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Thesis Advisor Position

Thesis: Connector-Based Performance Data Collection for Component Applications
Author: Lubomír Bulej

The content of the thesis is best described against the background of performance evaluation projects that our research group conducts for the past ten years. Among other results, the projects have indicated a strong need for a performance evaluation infrastructure that would be generally usable in the context of distributed applications. Unfortunately, the projects have also clearly shown that creating such an infrastructure is a task nowhere near simple. Lubomír Bulej, who has been an essential contributor to the projects for the last six years, has made this task a focus of his thesis.

The thesis deals with three aspects of the performance evaluation infrastructure - how to design a configurable framework for collecting performance related information, how to connect the framework to an application with minimum overhead, and how to facilitate this connection when deploying the application. Although all three aspects of the thesis are worked out in detail, I believe the major contribution of the thesis is integrating the individual mechanisms into a coherent infrastructure based on previous experience with multiple projects on multiple platforms.

One other aspect of the thesis that I would like to emphasize here is the level of detail to which the design of the performance evaluation infrastructure is elaborated. Rather than aiming for the best design in an ideal world, the thesis aims for the best design in the real world, where various features of real platforms preclude otherwise straightforward solutions. This requires meticulous care in examining and relating many platform specific details, which I believe the thesis has succeeded at.

To conclude, I believe Lubomír Bulej has demonstrated skill and ability in applying experience from both research and industrial projects in the context of his research work, which is well summarized in the thesis and backed by strong publication and citation records. It is my pleasure to recommend that Lubomír Bulej be granted the doctoral degree.

