Abstract

This paper describes our experience in today's working of JVM which we use is platform dependent, it create an issue regarding Java being platform independent. The different platform uses different JVM architecture like RISC and CISC use different JVM. This paper defines porting Compaq's Fast VM from the Alpha processor architecture to the Intel x86 processor architecture. We encountered several opportunities and pitfalls along the way in porting a JVM designed for RISC architecture to CISC architecture. Our goal was to preserve most of the FastVM's performance benefits already available on the Alpha platform, and modify or discover new optimizations as they were required for x86. We found that by porting a
fast RISC JVM to x86, we could generate a JVM with performance competitive to state-of-the-art production JVM implementations. This step can provide more efficient and more compatible programming and implementation environment.

References

- M. Poletto and V. Sarkar. Linear scan register allocation. ACM Transactions on
Cross Architectural Portability of a JVM Implementation


Index Terms

Computer Science

Mobile Computing And

Software Engineering

Keywords