

Improving Performance of LLVM Interpreter

Short Description

LLVM compiler infrastructure is a suitable platform for research projects. One of the most interesting parts of LLVM compiler is its interpreter. It enables a possibility of fine-grained tracing of executed instructions with possibilities for quick quantification of code coverage.

However, execution of software with LLVM interpreter introduces a significant overhead. The aim of this project is to identify sources of overhead in LLVM interpreter and implement appropriate changes in order to reduce the overhead to appropriate level. As part of the project, it will be necessary to implement components for writing the traces in JSON trace files.