Wikiprint Book

Title: Net-iocache - Analysis of networked software

Subject: Java Path Finder - summer-projects/2012-net-iocache

Version: 2

Date: 02/23/2013 05:13:19 PM

Table of Contents

Net-iocache - Analysis of networked software

Abstract

Net-iocache is a JPF extension that allows JPF to communicate with other programs over the network, even if backtracking is involved. It has various features such as support for the java.net API, check-pointing tools to run programs in a virtualization environment, and more. Currently, the JPF team requires certain tasks to be carried out. Firstly The JPF Team requires a coverage tool for their test suite. This is becoming a priority for supporting non-blocking I/O functions which are being recently implemented. Secondly, there are some features of JPF which are hard-coded momentarily, which need to be made configurable. The core task involves making JPF support User Datagram Protocol (UDP). Currently, the test suite assumes that the underlying network is always reliable and delivers data in order and without any losses, which is similar to TCP/IP based networks. However unreliable conditions have to be simulated to emulate real time systems, which requires modification to the JPF extensions.

Contact

student: Aadish Kotwal <kotwal.aadish AT gmail.com>

mentor: Richard Potter

co-mentor: Cyrille Artho

Repository

The sources for this project are available from a Mercurial repository at bitbucket.org. Note: this project starts with a clone of the existing development repository of net-iocache, as existing code may require modification. Hence there is already a long history of commits prior to May 21 2012, when the GSoC coding phase starts.

Description

Project documentation/wiki/blog are available at the project wiki on bitbucket.org.