

Test report

To build and compile our tests we decided to go with Travis-Ci since it is one of the most popular open source integration services that are available. Travis CI has a lot of information available about it so setting it up was easy and is running and building our system tests without any trouble. For our test runner, we decided to use Karma since it was the most adequate system to run tests for JavaScript because it is specifically designed for JavaScript testing. The testing framework that is being used with Karma is Jasmine.

Currently we are forced to do our input and output tests manually because there are technical limitations with the technologies that we are using. The Webpack system that we are implementing is conflicting with the jasmine tests and is causing the Travis builds to fail because jasmine tests do not allow a JavaScript file to contain "Import" statements.

```
$ export DISPLAY=:99.0
$ sh -e /etc/init.d/xvfb start
$ npm install
$ npm install
$ node_modules/karma/bin/karma start my.conf.js --single-run
25 07 2017 14:00:27.858:INFO [karma]: Karma v1.7.0 server started at http://0.0.0.0:9876/
25 07 2017 14:00:27.860:INFO [launcher]: Launching browsers Chrome, Firefox with unlimited concurrency
25 07 2017 14:00:27.867:INFO [launcher]: Starting browser Chrome
25 07 2017 14:00:27.875:INFO [launcher]: Starting browser Firefox
25 07 2017 14:00:29.060:INFO [Chrome 59.0.3071 (Linux 0.0.0)]: Connected on socket 9xmxtph1EVxaWul6AAAA with id 21714091
Chrome 59.0.3071 (Linux 0.0.0) ERROR
  Uncaught SyntaxError: Unexpected token import
    at build/main.js:1

Chrome 59.0.3071 (Linux 0.0.0) ERROR
  Uncaught SyntaxError: Unexpected token export
    at build/objToThree.js:2

Chrome 59.0.3071 (Linux 0.0.0) ERROR
  Uncaught ReferenceError: process is not defined
    at build/webpack.config.js:1

25 07 2017 14:00:31.603:INFO [Firefox 50.0.0 (Linux 0.0.0)]: Connected on socket 5fM3kVk0e1Wwfd4hAAAB with id 80671662
Firefox 50.0.0 (Linux 0.0.0) ERROR
  SyntaxError: import declarations may only appear at top level of a module
    at build/main.js:1

The command "node_modules/karma/bin/karma start my.conf.js --single-run" exited with 1.
```

Figure 1: Import error

Manual testing for converter 1:

The Object to array converter was tested. It is supposed to take an .OBJ file as input and convert that .OBJ file's content into an object array of colors. This test is failing because the array that is being produced does not contain the correct color values. The converter does however take the correct input.

Manual test for converter 2:

This converter does the array to mesh. It outputs the wireframe of the 3D object. The converter does currently take the correct input, but the converter does not test for the correct input. Hence the right error message is not displayed when the input is wrong. For now this test is failing the criteria as well and is currently under development. But although the test is failing the main goal of the converter is being achieved and it is displaying the 3D object correctly.

Manual test for the rules applier:

At the current stage of development this applier fails. It must receive an array and a JSON file, but the test is failing the criteria because the system is doing nothing with the JSON file yet. The JSON file is hardcoded at the moment so some changes need to be made to make the system more dynamic.

Technical issue with Travis:

There is currently a known issue with the Travis CI system where Travis tries to install older versions of packages and not the newly specified ones. This is the reason that we cannot fully make use of dynamic testing and we are currently working on a solution for this problem.

```
501 npm ERR! Linux 4.11.6-041106-generic
502 npm ERR! argv "/home/travis/.nvm/v0.10.48/bin/node" "/home/travis/.nvm/v0.10.48/bin/npm" "install"
503 npm ERR! node v0.10.48
504 npm ERR! npm v2.15.1
505 npm ERR! code ELIFECYCLE
506
507 npm ERR! uglifyjs-webpack-plugin@0.4.6 postinstall: `node lib/post_install.js`
508 npm ERR! Exit status 8
509 npm ERR!
510 npm ERR! Failed at the uglifyjs-webpack-plugin@0.4.6 postinstall script `node lib/post_install.js`.
511 npm ERR! This is most likely a problem with the uglifyjs-webpack-plugin package,
512 npm ERR! not with npm itself.
513 npm ERR! Tell the author that this fails on your system:
514 npm ERR!     node lib/post_install.js
515 npm ERR! You can get information on how to open an issue for this project with:
516 npm ERR!     npm bugs uglifyjs-webpack-plugin
517 npm ERR! Or if that isn't available, you can get their info via:
518 npm ERR!
519 npm ERR!     npm owner ls uglifyjs-webpack-plugin
520 npm ERR! There is likely additional logging output above.
521
522 npm ERR! Please include the following file with any support request:
523 npm ERR!     /home/travis/build/Idrian/Absolute-0-/npm-debug.log
524
525 The command "eval npm install " failed. Retrying, 2 of 3.
```

Figure 2: EVAL install error

Usability testing: