

FOSEDEM 2008 HotSpot™ JVM Progress and Futures

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HotSpot: In the past year

Things you have seen

- Tiered compilation
 - > Client compiler generates profiling code to drive server compilations
- i486 / amd64 platform source merge
 - > x86 directory and merged assembler
- Contributions from several community members
 - > At least one paper: “The Mapping Collector”
- Performance

HotSpot: In the past year

Things you have not seen

- JKernel VM
 - > Client runtime compiler + serial collector, only
- “Garbage First” collector
 - > Consistent short pauses, parallel, mostly concurrent
- Compressed oops
 - > 32GB heaps with only 32-bits of oops in a 64-bit JVM
- Escape analysis
 - > Lock elision and scalarization of non-escaping objects

HotSpot: In the next year

Things you will see

- Modules and super packages (JSR 277, JSR 294)
- Better class loader architecture
- <http://openjdk.java.net/projects/mlvm/>
 - > John Rose and the multi-language VM (JSR 292)
- Ports! Please
 - > We have some, we'd like more
- Predictability
- Performance

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