A **Beginners** Guide to PHP in WordPress

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Intro to coding,
non-developers,
what PHP do I need to know
for WordPress?

How do I get it
& what version?

Apple Customers

- MAMP
- MAMP Pro

How do I get it & what version?

Window Customers

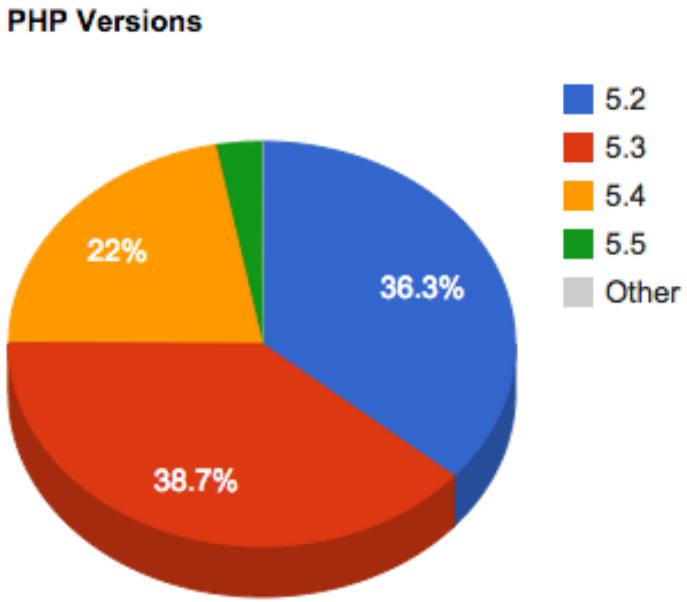
- WAMP
- WAMP Pro

How do I get it & what version?

MAMP Pro/WAMP Pro

- Supports PHP versions
  - 5.2.17
  - 5.3.2
  - 5.4.1

How do I get it & what version?



Source http://wordpress.org/about/stats/

PHP Versions

If developing to contribute plugins or themes use **5.3**.

PHP Versions

Specifically *what* PHP code do I need to know?

1. Conditional Statements
2. Printing
3. Arrays (Ordered Maps)
4. Loops
5. Functions
6. File includes

PHP

```
If, else, elseif, switch
```

Conditional Statements

`If, else, elseif, switch`

Normally used with operators:

`&&` and
`||` or
`==` equal
`!` false
`!=` not equal
`===` *exactly* equal, i.e., '0', 0
`!==` *exactly* not equal
`<, >, <=, >=` greater/less than

Conditional Statements

`If, else, elseif, switch`

...and type comparisons:

Conditional Statements

`If, else, elseif, switch`

...and type comparisons:

`empty()`

`is_null()`

`isset()`

Conditional Statements

Comparisons of $x with PHP functions

Expression	gettype()	empty()	is_null()	isset()	boolean : *if($x)*
$x = "";	string	TRUE	FALSE	TRUE	FALSE
$x = null;	NULL	TRUE	TRUE	FALSE	FALSE
var $x;	NULL	TRUE	TRUE	FALSE	FALSE
$x is undefined	NULL	TRUE	TRUE	FALSE	FALSE
$x = array();	array	TRUE	FALSE	TRUE	FALSE
$x = false;	boolean	TRUE	FALSE	TRUE	FALSE
$x = true;	boolean	FALSE	FALSE	TRUE	TRUE
$x = 1;	integer	FALSE	FALSE	TRUE	TRUE
$x = 42;	integer	FALSE	FALSE	TRUE	TRUE
$x = 0;	integer	TRUE	FALSE	TRUE	FALSE

Conditional Statements

`echo, print, prinft(), sprintf()`

Printing

`echo vs. print?`

Simply used to display content, `echo` is a language construct (its built into the language).

Just use one and stick with it.

Echo vs. Print

`printf()` – Displays content

`sprintf()` – Returns content

Most commonly used in translations.

Echo vs. Print

```
printf( “<strong>%s</strong>”,
    __(‘Name’, ‘foo’)

);


sprintf( “%$2s, <strong>%$1s</strong>”,
    __(‘Name’, ‘foo’),
    __(‘First’, ‘foo’)
);
```

printf, sprintf

Arrays

Indexed
Associative
Multi-dimensional

Arrays

```
$pages_by_slug = array(‘about’, ‘blog’, ‘contact-me’);
```

How would we traverse this?

Indexed

```
$pages_by_slug = array(‘about’, ‘blog’, ‘contact-me’);
```

How would we traverse this?

```
foreach( $pages_by_slug as $page ){
    echo $page;  // What does this display?
}
```

Indexed

```
$pages_by_slug = array(‘about’, ‘blog’, ‘contact-me’);
```

How would we traverse this?

```
foreach( $pages_by_slug as $page ){
    echo $page;  // Displays, about, blog, contact-me
}
```

Indexed

```
$pages = array(
    ‘page_name’ => ‘Contact’,
    ‘page_id’ => ‘89’,
    ‘page_slug’ => ‘contact-me’
);
```

How would we traverse this?

Associative

```
$pages = array(
    ‘page_name’ => ‘Contact’,
    ‘page_id’ => ‘89’,
    ‘page_slug’ => ‘contact-me’
);
```

How would we traverse this?

```
foreach( $pages as $page ){
    echo $page[‘page_name’]; // about, blog, contact-me
}
```

Associative

```
$items = array(
    ‘pages’ => array(
        ‘name’ => ‘Contact’,
        ‘id’ => 89,
        ‘slug’ => contact-me
        ),
    ‘pages’ => array(
...
        )
);
```

How would we traverse this?

Multi-dimensional

```
foreach( $items as $k => $v ){
    echo $k . ‘ ‘ . $v[‘slug’]; // What does this display?
}
```

Multi-dimensional

How would we traverse this?

```
foreach( $items as $k => $v ){
    echo $k . ‘ ‘ . $v[‘slug’]; // pages about...
}
```

Multi-dimensional

Loops

```php
$i = 1;
while( $i <= 10 ){
    echo $i++;
}
```

Loops

```php
$i = 1;
while( $i <= 10 ){
    echo $i++;
}
```

WordPress has “the_loop”

Loops

```
<?php if ( have_posts() ) : ?>
    <?php while ( have_posts() ) : the_post(); ?>
        <h1 class=”entry-title”><?php the_title(); ?></h1>
    <?php endwhile; ?>
<?php endif; ?>
```

Loops

Functions

```
foo( ‘name: ‘, ‘tim’ );

function foo( $a=null, $b=null ){
   echo $a . ‘ ‘ . $b;
}
```

Functions

```
$a = array(‘name’=> ‘tim’);

function foo( $a=array() ){
    extract( $a );
    echo $name;
}
```

Functions

File Includes

1. `require_once` – fatal error
2. `require` – fatal error
3. `include_once` – warning error
4. `include` – warning error

File Includes

1. `require_once` – fatal error
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WordPress has its own set of file includes

File Includes

- `get_header(); // includes header.php`
- `get_sidebar(); // includes sidebar.php`
- `get_footer(); // includes footer.php`
- `get_template_part( $path, $slug ); // includes ‘partials/content-image.php`
- `load_template(); // includes $file`
- `locate_template(); // returns a path to a template`

File Includes

Debugging – Why do you care?

“Debugging allows you to be accurate as an owl, that is approaching its first night meal.”

Debugging – Why do you care?

1. Notice – Found something that could indicate an error
2. Warning – Run-time errors, the code still works
3. Fatal – Code will not run, syntax error, memory allocation, etc.

Types of Debugging

1. Software
2. PHP config
3. wp-config.php

Enabling Debugging

Just enable it

Software

Via PHP

```
error_reporting(-1);
ini_set('display_errors', 'On');
```

ini_set & error_reporting

Via .htaccess

```
php_flag display_startup_errors on
php_flag display_errors on
php_flag log_errors on
php_value error_log /my/path/PHP_errors.log
```

ini_set & error_reporting

```
define('WP_DEBUG', true);
```

Shows errors, notices, warnings, and deprecated functions.

wp-config.php

```
define('WP_DEBUG_LOG', true);
```

Uses PHP's built in error_log function. Saves your errors in `/wp-content/debug.log`.

wp-config.php

```
define('WP_DEBUG_DISPLAY', false);
```

Errors will not be shown, but can still be logged via `define ('WP_DEBUG_LOG', true);`

wp-config.php

```
define('SCRIPT_DEBUG', true);
```

Forces WordPress to use the "dev" versions of core CSS and Javascript files rather than the minified versions that are normally loaded.

wp-config.php

```
define('SAVEQUERIES', true);
```

Stores queries in the `global $wpdb->queries`.

wp-config.php

Note *all* of these methods should only be done in a *development* environment.

Debugging – Why do you care?

1 Obtaining PHP

2 Components – Conditional, printing, arrays (order maps), loops, file includes

3 Debugging

Conclusion

Questions

References

http://wordpress.org/about/stats/
http://php.net/manual/en/function.error-reporting.php
http://php.net/manual/en/function.ini-set.php
http://php.net/manual/en/ref.array.php https://make.wordpress.org/core/handbook/coding-standards/php/
http://blog.codinghorror.com/new-programming-jargon/
http://www.php-fig.org/psr/psr-1/
http://www.php-fig.org/psr/psr-2/
http://pear.php.net/manual/en/standards.php
http://stackoverflow.com/questions/139427/which-coding-convention-to-follow-for-php
http://pear.php.net/manual/en/standards.php
http://stackoverflow.com/a/10057916/714202