



VERSION 4

Performing Performance Testing

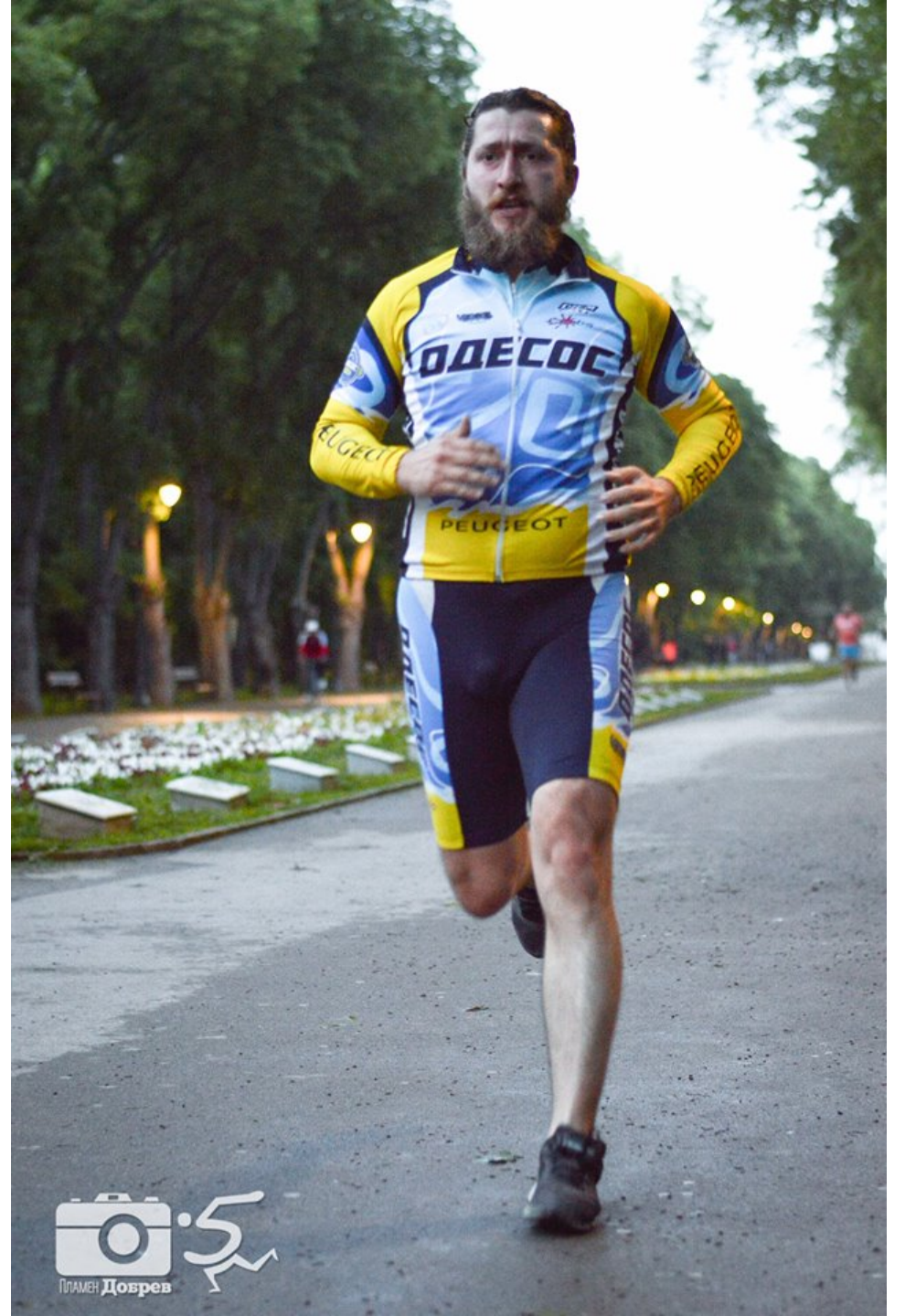
Why, who, how - step by step

Nedko Hristov, Nemetschek



About me

Testing software and myself for a long time enough to
find that nothing is unbreakable;



About me



Fan of dark humor, memes and beer

when you accidentally touch
your sense of humour



About me



Blogger-ish @ nedko.info

YOU READ MY BLOG!



**DID YOU CLICK LIKE? DID YOU COMMENT?
DID YOU SHARE IT? ARE YOU FOLLOWING
ME ON TWITTER? DO YOU LOVE ME?**

About me



Works in Nemetschek



Why performance testing?



My story



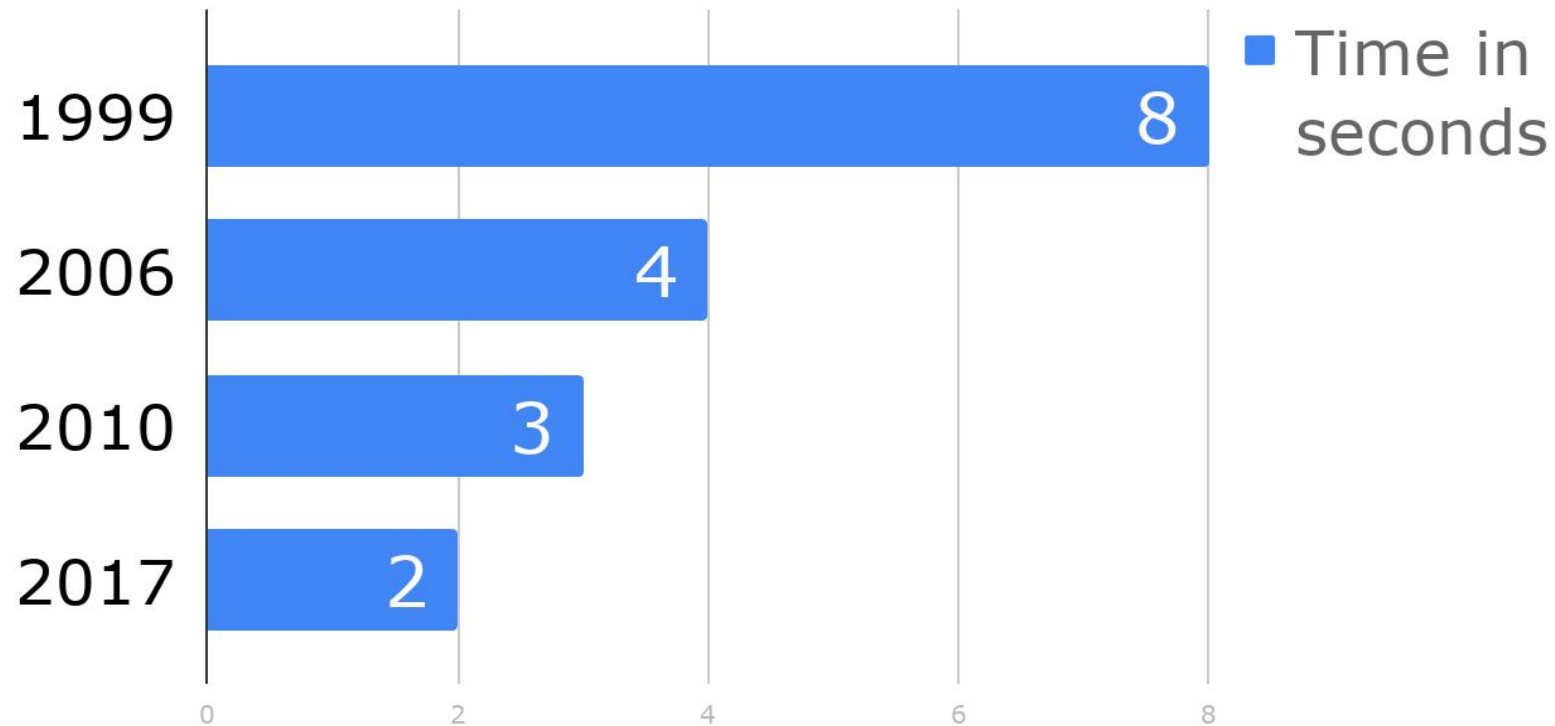
Our biggest enemy

Attention span - the desire of instant gratification increases dramatically over last years

Our biggest enemy



Attention span over the years



What is performance testing

- Non-functional testing determining the system responsiveness, reliability, scalability and stability;
- Performance is ongoing process starting from the planning and finishing with the project handover.

"you know...

**process
is process"**

Why performance testing is underrated?

- It's not a functional part of the project;
- Requirements often doesn't clarify the performance expectations;
- Short estimates;
- "If we're working on enterprise solution often it's too late for fixing performance issues";
- Or not?

**I'm not saying this post is
underrated but...**

IT'S UNDERRATED

MemeCenter.com

HD
HISTORY.COM

Who will perform the performance testing

- Probably you;
- Measure before and after. You don't go to diet before you measure yourself;
- Know what metrics you need;
- Compare, fix, compare, fix, ...

Speaking of metrics

- *Average load time;*
- Response time;
- Number of concurrent users;
- Hits per second;
- Errors per second/Error rate;
- Throughput kb/s;
- Wait time/Average Latency;
- Peak response time;
- Throughput kb/s;
- Errors per second/Error rate;
- CPU/Memory/DB utilization



Performance testing tools

JMeter

SoapUI

The Grinder

Devops Tools

Gatling Tool

LoadImpact K6

Locust

Taurus

Tsung

Apache Siege

JCrawler

OpenSTA

Bees With

Machine Guns

Multi

Mechanize

Apache Bench

HTTPPerf

Solex

NGrinder

HammerHead

OpenWebLoad

Legion

NetLing

Goad

Artillery



Why jMeter?

Pros:

1. No installation required (but needs Java);
2. Open source;
3. Available third-party plugins;
4. Distributed running;
5. Recording scenarios is super easy.

Cons:

1. GUI is known with the high memory consumption;
2. Exceptionally ugly;
3. High learning curve.

Why Grafana and InfluxDB?

Grafana:

1. Beautiful data visualization tool;
2. Free;
3. Supports InfluxDB, ElasticSearch, Prometheus databases, etc.;
4. Customizable

InfluxDB:

1. **Fast time-series database;**
2. Free;
3. Can be connected with Grafana easily

TIME FOR A LIVE DEMO



WHAT COULD GO WRONG?

jMeter dashboard report as alternative

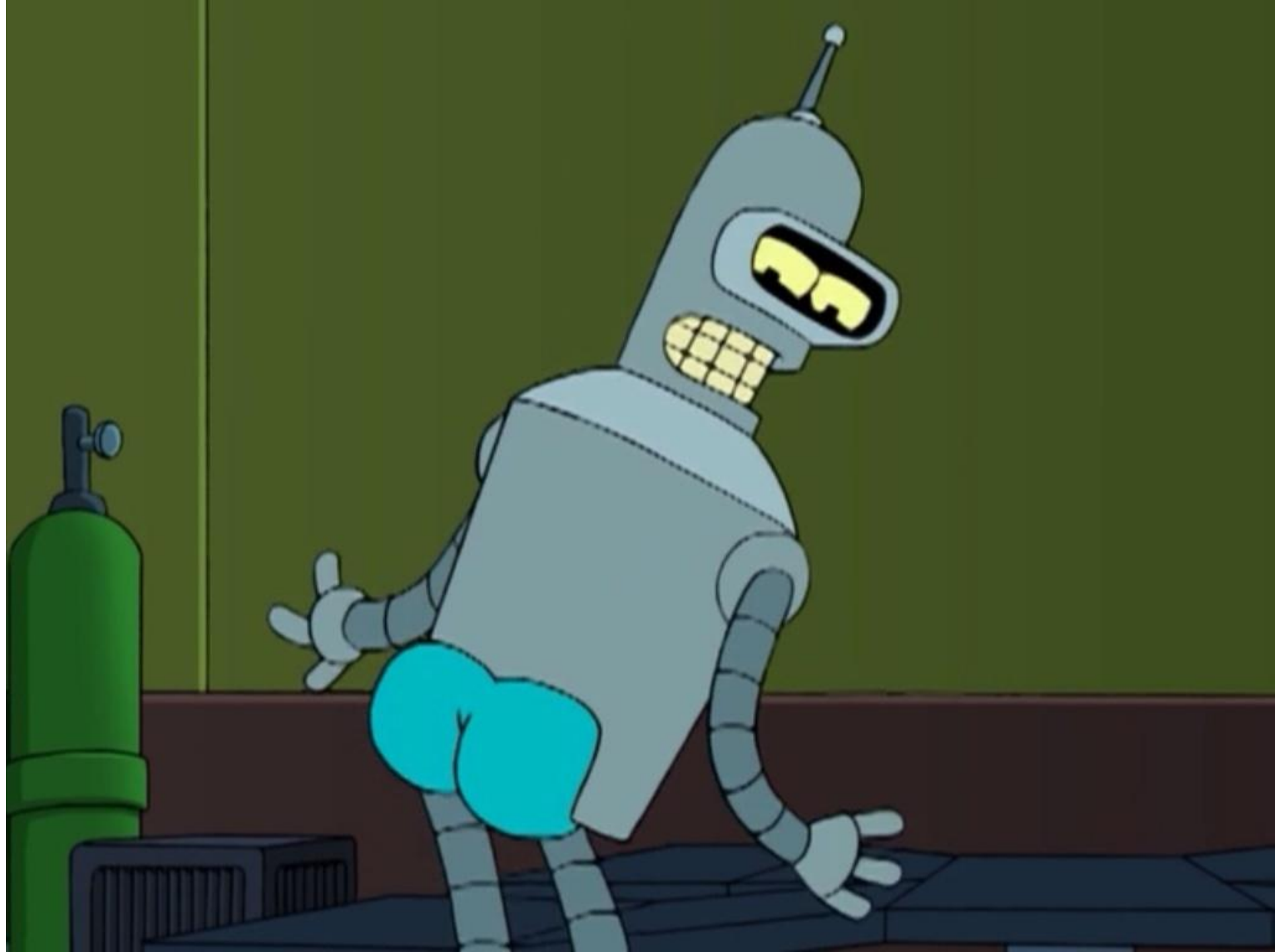


Pros:

- Great design;
- Useful diagrams;
- Documentation;
- Exported as HTML file;
- Uses Freemaker template engine to generate the report

Cons:

- Tricky configuration;
- Runs only in non-GUI mode;
- Adding new graphs are pain in the



ANY



Nedko Hristov

QA @ Nemetschek

nhristov@nemetschek.bg

<https://nedko.info>

QA STIONS?

**I DON'T KNOW HOW
TO END A PRESENTATION**

**AND AT THIS POINT
I AM TOO AFRAID TO ASK**

imgflip.com

QA CHALLENGE
ACCEPTED

QA CHALLENGE ACCEPTED

VERSION 4.0

www.qachallengeaccepted.com

info@qachallengeaccepted.com

#qachallenge

thanks to our sponsors:

