

Presentations

Talks, Slide Decks, Blog Posts, and other Presentations

There are many talks publicly available on the web that contribute to knowledge of HotSpot internals. Here are some good ones.

Note to maintainers: Please maintain lists in reverse chronological order, with links marked by date.

Talks

- Christian Hagedorn (February 2021)
[New Test Framework with IR Verification](#)
Compiler Staff Meeting
- Tobias Hartmann (October 2019)
[Java - Quo Vadis?](#)
Voxxed Days, Lugano, Switzerland
- Roland Westrelin
[Loop Strip Mining in C2](#) (January 2018)
Compiler Team Offsite, Santa Clara
- Igor Veresov
[AOT/Graal changes walkthrough](#) (January 2018)
Compiler Team Offsite, Santa Clara
- Igor Veresov and Vladimir Kozlov
[Ahead of Time Compilation](#) (January 2018)
Compiler Team Offsite, Santa Clara
- Vladimir Ivanov
[Project Panama - Status Update](#) (January 2018)
Compiler Team Offsite, Santa Clara
- Tobias Hartmann and Roland Westrelin
[State of the Values](#) (January 2018)
Compiler Team Offsite, Santa Clara
- Tobias Hartmann
[What's Cool in Java 8, and New in Java 9 - From a VM engineer's perspective](#) (April 2017)
Oracle Code Berlin, Germany
- Tobias Hartmann, Zoltán Majó
[HotSpot VM Under the Hood](#) (Feb 2016)
Bucharest Technology Week, Romania
- Vladimir Ivanov
[State of java.lang.invoke Implementation in OpenJDK](#) (August 2015), [video](#)
Santa Clara, JVM Language Summit
- Tobias Hartmann
[Efficient Code Cache Management for Dynamic Multi-Tiered Compilation Systems](#) (September 2014)
PPPJ in Krakow, Poland
- Vladimir Kozlov
[Loop optimizations in HotSpot VM Server Compiler](#) (October 2011)
[The C2 Register Allocator](#) (March 2014, slides by Niclas Adlertz)
Compiler Team Offsite, Santa Clara

Posts

- Vladimir Ivanov
[Invokedynamic: Deep Dive](#) (Mar 2015)
The most detailed available description of Method Handles and Invokedynamics in HotSpot
- Aleksey Shipilëv
[Black Magic of \(Java\) Method Dispatch](#) (Feb 2015, updated 2016)
Everything you wanted to know about Black Deviously Surreptitious Magic in low-level performance engineering.

Other sites

- [Compiler and JVM Research at JKU](#)
Collaboration with Institute for System Software at JKU (since 2001) on dynamic compiler optimizations and JVM-related research topics.
- [Aleksey Shipilëv: One Stop Page](#)
Blog and presentations on Java and the JVM implementation and performance.