

Better Debugging with Xdebug

php[tek] 2024

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<https://derickrethans.nl/talks/xdebug-tek24>

<https://xdebug.org>

About Me

Derick Rethans

- I'm European, living in London
- ~~PHP 7.4 Release Manager~~
- **PHP Foundation**
- **Xdebug** & PHP's Date/Time support
- I ♥ 🌐 maps, I ♥ 🍺 beer, I ♥ 🥃 whisky
- mastodon: @derickr@phpc.social



Introducing Modes

Off

Loaded, but miniscule overhead

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Develop

Every day debugging aides

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Debugger

Debugging applications with an IDE
Previously: remote debugger

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Tracing

Tracing the execution of a script to a file

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Profiler

Profiling application performance

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Coverage

Which code is run during tests

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Time Traveller



Introducing Modes

xdebug_info()

Like `phpinfo()`, but then for Xdebug

DEMO

xdebug_info(string \$category)

Obtain information about Xdebug programatically

DEMO

```
xdebug_notify( mixed $data )
```

Send data over debugging protocol

DEMO

Breakpoint Resolving

Xdebug now finds the closest breakpoint line

DEMO

Breakpoint Resolving

Xdebug now finds the closest breakpoint line

DEMO

How does this work?

Breakpoint Resolving

Xdebug now finds the closest breakpoint line

DEMO

How does this work?

Let's check the log...

DEMO

Return Values?

DEMO

Breakpoint Resolving — Revised

The IDE can set breakpoints on non-existing files...

DEMO

xdebug_connect_to_client()

Prods Xdebug to try to make a debug connection again

DEMO

"Smart" Host Names

Helping with the configuration madness...

```
xdebug.client_host=
```

```
xdebug://gateway
```

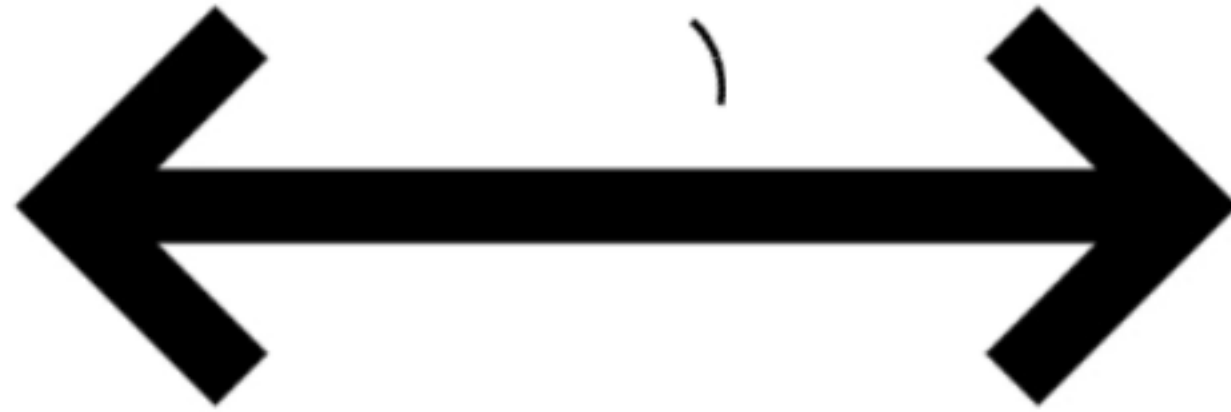
"Smart" Host Names

Helping with the configuration madness...

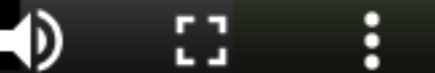
```
xdebug.client_host=
```

```
xdebug://gateway
```

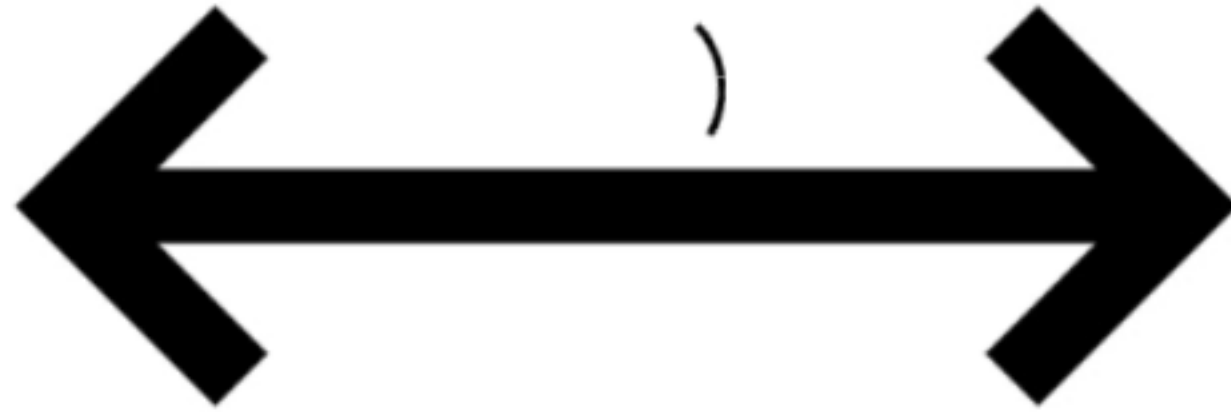
```
xdebug://nameserver
```

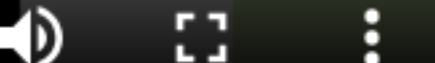
0:00 / 0:50



<https://xdebug.cloud>



0:00 / 0:50



<https://xdebug.cloud>

Supporting Xdebug

It's Open Source and free (as in "free beer")
I would like to work more on Xdebug, to help **you**

Features and Bugs

<https://bugs.xdebug.org>

 **BECOME A PATRON**

<https://www.patreon.com/derickr>

 **Sponsor**

<https://github.com/sponsors/derickr>

Business Support

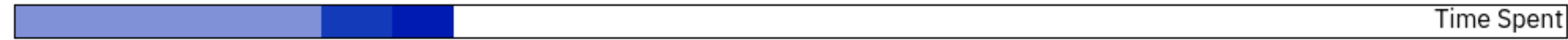
Community	Pro	Business
	1 developer	2-20 developers
Choose amount on Patreon or GitHub	£ 200/year *	£ 1000/year *
Tech Support: Stackoverflow Issue Priority: Low ✓ Monthly News Post	✓ Tech Support: E-mail ✓ Issue Priority: Medium ✓ Access to Commercial Add-ons (soon) ✓ Monthly E-mail Newsletter (opt-in) ✓ Invoice †	✓ Tech Support: E-mail ✓ Issue Priority: High ✓ An hour long presentation or workshop ✓ Access to Commercial Add-ons (soon) ✓ Monthly E-mail Newsletter (opt-in) ✓ Invoice † ✓ "Thank You" with link on site
Support Xdebug via Patreon or GitHub	Sign Up	Sign Up

<https://xdebug.org/support>



Transparency

September 2023



Day	Type	Description	Hours
3	bug	Reinvestigating comments to #1374	0.50
5	xdebug3	Preparing releases etc for PHP 8.3 and a 3.3.0alpha1 release	4.00
6	xdebug3	Finalising 3.3.0alpha1 release	0.75
6	xdebug3	Making 3.3.0alpha2 release as PECL web was broken	0.75
8	xdebug3	Issue #2203: Change default max_nesting_level to 512	0.25
14	bug	Triaging issues	2.50
18	xdebug3	Issue #2077: Reimplementing collect_params, after a few exploratory implementations	3.00
19	xdebug3	Issue #1732: Finalise and merge flamegraph tracing output	2.00
25	bug	Investigate read after free with generators	1.00
25	docs	Make flamegraph video	1.50
25	docs	Make dbgproxy video	3.00
28	xdebug3	Switching from intercepting execute_ex to Observer API	4.00
29	xdebug3	Switching from intercepting execute_ex to Observer API	5.00

For additional information, please see the [monthly](#) report.



Any Queries?

Resources



Slides

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