

Real time visualization of program executions

1 Context

Visualization tools can help understand the structure and behavior of software. For example <http://www.redotheweb.com/CodeFlower/> generates a tree to visualize the structure of a code repository. This project aims at developing a prototype tool to understand the different behaviors triggered by test cases in a test suite.

2 Project description

The goal of this project is to develop a tool that creates a visual representation of a program that is running, in real time. When a program is running, objects are created, methods are called, data structures are initialized and modified, branches are covered, loops are iterated, etc. When running a test suite, each test case triggers behavior in different parts of a program.

For this project you have to select at least one of the aspects of test execution mentioned above and develop a tool that visualizes the execution of each test case in a test suite. The resulting image (in 2 or 3 D) should allow to distinguish and compare the executions of each separate test case.