# Grunt Runner for Static Resources

## Overview:

The purpose of this project is to provide a simplified process for generating optimized Static Resources.

Currently, this is focused on JavaScript, but will expand to CSS (including SASS) and Image optimization.

**Whenever a static resource file is changed (or a new file is added to it), the tool will intelligently provide optimized versions of those resources.**

While the tools is meant to reduce the bar for those unfamiliar with Grunt, it provides a large amount of configuration to fit many needs.

## What is Grunt?

Grunt provides automation for repetitive tasks. It can either execute those tasks on demand or by monitoring a set of files.

## How do I get started?

**System Requirements:**

- NPM - http://blog.npmjs.org/post/85484771375/how-to-install-npm
- grunt CLI - http://gruntjs.com/installing-grunt
  or just `npm install grunt-cli grunt -g`

**Project Requirements:**

- A checkout of this project
- A `package.json` file (such as the example below) at the base of your project to provide project configuration.
- Running `npm install` (to load all the needed modules)
- A `Gruntfile.js` file to include this tool and optionally adjust build settings.

## How do I checkout this project?

Please review the Services Wiki to obtain credentials for the Services GitLab instance.

Then clone the project at git@tig2.modelmetricssoftware.com:proth/sfdcgruntrunner.git

For those not familiar with git, we recommend using Git-Tower or Source-Tree, or reach out for help.

## Package.json

A Package.json file is the configuration for the project and includes your project's name, among other configurations.

Simply copy the Example-Package.json file to the base of your project, and update the name and description to get started / update as desired

**NOTE:**

The sample Package.json file assumes that the static resource files are in the folder 'resources', and the folders of the exploded static resources are all directly within.

```
Ex:
./
    resources/
        pb_Foundation_zip
            js/...
            css/...
            img/...
        pb_Vendor_zip
            js/...
        etc.
```

**If that is not the case, update the 'sfdc-runner.resourcesPath' and 'sfdc-runner.resourceFolderPattern' as appropriate.**

**Currently, after install, you will need to run `npm install` in the package directory for grunt to be available. Updating `NPM_PATH` doesn't appear to work correctly**

## Gruntfile.js

Copy the Example-Gruntfile.js to the same directory as the Package.json file.

You may need to update the line:
`require( './path/to/grunt-sfdc-runner.js' )(grunt)`
and

`grunt.loadTasks( './path/to/tasks' );`
to the file within the checkout.

### Running the project:

- Navigate to the base of the project in the terminal and run:
  `grunt watch`
  (this starts watching the files)
  Run `grunt watch --verbose` to either troubleshoot
  or see which files are watched.
- Change any js file within the static resource folder
  Ex: `resources/pb_Foundation_zip/js/custom/MyScript.js`
- Saving the file instantly kicks off:
  # jslint
  # concat
  # uglify

---

### Sample Package.json file

```
{
  "name": "MyProject",
  "version": "1.0.0",

  "description": "[Description of your project]",

  "devDependencies": {
    "grunt-ant-sfdc": "^0.2.6",
    "grunt-contrib-clean": "^0.6.0",
    "grunt-contrib-compress": "^0.12.0",
    "grunt-contrib-concat": "^0.5.0",
    "grunt-contrib-copy": "^0.7.0",
    "grunt-contrib-jshint": "^0.10.0",
    "grunt-contrib-uglify": "^0.6.0",
    "grunt-contrib-watch": "^0.6.1"
  },

  "sfdc_runner": {
     "resourcesPath": "resources",
     "resourceFolderPattern": "resources/([\\w_ ]+)/",
     "concat": {
        "pb_Foundation": {
            "js/foundation-min.js" : ["js/foundation/**/*.js"],
            "js/vendor-min.js" : ["js/vendor/**/*.js"]
        }
     }
  }
}
```

### Sample Gruntfile.js

```
/*global require, chalk, module*/
module.exports = function(grunt) {

    //-- update this to /path/to/tasks
    grunt.loadTasks( '../sfdcgruntrunner/tasks' );

    //-- update this to /path/to/grunt-sfdc-runner.js
    require( "../sfdcgruntrunner/grunt-sfdc-runner.js" )(grunt);

    //-- override any configuration here as desired
    //-- see following for a list of jshint options - http://jshint.com/docs/options
    //-- NOTE: the files combined and ordering are within the package.xml file
    /** Example config setting.
    grunt.config.merge({
        "jshint":{
            "options":{
                node:true,
                newcap:false
            }
        },
        "uglify":{
            sfdc_uglify: {
                options: {
                    mangle: false
                }
            }
        }
    });
    */
};
```

## Configuring the Project

Configuration within your Package.json

```
"sfdc_runner": {
```

Path to folder where the extracted static resources are found

EX: for sfdcantprojects, this could be : 'resources'", EX: for mavensmate projects, this would likely be 'resource-bundles'",

```
    "resourcesPath": "resources",
```

regular expression used to determine the folder used as exploded static resource this allows us to determine whether the file changed actually belongs to a static resource or not the following assumes the folders found within resources are.

note: this would likely include the resourcesPath above

EX - sfdcantprojects: resources/([^/]+)/ EX - mavensmate : resource-bundles/([^/]+)/

```
    "resourceFolderPattern": "resources/([\\w_ ]+)/",
```

List of resources with their minification file, and path USE [RESOURCE] within the minification file path to use the name of the resource EX: [RESOURCE]-min.js could provide resources/pb_Foundation_zip/pb_Foundation-zip.js

```
    "concat": {
```

```
EX:
pb_Foundation: {
    js/foundation-min.js : [js/foundation/**/*.js],
    js/vendor-min.js : [js/vendor/**/*.js]
}
```

```
    }
}
```

---

## RELATED BONUS: How do I test local changes in visualforce without a deploy?

**Impossible you say?**

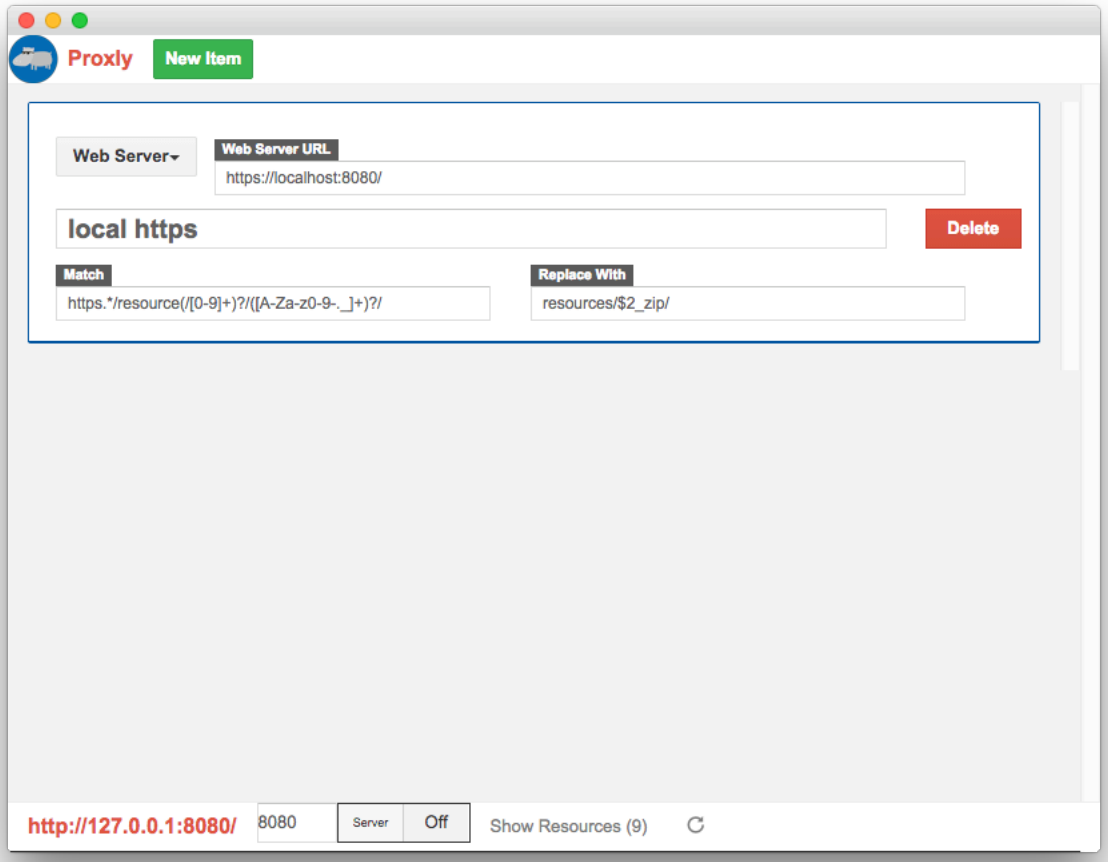
### Requirements

You need the following things:

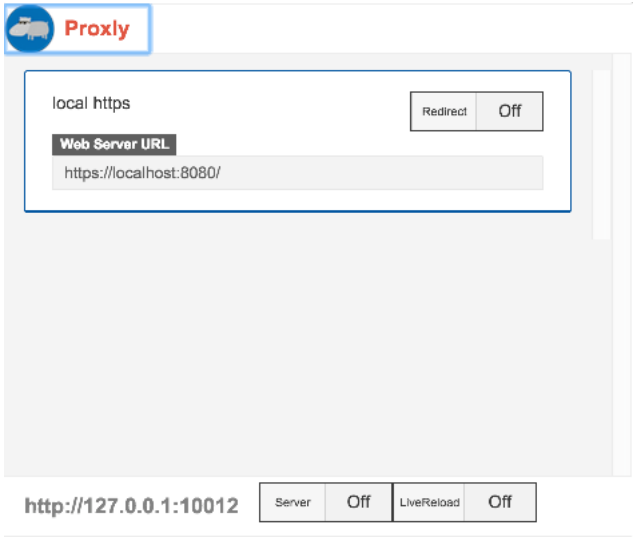
- Proxly Chrome Extension
  Plugin that redirects URLs to a different URL.
- Proxly Chrome App
  Defines the configuration for the Proxly Plugin
- `npm install http-server`
  Light-weight/zero-config https server

### Setup

- After installing the App and the extension, open up Chrome to the app and configure it as follows:
  Web Server URL: `https://localhost:8080/`
  Match (leave as default): https.*/resource(/[0-9]+)?/([A-Za-z0-9-._]+)?/
  Replace With: resources/$2_zip/
  **Be sure to save**




- Open the plugin within Chrome, and you should see the config just made. **Enable redirect, but disable server and LiveReload**



- Navigate to the base directory and run the http-server npm program as follows (allowing us to use https locally)

  `http-server -S -C ../sfdcgruntrunner/localhost.cert -K ../sfdcgruntrunner/localhost.key -a localhost`

  > *Starting up http-server, serving ./ through https on: https://localhost:8080*
  > *Hit CTRL-C to stop the server*

- You will now need to allow your browser to connect to https://localhost:8080 - at least once, and click 'continue to https://localhost:8080' **(Otherwise you'll get 'Failed to load resource: net::ERR_INSECURE_RESPONSE' errors)**
- Finally, navigate to a page in salesforce using a static resource, notice the URLs are different. Changing the files locally are immediately reflected within SalesForce.