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Common Lisp: a dynamic languages for a dynamic world: you don't have to sacrifice performance for programmer productivity

(Invited Speech 2: Jans Aasman - 15:30-16:30)

Lisp programmers claim that they can build a production quality program five to ten times faster in Lisp as compared to other languages. The challenge for Lisp proponents has always been in supporting these claims with reproducible metrics. The Lisp community is also faced with the perception from the general programming community which maintains a 1980's belief that pigeon-holes lisp as an esoteric and outdated research language due to huge memory requirements and slow execution speeds.

To address these points of view we need a broad range of programs that are used by many people for serious work where we have both C (Java, .Net) and Lisp implementations so we can compare lines of code and time to implement. Preferably a standardized benchmark would be available for these programs so that we can compare execution speed and memory footprint. As part of Lisp community, Franz has started a process to collect such data. In the last few years Franz has built a number of programs that have a (mostly) C equivalent and where there are benchmarks available to really compare results.

As part of my presentation I will discuss Franz's IMAP server, AllegroServe http server, NFS server, Perl regular expression parser, XML parsing tools, B+Tree implementations and Prolog to show how they compare in lines of code and execution speed.

In summary, a case will be set forth that Lisp is a fast, efficient and modern language that is perfect for solving today's real world computing challenges.

CV:

Jans Aasman started out as an experimental and cognitive psychologist. He earned his Ph.D in cognitive science with a detailed model of car driver behavior using Lisp and Soar. He spent most of his professional life in telecommunications research, specializing in intelligent user interfaces and applied artificial intelligence projects. From 1995 to 2004 he was also a part-time professor in the Industrial Design department of the Technical University of Delft. Jans joined Franz Inc. in 2004, and is currently its Director of Engineering.

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