

HOW ADVANCES IN THE JVM CAN SPEED UP CAMUNDA

TIM ZÖLLER



Photo by [Cara Fuller](#) on [Unsplash](#)

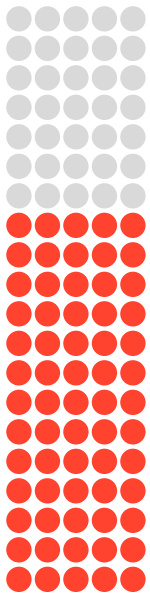


WHAT THIS IS NOT ABOUT

Photo by [Alan J. Hendry](#) on [Unsplash](#)

SLIDES WITH CHARTS

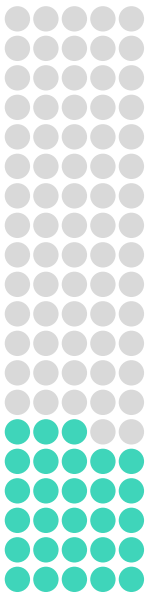
IMPRESSIVE NUMBERS AND BAR CHARTS



65%

MORE FAST

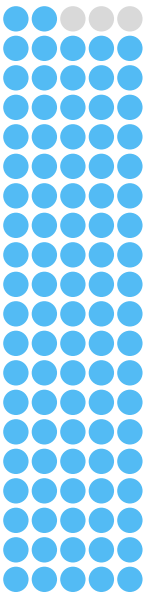
With the proposed solution, your application will be 65% more faster than before



28%

LESS SLOW

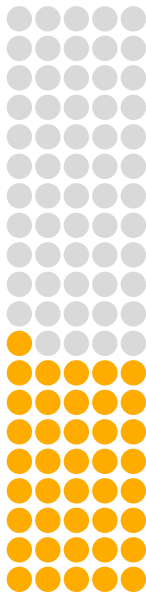
Also, if you use this technology, your application will be 28% less slow, too



97%

BETTER

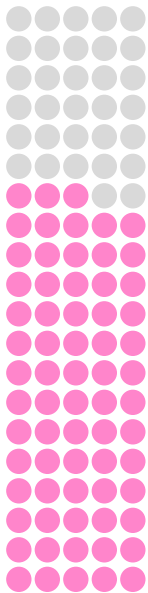
In addition to being faster and less slow, it will also make your app 97% more awesome



41%

RAM

I don't know what you are doing with your application, but you will use up to 41% less RAM



68%

IS A NUMBER

We ran out of metrics, so we just but 68 here. 5 Bar Charts look better than 4

A leopard is perched on a thick, weathered tree branch. Its mouth is wide open in a yawn or a call, revealing its pink tongue and sharp teeth. The leopard's fur is covered in a dense pattern of black spots on a golden-brown background. The tree has a rough, textured bark and is surrounded by green leaves and branches. The background is a soft-focus view of a savanna landscape with more trees and a clear sky.

WHO AM I?

Photo by [Eric Heininger](#) on [Unsplash](#)

TIM ZÖLLER

A.K.A. "JAVAHIPPIE"



TIM ZÖLLER

Senior IT Consultant



ABOUT ME

- Developing Software since 2008
- Java, Clojure & BPMN
- ilum:e informatik ag

SOCIAL



MY USUAL TOPICS



JAVA

90%



BPMN

70%



CLOJURE

60%



COLLABORATION

40%



MUSIC & COFFEE

20%

A cheetah is lying in tall, green grass, looking directly at the camera. The cheetah's fur is a mix of orange, black, and white spots. The text "WHAT WE WILL LOOK AT" is overlaid in the center of the image. "WHAT WE" and "LOOK AT" are in white, while "WILL" is in green and underlined with a green line.

WHAT WE WILL LOOK AT

Photo by [Michael Aleo](#) on [Unsplash](#)

MY SCREEN

APPLIED CONFIGURATIONS AND REAL TIME EFFECTS



A brief overview



Evaluation of results



Live demonstration of tooling



Links to resources in the end

TECHNOLOGIES

WHO IS PROMISING THIS SHINY NEW WORLD?



CLASS DATA SHARING

- Pre-Load Java Classes
- Java Standard Feature
- Since JDK 12
- Improvements in JDK 13



GRAALVM

- High Performance Runtime
- AOT Features
- Community & EE Edition
- Polyglot
- Capable of Native Images



MICRONAUT

- Micro Framework
- AOT Features
- Open Source
- Capable of Native Images



QUARKUS

QUARKUS

- "Kubernetes Native Java Stack"
- AOT Features
- Open Source
- Maintained by RedHat
- Capable of Native Images

A cheetah is shown in a savanna landscape, looking back over its shoulder. The cheetah's body is covered in a pattern of black spots on a light tan background. It is standing on its hind legs, with its front legs extended forward. The background consists of tall, dry grass and some green shrubs. The text "LET'S HAVE A LOOK!" is overlaid on the image in a bold, white, sans-serif font.

LET'S HAVE A LOOK!

Photo by [D.S. Chapman](#) on [Unsplash](#)



ARE WE HAPPY WITH THAT?

Photo by [Yuval Levy](#) on [Unsplash](#)

SOME BENEFITS

ARE THEY WORTH IT?



STARTUP TIME

- Not relevant for most people
- Fast scalable Microservices?
- "Serverless" Service workers?

APPLICATION SPEED

- No JIT optimizations for native image

MEMORY FOOTPRINT

- Interesting for cheaper cloud hosting
- But most expensive: Database

FLEXIBILITY

- Some limits for technology choices

A photograph of two cheetahs in a savanna setting, feeding on a large animal carcass. The cheetahs have distinctive black spots on their tan fur. The carcass is partially eaten, showing internal organs. The background is a field of tall, dry grass under bright sunlight.

THANK YOU!

CAMUNDA
CON
2020.2

Questions?

