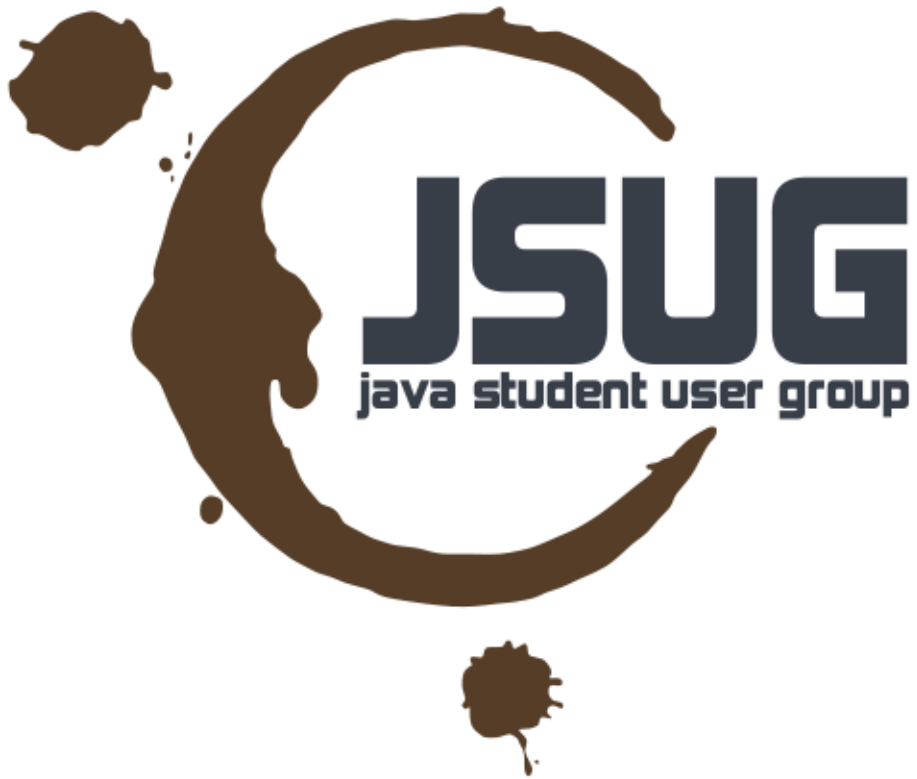




Meeting #51

Lego Mindstorms NXT – Bernhard Löwenstein
Vert.x – Dominik Dorn



Vert.x

Asynchronous & Polyglot (Web) Framework
Dominik Dorn

Ablauf

- Vert.x ?
 - Polyglot?
 - Asynchron?
 - Architektur
 - EventBus
 - Benchmarks
 - Demo

Vert.x ?

“Vert.x is the framework for the next generation of asynchronous, effortlessly scalable, concurrent applications.”

- Asynchrones und Polyglotes Framework
- Aktuelle Version 1.3.1 (1st commit 2011-09)
- Früher **SpringSource**, dann **RedHat** (Hauptentwickler)
- Jetzt **Eclipse-Foundation**
- <http://www.vertx.io>
- <http://github.com/vert-x/>

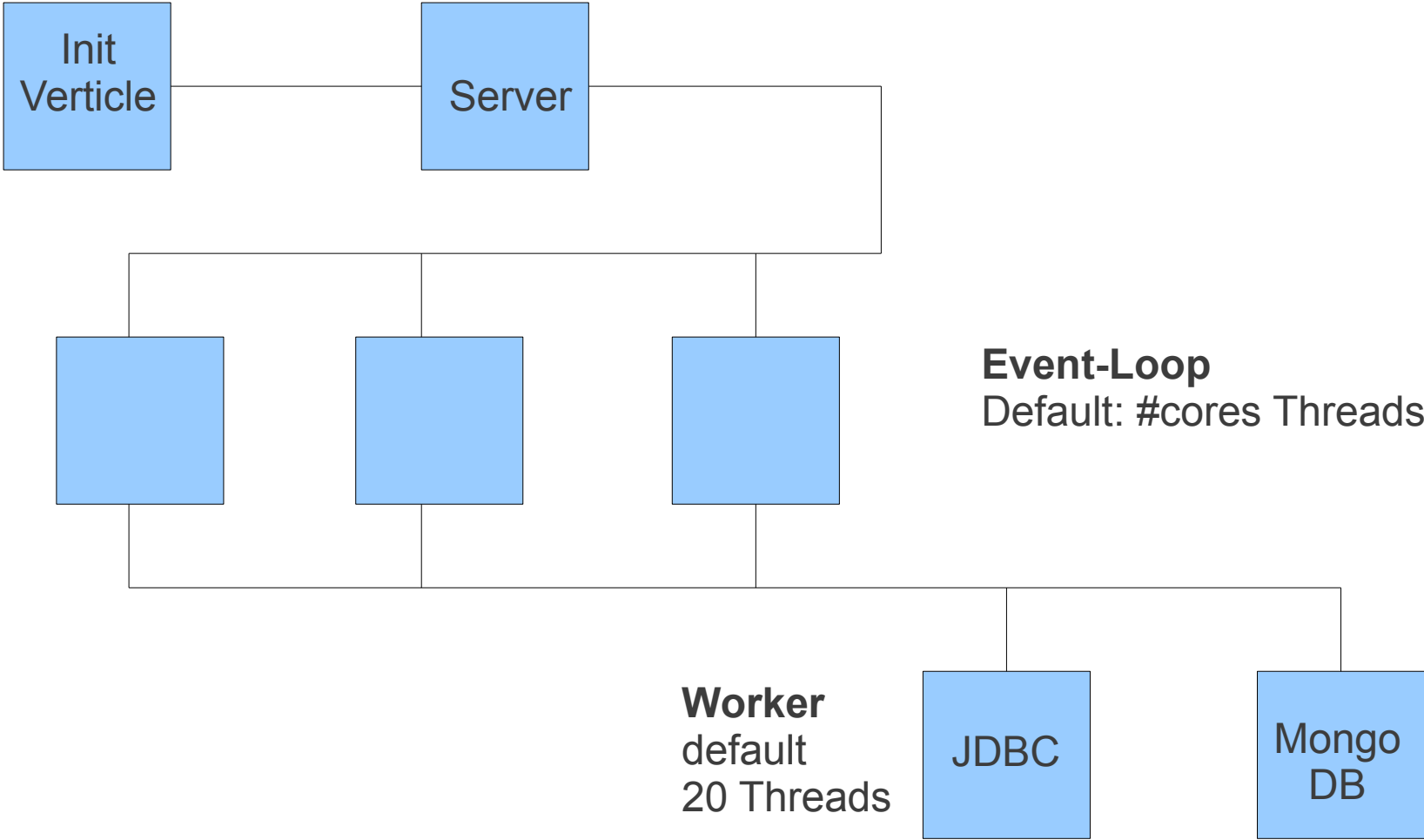
Polyglot

- Programme & einzelne Programmteile koennen in verschiedenen Sprachen erstellt werden
- Aktuell
 - **Java**
 - **Groovy**
 - Python (via JPython)
 - Ruby (via JRuby)
 - JavaScript (via Rhino)
- In Arbeit
 - Scala
 - Clojure

Asynchron

- Aufteilen des Programmes in “Vertices”
 - Ähnlichkeiten zu Aktoren aus Erlang
 - Unterscheidung zwischen
 - Non-Blocking Vertices
 - Blocking Vertices (Worker Vertices)
- **Eventbasiertes Programmieren** mittels **Message-Passing**
- Shared Data nur **immutable**

Architektur



Event Bus

- How to ?
 - Register Handlers
 - Unregister Handlers
 - Addresses
 - Messages (Transient)

Shameless copy of
http://www.slideshare.net/old_sound/vertx

Register Handler

```
var eb = vertx.eventBus;  
var myHandler = function(message) {  
    log.info('I received a message ' + message);  
}  
eb.registerHandler('test.address', myHandler);  
....  
eb.unregisterHandler('test.address', myHandler);
```

Publish Subscribe

```
eb.publish('test.address', 'hello world');
```

```
...
```

```
handler registrieren (wie slide davor)
```

Point to Point

```
eb.send('test.address', 'hello world');
```

```
...
```

```
handler registrieren (wie slide davor)
```

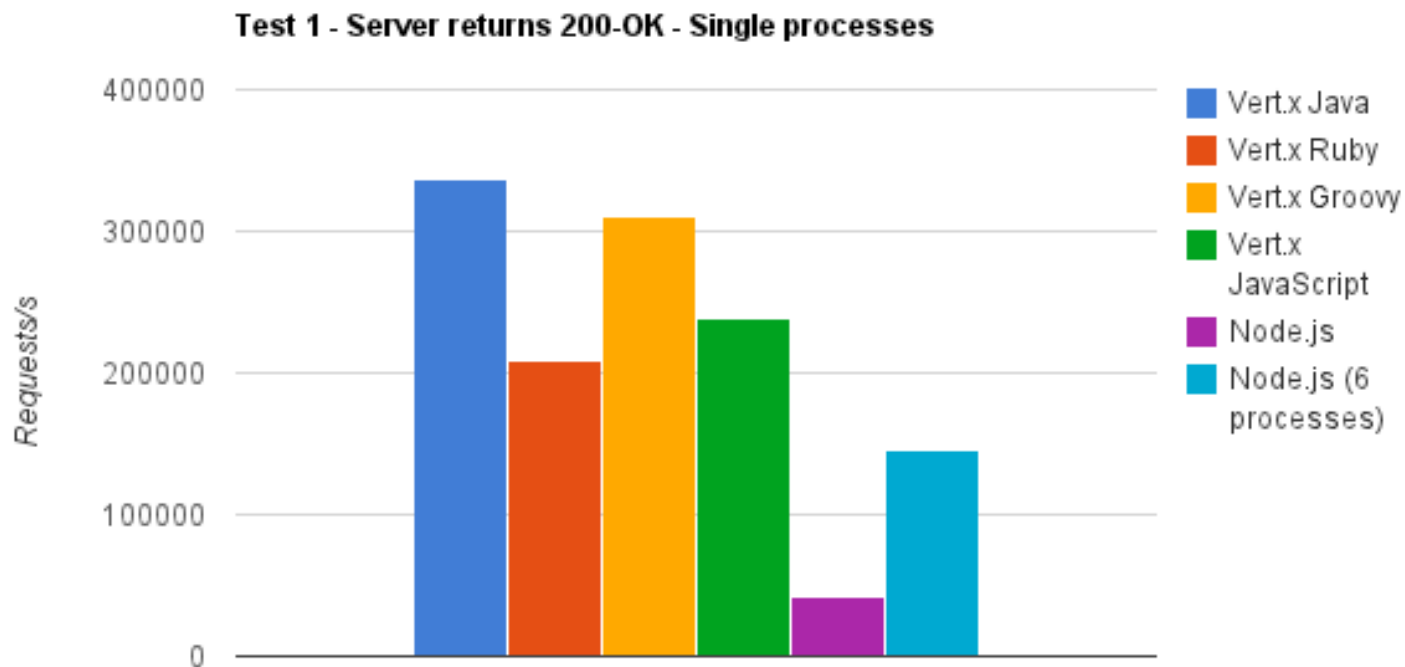
RPC Server

```
var myHandler = function(message, replier) {  
    log.info('I received a message ' + message);  
    // Do some stuff  
    // Now reply to it  
    replier('This is a reply');  
}  
eb.registerHandler('test.address', myHandler);
```

RPC Client

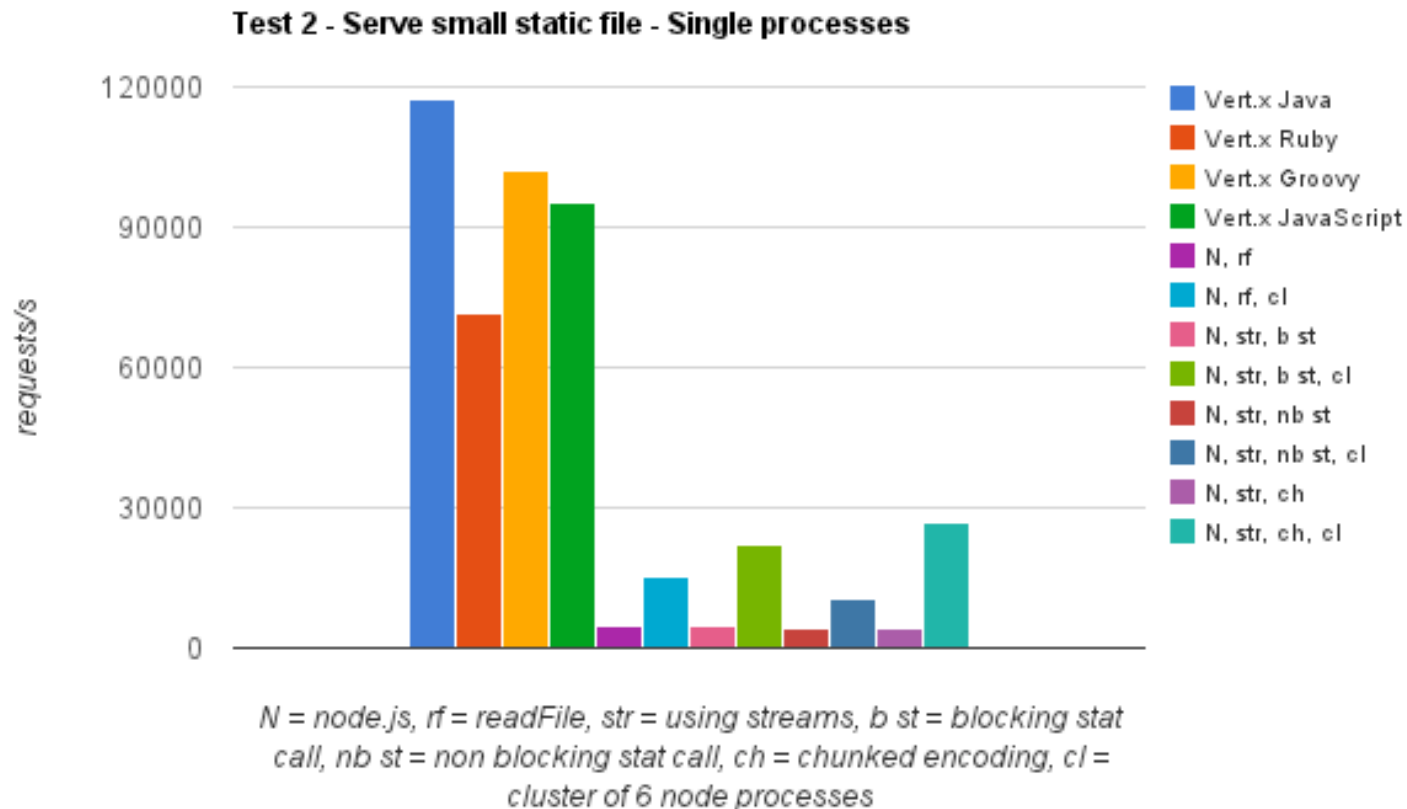
```
eb.send('test.address', 'This is a message',  
function(reply) {  
    log.info('I received a reply ' + reply);  
});
```

Benchmarks I



<http://vertxproject.wordpress.com/2012/05/09/vert-x-vs-node-js-simple-http-benchmarks/>

Benchmarks II



<http://vertxproject.wordpress.com/2012/05/09/vert-x-vs-node-js-simple-http-benchmarks/>

DEMO

Danke :)

- <http://www.vertx.io>
- <http://github.com/vert-x/>
- http://www.slideshare.net/old_sound/vertx
- <http://www.slideshare.net/gr8conf/vertx-introduction>
- Talk von der WJAX (auf Anfrage)
- <http://dominikdorn.com>