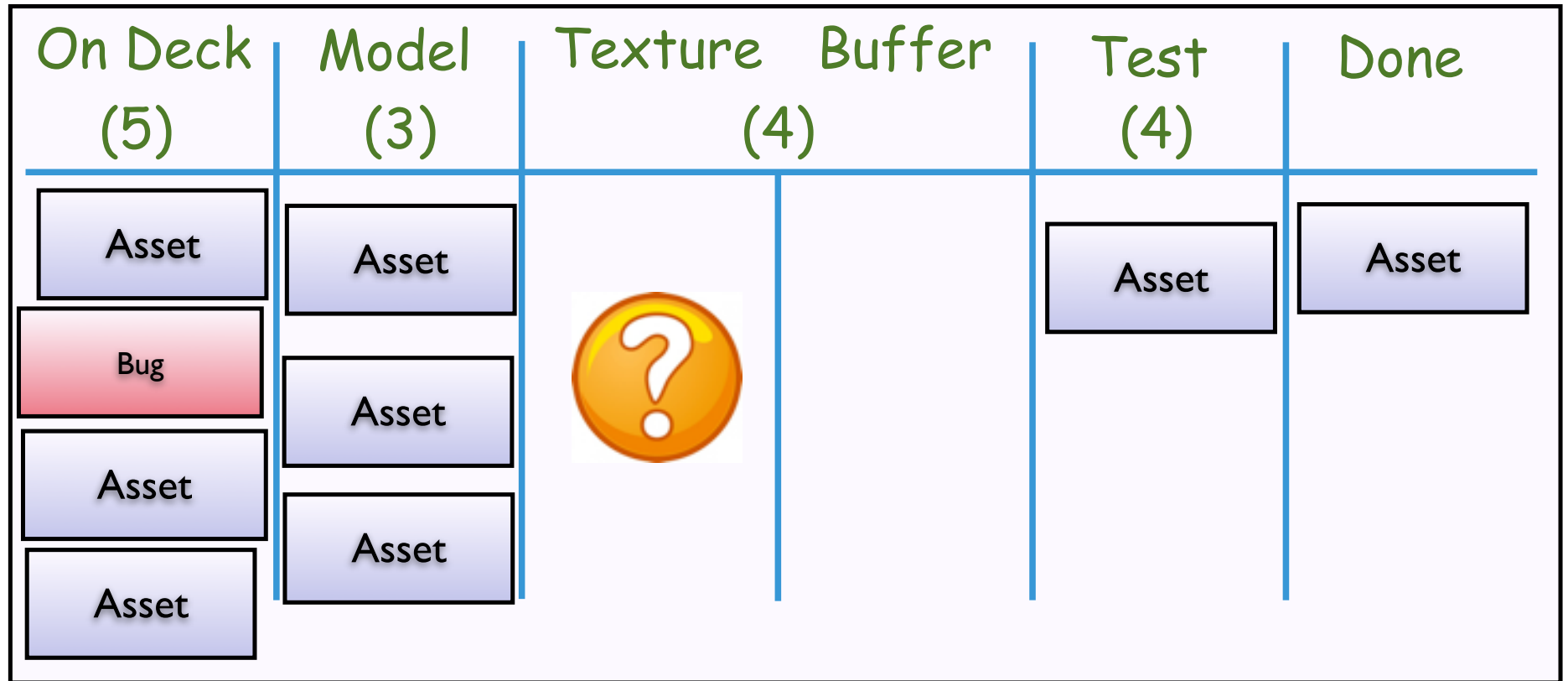


On Deck (5)	Model (2)	Texture (4)	Buffer	Test (4)	Done
		Asset	Asset	Asset	Asset
Bug		Asset		Asset	
Asset	Asset	Asset			

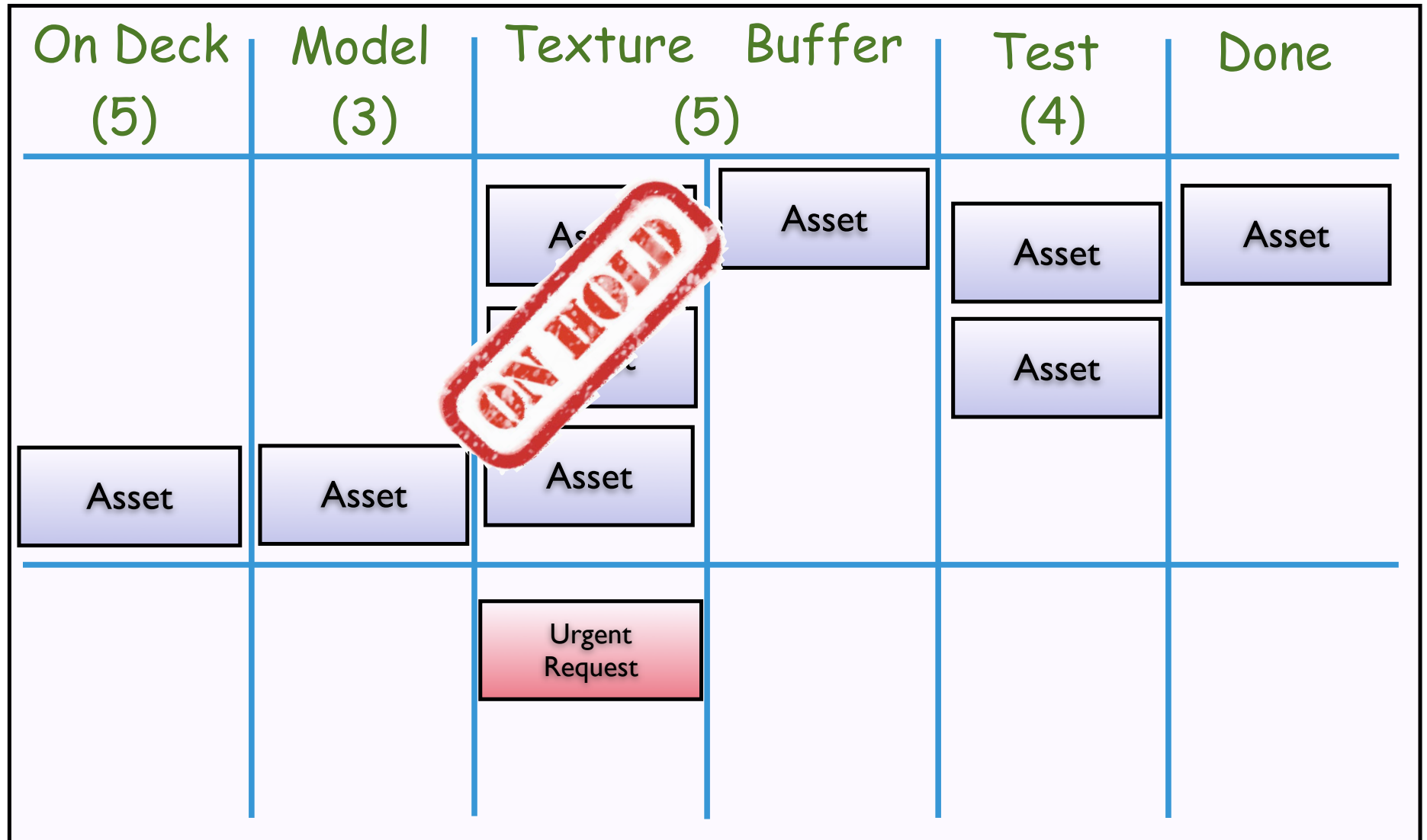
# Overflow



# Underflow



# Emergency lane



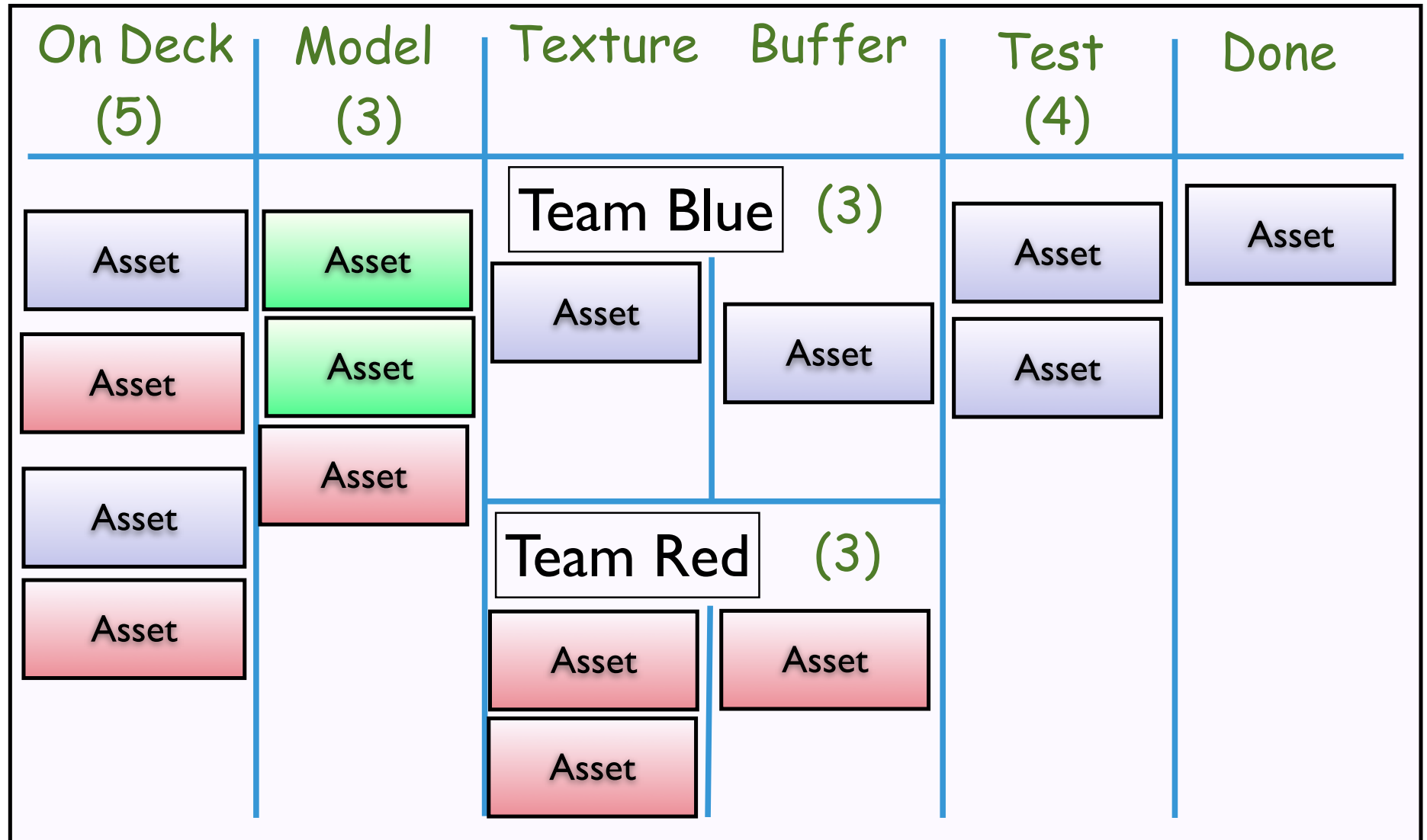


# Multiple Teams

Product  
Blue

Product  
Red

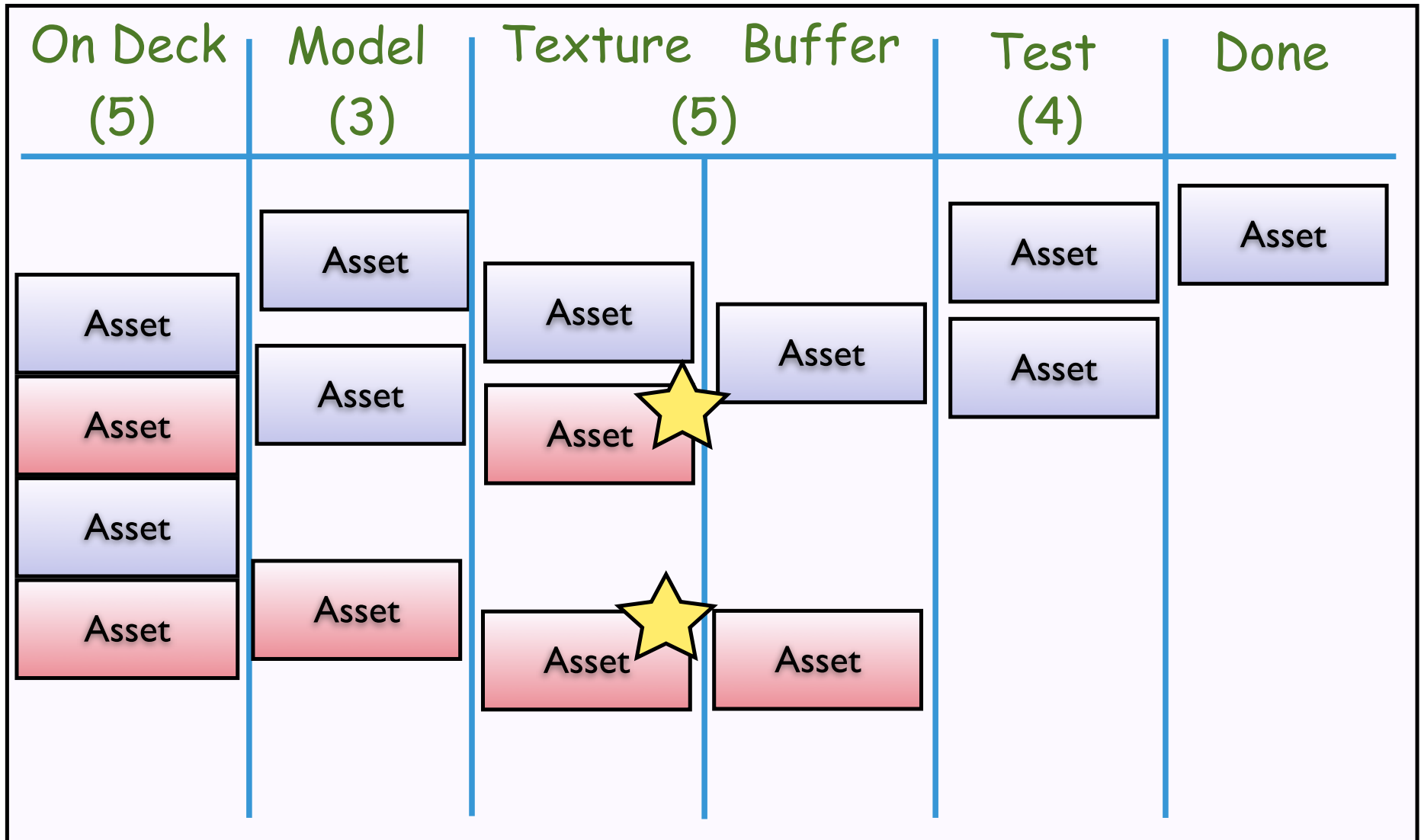
Shared



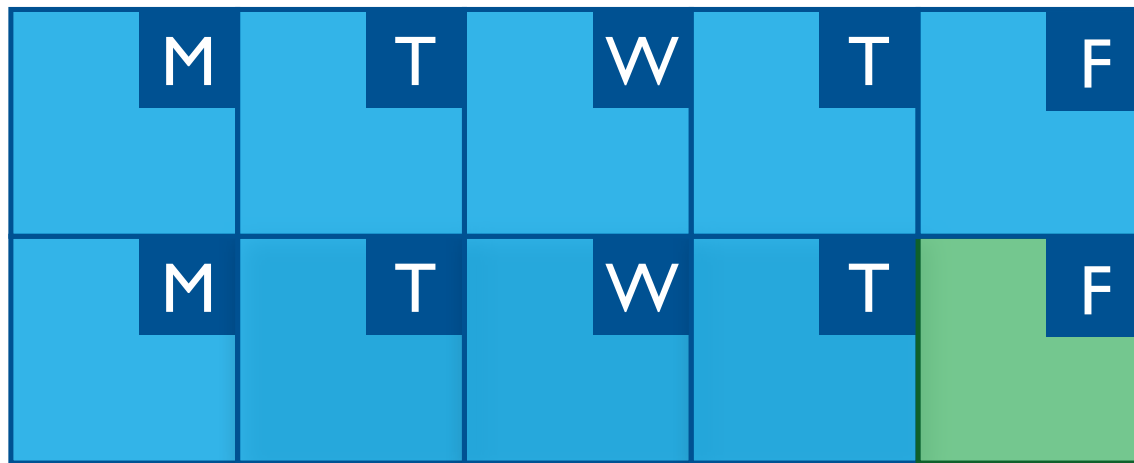
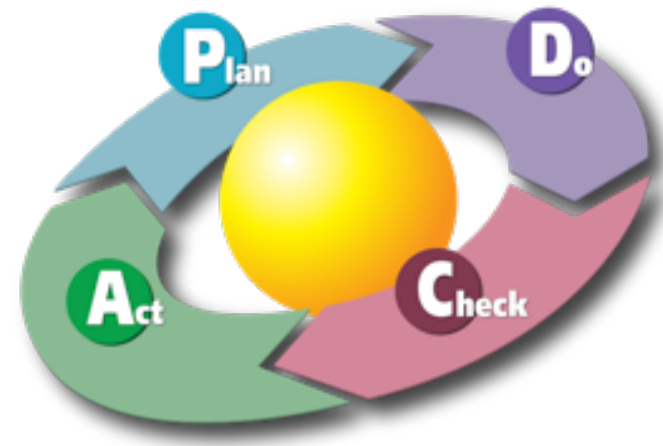
# Managing Specialization

★ = Token

Requires  
Specialist  
Work

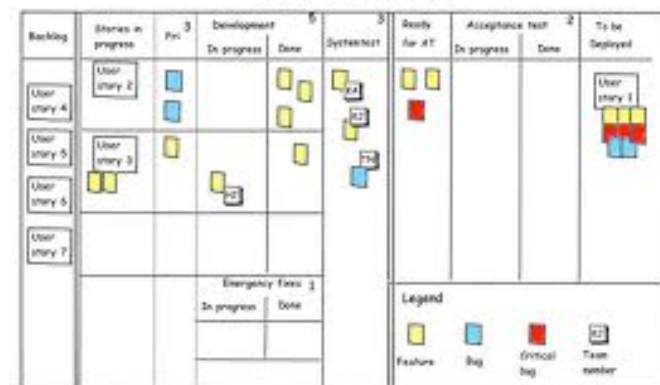
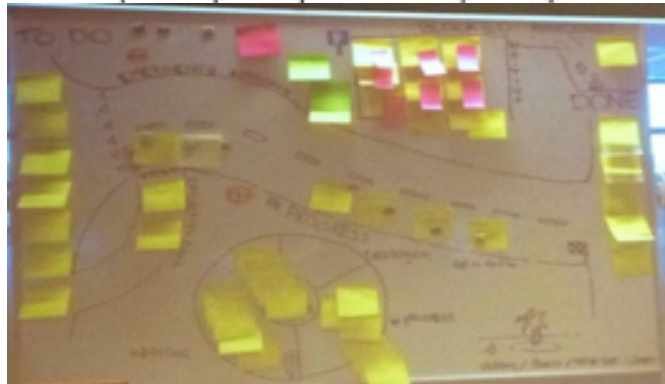
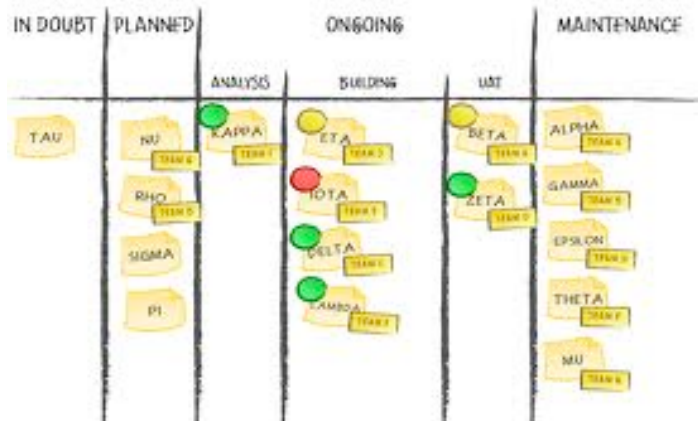


# Cadences



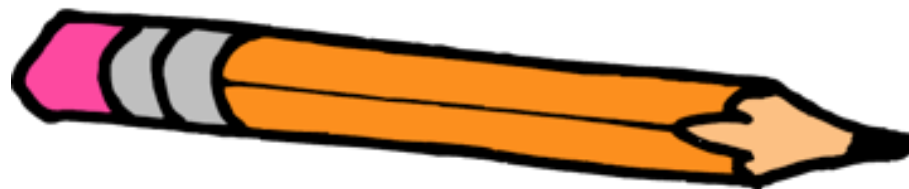
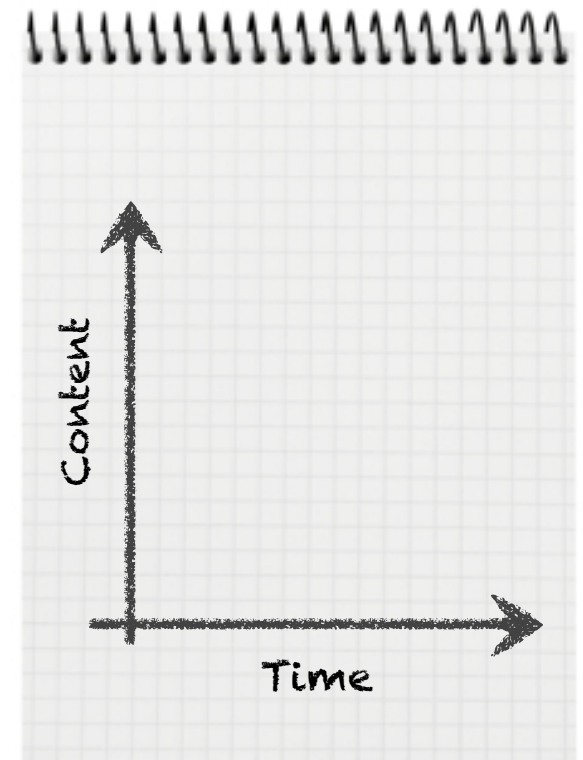
Review & retrospective

# Kanban boards come in all shapes and sizes



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Planning &  
Kanban

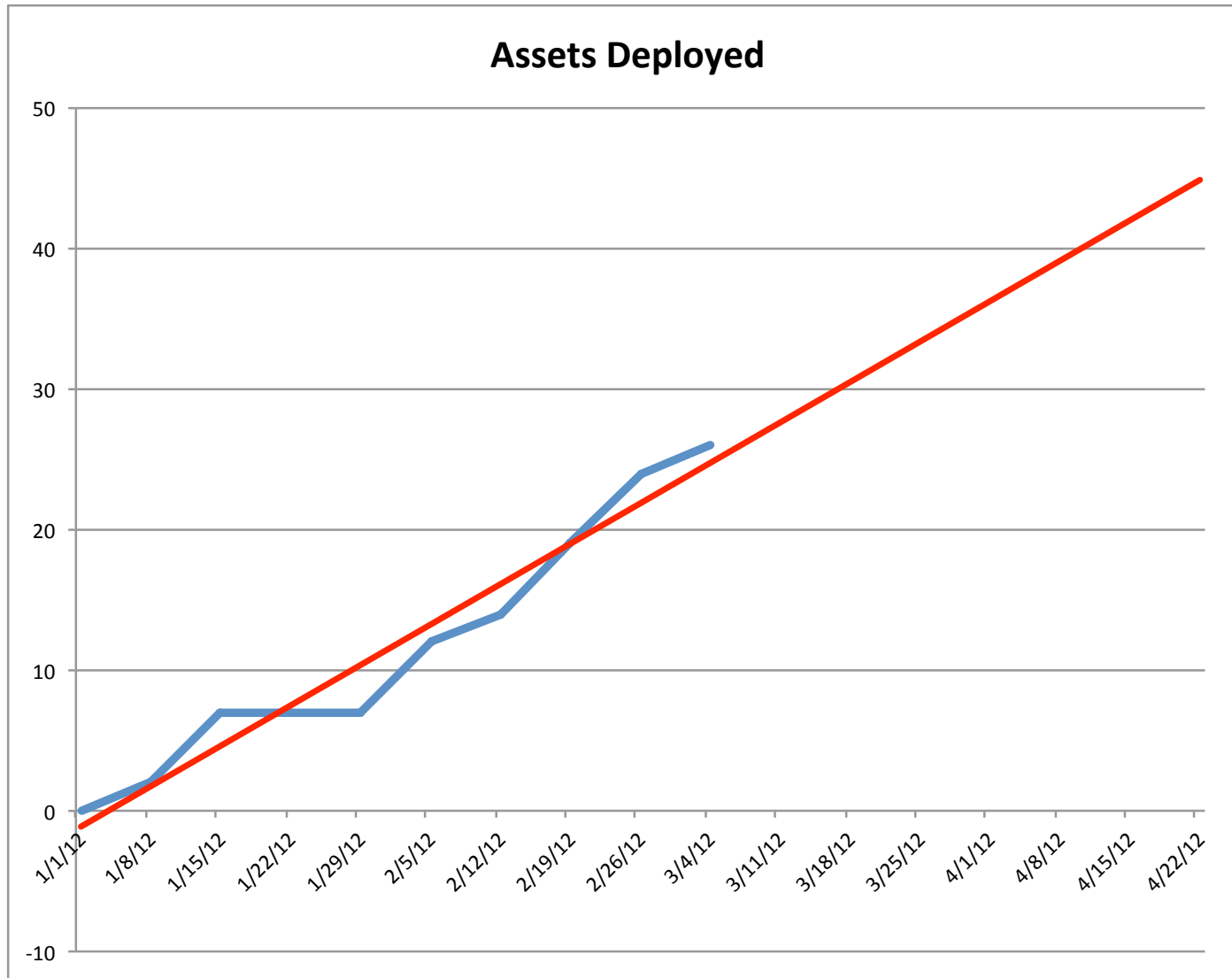




# Relative size / cadence

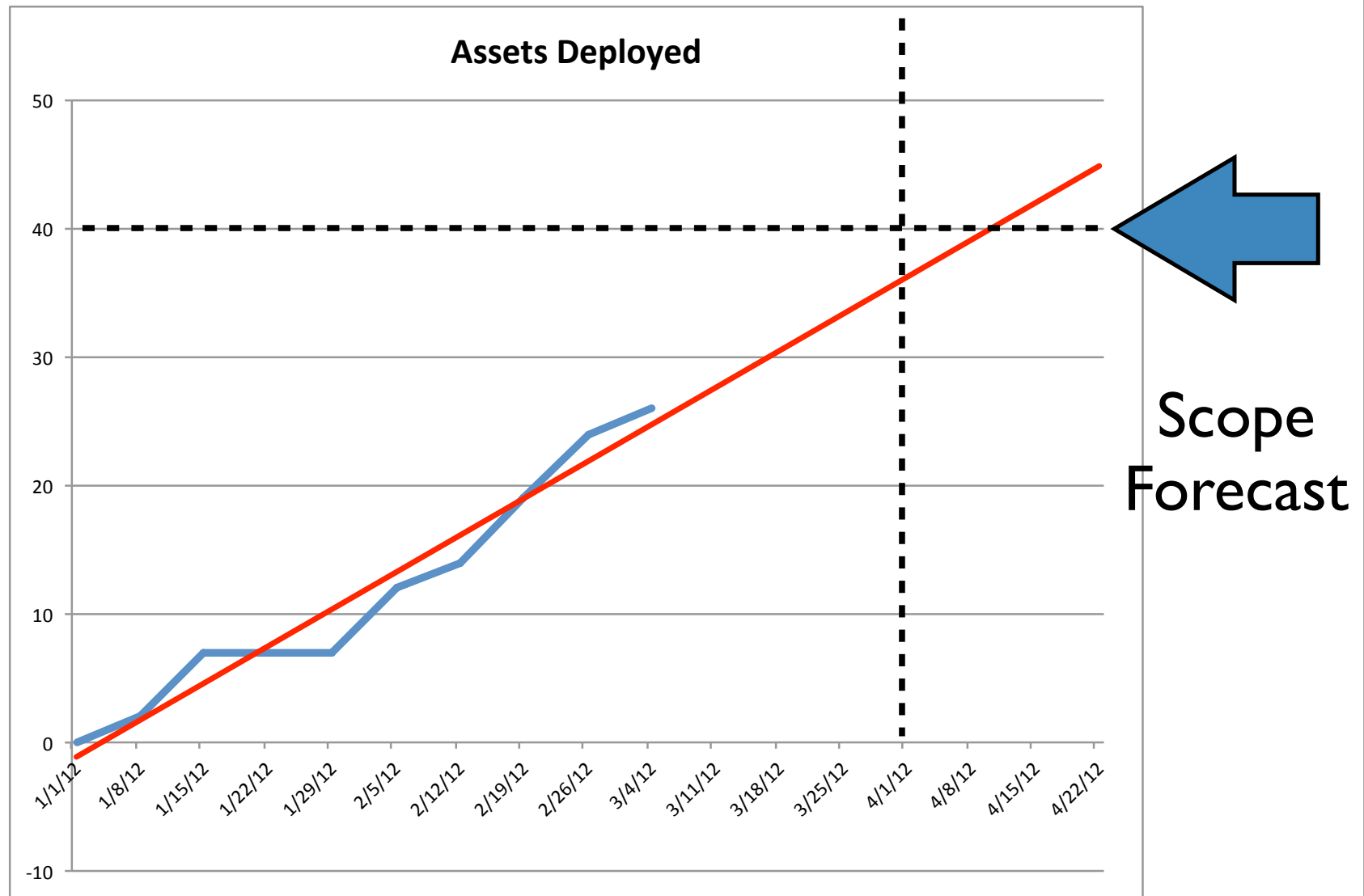


# Burn-up Charts

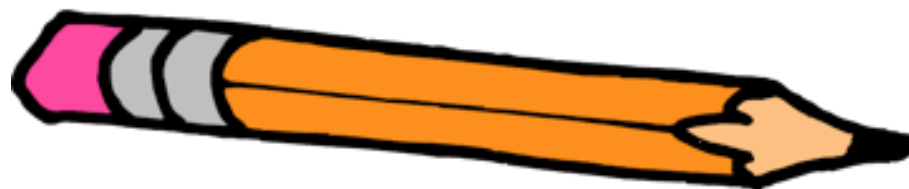
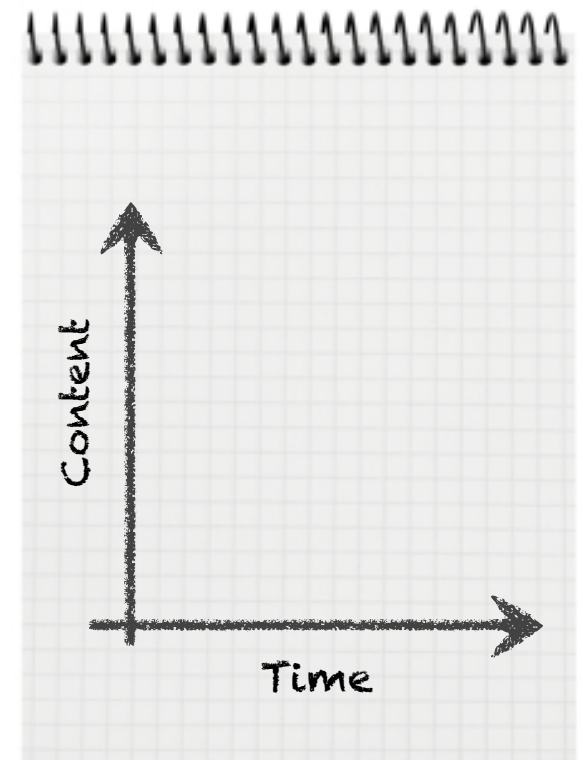


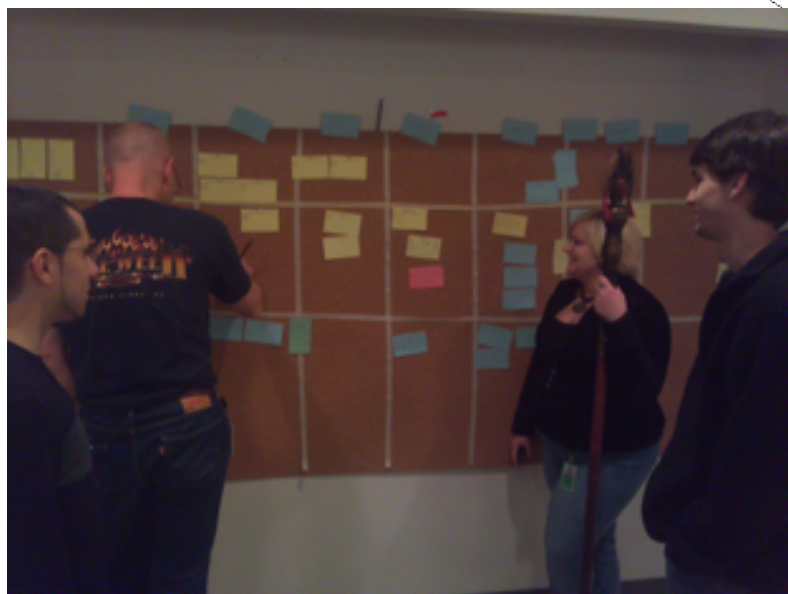
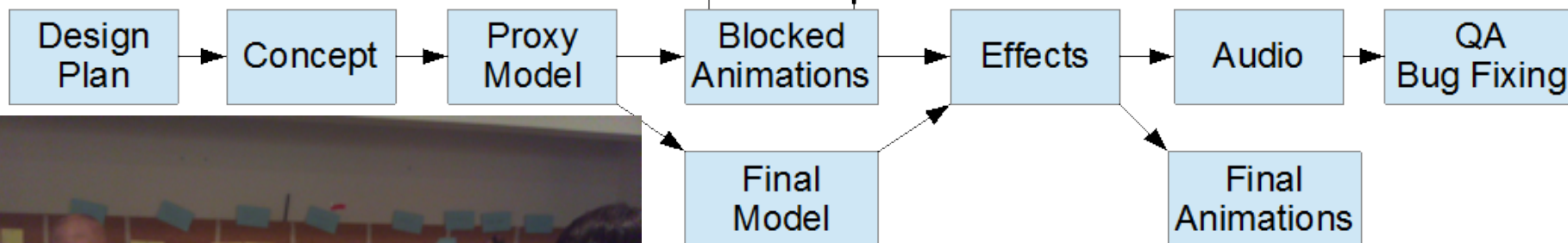


# Forecasting



Examples





Monster Name: **CLANNFEAR**

	Estimate	Actual	Start Date	End Date
Concept	3 d	1/1/1	5/11 M	5/17 Th
Proxy Model	3 d	1/1	5/21 M	5/22 T
Block Anims	13 d	11/1 11/1 11	5/28 M	6/12 T
Final Model	13 d	11/1 11/1 11/1	5/28 M	6/13 W
Effects	5 d	11/1	6/13 W	6/19 T
Audio	5 d	11/1	6/20 W	6/26 W
Final Anims	10 d	11/1 11/1 11/1	6/14 Th	7/12 M

Design ☒ Anim Hookup ☒ Gameplay ☒ QA ☒

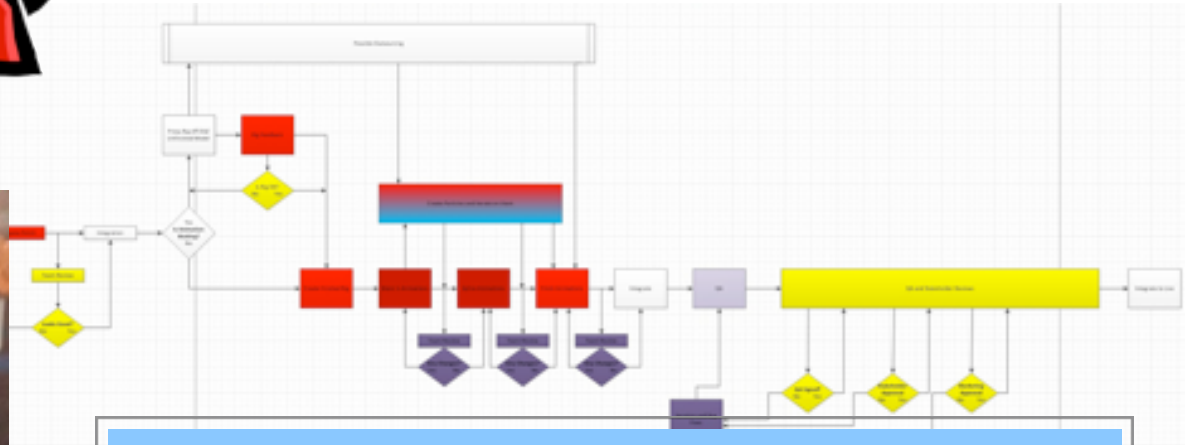
Bugs: 12283 - Run hitch 12362 - AOM's 12372 - FX stick death

## Benefits Reported

- “A lot more visibility and clarity on where things are and what needs to be worked on.”
- “Easy to quickly see the overall project schedule and what can and can’t get done. This helped many times for re-aligning resources to meet our goals.”
- “Planning is actually much easier and straight forward for a kanban team working within the Scrum structure.”
- “Kanban got us to realize improvements to our process and pipeline. Specifically, making ‘blocked’ animations and ‘proxy’ models to get things in game as quick as possible and keep everything moving.”




G A M E S



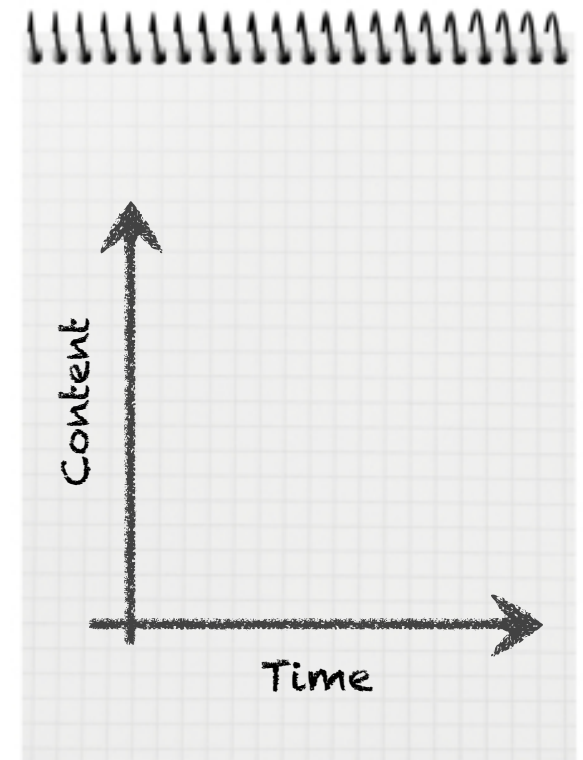
## Benefits Reported

- “Intelligent cross-discipline discussions”
- “20% improvement in outsourced work due to direct discussion on how to improve quality earlier”
- “Developers have a say in the board and don’t have to ask anyone about the state of an asset”
- “Higher investment in the process as well as a better mood about the team and how they work”





Tools

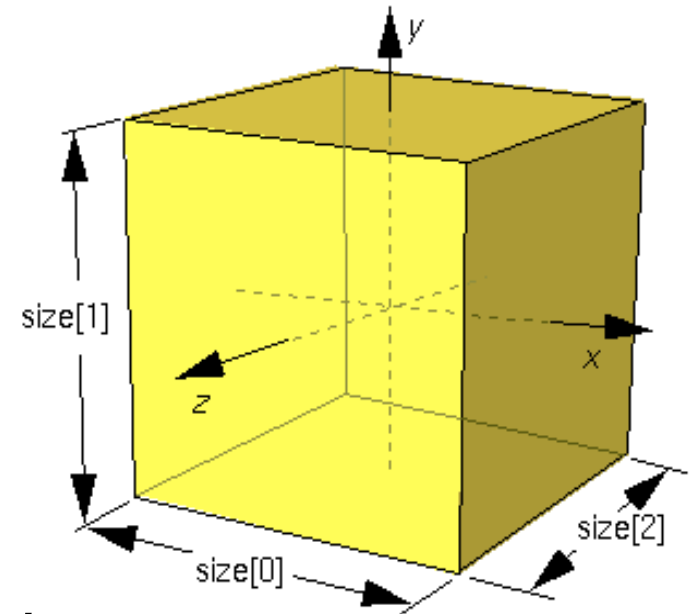


# Time-boxing

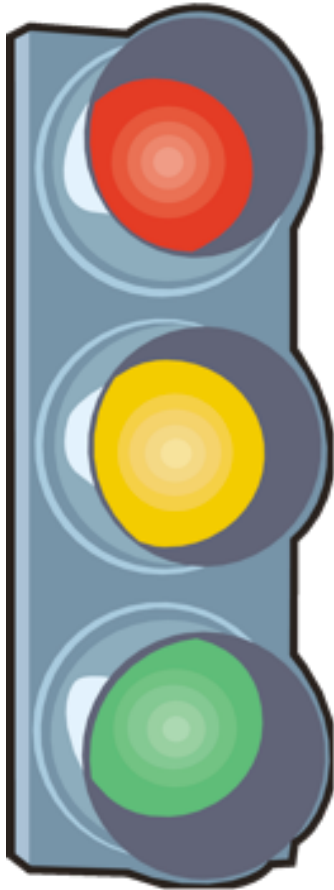
*A time-box is a fixed length of time given to produce results. The results are variable.*

*“When forced to work within a strict framework the imagination is taxed to its utmost-and will produce richest ideas. Given total freedom the work is likely to sprawl.”*

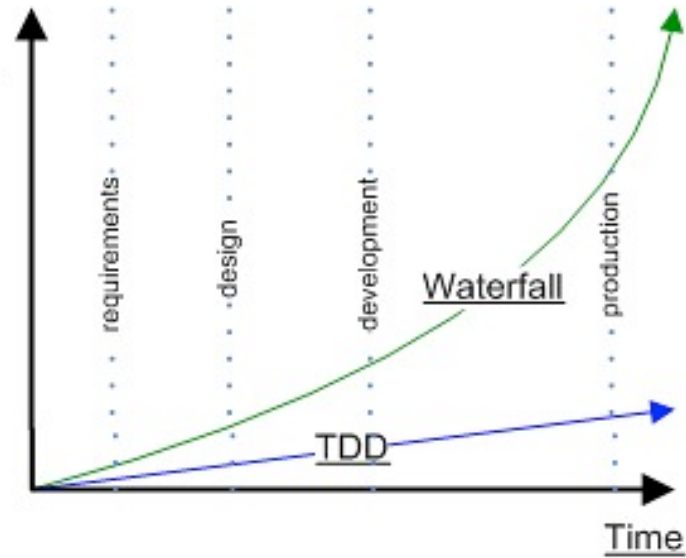
*-TS Eliot*



# Stop the line



Cost of  
Change

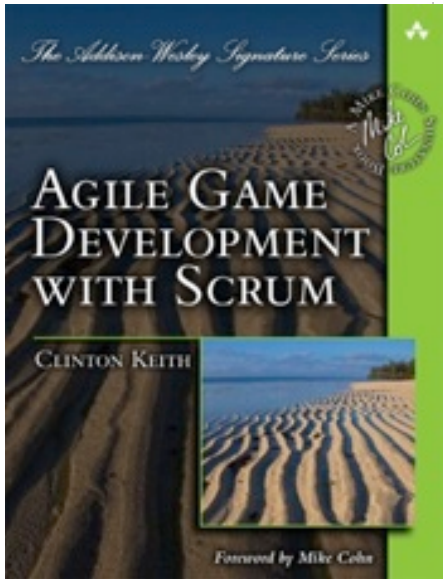




# Summary

- Kanban can be started quickly
  - The less change up front, the better
- WiP limits, buffers, swim lanes, etc. are useful to improve flow
- But most improvements come from teams
  - Cultural changes are big
  - Improvements > 50% seen
    - ...but we should expect production to improve over time as well

# More Info



White paper coming at  
<http://blog.agilegamedevelopment.com>

## **Traffic Light Contest**

- Tweet the answer to the upcoming question to @LeanTL
- The first correct answer that the traffic light receives will cause it to go solid red. The person who answers it wins the traffic light (must be present)

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