Institut für Systemsoftware

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Graal Bindings for WebKit

Master/Bachelor thesis for …
Matr.-Nr.: ...
Email: ...

Graal [1] is an effort to create a new just-in-time compiler for Java that is itself written in Java. It is based on a port of the HotSpot client compiler from C++ to Java.

Extensibility is one of Graal's main value propositions - it should be easy to add support for new features to the compiler. This project should extend the Graal compiler with bindings for the WebKit browser, so that Graal / Truffle can use browser-based visualization and interaction frameworks such as D3.

The bindings can be adapted from existing Nashorn/WebKit bindings, which should provide a starting point for this project.

The scope of this project is as follows:

- Evaluate the Nashorn/WebKit bindings and determine the changes needed for adapting them to Graal.
- Implement the changes needed in WebKit and Graal.
- Create tests for the bindings.
- Implement a small example that can display a browser-based visualization from a Truffle language runtime.

The work's progress should be discussed with the supervisor at least every 2 weeks. Please note the guidelines of the Institute for System Software when preparing the written thesis.

Supervisor: Dipl.-Ing. Lukas Stadler

[1] http://openjdk.java.net/projects/graal/