

## Current Team Progress with HFOSS Project: mWater Version 3

### Reason(s) For Choosing mWater:

We picked the application because we figured that not only would it be a cool thing to test, but the application itself has a pretty universal significance in that it uses image processing to analyze the quality of water, something which each and every one of us needs for survival.

- 1) We initially started with version 1, realized it hadn't been changed in 3 years. Tried building with android studio (project was dependent on Android SDK). This version included many dependency problems and incomplete files. We moved to version 3 (which we recently discovered).
- 2) Version 3 written in coffeescript, project cloned, opened with Netbeans. Coffeescript plugin installed. Bryce and I spent some reviewing the language last week, as it's new to both of us.
- 3) Navigated to Test directory containing 15 different test classes
- 4) Tried building main project multiple times; no progress. when running test (.coffee) files, they simply open a browser window with their contents copied into it. They don't seem to output any valuable data from test executions.

Getting Started Instructions Listed on V3 Repo

### Getting started

1. Clone this repository
2. Ensure you have Node.js version  $\geq 0.10$  installed
3. Ensure you have grunt-cli, browserify, bower and cordova installed globally.
4. Run `npm install` in root folder
5. Run `bower install` in root folder
6. Run `gulp` (version 4+)
7. Run `node server`
8. Visit <http://localhost:8080/>

I encountered the following problem at step 3, and ha

```
macbook-pro:~ austinhunt$ npm install -g grunt-cli
/usr/local/lib/node_modules/npm/node_modules/npm-package-arg/npm.js:6
let url
^^^
SyntaxError: Unexpected strict mode reserved word
    at Module._compile (module.js:439:25)
    at Object.Module._extensions..js (module.js:474:10)
    at Module.load (module.js:356:32)
    at Function.Module._load (module.js:312:12)
    at Module.require (module.js:364:17)
    at require (module.js:380:17)
    at Object.<anonymous> (/usr/local/lib/node_modules/npm/node_modules/npm-registry-client/lib/access.js:5:11)
    at Module._compile (module.js:456:26)
    at Object.Module._extensions..js (module.js:474:10)
    at Module.load (module.js:356:32)
```

I read that this error generally happens when you use a strict mode reserved word as a variable name. The problem, as shown, is on line 6 of the npa.js file, seen here:

```
'use strict'
module.exports = npa
module.exports.resolve = resolve
module.exports.Result = Result

let url
let HostedGit
let semver
let path
let validatePackageName
let oshv

const isWindows = process.platform === 'win32' || global.FAKE_WINDOWS
const hasSlashes = isWindows ? /\[/ : /[/]/
const isURL = /^(?:git[+])?[a-z]+:/i
const isFilename = /[.](?:tgz|tar.gz|tar)$/i

function npa (arg, where) {
  let name
  let spec
  const nameEndsAt = arg[0] === '@' ? arg.slice(1).indexOf('@') + 1 : arg.indexOf('@')
  const namePart = nameEndsAt > 0 ? arg.slice(0, nameEndsAt) : arg
  if (isURL.test(arg)) {
    spec = arg
  } else if (namePart[0] !== '@' && (hasSlashes.test(namePart) || isFilename.test(namePart))) {
    spec = arg
  } else if (nameEndsAt > 0) {
    name = namePart
    spec = arg.slice(nameEndsAt + 1)
  } else {
    if (!validatePackageName) validatePackageName = require('validate-npm-package-name')
    const valid = validatePackageName(arg)
    if (valid.validForOldPackages) {
      name = arg
    } else {
      spec = arg
    }
  }
  return resolve(name, spec, where, arg)
}

const isFilespec = isWindows ? /^(?:[.]|~[/]|[/\\]|[a-zA-Z]:)/ : /^(?:[.]|~[/]|[/]|[a-zA-Z]:)/

function resolve (name, spec, where, arg) {
  const res = new Result({
    raw: arg,
    name: name,
    rawSpec: spec,
    fromArgument: arg !== null
  })

  if (name) res.setName(name)

  if (spec && (isFilespec.test(spec) || /^file:/.test(spec))) {
    return fromFile(res, where)
  }
}
```

I'm not sure how to fix this problem, so I haven't gone beyond this step yet.

Bryce was able to get a little farther than I was (step 5)

Advice recently given to us: Try installing an older version of CoffeeScript; so, since MwaterV3

Set-backs and plans for improvements:

- 1) Very limited documentation involved in the selected project that we plan to work on.
- 2) New language adaptation (CoffeeScript) that has restricted our ability to fully understand what we are coding.

- Dedicate selective time each day before class to meet for 2 hours and iteratively work on the code, rather than relying on relaying messages back and forth in order to test and run potential ideas.
- Assess the usability of our chosen project and perhaps evaluating acquisition of a new one in order to actually have something tangible.

Tests include:

Test for authorization of user role via - `authTest.coffee`

Hooks into a database to pass a hardcoded username and password and checks whether it was added to the database successfully or not - `RemotedbTests.coffee`

Takes the user input picture and tests whether it can make a thumbnail of this image whether a page is opened with this thumbnail presented and whether the image can be removed from the page or not `TestQuestions.coffee`