JMeterDevelopment Requirements

JMeter High-Level Requirements

"must" and "should" are used in the following sense:

- Failure to comply to a "must" requirement should be considered a Normal, Major, Critical, or Blocker bug.
- Failure to comply to a "should" requirement should be considered as a Minor or Normal bug.

Functionality requirements:

- Must be able to exercise the functionality of any HTTP/HTTPS site which respects common conventions (e.g. that GET requests don't have a body, that query-string parameters are URL-encoded and separated by & and =,...).[This includes using different test data for each thread or for each test loop, reusing data extracted from previous responses, etc...]

- Should be able to exercise the functionality of any HTTP/HTTPS site.
- When generating HTTP/HTTPS load, should simulate the behaviour of real browsers at the HTTP protocol level.
- Shouldn't break on illegal but common stuff (e.g. "Location:" headers without a protocol://server in the URL, fake SSL certificates,...).

- Should show test results in both numerical and graphical form. The graphs and reports should be nice-looking enough to show them to a customer. [Yes, I know it's pretty weak as a requirement, but that's the meaning of "high-level" after all, isn't it? 🙂]

Portability:

- Must be 100% Java.
- Should run on all JDKs from 1.4 to current.
- Must run on win32 and linux.
- Should run on all platforms (assuming enough resources available).

Usability:

- Ease of installation: should be able to set up a single load-generation workstation on any site in a few hours – even in the presence of ugly firewall settings. [This probably requires a command-line interface.]

- Ease of use: any user with enough knowledge to install JMeter and configure his own web browser should be able to create and run simple test scripts to test HTTP sites in minutes – assuming no ugly firewall settings – just by following the manuals.

- Should be reasonably easy to set up and use a cluster of load-generation workstations, even in the presence of ugly firewall settings. [This is probably one of the very weak aspects of JMeter right now.]

Performance:

- Should be able to drive an application server at 100% with one single similarly-powered load-generation machine – assuming an average application is running on the server which doesn't require specially complex processing of responses. [This one is pretty weak too... ideas for making it better?]

Maintainability:

- [JavaDoc] must be correct. [Yes, this means a plain lie in a JavaDoc comment can't be considered a Minor bug. Also means we should always be careful to keep JavaDoc up-to-date when we touch at the code.]

- JavaDoc should be complete.