Dipl.-Ing. Philipp Lengauer
Institut für Systemsoftware

Tel.: +43 732 2468-4362
Fax: +43 732 2468-7138
philipp.lengauer@jku.at

Project in Software Engineering

Continuous Integration for Ant Tracks

Linz, 23. Februar 2015

Continuous integration is vitual if regular releases of an application must be provided for different platforms. It gets even more import as the number of developers grow because defects may propagate and thus the changeset introducing it is hard to track down. Continuous integration solves this problem by automatic building and testing as many changesets as possible.

Ant Tracks is a VM able to trace memory-related events and writes them to a trace file. It is thus shipped with an analysis tool. The VM is based on the Hotspot VM implemented in C++, whereas the analysis tool is implemented in Java. Although a java application is pretty easy to build and run on different operating systems, the VM must be supported on Linux, Windows, and Mac OS with different underlying architectures (e.g., x86).

The goal of this work is to develop an application (master) that delegates building and testing to different machines (slaves) with different kinds of operating systems and architectures. It must collect the results and display to the user on which systems the build and the tests were completed successfully or on which they failed. If a build or test failed, the user introducing the breaking changeset must be notified via email. Which users are to blame must be narrowed down by looking at the last commit authors or the line a compile error occurred.

As a proof of concept, a system must be set up to periodically build Ant Tracks on Linux and Windows (x86, 64 bit). It is not the goal of this work to fix potentially emerging issues in Ant Tracks.

Supervisor: Dipl.-Ing. Philipp Lengauer
Student: David Kowanda