

Title: Presenting results of software model checker via debugging interface
Author: Tomáš Kohan
Department: Department of Software Engineering
Supervisor of the master thesis: RNDr. Ondřej Šerý, Ph.D., Department of
Distributed and Dependable Systems

Abstract: This thesis is devoted to design and implementation of the new debugging interface of the Java PathFinder application. As a suitable interface container was selected the Eclipse development environment. The created interface should visualize results of JPF and details of paused JVM state, especially a list of variables and their values. Two subprojects were created, i.e. debug4jpf and JPFDeb.core. The first one is responsible for controlling and communication with the JPF instance. The latter one is an Eclipse plugin and provides user interface which is similar to the interface of standard Java debugger. These two components communicate with each other by using the ad-hoc communication protocol created for this purpose.

Keywords: Java, verification, model checker, JPF, debugging interface