Configuration Management Across Environments

Off-the-shelf Drupal 8 configuration management is too heavy-handed at times. By default, it's challenging to have different configurations in place on each environment.

Scott Weston
Principal Architect at
Bounteous

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https://www.fldrupal.camp

Scott Weston

Architect

Hi, I'm Scott.

Principal Drupal Architect at Bounteous

Working with Drupal since 2007

My pronouns: he, him, his

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We create big-picture digital solutions that help leading companies deliver transformational brand experiences.
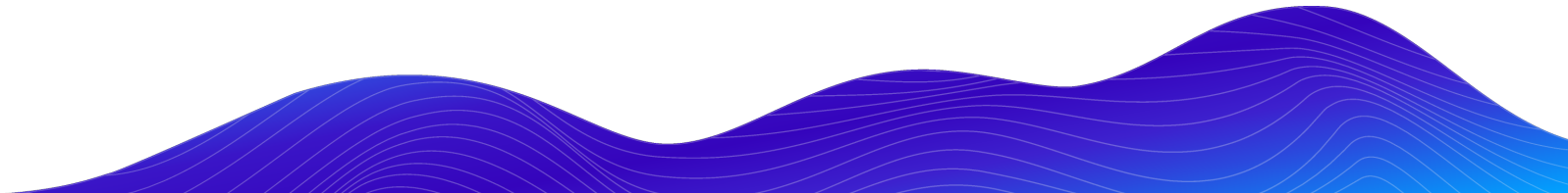
How can you operate environments (Development, Stage, Production) with some different configuration; and maintain sanity?

AGENDA

1. **The Scenario**

2. **The Tools**

3. **The Config MISO**

4. **The Solution**

THE SCENARIO

EXAMPLE ENVIRONMENTAL DIFFERENCES

	Local/Dev	Staging	Production
Devel Module	ON	OFF	OFF
Caching	OFF	ON	ON
Errors	All	Warnings Only	None
Robots.txt	Disallow *	Disallow *	Authorable
DB Logging	ON	ON	OFF
Env Indicator	Green	Yellow	Red
Content Blocks	Ignore	Ignore	Ignore

Tip: Make a spreadsheet to think through/document your config management approach.

THE TOOLS
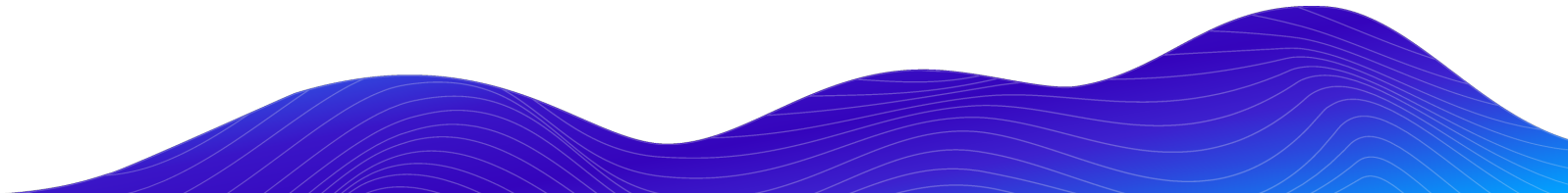
CONTRIBUTED MODULES

Required

- Configuration Ignore (config_ignore)

- Configuration Split (config_split)

- Configuration Filter (config_filter) *

* Split & Ignore need the Config Filter module.

Recommended

🔵 Tip: Chosen (chosen) – Makes select boxes on config forms easier to use. Needs Chosen jQuery library.

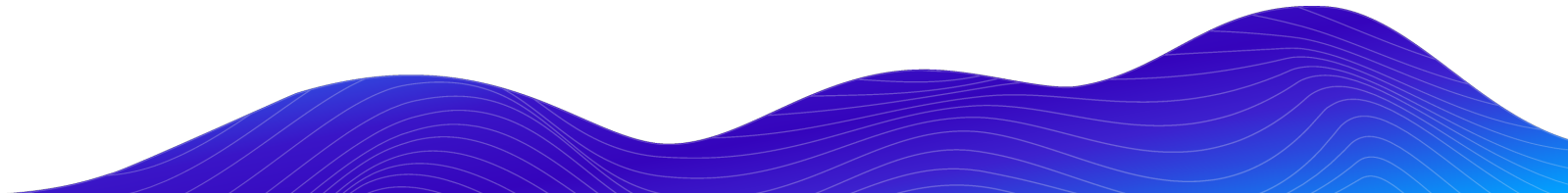- Webform Config Ignore (webform_config_ignore) – Does not revert config for existing webforms.

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DETERMINE THE ENVIRONMENT

Acquia: `$_ENV['AH_SITE_ENVIRONMENT']` `(dev, test, prod)`

Pantheon: `$_ENV['PANTHEON_ENVIRONMENT']` `(dev, test, live)`

Other: Look for similar value in `$_ENV`, docs, support

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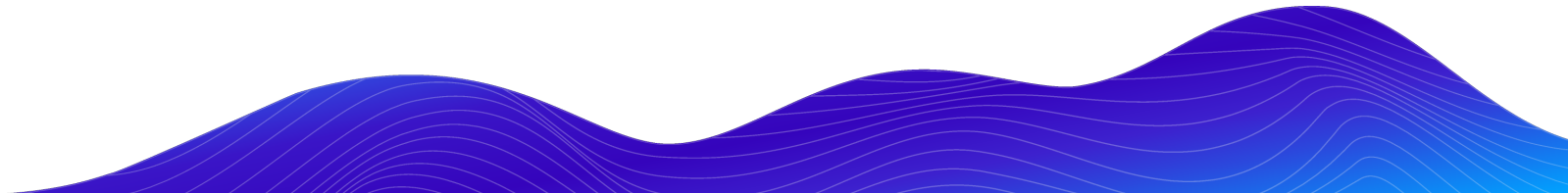# THE CONFIG MISO

M I S O

MANAGEMENT   **IGNORE**   **SPLIT**   **OVERRIDES**

THE CONFIG **M**ISO

CORE CONFIGURATION MANAGEMENT

If it's the same across all environments, let Core Config Management handle it.

```
drush config:export
```

```
drush config:import
```

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THE CONFIG MISO

CONFIGURATION IGNORE

- Use when you don't want **`drush config:import`** to modify specific configurations.

- Can be very specific or use wildcards.

- Config will still be exported, but will not be imported.

Tip: NEVER ignore core.extension or config.ignore.

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THE CONFIG MISO

CONFIGURATION IGNORE EXAMPLES

Block instances used as content components

`block.block.*`

Robotstxt module settings

`robotstxt.settings`

The body copy of the password recovery email

`user.mail.password_reset.body`

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THE CONFIG MI**S**O

CONFIGURATION SPLIT

Use when you have different configurations in one or more environment AND you want to manage via config.

Config Split stores the config yml files of the split in a different directory when running `drush config-split:export`.

A split can either be Active or Inactive.

If Active, the split configuration is imported on `drush config:import`.

Leverage the `$_ENV` environment indicator to activate specific splits per environment.

TWO KINDS OF SPLITS

Complete

Full module's configuration is split into its own directory.

Example: Devel OFF or ON depending on environment.

Conditional

Only certain settings of a module are split into its own directory.

Example: Error/Notice display settings. Full on Dev, hidden on Prod.

THE CONFIG MIS**O**

CONFIGURATION OVERRIDES

Set configuration values in `settings.php`.

These configuration values will be used no matter what active configuration indicates.

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THE CONFIG MISO

CONFIGURATION OVERRIDES EXAMPLES

Robotstxt value for Dev and Stage environments

```
$config['robotstxt.settings']['content'] = "User-agent: *\nDisallow: /\n";
```
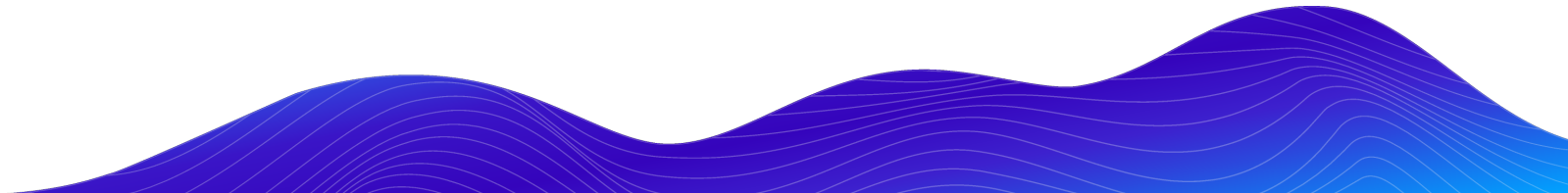
API Keys or IDs which you never want modified:

```
$config['google_tag.settings.container_id'] = "GTM-ABC1234";
```

Which Config Split should be active:

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

THE SOLUTION

EXAMPLE ENVIRONMENTAL DIFFERENCES

	Local/Dev	Staging	Production
S Devel Module	ON	OFF	OFF
S Caching	OFF	ON	ON
S Errors	All	Warnings Only	None
O I Robots.txt	Disallow *	Disallow *	Authorable
S DB Logging	ON	ON	OFF
O Env Indicator	Green	Yellow	Red
I Content Blocks	Ignore	Ignore	Ignore

1. **Configure ignores**

2. **Add `$_ENV` detection and switch to `settings.php`**

3. **Create split directories**

4. **Create config split for environments**

5. **Create overrides**

CONFIGURE IGNORES

1. Enable Config Ignore

2. Navigate to /admin/config/development/ configuration/ignore (a tab on the Config Synchronize pages)

3. Input config to be ignored.

Ignore ☆

| Synchronize | Import | Export | Ignore |

Home » Administration » Configuration » Development » Synchronize

Configuration entity names to ignore

```
robotstxt.settings
block.block.*
```

Tip: The config file name and array structure in the file help identify the string to use for config ignore.

$_ENV DETECT & SWITCH

```php
757
758      // Check for $_ENV['AH_SITE_ENVIRONMENT'] on Acquia.
759     if (isset($_ENV['AH_SITE_ENVIRONMENT'])) {
760        $detected_environment = $_ENV['AH_SITE_ENVIRONMENT'];
761     }
762     else {
763        $detected_environment = 'dev';
764     }
765
```

```php
766
767      // Environment-specific settings.
768     switch ($detected_environment) {
769       case 'dev':
770          // Dev-specific settings.
771          break;
772
773       case 'test':
774          // Stage-specific settings.
775          break;
776
777       case 'prod':
778          // Production-specific settings.
779          break;
780
781     }
782
```

In **`settings.php`,** add detection of
environment and a switch for
environment-specific settings.

CREATE CONFIG SPLIT DIRECTORIES

- Sibling to main sync directory.

- Named for easy identification.

- Make directories before creating the splits.

- Config Split will make `.htaccess` files.
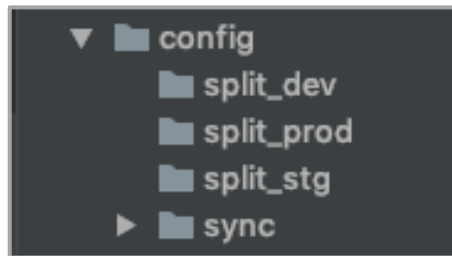
```
scott:/$ cd /path/to/config

scott:config$ mkdir split_dev split_stg split_prod
```

CREATE CONFIG SPLITS (SHOWING PROD HERE)

1. Make sure current config is exported.

2. Artificially set the **$detected_environment** in **settings.php** (**$detected_environment** = `'prod’;`)

3. Cache rebuild (**drush cr**)

4. Config Import to get environment splits. (**drush cim**)

5. Enable modules that you want ON in production (syslog)

6. Make config changes that you want in production (Error Display: None, etc.)

7. Create the split using the config form.

8. Export the split config items (**drush csex production**)

9. Remove **$detected_environment** from Step 1 and then Cache Rebuild

10. Run **drush cim** to get your local config.

CREATE OVERRIDES

1. Add the hard-coded values to **`settings.php`**

2. Colors for Environment Indicator

3. Split turned on in each environment

4. Overrides for robotstxt in Dev and Stage, but not prod

```php
// Environment-specific settings.
switch ($detected_environment) {
  case 'dev':
    // Dev-specific settings.

    // Indicator
    $config['environment_indicator.indicator']['bg_color'] = 'green';
    $config['environment_indicator.indicator']['fg_color'] = 'yellow';
    $config['environment_indicator.indicator']['name'] = 'Dev';

    // Split
    $config['config_split.config_split.development']['status'] = TRUE;

    // Override
    $config['robotstxt.settings']['content'] = "User-agent: *\nDisallow: /\n";
    break;

  case 'test':
    // Stage-specific settings.

    // Indicator
    $config['environment_indicator.indicator']['bg_color'] = 'yellow';
    $config['environment_indicator.indicator']['fg_color'] = '#000000';
    $config['environment_indicator.indicator']['name'] = 'Stage';

    // Split
    $config['config_split.config_split.stage']['status'] = TRUE;

    // Override
    $config['robotstxt.settings']['content'] = "User-agent: *\nDisallow: /\n";
    break;

  case 'prod':
    // Production-specific settings.

    // Indicator
    $config['environment_indicator.indicator']['bg_color'] = 'red';
    $config['environment_indicator.indicator']['fg_color'] = '#000000';
    $config['environment_indicator.indicator']['name'] = 'Production';

    // Split
    $config['config_split.config_split.production']['status'] = TRUE;

    // No Override for robotstxt as that is managed on config form!
    break;
}
```
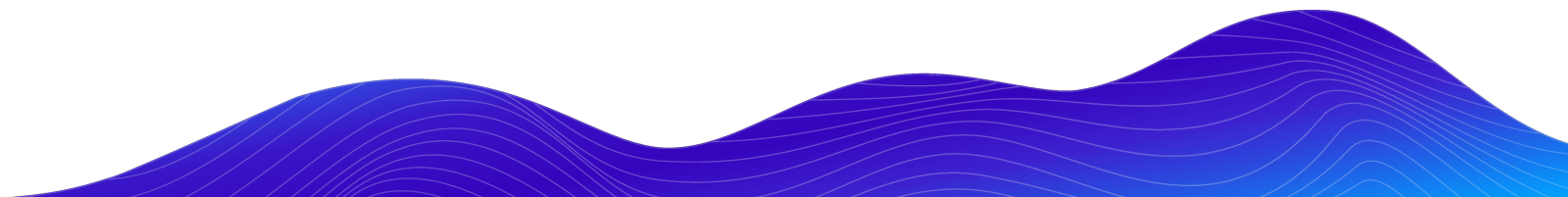
Thank you.

Scott Weston
Principal Architect

Email: scott.weston@bounteous.com