



**KALAMUNA**  
Let's Play.

## FLDC 2017

Debug Drupal with  
Devel, XDEBUG + More



**KALAMUNA**  
Let's Play.

## About Us

Kalamuna makes the Internet for for mission-driven organizations driven to tinker, critique, and change the way things are. We specialize in design, strategy, user experience, and development.

# John Ouellet



Director of Support

I dejank the jankness in your janky websites.



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# I am totes qualified, for realz

- Built first professional website in 1995.
- Began using PHP ~2002.
- CMS domination happened soon thereafter.
- Drupal since about 2009.
  - Active contributor with several modules.



# NOTICE



- I am a little rough around the edges
- I am steadfast in my positions
- I do love you in my own special way

These slides are mostly on how to setup things and stuff.

I will demo a lot of the features throughout the presentation.

# General Debugging Tips

# Quick Stuff on Debugging

## Front End (HTML / CSS)

Use Google Chrome DevTools (f12 to open)

## Front End (JS)

`console.log()` or `alert()` in code

Chrome DevTools - Sources Panel w/ Breakpoints





# Quick Stuff on Debugging

## WSOD

**Put this in at the top of your index.php**

```
error_reporting(E_ALL);  
ini_set('display_errors', TRUE);  
ini_set('display_startup_errors', TRUE);
```



# Quick Stuff on Debugging

## Google your errors:

**Copy and paste the error and edit it to just have the file name with line errors.**

Notice: Trying to get property of non-object in metatag\_views\_post\_render() (line 2116 of metatag.module).

**Other great places to search are:**

Drupal Answers - <http://drupal.stackexchange.com/>

Drupal.org - <http://www.drupal.org>

Drupal API - <http://api.drupal.org/api/drupal>

RTFM

# Drupal 7 Specific Debugging

# D7 Theming Debugging Tips

- Theme Debugging
  - `drush vset theme_debug 1`
  - `$conf['theme_debug'] = TRUE;` in `settings.php`
    - Use chrome inspector to see the fancy green markup
    - <https://www.drupal.org/docs/7/theming/overriding-themeable-output/working-with-template-suggestion>

# Debug D7 with DEVEL

## Devel Module

<https://www.drupal.org/project/devel>

## Search Krumo

[https://www.drupal.org/project/search\\_krumo](https://www.drupal.org/project/search_krumo)

```
ini_set('display_startup_errors', TRUE);
```

```
dargs();
```

```
drupal_set_message();
```

```
dpm();
```

```
ini_set('display_errors', TRUE);
```

```
error_reporting(E_ALL);
```

```
log_errors = 0n
```

```
db_queryd();
```

```
ddebug_backtrace();
```

```
display_errors = 0n
```

```
dd();
```

```
kpr();
```

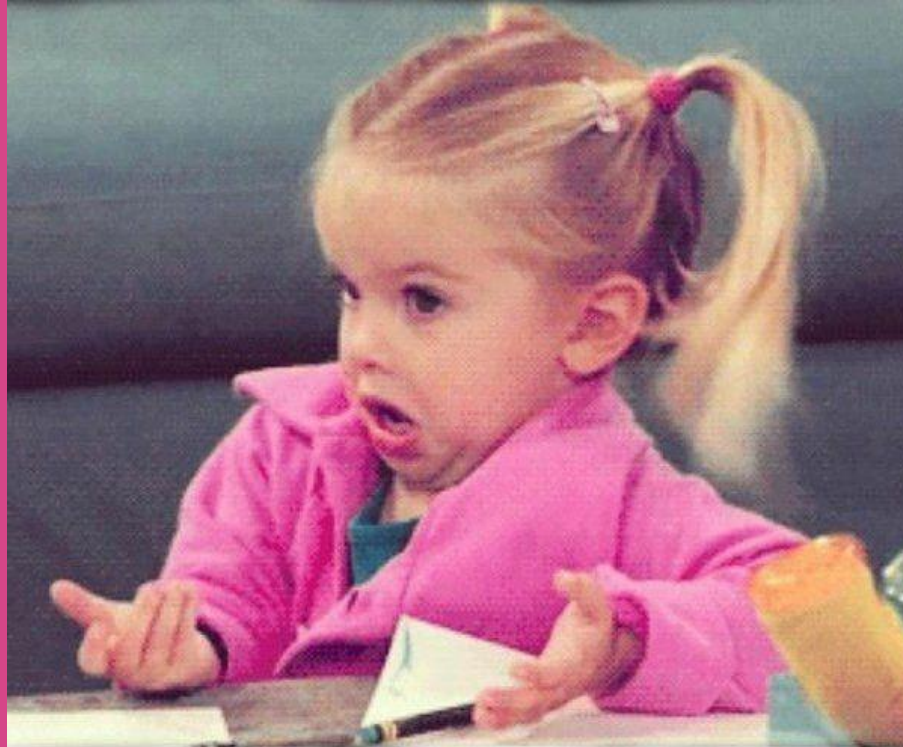
```
dvm();
```



```
views_trace();
```

TOO MANY CHOICES CAN MAKE YOU GO CRAZY!!!!

BUT John, which ones do I use??



Good Question



All you really need is `dpm()`;



# Debug D7 with DEVEL

If you don't care what I have to say, then here is the list of all the devel functions:

<https://api.drupal.org/api/devel/functions>



# Drupal 8 Specific Debugging

# Disable cache via development mode

This is almost required now as D8's caching system can get in the way of some debugging methods.

- You can use this guide: <https://www.drupal.org/node/2598914>
- OR you can use Drupal Console's command:
  - `drupal site:mode dev`

## Devel Module

<https://www.drupal.org/project/devel>

Enable the kint & webprofiler modules as well

To use kint, just put `kint()` in your code.

WARNING: Kint can suck all the memory out of your computer and cause a black hole in your office!



# Debug D8 with DEVEL (Kint)

If Kint gives you problems:

- use the VarDumper module with Devel instead:  
<https://www.drupal.org/project/vardumper>
  - `vdpm($var);`

# Debug D8 with DEVEL (Webprofiler)

- Go to `/admin/config/development/devel/webprofiler`
  - Set the Storage backend to File Storage
  - Check all the options you want
  - Purge the profiles
- Optional: Add in [highlights.js](#) and [d3.js](#)
  - `/libraries/highlight/highlight.pack.js`
  - `/libraries/d3/d3.min.js`
  - Add to `local.settings.php`:

```
$class_loader->addPsr4('Drupal\\webprofiler\\', [__DIR__ . '/../modules/contrib/devel/webprofiler/src']);  
$settings['container_base_class'] = '\\Drupal\\webprofiler\\DependencyInjection\\TraceableContainer';
```



# Twig Debugging in D8

- Best to have the site in Development Mode.
- If not, then you need to change this in services.yml
  - parameters:
    - twig.config:
      - debug: true
- `{{ dump(var) }}`
- Best to use XDebug!
  - [https://www.drupal.org/project/twig\\_xdebug](https://www.drupal.org/project/twig_xdebug)
  - `{{ breakpoint() }}`

# Misc Debugging Tips with Watchdog

## Watchdog

### D7 Version

```
watchdog($variable);
```

```
watchdog('MY_DEBUG', 'message: %msg', array('%msg' => $variable), WATCHDOG_NOTICE);
```

```
watchdog('MY_DEBUG', '<pre>' . print_r($variable, TRUE) . '</pre>');
```

### D8 Version

```
\Drupal::logger('MY_DEBUG')->notice($variable);
```



**ONE RING  
TO RULE THEM ALL**

## BENEFITS

- Platform Agnostic
- Works on any version of PHP now
- Fairly easy to use



# XDEBUG - INSTALL

- IDE of my choice = Sublime
- Does work with other IDE's (Atom, PHPStorm, etc)
- We will be using Sublime
  - <http://www.sublimetext.com/>

# XDEBUG - INSTALL

## **VAGRANT / LAMP / LEMP**

```
sudo apt-get install php-xdebug
```

# XDEBUG - INSTALL

## Add to your php.ini / xdebug.ini

```
zend_extension="/wherever/you/put/it/xdebug.so"
```

```
xdebug.remote_enable = 1
```

```
xdebug.remote_host = "127.0.0.1"
```

```
xdebug.remote_port = 9000
```

```
xdebug.remote_handler = "dbgp"
```

```
xdebug.remote_mode = req
```

```
xdebug.remote_connect_back = 1
```



# XDEBUG - INSTALL

## **Drupal 8 - add to your php.ini**

```
xdebug.max_nesting_level = 256
```

```
xdebug.show_exception_trace = 0
```

```
xdebug.collect_params = 0
```



## **Or Just Use Kalabox 2**

Comes with everything installed!

Easy setup, no devops chops needed

Works with Linux, Mac & Windows

<https://github.com/kalabox/kalabox>

## **You can also use Drupal VM**

Need to config for XDebug

Need to understand YAML files + a little devops know-how

Works with Linux, Mac & Windows

<https://www.drupalvm.com/>

## **SublimeTextXdebug**

<https://github.com/martomo/SublimeTextXdebug>

# XDEBUG - SETUP (SUBLIME PROJECT - VAGRANT)

Create a folder called ~/sublime-projects

Create a file called yoursite.project

Next slide has config

# Sample XDebug .project config for Kalabox

```
{
  "folders":
  [
    {
      "path": "/home/john/Kalabox/sample/code"
    }
  ],
  "settings":
  {
    "xdebug":
    {
      "path_mapping":
      {
        "/code/": "/home/john/Kalabox/sample/code/"
      },
      "port": 9000,
      "super_globals": true,
      "close_on_stop": true,
      "max_children": 64,
      "max_depth": 5,
      "ide_key": "sublime.xdebug",
      "url": "http://sample.kbox.host/"
    }
  }
}
```

# Sample XDebug .project config for DrupalVM

```
{
  "folders":
  [
    {
      "path": "/home/john/Sites/sample"
    }
  ],
  "settings":
  {
    "xdebug":
    {
      "path_mapping":
      {
        "/var/www/sample/": "/home/john/Sites/sample"
      },
      "super_globals": true,
      "close_on_stop": true,
      "max_children": 64,
      "max_depth": 6,
      "port": 9000,
      "url": "http://sample.dvm/"
    }
  }
}
```

# XDEBUG - SUBLIME COMMANDS + ADVICE

- Use a similar variable for testing breakpoint.
  - `$t = 1;`
- Breakpoints don't move when you add or remove code.
  - Always clear breakpoints when setting new ones.
- Add this query to your path to start XDEBUG
  - `?XDEBUG_SESSION_START=sublime.xdebug`

# XDEBUG - SUBLIME COMMANDS + ADVICE

- Start Debugging - Ctrl+Shift+F9 or ⌘+Shift+F9
- Stop Debugging - Ctrl+Shift+F10 or ⌘+Shift+F10
- Step Into - Ctrl+Shift+F7 or ⌘+Shift+F7
- Step Out - Ctrl+Shift+F8 or ⌘+Shift+F8



# YOU ARE READY TO XDEBUG



Show the people!



**Thank You!**

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