

Jidebug – how Testers Can Help Developers

Abstract

The main task of testers involve the creation of test cases, execute them and report the failed tests to the developers. So far testers were not able to help developers to find the location of bugs. By applying Jidebug now testers can help. The key is execution comparison, i.e. when two execution traces are compared and the differences are displayed.

We consider one of the executions as a standard, which passes. If we know a correct execution, we can compare any failed one to it. Based on the execution differences, especially the historically first difference, the location of the fault can be found. There are some known pattern when this method can be applied. One of the most difficult bugs to find is the non-reproducible bug. Actually, non-reproducible bug is a bug which happens sometimes, while sometimes doesn't. Developers ignore this type of bugs until they become reproducible. Testers can record both the passed and the failed executions and send them to the developers, who can find the bug easier.

An experienced tester is able to select those failed tests which can be solved by Jidebug with high probability. Therefore testers should use Jidebug while executing test cases and if necessary they can send the recordings to the developers with the description on how to use them.

Exercise

- Download Jidebug
- The target is an open source code implementing Monopoly
- By applying error seeding we insert some bugs into the code
- There are 10 existing bug reports
- The participant should select the ones which probably solvable with Jidebug
- The participants should make execution comparison so that the difference be minimal, and send the most suspicious differences for validation