From 'Java Sucks' to 'Java...Eh, Not Bad'

How Vert.x & Java 21 Made Me Stop Complaining

Thomas Gebert

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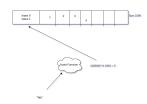
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ColdFusion Programming Language

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- Many companies will find it infeasible to migrate to a better language, and would rather spend infinitely more money hiring dozens of engineers to write a million incrementatal patches to a Java codebase.
- Many of us are stuck in this hell.

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- Configurable, can be enabled or disabled per-project.

Records

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- Deployed with vertx.deployVerticle(...)

Event Loop

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- Designed for minimal context switching and high throughput

Event Bus

Lightweight messaging system

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Future & Promise

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Context

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Buffer

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WebClient / HttpClient

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Timer / Periodic Tasks

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```
void doSomethingAsync(Promise<String> promise) {
  vertx.setTimer(500, id -> {
    promise.complete("Hello, future!");
  });
}
```

SharedData

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- Useful when handling large streams (e.g., file uploads, HTTP bodies)

Example: Handling a slow WriteStream

```
source.pipeTo(slowSink, res -> {
  if (res.succeeded()) {
    System.out.println("All data written.");
  } else {
    res.cause().printStackTrace();
  }
});
```

Vert.x distributed concurrency example

Deploying Verticles: Local vs Clustered

- Verticles are the basic unit of deployment and concurrency
- Deployment is nearly identical across local and clustered environments

Local Deployment

```
Vertx vertx = Vertx.vertx();
vertx.deployVerticle(new MyVerticle());
```

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- Convince your employers to upgrade if you want to reclaim your sanity.
- Blah . . .
- Use libraries like Vert.x and Disruptor to make life simpler.

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