The Grinder To Do list

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This is The Grinder TODO list. Its a collection of my thoughts on the future of The Grinder.

If you want to implement something off this wish list, let me know first by discussion your ideas on the grinder-development list. There are instructions on how to contribute at http://grinder.sourceforge.net/development/contributing.html.

The TODO list is part of the binary distribution. I'll accept patches against it too :-).

- Philip Aston

1 Enhancements

1.1 Console Services

1.1.1 Functional

1.1.1.1 Event channel?

1.1.1.2 Process control

Start/Stop worker by ID

1.1.2 Packaging

How to publish lein module to sonatype OSS?

1.1.3 Deprecate Console API

Looks like I can remove: BlockingSender

1.2 Script Distribution

Task: Distribution file filter should be dynamically settable.

1.3 Console

1.3.1 Stop the recording when last thread terminates

Requested by JÃ½rgen Weber

1.3.2 Refactoring

Consider moving overwrite / save before close / ... handling to the model. Needs some kind of command pattern to represent choices.

1.3.3 Add log panel

Report log messages that currently go to terminal, plus start, stop test runs etc. Logs should be time stamped. Use log to replace use of System.err for warnings.

1.3.4 Future editor features

Revert file. Status bar. Undo. Copy and Paste menu items.

Specialised grinder properties editor.

1.3.4.1 jEdit

Replace jEdit-syntax with new jEdit syntax package when available, if its license terms are acceptable. Apparently now available.

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1.4 Engine

Support for some sort of "Surrogate task" that is run in a pool of threads and has its own statistics context would be good.

1.4.1 Instrumentation API

Could we support a procedural "startTest()", "stopTest()" API?

Perhaps. This procedural style would certainly be more obvious to the average user than "wrapping". OTOH, wrapping is powerful and I'm not sure we want to support two mechanisms to instrument code.

1.5 Communication

Resolve anomaly that Senders throw exceptions but Receivers return null.

1.6 Statistics

Should TPS averages be harmonic means? http://en.wikipedia.org/wiki/Harmonic_mean

Split out serializeable kernel of TestStatisticsMap? Look hard at where the message is deserialised.

Simplify the index classes. Move the index implementations to nested classes of StatisticsSetImplementation and expose a single, opaque StatsiticsSet.Index interface.

1.6.1 Aligning data files

Requested by Jose Antonio Zapata:

Add an additional "milliseconds since the Epoch" entry to the data files.

1.6.2 Separate out console statistics views from summary statistics views

Needed for custom statistics that use 'period' so are valid in the console but not in the process logs.

1.6.3 max(), min()

(Requested by Venelin Mitov).

Should store max, min values against SampleStatistics, and add max(), min() to expressions.

1.7 TCPProxy

Tim McNerney writes:
> Obviously, I could edit the scripts by hand. But I'd like to have
> TCPProxy do this for me. So is there some existing method for doing
> such filtering? Say on target suffix ("filter=.gif,.js,.css")

Change TCPProxy filters to a stream oriented model. This should cure another one of the TCPSniffer/HTTPPlugin bug when recording large outputs with posts? Also, consider having a filter instance pair per connection.

Internationalise messages.

Support different client certificates for proxied connection.

Allow the filters to optionally parse unknown command line options. They would also then have to be able to contribute to the help text. This would allow the http plugin to add options to specify a different filename, and also to specify stdout.

Failed connection events.

1.8 HTTP Plugin

Remove ParseException, ProtocolNotSuppException from public APIs.

Script support for HTTP "system property" options.

Pablo Estades FernÃ½ndez says:
> I need to use client cert on TCPProxy to be able to
> record the test case but also I need to configure
> grinder workers to run the test case presenting a
> client cert.

1.9 Scripting

Consider removing need to name TestRunner - instead use the result of the script.

Add per-run statistics. This would also allow number of aborted runs to be recorded.

Script access to global statistics.

1.9.1 Events

Idea from Nurul Choudhury:
> Event counting - The Jython code can create a named event and fire
> the event when some condition was met. When the console polls for
> statistics the events and their count would be sent to the console.

1.9.2 Error reporting

> It would be possible for certain classes of error (AttributeError
> being a good example) to spew out just
>
> Unknown attribute GETx at "http.py", line 9 in __call__.
>

> Is this what you're after?

To do this, might have to behave differently with 1 thread vs many.

1.10 Reports

Perhaps JasperReports?

1.11 Code

Review use of Executor. Probably want to share them.

Remove ThreadLocal from RegisteredPlugin.

1.12 Other HTTP/HTML libraries

DeSouza, Edwin writes:
> Instead of using:
> http://www.innovation.ch/java/HTTPClient/index.html
> <http://www.innovation.ch/java/HTTPClient/FAQ.html>
>
> How about using Jakarta Commons HttpClient (more popular and Apache
> License):
> http://jakarta.apache.org/commons/httpclient/index.html

Justin Spears writes:
> I am new to grinder, however I found the built in HTTPClient a
> little lacking in functionality. I might suggest using
> httpunit (http://httpunit.sourceforge.net) instead. It
> works well with jython, and has extremely powerful methods
> for handling links, posts, gets, etc.
>
> It uses nekohtml to parse malformed HTML documents into
> valid XML then exposes a useful DOM based on these results.
>
> ...

OK, this amounts to a campaign against HTTPClient!

Reasons for HTTPClient:

- Its solid, (and not 'alpha' which is the case for HttpClient).
- Its small and comprehensible.
- It is efficient.
- Its extremely well written.
- Its the incumbent.

Reasons for Commons HttpClient:

- Its actively maintained.
- It is more modular.
- It is richer.

Reasons for HttpUnit:

- nekohtml, parsing support

I prefer HttpClient, HTTPClient over HttpUnit for The Grinder as they are "closer to the wire".

1.12.1 Summary

On balance, yes HttpClient looks good and we should use it if it proves to be efficient. I'll add it to the TODO, but its a significant change => low priority.

Update (Oct 05): Doubts about HttpClient's scalability: http://sourceforge.net/mailarchive/forum.php?thread_id=8372852&forum_id=2649

We perhaps need to look more closely at parsing support for functional assertions, but I don't want to lose The Grinder's efficiency here.

Also http://www.nogoop.com/product_16.html#compare

2 Bugs

(In addition to those on Sourceforge).

2.1 Console/agent

Each time L&F changes, the saveAs dialog gets another All Files filter!

Add reset console action.

2.2 TCPProxy

Should listen on all interfaces if -localhost is not specified.

3 Documentation

3.1 Examples

HTTPS.

Basic authentication.

http://thread.gmane.org/gmane.comp.java.grinder.user/186

3.2 Forrest TODO

Create back links from javadoc. This isn't trivial, e.g. this:

<bottom> <![CDATA[<a class="noborder" href="../whats-new.html" target="_top"><img src="../../images/grinder3.jpg"></img></a>]]> </bottom>

only works for top level javadoc.

How to include arbitrary HTML (e.g. for poll forms?)