



Next Level Plugin Development

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Date

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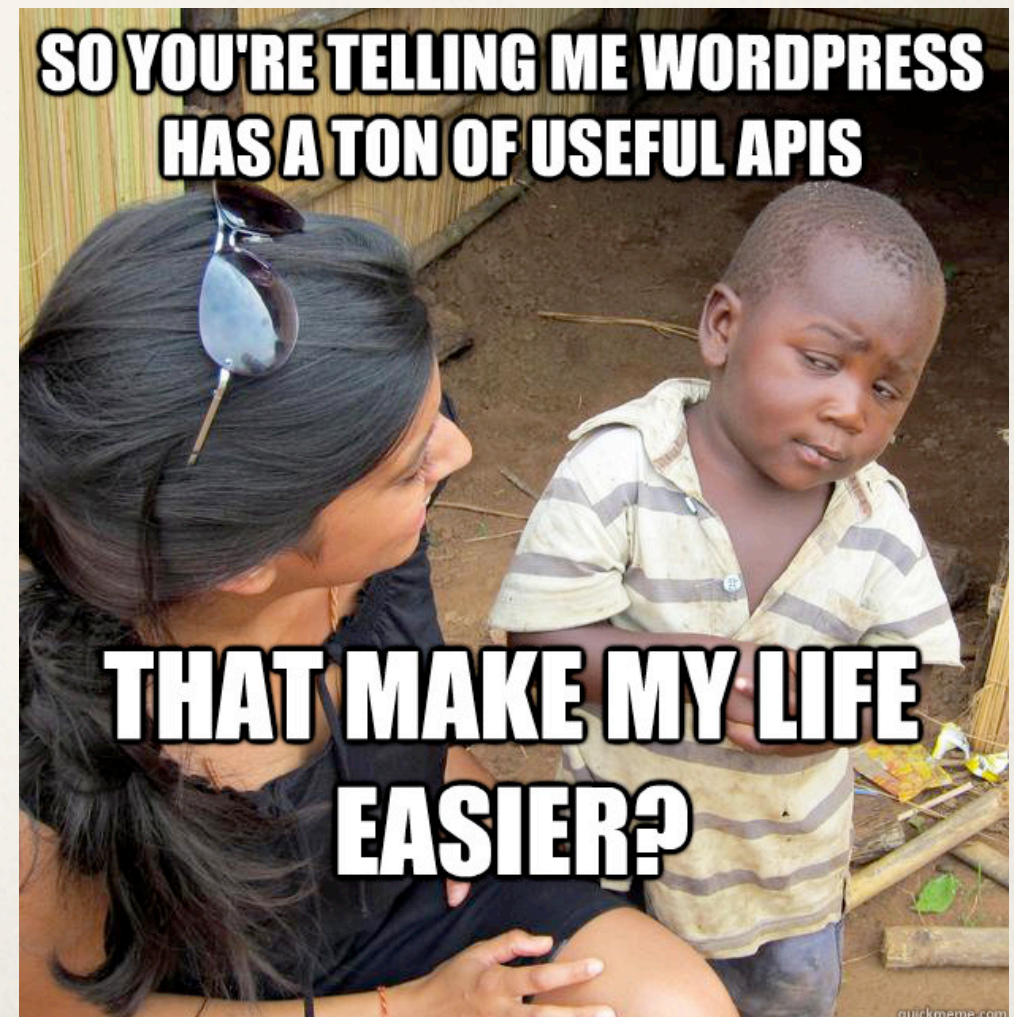


- ❖ Dartmouth, Massachusetts
- ❖ Coding on WordPress for about 7 years
- ❖ Seven plugins (and counting) in the public repo.
- ❖ 2+ Years working on VIP themes.
- ❖ Work for Linchpin in Pawtucket, RI



What I Will Talk About

- ❖ Best practices that will make it easier for you to maintain your plugin.
- ❖ APIs within WordPress that make your job boatloads easier.
- ❖ Things I have found useful that hopefully will help you.



What makes a successful plugin?

- ❖ Works.
- ❖ Doesn't break anything else.
- ❖ Maintainable.
- ❖ Most importantly to me: Other devs can easily alter your plugin's functionality.

Coding Best Practices

- ✧ <http://make.wordpress.org/core/handbook/coding-standards/php/>
- ✧ Some parts of the WordPress code structure for PHP markup are inconsistent in their style. WordPress is working to gradually improve this by helping users maintain a consistent style so the code can become clean and easy to read at a glance.

Plugin API

- ❖ Actions & Filters
- ❖ Actions: allow you to DO something at a given point in WordPress
- ❖ Filters: Allow you to CHANGE something at a given point.



Plugin API

```
function jon_init() {  
    register_post_type( ... );  
}  
add_action( 'init', 'jon_init' );
```


Plugin API

```
function jon_the_title( $title ) {  
    return 'This is a title: ' . $title;  
}  
add_filter( 'the_title', 'jon_the_title' );
```


Plugin API

- ❖ You can also add your own actions & filters.

```
do_action( 'jons_custom_action' );
```

```
function jons_custom_action_function() {  
    if ( $image = get_the_post_thumbnail() )  
        echo '<div class="thumbnail">' . $image . '</div>';  
}  
add_filter( 'jons_custom_action', 'jons_custom_action_function' );
```

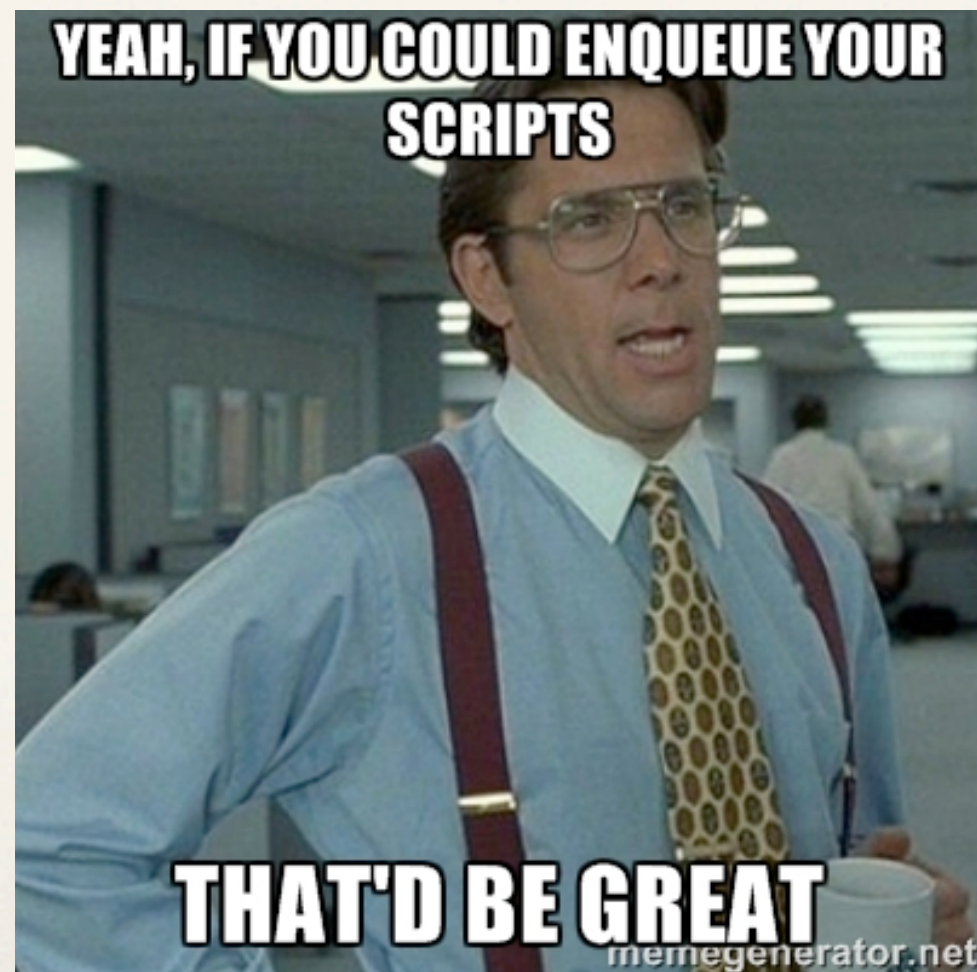

Plugin API

```
$image_types = apply_filters( 'jons_image_filter', array( 'jpg', 'png' ) );
```

```
function jons_image_filter_function( $image_types ) {  
    $image_types[] = 'png';  
  
    return $image_types;  
}  
add_filter( 'jons_image_filter', 'jons_image_filter_function' );
```


Enqueueing JS Files

- ❖ Prevents JS libraries from loading more than once.
- ❖ Allows files to be loaded in the correct order based on dependencies



Enqueueing JS Files

```
function jons_enqueue_scripts() {  
    wp_enqueue_script( 'jons-library', plugins_url( 'js/jons-library.js' , __FILE__ ), array( 'jquery' ), '1.0' );  
}  
add_action( 'wp_enqueue_scripts', 'jons_enqueue_scripts' );
```

Localizing JS Files

- ❖ Allows the passing of data from PHP into JS
- ❖ Useful for passing a URL, or a specific option value.

```
function jons_enqueue_scripts() {  
    wp_enqueue_script( 'jons-library', plugins_url( 'js/jons-library.js'  
    $data = array( 'data1' => 'data', 'data2' => 'more data' );  
    wp_localize_script( 'jons-library', 'jons_data', $data );  
}  
add_action( 'wp_enqueue_scripts', 'jons_enqueue_scripts' );
```


Load Only What Is Needed

```
function jons_enqueue_scripts() {  
    if ( ! is_post_type_archive( 'jons_post_type' ) )  
        return;  
  
    wp_enqueue_script( 'jons-library', plugins_url( 'js/jons-library.js'  
    $data = array( 'data1' => 'data', 'data2' => 'more data' );  
    wp_localize_script( 'jons-library', 'jons_data', $data );  
}  
add_action( 'wp_enqueue_scripts', 'jons_enqueue_scripts' );
```

HTTP API

- ✧ Allows you to send HTTP requests.
 - ✧ POST
 - ✧ GET
 - ✧ HEAD

HTTP API

```
$response = wp_remote_get( $url, $args );
```

HTTP API

```
$response = wp_remote_get( 'http://some-feed-url.com/feed', $args );  
if ( ! is_wp_error( $response ) ) {  
    //Do something with the feed  
}
```


Options API

- ❖ The Options API is a simple and standardized way of storing data in the database.
- ❖ Great for information that does not change too often.

```
update_option( 'jons_option', 'Put this away for later' );
```

Transient API

- ❖ Simple and standardized way of storing cached data in the database temporarily by giving it a custom name and a timeframe after which it will expire and be deleted.
- ❖ Great for information that needs to be refreshed.

Transient API

```
set_transient( 'jons_transient', $value, 60 * 60 * 12 );
```

Transient API

- ❖ Really useful for displaying feeds.
- ❖ We don't want to hit the feed every page load.
- ❖ That information probably does not change very often anyways.

Transient API

```
if ( $transient_data = get_transient( 'jons_transient' ) ) {  
    //Display our feed  
}  
else {  
    $response = wp_remote_get( 'http://some-feed-url.com/feed', $args );  
  
    if ( ! is_wp_error( $response ) ) {  
        //Do something with the feed  
        $processed_data = ...;  
  
        //Set our transient for next time  
        set_transient( 'jons_transient', $processed_data, 60 * 60 );  
    }  
}
```

Transient API

```
if ( $transient_data = get_transient( 'jons_transient' ) ) {  
    //Display our information  
}  
else {  
    //Handful of complex queries and calculations  
    $result = ...;  
    //Set our transient for next time  
    set_transient( 'jons_transient', $result, 60 * 60 );  
}
```


Data Validation/Sanitization

- ❖ Sanitize & Validate Everything!
- ❖ Never trust user input.
 - ❖ `santize_text_field()`
 - ❖ `esc_attr()`
 - ❖ `esc_js()`
 - ❖ `esc_url()`
 - ❖ `sanitize_html_class()`



Data Validation/Sanitization

- ❖ array_map()

```
$data = array( 'field1', 'field2', 'field3' );  
$data = array_map( 'sanitize_text_field', $data );
```


Namespace Your Functions

- ✧ Namespace everything.
 - ✧ Functions
 - ✧ Classes
 - ✧ Localized JS variables

Namespace Your Functions

- ❖ Avoid conflicting function and class names

```
//Bad
function some_function() {
}

//Good
function jdp_some_function() {
}

//Bad
class Some_Class {
}

//Good
class JDP_Some_Class {
}
```


WordPress Features & APIs

- ✧ Internationalization (I18n)
- ✧ Nonces (Number used Once)
- ✧ Metadata API
- ✧ Shortcode API
- ✧ Widget API
- ✧ Theme Customization API
- ✧ File System API
- ✧ Rewrite API
- ✧ Quicktags API
- ✧ File Header API
- ✧ WordPress.com API
- ✧ Settings API
- ✧ WP_List_Table

Thanks For Listening!

- Tweet me
 - @Desrosj
- Check out my plugins on the WordPress Plugin Repo
 - <http://profiles.wordpress.org/desrosj>
- Come to the WordPress Providence Meetups!