

# 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/>**



# Get to know the Project

Bonedo.de - a portal/magazine for musicians

Started as TYPO3 site

Relaunch as WordPress in 2020

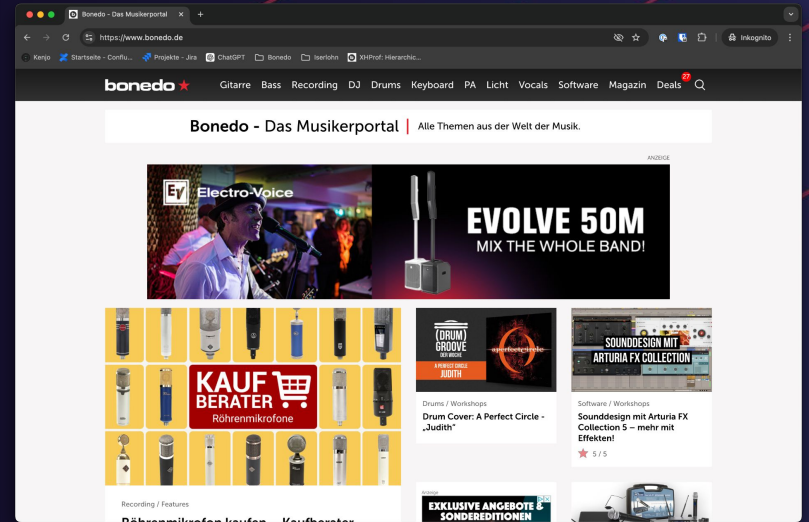
More than 30'000 posts

250'000+ Audio Attachments

300'000+ Image Attachments

I entered the project in May 2024

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



# Some before 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. Removing unused features
6. Profiling with `xhprof`
7. Redis for php sessions
8. 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/>





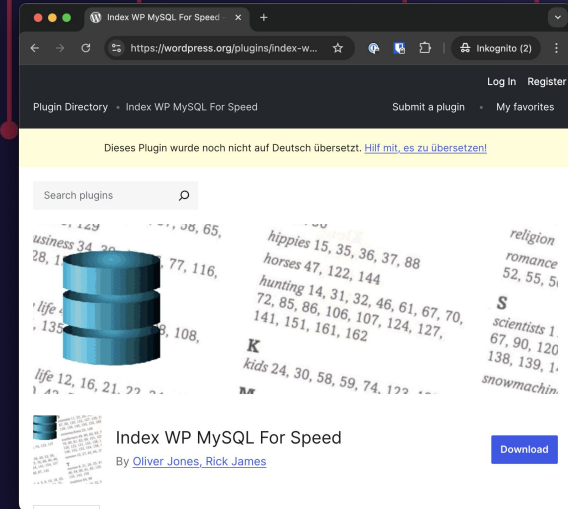
## 2. Optimizing the WordPress Database

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. 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



## 8. 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>

Will be released with 6.7 in November 2024



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

```
SELECT post_id, meta_value FROM wp_postmeta WHERE  
meta_key = '_wp_attached_file' AND meta_value =  
'/2024/10/wordcamp_karlsruhe.jpg'
```

Whooping 4s  
In words: four seconds



## 6. 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





# Xhprof without our toolset

No XHProf runs specified in the URL.

Existing runs:

- 66964e9447a5.ddev.xhprof 2024-07-16 10:42:28
- 66964e1c4274d.ddev.xhprof 2024-07-16 10:40:28
- 66964d4444455.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
- 66964d5c7f441.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
- 66964ccfaebac.ddev.xhprof 2024-07-16 10:34:55

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)	MemUse%	Excl. MemUse (bytes)	EMemU
<a href="#">mysql_query</a>	360	0.0%	134,745,735	98.6%	134,745,735	98.6%	6,473,992	11.1%	6,473,992	11.1%
<a href="#">curl_exec</a>	10	0.0%	1,019,511	0.7%	1,019,036	0.7%	12,184	0.0%	2,088	0.0%
<a href="#">wp_debug_backtrace_summary</a>	367	0.0%	46,762	0.0%	40,173	0.0%	11,470,496	19.7%	514,944	0.9%
<a href="#">WP_Hook::apply_filters@3</a>	11,390	0.5%	163,307	0.1%	31,379	0.0%	25,192,448	43.2%	-1,149,816	-2.0%
<a href="#">QM_Backtrace::filter_trace</a>	12,049	0.5%	32,491	0.0%	22,536	0.0%	24,221,584	41.5%	4,894,704	8.4%
<a href="#">str_replace</a>	30,874	1.4%	18,383	0.0%	18,383	0.0%	64,057,448	109.8%	64,057,448	109.8%
<a href="#">wpdb::prepare</a>	1,432	0.1%	42,208	0.0%	18,204	0.0%	9,288,832	15.9%	3,834,144	6.6%
<a href="#">WP_Hook::apply_filters@2</a>	9,514	0.4%	1,222,312	0.9%	18,090	0.0%	33,841,680	58.0%	-8,596,936	-14.7%
<a href="#">preg_replace</a>	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] Δ 0.11 s | https://bonedo.ddev.site/xhprof/?run=66963260508a56source=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 08:44:16 - 08:44:16] Δ 0.13 s | https://bonedo.ddev.site/xhprof/?run=6696335854f8d6source=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 08:44:16 - 08:44:16] Δ 0.13 s | https://bonedo.ddev.site/xhprof/?run=6696335854f8d6source=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] Δ 0.16 s | https://bonedo.ddev.site/xhprof/?run=66963448956b66source=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] Δ 0.13 s | https://bonedo.ddev.site/xhprof/?run=6696348578b465source=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] Δ 0.12 s | https://bonedo.ddev.site/xhprof/?run=669634e18b78d6source=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] Δ 1.22 s | https://bonedo.ddev.site/xhprof/?run=669634e64d6d46source=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] Δ 0.14 s | https://bonedo.ddev.site/xhprof/?run=669634e686f546source=ddev URI: /wp/wp-admin/admin-ajax.php?action=compression-test&test=1&_ajax_nonce=81a8780d6&1721119974&33 | GET | Referrer: /wp/wp-admin/post.php?post=1802483&action=edit
[2024-07-16 08:52:54 - 08:52:54] Δ 0.16 s | https://bonedo.ddev.site/xhprof/?run=669634e693b292source=ddev URI: /wp-json/wp/v2/taxonomies/context=edit&_localize_user | GET | Referrer: /wp/wp-admin/post.php?post=1802483&action=edit
[2024-07-16 08:52:54 - 08:52:54] Δ 0.10 s | https://bonedo.ddev.site/xhprof/?run=669634e6946546source=ddev URI: /wp/wp-admin/admin-ajax.php?action=compression-test&test=1&_ajax_nonce=81a8780d6&1721119974&603 | GET | Referrer: /wp/wp-admin/post.php?post=1802483&action=edit
[2024-07-16 08:52:55 - 08:52:55] Δ 0.26 s | https://bonedo.ddev.site/xhprof/?run=669634e7446646source=ddev URI: /wp-json/wp/v2/blog-patterns?category=1&_localize_user | GET | Referrer: /wp/wp-admin/post.php?post=1802483&action=edit
[2024-07-16 08:52:55 - 08:52:55] Δ 0.25 s | https://bonedo.ddev.site/xhprof/?run=669634e74b5146source=ddev URI: /wp-json/?_fields=description&2Cqnt_offset&2Chome&2Cname&2Csite_icon&2Csite_icon_url&2Csite_logo&2Clinezone_string&2CurLd_LocaleUser | GET | Referrer: /wp/wp-admin/post.php?post=1802483&action=edit
[2024-07-16 08:52:55 - 08:52:55] Δ 0.14 s | https://bonedo.ddev.site/xhprof/?run=669634e76d7546source=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] Δ 0.17 s | https://bonedo.ddev.site/xhprof/?run=669634e77a08d6source=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] Δ 0.13 s | https://bonedo.ddev.site/xhprof/?run=669634e7954f46source=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] Δ 0.16 s | https://bonedo.ddev.site/xhprof/?run=669634e79b3f36source=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] Δ 0.18 s | https://bonedo.ddev.site/xhprof/?run=669634e79b7e26source=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] Δ 0.16 s | https://bonedo.ddev.site/xhprof/?run=669634e79c7826source=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] Δ 0.24 s | https://bonedo.ddev.site/xhprof/?run=669634e7cd7746source=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] Δ 0.84 s | https://bonedo.ddev.site/xhprof/?run=669634e7dc0d56source=ddev URI: /wp-json/wp/v2/media/1802354?context=edit&_localize_user | GET | Referrer: /wp/wp-admin/post.php?post=1802483&action=edit
[2024-07-16 08:52:55 - 08:52:55] Δ 0.19 s | https://bonedo.ddev.site/xhprof/?run=669634e79d7746source=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] Δ 0.20 s | https://bonedo.ddev.site/xhprof/?run=669634e8086c46source=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] Δ 0.19 s | https://bonedo.ddev.site/xhprof/?run=669634e8172f95source=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] Δ 0.19 s | https://bonedo.ddev.site/xhprof/?run=669634e8172f95source=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] Δ 0.15 s | https://bonedo.ddev.site/xhprof/?run=669634e82a4546source=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] Δ 0.14 s | https://bonedo.ddev.site/xhprof/?run=669634e82b0846source=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] Δ 0.14 s | https://bonedo.ddev.site/xhprof/?run=669634e8377846source=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] Δ 0.13 s | https://bonedo.ddev.site/xhprof/?run=669634e8383b16source=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] Δ 0.13 s | https://bonedo.ddev.site/xhprof/?run=669634e84c2a46source=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] Δ 0.12 s | https://bonedo.ddev.site/xhprof/?run=669634e84f2446source=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] Δ 0.14 s | https://bonedo.ddev.site/xhprof/?run=669634e8504946source=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] Δ 0.16 s | https://bonedo.ddev.site/xhprof/?run=669634e8516346source=ddev URI: /wp-json/wp/v2/users?context=edit&wp_page=108&_localize_user | GET | Referrer: /wp/wp-admin/post.php?post=1802483&action=edit
[2024-07-16 08:52:56 - 08:52:56] Δ 0.15 s | https://bonedo.ddev.site/xhprof/?run=669634e8613946source=ddev URI: /wp-json/wp/v2/taxonomies/context=edit&wp_page=108&_localize_user | GET | Referrer: /wp/wp-admin/post.php?post=1802483&action=edit
[2024-07-16 08:52:56 - 08:52:56] Δ 0.16 s | https://bonedo.ddev.site/xhprof/?run=669634e8692946source=ddev URI: /wp-json/wp/v2/test/1802483?_localize_user | OPTIONS | Referrer: /wp/wp-admin/post.php?post=1802483&action=edit
[2024-07-16 08:52:56 - 08:52:56] Δ 0.16 s | https://bonedo.ddev.site/xhprof/?run=669634e8884d46source=ddev URI: /wp-json/wp/v2/wp_pattern_category?context=live&wp_page=108&_fields=id&2Cname&2Cdescription&2Cslug_LocaleUser | GET | Referrer: /wp/wp-admin/post.php?post=1802483&action=edit
[2024-07-16 08:52:56 - 08:52:56] Δ 0.15 s | https://bonedo.ddev.site/xhprof/?run=669634e888c946source=ddev URI: /wp-json/wp/v2/themes?context=edit&status=active&_localize_user | GET | Referrer: /wp/wp-admin/post.php?post=1802483&action=edit
[2024-07-16 08:52:56 - 08:52:56] Δ 0.15 s | https://bonedo.ddev.site/xhprof/?run=669634e8944c46source=ddev URI: /wp-json/?_fields=description&2Cqnt_offset&2Chome&2Cname&2Csite_icon&2Csite_icon_url&2Csite_logo&2Clinezone_string&2CurLd_LocaleUser | GET | Referrer: /wp/wp-admin/post.php?post=1802483&action=edit
[2024-07-16 08:52:56 - 08:52:56] Δ 0.16 s | https://bonedo.ddev.site/xhprof/?run=669634e8956b46source=ddev URI: /wp-json/wp/v2/users?context=edit&wp_page=108&_fields=id&2Cname_LocaleUser | GET | Referrer: /wp/wp-admin/post.php?post=1802483&action=edit
[2024-07-16 10:34:55 - 10:34:55] Δ 0.14 s | https://bonedo.ddev.site/xhprof/?run=66964cfcfbac&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=66964cfc836c58&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=66964d5867d6&2source=ddev | URI: /wp-json/wp/v2/test/615818?_localize_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=66964d5867d6&2source=ddev | URI: /wp/wp-admin/post.php?post=615818&action=edit&meta-box-loader=1&meta-box-loader-nonce=80d55fdbd8&_localize_user | POST(67
[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=66964d68495f&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
```

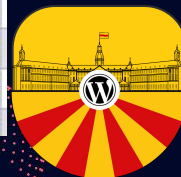


# Additional information with our toolset blocking sessions

```
[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%2Chome%2Cname%2Csite_icon%2Csite_icon_url%2Csite_logo%2Ctimezone_string%2Curl%2Cupdate_core | 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)
<a href="#">curl_exec</a>	154	0.0%	14,278,594	89.8%	14,270,510
<a href="#">mysqli_query</a>	285	0.0%	313,581	2.0%	313,581
<a href="#">WP Hook::apply_filters@2</a>	22,531	1.0%	340,726	2.1%	65,066

Function Name	Calls	Calls%	Incl. Wall Time (microsec)	IWall%	Excl. Wall Time (microsec)
<a href="#">session_start</a>	1	0.0%	15,892,880	99.1%	15,892,880
<a href="#">preg_match</a>	1,488	0.5%	7,126	0.0%	7,126
<a href="#">WP Translation File MO::parse_file</a>	8	0.0%	8,281	0.1%	6,073
<a href="#">WP Hook::apply_filters@2</a>	3,392	1.0%	7,378	0.0%	3,844



# 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.
```



# 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 = '2020/07/1A_1A0DMC12.png'
```

```
-----
[2.6960 s] SELECT post_id, meta_value FROM wp_postmeta WHERE meta_key = '_wp_attached_file' AND meta_value = '2020/07/1A_1A0DMC12.png'
```

```
[2024-07-16 10:37:16] xhprof id: https://bonedo.ddev.site/xhprof/?run=66964d5c5abd4&source=ddev, 66964d5c5abd4
```

```
Total http requests time: 0.8035 s
```

```
Total http requests: 7
```

```
-----
[0.1255 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=42&data%5Bpost_id%5D=0&data%5Bmax_results%5D=50
```

```
-----
[0.1166 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=42&data%5Bpost_id%5D=0&data%5Bmax_results%5D=5000
```

```
-----
[0.1609 s] POST 200 https://external.service/get/recommendations/summary/ (0.2 kb ↑, 0.1 kb ↓)
```

```
Headers: none
```



# 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
-----
```



# Xhprof with our toolset

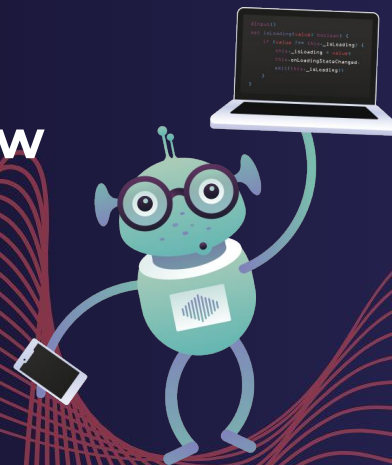


<https://github.com/coding-pioneers/xhprof-toolset>



## 7. 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





# Some 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

