



QUARKUS

QUARKUS WORLD TOUR 2023



Why and when to write a Quarkus extension

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Devoxx Greece 2023

QUARKUS

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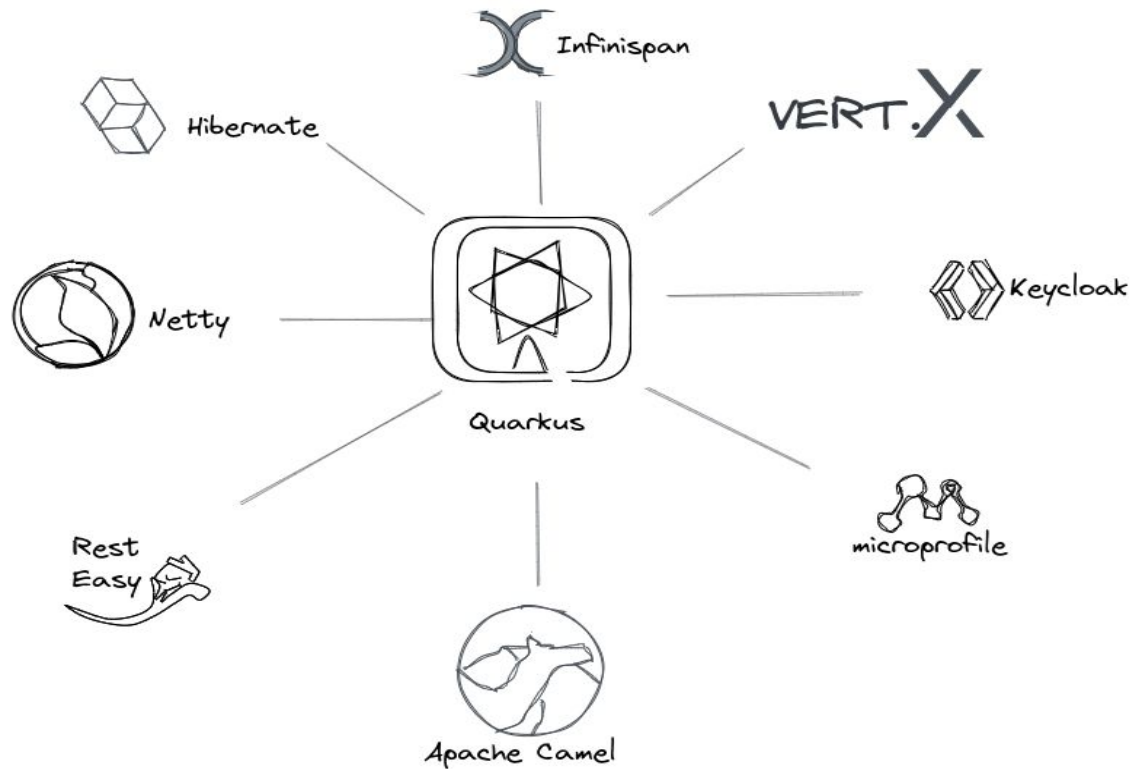
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Our topic

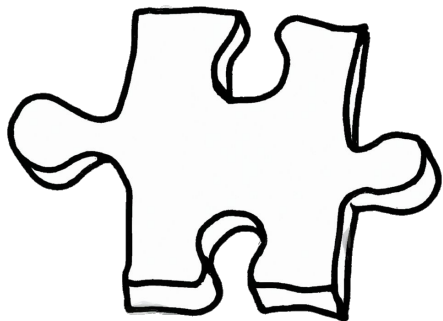
- **Better understanding of how Quarkus works**
- **Real world cases where extension can promote adoption of reusable features**
 - **Emphasis on 'real world'**
 - **Tone down the 'exotic'**

“How quarkus extensions help you distribute reusable components between teams / projects”

The enablers



What is a Quarkus Extension?



- **A module**
- **Adds behavior to the application**
- **Consists of two parts**
 - **Build time**
 - **Run time**

A closer look at what an extension does



- **Simplify native mode**
 - Register for reflection
 - Byte code replacements
- **Speed up normal mode**
 - Ahead of time
- **Improve developer experience**
 - Dev UI
 - Dev Services

When ?



When to write an extension?

- Reuse of behavior
- Integrate a framework or technology
- One does not already exists
 - Core
 - Quarkiverse
 - Community extensions
 - Available on Github
 - 100+



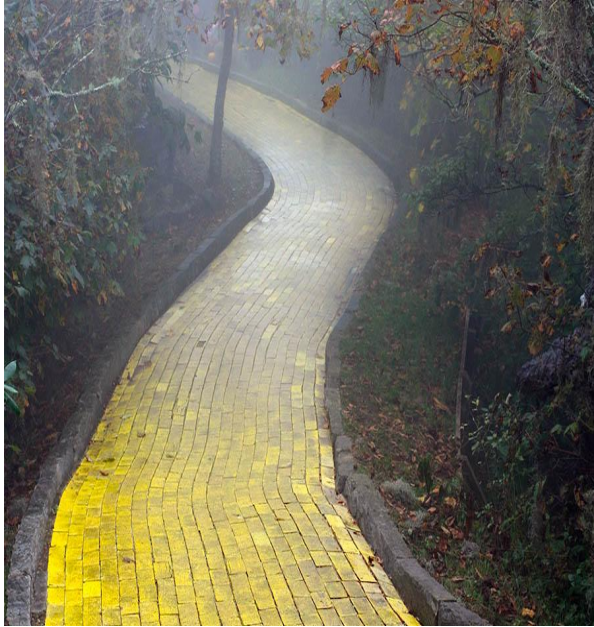
Why ...

... not just writing a simple jar ?



Starter Code

"How do you teach people use your component ?"

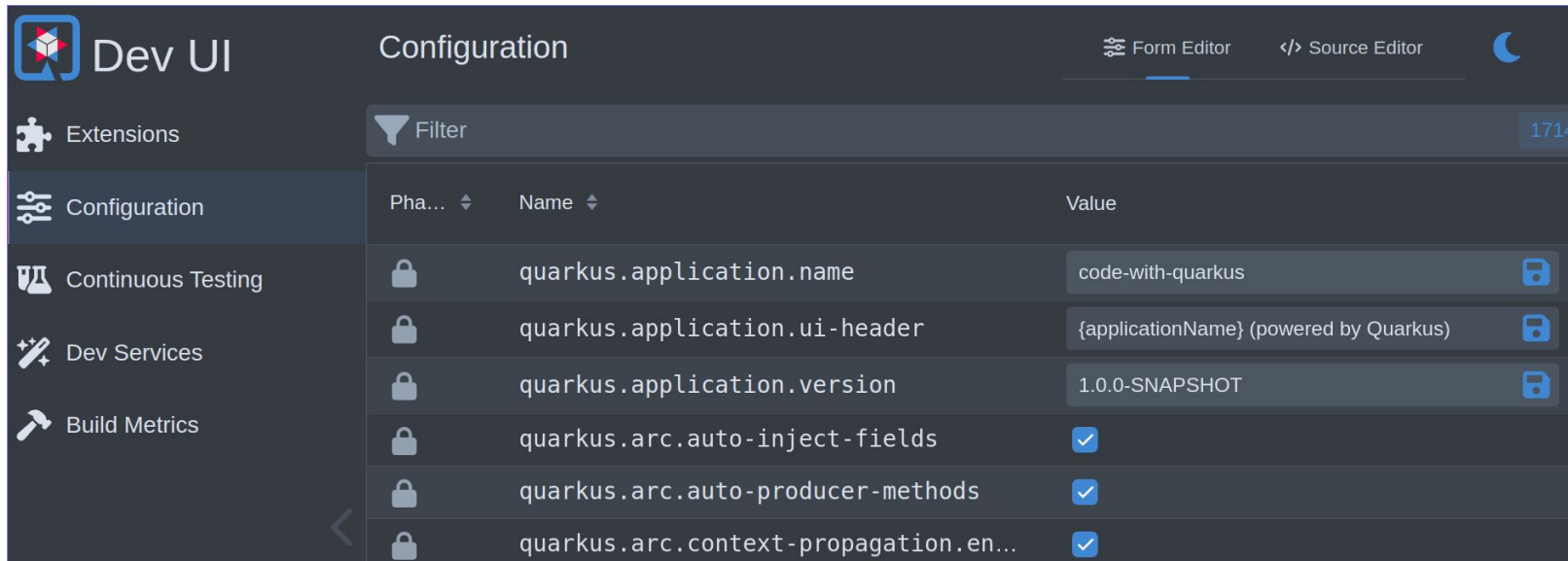


- **Extensions contributing code**
 - **Showcase how to use the example**
 - **Wiring things up**



Standardized Configuration

"How do you advertise your component configuration?"

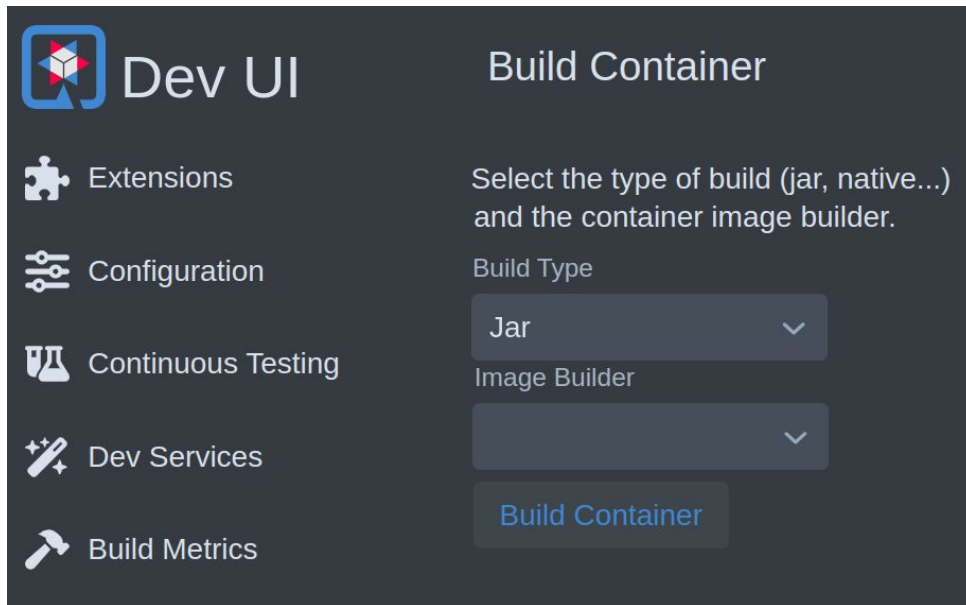


The screenshot shows the Dev UI Configuration page. The left sidebar contains navigation links: Extensions, Configuration (selected), Continuous Testing, Dev Services, and Build Metrics. The main area displays a table of configuration items. The table has columns for 'Pha...' (likely Phase), 'Name', and 'Value'. The items listed are:

Pha...	Name	Value
🔒	quarkus.application.name	code-with-quarkus
🔒	quarkus.application.ui-header	{applicationName} (powered by Quarkus)
🔒	quarkus.application.version	1.0.0-SNAPSHOT
🔒	quarkus.arc.auto-inject-fields	✓
🔒	quarkus.arc.auto-producer-methods	✓
🔒	quarkus.arc.context-propagation.en...	✓

Dev UI

"How do you expose your component functionality to devs?"



- **Expose extension functionality**
 - **Devs only**
- **Examples**
 - **quarkus-container-image**
 - **quarkus-kubernetes**
 - **quarkus-graphql**
 - **quarkus-grpc**

Dev Services

"How do you easily develop against services your component depends on?"

- **Automatic testcontainer management**
 - Development mode
 - Testing
- **Examples**
 - `quarkus-jdbc-postgresql`
 - `quarkus-mongodb-client`
 - `quarkus-kafka-client`
 - `quarkus-kubernetes-client``

Enabling a framework for native

"How do you make a new framework work in native?"

- **Reflection registration**
- **Byte code manipulation**



Generating code or resources

"How do you reduce boilerplate code?"

- **Things you can generate**
 - **Resources**
 - **Source code**
 - **Byte code**
 - **Build items (extension integration)**
- **Extension examples**
 - **quarkus-grpc**
 - **quarkus-kubernetes**

Want to know/learn/watch more about Quarkus?

- Battle of the frameworks : Quarkus vs SpringBoot (11:10-11:50, MC2)
- Stream processing app. with Kafka and Quarkus (12:20-13:00, MC2)
- Quarkus on AWS Lambda (14:10-14:25, MC3)
- ⇒ Quarkus Community BOF (15:05-16:05, MC3)
- Contract testing with Pact and Quarkus (16:35-17:15, MC3)
- OpenId Connect and JWT Security in Quarkus (17:30-18:10, MC2)



Q&A

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THANK YOU

quarkus.io

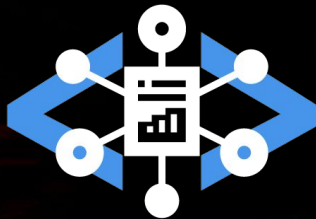
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Quarkus 3 Highlights



PERFORMANCE

Hibernate ORM 6



PRODUCTIVITY

Pact contract testing support

New Dev UI

Azure Functions extension



KUBE-NATIVE

Kubernetes DevService

Quarkus CLI deploy
to Kubernetes



STANDARDS

Java 11 & 17

Aligns with MicroProfile 6
& Jakarta EE Core Profile 10

Learn more at [Quarkus.io/quarkus3](https://quarkus.io/quarkus3)



Quarkus 3 has landed.

Learn more at [Quarkus.io/quarkus3](https://quarkus.io/quarkus3)



QUARKUS



A musician is silhouetted against a vibrant, smoky background of magenta and purple light. The musician is holding a guitar and standing on a stage. A large, white, stylized logo is superimposed over the center of the image. The logo consists of a large, bold, white bracket-like shape on the left and right, with a central, intricate, white, stylized letter 'Q' or 'G' in the middle. The overall atmosphere is energetic and artistic.

{ Q }

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