

# The Twelve Factors of QA

CTO Summit San Francisco 2017



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- CTO / Co-founder of Rainforest QA
- Spoken to hundreds of CTOs / VPEs about QA
- Programmer / ex-ops nerd / consultant

# Rainforest QA

QA-as-a-Service.

125+ customers, spoken to many more

Customer size from 25 person startups through to fortune 500

# TLDR: QA is broken

- Unclear objectives
- Easy to start, hard to get right
- Always redone; it's custom to your process / app
- What do you actually get out of it?

Why care about QA?

What is it?

"part of quality management  
focused on providing confidence  
that quality requirements will be  
fulfilled"

ISO 9000



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ISO 9000





X

?

# Many routes to X.

1. Hire QA and test manually
2. Hire QE and test using automation
3. Make your developers do it
4. Make your customers do it
5. Outsource to QA companies
6. Use Rainforest

# Promised land

- Cheap
- Simple
- Fast
- Trustworthy

So...traits?

#1 Rightsize it.

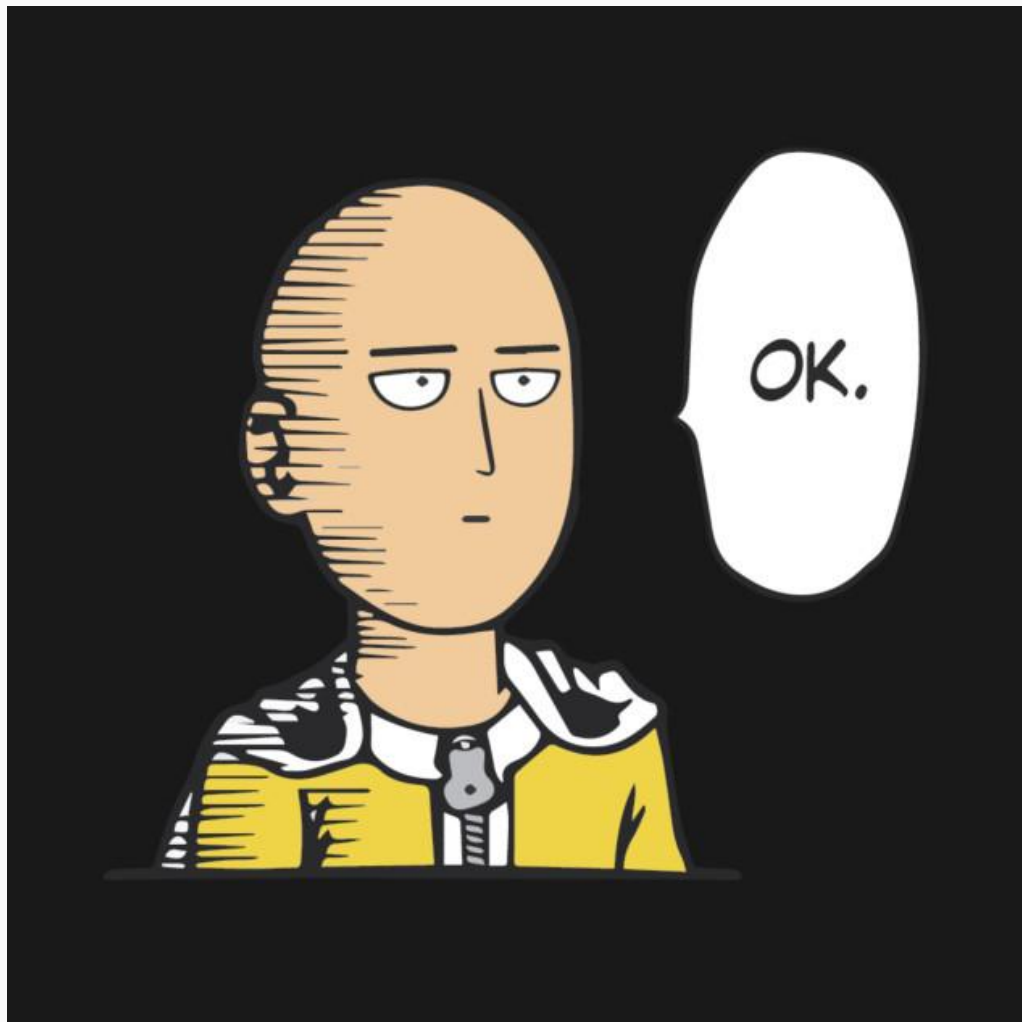
TEST ALL THE  
THINGS!



**AUTOMATE**



memes.com





# Rightsize.

1. Take a balanced approach
2. Test mainly on the devices your customers use
3. Use dev / product's tooling to help you (Mixpanel, Amplitude, Sentry, etc)
4. Composable tests

# #2 Understand the Pyramid

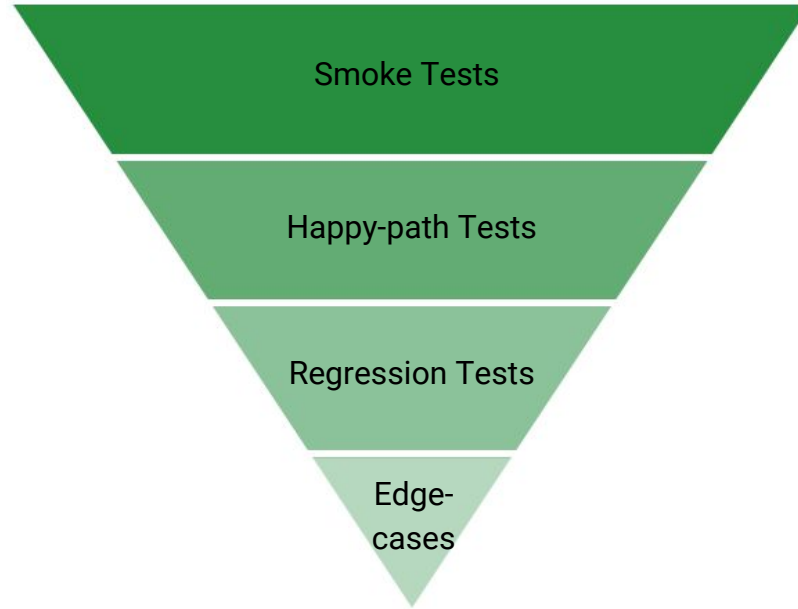
# The Pyramid

1. Smoke tests
2. Happy-path tests
3. Regression tests
4. Edge-cases

Most Useful



Least Useful



Easiest to Use



Most Difficult to Use

#3 Measure to Improve

“If you can't **measure** it, you  
can't **improve** it.”

Peter Drucker



# What to Measure?

Primary:

1. What affects the customer?
2. What affects the business?
3. How long does it take to fix?

Secondary:

1. Flakiness of your suite
2. NPS

**I JUST RAN MY UNIT TEST  
REPORT**



**AND THERE IS SO MUCH  
GREEN!!**



**CREATES HUGE PULL  
REQUEST**



**WITH FULL TEST  
COVERAGE**

memegenerator.net

**RAN MY UNIT TEST  
REPORT**



**AND THERE IS SO MUCH  
GREEN!!**

memegenerator.net

**CREATES HUGE PULL  
REQUEST**

**WITH FULL TEST  
COVERAGE**

memegenerator.net

**100% TEST COVERAGE**



**DEAL WITH IT**

memegenerator.net

**AND THERE IS SO MUCH  
GREEN!!**

memegenerator.net

# What not to Measure?

1. Tests written
2. Test coverage

#4 Shift left

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graph LR; Design --> Development; Development --> Staging; Staging --> Production; Production --> Maintenance;
```

Design

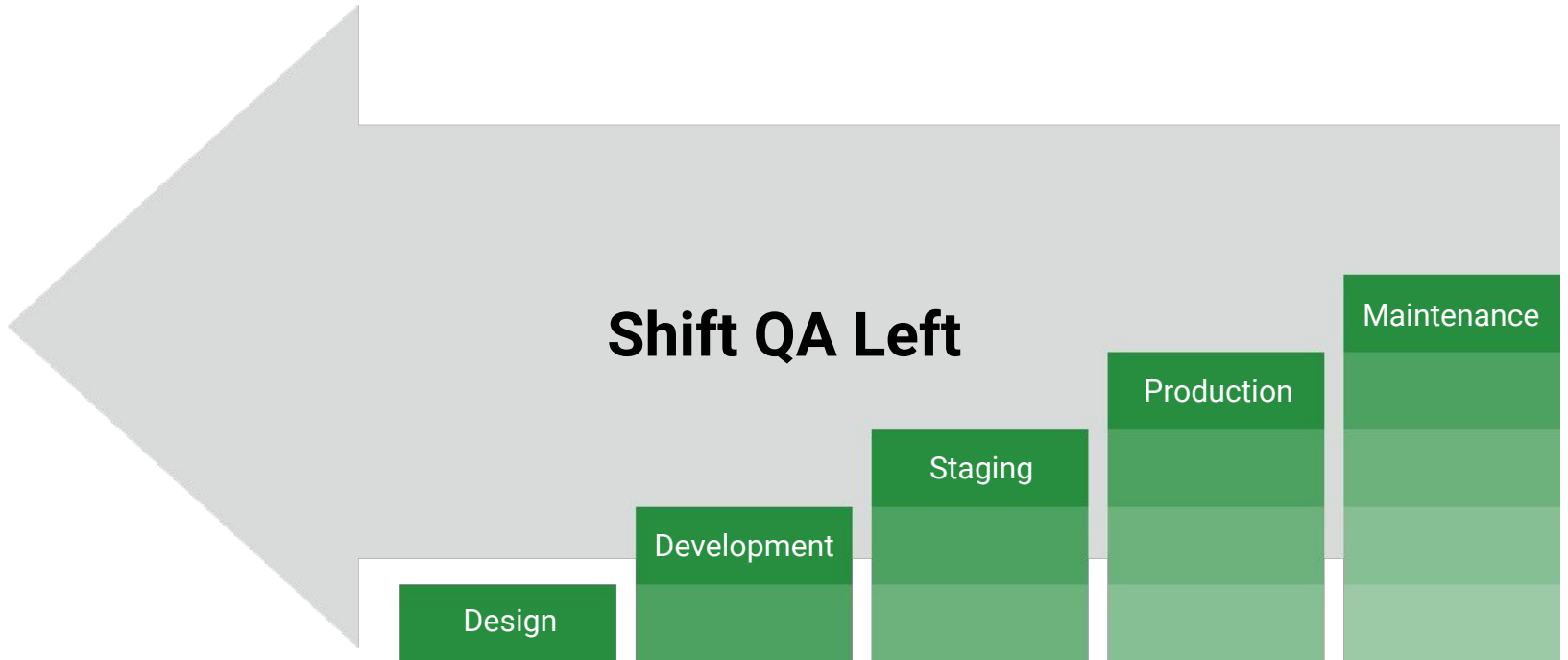
Development

Staging

Production

Maintenance

Shift QA Left



# Shifting Left

1. Developers have less time to forget context
2. Non QA benefit: shorter cycles = less risk
3. Flagging rollouts

May want to avoid if:

1. On-prem / hardware
2. Regulatory issues re:changes
3. Lots of users to re-train

# Want more?

<https://goo.gl/Qio32o> ← more factors





# Questions?

<https://goo.gl/Qio32o> ← more factors

<https://www.rainforestqa.com/>

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@rhs

