

Towards decreasing the energy consumption of Erlang programs

Abstract

Energy efficiency has always been a key aspect in software technology, but nowadays it is becoming more important than ever. One possible way to achieve more energy efficient software is to refactor the code to use patterns that are known to be more environmentally friendly. Our goal is to create a tool that helps refactor existing Erlang code bases so that the overall energy consumption of the software decreases. To achieve this goal first we need to discover patterns that are worth refactoring. We have created a tool that helps measure and visualize the energy consumption of different language constructs, data structures and styles of programming. With the help of this tool we identified some patterns that are possible candidates for refactoring.