

# How to Speed Up a Site with 500,000 Attachments



A case study



# About me

**I am a WordPress and PHP specialist**

**I started my first projects in the late 90s.**

**I worked on projects with millions of page impressions. As technical lead I developed custom themes, plugins, optimized performance and planned coming features.**

**I am a frequent speaker at WordPress events, and founder and co-host of the Meetup in Dortmund.**

**Currently I work as Senior Web Developer at Coding Pioneers in Iserlohn.**

**<https://www.linkedin.com/in/christoph-daum/>**



# Preparation for the Workshop

1. You need ddev, composer, curl, git cli and an IDE of your choice installed locally
2. Clone <https://github.com/apermo/performance-workshop>
3. Run “./setup.sh”
4. Wait a few minutes until the login mask opens up



# Get to know the Project

Bonedo.de - a portal/magazine for musicians

Started as TYPO3 site

Relaunch as WordPress in 2020

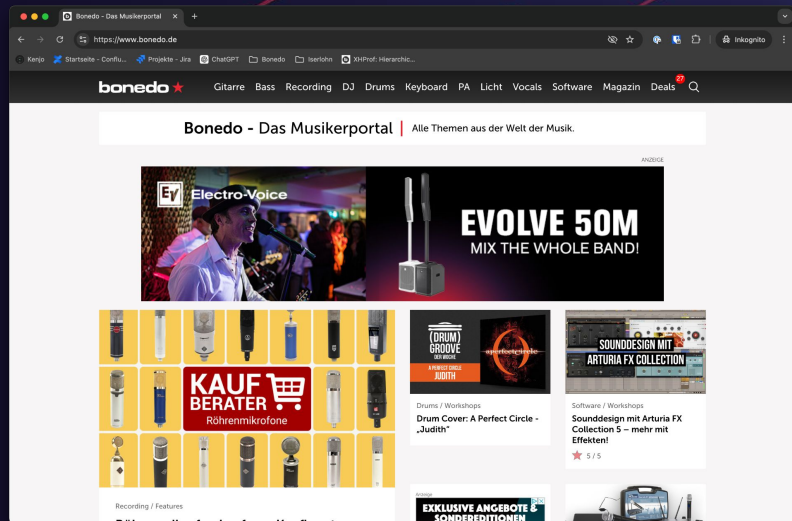
More than 30'000 posts

250'000+ Audio Attachments

300'000+ Image Attachments

I entered the project in May 2024

Frontend speed was ok, Backend speed was ... terrible



# Some Numbers

	Before
Heartbeat	2.5 s
Saving a post	40+ s
Opening a post	8 s
Fully editable	15+ s



# What we won't talk about

1. Frontend - Caching
2. Object Caching
3. Server Setup/Scaling



# Topics

0. **WordPress Plugins for profiling & debugging**
1. **Tweaking heartbeat**
2. **Optimizing WordPress Database Tables**
3. **Custom tables and the filter `posts_clauses`**
4. **Optimizing Taxonomy Updates**
5. **Speed up the media library**
6. **Removing unused features**
7. **Profiling with xhprof**
8. **Redis for php sessions**
9. **Optimizing `attachment_url_to_postid()`**

# 0. WordPress Plugins for profiling & debugging

- Query Monitor
- Debug Bar
- Debug Bar Actions and Filters Addon
- Rewrite Rules Inspector



# 1. Tweaking heartbeat

- The default heartbeat fires every 30s
- Main use of heartbeat is locking posts and to log you out once the session expired
- We changed it via 'heartbeat\_settings' to
  - Editor to 60s
  - Backend to 180s
  - Frontend to 1h

<https://gist.github.com/apermo/>

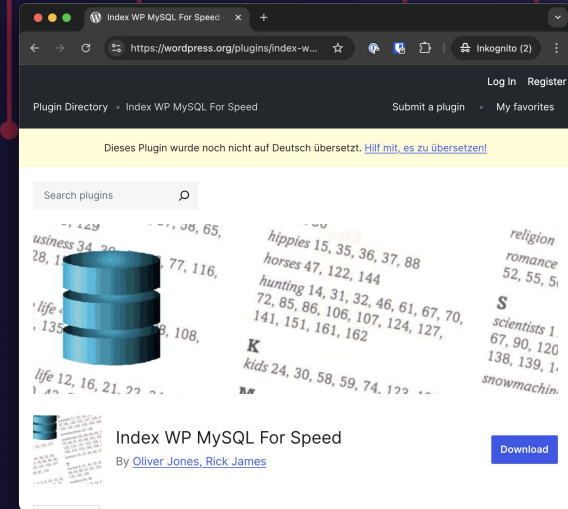


## 2. Optimizing the WordPress Database

After some research and some conversations I found the  
Plugin: Index WP MySQL For Speed

Which was already validated as I found out later

<https://wordpress.org/plugins/index-wp-mysql-for-speed/>



### 3. Custom Tables + posts\_clauses

- Custom table creation via helper class
- Use via filters (posts\_clauses)
- Replacing meta\_queries with a simple join



<https://gist.github.com/apermo/>





## 4. Optimizing Taxonomy Updates

After reading the blog by 11bytes, on their  
1 million product WooCommerce

I optimized the taxonomy update following their example.

<https://woo-million.11bytes.de/>

## 5. Speed up the media library

```
— ·*  
— ·* By default (if this filter does not return an array), a query will be  
— ·* run to determine the months that have media items. This query can be  
— ·* expensive for large media libraries, so it may be desirable for sites to  
— ·* override this behavior.  
— ·*
```

Every time you want to use `wp_enqueue_media()` in the backend, a rather expensive query is fired. Lasting 0.3s-0.5s on my test system.

Adding a filter to `media_library_months_with_files` speeds things up by up to 100% of that.

## 6. Removing unused features

- A feature which was and meant to be a search filter
- It never really worked
- It created 1400 taxonomies on every single request
- It caused about 10% overhead on average



# Current status?

Improved, but still not fast

## Dead End Ideas:

- Remove orphaned attachments (not enough)
- Remove ACF (too deeply integrated)



## 7. Better profiling with xhprof

- Xhprof is great for profiling single requests
- Will not show an overview of request
- Will not show the request URI
- Will not show the database queries



# Vanilla Xhprof

XPProf: Hierarchical Profiler | x +

https://bonedo.ddev.site/xhprof/

Kenjo Startseite - Conflu... Projekte - Jira ChatGPT Bonedo Iserlohn

No XHProf runs specified in the URL.

Existing runs:

- 66964c94447a5.ddev.xhprof 2024-07-16 10:42:28
- 66964c1c4274d.ddev.xhprof 2024-07-16 10:40:28
- 66964d4444a55.ddev.xhprof 2024-07-16 10:38:28
- 66964d68495ef.ddev.xhprof 2024-07-16 10:37:28
- 66964d5c5abd4.ddev.xhprof 2024-07-16 10:37:16
- 66964d5a7f441.ddev.xhprof 2024-07-16 10:37:14
- 66964d5867d62.ddev.xhprof 2024-07-16 10:37:12
- 66964cf036c58.ddev.xhprof 2024-07-16 10:35:28
- 66964ccfacbae.ddev.xhprof 2024-07-16 10:34:55

XPProf: Hierarchical Profiler | x +

https://bonedo.ddev.site/xhprof/index.php?run=86964d5867d62&source=ddev&sort=excl\_wt

Kenjo Startseite - Conflu... Projekte - Jira ChatGPT Bonedo Iserlohn

Run Report [View Top Level Run Report](#)

Run #66964d5867d62: XHProf Run (Namespace=ddev)

Tip Click a function name below to drill down.

Overall Summary

Total Incl. Wall Time 136,670,090 (microsec): microsecs

Total Incl. MemUse (bytes): 58,320,696 bytes

Total Incl. PeakMemUse (bytes): 58,811,248 bytes

Number of Function Calls: 2,194,708

[\[View Full Callgraph\]](#)

Displaying top 100 functions: Sorted by Excl. Wall Time (microsec) [\[display all\]](#)

Function Name	Calls	Calls %	Incl. Wall Time (microsec)	Wall %	Excl. Wall Time (microsec)	EWall %	Incl. MemUse (bytes)	IMemUse %	Excl. MemUse (bytes)	EMemU
mysql_query	360	0.0%	134,745,735	98.6%	134,745,735	98.6%	6,473,992	11.1%	6,473,992	11.1%
curl_exec	10	0.0%	1,019,511	0.7%	1,019,036	0.7%	12,184	0.0%	2,088	0.0%
wp_debug_backtrace_summary	367	0.0%	46,762	0.0%	40,173	0.0%	11,470,496	19.7%	514,944	0.9%
WP_Hook::apply_filters@3	11,390	0.5%	163,307	0.1%	31,379	0.0%	25,192,448	43.2%	-1,149,816	-2.0%
QM_Backtrace::filter_trace	12,049	0.5%	32,491	0.0%	22,536	0.0%	24,221,584	41.5%	4,894,704	8.3%
str_replace	30,874	1.4%	18,383	0.0%	18,383	0.0%	64,057,448	109.8%	64,057,448	109.8%
wpdb::prepare	1,432	0.1%	42,208	0.0%	18,204	0.0%	9,288,832	15.9%	3,834,144	6.5%
WP_Hook::apply_filters@2	9,514	0.4%	1,222,312	0.9%	18,090	0.0%	33,841,680	58.0%	-8,596,936	-14.7%
preg_replace	25,543	1.2%	16,478	0.0%	16,478	0.0%	8,174,392	14.0%	8,174,392	14.0%



# xhprof.log

```
[2024-07-16 08:44:16 - 08:44:16] & 0.11 s | https://bonedo.ddev.site/xhprof/?run=6696352e0508a3&source=ddev | URI: /wp/wp-admin/admin-ajax.php | POST(6 vars, 1.1 kb) | Referrer: /wp/wp-admin/edit.php?post_type=test
[2024-07-16 08:46:16 - 08:46:16] & 0.13 s | https://bonedo.ddev.site/xhprof/?run=669635585478d8&source=ddev | URI: /wp/wp-admin/admin-ajax.php | POST(6 vars, 1.1 kb) | Referrer: /wp/wp-admin/edit.php?post_type=test
[2024-07-16 08:48:16 - 08:48:16] & 0.13 s | https://bonedo.ddev.site/xhprof/?run=669635d955046&source=ddev | URI: /wp/wp-admin/admin-ajax.php | POST(6 vars, 1.1 kb) | Referrer: /wp/wp-admin/edit.php?post_type=test
[2024-07-16 08:50:16 - 08:50:16] & 0.16 s | https://bonedo.ddev.site/xhprof/?run=669634485e5d6&source=ddev | URI: /wp/wp-admin/admin-ajax.php | POST(6 vars, 1.1 kb) | Referrer: /wp/wp-admin/edit.php?post_type=test
[2024-07-16 08:52:16 - 08:52:16] & 0.13 s | https://bonedo.ddev.site/xhprof/?run=669634c057a88&source=ddev | URI: /wp/wp-admin/admin-ajax.php | POST(6 vars, 1.1 kb) | Referrer: /wp/wp-admin/edit.php?post_type=test
[2024-07-16 08:52:48 - 08:52:49] & 0.12 s | https://bonedo.ddev.site/xhprof/?run=669634e1087b8&source=ddev | URI: /wp/wp-admin/admin-ajax.php | POST(6 vars, 1.1 kb) | Referrer: /wp/wp-admin/edit.php?post_type=test
[2024-07-16 08:52:53 - 08:52:54] & 1.22 s | https://bonedo.ddev.site/xhprof/?run=669634e464bda&source=ddev | URI: /wp/wp-admin/post.php?post=1802483&action=edit | GET | Referrer: /wp/wp-admin/edit.php?post_type=test
[2024-07-16 08:52:54 - 08:52:54] & 0.14 s | https://bonedo.ddev.site/xhprof/?run=669634e68c65f&source=ddev | URI: /wp/wp-admin/admin-ajax.php?action=wp-compression-test&test=1&ajax_nonce=81a87b878a6172119974433 | GET | Referrer: /wp/wp-admin/post.php?post=1802483&action=edit
[2024-07-16 08:52:54 - 08:52:54] & 0.16 s | https://bonedo.ddev.site/xhprof/?run=669634e9302b6&source=ddev | URI: /wp-json/wp/v2/taxonomies?context=edit&_locale=user | GET | Referrer: /wp/wp-admin/post.php?post=1802483&action=edit
[2024-07-16 08:52:54 - 08:52:54] & 0.14 s | https://bonedo.ddev.site/xhprof/?run=669634e6ad9d5&source=ddev | URI: /wp/wp-admin/admin-ajax.php?action=wp-compression-test&test=no&ajax_nonce=81a87b878a6172119974603 | GET | Referrer: /wp/wp-admin/post.php?post=1802483&action=edit
[2024-07-16 08:52:55 - 08:52:55] & 0.26 s | https://bonedo.ddev.site/xhprof/?run=669634e74ac6b&source=ddev | URI: /wp-json/wp/v2/block-patterns/categories?_locale=user | GET | Referrer: /wp/wp-admin/post.php?post=1802483&action=edit
[2024-07-16 08:52:55 - 08:52:55] & 0.25 s | https://bonedo.ddev.site/xhprof/?run=669634e74b51b&source=ddev | URI: /wp-json/?_fields=description&_context=edit&_offset=2&_icon=2&_site_icon=2&_site_logo=2&_timezone_string=2&_cur=2&_locale=user | GET | Referrer: /wp/wp-admin/post.php?post=1802483&action=edit
[2024-07-16 08:52:55 - 08:52:55] & 0.14 s | https://bonedo.ddev.site/xhprof/?run=669634e76df45&source=ddev | URI: /wp/wp-admin/admin-ajax.php | POST(7 vars, 1.5 kb) | Referrer: /wp/wp-admin/post.php?post=1802483&action=edit
[2024-07-16 08:52:55 - 08:52:55] & 0.17 s | https://bonedo.ddev.site/xhprof/?run=669634e774b08&source=ddev | URI: /wp/wp-admin/admin-ajax.php | POST(7 vars, 1.8 kb) | Referrer: /wp/wp-admin/post.php?post=1802483&action=edit
[2024-07-16 08:52:55 - 08:52:55] & 0.13 s | https://bonedo.ddev.site/xhprof/?run=669634e791cf4&source=ddev | URI: /wp/wp-admin/admin-ajax.php | POST(7 vars, 1.8 kb) | Referrer: /wp/wp-admin/post.php?post=1802483&action=edit
[2024-07-16 08:52:55 - 08:52:55] & 0.15 s | https://bonedo.ddev.site/xhprof/?run=669634e79bc3f&source=ddev | URI: /wp/wp-admin/admin-ajax.php | POST(7 vars, 1.8 kb) | Referrer: /wp/wp-admin/post.php?post=1802483&action=edit
[2024-07-16 08:52:55 - 08:52:55] & 0.18 s | https://bonedo.ddev.site/xhprof/?run=669634e7bfc2f&source=ddev | URI: /wp/wp-admin/admin-ajax.php | POST(7 vars, 1.6 kb) | Referrer: /wp/wp-admin/post.php?post=1802483&action=edit
[2024-07-16 08:52:55 - 08:52:55] & 0.16 s | https://bonedo.ddev.site/xhprof/?run=669634e7c9f28&source=ddev | URI: /wp/wp-admin/admin-ajax.php | POST(7 vars, 1.9 kb) | Referrer: /wp/wp-admin/post.php?post=1802483&action=edit
[2024-07-16 08:52:55 - 08:52:55] & 0.24 s | https://bonedo.ddev.site/xhprof/?run=669634e7cd77f&source=ddev | URI: /wp/wp-admin/admin-ajax.php | POST(7 vars, 2.8 kb) | Referrer: /wp/wp-admin/post.php?post=1802483&action=edit
[2024-07-16 08:52:55 - 08:52:55] & 0.84 s | https://bonedo.ddev.site/xhprof/?run=669634e7dcd8d&source=ddev | URI: /wp-json/wp/v2/media/1802534?context=edit&_locale=user | GET | Referrer: /wp/wp-admin/post.php?post=1802483&action=edit
[2024-07-16 08:52:55 - 08:52:55] & 0.19 s | https://bonedo.ddev.site/xhprof/?run=669634e7f0774&source=ddev | URI: /wp/wp-admin/admin-ajax.php | POST(7 vars, 1.6 kb) | Referrer: /wp/wp-admin/post.php?post=1802483&action=edit
[2024-07-16 08:52:55 - 08:52:56] & 0.20 s | https://bonedo.ddev.site/xhprof/?run=669634e89a8cf&source=ddev | URI: /wp/wp-admin/admin-ajax.php | POST(7 vars, 2.9 kb) | Referrer: /wp/wp-admin/post.php?post=1802483&action=edit
[2024-07-16 08:52:55 - 08:52:56] & 0.19 s | https://bonedo.ddev.site/xhprof/?run=669634e8b179f&source=ddev | URI: /wp/wp-admin/admin-ajax.php | POST(7 vars, 3.1 kb) | Referrer: /wp/wp-admin/post.php?post=1802483&action=edit
[2024-07-16 08:52:55 - 08:52:56] & 0.19 s | https://bonedo.ddev.site/xhprof/?run=669634e8b172b&source=ddev | URI: /wp/wp-admin/admin-ajax.php | POST(7 vars, 2.5 kb) | Referrer: /wp/wp-admin/post.php?post=1802483&action=edit
[2024-07-16 08:52:55 - 08:52:56] & 0.15 s | https://bonedo.ddev.site/xhprof/?run=669634e824c5a&source=ddev | URI: /wp/wp-admin/admin-ajax.php | POST(7 vars, 1.7 kb) | Referrer: /wp/wp-admin/post.php?post=1802483&action=edit
[2024-07-16 08:52:56 - 08:52:56] & 0.14 s | https://bonedo.ddev.site/xhprof/?run=669634e82eb0a&source=ddev | URI: /wp/wp-admin/admin-ajax.php | POST(7 vars, 1.3 kb) | Referrer: /wp/wp-admin/post.php?post=1802483&action=edit
[2024-07-16 08:52:56 - 08:52:56] & 0.14 s | https://bonedo.ddev.site/xhprof/?run=669634e83784f&source=ddev | URI: /wp/wp-admin/admin-ajax.php | POST(7 vars, 3.3 kb) | Referrer: /wp/wp-admin/post.php?post=1802483&action=edit
[2024-07-16 08:52:56 - 08:52:56] & 0.13 s | https://bonedo.ddev.site/xhprof/?run=669634e838bb1&source=ddev | URI: /wp/wp-admin/admin-ajax.php | POST(7 vars, 1.3 kb) | Referrer: /wp/wp-admin/post.php?post=1802483&action=edit
[2024-07-16 08:52:56 - 08:52:56] & 0.13 s | https://bonedo.ddev.site/xhprof/?run=669634e846ca2&source=ddev | URI: /wp/wp-admin/admin-ajax.php | POST(7 vars, 1.3 kb) | Referrer: /wp/wp-admin/post.php?post=1802483&action=edit
[2024-07-16 08:52:56 - 08:52:56] & 0.12 s | https://bonedo.ddev.site/xhprof/?run=669634e84ef24&source=ddev | URI: /wp/wp-admin/admin-ajax.php | POST(7 vars, 0.4 kb) | Referrer: /wp/wp-admin/post.php?post=1802483&action=edit
[2024-07-16 08:52:56 - 08:52:56] & 0.14 s | https://bonedo.ddev.site/xhprof/?run=669634e85da9&source=ddev | URI: /wp/wp-admin/admin-ajax.php | POST(7 vars, 2.9 kb) | Referrer: /wp/wp-admin/post.php?post=1802483&action=edit
[2024-07-16 08:52:56 - 08:52:56] & 0.16 s | https://bonedo.ddev.site/xhprof/?run=669634e863c57&source=ddev | URI: /wp-json/wp/v2/users/66?context=view&who=authors&per_page=50&_fields=id&_name=2&_site_icon=2&_site_logo=2&_timezone_string=2&_cur=2&_locale=user | GET | Referrer: /wp/wp-admin/post.php?post=1802483&action=edit
[2024-07-16 08:52:56 - 08:52:56] & 0.15 s | https://bonedo.ddev.site/xhprof/?run=669634e86f39f&source=ddev | URI: /wp-json/wp/v2/taxonomies?context=edit&per_page=100&_locale=user | GET | Referrer: /wp/wp-admin/post.php?post=1802483&action=edit
[2024-07-16 08:52:56 - 08:52:56] & 0.16 s | https://bonedo.ddev.site/xhprof/?run=669634e87a92f&source=ddev | URI: /wp-json/wp/v2/test/1802483?_locale=user | OPTIONS | Referrer: /wp/wp-admin/post.php?post=1802483&action=edit
[2024-07-16 08:52:56 - 08:52:56] & 0.16 s | https://bonedo.ddev.site/xhprof/?run=669634e888da&source=ddev | URI: /wp-json/wp/v2/wp_pattern_category?context=view&per_page=100&_fields=id&_name=2&_description=2&_slug=2&_locale=user | GET | Referrer: /wp/wp-admin/post.php?post=1802483&action=edit
[2024-07-16 08:52:56 - 08:52:56] & 0.15 s | https://bonedo.ddev.site/xhprof/?run=669634e888c9f&source=ddev | URI: /wp-json/wp/v2/themes?context=edit&status=active&_locale=user | GET | Referrer: /wp/wp-admin/post.php?post=1802483&action=edit
[2024-07-16 08:52:56 - 08:52:56] & 0.15 s | https://bonedo.ddev.site/xhprof/?run=669634e894ca&source=ddev | URI: /wp-json/?_fields=description&_context=edit&_offset=2&_icon=2&_site_icon=2&_site_logo=2&_timezone_string=2&_cur=2&_locale=user | GET | Referrer: /wp/wp-admin/post.php?post=1802483&action=edit
[2024-07-16 08:52:56 - 08:52:56] & 0.14 s | https://bonedo.ddev.site/xhprof/?run=669634e89d3da&source=ddev | URI: /wp-json/wp/v2/users/66?context=view&_fields=id&_name=2&_site_icon=2&_site_logo=2&_timezone_string=2&_cur=2&_locale=user | GET | Referrer: /wp/wp-admin/post.php?post=1802483&action=edit
[2024-07-16 08:53:02 - 08:53:02] & 0.11 s | https://bonedo.ddev.site/xhprof/?run=669634ee4b13e&source=ddev | URI: /wp/wp-admin/admin-ajax.php | POST(63 vars, 36.7 kb) | Referrer: /wp/wp-admin/post.php?post=1802483&action=edit
[2024-07-16 08:53:02 - 08:53:04] & 1.97 s | https://bonedo.ddev.site/xhprof/?run=669634f0b7c0b&source=ddev | URI: /wp-json/wp/v2/test/1802483?_locale=user | POST(0 vars, 68.4 kb) | Referrer: /wp/wp-admin/post.php?post=1802483&action=edit
[2024-07-16 08:53:04 - 08:53:06] & 1.68 s | https://bonedo.ddev.site/xhprof/?run=669634f0b788&source=ddev | URI: /wp/wp-admin/post.php?post=1802483&action=edit&meta-box-loader=nonce=9055f8db0&_locale=user | POST(67 vars, 0.0 kb) | Referrer: /wp/wp-admin/post.php?post=1802483&action=edit
[2024-07-16 08:53:06 - 08:53:07] & 0.88 s | https://bonedo.ddev.site/xhprof/?run=669634f4f45&source=ddev | URI: /wp/wp-admin/post.php?post=1802483&action=edit&message=4 | GET | Referrer: /wp/wp-admin/post.php?post=1802483&action=edit
[2024-07-16 08:53:13 - 08:53:15] & 18.75 s | https://bonedo.ddev.site/xhprof/?run=669634f5b956f&source=ddev | URI: /wp-json/wp/v2/blocks?context=edit&per_page=100&_locale=user | GET | Referrer: /wp/wp-admin/post.php?post=1802483&action=edit
[2024-07-16 08:53:54 - 08:53:54] & 0.12 s | https://bonedo.ddev.site/xhprof/?run=6696352b067a&source=ddev | URI: /wp/wp-admin/admin-ajax.php | POST(6 vars, 0.2 kb) | Referrer: /wp/wp-admin/post.php?post=1802483&action=edit
[2024-07-16 08:55:54 - 08:55:54] & 0.14 s | https://bonedo.ddev.site/xhprof/?run=669635a9392a&source=ddev | URI: /wp/wp-admin/admin-ajax.php | POST(6 vars, 0.2 kb) | Referrer: /wp/wp-admin/post.php?post=1802483&action=edit
[2024-07-18 08:57:54 - 08:57:54] & 0.14 s | https://bonedo.ddev.site/xhprof/?run=669636123abb&source=ddev | URI: /wp/wp-admin/admin-ajax.php | POST(6 vars, 0.2 kb) | Referrer: /wp/wp-admin/post.php?post=1802483&action=edit
```

# db.log

[2024-07-16 10:24:28] xhprof id: 66964a5c0b9b1, <https://bonedo.ddev.site/xhprof/?run=66964a5c0b9b1&source=ddev>

Total query time: 0.1224 s

Total queries: 73

Queries skipped: 73 (> 0.1 s)

Shown queries 0

-----  
No queries took longer than 0.1 seconds.

# http.log

```
[2024-07-16 08:53:07] xhprof id: https://bonedo.ddev.site/xhprof/?run=669634f34536a&source=ddev, 669634f34536a
```

```
Total http requests time: 0.2178 s
```

```
Total http requests: 2
```

```
-----  
[0.1086 s] POST 200 https://external.service/get/recommendations/summary/ (0.2 kb ↑, 0.1 kb ↓)
```

```
Headers: none
```

```
Body: site=https%3A%2F%2Fbonedo.ddev.site%2Fwp&api_key=123456789abcdef&data%5Bpost_id%5D=0&data%5Bmax_results%5D=50
```

```
-----  
[0.1092 s] POST 200 https://external.service/get/recommendations/summary/ (0.2 kb ↑, 0.1 kb ↓)
```

```
Headers: none
```

```
Body: site=https%3A%2F%2Fbonedo.ddev.site%2Fwp&api_key=123456789abcdef&data%5Bpost_id%5D=0&data%5Bmax_results%5D=5000  
-----
```



# Additional information with our toolset slow SQL queries

```
cd@bonedo-web: /tmp/xhprof$ more xhprof.log
```

```
[2024-07-16 10:34:55 - 10:34:55] Δ 0.14 s | https://bonedo.ddev.site/xhprof/?run=66964ccfacbac&source=ddev | URI: /wp/wp-admin/admin-ajax.php | POST(76 vars, 22.2 kb) | Referrer: /wp/wp-admin/post.php?post=615818&action=edit
[2024-07-16 10:35:28 - 10:35:28] Δ 0.12 s | https://bonedo.ddev.site/xhprof/?run=66964cf036c58&source=ddev | URI: /wp/wp-admin/admin-ajax.php | POST(6 vars, 0.2 kb) | Referrer: /wp/wp-admin/post.php?post=615818&action=edit
[2024-07-16 10:34:55 - 10:37:12] Δ 136.67 s | https://bonedo.ddev.site/xhprof/?run=66964d5867d62&source=ddev | URI: /wp-json/wp/v2/test/615818?_locale=user | POST(0 vars, 58.9 kb) | Referrer: /wp/wp-admin/post.php?post=615818&action=edit
[2024-07-16 10:37:12 - 10:37:14] Δ 2.01 s | https://bonedo.ddev.site/xhprof/?run=66964d5a7f441&source=ddev | URI: /wp/wp-admin/post.php?post=615818&action=edit&meta-box-loader=1&meta-box-loader-nonce=0d55fddb8&_locale=user | POST(67 vars, 0.6 kb) | Referrer: /wp/wp-admin/post.php?post=615818&action=edit
[2024-07-16 10:37:14 - 10:37:16] Δ 1.84 s | https://bonedo.ddev.site/xhprof/?run=66964d5c5abd4&source=ddev | URI: /wp/wp-admin/post.php?post=615818&action=edit&message=4 | GET | Referrer: /wp/wp-admin/post.php?post=615818&action=edit
[2024-07-16 10:37:28 - 10:37:28] Δ 0.23 s | https://bonedo.ddev.site/xhprof/?run=66964d68495ef&source=ddev | URI: /wp/wp-admin/admin-ajax.php | POST(6 vars, 0.2 kb) | Referrer: /wp/wp-admin/post.php?post=615818&action=edit
```

```
[2024-07-16 10:37:12] xhprof id: 66964d5867d62, https://bonedo.ddev.site/xhprof/?run=66964d5867d62&source=ddev
```

```
Total query time: 134.7482 s
```

```
Total queries: 358
```

```
Queries skipped: 306 (> 0.1 s)
```

```
Shown queries 52
```

```
-----
[6.0875 s] SELECT post_id, meta_value FROM wp_postmeta WHERE meta_key = '_wp_attached_file' AND meta_value = '2022/08/2110_Modularsystem_planen_Leicht_gemacht_1260x756_v01-1059136.jpg'
-----
[2.4577 s] SELECT post_id, meta_value FROM wp_postmeta WHERE meta_key = '_wp_attached_file' AND meta_value = '2022/12/2212_Eurorack_erste_Schritte_1260x756_v01.jpg'
-----
[2.3803 s] SELECT post_id, meta_value FROM wp_postmeta WHERE meta_key = '_wp_attached_file' AND meta_value = '2020/07/Doepfer_LowCost_Case.png'
-----
[3.6287 s] SELECT post_id, meta_value FROM wp_postmeta WHERE meta_key = '_wp_attached_file' AND meta_value = '2020/07/A_100PMS12.png'
-----
[2.6960 s] SELECT post_id, meta_value FROM wp_postmeta WHERE meta_key = '_wp_attached_file' AND meta_value = '2020/07/Rackbrute3.png'
-----
```



# Additional information with our toolset blocking sessions

[2024-07-16 10:55:40 - 10:55:40] Δ 0.22 s | https://bonedo.ddev.site/xhprof/?run=669651acac557&source=ddev | URI: /wp/wp-admin/admin-ajax.php?action=wp-compression-test&test=no&ajax\_nonce=81a87b870a&1721127340486 | GET | Referrer: /wp/wp-admin/post.php?post=615818&action=edit

[2024-07-16 10:55:40 - 10:55:56] Δ 15.90 s | https://bonedo.ddev.site/xhprof/?run=669651bcc19f5&source=ddev | URI: /wp-json/wp/v2/blocks?context=edit&per\_page=100&locale=user | GET | Referrer: /wp/wp-admin/post.php?post=615818&action=edit

[2024-07-16 10:55:40 - 10:55:56] Δ 16.03 s | https://bonedo.ddev.site/xhprof/?run=669651bce2c52&source=ddev | URI: /wp-json/wp/v2/block-patterns/categories?\_locale=user | GET | Referrer: /wp/wp-admin/post.php?post=615818&action=edit

[2024-07-16 10:55:40 - 10:55:57] Δ 16.40 s | https://bonedo.ddev.site/xhprof/?run=669651bd4973&source=ddev | URI: /wp-json/wp/v2/media/615820?context=edit&\_locale=user | GET | Referrer: /wp/wp-admin/post.php?post=615818&action=edit

[2024-07-16 10:55:40 - 10:55:57] Δ 16.53 s | https://bonedo.ddev.site/xhprof/?run=669651bd6a873&source=ddev | URI: /wp-json/?fields=description%2Cgmt\_offset%2Cname%2Csite\_icon\_url%2Csite\_logo%2Ctimezone\_string%2Curl%2Ctitle%2Cexcerpt%2Cstatus%2Cfeatured\_media%2Ccomment\_status%2Cping\_status%2Csticky%2Cformat%2Cmeta\_data | GET | Referrer: /wp/wp-admin/post.php?post=615818&action=edit

[2024-07-16 10:55:41 - 10:55:57] Δ 16.12 s | https://bonedo.ddev.site/xhprof/?run=669651bd9d0be&source=ddev | URI: /wp/wp-admin/admin-ajax.php | POST(7 vars, 1.1 kb) | Referrer: /wp/wp-admin/post.php?post=615818&action=edit

[2024-07-16 10:55:42 - 10:55:57] Δ 15.23 s | https://bonedo.ddev.site/xhprof/?run=669651bdba1f0&source=ddev | URI: /wp/wp-admin/admin-ajax.php | POST(7 vars, 0.5 kb) | Referrer: /wp/wp-admin/post.php?post=615818&action=edit

[2024-07-16 10:55:42 - 10:55:57] Δ 15.38 s | https://bonedo.ddev.site/xhprof/?run=669651bddc9e6&source=ddev | URI: /wp/wp-admin/admin-ajax.php | POST(7 vars, 1.2 kb) | Referrer: /wp/wp-admin/post.php?post=615818&action=edit

[2024-07-16 10:55:43 - 10:55:58] Δ 14.52 s | https://bonedo.ddev.site/xhprof/?run=669651be0b264&source=ddev | URI: /wp/wp-admin/admin-ajax.php | POST(7 vars, 0.7 kb) | Referrer: /wp/wp-admin/post.php?post=615818&action=edit

[2024-07-16 10:55:56 - 10:55:58] Δ 1.37 s | https://bonedo.ddev.site/xhprof/?run=669651be29529&source=ddev | URI: /wp/wp-admin/admin-ajax.php | POST(7 vars, 1.4 kb) | Referrer: /wp/wp-admin/post.php?post=615818&action=edit

Function Name	Calls	Calls%	Incl. Wall Time (microsec)	IWall%	Excl. Wall Time (microsec)
<u>curl_exec</u>	154	0.0%	14,278,594	89.8%	14,270,510
<u>mysqli_query</u>	285	0.0%	313,581	2.0%	313,581
WP Hook::apply_filters@2	22,531	1.0%	340,726	2.1%	65,066

Function Name	Calls	Calls%	Incl. Wall Time (microsec)	IWall%	Excl. Wall Time (microsec)
<u>session_start</u>	1	0.0%	15,892,880	99.1%	15,892,880
<u>preg_match</u>	1,488	0.5%	7,126	0.0%	7,126
WP Translation File MO::parse_file	8	0.0%	8,281	0.1%	6,873
WP Hook::apply_filters@2	3,392	1.0%	7,378	0.0%	7,378

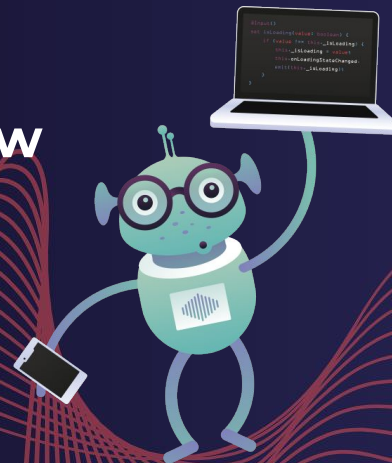
# Xhprof with our toolset



<https://github.com/coding-pioneers/xhprof-toolset>

## 8. Redis for PHP Sessions

- By default `session_start()` is blocking  
Multiple requests in short succession will slow each other down
- `session_start()` is used by Ninja Firewall\*
- Using Redis for sessions will prevent this



\*) With Ninja Firewall 4.7, they released a new kind of session management, which might actually fix this issue.



## 9. Optimizing attachment\_url\_to\_postid()

```
SELECT post_id, meta_value FROM wp_postmeta WHERE  
meta_key = '_wp_attached_file' AND meta_value =  
'/2024/11/wordcamp_netherlands.jpg'
```

Whooping 4s  
In words: four seconds





## 9. Optimizing attachment\_url\_to\_postid()

Evaluated adding an index to wp\_postmeta

Used a custom table and a custom query.

Added the query to a custom table using 'query'

And created a ticket for a better bypass

<https://core.trac.wordpress.org/ticket/61383>

Was released with 6.7 earlier this month

# Updated Numbers

	Before	After
Heartbeat	2.5 s	0.7 s
Saving a post	40+ s	9 s
Opening a post	8 s	2 s
Fully editable	15+ s	4 s



”

**ASK MORE  
QUESTIONS**

– Anthony Burill

Thank you for your attention

Slides at:  
[coding-pioneers.com/wordcamp/](https://coding-pioneers.com/wordcamp/)

