



GRUNT, YO, & OTHER PRIMAL SOUNDS

KEYHOLE SOFTWARE LLC

SAY WHAT?

- ☐ WITH THE JAVASCRIPT "MOVEMENT", APPROACH & TOOLING IS CHANGING IN THE ENTERPRISE, BUT THE NEED FOR DEPENDABLE, REPEATABLE PROCESS IS NOT
- ☐ WE NEED STANDARD (WIDELY-ACCEPTED) APPROACHES FOR:
 - ☐ PROJECT SCAFFOLDING
 - ☐ DEPENDENCY MANAGEMENT
 - ☐ UNIT / FUNCTIONAL TESTING
 - ☐ PACKAGING / COMPRESSION / OPTIMIZATION
 - ☐ RELEASE MANAGEMENT
 - ☐ ETC.

WHAT “TOOLS” ARE WE TALKING ABOUT?

- ☐ NODE.JS
- ☐ GRUNT
- ☐ BOWER
- ☐ YEOMAN



The Node.js logo, which consists of a stylized blue wave with a white 'K' shape in the center, is positioned behind the text.

NODE.JS

WHAT IS NODE.JS

- ☐ IT'S JAVASCRIPT, OUTSIDE THE BROWSER!
- ☐ A PACKAGED RUNTIME IMPLEMENTATION OF V8 (CHROMES JS ENGINE)
- ☐ AND A LIBRARY OF "MODULES" THAT PROVIDE USEFUL FEATURES

WHY NODE.JS?

- ☐ FAST - IN FACT, ULTRA-FAST!
- ☐ NON-BLOCKING, EVENT DRIVEN I/O
- ☐ MUCH MORE MEMORY EFFICIENT THAN THREAD-BASED STACKS
- ☐ NO DEAD-LOCKS!!!!
- ☐ ALLOWS FOR SAME TECHNOLOGIES TO BE USED ON THE CLIENT, THE SERVER, AND AT DEVELOPMENT TIME

WHAT ABOUT THESE “MODULES” YOU SPOKE OF?

- ☐ NODE.JS HAS A GROWING LIBRARY OF “NODE PACKAGED MODULES” (NPMS)
- ☐ NODE.JS SHIPS WITH A RUNTIME ENGINE FOR MANAGING THESE NPMS CALLED, CONVENIENTLY ENOUGH “NPM”
- ☐ NPM CAN BE USED TO:
 - ☐ INSTALL/UNINSTALL MODULES
 - ☐ LIST INSTALLED MODULES & THEIR VERSIONS
 - ☐ GOBS OF OTHER USEFUL OPERATIONS - SEE DOCS

PACKAGE CONFIGURATION

- ☐ DONE VIA PACKAGE.JSON FILE
 - ☐ DEFINES PACKAGE DETAILS & CONFIGURATION
 - ☐ SPECIFIES DEPENDENCIES (RUNTIME & DEVELOPMENT)

INSTALLING NODE PACKAGES

- ☐ INSTALL AS A RUNTIME DEPENDENCY

```
npm install <name>[@<version>] --save
```

- ☐ INSTALL AS A DEVELOPMENT DEPENDENCY

```
npm install <name>[@<version>] --save-dev
```

- ☐ INSTALL W/O REGISTERING IN PACKAGE.JSON

```
npm install <name>[@<version>]
```



BOWER

WHAT IS BOWER?

- ☐ A PACKAGE MANAGER, BUILT BY TWITTER
- ☐ UN-OPINIONATED API
- ☐ RUNS OVER GIT
- ☐ CAN MANAGE PACKAGES OF ANY TYPE OF ASSET

WHY BOWER?

- ☐ FOR MANAGING LIBRARY DEPENDENCIES (JS, CSS, ETC.)
- ☐ PROVIDES A COMMON STRUCTURE AND API IN THE DEPENDENCY MANAGEMENT SPACE
- ☐ HAS GROWING "REGISTRY" OF MANAGED PACKAGES
- ☐ CAN RESOLVE PACKAGES DIRECTLY FROM GIT (REMOTE OR LOCAL CLONE)

INSTALLING BOWER

- ☐ INSTALLED VIA NPM
- ☐ CAN (SHOULD) INSTALL GLOBALLY VIA

`npm install -g bower`

RUNTIME CONFIGURATION

- ☐ CONFIGURED VIA JSON IN A .BOWERRC FILE
- ☐ FOR GLOBAL CONFIG, DEFINE IT IN ~/.BOWERRC
- ☐ FOR LOCAL (PROJECT) CONFIG, DEFINE IT IN PROJECT ROOT DIR
- ☐ IF BOTH PRESENT, THEN BOWER WILL COMBINE (W/ LOCAL TAKING PRECEDENT)

.BOWERRC OPTIONS

- ☐ DIRECTORY :: THE DEFAULT DIRECTORY TO INSTALL PACKAGED COMPONENTS INTO
- ☐ ENDPOINT :: TO A "CUSTOM" REGISTRY
- ☐ JSON :: THE DEFAULT JSON FILE FOR BOWER TO USE WHEN RESOLVING DEPENDENCIES
- ☐ SEARCHPATH :: AN ARRAY OF ADDITIONAL URLS TO (READ-ONLY) BOWER REGISTRIES
- ☐ SHORTHAND_RESOLVER :: DEFINE A CUSTOM TEMPLATE FOR SHORTHAND PACKAGE NAMES

EXAMPLE .BOWERRC

```
{  
  "directory": "src/js/components",  
  "endpoint": "https://bower.keyholesoftware.com",  
  "json": "bower.json",  
  "searchpath": [  
    "https://bower.someotherserver.com"  
  ],  
  "shorthand_resolver": "https://github.com/in-the-keyhole/{{{package}}}.git"  
}
```


DEPENDENCY CONFIGURATION

- ☐ CONFIGURED VIA JSON FILE (DEFAULTS TO BOWER.JSON)
- ☐ SPECIFIES LIBRARY DEPENDENCIES VIA NAME / SEMVER

```
{  
  "name": "example-app",  
  "version": "1.0.0-SNAPSHOT",  
  "dependencies": {  
    "underscore" : "~1.4.4",  
    "backbone.marionette" : "~1.0.3"  
  }  
}
```



GRUNT

WHAT IS GRUNT?

- ☐ A TASK RUNNER - POWERED BY JAVASCRIPT
- ☐ ENABLES EASY AUTOMATION OF REPETITIVE TASKS THAT COMMONLY OCCUR IN JAVASCRIPT DEVELOPMENT

WHY GRUNT?

- ☐ EASE OF USE - MINIMAL EFFORT TO AUTOMATE COMMON TASKS
- ☐ HUNDREDS OF PRE-BUILT TASK "PLUGINS"
- ☐ GROWING ECO-SYSTEM
- ☐ VERY EASY TO CREATE YOUR OWN CUSTOM TASKS AND/OR PLUGINS

INSTALLING GRUNT

- ☐ INSTALLED VIA NPM

- ☐ SHOULD INSTALL GLOBALLY VIA

`npm install -g grunt-cli`

- ☐ THIS ONLY PUTS THE GRUNT COMMAND ON YOUR SYSTEM PATH...IT DOES NOT INSTALL THE GRUNT TASK RUNNER

- ☐ THE CLI WILL RUN THE TASK RUNNER FOUND IN THE LOCAL DIRECTORY, NEXT TO THE GRUNTFILE.JS

- ☐ THIS ALLOWS FOR MULTIPLE VERSIONS OF GRUNT TO BE INSTALLED ON A SINGLE MACHINE

RUNNING GRUNT

- ☐ REQUIRES A RUNTIMEJS FILE NAMED GRUNTFILE.JS
- ☐ THIS FILE SHOULD BE PLACED IN THE PROJECTS ROOT DIR
- ☐ AS MENTIONED BEFORE, GRUNT MUST BE INSTALLED LOCALLY
- ☐ WE TYPICALLY USE NPM, AND PACKAGE.JSON STANDARD FOR THIS

```
npm install grunt --save-dev
```

- ☐ GRUNT CAN SIMPLY BE RUN VIA COMMAND LINE

```
grunt <task>
```


HOW TO INSTALL GRUNT PLUGINS

- GRUNT PLUGINS ARE INSTALLED IN THE SAME MANNER...USING NPM

```
npm install <name>[@<version>] --save-dev
```