Automated system for parallel functional testing via Web interface

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Introduction

- Build System architecture
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Build System Architecture
**Request states and flow**

- A Request is a main logical portion in the build system
- User submits a Request via Web form, email or XMLRPC
- Two groups of the Requests:
  - done (pending, failed, delayed)
  - not done (new, current)
Requirements to supplementary software

- We are using Python as main programming language, we would like to have Python API of any proposed framework
- ECMA/JavaScript support is a necessary requirement, because our web UI has an AJAX pages
- Web content on server side should be not modified
- OpenSource software is preffered
- Cook the pancakes
Selenium framework: pros and cons

Props
- Python is one possible language to do test cases
- It uses real browser (Firefox) that could handle AJAX pages
- Certain configurations of Selenium don't require to modify content
- It's free and OpenSource tool

Cons
- It's written in Java, we have no resources to maintain it
- Any extension should be written in JavaScript
- The Debian packaging is absent
- It could not cook the pancakes
Performance evaluation
Summary

- Functional testing of a system mostly related to interfaces to test through
- Selenium framework is a good choice to do testing via Web UI, however it has issues and inconveniences
- Performance of testing in parallel mode quite better than serialized version
Resourcefully yours
Questions & Answers

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