Support for LLVM interpreter to run multithreaded applications

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, LLVM interpreter does not support execution of multithreaded software. Furthermore, LLVM interpreter faces issues when executing functions from dynamically and statically linked libraries. The goal of this project is to implement components within the LLVM interpreter and support execution and tracing of multithreaded software.