Profile-Based Adaptive JiT Compilation in the Context of the HiPE Compiler

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Abstract
This report describes the HiPE Tool, a general purpose profiling and optimization tool for the HiPE compiler, a high performance native compiler for the Erlang programming language. Using HiPE’s ability to compile single functions during runtime the HiPE Tool, which is programmed in Erlang, tries to compile the most called functions in an execution, in an automated fashion, to improve efficiency. Besides this, it also provides functionality for compiling, timing, profiling, to investigate function dependencies and to visualize the function dependency graphs of entire applications. This report shows the creation of, and the general functionality of this tool, compares it to other tools within the same field and does various tests.

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