

**Engineering**

# Turning the Ship: Day-to-Day In Solving Enterprise Engineering

INNTOPIA

INSIGHT

#inntopia

# Last Year We Talked About.....

- Met the Developers
- Talked about Tech Debt
- Played with Legos
- Presented an Architectural Goal

# This Year the Softer Side.....

- Why are seemingly easy tasks hard?
- How are we working (day-to-day) to deliver value sooner?

# Why are seemingly minor requests difficult?

- Finding a critical path then eliminating waste.
- Dependencies on resources outside of the team.
- Refactoring to make things smoother later takes time.

# How else are we making it better?

- Surgical troubleshooting tools.
- Tools for adjusting functionality without development.
- Surfacing information to non-technical stakeholders.
- Inviting external stakeholders to daily stand-ups
  - Partners
  - 3<sup>rd</sup> parties
  - Etc.

# Demo

# Connectivity

- Challenges of System-To-System Integration
  - Different “languages”
  - Over HTTP\*, a simple Request/Response protocol
  - Many steps that need to be orchestrated
  - Each system is a “black box” to the other

# Inntopia System

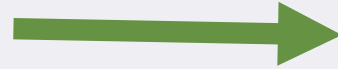
# Inntopia Integration

# POS Integration

# POS System

Event:  
Book Reservation

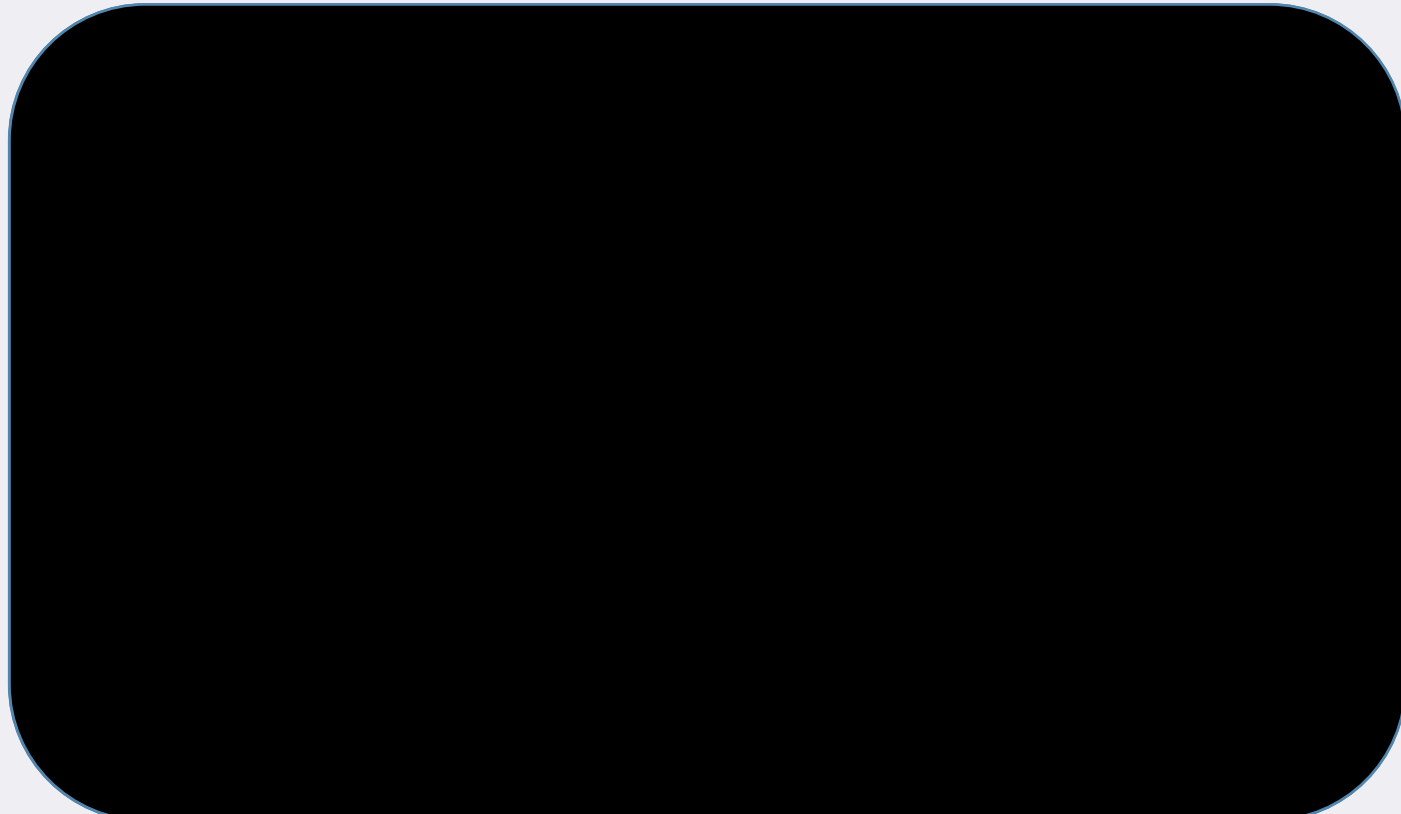
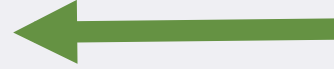
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Event:  
Booking Complete

Reservation Booked

OK



# The Solution

- Process
  - Agile Frameworks
  - Continuous Delivery
- Tools
  - Surgical Troubleshooting
  - Improved Error Reporting
- Communication
  - Invite collaborators to daily Standup
  - Get engineers talking sooner

How are we (day-to-day) delivering value sooner?

Agile Frameworks

+

Branching and Merging

+

Continuous Delivery

=

Highest Value Tasks Delivered Safely, Sooner

# Scrum

Frameworks for organizing work, increasing efficiency, and adapting to change

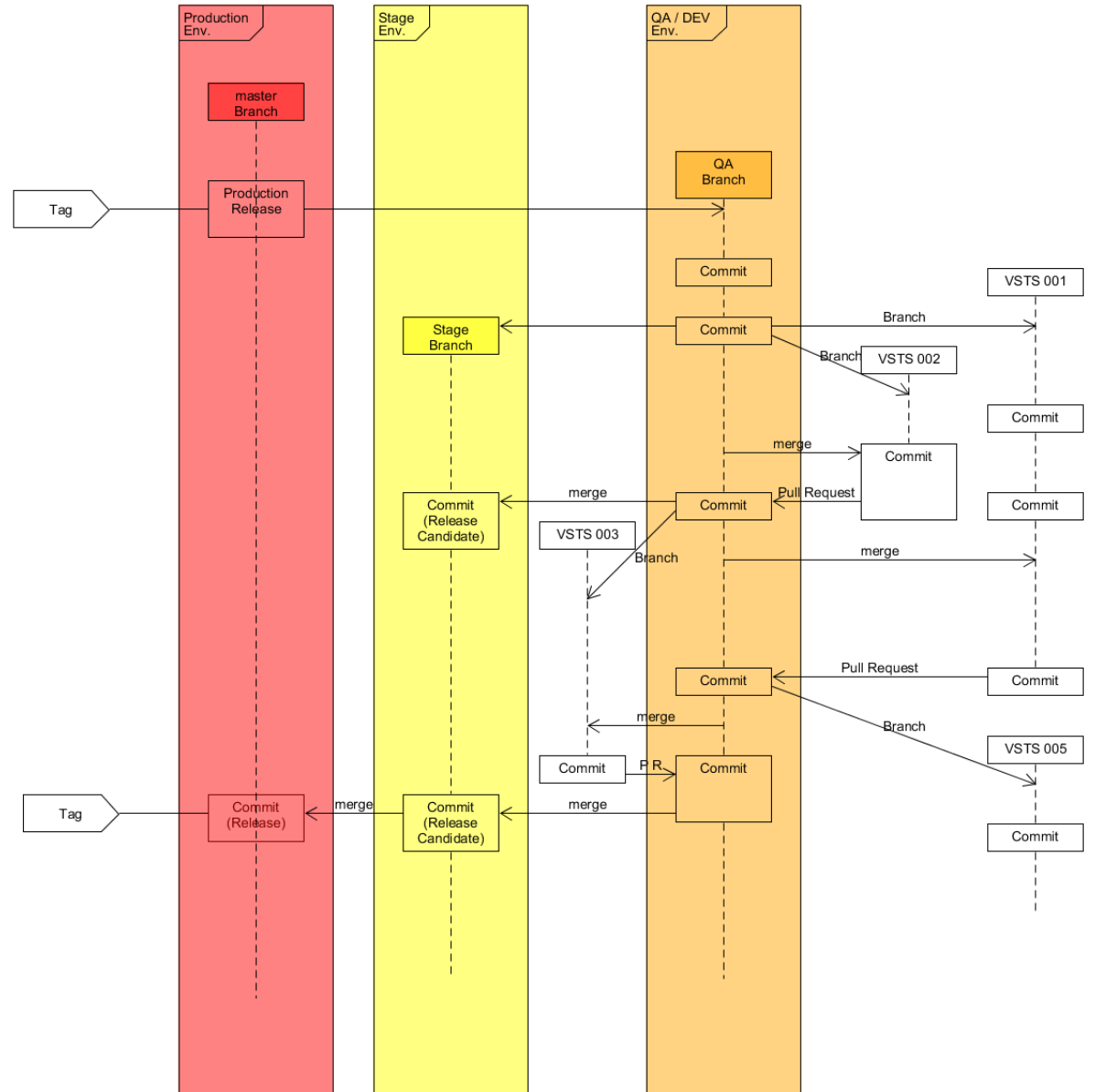
- Sprint Backlog
  - Organized by Highest Priority First
  - Focus of the team for a set period of time before they can pivot
- Daily Stand-Up
  - Focused on the items in the Sprint Back Log: Are we working on the highest priority today and what do we need to do to get it to done?

# Branching + Continuous Delivery

- Branching
  - A technique to segregate versions of code, usually for a specific environment, from changes occurring else where.
- Merging
  - The practice of taking the work done in one branch and moving to another branch, and therefore environment.
- Continuous Delivery
  - A technique for shortening the time it takes to deliver functionality to an environment by eliminating the over head to do so.

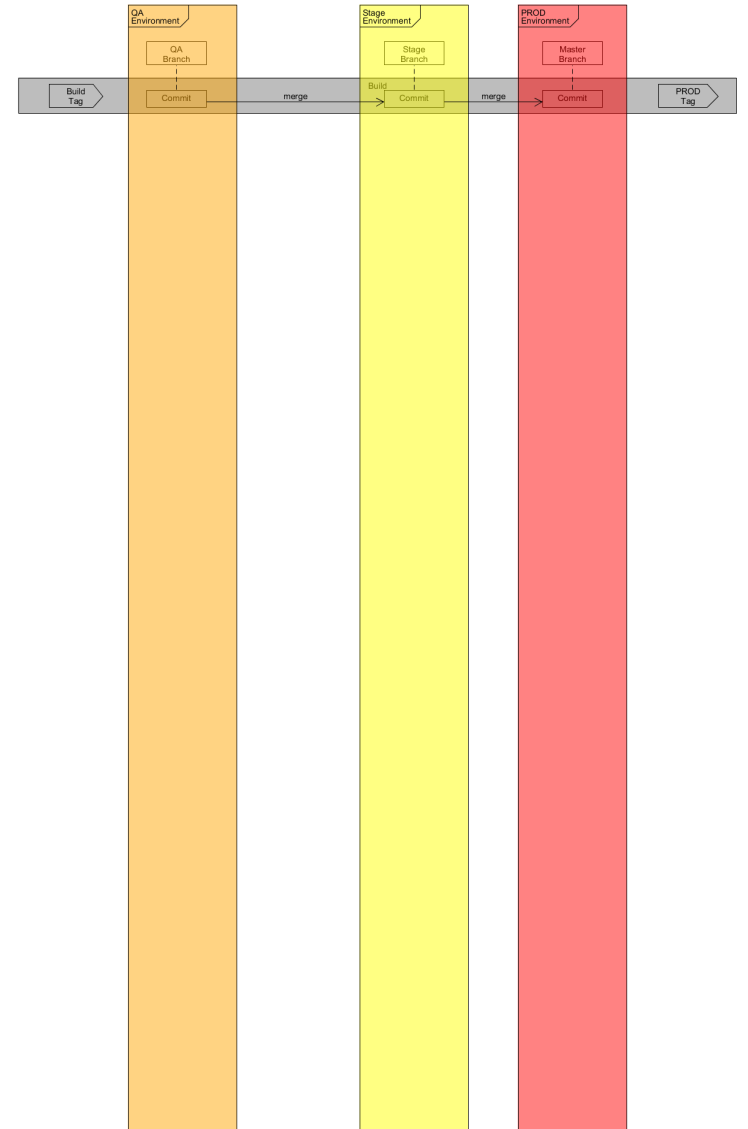
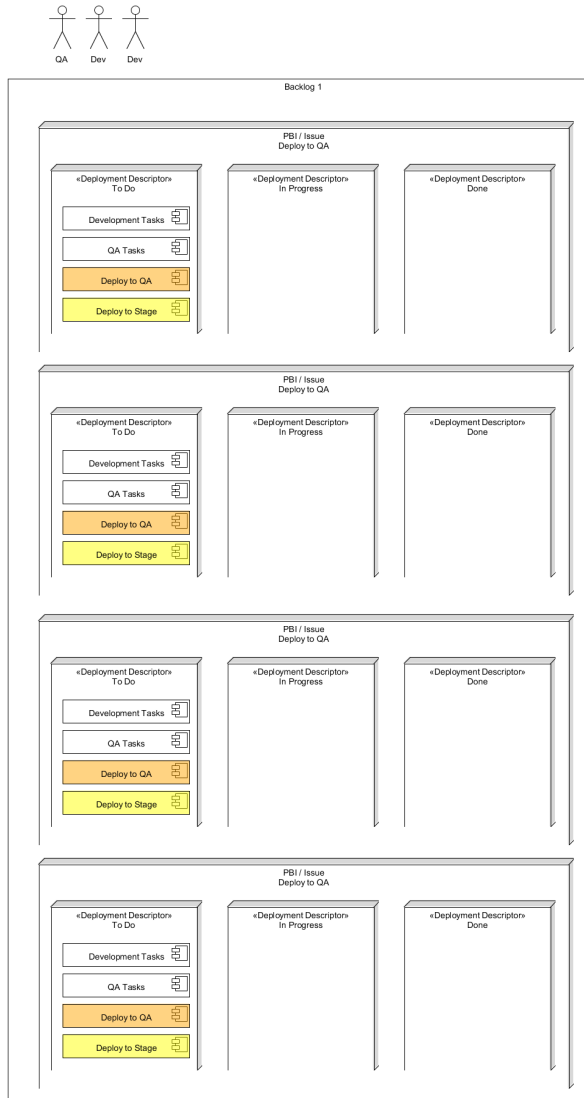
# Bringing These Together: Branching and Merging

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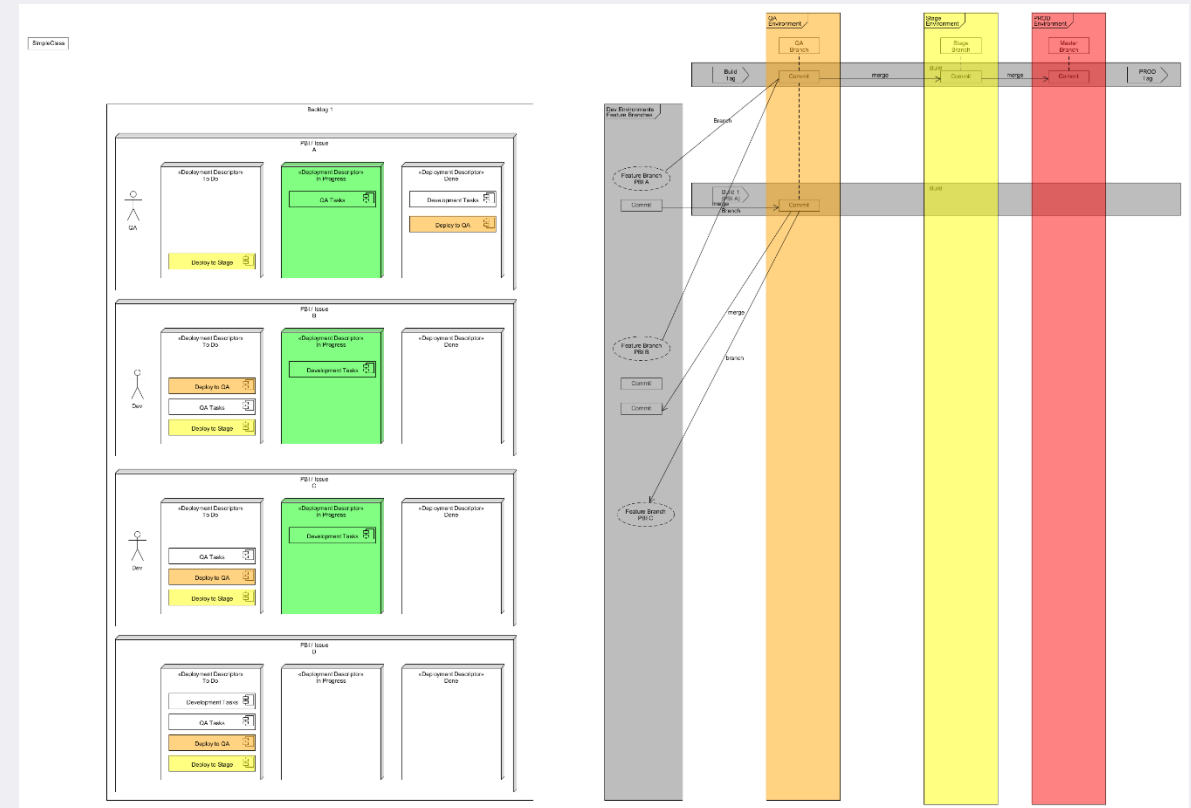
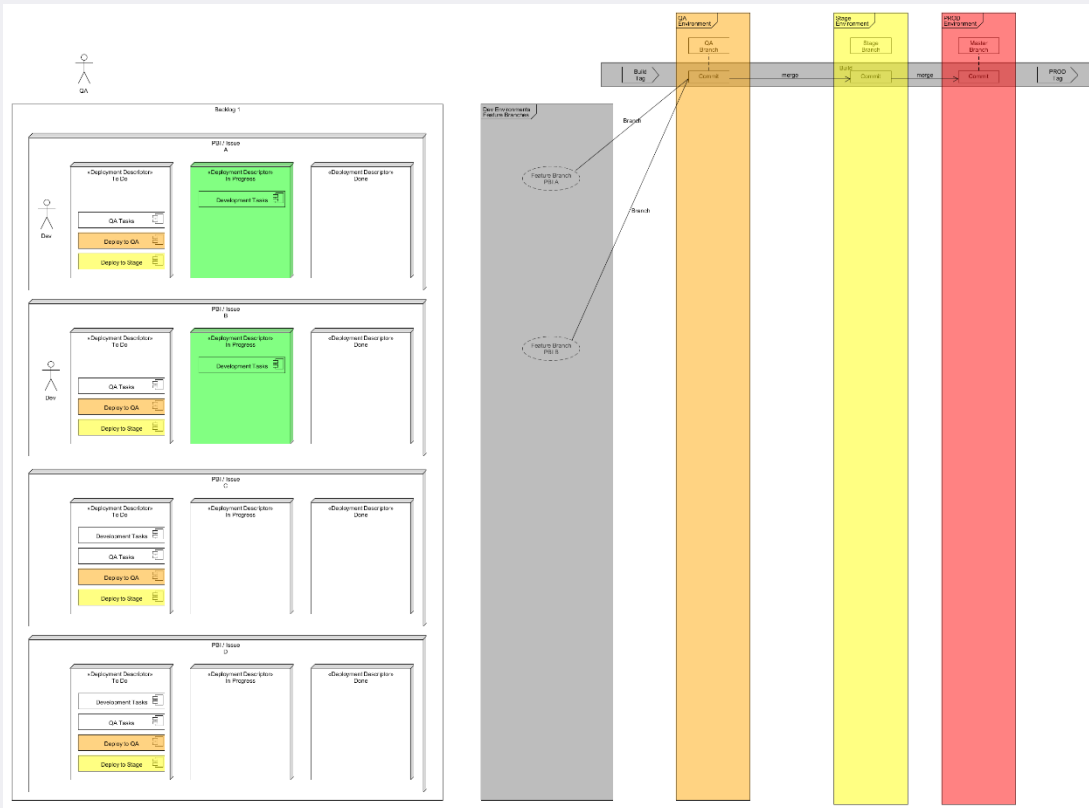


# Bringing These Together: Work Day 0

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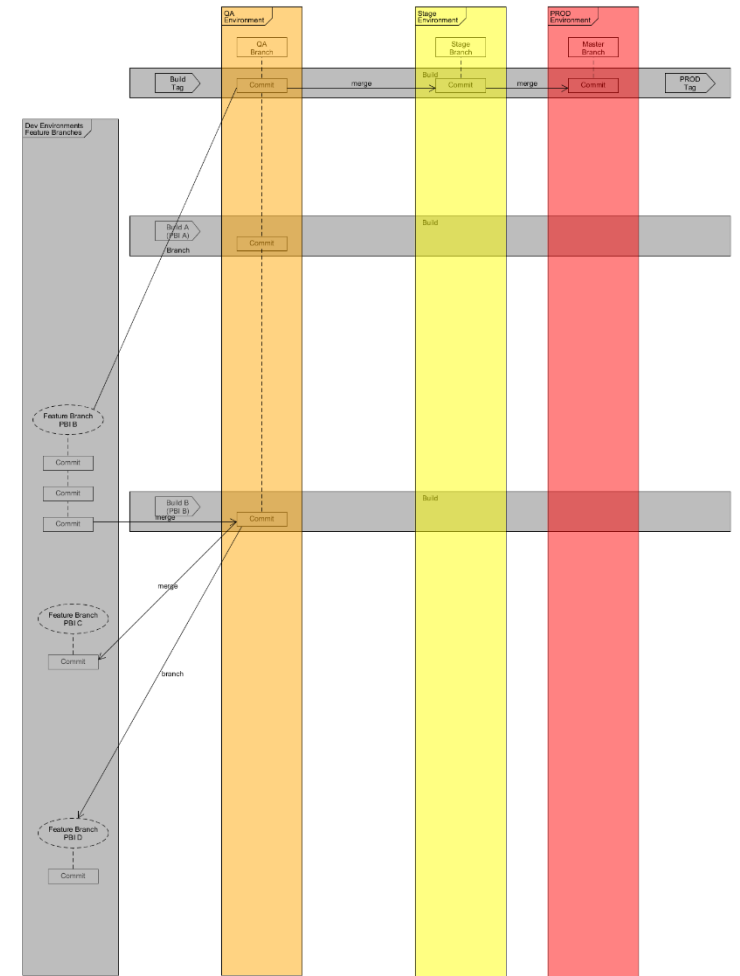
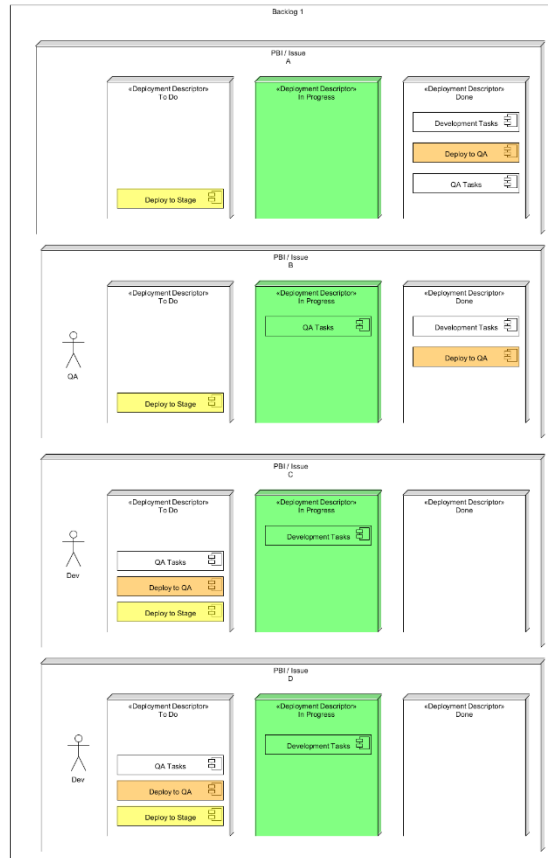


# Bringing These Together: Work Days 1 + 2



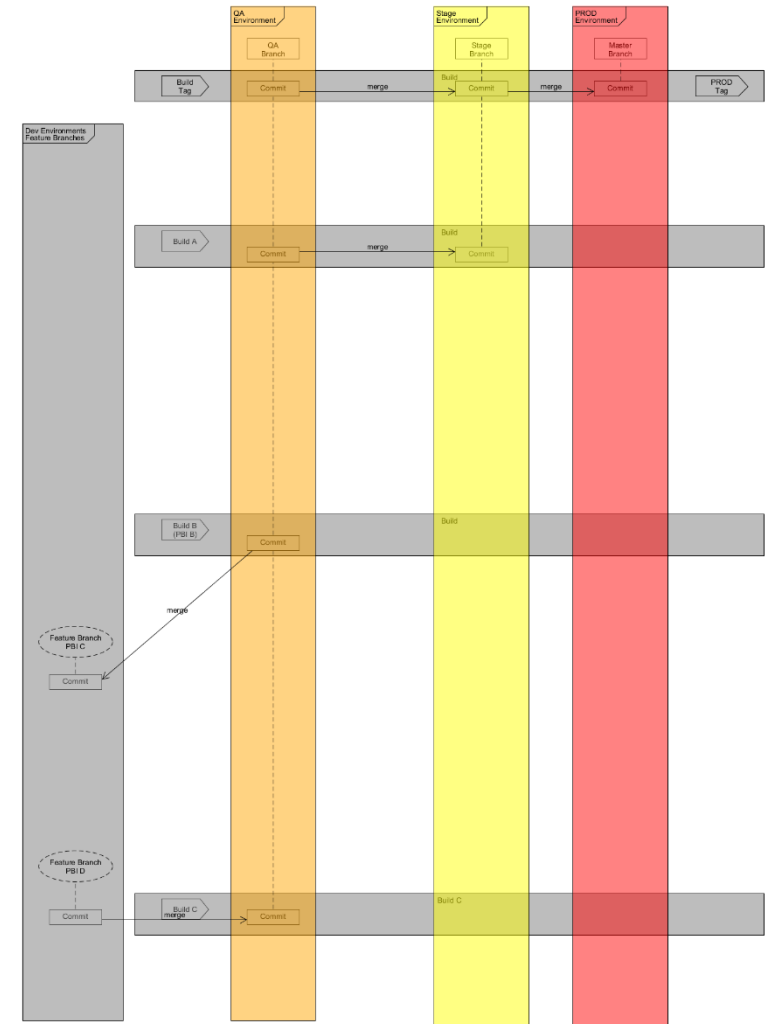
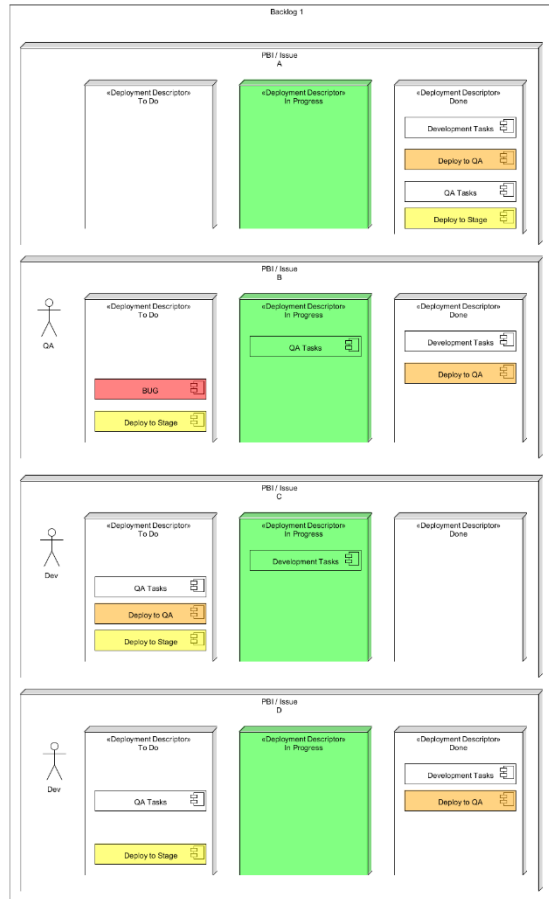
# Bringing These Together: Work Day 3

SimpleClass



# Bringing These Together: Work Day 4

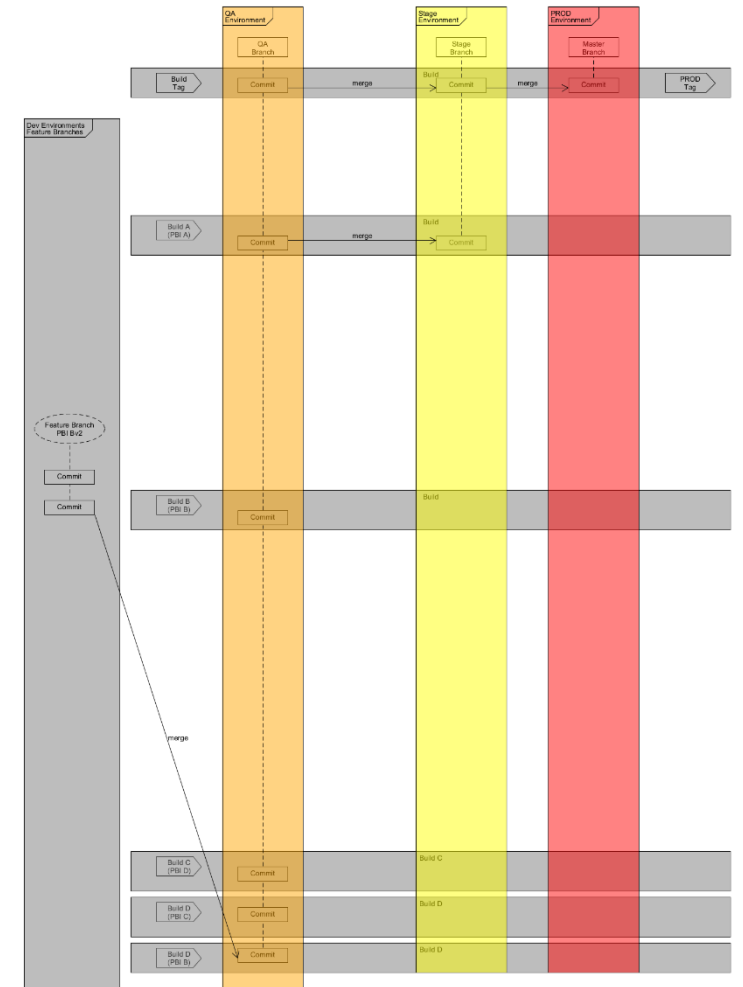
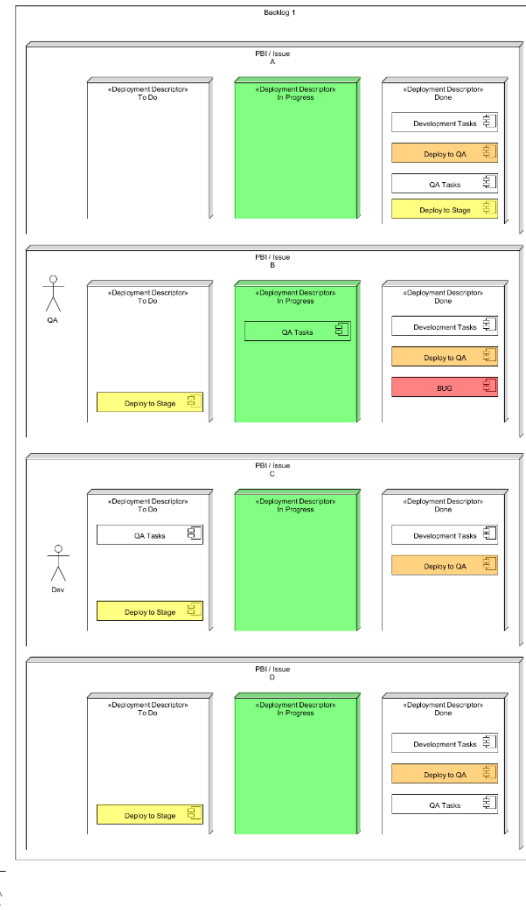
SimpleClass





# Bringing These Together: Last Day

SimpleClass



# What else? Focused Teams

- Thinking Fast and Slow
- Support vs Bug Fixing vs Feature Development

# What else? Focused Teams

- Limiting Context Switching / Multitasking
  - Plan a sprint with as many swarm-able pieces of one project, or similar work, as possible. The team is then working in a common thought space.
  - Limit the # of context switching done. This limits cognitive fatigue and reduces the Time to Re-Load.
    - Team and Individual concern.
- The Team is Responsible for staying focused.

# The Solution

- Process
  - Scrum
  - Continuous Delivery
- Tools
  - Surgical Troubleshooting
  - Improved Error Reporting
- Communication
  - Invite collaborators to daily Scrum Standup
  - Get engineers talking sooner