

BEEN

THE AUTOMATED BENCHMARKING FRAMEWORK

Keywords:

- Benchmark
- Performance



Project Name

BEEN

Category

Benchmarking
Performance

License

LGPL

BEEN is a generic tool for automated software benchmarking in heterogeneous distributed environments. BEEN supports all phases of benchmarking from compilation to evaluation.

The BEEN Framework

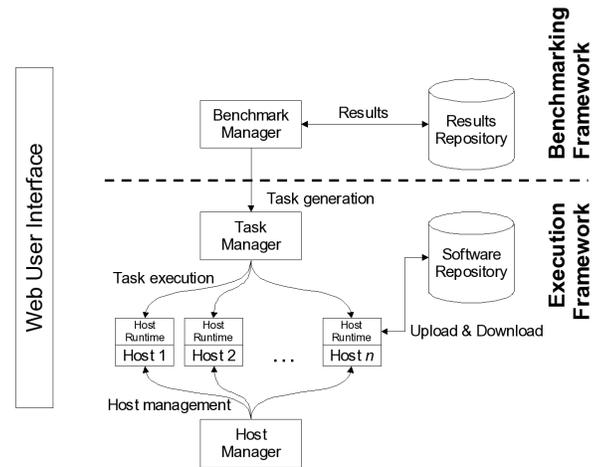
BEEN automates all steps of a benchmark experiment from building and deploying of the system under test through monitoring of the experiment to evaluating of the results.

BEEN has been designed to support a variety of benchmark experiments, including continuous monitoring of software during development for early detection of performance regressions.

The BEEN Highlights

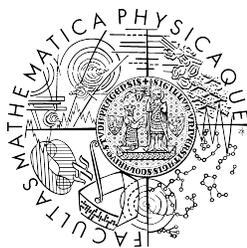
- Handles a fully automated running of benchmark experiments on clusters of workstations, including running multiple experiments in parallel.
- Takes care of repetitive tasks such as checking out the most current version of the software to be tested from a version control repository.
- Runs on top of a sophisticated scheduling framework that can execute arbitrary tasks interconnected by dependencies, which can be used to automate arbitrary processes.
- Supports arbitrary result evaluation capabilities implemented as plugins for the R statistical package.

As supported by BEEN, automated benchmarking involves compilation of software to be benchmarked, compilation, deployment and execution of the benchmarks, and collecting and evaluating of the results. Many of these tasks are general and useful for any automated execution of software in a distributed heterogeneous environment. These tasks are covered by the independent execution framework of BEEN. The issues specific to automated benchmarking are covered by the benchmarking framework of BEEN, built on top of the execution framework. Both frameworks can be administered and controlled from a unified web based user environment.



BEEN supports any benchmark that provides raw performance data, with only a minimal support required from the benchmark. BEEN currently focuses on the Linux, Windows and Solaris platforms, but can also work, in a limited mode, with other platforms that run the Java Virtual Machine.

When comparing system performance, the whole benchmarking process is controlled by BEEN. This includes automated resolution of deadlocks and infinite loops in running benchmarks, storing performance results in the results repository, and allowing both benchmark-independent and benchmark-specific evaluation of data.



- Developed by the Distributed Systems Research Group of Charles University.
- See our performance research projects at dsrg.mff.cuni.cz.

OW2

About OW2

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Founded in January 2007 as a result of the merger of ObjectWeb and OrientWare communities, OW2 is an independent industry consortium dedicated to developing open source code middleware and to fostering a vibrant community and business ecosystem. Building on the legacy of ObjectWeb and OrientWare, OW2 federates more than one hundred organizations and 6000 developers in Europe, Asia and the Americas. OW2 hosts over one hundred technology Projects, including Lombos, Sync4j, eXo Platform, XWiki, SpagoBI and JOnAS. Several of the OW2 projects are combined into market-driven Initiatives, such as the ESB/SOA Initiative and the Business Intelligence Initiative, which facilitate their implementation by systems integrators, OEMs and end-users. A typical global open-source organization, OW2 aims to bring together grassroots communities across all continents through Local Chapters.

More information about OW2 is available at <http://www.ow2.org>.