Server-Side Scripting in the Sweble Engine

Summary

The Sweble Engine is a wiki software built around a powerful "wiki object model" (WOM), which represents the full state of the wiki. This thesis adds Javascript as a programming language to Sweble so that Javascript code, embedded in a wiki page, can manipulate the WOM and hence the wiki's state. The Javascript functions are hooked up to Wikitext, which provides the UI, and are triggered upon save. The result is a rapid prototyping environment based on Wikitext and Javascript that rivals the versatility of php but is much better factored and hence easier to evolve.

Work Results

- Literature review
    - Web programming languages, rapid prototyping, problems with it (in particular php)
    - Javascript server and client side, embedding in other rapid prototyping environments
- Research approach and execution
    - Design and implementation of Javascript on top of the Sweble engine
        - Embedding of Javascript code in article pages
        - Server side execution of Javascript code
        - A method of factoring Wikitext and Javascript code
    - Comparative evaluation of results with php along dimensions of
        - Readability
        - Ease-of-use
        - Evolvability
- Expected research results
    - Design and implementation (see above)
    - Comparative evaluation (see above)

Supervisor

Hannes Dohrn, hannes.dohrn@fau.de
Prof. Dr. Dirk Riehle, dirk.riehle@fau.de

Open Source Research Group
Computer Science Department
Friedrich-Alexander University

More information: http://osr.cs.fau.de/theses/resources/