

The Future of the JVM

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ScalaDays 2013

- scaladays.org
- June 10-12, New York City
- Keynotes by Martin Odersky and Rod Johnson

Panel Members

- Cliff Click, Hexadata
- Charlie Hunt, Salesforce.com
- Doug Lea, Professor, SUNY Oswego
- Michael Pilquist, CCAD

struct

- There is a demand for non-object data containers like C's struct.
- IBM J9 has the experimental PackedObject implementation (duimovich.blogspot.ca/)

Multi-Field Value Classes

- The JVM currently has a 64-bit field size limit, constraining the ability to define “value classes” larger than that
- Specialization becomes required

Hardware Affinity

- “ManyCore” architectures
 - Fair, unclustered
 - Clustered cores
- Should the JVM be monitoring processors and I/O, be more eager in cleaning up (Gregg Wonderly)

Memory Barrier Primitives

- Is `@volatile` too blunt of a tool?
- Lazy immutable field initialization and “larval” objects
- Does TLB affect or impact false sharing?

JVM Profiles

- Is client and server enough?
 - Embedded
 - MapReduce
 - Mobile

Concurrent/Parallel Programming Fads

- STM
- HTM
- Actors
- Futures/Promises
- Functional Programming
- MapReduce
- Disruptor/Chronicle

Freestyle

- What feature of the JVM do you wish did not exist?
- What proposed feature of the JVM do you want the most?

Audience Questions

- Please approach a microphone to ask the panel a question.