Title: Data Processing in a Generic Benchmarking Environment

Author: Radek Mácha

Department: Department of Distributed and Dependable Systems

Supervisor: RNDr. Andrej Podzimek, Department of Distributed and Dependable Systems

Abstract:

In September 2013, at the Charles University in Prague, Faculty of Mathematics and Physics, a software project implementing the third incarnation of a generic benchmarking environment aimed at performance evaluation of networked applications was presented: EverBEEN.

Despite significant advancements achieved by this incarnation in both reliability and ease of use, EverBEEN still came out somewhat wanting in terms of commercial usability. One of its major shortcomings was the absence of a standardized way of data extraction and processing.

The want of such means in EverBEEN laid foundation to the central question of this thesis: How to extract and process data from a framework like EverBEEN, with no prior knowledge of the structure of said data?

Albeit centered on the creation of a common, reusable data extraction and aggregation codebase for said framework, this thesis also strives to analyze means of automating EverBEEN control-flow and incorporating the framework, and its data processing, into continuous integration.

Keywords: performance evaluation, data processing, benchmarking environment