

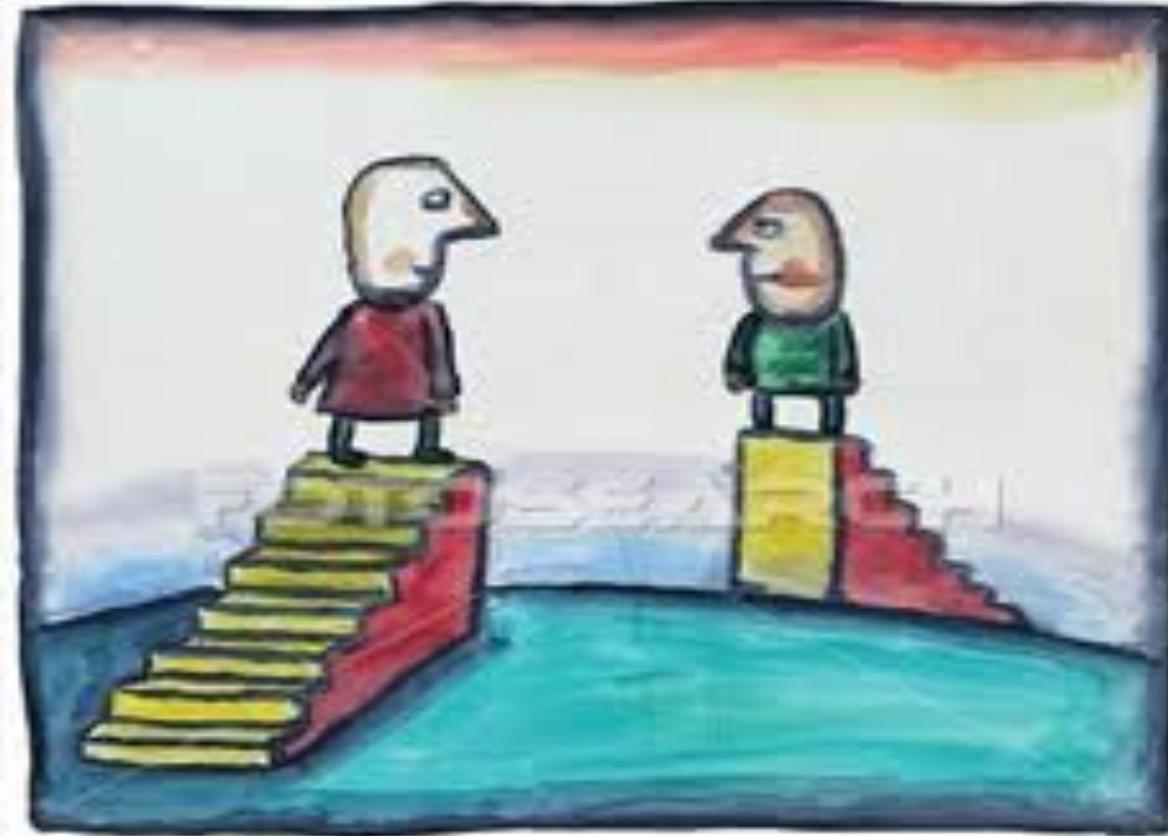
AGILE LOAD TESTING

BJÖRN BESKOW

2015-01-29 | CALLISTAENTERPRISE.SE

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BRIDGING THE GAP





***“These are not the requirements the
business communicated to us!”***

AGILITY IS WILLINGNESS TO LEARN



“Experience is simply the name we give our mistakes.”

Oscar Wilde

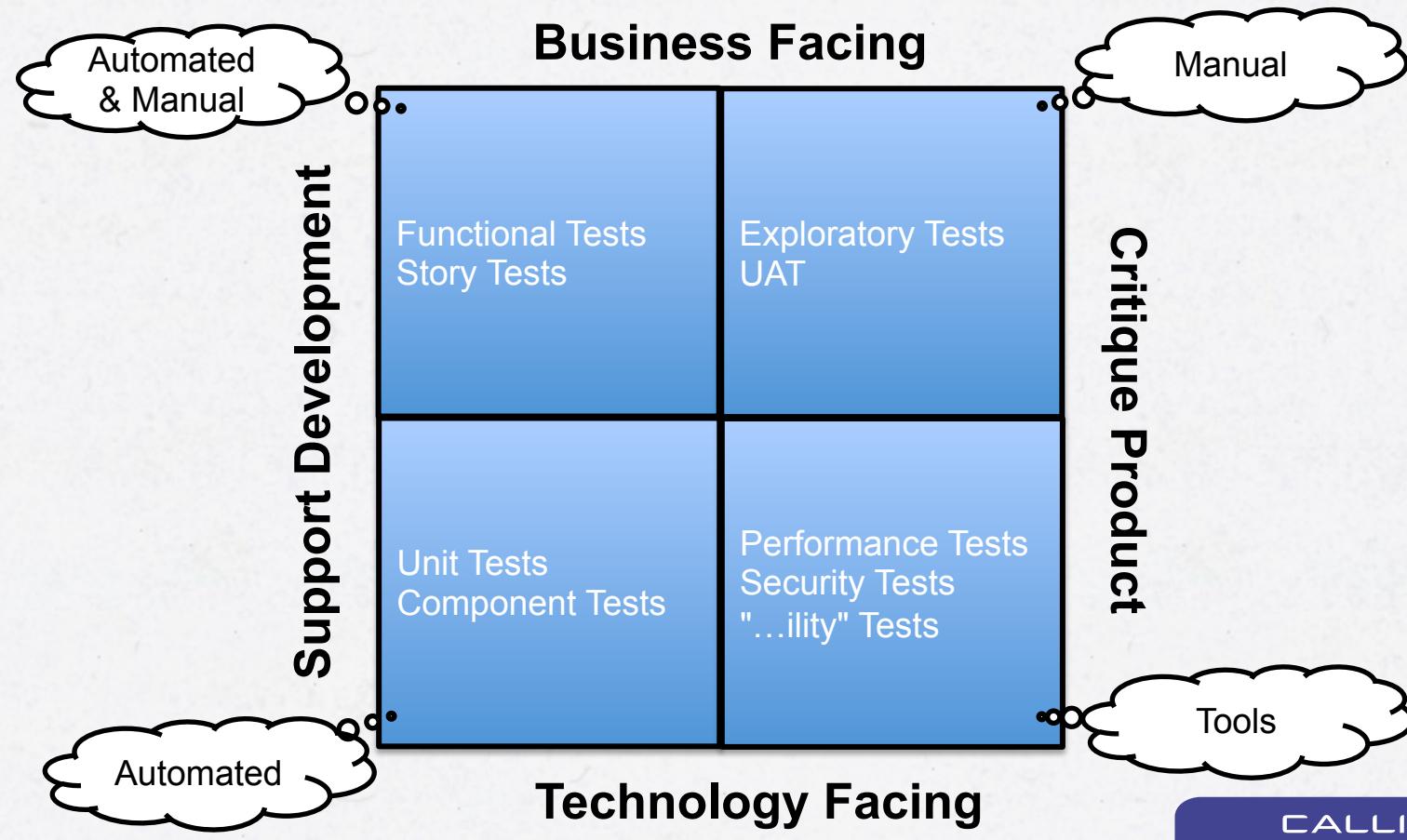
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QUALITY ASSURANCE PRECEDES QUALITY ASSESSMENT

- Testing is about **Quality Assurance**, not just **Quality Assessment**
- Quality Assessment only *indirectly* affects quality
- Testing *reveals information*
- Testing helps *focus project activity*



AGILE TESTING PURPOSES: WHY DO WE TEST?



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TDD

**ALL CODE IS GUILTY
UNTIL PROVEN INNOCENT**

CODESMACK

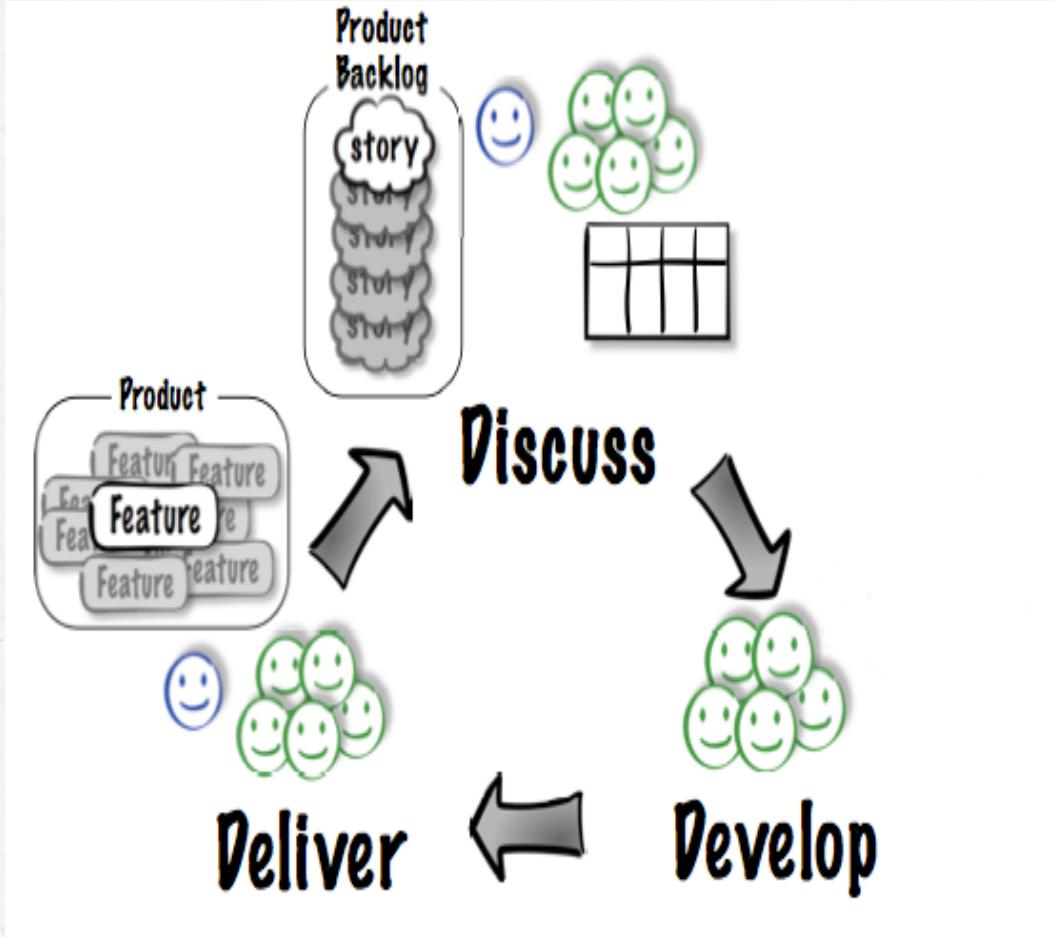


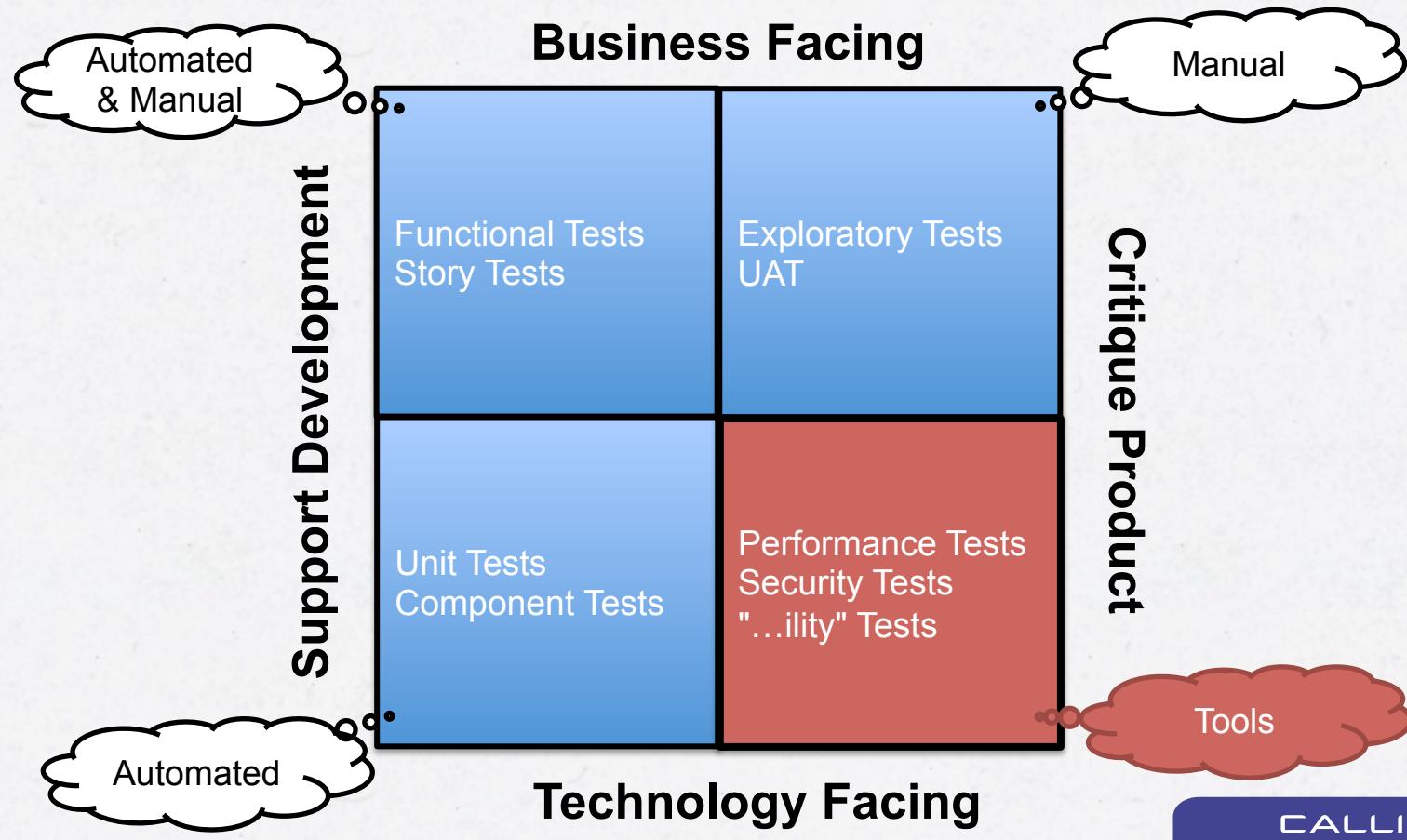
Image courtesy Elisabeth Hendrickson, www.qualitytree.com



WHAT ABOUT NON-FUNCTIONAL ASPECTS?



WHAT ABOUT NON-FUNCTIONAL ASPECTS?



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- What are the real requirements, anyway?
- How can we possibly verify that (in just 2 weeks)?
 - Data
 - Load



dig where
you stand

an archaeology of right here...



Performance

Search and replace:

Replacing 100 occurrences of a
4-character string in a 25MB
document has to take < 750ms

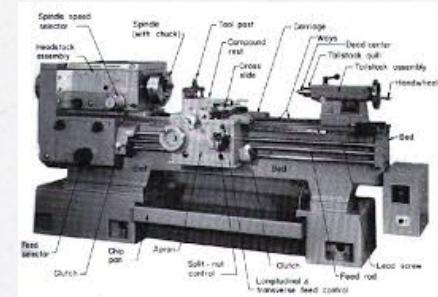


AUTOMATION CHALLENGES

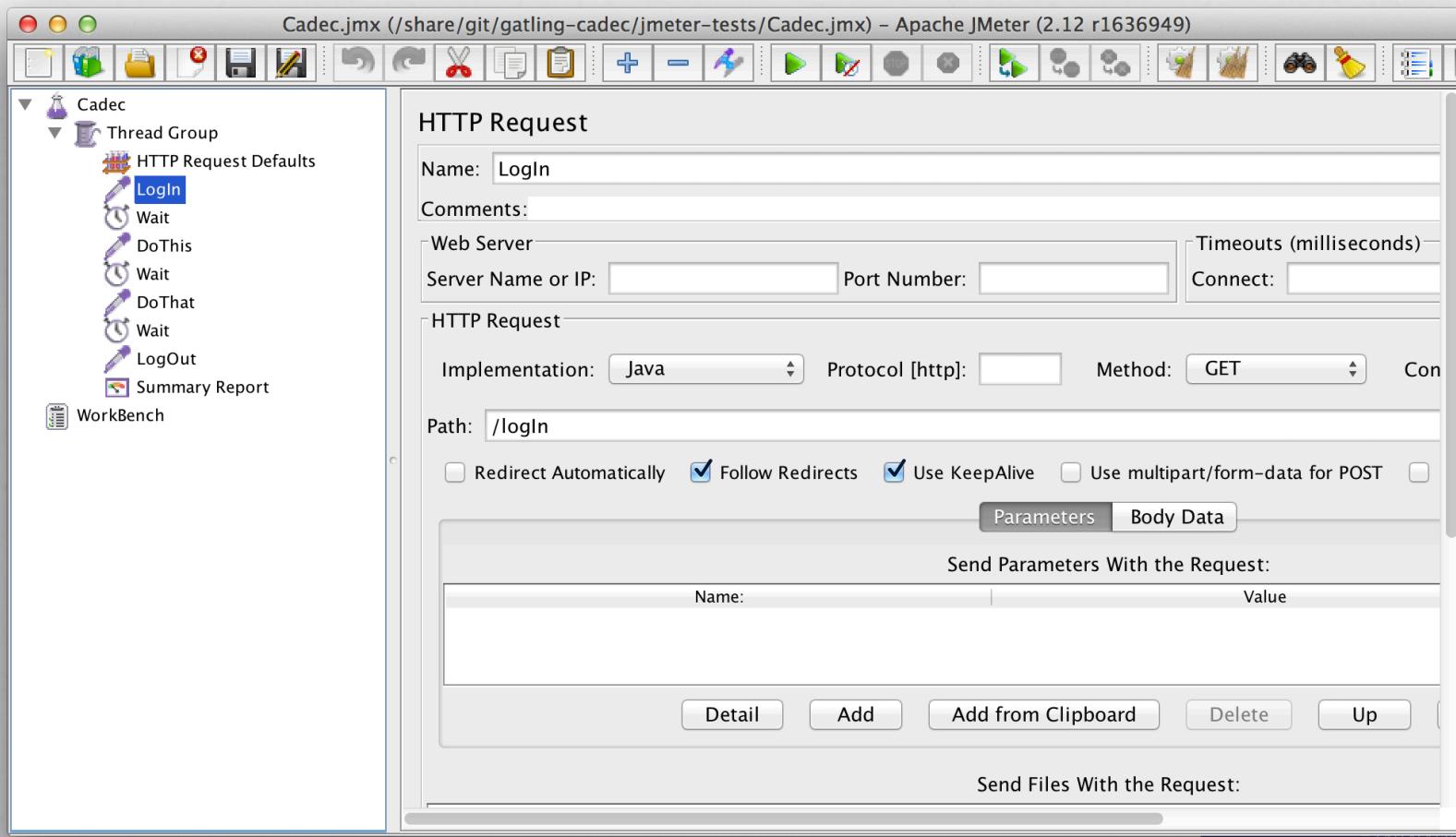
- Generate sufficient data
- Generate sufficient load

LOAD TESTING TOOLS

- Historically, Load Testing tools have been complex and expensive
 - LoadRunner
 - Rational Performance Tester
 - ...
- Lately, they have been challenged by open source alternatives
 - Apache JMeter
 - LoadUI
 - Grinder
 - ...



JMETER WITH FRIENDS: ISSUE #1 GRAPHICAL USER INTERFACE



JMETER WITH FRIENDS: ISSUE #1

Severely affects
maintainability



JMETER WITH FRIENDS: ISSUE #1

Clumsy integration with build automation and Continuous Integration tools



JMETER WITH FRIENDS: ISSUE #2 PERFORMANCE

Blocking I/O

means

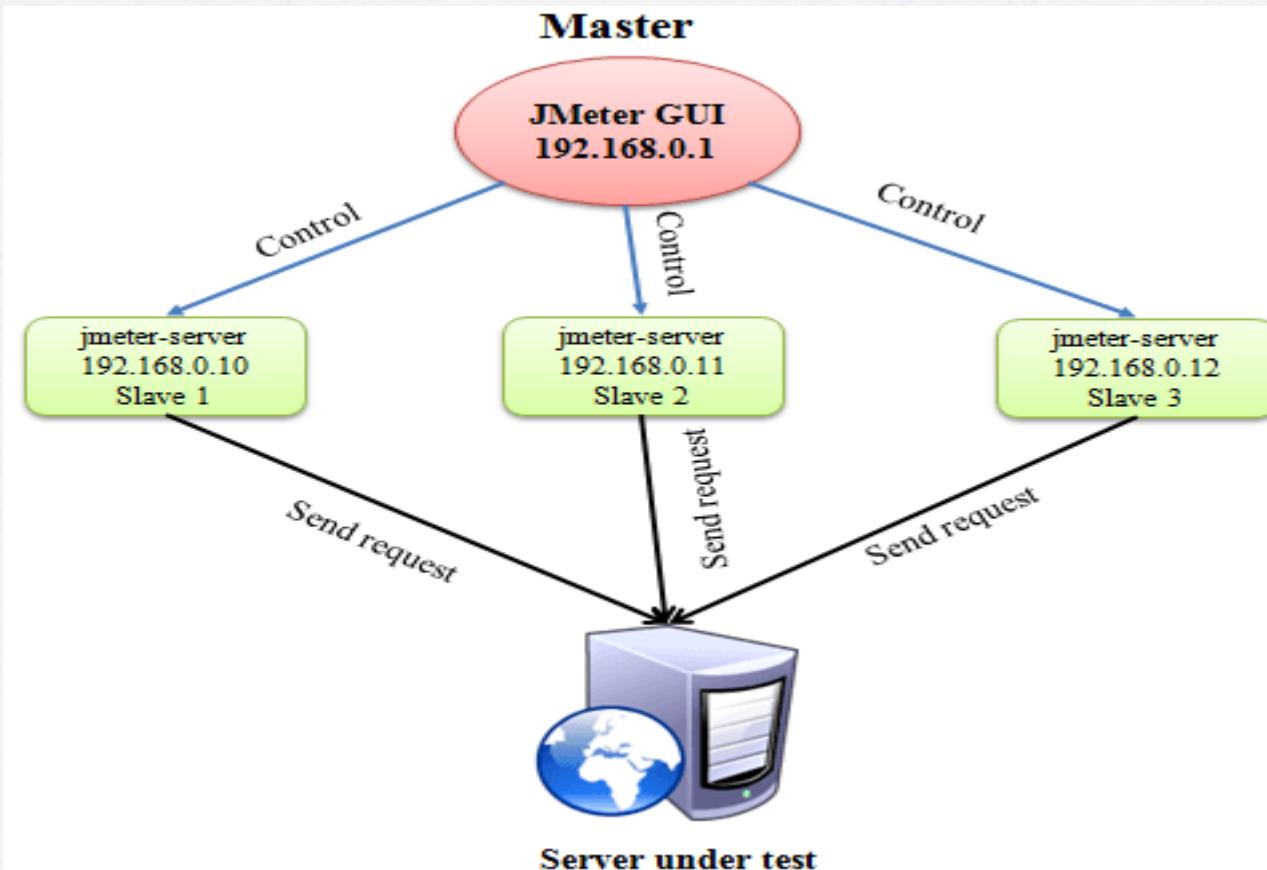
1 user = 1 thread



JMETER WOE: THREADS

A large, bold, red stamp with the word "DEMO" in white, sans-serif capital letters. The stamp has a thick, distressed red border with rounded corners. It is centered on a white background.

JMETER WITH FRIENDS: ISSUE #2 SOLVED?



GATLING.IO

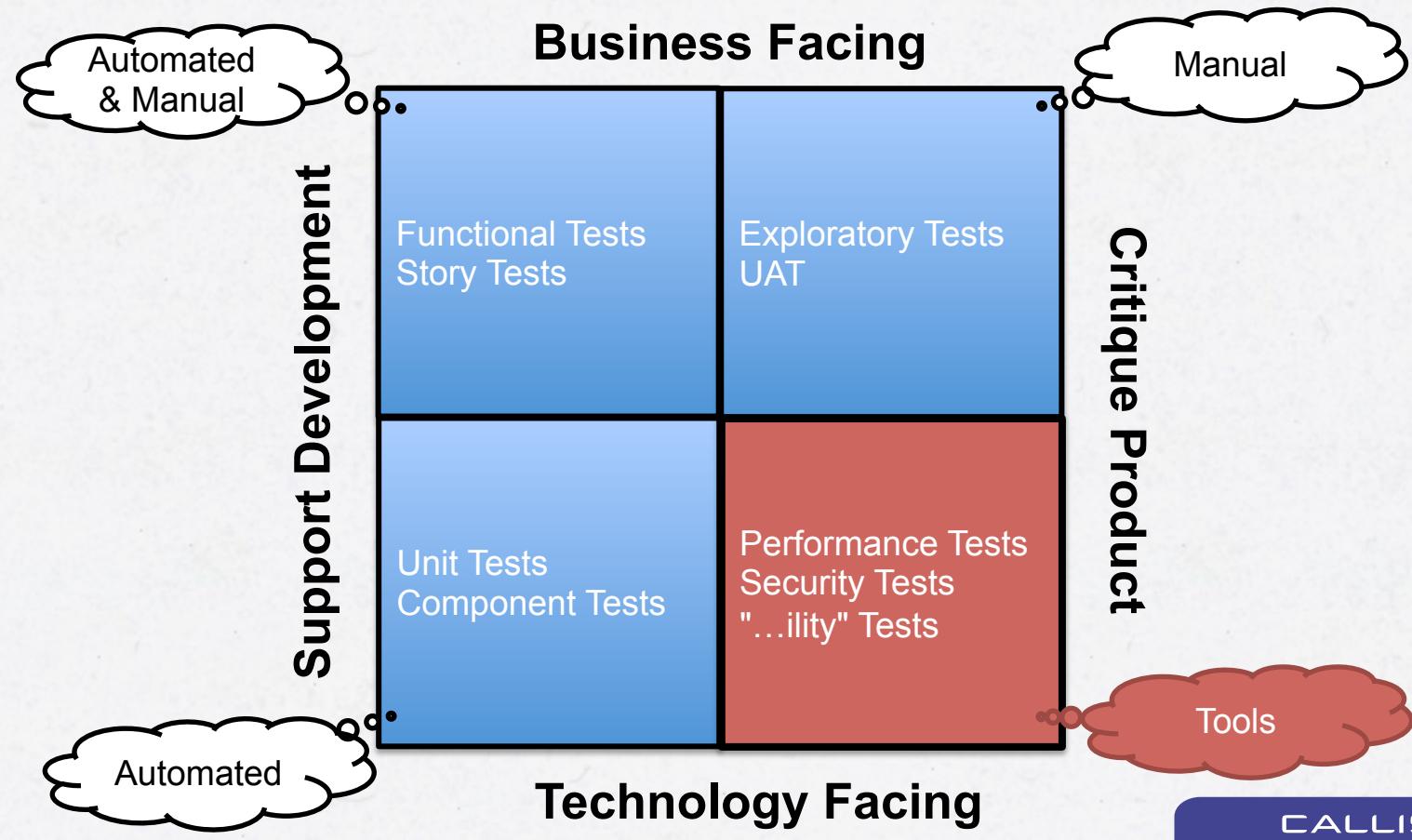
- Released in October 2012
- Now in version 2.0.3
- Different in 2 significant ways
 - Domain Specific Language (DSL) for expressing scenarios, instead of GUI
 - Uses modern, non-blocking technology (Scala, Akka, Netty), which means generating sufficient load on a single machine suddenly becomes feasible



GATLING TO THE RESCUE!



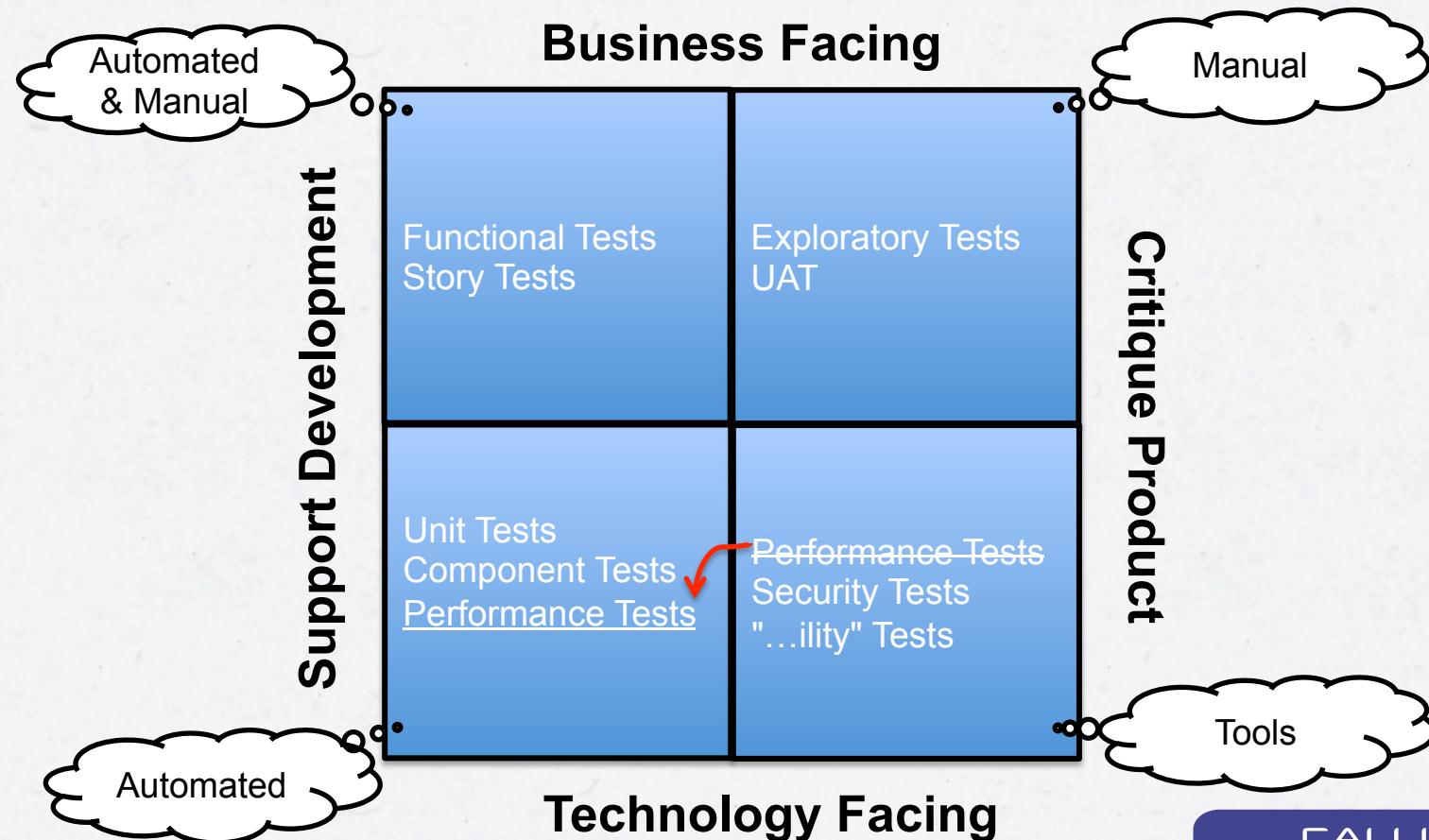
NON-FUNCTIONAL ASPECTS ...



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... SHOULD BE DONE PROACTIVELY AS WELL!



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TIME FOR QUESTIONS!

