

Summary

Thesis: JProfiler – instrument for optimizing of Java applications

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Description: The thesis describes a system for tracing and collecting statistical information from Java applications. The problems with inefficient usage of limited resource in developing applications in Java language and a few methods for their prevention are examined theoretically. An application that illustrates the specified technologies is implemented, aiding in automatization of the process of finding such problems.

First of the two main parts defined in the exposition, goes into basic recommendations for optimization, describes and illustrates with schemes the memory loss types. Technologies that Java language offers, are examined, specifically JVMPI (Java Virtual Machine Profiler Interface), environment and platforms over which it works, possibilities that it offers for profiling. In the second main part is described the implementation of the project, as part of the thesis, as well as advises and tips for the user. Graphical interface is based entirely on Java and the agent which communicates with the virtual machine is written in C, with a minimum set of platform-dependent code. The connections between the agent and the graphical interface is over network through specifically design for the purpose protocol. The task aims at demonstrating theoretical description in constructing a real working system. A technological scheme of the project is created, which draws a thorough plan for developing of the application. An analysis of the software is made, following the technological scheme of the project.

Finally the project achievements are summarized and analyzed. A full description of the main requirements implemented in the project and the possible future improvements are given.