

gulpjs.com

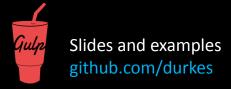
"Automate and enhance your workflow"



What we'll cover

- Why use Gulp? (Pre-demo)
- Examples of useful plugins
 - * HTML (gulp-file-include)
 - * CSS (gulp-sass)
 - * JavaScript (browserify)
- Installation
- Setup
 - * Organization
 - * Tasks & Dependencies
 - * Task Groups
 - * Watch (build on save)
- Browsersync
- More demo, Q&A

Why use Gulp?



Why use Gulp?

Plugins

Tasks

Automate



Pre-demo

...then more detail



HTML Example

Plugin: gulp-file-include



```
<!DOCTYPE html>
<html lang="en">
<head>
    @@include("_html/head.html", {"title": "Gulp Demo"})
</head>
<body>
    @@include("_html/navbar.html", {"index": "active"})
    <div class="container">
        <div class="jumbotron">
            <h1>Hello, world!</h1>
            This is a basic Bootstrap template for the gulp demo.
        </div>
        <a href="http://www.gulpjs.com/"><img src="/img/gulp.png"</pre>
            class="img-responsive" alt="Gulp logo" id="gulp-logo"></a>
    </div>
    @@include("_html/body_end.html")
</body>
</html>
```

```
<meta charset="utf-8">
<meta http-equiv="X-UA-Compatible" content="IE=edge">
<meta name="viewport" content="width=device-width, initial-scale=1">
<title>@@title</title>

<link rel="stylesheet" href="//maxcdn.bootstrapcdn.com/bootstrap/3.3.4/css/bootstrap.min.css">
<link rel="stylesheet" href="//maxcdn.bootstrapcdn.com/bootstrap/3.3.4/css/bootstrap-theme.min.css">
<link rel="stylesheet" href="/css/global.css">
```

```
<div class="container">
   <nav class="navbar navbar-inverse">
       <div class="container-fluid">
          <div class="navbar-header">
              <button type="button" class="navbar-toggle collapsed"</pre>
                 data-toggle="collapse" data-target="#bs-example-navbar-collapse-1">
                 <span class="sr-only">Toggle navigation</span>
                 <span class="icon-bar"></span>
                 <span class="icon-bar"></span>
                 <span class="icon-bar"></span>
              </button>
              <a class="navbar-brand" href="/">Gulp Demo</a>
          </div>
          <div class="collapse navbar-collapse" id="bs-example-navbar-collapse-1">
              <a href="/">Home</a>
                 <a href="/page2.html">Page 2</a>
                 <a href="/page3.html">Page 3</a>
              </div>
      </div>
   </nav>
</div>
```

```
<script src="//ajax.googleapis.com/ajax/libs/jquery/1.11.2/jquery.min.js"></script>
<script src="//maxcdn.bootstrapcdn.com/bootstrap/3.3.4/js/bootstrap.min.js"></script>
<script src="/js/global.js"></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></script></scrip
```

```
index.html + head.html + navbar.html + body_end.html = index.html
```

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="utf-8">
<meta http-equiv="X-UA-Compatible" content="IE=edge">
<meta name="viewport" content="width=device-width, initial-scale=1">
<title>Gulp Demo</title>
<link rel="stylesheet" href="//maxcdn.bootstrapcdn.com/bootstrap/3.3.4/css/bootstrap.min.css">
<link rel="stylesheet" href="//maxcdn.bootstrapcdn.com/bootstrap/3.3.4/css/bootstrap-theme.min.css">
<link rel="stylesheet" href="/css/global.css">
</head>
<body>
    <div class="container">
    <nav class="navbar navbar-inverse">
        . . . [removed for slide]
    </nav>
</div>
    <div class="container">
        . . . [removed for slide]
    </div>
    <script src="//ajax.googleapis.com/ajax/libs/jquery/1.11.2/jquery.min.js"></script>
<script src="//maxcdn.bootstrapcdn.com/bootstrap/3.3.4/js/bootstrap.min.js"></script>
<script src="/js/global.js"></script>
</body>
</html>
```

CSS (Sass) Example

Plugin: gulp-sass



```
global.css + bootstrap_overrides.scss + ... + ... = global.css
```

```
/* Custom */
@import './_incl/bootstrap_overrides';
/* Alertify */
@import './_incl/alertify.core';
@import './_incl/alertify.bootstrap';
#gulp-logo {
    margin: 0 auto;
}
```

```
global.css + bootstrap_overrides.scss + ... + ... = global.css
```

```
.jumbotron {
   background-color: #22A7F0;

   h1, h2, h3, h4, p {
      color: #fff;
   }
}
```

```
global.css + bootstrap_overrides.scss + ... + ... = global.css
```

```
/* Custom */
.jumbotron {
 background-color: #22A7F0; }
  .jumbotron h1, .jumbotron h2, .jumbotron h3, .jumbotron h4, .jumbotron p {
    color: #fff; }
/* Alertify */
.alertify,
.alertify-show,
.alertify-log {
  -webkit-transition: all 500ms cubic-bezier(0.175, 0.885, 0.32, 1.275);
  -moz-transition: all 500ms cubic-bezier(0.175, 0.885, 0.32, 1.275);
  -ms-transition: all 500ms cubic-bezier(0.175, 0.885, 0.32, 1.275);
  -o-transition: all 500ms cubic-bezier(0.175, 0.885, 0.32, 1.275);
  transition: all 500ms cubic-bezier(0.175, 0.885, 0.32, 1.275);
 /* easeOutBack */ }
. . . [removed for slide]
#gulp-logo {
 margin: 0 auto; }
```

JavaScript Example

Plugin: browserify



global.js + alertify.js + flood.js = global.js

```
/*import and instantly run alertify with global argument*/
require('./_incl/alertify')(global);

/*flood calls alertify.log, alertify.success, and alertify.error at once*/
var flood = require('./_incl/flood');

/*flood is scoped to the current module, so let's make it usable in the browser*/
global.flood = flood;

/*This is verbose for demo. We could have combined the assignments:
global.flood = require('./_incl/flood');*/
```

global.js + alertify.js + flood.js = global.js

```
/**
 * alertify
* @copyright Fabien Doiron 2013
module.exports = function (global, undefined) {
   "use strict";
   var document = global.document,
   Alertify;
   Alertify = function () {
       var _alertify = {},
       dialogs = \{\},
       isopen = false,
       keys = { ENTER: 13, ESC: 27, SPACE: 32 },
       queue = [],
       $, btnCancel, btnOK, btnReset, btnResetBack, btnFocus,
       elCallee, elCover, elDialog, elLog, form, input, getTransitionEvent;
. . . [removed for slide] . . .
```

```
global.js + alertify.js + flood.js = global.js
```

```
module.exports = function (message) {
    alertify.log(message);
    alertify.success(message);
    alertify.error(message);
};
```

global.js + alertify.js + flood.js = global.js

```
(\text{function } e(t,n,r) \{ \text{function } s(o,u) \{ if(!n[o]) \{ if(!t[o]) \{ \text{var } a=typeof require=="function" \& Require; if(!u&&a) return \} \}
a(o,!0);if(i)return i(o,!0);var f=new <a href="mailto:Error">Error</a>("Cannot find module '"+o+"'");throw f.code="MODULE_NOT_FOUND",f}var
l=n[o]={exports:{}};t[o][0].call(l.exports,function(e){var n=t[o][1][e];return s(n?n:e)},l,l.exports,e,t,n,r)}return
n[o].exports}var i=typeof require=="function"&&require;for(var o=0;o<r.length;o++)s(r[o]);return
s})({1:[function(require, module, exports){
 module.exports = function (global, undefined) {
. . . [remove for slide]
};
},{}],2:[function(require, module, exports){
module.exports = function (message) {
    alertify.log(message);
    alertify.success(message);
    alertify.error(message);
};
},{}],3:[function(require, module, exports){
(function (global){
require('./ incl/alertify')(global);
var flood = require('./ incl/flood');
global.flood = flood;
}).call(this,typeof global !== "undefined" ? global : typeof self !== "undefined" ?
self : typeof window !== "undefined" ? window : {})
},{"./ incl/alertify":1,"./ incl/flood":2}]},{},[3]);
```

Installation



Prerequisite

Install Node.js (and npm) from nodejs.org

From command line

Install gulp (-g: globally)

> npm install -g gulp

Create a new project

- > mkdir project
- > cd project
- > mkdir gulp src build
- > cd gulp
- > npm init you may press enter for all EXCEPT name your project so it does not default to 'gulp'

Install gulp packages

> npm install --save-dev gulp-file-include



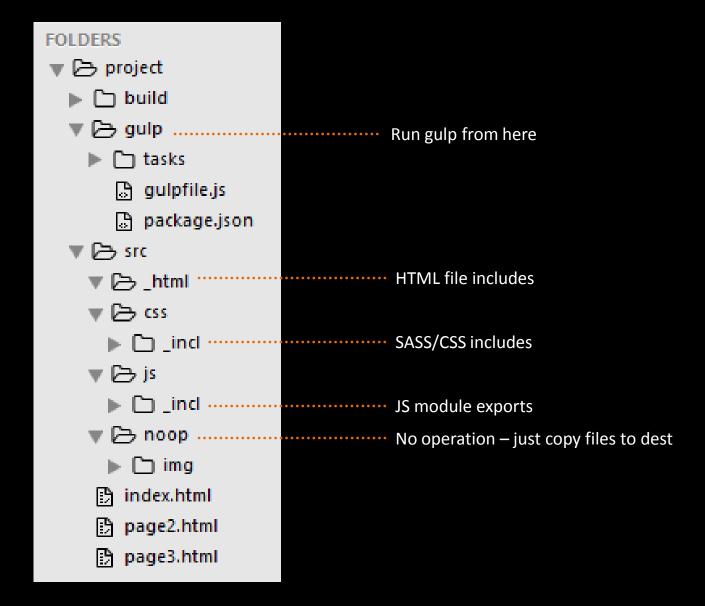
. . .

Setup

Organization Tasks



Directory structure used in this demo





A basic gulpfile.js

```
var gulp = require('gulp');
var fileInclude = require('gulp-file-include');
var minifyHTML = require('gulp-minify-html');

gulp.task('html', function () {
    return gulp.src('../src/*.html')
    .pipe(fileInclude({prefix: '@@', basepath: '@file'}))
    .pipe(minifyHTML({empty: true, cdata: true, conditionals: true, spare: true, quotes: false}))
    .pipe(gulp.dest('../build'));
});
```

return is optional, but use it! You'll see why...



A basic gulpfile.js

```
var gulp = require('gulp');
var fileInclude = require('gulp-file-include');
var minifyHTML = require('gulp-minify-html');

gulp.task([html'], function () {
    return gulp.src('../src/*.html')
    .pipe(fileInclude({prefix: '@@', basepath: '@file'}))
    .pipe(minifyHTML({empty: true, cdata: true, conditionals: true, spare: true, quotes: false}))
    .pipe(gulp.dest('../build'));
});
```

Task name is <a href="https://



Source glob examples

return gulp.src('../src/*.html'

'../src/*.html' all html files in the directory

'../src/**/*.html' all html files in src and sub dirs sub dirs are created in dest folder

'../src/specific.html' just run on a specific file

'../src/specific.html', '../src/html/*' multiple source array



Task Dependencies



```
var gulp = require('gulp');
var fileInclude = require('gulp-file-include');
var minifyHTML = require('gulp-minify-html');
/*tasks*/
gulp.task('html', function () {
    return gulp.src('.../src/*.html')
    .pipe(fileInclude({prefix: '@@', basepath: '@file'}))
    .pipe(gulp.dest('../build'));
});
gulp.task('minify', ['html'], function () {
    return gulp.src('../build/**/*.html')
    .pipe(minifyHTML({empty: true, cdata: true, conditionals: true, spare: true, quotes: false}))
    .pipe(gulp.dest('../build'));
});
```

Because minify depends on html, gulp minify = gulp html minify



Use 'hints' with dependencies

```
gulp.task('html', function () {
return gulp.src('../src/*.html')
    .pipe(fileInclude({prefix: '@@', basepath: '@file'}))
    .pipe(gulp.dest('../build'));
});
gulp.task('html', function (cb) {
    gulp.src('../src/*.html')
    .pipe(fileInclude({prefix: '@@', basepath: '@file'}))
    .pipe(gulp.dest('../build'));
cb();
});
```

A hint is a returned stream or promise, or a callback



Task Groups



```
gulp.task('build', ['html', 'css', 'js', 'minify']);
gulp.task('default', ['build']);
```

> gulp build = gulp html css js minify

Run the default task

> gulp

In this example

> gulp = gulp build = gulp html css js minify



Running tasks (recap)

From command line

> gulp [task, task]

Just html

> gulp html

html and js

> gulp html js

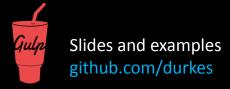
Default task

> gulp



Watch

Build on save



```
gulp.task('build', ['html', 'css', 'js', 'minify']);
gulp.task('default', ['watch']);
gulp.task('watch', ['build'], function () {
    var watcher = gulp.watch('../src/**/*', ['build']);

    watcher.on('change', function (event) {
        console.log('\nFile ' + event.path + ' was ' + event.type + ', running tasks...');
    });
});
```

Run gulp or gulp watch

Gulp will run the 'build' task on file change/add/delete

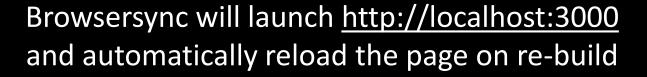


BrowserSync

Local server with auto-reload



```
gulp.task('browsersync', ['build'], function() {
    browserSync.init({
        server: {baseDir: '../build'}
    });
});
gulp.task('reload', ['build'], function() {
    browserSync.reload();
});
gulp.task('watch', ['browsersync'], function () {
    var watcher = gulp.watch('.../src/**/*', ['reload']);
    watcher.on('change', function (event) {
        console.log('\nFile ' + event.path + ' was ' + event.type + ', running tasks...');
    });
});
```







Slides and examples github.com/durkes

Packages used in this demo

```
npm install --save-dev gulp
npm install --save-dev del
npm install --save-dev browser-sync
npm install --save-dev gulp-file-include
npm install --save-dev gulp-sass
npm install --save-dev gulp-minify-html
npm install --save-dev gulp-minify-css
npm install --save-dev gulp-uglify
npm install --save-dev browserify
npm install --save-dev through2
npm install --save-dev vinyl-buffer
npm install --save-dev vinyl-source-stream
```

