

## Ruby/WATIR Automated Testing of a Blog Management Solution

"Great automation —it helped very much to get what we wanted. Everything went so smooth and perfectly timed. Great work!"

Hans Spielmann  
Project Manager

### Customer

The customer is a German blog management system solutions provider.

<b>Company</b>	<i>Software Development Company</i>
<b>Country</b>	<i>Germany</i>
<b>Business Domain</b>	<i>Web Solutions</i>
<b>Services Used</b>	<i>Automated Testing</i>
<b>Cooperation Model</b>	<i>QA Outsourcing for a Development Company</i>
<b>Duration</b>	<i>5 months</i>
<b>Efforts</b>	<i>10 man-months</i>

### Project

The project is a community platform designed to help businesses build closed communities and social networks. The potential clients are academic institutions, professional associations and alumni networks. From the user's perspective, application resembles a content management system. From the administrator's perspective, it provides powerful moderation capabilities. The key goal of the project is to create a solution that helps deliver relevant content to users in large communities (which may have sub-communities or smaller groups within them).

### Challenge

The early stage of the application development revealed problems with checking the complex hierarchy of the user access rights management. Beside, development of the functionality and growing complexity of logical connections between the modules along with the necessity for several installation versions of the product called forth the need in an automated testing solution.

### Solution

The application testing automation process was organized as described below.

The customer assigned a specialist responsible for the web-based version control system (Subversion) and bug tracking system (JIRA). Due to such organization of the data repository, the up-to-date versions of the testing scripts were available both to A1QA and the customer. The customer's specialist also developed test cases for the automatic scripts, and then reviewed and executed the scripts on the production server.

From its part, A1QA assigned a QA automation team (an automation analyst and a technical tester) who developed the source code of the scripts. The application had a web-based architecture with a few embedded objects. Thus the optimal solution for automation was to use the Ruby/WATIR automation tool.

The automation process included the following stages:

- Development of initial automated testing scripts common for all the modules of the application and designing script structures.
- Development of unit test scripts to check creation, modification and deletion of business objects for each module and general finalizing of the scripts.
- Development of integration scripts to check the module connections logic and system user access rights management.
- The application stabilization stage involved fixing of the defects revealed in the application during script execution. The work was done in the build stability check mode (i.e. each new build was checked with the automated scripts before its output).

## Technologies used

**Browsers:** Internet Explorer 5.5 and 6.0

**Automation tools:** Ruby/WATIR

**Defect tracking system:** Atlassian JIRA

**Version control system:** Subversion

## Success

- The cooperation process arranged under the scheme 'customer A1QA team - development team' ensured high quality of the project within a relatively short time.
- The efficient version control system allowed simultaneous development of scripts and their execution by several specialists, which reduced the time for the automation significantly.
- Automated testing of the application made it possible to fully avoid builds with defective user rights management and guarantee faultless work of the application when creating, editing or deleting business objects. Besides, the principal part of the GUI of the application was tested in the course of running automated scripts.
- The automation enhanced objectivity in quality evaluation and minimized the influence of human factors.