



Studienarbeit

“Benchmarking Apache ODE”

Web Services based on the service-oriented architecture framework serve as the foundation for modern distributed, heterogeneous applications. They are perfectly suited as the function layer of the two-level structure programming model that is characteristic for workflow-based applications.

Workflow-based applications are composed of two distinct pieces: a process model that describes the sequence in which the different activities making up the process model are being carried (programming in the large) and the individual components that implement the various activities (programming in the small). In the Web services environment, process models are described using the Web Services Business Process Execution Language (WS-BPEL).

The purpose of a workflow management system (WFMS) implementing the WS-BPEL specification is to manage the life cycle of business processes, to navigate through the associated process models, and to invoke the appropriate Web services. The Apache ODE implements the appropriate WS-BPEL standard.

The performance of the WFMS, as with all middleware components, is very important for the overall performance of an application. The performance of different software systems is typically measured using a benchmark that consists of a set of typical scenarios.

The purpose of this Studienarbeit is to benchmark the WFMS Apache ODE using a set of provided and a set of to be written test cases. In particular, the following tasks need to be carried out:

1. Set up the test environment
2. Run the appropriate tests
3. Document the different test cases

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