

JDala

A Simple Capability System for Java

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Victoria University of Wellington

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Creative Research & Programming



This work is supported in part by the Royal Society of New Zealand Te Apārangi Marsden Fund Te Pūtea Rangahau a Marsden grant CRP2101

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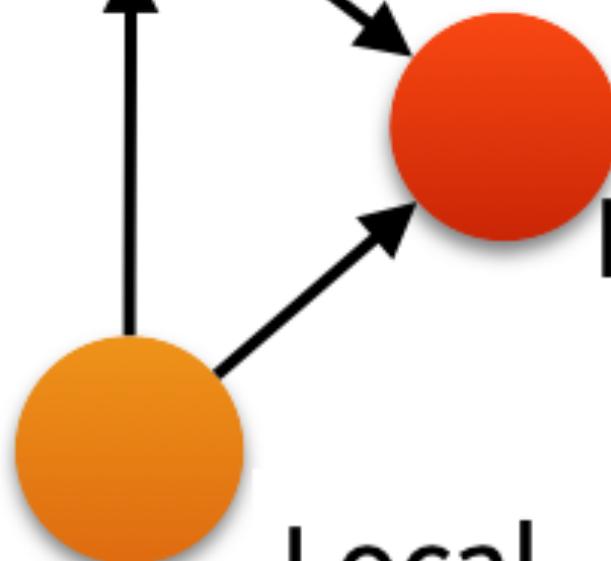
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Iso



Local

Imm



Dala



Does Dala work?

- Dala originally in Grace, and formal model.
- Applicable to more complex languages?
- Applicable to actual programs in those languages?
- Annotations & Dynamic Analysis
- <https://github.com/jensdietrich/jdala/>

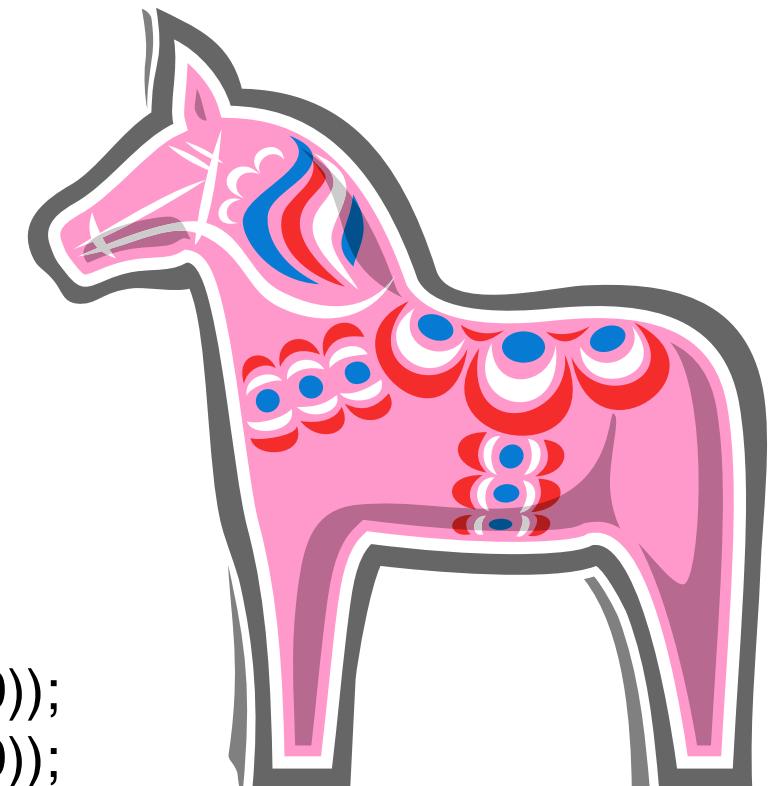


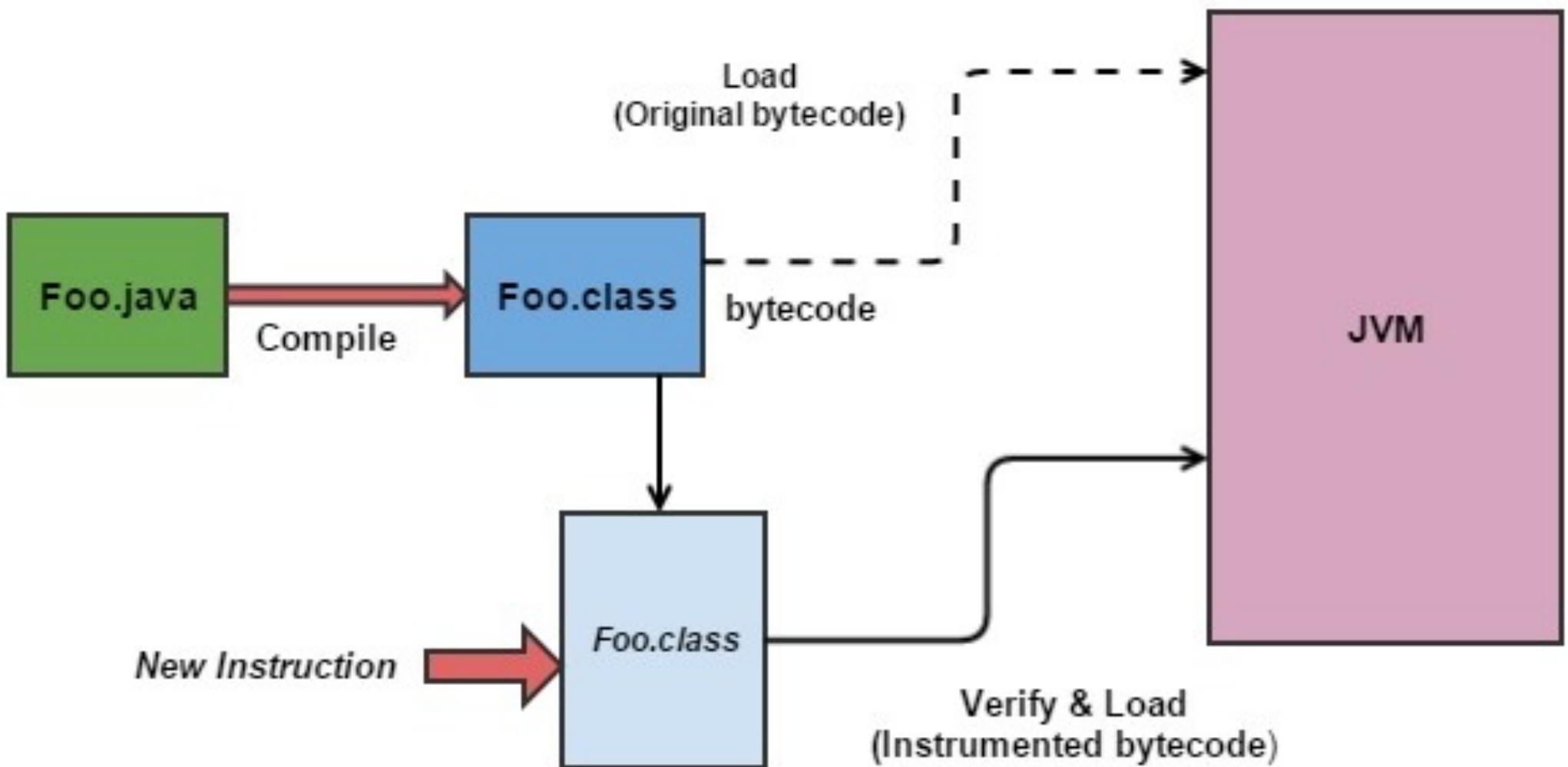
JData

```
List<Person> people = .. ;  
Collections.sort(people,  
    Comparator.comparing(Person::getName));
```

```
@Immutable immutPeople=people;
```

```
ThreadPoolExecutor tpool = .. ;  
@Local Account acc1,acc2 ..;  
Future f1 = tpool.submit(() -> transfer(acc1, acc2, 50));  
Future f2 = tpool.submit(() -> transfer(acc2, acc1, 80));
```





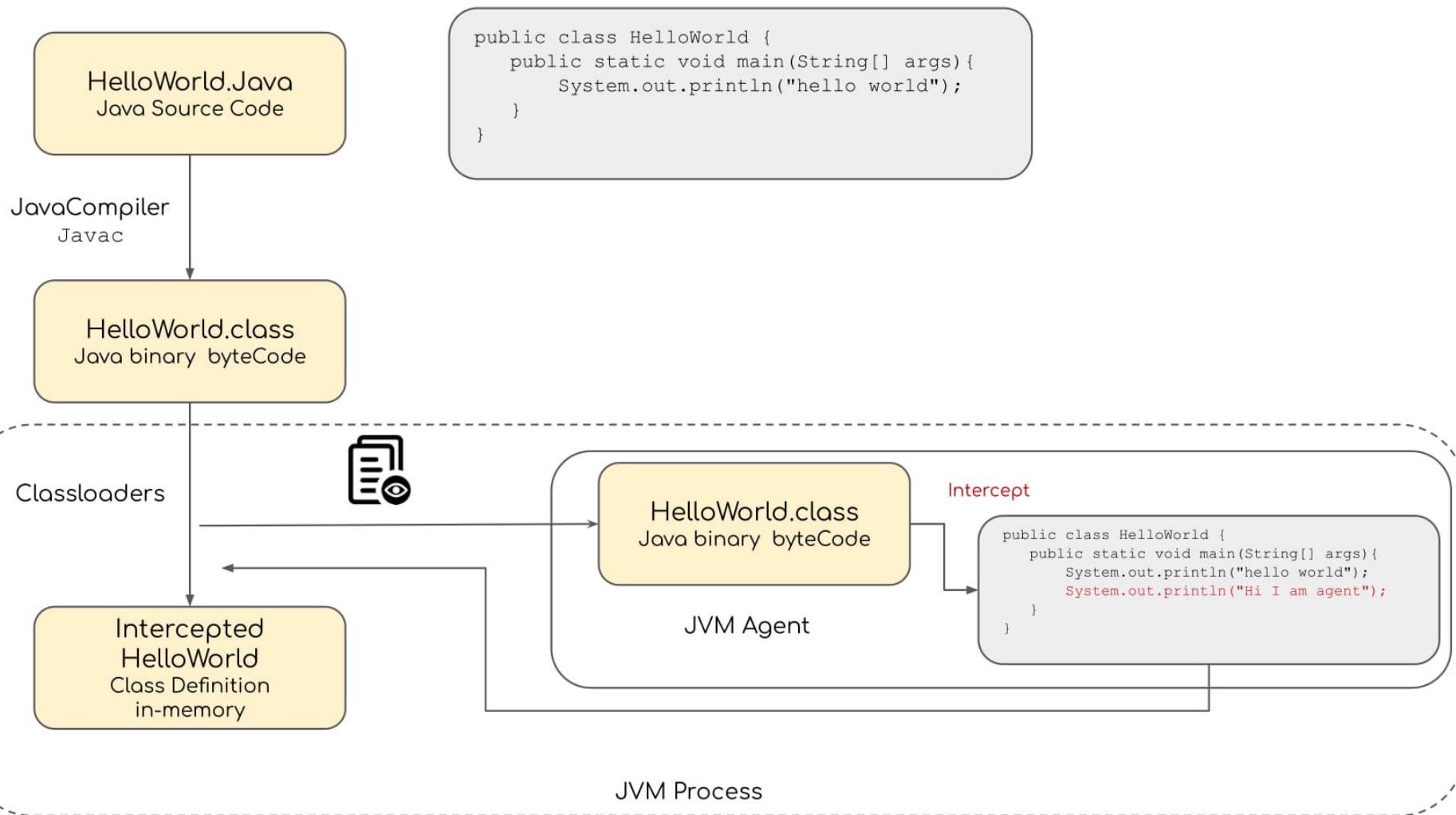


Figure from <https://dzone.com/articles/java-agent-1>