

Packt Mein Shop Das?

PHP.ruhr

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Hi, I'm Kore (@koredn)



A high-angle, long-exposure photograph of a busy London Underground station. The central focus is a wide staircase with a metal handrail, crowded with people in motion, their figures blurred. To the right, an escalator also carries a steady stream of passengers. The ground floor is a checkered-tile plaza filled with a diverse crowd of people walking, standing, and talking. In the background, a 'London Travel Information' sign is visible on the left, and a 'Next Issue' kiosk stands near the escalator. A semi-transparent dark grey box is overlaid on the upper portion of the image, containing the text 'Simulate Real Load' in white. The overall atmosphere is one of a high-traffic, public transit hub.

Simulate Real Load

Simulate Real Load

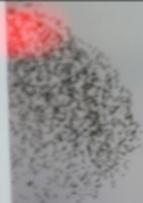
- ▶ We did this several times
- ▶ No shop had performance issues when going live

How?



Do Not Guess – Measure!

ab / siege





jMeter

Outline

How To

Common Problems

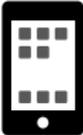
Why Is It Complex?

Awesome Shop



2 articles
42.32 €

Smartphone



Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.

1337,-- €
5 items in stock

Comments



5

Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor.

What happens on your website?

- ▶ Example: Online Shop:
 - ▶ Random browser
 - ▶ User registration
 - ▶ Logged in browser
 - ▶ Checkout process

Crunch The Numbers

- ▶ How many checkouts per day?
- ▶ How many page impressions per day?
- ▶ How many checkouts / PIs during peak time?
 - ▶ 240.000 page impressions per day → 10.000PI/h?
 - ▶ Are you .de? → 30.000PI/h
 - ▶ Peak business hours? → 60.000PI/h → 20req/s



- base-frontend-tests
 - HTTP Request Default Einstellungen
 - HTTP Header Manager
 - Random Traffic (Unknown users)
 - Initial Url Extractor
 - Frontpage
 - Initial Path Extractor
 - Loop Controller
 - Deep Link
 - Path Extractor
 - Gauss'scher Zufalls-Zeitgeber
 - Debug PostProcessor
 - View Results Tree
 - Filter View
 - Frontpage
 - Extract Category Link
 - Category
 - Extract Form Link
 - Find Filter
 - Find Filter Name
 - Find Filter Value
 - Filtered Category
 - Find Article Links
 - ForEach Controller
 - Article
 - Gaussian Random Timer
 - Debug PostProcessor
 - View Results Tree
 - WorkBench

Test Plan

Name: base-frontend-tests

Comments:

User Defined Variables

| Name: | Value |
|---------------------------|-------------------------------------------------------------|
| projectDir | \${_P(projectDir, /)} |
| projectHost | \${_P(projectHost, [http://www.localhost:8080])} |
| projectRuntime | \${_P(projectRuntime, 60)} |
| projectRampUpTime | \${_P(projectRampUpTime, 120)} |
| randomTrafficUnknownUsers | \${_P(randomTrafficUnknownUsers, 1)} |
| randomTrafficPathLength | \${_P(randomTrafficPathLength, 5)} |
| hrefRegexp | \${_P(hrefRegexp, href="http://[a-z0-9]+(?:/[a-z0-9]+)*)"}} |
| filterViewUsers | \${_P(filterViewUsers, 1)} |
| categoryLinkSelector | \${_P(categoryLinkSelector, a.smtest-category)} |
| filterFormSelector | \${_P(filterFormSelector, form.smtest-form-filter)} |
| articleLinkSelector | \${_P(articleLinkSelector, a.smtest-product-link)} |

Write jMeter tests

Run Thread Groups consecutively (i.e. run groups one at a time)

Run tearDown Thread Groups after shutdown of main threads

Functional Test Mode (i.e. save Response Data and Sampler Data)

Selecting Functional Test Mode may adversely affect performance.

Add directory or jar to classpath

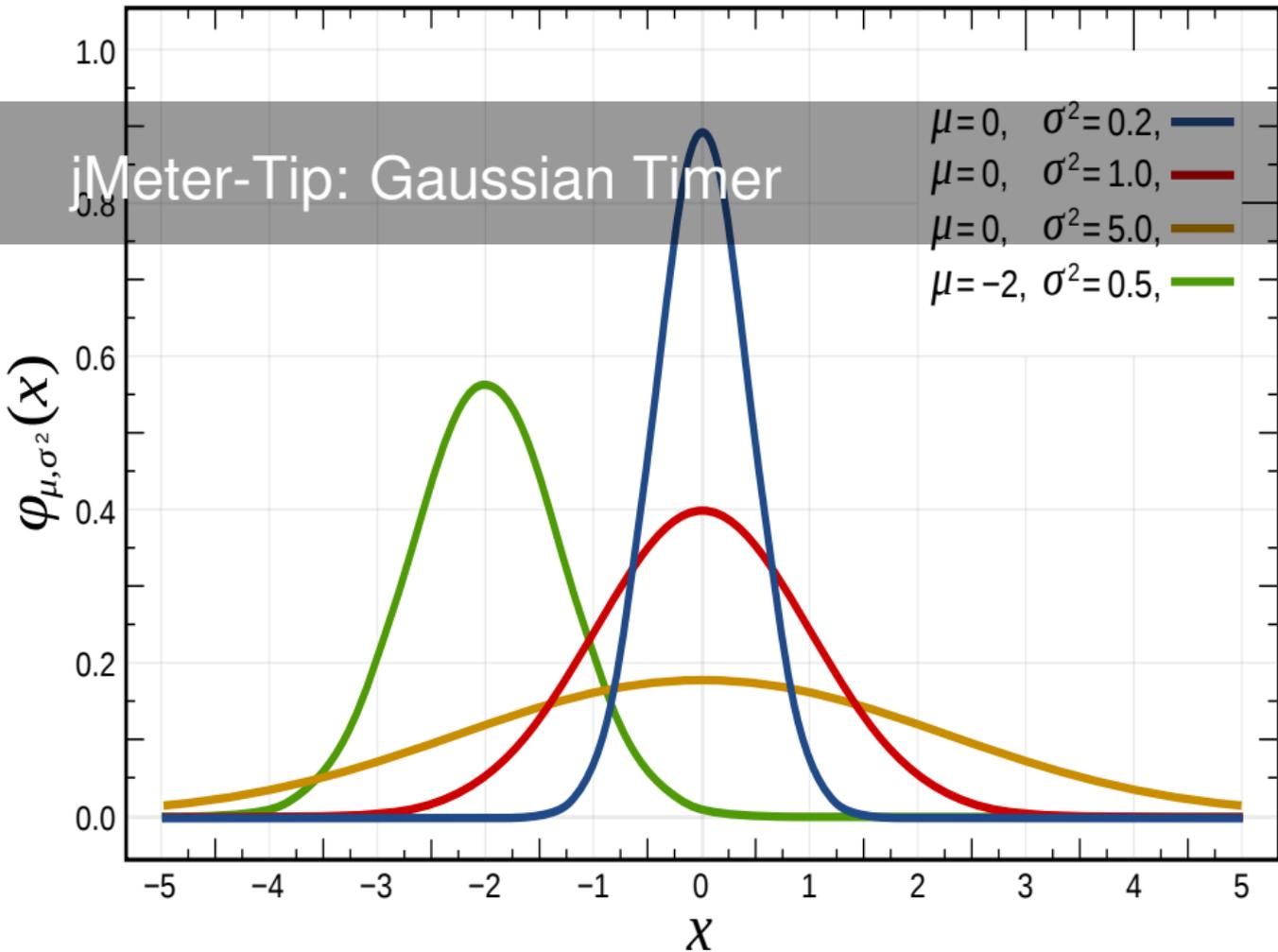
Library

- ▶ User types / execution plans
 - ▶ Thread groups
- ▶ Action timing
 - ▶ Timers
- ▶ Organize and combine logic (loops, etc.)
 - ▶ Controllers
- ▶ Example data, cookie manager, ...
 - ▶ Configuration elements
- ▶ Actual work (HTTP, SOAP, ... requests)
 - ▶ Samplers

jMeter-Tip: Cookies: Compatibility



iMeter-Tip: Gaussian Timer

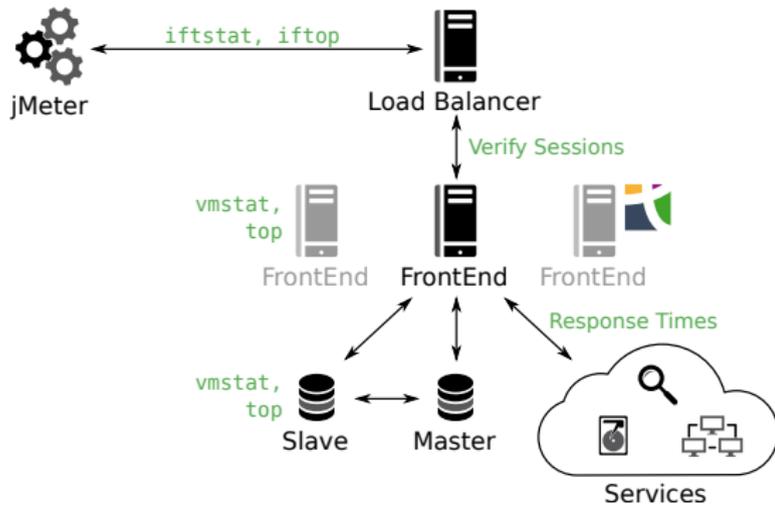


How to setup a load-test?

1. Provision server
2. Reset server
3. Prime server
4. *Run test*
5. Analyze data

Reproducible automated tests on real-world servers

Collect Data



Analyze Data

Response time



■ Minimum ■ Average ■ Maximum

Requests per second



■ Average

CPU usage



■ System ■ User

Memory usage



■ Used Memory ■ Shared ■ Cached

Tideways



Outline

How To

Common Problems



Varnish / Edge Side Includes

NFS



Server Configuration

STOP



Opcode Caches



Summary

Test Before

- ▶ Investment
- ▶ Sleep well
- ▶ Tests can be run again – requires servers

Test Live

- ▶ Pray...

Simulate Real Load

- ▶ We did this several times
- ▶ No shop had performance issues when going live
- ▶ Hardware proved almost everytime sufficient after problems with the stack were fixed
- ▶ No shop would have made it without the improvements



<https://qafoo.com/newsletter>

THANK YOU

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qafoo.com