NPM

Introduction

Npm is the package manager that comes preinstalled with the Node.js server platform. It is used to install node programs from the npm registry. In short, it is a tool that aids a developer as they install and manager third party node programs.

Installing npm

Installing npm is simple, given that it is automatically installed when you install NodeJS.

```
1   # the verison of NodeJS
2   npm --v or npm –version
```

Understanding package.json

The package.json file goes in the root of your package. It tells npm how your package is structured, and what to do to install it.

Most of the time, you only need the "name", "version", and "main" fields (even for node-waf compiled addons).

Some used fields in package.json

- name
- version
- description
- main
- keywords
- author & contributors
- dependencies
- devDependencies
- engines
- scripts

It will probably look like this:

bower.json

```
1   {
2     "name": "example",
3     "version": "0.0.0",
4     "description": "example project",
5     "main": "index.js",
6     "devDependencies": {
7       ...
8     },
9     "engines": {
10      "node": ">=0.10.0"
11    },
12    "scripts": {
13      ...
14    },
15    "author": "hmchung",
16    "license": "..."
17  }
```

Where to find Packages?

- https://www.npmjs.org/

Where to find npm documentation?

1. You can find a project readme at https://npmjs.org/doc/README.html
2. Using the help command, we can view a summary of npm commands.

```
1    npm help
```

Installing Packages

You probably got npm because you want to install stuff. That's what package managers do, they install stuff.

Any package can be installed by using:

```
1    npm install <package name>
2    npm install <tarball file>
3    npm install <tarball url>
4
5    # Install a package globally
6    npm install -g <package name>
```

Searching Packages

1. Online you can search for npm packeges at https://npmjs.org/
2. The command line you can search the registry by using the following command.

```
1    npm search <package name>
```

Writing Packages

Installing Yeoman - The workflow Tool to create scaffolding

Showing things
Command Prompt

```
1    # The npm ls command shows what's on your system, and also what's available in the
2    registry.
3    # The arguments are beautifully colored greps.
     npm ls
```

Updating Packages

The update command does a few things.

1. Search the registry for new versions of all the packages installed.
2. If there's a newer version, then install it.
3. Point dependent packages at the new version, if it satisfies their dependency.
4. Remove the old versions, if no other package names them as a dependency

```
1    npm update
```

Development

The link command symlinks a package folder into your system, so that changes are automatically reflected. It also installs the "dependencies" and "devDependencies" packages from your package.json file.

```
1    npm link
```

Publishing Packages

```
1    # Add your programs to this index
2    npm publish
```

Resources

1. https://www.npmjs.org/

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