Drush Make Driven Development

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Intro

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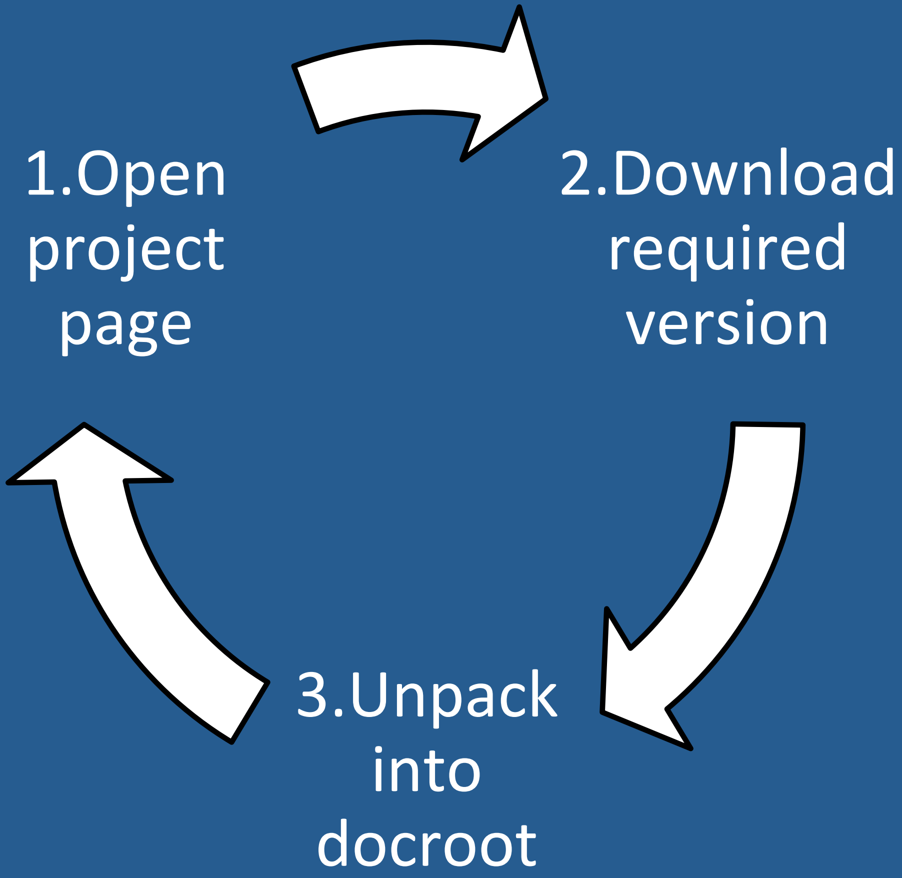
  - Sr. Solutions Architect
  - BlinkReaction is where I have been doing Drupal for the past 7 years

HOW DO WE START BUILDING A NEW DRUPAL SITE?

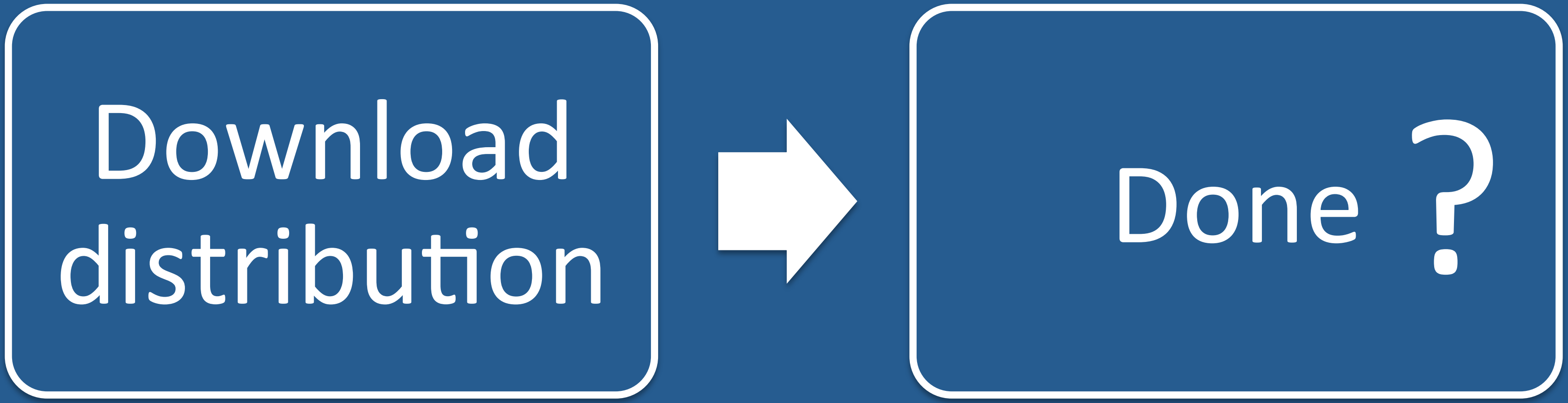
Starting up from scratch



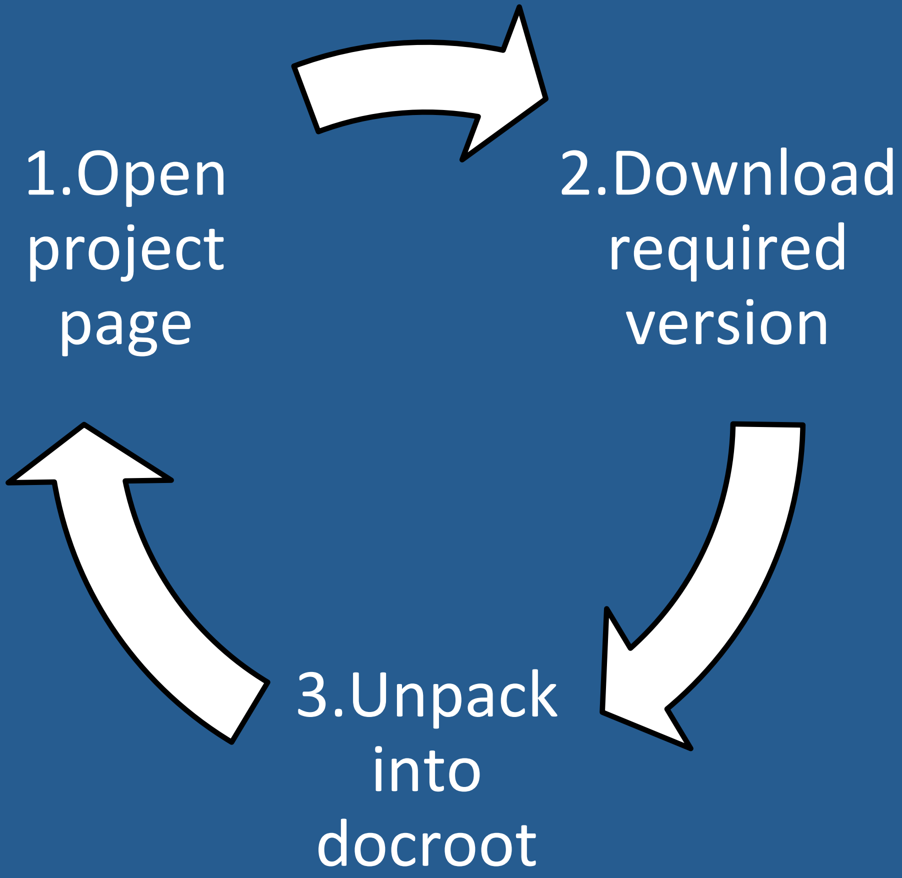
Maybe use Drush?

```
drush dl <project name>
```

Starting up from a distribution



Not really...


1.Open project page
2.Download required version
3.Unpack into docroot

Even with “drush dl”…

drush dl <project name>

Custom distribution?

- How easy is that?

DRUPAL DISTRIBUTIONS

What are distributions?

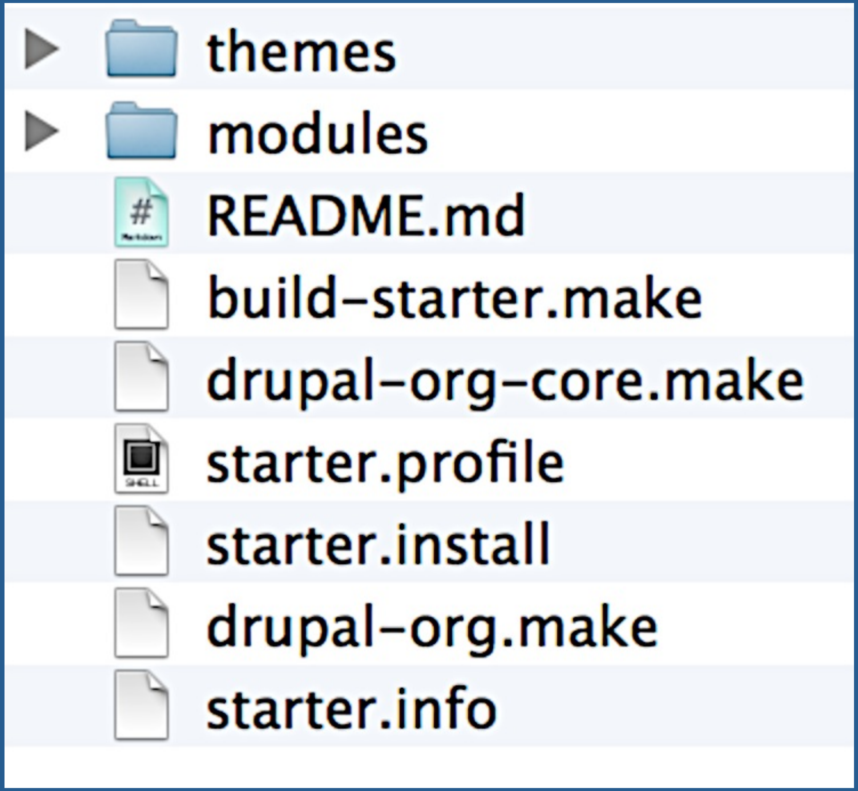
- Distributions are full copies of Drupal that include:
  - Drupal Core
  - themes, modules, libraries
  - **installation profiles**

What are installation profiles?

- They define installation steps (such as enabling modules, defining content types, etc.) that run after Drupal's base installation when you first install Drupal.
- Drupal core comes bundled with 3 installation profiles (standard, minimal, testing)
- May require non-core **dependencies** (modules, themes, or libraries)

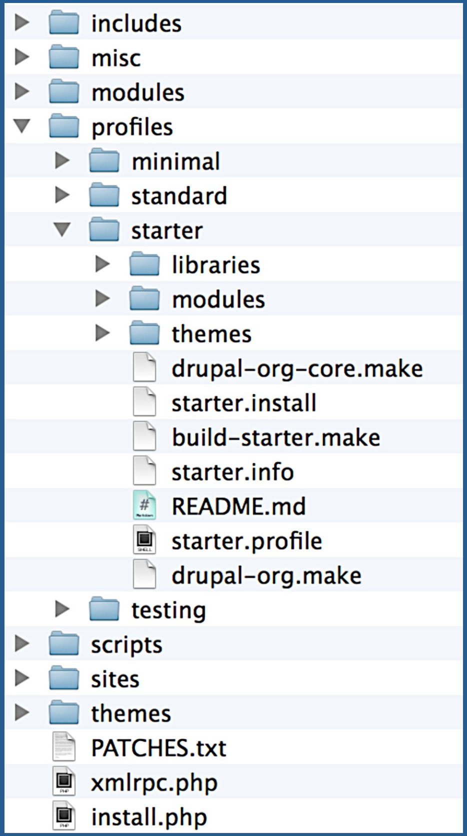
Distributions vs installation profiles

Installation profile



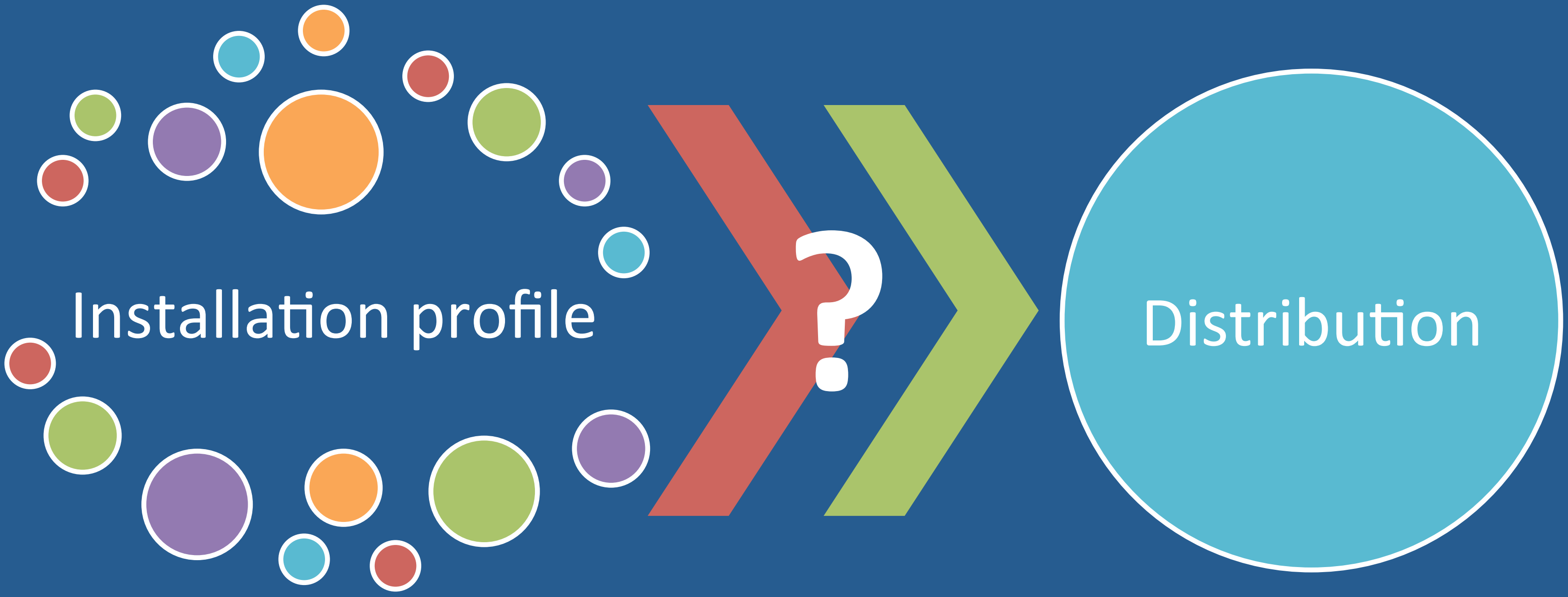
```
▶ themes
▶ modules
  README.md
  build-starter.make
  drupal-org-core.make
  starter.profile
  starter.install
  drupal-org.make
  starter.info
```

Distribution

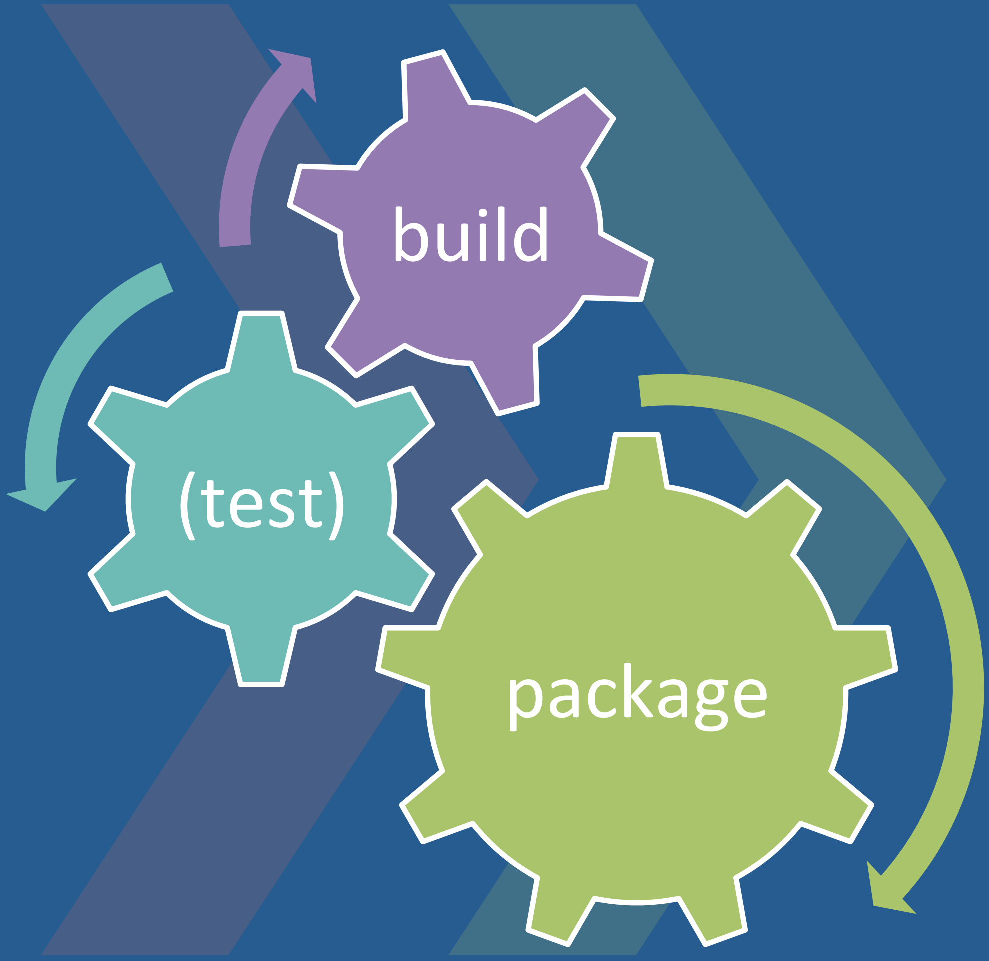


```
▶ includes
▶ misc
▶ modules
▼ profiles
    ▶ minimal
    ▶ standard
    ▼ starter
        ▶ libraries
        ▶ modules
        ▶ themes
          drupal-org-core.make
          starter.install
          build-starter.make
          starter.info
          README.md
          starter.profile
          drupal-org.make
    ▶ testing
▶ scripts
▶ sites
▶ themes
  PATCHES.txt
  xmlrpc.php
  install.php
```

How does an installation profile become a distribution?



Build and packaging scripts



(powered by **Drush Make**)

DRUSH MAKE

What is Drush Make?

- An extension to Drush included as of Drush version 5.
- A tool for assembling all the dependencies needed for an installation profile to work as a full Drupal website.
- The central tool used for packaging distributions on Drupal.org.

What can Drush Make do?

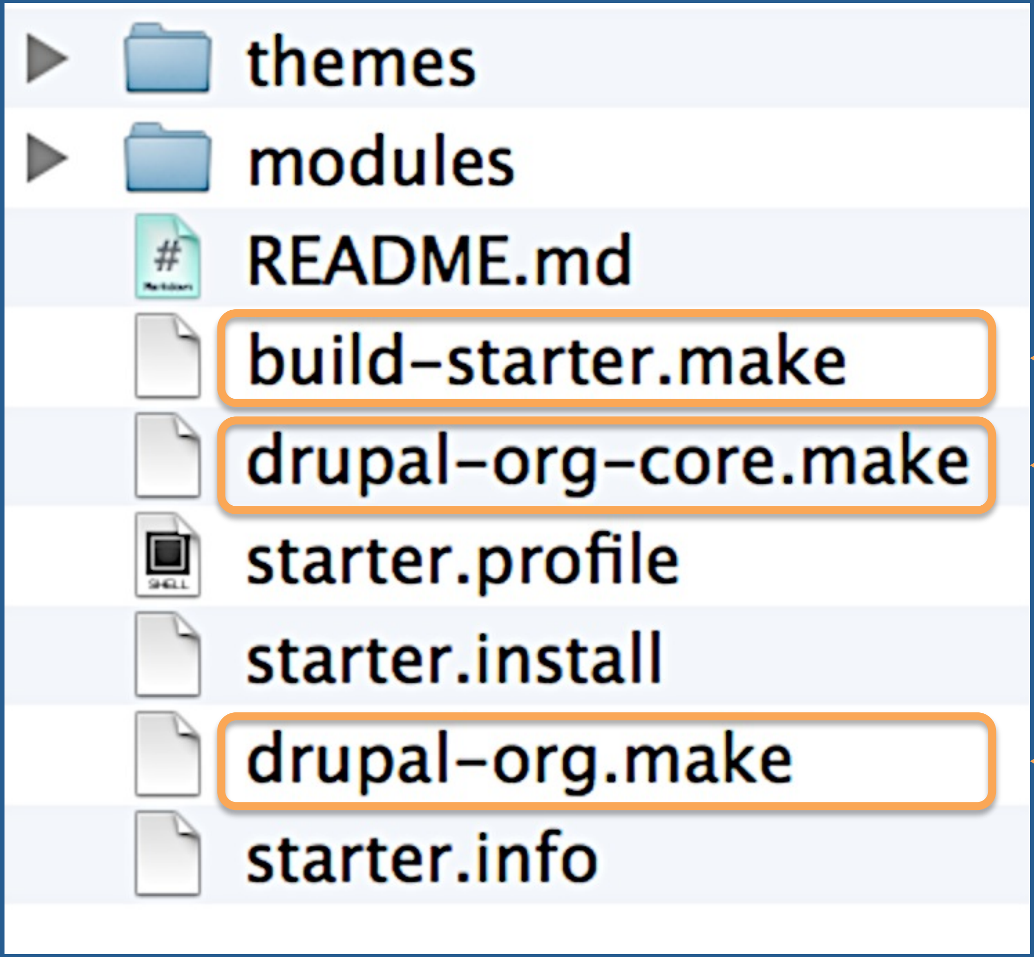
- Can put together a complete Drupal docroot by pulling sources from various locations.
- It does this by parsing a flat text file (similar to a drupal `.info` file) and downloading the sources the file describes.
- It is possible to distribute a complicated Drupal distribution as a single text file.

Drush Make features

- Downloading Drupal core, as well as contrib project from drupal.org.
- Checking code out from SVN, Git, and Bzr repositories.
- Getting plain .tar.gz and .zip files (particularly useful for libraries that can not be distributed directly with Drupal core or modules).
- Fetching and applying patches.
- Fetching modules, themes, and installation profiles, but also external libraries.

MAKE FILES

.make files



themes
modules
README.md
build-starter.make
drupal-org-core.make
starter.profile
starter.install
drupal-org.make
starter.info

distro make file

core make file

contrib make file

drupal-org-core.make

- Used to define core version and any patches to Drupal core.
- Used to point to a -dev release, or a specific Git revision of the core.
- This file is optional.

drupal-org-core.make

```
api = 2
core = 7.x

; Drupal Core
projects[drupal][version] = 7.23

; Patches for Core
projects[drupal][patch][] = http://drupal.org/files/issues/install-redirect-on-empty-database-728702-36.patch
projects[drupal][patch][] = http://drupal.org/files/drupal-1470656-14.patch
```

drupal-org.make

- Defines all of the contributed modules, themes, and 3rd party libraries required by the installation profile.

drupal-org.make

```
api = 2
core = 7.x

; Modules
projects[libraries][version] = 2.1
projects[wysiwyg][version] = ""

; Themes
projects[shiny][version] = ""

; Libraries
libraries[ckeditor][download][type] = get
libraries[ckeditor][download][url] = http://download.cksource.com/CKEditor/
CKEditor/CKEditor%204.2/ckeditor_4.2_standard.zip
libraries[ckeditor][destination] = libraries
```

build-[distro].make

- This one is a little tricky…

build-[distro].make

- This file is used to build a fully functional docroot that includes:
  - core
  - the installation profile code itself
  - all of the contrib dependencies
- It utilizes the recursive nature of Drush Make.

build-[distro].make

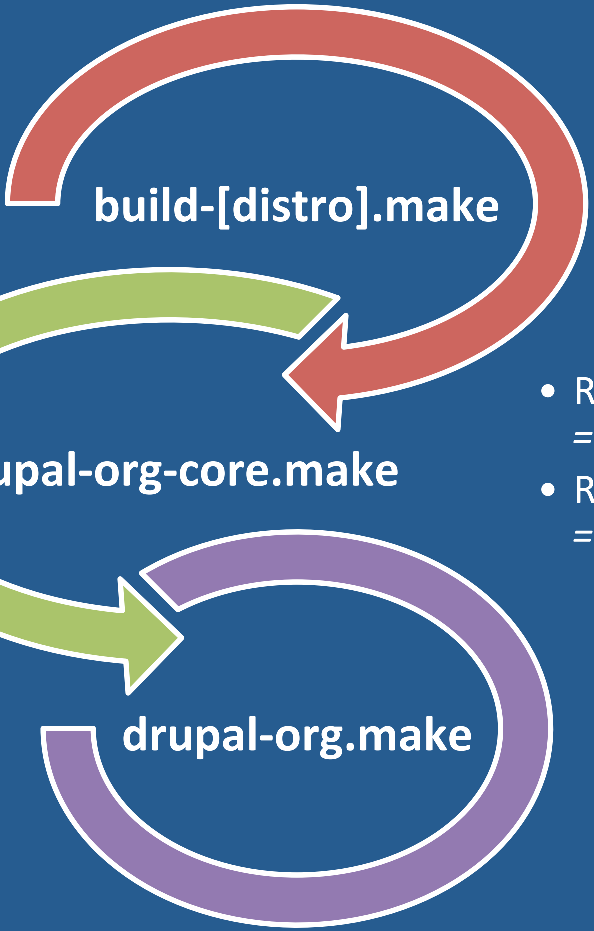
```
api = 2
core = 7.x

; Drupal Core
includes[] = https://raw.github.com/blinkreaction/drupal-starter-distro/
master/drupal-org-core.make

; Installation Profile
projects[starter][type] = profile
projects[starter][subdir] = ""
projects[starter][download][type] = git
projects[starter][download][url] = https://github.com/blinkreaction/drupal-
starter-distro.git
projects[starter][download][branch] = master
```

Huh?

- Yeah, I know…

BUILD PROCESS

Build process



- Reference to **drupal-org-core.make**
  => Processing…
- Reference to **installation profile (self)**
  => Downloading…
  => Recursively building drupal-org.make…

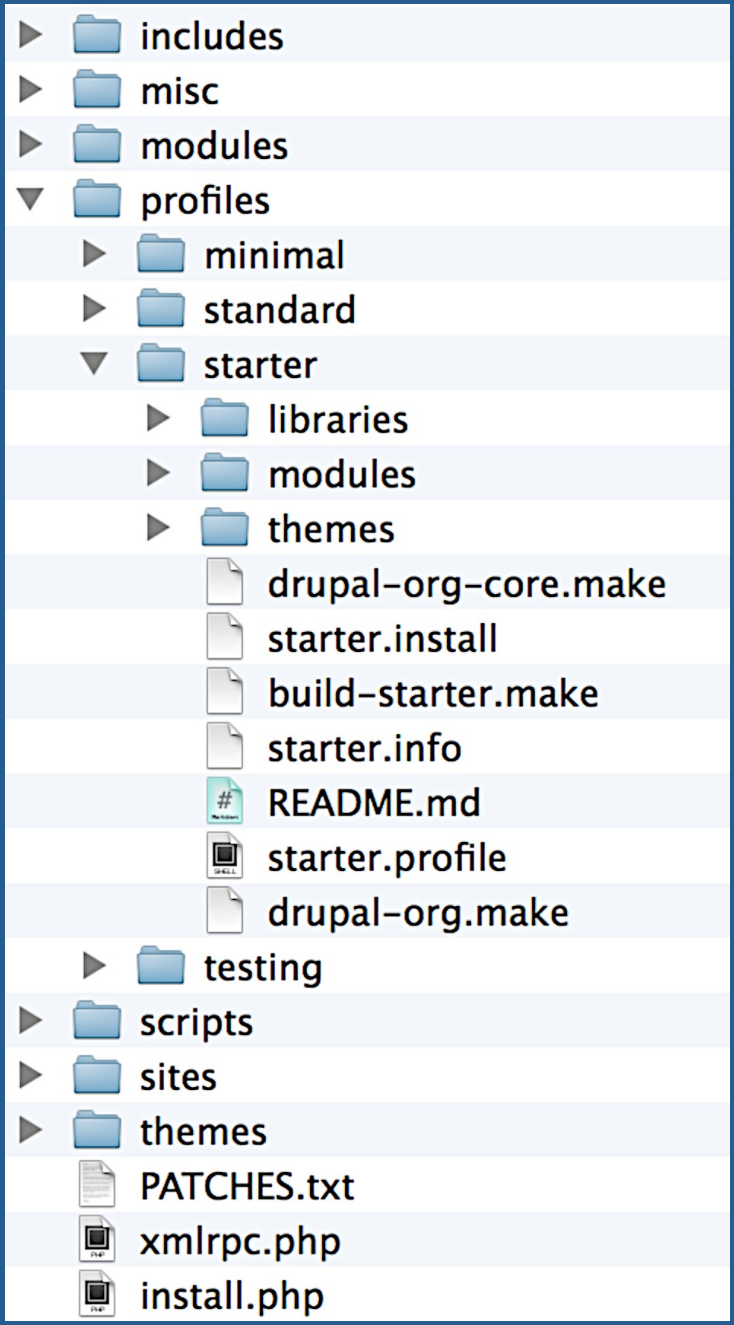
- Reference to a particular **core** version
  => Downloading…
- References to **core patches**
  => Downloading and applying…

- References to **contribs**
  => Downloading…
- References to **contrib patches**
  => Downloading and applying…

Build results

Fully functional docroot:

- core
- installation profile
- contrib dependencies



```
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    ▶ testing
▶ scripts
▶ sites
▶ themes
  PATCHES.txt
  xmlrpc.php
  install.php
```

DRUSH MAKE EXAMPLES

Drush Make examples

- A complete distro build
  drush make build-[distro].make ./docroot
- A core only build
  drush make drupal-org-core.make ./docroot
- A contribs only build
  drush make --no-core build-[distro].make ./docroot

Questions so far?

Drush Make driven development

DMDD

DMDD process

- Site is developed as an installation profile
  - any custom code goes into the profile.
- All external dependencies and patches are defined in the make files.
- Installation profile is the only thing stored in the project repo (no external dependencies are committed).

How to DMDD (tools)

- Drush (do-it-yourself)
  https://github.com/drush-ops/drush
- Kraftwagen
  http://kraftwagen.org/
- Drush DMDD extension (WIP)

DMDD pre-requirements

- A structured repository
  - https://github.com/blinkreaction/drupal-starter-repo
- Tools
  - Drush 6
  - Drush DMDD extension

Drush DMDD extension

- Provides Drush command wrappers to Drush Make.
- Can initialize a docroot (clean build).
- Can build and rebuild core and contribs.
- Makes certain assumptions about the repo structure (template repo).

DMDD workflow

- Clone the template repo
- Initialize docroot (**drush dmdd init**)
- Do something. E.g.:
  - add a new contrib in drupal-org.make
  - update core version in drupal-org-core.make
  - apply a patch
- Build (**drush dmdd core|contrib|all**).
- Watch Drush Make working.

DMDD extension in action

DEMO TIME

Who is DMDD for?

- Anyone!

Who is DMDD for?

- Individual developers:
  - Manage core and contrib dependencies in an organized fashion
  - Manage patches in a single place, versioned and documented
  - Have a quick high level overview of the dependencies and versions
  - Simplify the upgrade process

Who is DMDD for?

- Enterprise:
  - Have a single starting point for every site - **the Platform.**
  - Maintain a hierarchy of **platforms and sub-platforms**.
  - Perform platform updates in a managed fashion.
  - Do Continuous Integration.
    - (you have to anyway)

What’s next?

- DMDD adoption as a package/dependency management best practice for any Drupal project (similar to what **npm** does for **nodejs** or **Composer** does for **PHP**).
- Better tools integrated into Drush and Drush Make for making this happen.
- A possible alternative - switch Drupal contribs to **Composer. (?)**

Questions?

Thank you

See you at the After Party!