Trace.js | Test Plan
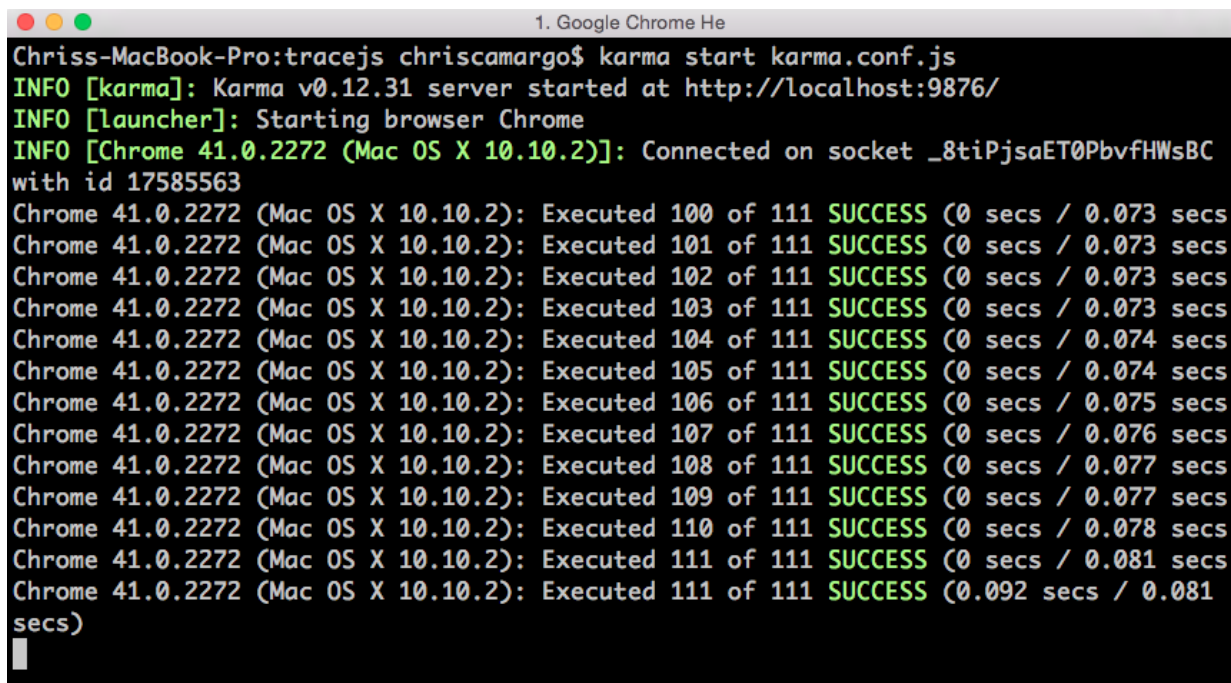Updated: March 5th, 2015

We have been unit-testing our application since the first iteration. You can view our unit-tests here: https://github.com/camargo/tracejs/tree/master/tests/unit. We used the Jasmine Unit Testing framework (http://jasmine.github.io/) and the Karma Test Runner (http://karma-runner.github.io/0.12/index.html) to carry out all of our unit-tests.

Here is an example of a Jasmine unit-test in our code base (https://github.com/camargo/tracejs/blob/master/tests/unit/Utilities/Vector3DTest.js):

```
it("should create vector with set coordinates (x,y,z)", function() {
    var vec = new Tracejs.Vector3D(-1.0, 0.0, 20.0);

    expect(vec.get_x()).toEqual(-1.0);
    expect(vec.get_y()).toEqual(0.0);
    expect(vec.get_z()).toEqual(20.0);
});
```

Here is an example of Karma running all of our unit-tests (see the configuration file https://github.com/camargo/tracejs/blob/master/karma.conf.js). We have 111 unit-tests at the time of writing:

```
                                    1. Google Chrome He
Chriss-MacBook-Pro:tracejs chriscamargo$ karma start karma.conf.js
INFO [karma]: Karma v0.12.31 server started at http://localhost:9876/
INFO [launcher]: Starting browser Chrome
INFO [Chrome 41.0.2272 (Mac OS X 10.10.2)]: Connected on socket _8tiPjsaET0PbvfHWsBC
with id 17585563
Chrome 41.0.2272 (Mac OS X 10.10.2): Executed 100 of 111 SUCCESS (0 secs / 0.073 secs
Chrome 41.0.2272 (Mac OS X 10.10.2): Executed 101 of 111 SUCCESS (0 secs / 0.073 secs
Chrome 41.0.2272 (Mac OS X 10.10.2): Executed 102 of 111 SUCCESS (0 secs / 0.073 secs
Chrome 41.0.2272 (Mac OS X 10.10.2): Executed 103 of 111 SUCCESS (0 secs / 0.073 secs
Chrome 41.0.2272 (Mac OS X 10.10.2): Executed 104 of 111 SUCCESS (0 secs / 0.074 secs
Chrome 41.0.2272 (Mac OS X 10.10.2): Executed 105 of 111 SUCCESS (0 secs / 0.074 secs
Chrome 41.0.2272 (Mac OS X 10.10.2): Executed 106 of 111 SUCCESS (0 secs / 0.075 secs
Chrome 41.0.2272 (Mac OS X 10.10.2): Executed 107 of 111 SUCCESS (0 secs / 0.076 secs
Chrome 41.0.2272 (Mac OS X 10.10.2): Executed 108 of 111 SUCCESS (0 secs / 0.077 secs
Chrome 41.0.2272 (Mac OS X 10.10.2): Executed 109 of 111 SUCCESS (0 secs / 0.077 secs
Chrome 41.0.2272 (Mac OS X 10.10.2): Executed 110 of 111 SUCCESS (0 secs / 0.078 secs
Chrome 41.0.2272 (Mac OS X 10.10.2): Executed 111 of 111 SUCCESS (0 secs / 0.081 secs
Chrome 41.0.2272 (Mac OS X 10.10.2): Executed 111 of 111 SUCCESS (0.092 secs / 0.081
secs)
```