Clojure

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The Grinder 3.6 and later optionally support Clojure (http://clojure.org/) as an alternative language for test scripts.

1 How to use Clojure

Install Clojure and add the path to the installation's `clojure-x.x.x.jar` file to the start of the `CLASSPATH` you use for The Grinder agent processes.

2 Clojure scripting

2.1 Script structure

Clojure scripts must conform to a few conventions in order to work with The Grinder framework.

1. **Scripts must return a function that creates test runner functions**

   When a worker process starts, it runs the test script once. The test script should return a factory function that creates and returns a *test runner function*.

   Each worker thread calls the factory function to create a test runner function. Worker threads perform a number of *runs* of the test script, as configured by the property `grinder.runs`. For each run, the worker thread calls its test runner function; thus the test runner function can be thought of as the definition of a run.
2. **The test script can access services through the `grinder` object**

   The engine makes an object called `grinder` available for the script to import. It can also be imported by any modules that the script calls. This is an instance of the Grinder.ScriptContext (../../g3/script-javadoc/net/grinder/script/Grinder.ScriptContext.html) class and provides access to context information (such as the worker thread ID) and services (such as logging and statistics).
3. **The script file name must end in `.clj`**

   The file name suffix is used to identify Clojure scripts.

2.2 Canonical test script structure

This is an example of a script that conforms to the rules above. It doesn't do very much - every run will log *Hello World* to the output log.

```
;; helloworld.clj
(let [grinder net.grinder.script.Grinder/grinder]

  ;; The script returns a factory function, called once by each worker
  ;; thread.
  (fn []

    ;; The factory function returns test runner function.
    (fn []
      (do
        (.. grinder (getLogger) (info "Hello World"))))))
```

2.3 Recording an HTTP script

You can use the TCPProxy to record a Clojure script (../g3/tcpproxy.html#clojure-script) from a browser session.