Board200712

Board report October - December 2007

Summary

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Apache Harmony is making good progress towards releasing a full Java SE implementation, and the community is working well. We are still looking to the Board to help resolve the JCK license issue

Development

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The development team have been very busy since our last report. We declared Milestone build 5.0M3 on Oct 9, 2007, and since then have been working towards Milestone 4 which is scheduled for the week of Dec 17. The team is settling into a rhythm of delivering stable, well-tested, development drivers approximately every eight weeks.

Besides the steady and continuous work of bug fixing and enhancements across all aspects of the codebase (over 570 JIRAs resolved/closed, and over 1000 commits since our last Board report), there has been noteworthy advancements in the following areas:

- * build-test infrastructure : regular testing of nightlies with more applications and scenarios.
- * code coverage : additional tests have improved functional coverage.
- * JIT: lots of new optimizations such as operator strength reduction, loop versioning, array/string search and comparison optimizations, and stack alignment when using SSE instructions; and new features such as bytecode-based edge profiling.
- * awt : printer job implementation.
- * nio : improvements in selector code, including epoll support.
- * pack200 : good progress on implementing this complex spec.
- * sql : implementing SQL rowset.
- * ldap : we now have a working ldap provider.
- * JVMTI : ported to $x86_64$ platforms (both Linux and Windows).
- * java 6 class library : steady progression towards Java 6 APIs.
- * platform support : support for full hardware addressability on $64\ \text{bit platforms}\,,$ work on z/OS support.

We also received a contribution of JVMTI Extension: Native Code Access Interface (NCAI) implementation by Intel which allows seamless debugging of Java and native code across the JNI boundary.

At infra's request our stable milestone builds are being mirrored to reduce the pressure on ASF servers. However, we are keeping a number of snapshot builds and test results on-line to enable simpler regression analysis, and these can be quite large.

Releases

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We continue to look to the Board for a successful resolution to the JCK license impasse so that we can go for Java SE certification.

After consultation with the Board and legal-internal, the Harmony PMC plan to make an end-user release available once we complete our best effort to demonstrate compliance with the specifications. We are 99% API complete for Java 5, and achieving a reasonable set of providers.

Security

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There were no reported security issues this period.

Community

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The community continues to operate in a healthy manner with a vibrant developer list.

To facilitate broader community involvement we are in the process of translating some webpages, and now accept bug reports, in Russian and Chinese. A number of PMC members are fluent in these languages so can provide due oversight. The bug reports are translated into English by native speakers upon receipt.

We are fortunate to have developers from EIOffice (a large Java office suite) contributing to Harmony's development effort, and have been encouraged to see the uptake of Harmony code in highly visible releases such as Google Android and IBM Java SDK.

The PMC elected three new committers this period, Andrey A. Pavlenko, (Jimmy) Jing Lv, and Mikhail Markov; and one new PMC member, Xiao-Feng Li. There are currently 30 committers, $\sim\!21$ of whom were active this period.