

# MANAGING DRUPAL WITH COMPOSER AND GIT AND DRUSH

Bill Seremetis (bserem) - Drupal Implementor  
Vasilis Papoutsakis (Zekvyrin) - Back-End Developer

# WAYS TO MAINTAIN A DRUPAL PROJECT

# BAD WAY

## STILL USABLE TODAY

1. Get the zip file
2. Extract it and upload with ftp
3. Install
4. Get a module/theme zip file
5. Go to step #1. Repeat.

*I just hope it is SFTP*

## OK WAY

1. Use SSH instead of FTP.
2. Install Drush, get Drupal code with `drush dl`

*Well... at least you use SSH.*

## OK IMPROVED

1. Add **everything** in a Git repo.

*Hurray! You have an ugly git history, but you have a history!*

# REALLY NICE WAY

## VALID UNTIL D7

Use SSH+Drush and manage your **custom code** with Git:

1. Ignore all Drupal Core+Contrib code
2. Use a **drush makefile**
3. Do whatever you think of about third-party libraries... (ssh and unzip and track with git)

*Congratulations! This is probably the best way to manage a D6/D7 site. It is good, it uses all best practices and it works.  
Period.*

**ENTER COMPOSER**

**DRUPAL IS OFF THE ISLAND!**

# COMPOSER

## WHAT EVERYBODY ELSE WAS USING FOR YEARS

- Package manager for PHP
- For packages! Not extensions
- Can handle dependencies of third-party packages

Drupal acted smart and adopted composer in D8.

It was, mostly, a good thing...

# HOW TO USE COMPOSER

1. Install composer (<https://getcomposer.org/>)
2. Create your Drupal codebase using [drupal-composer/drupal-project](https://drupal-composer/drupal-project)
3. Add contrib modules/themes
4. Do your Drupal work

Note: the above method is not suitable for core development.

# COMPOSER-PROJECT

- Github: <https://github.com/drupal-composer/drupal-project>
- Recommended by drupal.org
- Downloads Drupal code + dependencies
- Also downloads Drupal Console & Drush locally
- Manages patches

```
composer create-project drupal-composer/drupal-  
project:8.x-dev <directory> --stability dev --  
no-interaction
```

# STARTING A NEW PROJECT

## STEPS TO BE DONE BY THE FIRST DEVELOPER

- Download and install Drupal (`drush site:install`)
- Export configuration (`drush config:export`)
- Commit and push to Git repository

Other developers can now join (clone and get db)

# INSTALL FROM AN EXISTING CONFIG (D8.6+)

```
$ drush site:install --existing-config
```

- Requires Drupal 8.6+ and Drush 9.4+
- Works for specific profiles like minimal (not standard yet).  
Work in progress!
- Alternatives: config\_installer module, dump & share initial database

# ADDING A MODULE

```
composer require drupal/<modulename>
```

```
composer require drupal/<modulename>:<version>
```

## ADDING A DEV-ONLY MODULE

```
composer require --dev drupal/devel
```

*Use this with `config split` or CMI2 once it is released*

# IDENTIFY OUTDATED CODE

```
composer outdated drupal/*
```

What used to be `drush ups`

# UPDATE CORE

```
composer update drupal/core webflo/drupal-core-  
require-dev --with-dependencies
```

Don't ask why... just do it :)

# UPDATE A MODULE

```
composer update --with-dependencies  
drupal/<modulename>
```

# REMOVE A MODULE

```
composer remove drupal/<modulename>
```

*If the module was added with `--dev` flag, you might get a prompt to confirm the removal from require-dev*

# PATCHES

Composer project comes with composer-patches

```
"extra": {
  "patches": {
    "drupal/pdf": {
      "library adjust weight": "https://www.drupal.org/files/issues/2019-01-09/3024877-2-adjust-"
    },
  }
}
```

# LOCK HASH WARNINGS

well.. sometimes hash on composer.lock isn't correct and will throw warnings.

```
composer update --lock
```

(will just update hash and nothing else)

# GIT

Use the default `.gitignore` provided by drupal-project.

# WHAT SHOULD BE COMMITTED

- composer.json and composer.lock
- configuration folder (def: `./config`)
- any custom code: `./web/modules/custom`  
`./web/themes/custom`

# WHAT SHOULDN'T BE COMMITTED

- Vendor folder `./vendor`
- Drupal Core `./web/core`
- Contrib modules (`./web/modules/contrib`) or themes (`./web/themes/contrib`)

# COMMON PITFALLS

- Always `import` first and then work and export
- Avoid installing dev-dependencies on production
- Do not run `composer update`

# DEPLOY TO PRODUCTION

**Don't run Composer require or update on the production server!**

- Ideally rsync/copy files from somewhere else.
- If you can't do otherwise, run with warm caches.
- Lock the DB!

# WORTH KNOWING

- Drupal Composer Project comes with drush 9 and drupal console by default.
- Drush 9 is installed on a per-project level. Not a system level.
- You need to add `drush-launcher` in your binaries so as to locate and use the proper drush.
- Most third-party php libraries will be downloaded automatically
- For non-php assets you can use `https://asset-packagist.org/`

# DEV ONLY CONFIG

Common approach: `config_split` allows you to split some configuration and enable/disable them per environment  
For example having `devel` active only on dev, or `reroute_email` activated anywhere but on production

```
$config['config_split.config_split.dev']['status'] = TRUE;
```

Alternative:

```
drush cex --skip-modules=devel,reroute_email  
drush cim --skip-modules=devel,reroute_email
```

# CONFIGURATION SYNC

- Export config with `drush cex`
- Add all files or selectively (ex: the view you just worked)
- Commit
- Import on other instance with `drush cim`

# STRUCTURE SYNC

Allows to export/import taxonomies, blocks, menu links as configuration!

```
drush eb/ib (blocks)
drush et/it (taxonomies)
drush em/im (menu links)
```

# .ENV FILES

```
MYSQL_DATABASE='db_name'  
MYSQL_HOSTNAME='localhost'  
MYSQL_PASSWORD='secret'  
MYSQL_PORT='3306'  
MYSQL_USER='db_user'
```

Change settings.php:

```
$databases['default']['default'] = [  
    'database' => getenv('MYSQL_DATABASE'),  
    ...  
    ...  
    ...
```

# THANKS!

Bill Seremetis (bserem)  
Vasilis Papoutsakis (Zekvyrin)  
[zehnplus.ch](http://zehnplus.ch)