GULP JS

utilizing javascript to build javascript… and more

SHAMELESS SELF-PLUG

A Brief History Of (Some) JS Build Tools

In no particular order

- Jake
- Cake
- Grunt
- Brunch
- Yeoman
- Lineman
- Gear
- Broccoli

ANOTHER BUILD TOOL?

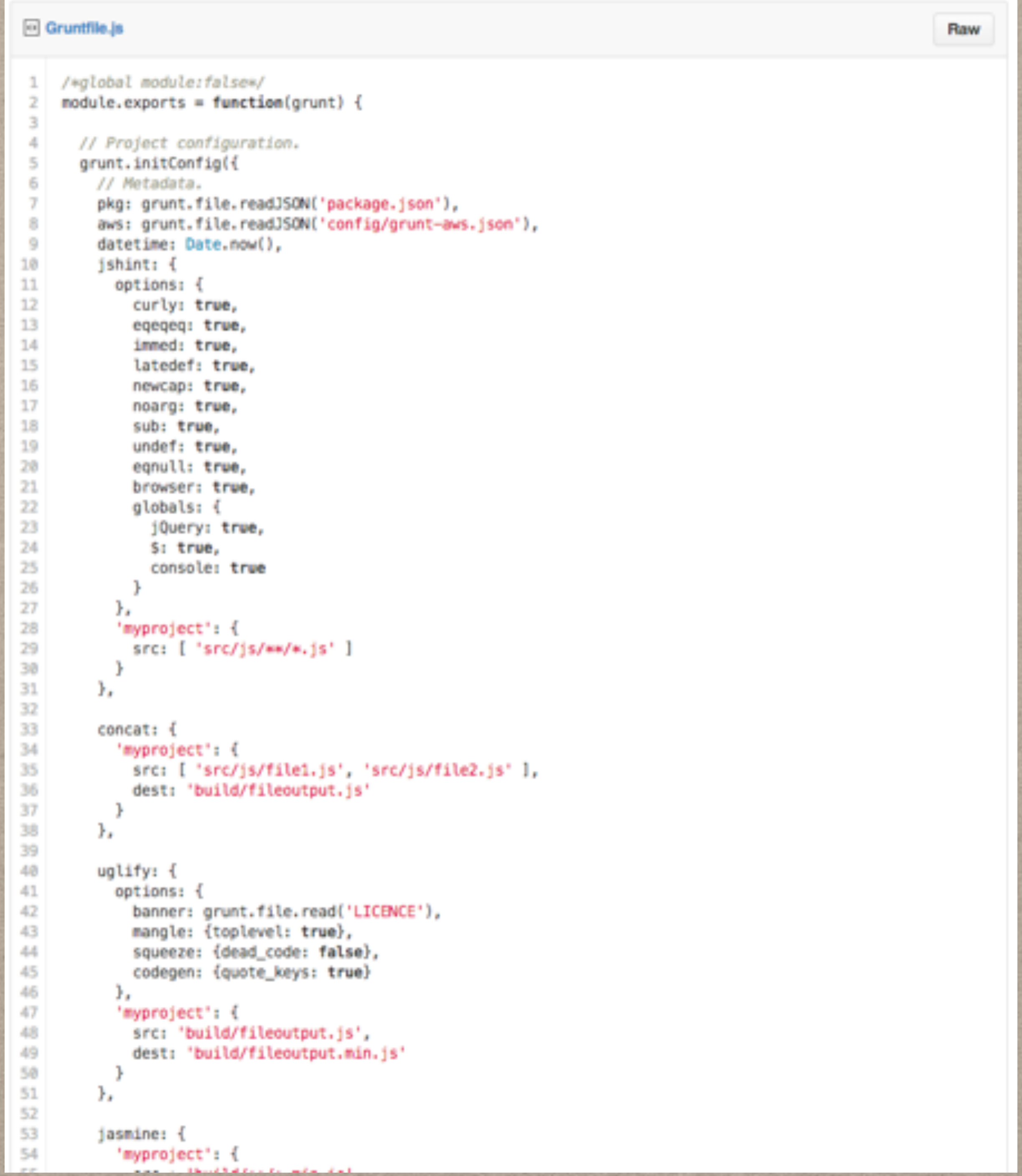
WHY?!?

Configuration over scripting

"Descriptive languages aren't a good way to solve arbitrary needs, configuration options never fit all scenarios. It doesn't matter if you use XML/JSON/JS, it still won't cover them all."

-*Miller Medeiros*

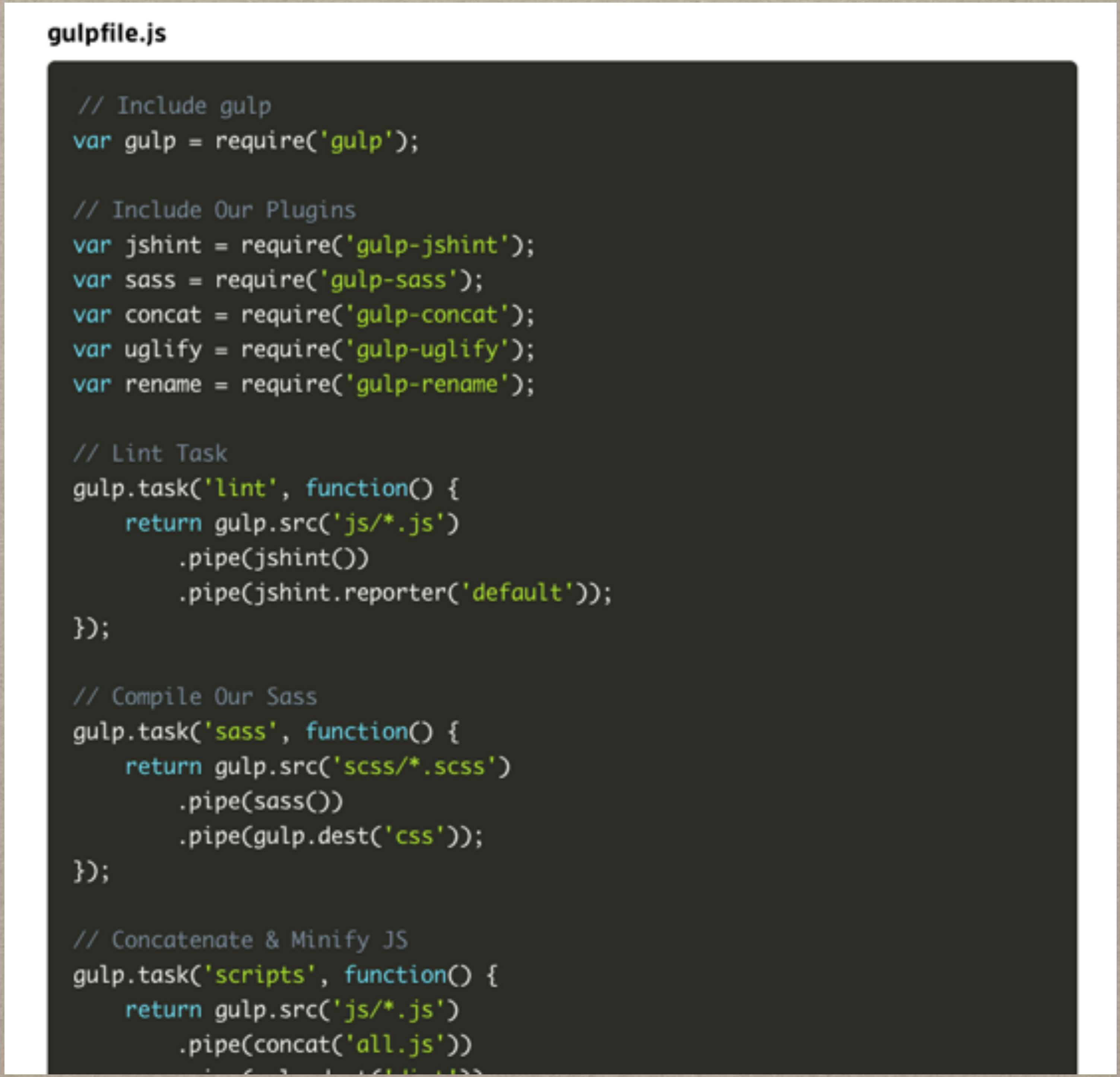
SAMPLE GRUNT FILE



```javascript
/*global module:false*/
module.exports = function(grunt) {

  // Project configuration.
  grunt.initConfig({
    // Metadata.
    pkg: grunt.file.readJSON('package.json'),
    aws: grunt.file.readJSON('config/grunt-aws.json'),
    datetime: Date.now(),
    jshint: {
      options: {
        curly: true,
        eqeqeq: true,
        immed: true,
        latedef: true,
        newcap: true,
        noarg: true,
        sub: true,
        undef: true,
        eqnull: true,
        browser: true,
        globals: {
          jQuery: true,
          $: true,
          console: true
        }
      },
      'myproject': {
        src: [ 'src/js/**/*.js' ]
      }
    },

    concat: {
      'myproject': {
        src: [ 'src/js/file1.js', 'src/js/file2.js' ],
        dest: 'build/fileoutput.js'
      }
    },

    uglify: {
      options: {
        banner: grunt.file.read('LICENCE'),
        mangle: {toplevel: true},
        squeeze: {dead_code: false},
        codegen: {quote_keys: true}
      },
      'myproject': {
        src: 'build/fileoutput.js',
        dest: 'build/fileoutput.min.js'
      }
    },

    jasmine: {
      'myproject': {
```

See More at https://gist.github.com/tanepiper/4143096

SAMPLE GULP FILE



gulpfile.js

```
// Include gulp
var gulp = require('gulp');

// Include Our Plugins
var jshint = require('gulp-jshint');
var sass = require('gulp-sass');
var concat = require('gulp-concat');
var uglify = require('gulp-uglify');
var rename = require('gulp-rename');

// Lint Task
gulp.task('lint', function() {
    return gulp.src('js/*.js')
        .pipe(jshint())
        .pipe(jshint.reporter('default'));
});

// Compile Our Sass
gulp.task('sass', function() {
    return gulp.src('scss/*.scss')
        .pipe(sass())
        .pipe(gulp.dest('css'));
});

// Concatenate & Minify JS
gulp.task('scripts', function() {
    return gulp.src('js/*.js')
        .pipe(concat('all.js'))
```

see more at: http://travismaynard.com/writing/getting-started-with-gulp

Big Deal? What's The Difference?

DIFFERENCES

GRUNT

- Files Paradigm (all operations take or result in files)
- Configuration over Code
- Tasks in sequence unless "async" specified

GULP

- Everything is a stream
- Code over Configuration
- Tasks run in parallel unless specified

PROS

GRUNT

- Community (plethora of plugins, support)
- several tools built on top of Grunt (lineman, yeoman to name a few)
- you can always write your own task

GULP

- Faster
- Simple API
- Core tasks encapsulated in plugins already
- active community (even if it's smaller)

CONS

GRUNT

- Initial Learning Curve
- As the configurations grow longer, Gruntfile becomes harder to manage*
- One size config does not fit all scenarios
- File I/O is slower
- Multiple passes / temp files sometimes required for complex operations

GULP

- fewer plugins
- new kid in town (experienced devs less common)
- Errors can be “suppressed” or pipe “halted”**

* can be combatted by tidy project layout

** can be mitigated with [Gulp] Plumber

GULP CORE API = 4 METHODS

- gulp.task: define the name of the task
- gulp.src: [Files] to read or not to read)
- gulp.dest: where to write the output of the stream
- gulp.watch: instructs gulp what to do when a file changes

ACTUAL CODE!

At The End Of The Day, They Still Do The Same Thing?

Ultimately, all build tools result in static assets. It is therefore up to you to choose the tool that fits best for your company’s needs and your development flow

THE FUTURE

HTTP://MARKDALGLEISH.GITHUB.IO/PRESENTATION-BUILD-WARS-GULP-VS-GRUNT/#49

Questions? Comments? Concerns?