



Beyond Continuous Delivery

Chris Hilton

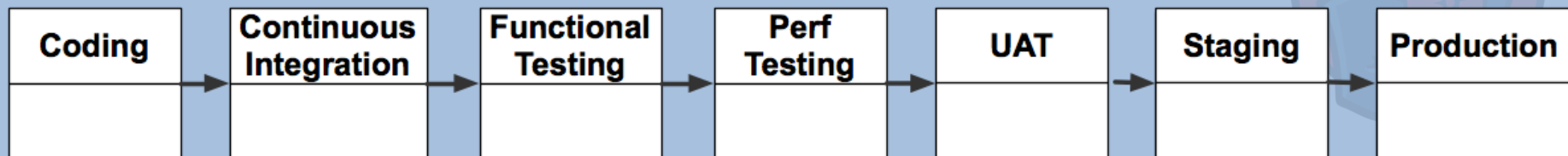
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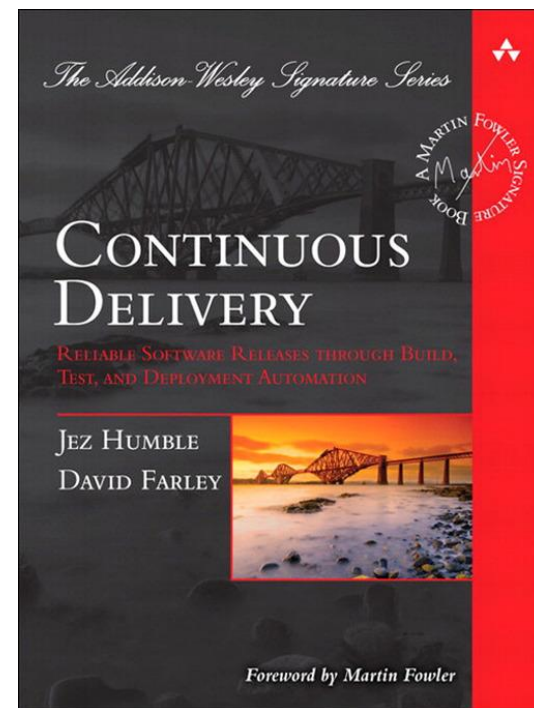
October 23, 2014

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Continuous Delivery



- Frequent, automated releases
- Every check-in is a potential release
- Every change triggers feedback
- Feedback must be received as soon as possible
- Automate almost everything
- Build quality in

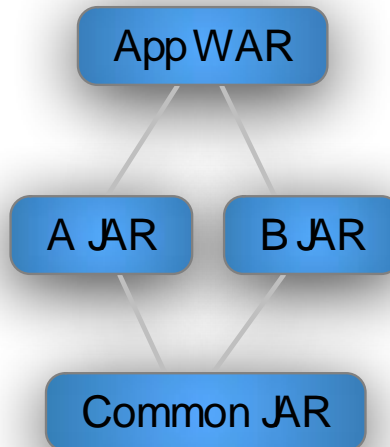


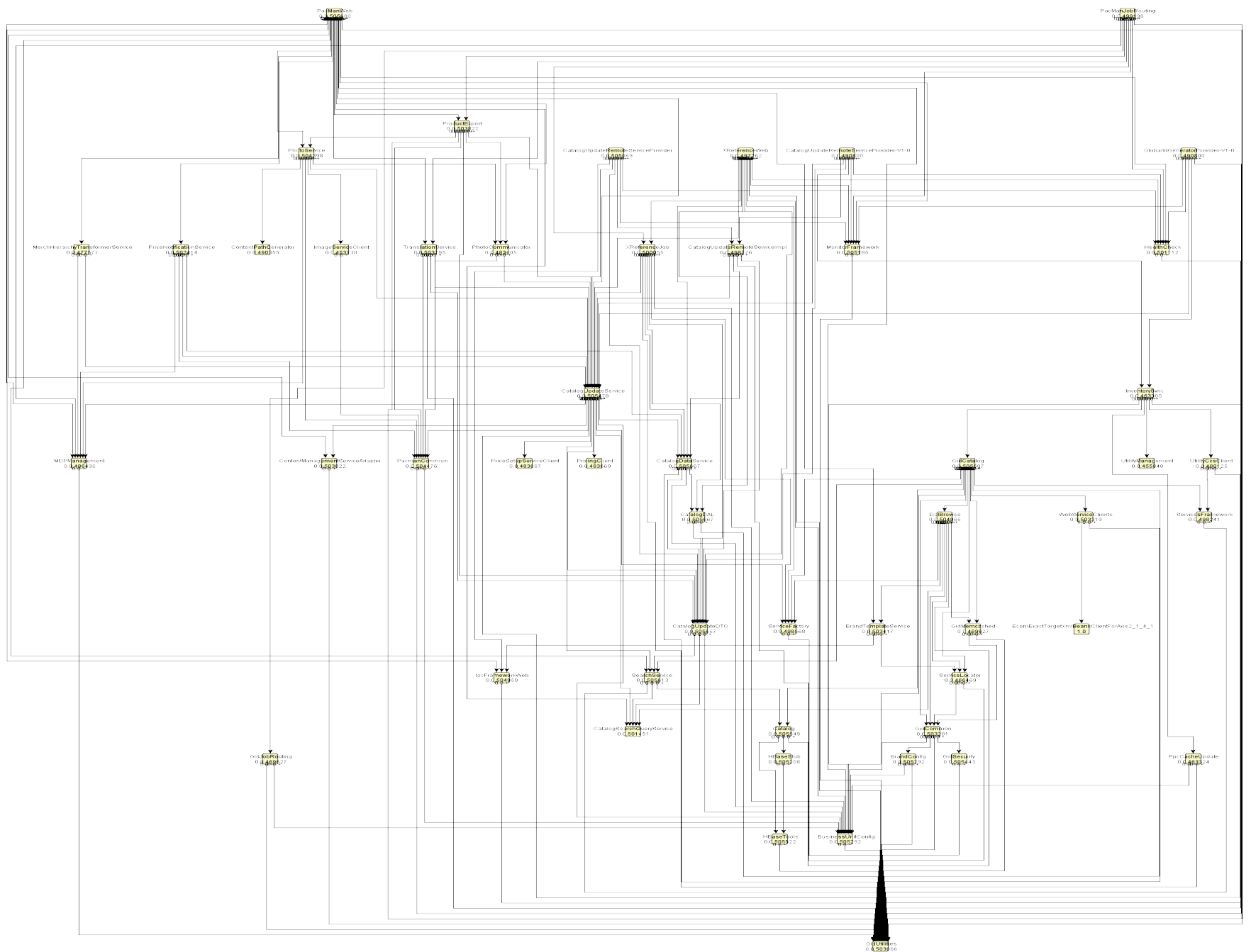
Assumptions

- Trunk-based development
- Continuous integration/delivery/deployment
- Cloud infrastructure
 - Cheap
 - Unlimited

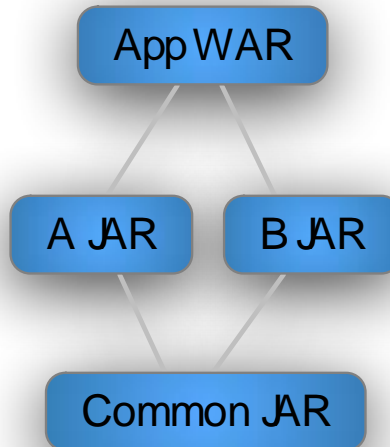


Modular Development and Dependency Management

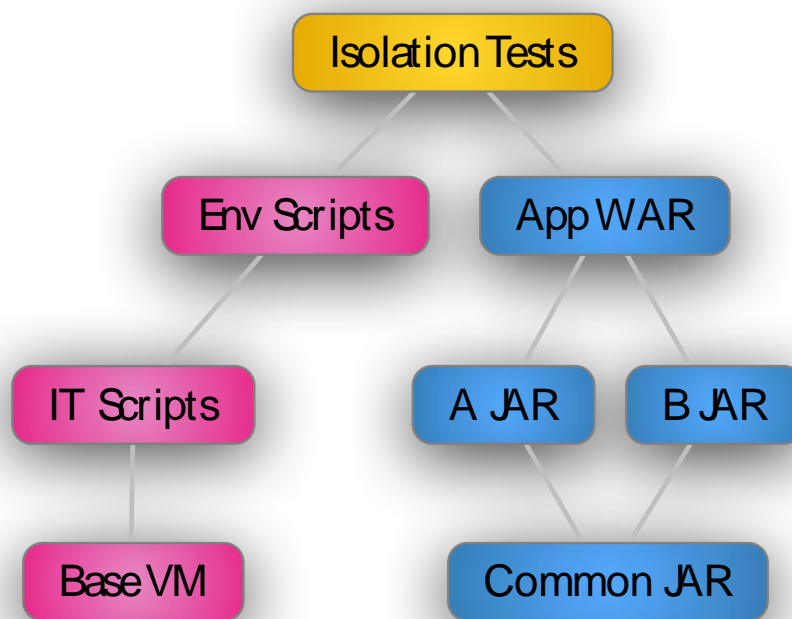




Dependency Management and Modular Development



Infrastructure as Code



Integration

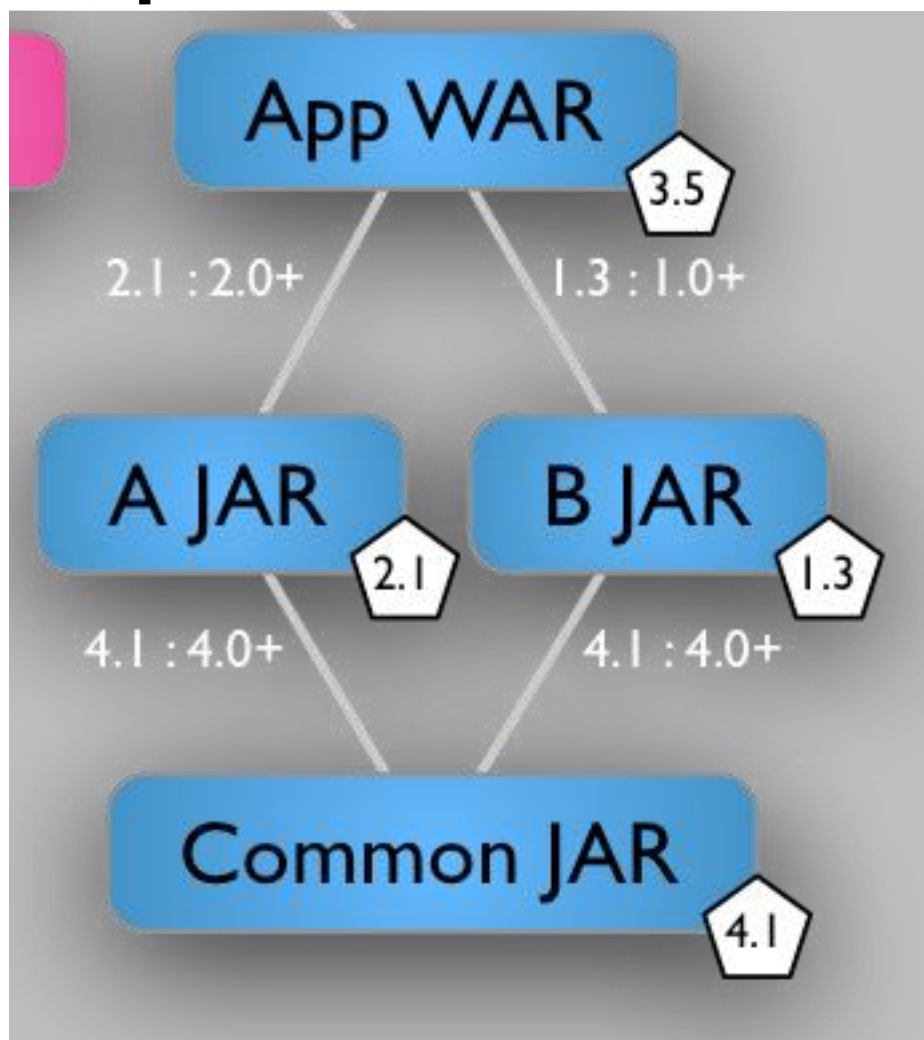


Application

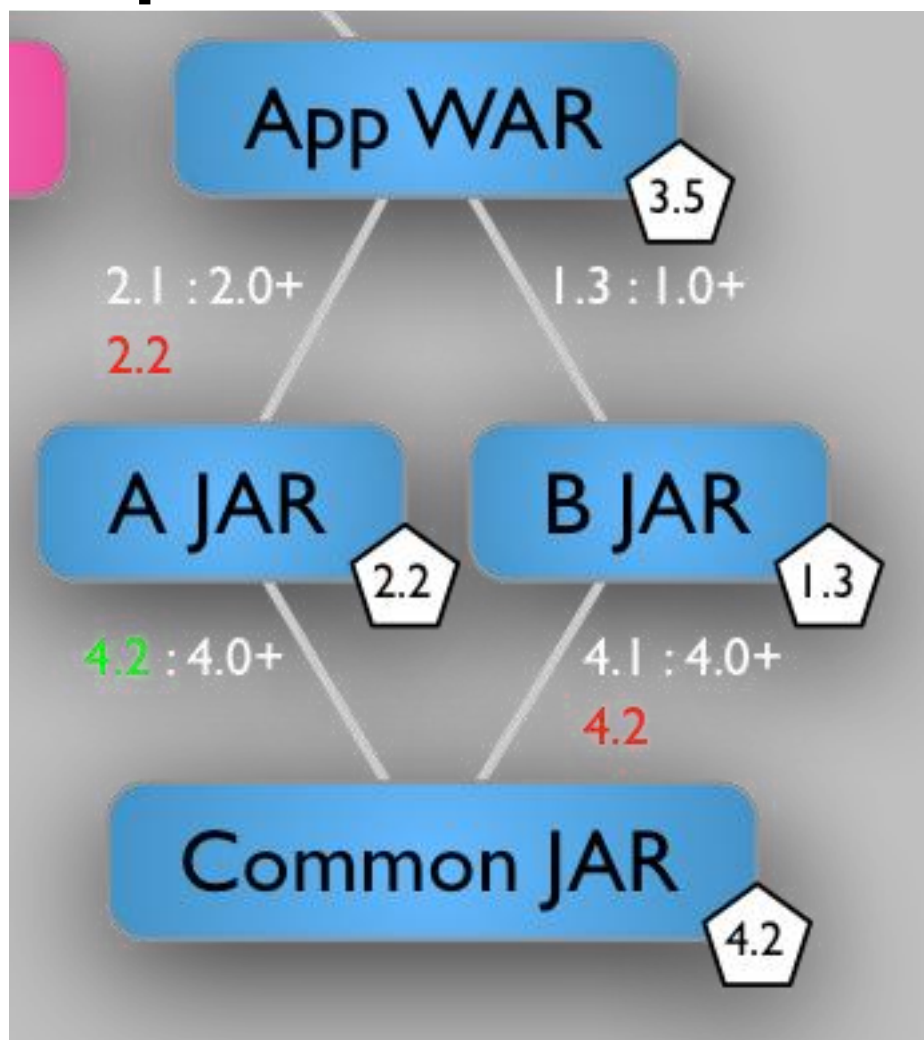


Infrastructure

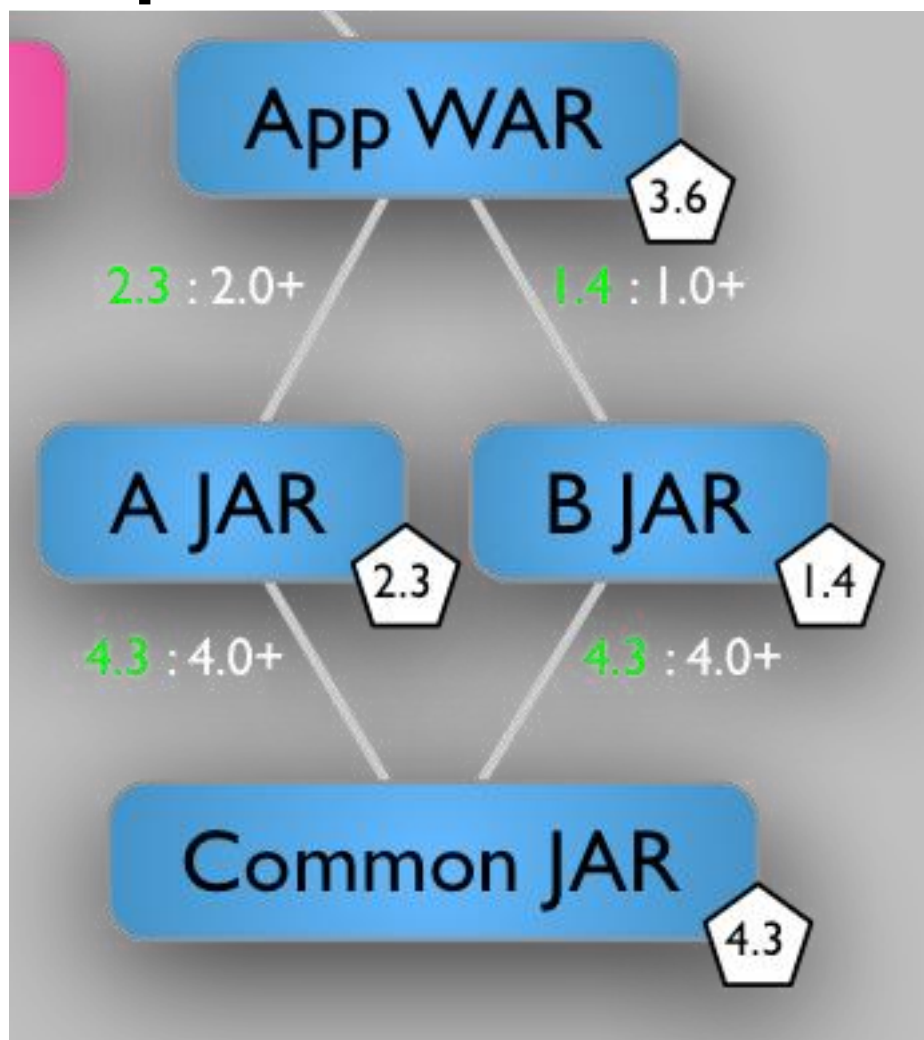
Semi-fluid Dependencies



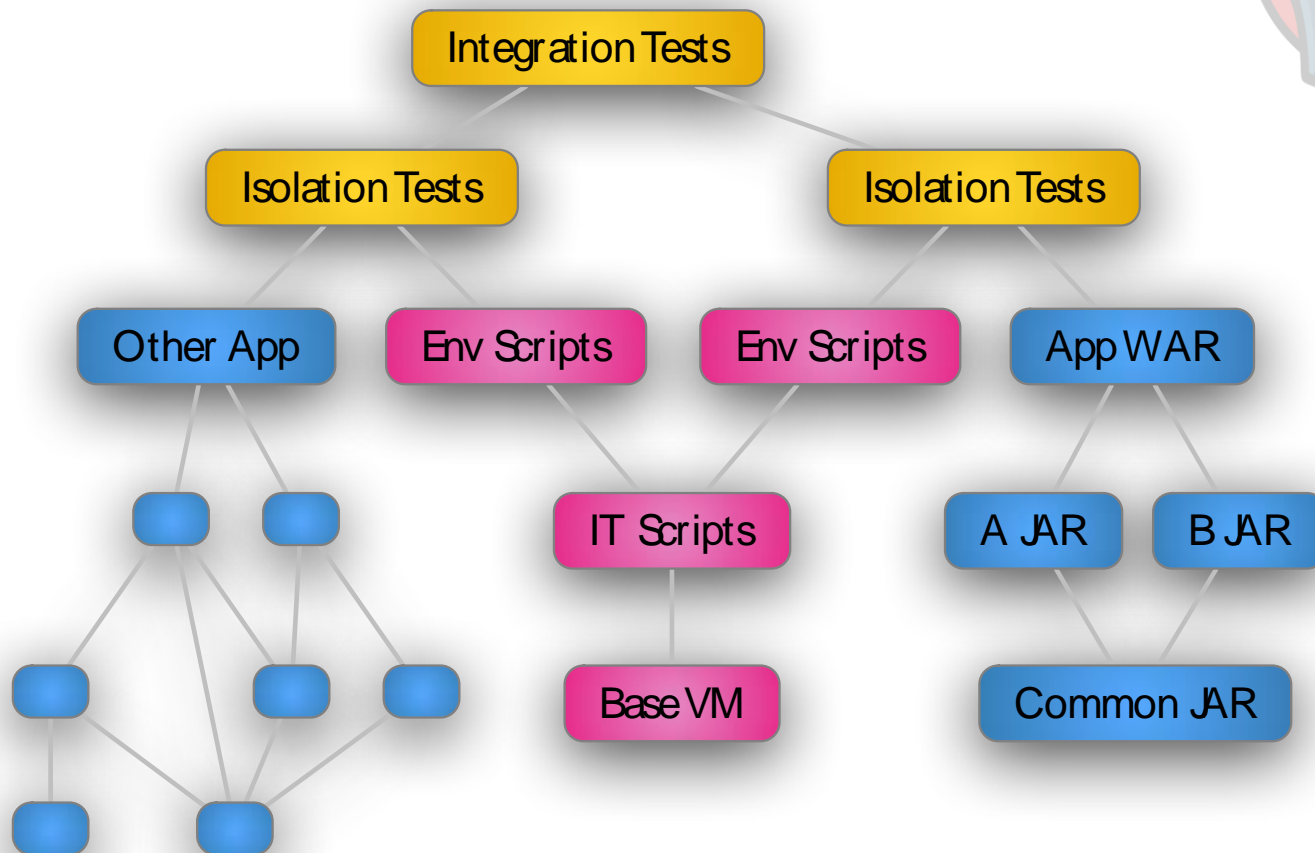
Semi-fluid Dependencies



Semi-fluid Dependencies



Integrated Pipelines



Integration



Application



Infrastructure

Fusion Testing



3.4

Production

4.7

3.4

Staging

4.7

3.4

Integration Tests

4.7

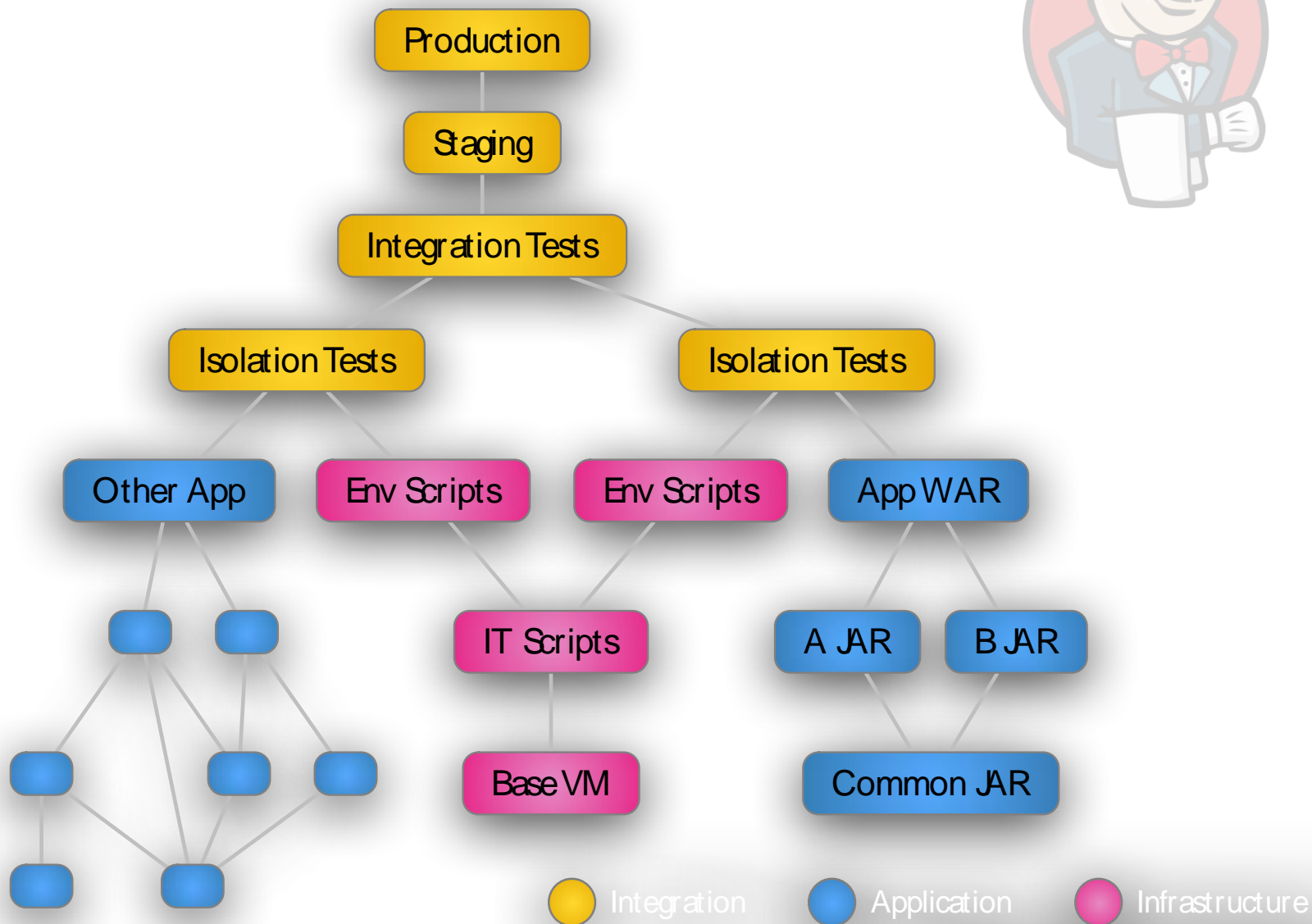
3.4

Isolation Tests

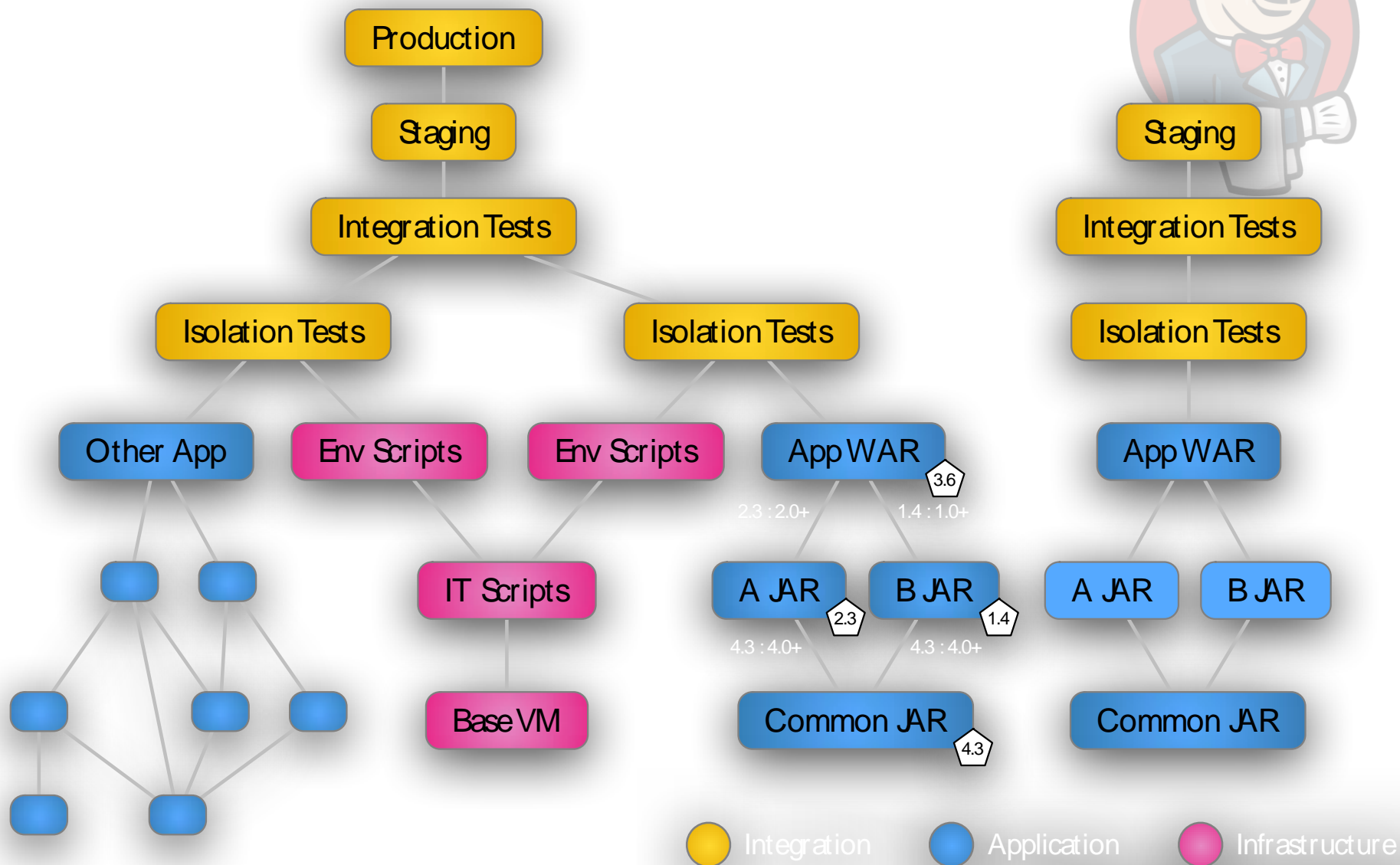
4.7

Isolation Tests

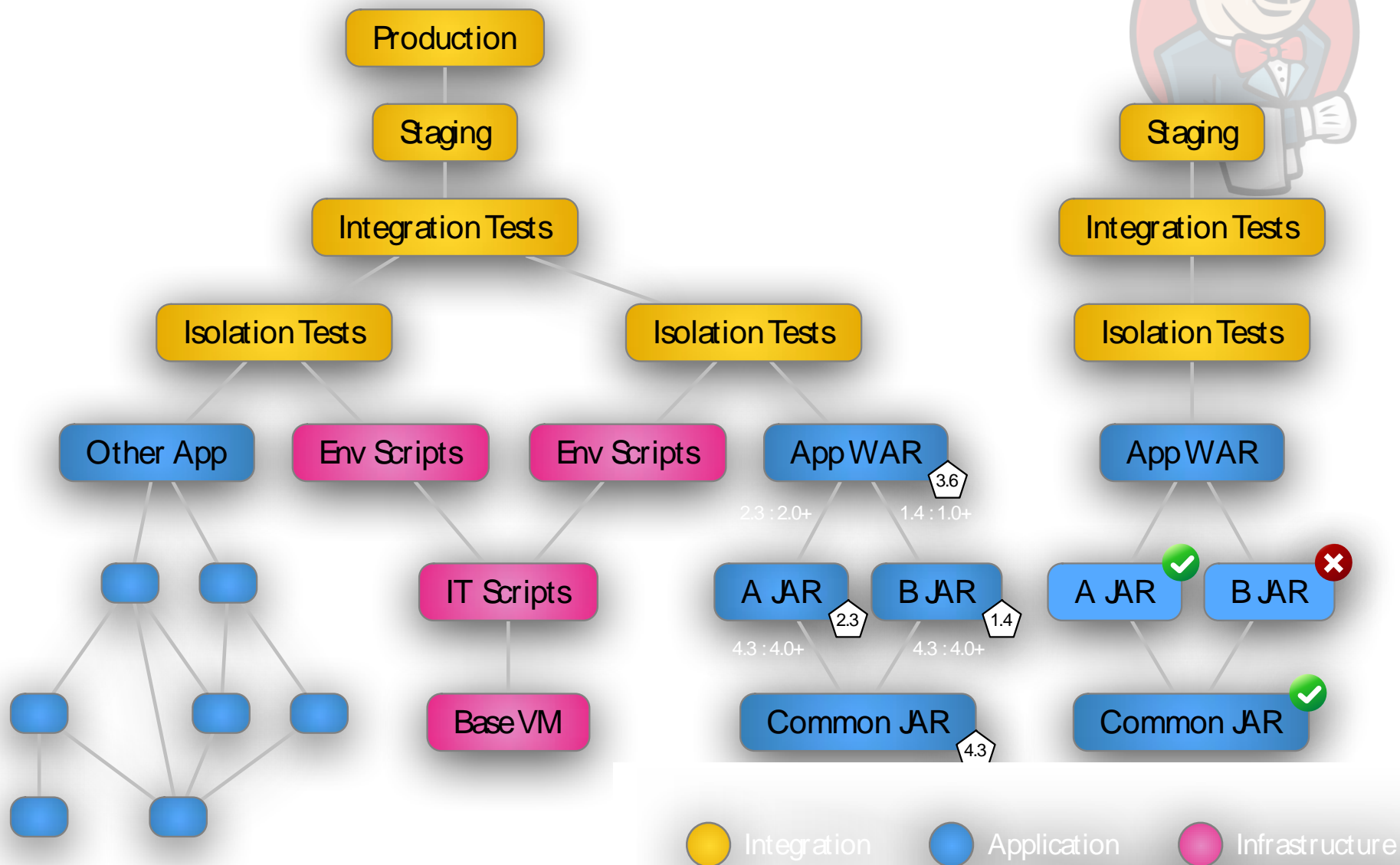
Pipeline Segments



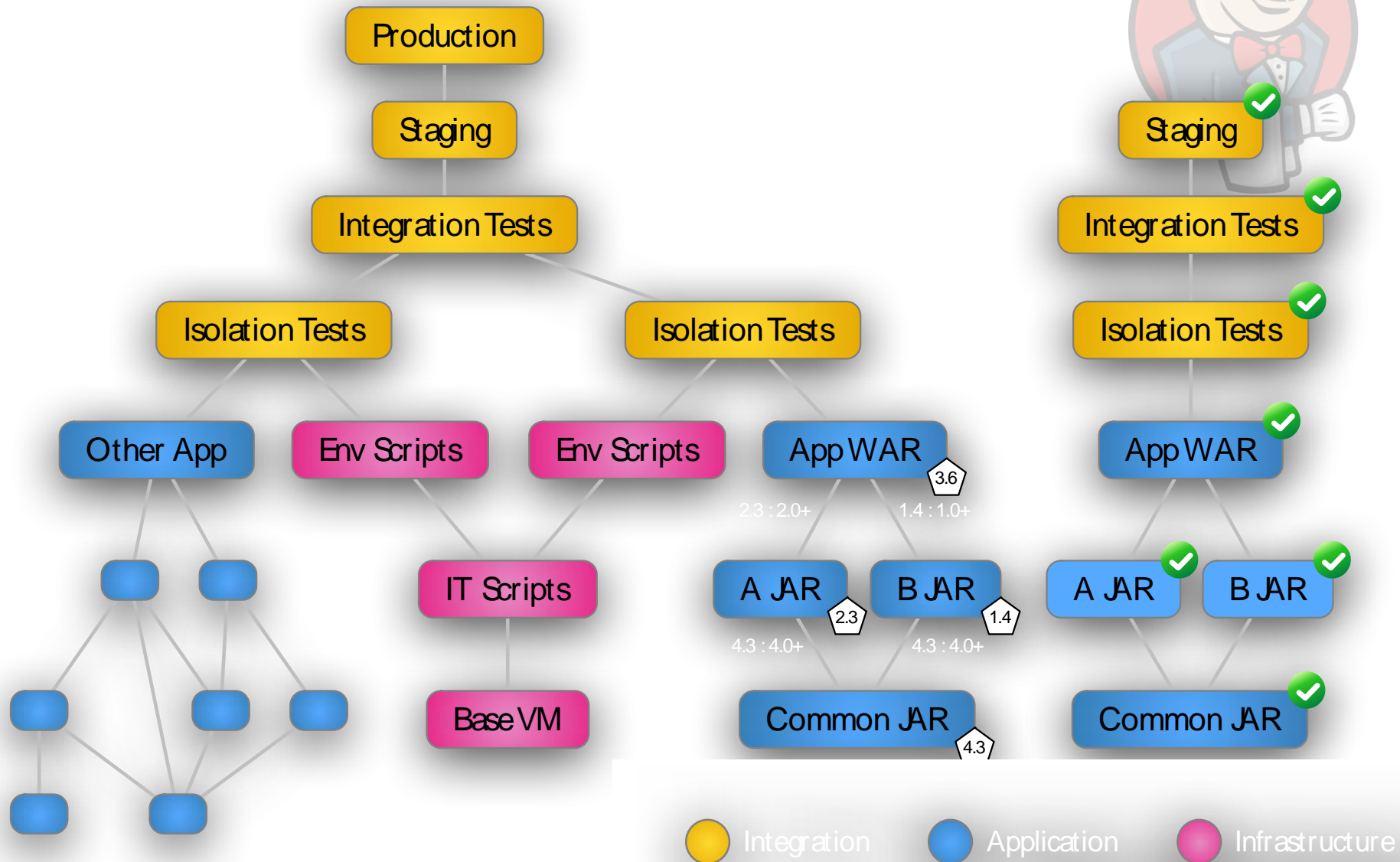
Cloneable Pipelines



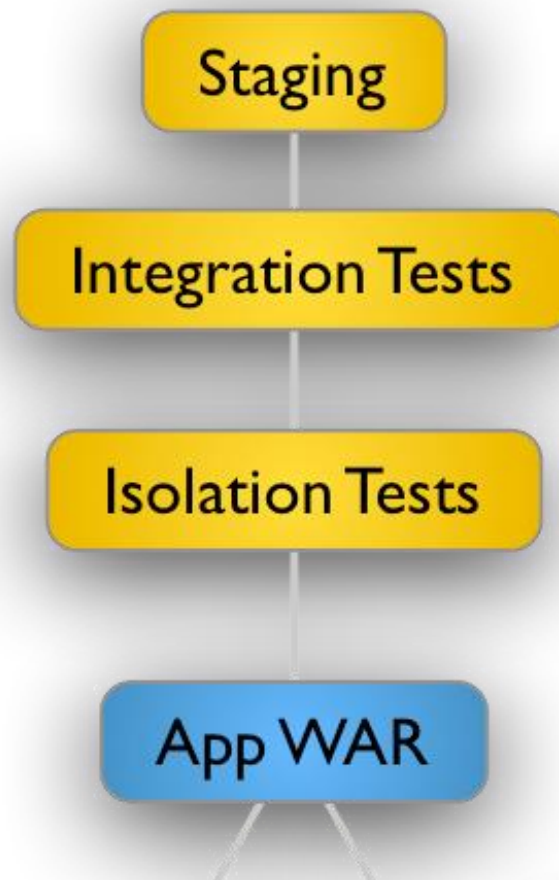
Personal Pipelines



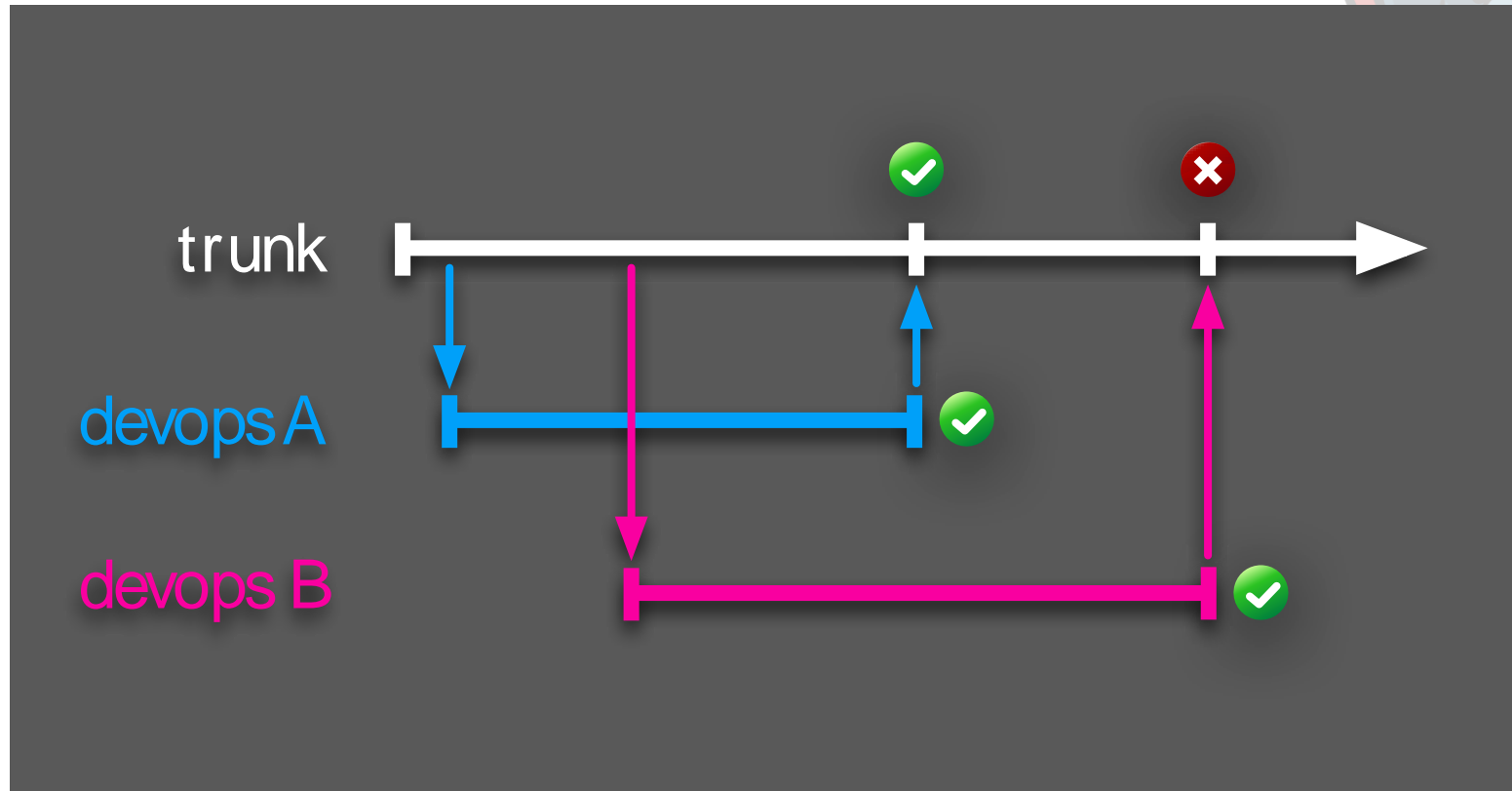
Pre-Flight Pipelines



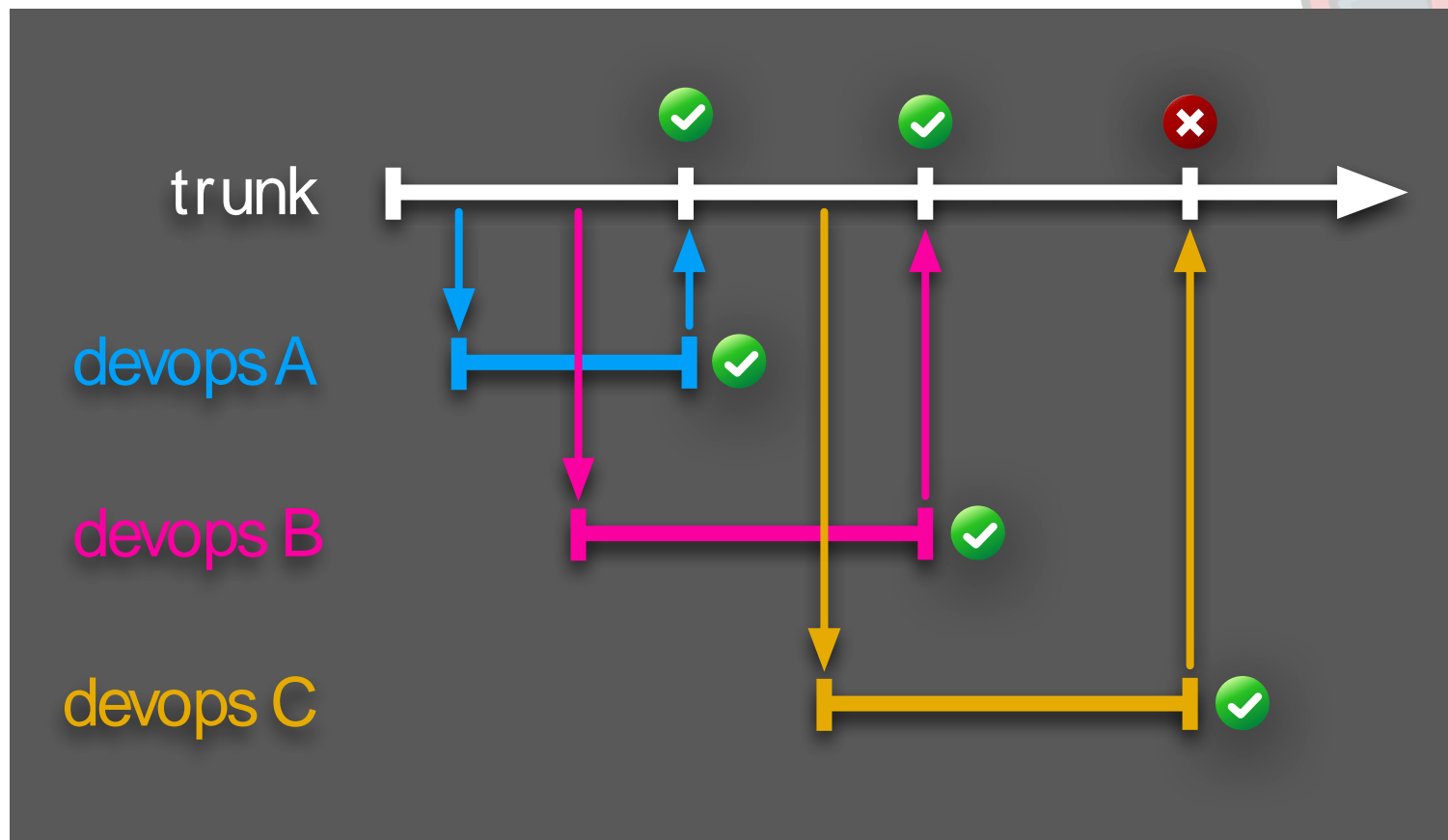
Speculative Pipelines



Pre-Flight Pipelines In Action



Pre-Flight Pipelines In Action



Quantum Pipelines



n 



n + 1 

Quantum Pipelines

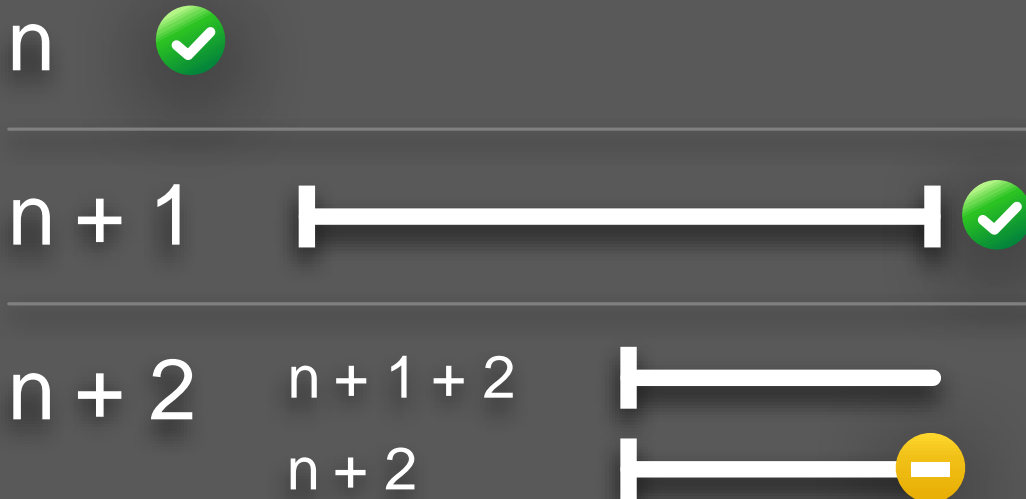


n 

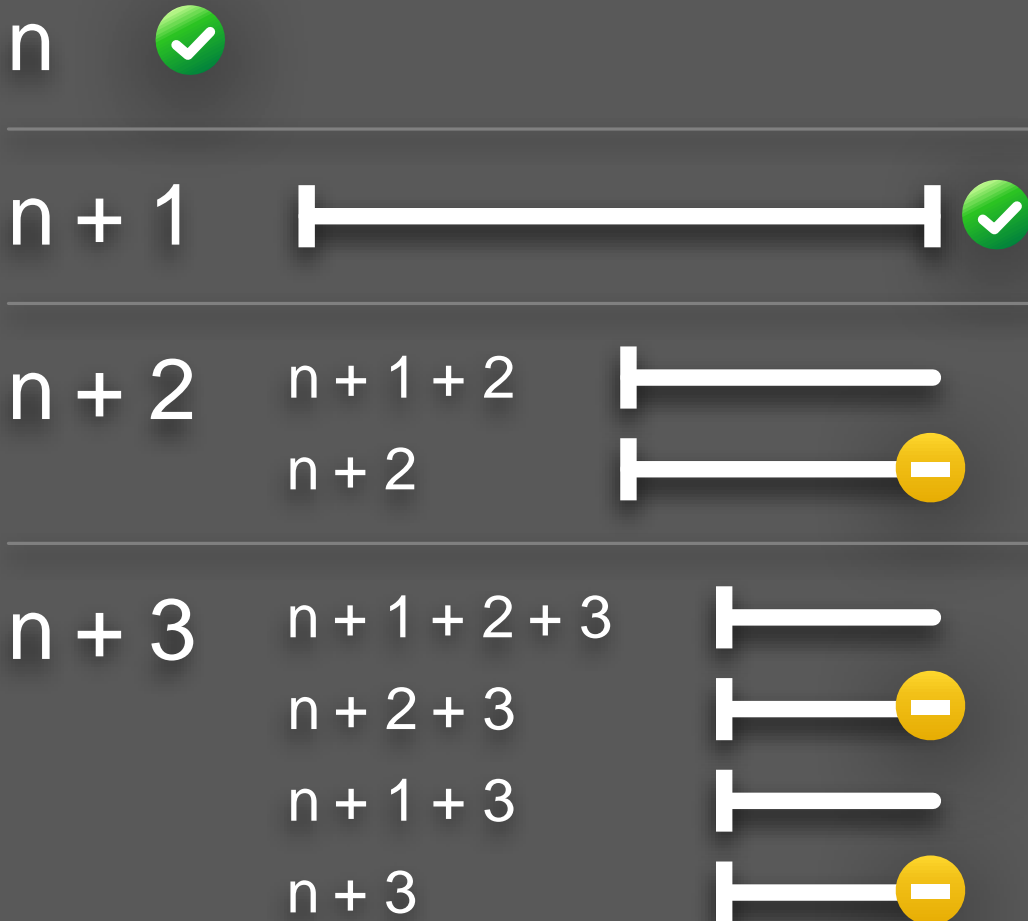
$n + 1$ 

$n + 2$ $n + 1 + 2$ 
 $n + 2$ 

Quantum Pipelines



Quantum Pipelines



Evergreen Trunks



n



$n + 1$



$n + 2$

$n + 1 + 2$



$n + 2$



$n + 3$

$n + 1 + 2 + 3$



$n + 2 + 3$



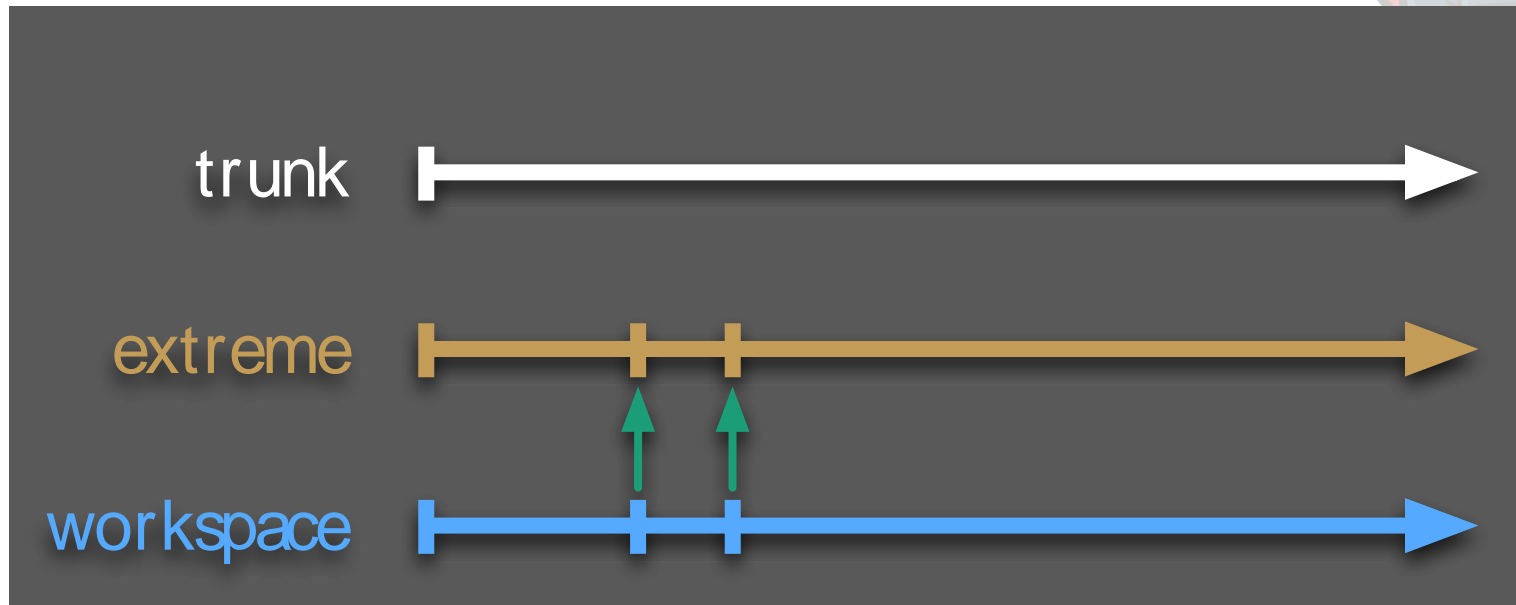
$n + 1 + 3$



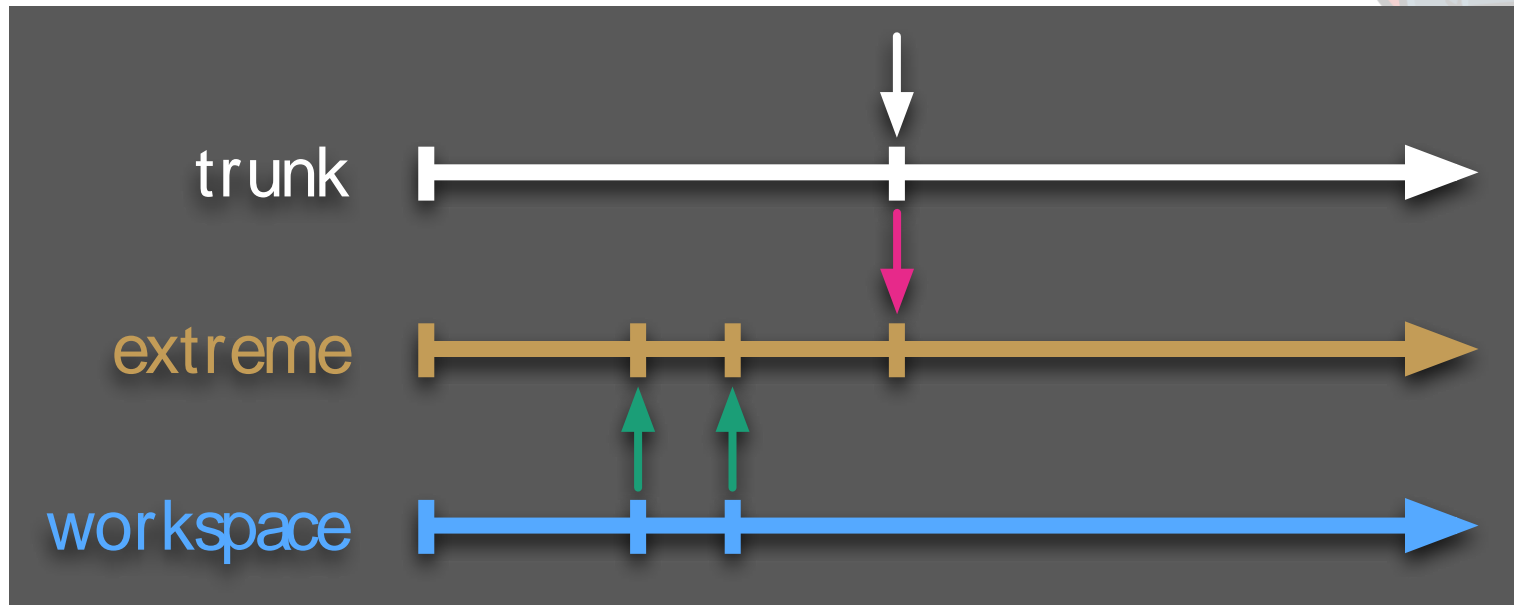
$n + 3$



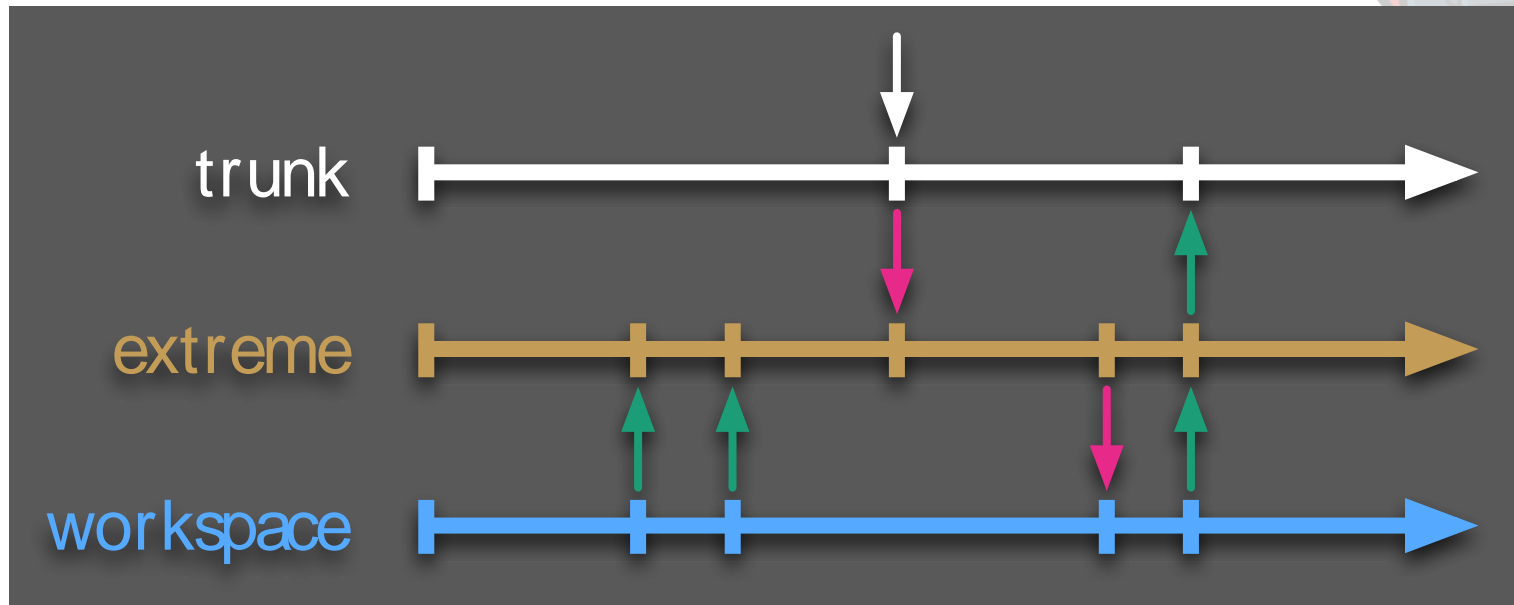
Extreme Integration



Extreme Integration



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