Profiling PHP applications

Ike Devolder / @BlackIkeEagle / @studioemma

PHP USERGROUP
php developer days 2018

Who likes slow applications?
Photo by rihaij on Pixabay

Only faster execution time?

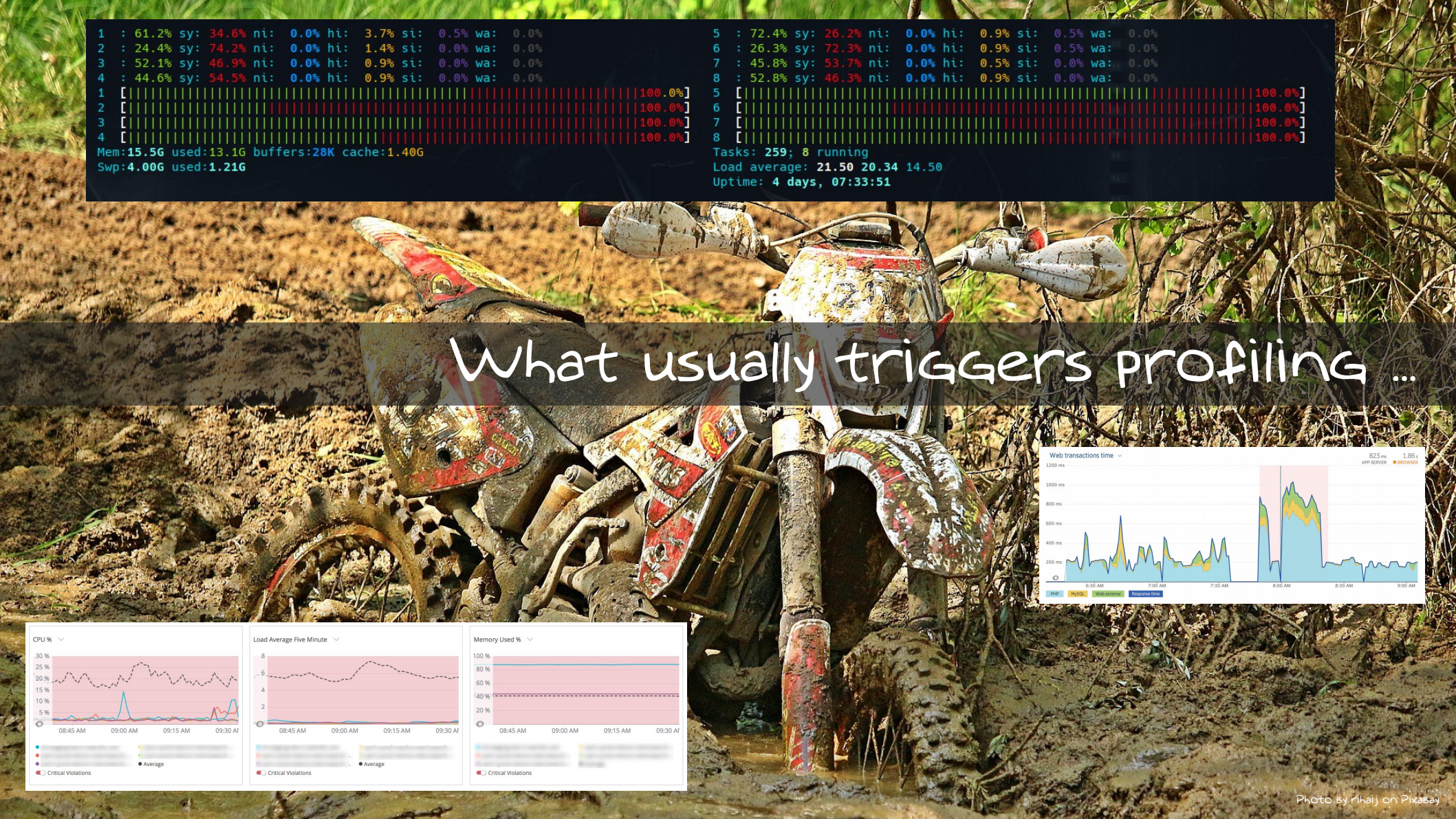
Photo by Narcis Ciocan on Pixabay

Reduce resource usage?

Photo by sharon1090 on Pixabay

More RPM?

Photo by skeeze on Pixabay


1 : 61.2% sy: 34.6% ni: 0.0% hi: 3.7% si: 0.5% wa: 0.0%
2 : 24.4% sy: 74.2% ni: 0.0% hi: 1.4% si: 0.0% wa: 0.0%
3 : 52.1% sy: 46.9% ni: 0.0% hi: 0.9% si: 0.0% wa: 0.0%
4 : 44.6% sy: 54.5% ni: 0.0% hi: 0.9% si: 0.0% wa: 0.0%
5 : 72.4% sy: 26.2% ni: 0.0% hi: 0.9% si: 0.5% wa: 0.0%
6 : 26.3% sy: 72.3% ni: 0.0% hi: 0.9% si: 0.5% wa: 0.0%
7 : 45.8% sy: 53.7% ni: 0.0% hi: 0.5% si: 0.0% wa: 0.0%
8 : 52.8% sy: 46.3% ni: 0.0% hi: 0.9% si: 0.0% wa: 0.0%
Mem:15.5G used:13.1G buffers:28K cache:1.40G
Swp:4.00G used:1.21G
Tasks: 259; 8 running
Load average: 21.50 20.34 14.50
Uptime: 4 days, 07:33:51
What usually triggers profiling ...
Web transactions time
CPU %
Load Average Five Minute
Memory Used %
Critical Violations
Average
Photo by rihaij on Pixabay

Hi,

I'm Ike,
@BlackIkeEagle on Twitter

Developer / Operations
at Studio Emma

studio emma

internet expertise

Magento®

Silver solution partner

PIMCORE®

Gold solution partner

Profiling

is the process of application runtime characteristics measurement for performance analysis and optimization

Photo by Ronald Plett on Pixabay

Knowledge Gained?

Knowledge Gained?

– where

Knowledge Gained?

- where
- what

Knowledge Gained?

- where
- what
- how much

Why?

My application is 'fast'

Why?

My application is 'fast'

– define fast

Why?

My application is 'fast'

- define fast
- can it handle a Burst?

WHY?

My application is 'fast'

- define fast
- can it handle a Burst?
- optimizing has Benifits

No profiler needed, I know where the bottleneck is.

No profiler needed, I know where the bottleneck is.

Nope, that's shooting in the dark

Points of interest

Execution time

Execution time

CPU time

Execution time

CPU time

Memory usage

Execution time
CPU time
Memory usage
Disk IO

Execution time
CPU time
Memory usage
Disk IO
Network time

Execution time
CPU time
Memory usage
Disk IO
Network time
External delays

How can we profile

PHP?

PHP?

Thats not really profiling

```php
<?php

$start = microtime(true);
// ...
$this->code();
// ...
$time = microtime(true) - $start;
```

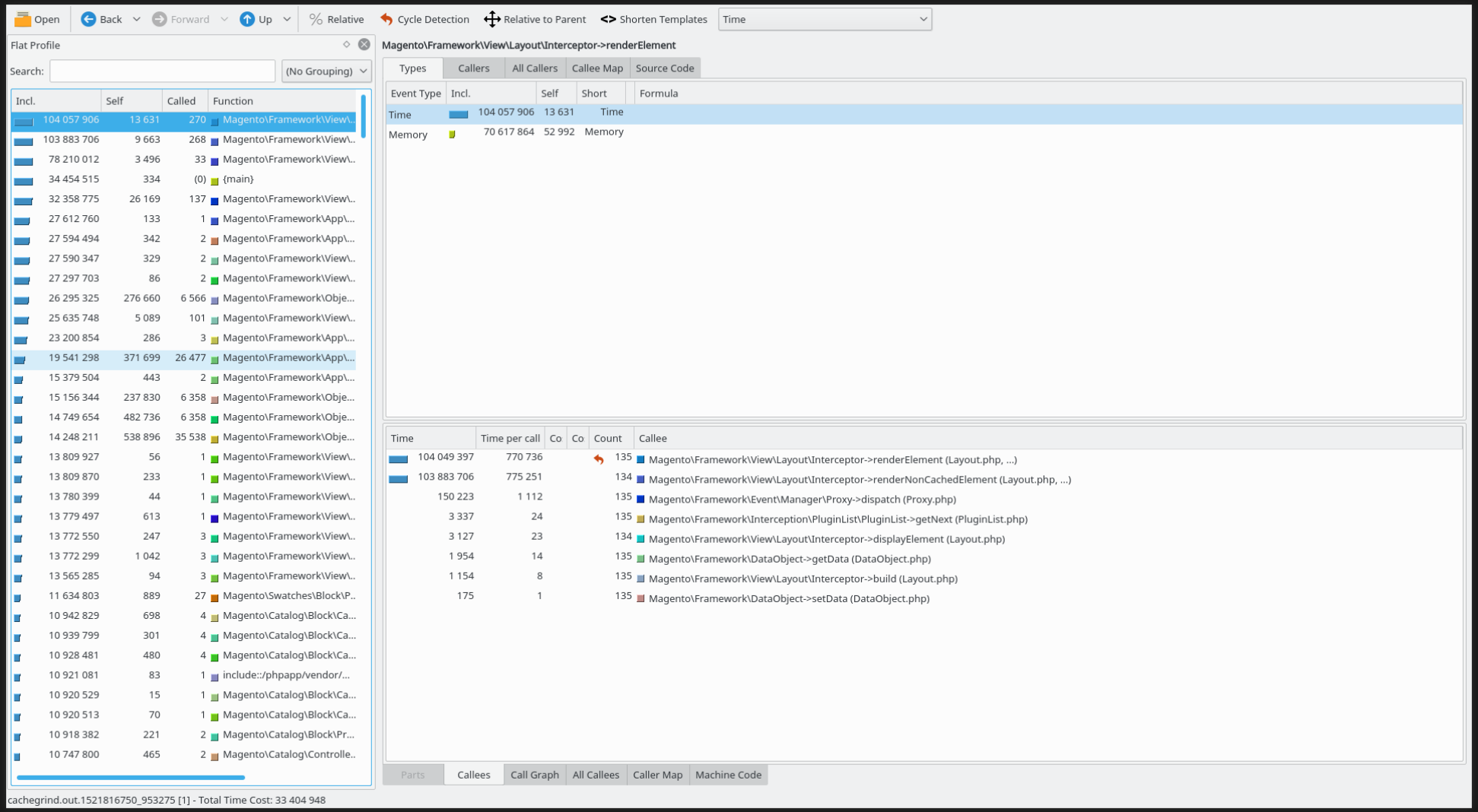
XdeBug

Xdebug php extension

Some configuration needed

External tool to analyze

```
xdebug.profiler_enable=1
xdebug.profiler_output_dir=/xdebug
xdebug.profiler_output_name=cachegrind.out.%u
```


Open
Back
Forward
Up
Relative
Cycle Detection
Relative to Parent
Shorten Templates
Time
Flat Profile
Search:
(No Grouping)
Incl. Self Called Function
104 057 906 13 631 270 Magento\Framework\View\..
103 883 706 9 663 268 Magento\Framework\View\..
78 210 012 3 496 33 Magento\Framework\View\..
34 454 515 334 (0) {main}
32 358 775 26 169 137 Magento\Framework\View\..
27 612 760 133 1 Magento\Framework\App\...
27 594 494 342 2 Magento\Framework\App\...
27 590 347 329 2 Magento\Framework\View\..
27 297 703 86 2 Magento\Framework\View\..
26 295 325 276 660 6 566 Magento\Framework\Obje...
25 635 748 5 089 101 Magento\Framework\View\..
23 200 854 286 3 Magento\Framework\App\...
19 541 298 371 699 26 477 Magento\Framework\App\...
15 379 504 443 2 Magento\Framework\App\...
15 156 344 237 830 6 358 Magento\Framework\Obje...
14 749 654 482 736 6 358 Magento\Framework\Obje...
14 248 211 538 896 35 538 Magento\Framework\Obje...
13 809 927 56 1 Magento\Framework\View\..
13 809 870 233 1 Magento\Framework\View\..
13 780 399 44 1 Magento\Framework\View\..
13 779 497 613 1 Magento\Framework\View\..
13 772 550 247 3 Magento\Framework\View\..
13 772 299 1 042 3 Magento\Framework\View\..
13 565 285 94 3 Magento\Framework\View\..
11 634 803 889 27 Magento\Swatches\Block\P..
10 942 829 698 4 Magento\Catalog\Block\Ca...
10 939 799 301 4 Magento\Catalog\Block\Ca...
10 928 481 480 4 Magento\Catalog\Block\Ca...
10 921 081 83 1 include::/phpapp/vendor/...
10 920 529 15 1 Magento\Catalog\Block\Ca...
10 920 513 70 1 Magento\Catalog\Block\Ca...
10 918 382 221 2 Magento\Catalog\Block\Pr...
10 747 800 465 2 Magento\Catalog\Controlle..
Magento\Framework\View\Layout\Interceptor->renderElement
Types
Callers
All Callers
Callee Map
Source Code
Event Type Incl. Self Short Formula
Time 104 057 906 13 631 Time
Memory 70 617 864 52 992 Memory
Time Time per call Co Co Count Callee
104 049 397 770 736 135 Magento\Framework\View\Layout\Interceptor->renderElement (Layout.php, ...)
103 883 706 775 251 134 Magento\Framework\View\Layout\Interceptor->renderNonCachedElement (Layout.php, ...)
150 223 1 112 135 Magento\Framework\Event\Manager\Proxy->dispatch (Proxy.php)
3 337 24 135 Magento\Framework\Interception\PluginList\PluginList->getNext (PluginList.php)
3 127 23 134 Magento\Framework\View\Layout\Interceptor->displayElement (Layout.php)
1 954 14 135 Magento\Framework\DataObject->getData (DataObject.php)
1 154 8 135 Magento\Framework\View\Layout\Interceptor->build (Layout.php)
175 1 135 Magento\Framework\DataObject->setData (DataObject.php)
Parts
Callees
Call Graph
All Callees
Caller Map
Machine Code
cachegrind.out.1521816750_953275 [1] - Total Time Cost: 33 404 948

Open | Back | Forward | Up | Relative | Cycle Detection | Relative to Parent | Shorten Templates | Time

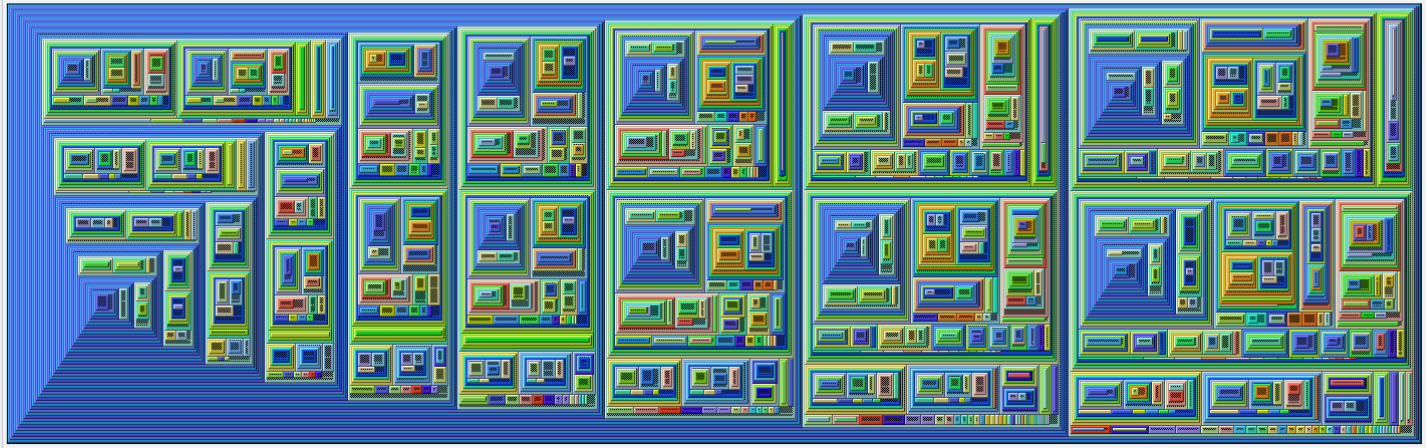
Flat Profile

Search: (No Grouping)

Incl.	Self	Called	Function
104 057 906	13 631	270	Magento\Framework\View\..
103 883 706	9 663	268	Magento\Framework\View\..
78 210 012	3 496	33	Magento\Framework\View\..
34 454 515	334	(0)	{main}
32 358 775	26 169	137	Magento\Framework\View\..
27 612 760	133	1	Magento\Framework\App\...
27 594 494	342	2	Magento\Framework\App\...
27 590 347	329	2	Magento\Framework\View\..
27 297 703	86	2	Magento\Framework\View\..
26 295 325	276 660	6 566	Magento\Framework\Obje...
25 635 748	5 089	101	Magento\Framework\View\..
23 200 854	286	3	Magento\Framework\App\...
19 541 298	371 699	26 477	Magento\Framework\App\...
15 379 504	443	2	Magento\Framework\App\...
15 156 344	237 830	6 358	Magento\Framework\Obje...
14 749 654	482 736	6 358	Magento\Framework\Obje...
14 248 211	538 896	35 538	Magento\Framework\Obje...
13 809 927	56	1	Magento\Framework\View\..
13 809 870	233	1	Magento\Framework\View\..
13 780 399	44	1	Magento\Framework\View\..
13 779 497	613	1	Magento\Framework\View\..
13 772 550	247	3	Magento\Framework\View\..
13 772 299	1 042	3	Magento\Framework\View\..
13 565 285	94	3	Magento\Framework\View\..
11 634 803	889	27	Magento\Swatches\Block\P..
10 942 829	698	4	Magento\Catalog\Block\Ca...
10 939 799	301	4	Magento\Catalog\Block\Ca...
10 928 481	480	4	Magento\Catalog\Block\Ca...
10 921 081	83	1	include::/phpapp/vendor/...
10 920 529	15	1	Magento\Catalog\Block\Ca...
10 920 513	70	1	Magento\Catalog\Block\Ca...
10 918 382	221	2	Magento\Catalog\Block\Pr...
10 747 800	465	2	Magento\Catalog\Controlle..

Magento\Framework\View\Layout\Interceptor->renderElement

Types | Callers | All Callers | Callee Map | Source Code



Time	Time per call	Co	Co	Count	Callee
104 049 397	770 736			135	Magento\Framework\View\Layout\Interceptor->renderElement (Layout.php, ...)
103 883 706	775 251			134	Magento\Framework\View\Layout\Interceptor->renderNonCachedElement (Layout.php, ...)
150 223	1 112			135	Magento\Framework\Event\Manager\Proxy->dispatch (Proxy.php)
3 337	24			135	Magento\Framework\Interception\PluginList\PluginList->getNext (PluginList.php)
3 127	23			134	Magento\Framework\View\Layout\Interceptor->displayElement (Layout.php)
1 954	14			135	Magento\Framework\DataObject->getData (DataObject.php)
1 154	8			135	Magento\Framework\View\Layout\Interceptor->build (Layout.php)
175	1			135	Magento\Framework\DataObject->setData (DataObject.php)

Parts | Callees | Call Graph | All Callees | Caller Map | Machine Code

cachegrind.out.1521816750_953275 [1] - Total Time Cost: 33 404 948

It's Hard

Photo by Aaron Sunday on Pixabay

Yhprof

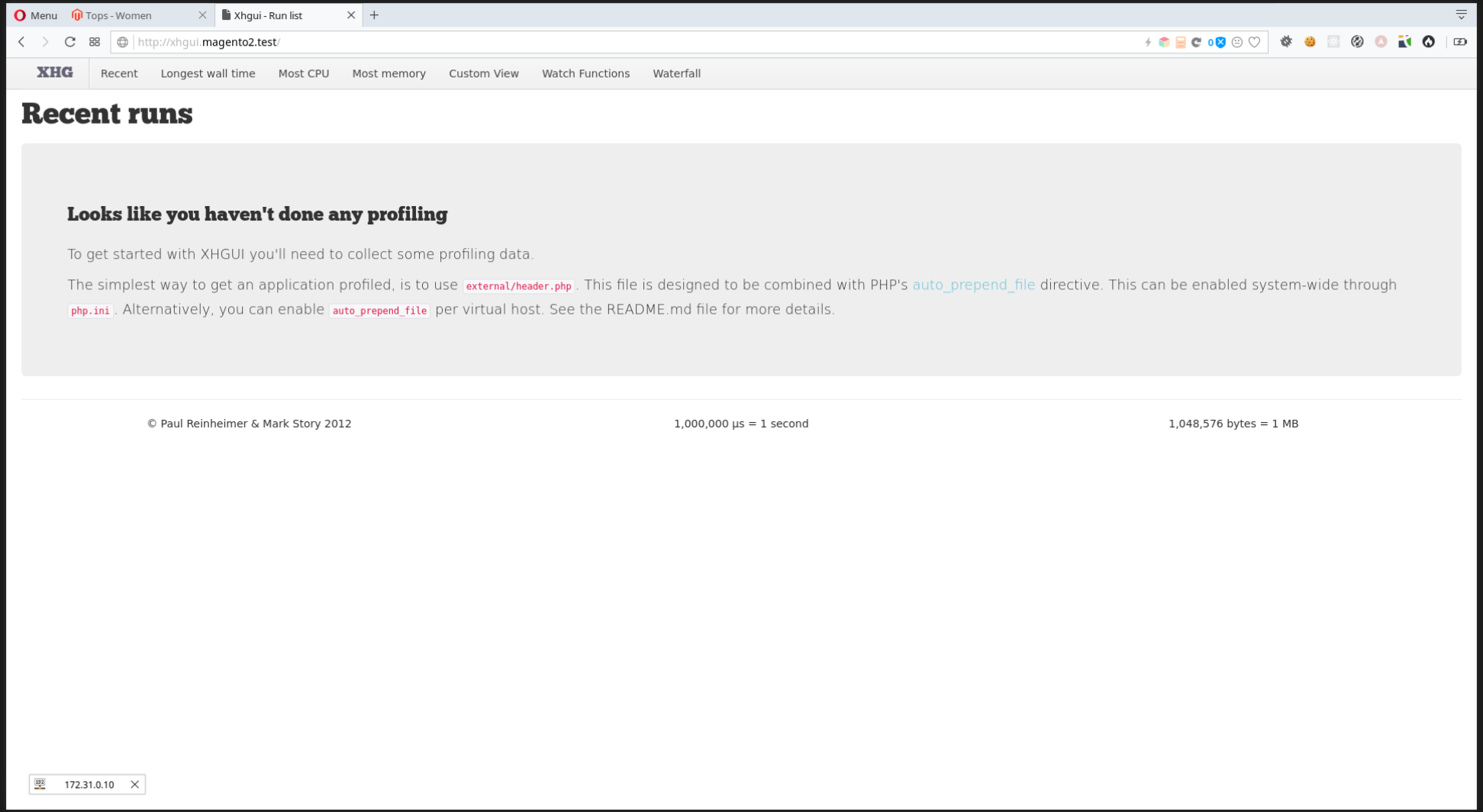
Tideways php extension

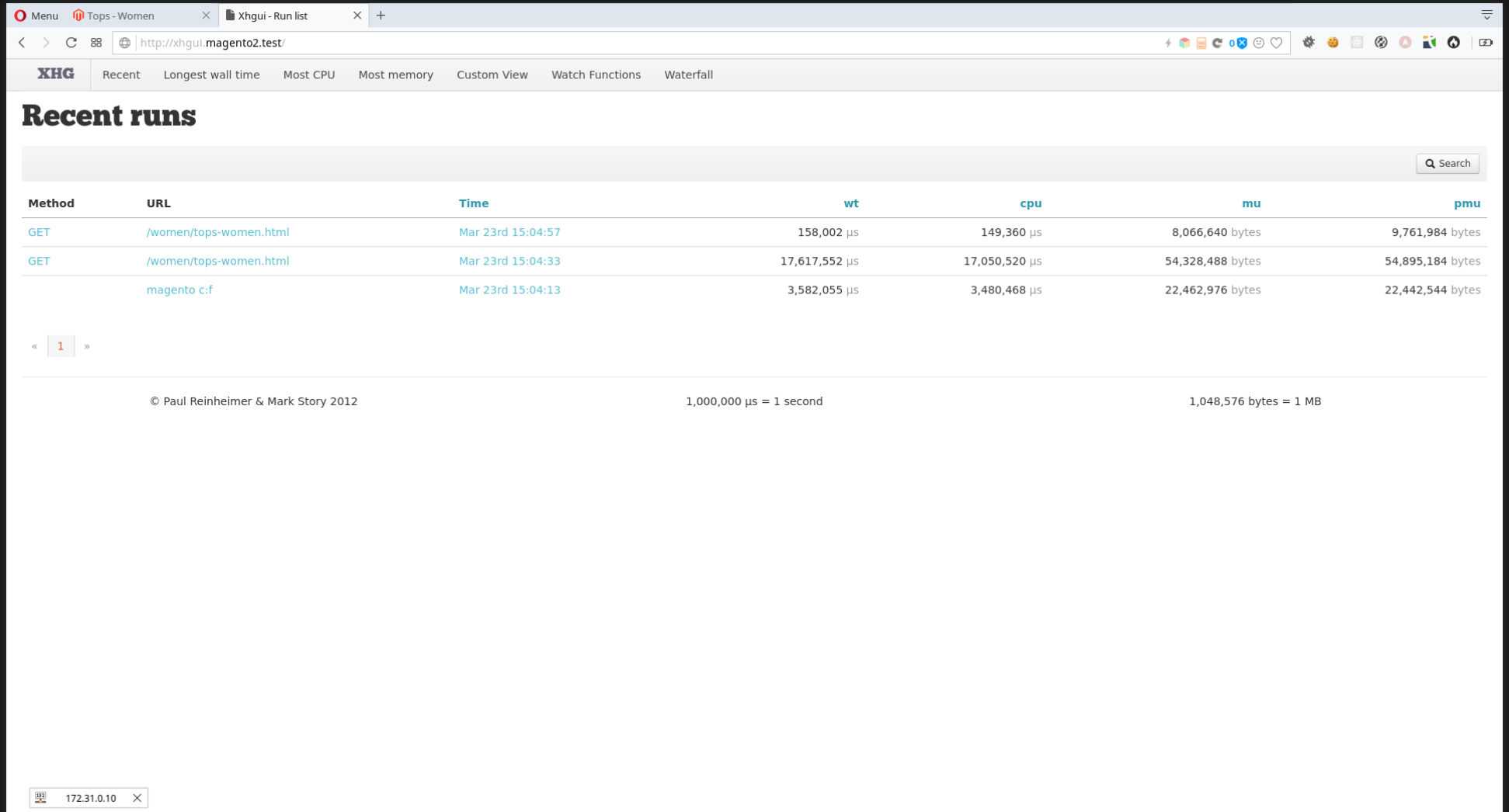
Configuration needed

Xhgui to view and compare

```
extension=tideways.so
tideways.auto_prepend_library=0
auto_prepend_file=/usr/share/xhprof/prepend.php
```

```php
<?php

if (extension_loaded('tideways')) {
    tideways_enable(
        TIDEWAYS_FLAGS_CPU
        | TIDEWAYS_FLAGS_MEMORY
        | TIDEWAYS_FLAGS_NO_SPANS
    );

    register_shutdown_function(
        function() {
            ignore_user_abort(true);
            flush();

            $data['profile'] = tideways_disable();

            // ...
```


Menu
Tops - Women
Xhgui - Run list
http://xhgui.magento2.test/
XHG
Recent
Longest wall time
Most CPU
Most memory
Custom View
Watch Functions
Waterfall
Recent runs
Looks like you haven't done any profiling
To get started with XHGUI you'll need to collect some profiling data.
The simplest way to get an application profiled, is to use external/header.php. This file is designed to be combined with PHP's auto_prepend_file directive. This can be enabled system-wide through php.ini. Alternatively, you can enable auto_prepend_file per virtual host. See the README.md file for more details.
© Paul Reinheimer & Mark Story 2012
1,000,000 µs = 1 second
1,048,576 bytes = 1 MB
172.31.0.10


Menu
Tops - Women
Xhgui - Run list
http://xhgui.magento2.test/
XHG
Recent
Longest wall time
Most CPU
Most memory
Custom View
Watch Functions
Waterfall
Recent runs
Search
Method
URL
Time
wt
cpu
mu
pmu
GET
/women/tops-women.html
Mar 23rd 15:04:57
158,002 µs
149,360 µs
8,066,640 bytes
9,761,984 bytes
GET
/women/tops-women.html
Mar 23rd 15:04:33
17,617,552 µs
17,050,520 µs
54,328,488 bytes
54,895,184 bytes
magento c:f
Mar 23rd 15:04:13
3,582,055 µs
3,480,468 µs
22,462,976 bytes
22,442,544 bytes
« 1 »
© Paul Reinheimer & Mark Story 2012
1,000,000 µs = 1 second
1,048,576 bytes = 1 MB
172.31.0.10

Menu | Tops - Women | Xhgui - Profile - /women

http://xhgui.magento2.test/run/view?id=5ab5179402d00e013503ff12

XHG | Recent | Longest wall time | Most CPU | Most memory | Custom View | Watch Functions | Waterfall

Profile data for GET /women/tops-women.html

THIS RUN

URL /women/tops-women.html
Time Mar 23rd 15:04:33
ID 5ab5179402d00e013503ff12
Wall Time 17,617,552 µs
CPU Time 17,050,520 µs
Memory Usage 54,328,488 bytes
Peak Memory Usage 54,895,184 bytes

GET

No GET data

SERVER

HOSTNAME
3af5f753e167
PWD
/phpapp
HOME
/var/www
DEBIAN_FRONTEND
noninteractive
affinity:container
=53e42ae1af7cff0904225f3fef60218a6ae2083991c5c7188d376b6704ab5e3b
PROFILER
xhprof
SHLVL
0
DEVELOPMENT
1
C_UID
1000
PATH
/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin
C_GID
1000
USER
www-data
HTTP_COOKIE
mage-translation-storage=%7B%7D; mage-translation-file-version=%7B%7D; form_key=rN9d5od56Ql76qv9; mage-cache-storage=%7B%7D; mage-cache-storage-s=%7B%7D; mage-cache-sessid=true; mage-messages=; recently_viewed_product=%7B%

172.31.0.10

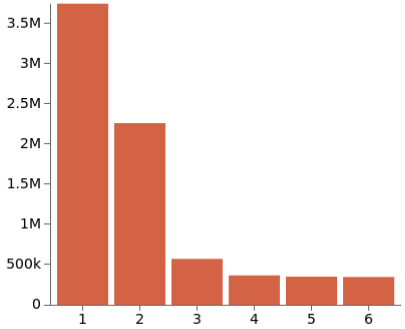
Watch Functions

Jump to functions | View Callgraph | View Flamegraph | Compare this run

Function	Call Count	ewt	emu	epmu

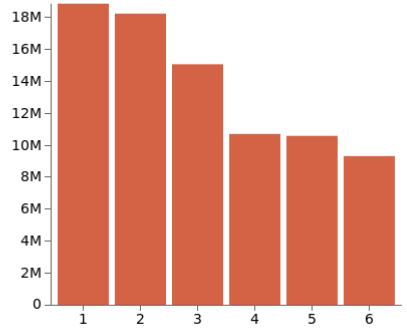
You have no watch functions setup. Add a watch function now.

Self Wall Time

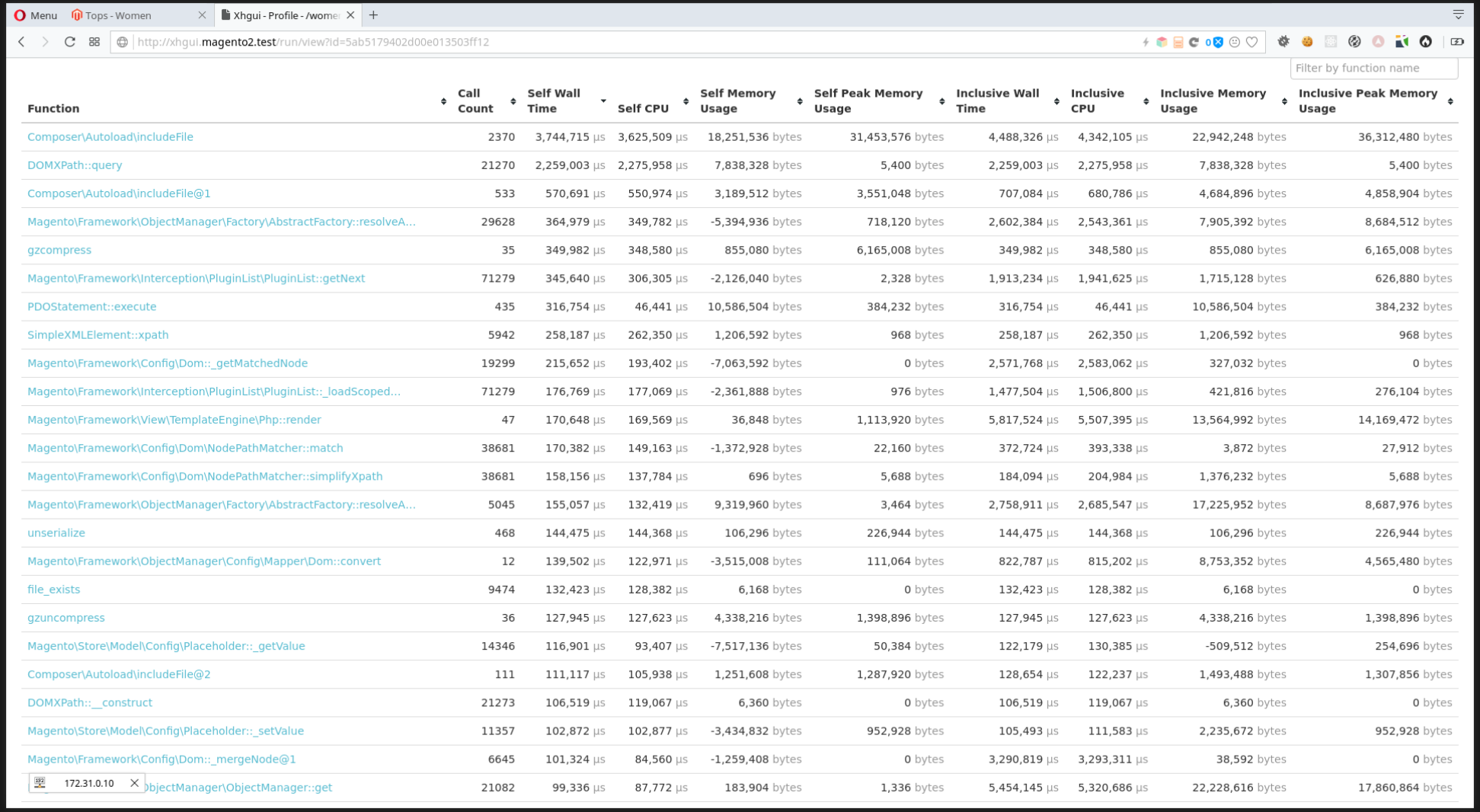


Composer\Autoload\includeFile
3,744,715 µs
DOMXPath::query
2,259,003 µs
Composer\Autoload\includeFile@1
570,691 µs
Magento\Framework\ObjectManager\Factory\AbstractFactory::resolveArgument
364,979 µs
gzcompress
349,982 µs
Magento\Framework\Interception\PluginList\PluginList::getNext
345,640 µs

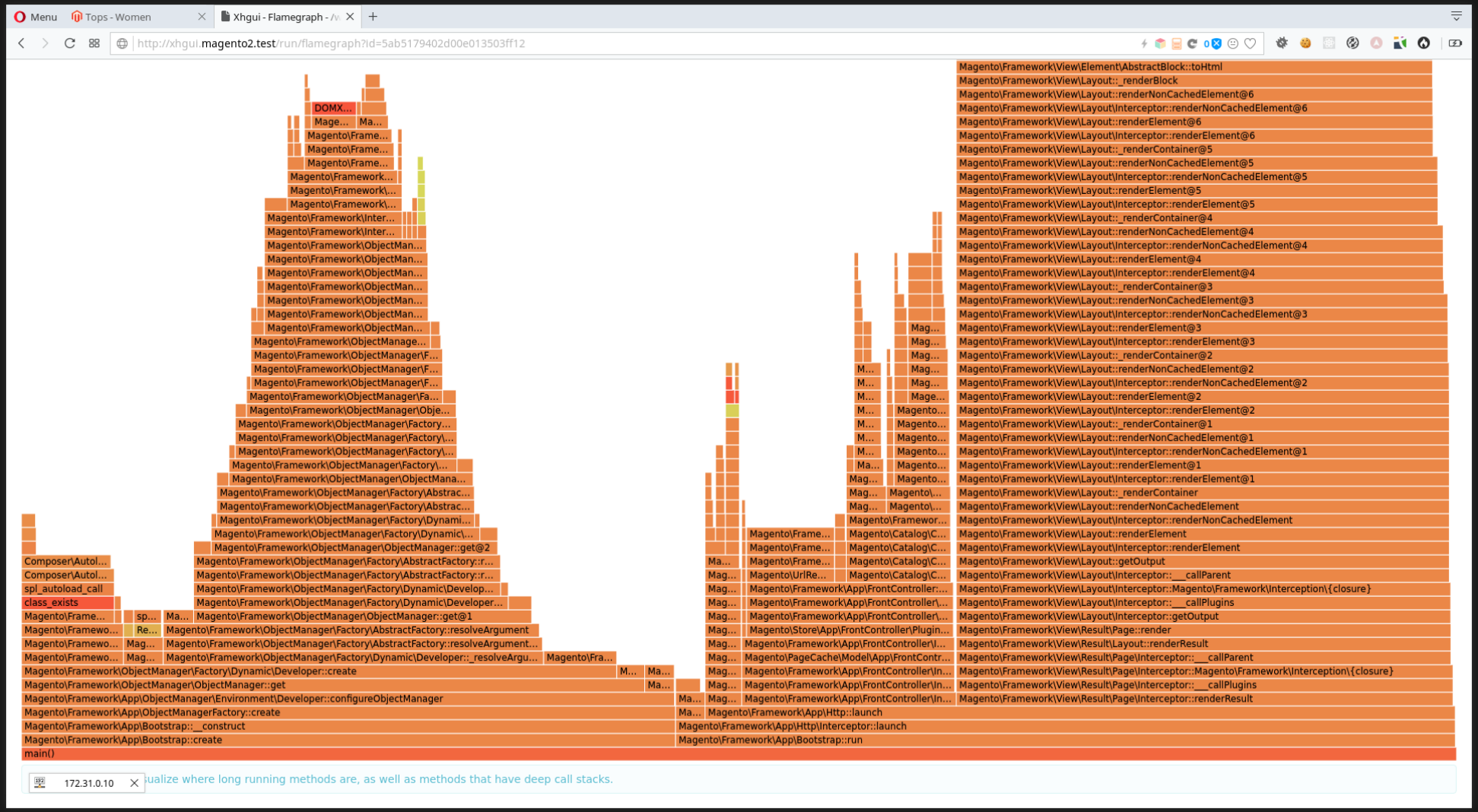
Memory Hogs



explode
18,874,232 bytes
Composer\Autoload\includeFile
18,251,536 bytes
array_merge
15,076,584 bytes
FilesystemIterator::current
10,708,592 bytes
PDOStatement::execute
10,586,504 bytes
Magento\Framework\ObjectManager\Factory\AbstractFactory::resolveArgumentsInRuntime
9,319,960 bytes



Function	Call Count	Self Wall Time	Self CPU	Self Memory Usage	Self Peak Memory Usage	Inclusive Wall Time	Inclusive CPU	Inclusive Memory Usage	Inclusive Peak Memory Usage
Composer\Autoload\includeFile	2370	3,744,715 µs	3,625,509 µs	18,251,536 bytes	31,453,576 bytes	4,488,326 µs	4,342,105 µs	22,942,248 bytes	36,312,480 bytes
DOMXPath::query	21270	2,259,003 µs	2,275,958 µs	7,838,328 bytes	5,400 bytes	2,259,003 µs	2,275,958 µs	7,838,328 bytes	5,400 bytes
Composer\Autoload\includeFile@1	533	570,691 µs	550,974 µs	3,189,512 bytes	3,551,048 bytes	707,084 µs	680,786 µs	4,684,896 bytes	4,858,904 bytes
Magento\Framework\ObjectManager\Factory\AbstractFactory::resolveA...	29628	364,979 µs	349,782 µs	-5,394,936 bytes	718,120 bytes	2,602,384 µs	2,543,361 µs	7,905,392 bytes	8,684,512 bytes
gzcompress	35	349,982 µs	348,580 µs	855,080 bytes	6,165,008 bytes	349,982 µs	348,580 µs	855,080 bytes	6,165,008 bytes
Magento\Framework\Interception\PluginList\PluginList::getNext	71279	345,640 µs	306,305 µs	-2,126,040 bytes	2,328 bytes	1,913,234 µs	1,941,625 µs	1,715,128 bytes	626,880 bytes
PDOStatement::execute	435	316,754 µs	46,441 µs	10,586,504 bytes	384,232 bytes	316,754 µs	46,441 µs	10,586,504 bytes	384,232 bytes
SimpleXMLElement::xpath	5942	258,187 µs	262,350 µs	1,206,592 bytes	968 bytes	258,187 µs	262,350 µs	1,206,592 bytes	968 bytes
Magento\Framework\Config\Dom::_getMatchedNode	19299	215,652 µs	193,402 µs	-7,063,592 bytes	0 bytes	2,571,768 µs	2,583,062 µs	327,032 bytes	0 bytes
Magento\Framework\Interception\PluginList\PluginList::_loadScoped...	71279	176,769 µs	177,069 µs	-2,361,888 bytes	976 bytes	1,477,504 µs	1,506,800 µs	421,816 bytes	276,104 bytes
Magento\Framework\View\TemplateEngine\Php::render	47	170,648 µs	169,569 µs	36,848 bytes	1,113,920 bytes	5,817,524 µs	5,507,395 µs	13,564,992 bytes	14,169,472 bytes
Magento\Framework\Config\Dom\NodePathMatcher::match	38681	170,382 µs	149,163 µs	-1,372,928 bytes	22,160 bytes	372,724 µs	393,338 µs	3,872 bytes	27,912 bytes
Magento\Framework\Config\Dom\NodePathMatcher::simplifyXpath	38681	158,156 µs	137,784 µs	696 bytes	5,688 bytes	184,094 µs	204,984 µs	1,376,232 bytes	5,688 bytes
Magento\Framework\ObjectManager\Factory\AbstractFactory::resolveA...	5045	155,057 µs	132,419 µs	9,319,960 bytes	3,464 bytes	2,758,911 µs	2,685,547 µs	17,225,952 bytes	8,687,976 bytes
unserialize	468	144,475 µs	144,368 µs	106,296 bytes	226,944 bytes	144,475 µs	144,368 µs	106,296 bytes	226,944 bytes
Magento\Framework\ObjectManager\Config\Mapper\Dom::convert	12	139,502 µs	122,971 µs	-3,515,008 bytes	111,064 bytes	822,787 µs	815,202 µs	8,753,352 bytes	4,565,480 bytes
file_exists	9474	132,423 µs	128,382 µs	6,168 bytes	0 bytes	132,423 µs	128,382 µs	6,168 bytes	0 bytes
gzuncompress	36	127,945 µs	127,623 µs	4,338,216 bytes	1,398,896 bytes	127,945 µs	127,623 µs	4,338,216 bytes	1,398,896 bytes
Magento\Store\Model\Config\Placeholder::_getValue	14346	116,901 µs	93,407 µs	-7,517,136 bytes	50,384 bytes	122,179 µs	130,385 µs	-509,512 bytes	254,696 bytes
Composer\Autoload\includeFile@2	111	111,117 µs	105,938 µs	1,251,608 bytes	1,287,920 bytes	128,654 µs	122,237 µs	1,493,488 bytes	1,307,856 bytes
DOMXPath::__construct	21273	106,519 µs	119,067 µs	6,360 bytes	0 bytes	106,519 µs	119,067 µs	6,360 bytes	0 bytes
Magento\Store\Model\Config\Placeholder::_setValue	11357	102,872 µs	102,877 µs	-3,434,832 bytes	952,928 bytes	105,493 µs	111,583 µs	2,235,672 bytes	952,928 bytes
Magento\Framework\Config\Dom::_mergeNode@1	6645	101,324 µs	84,560 µs	-1,259,408 bytes	0 bytes	3,290,819 µs	3,293,311 µs	38,592 bytes	0 bytes
bjectManager\ObjectManager::get	21082	99,336 µs	87,772 µs	183,904 bytes	1,336 bytes	5,454,145 µs	5,320,686 µs	22,228,616 bytes	17,860,864 bytes


Menu
Tops - Women
Xhgui - Flamegraph - /v
http://xhgui.magento2.test/run/flamegraph?id=5ab5179402d00e013503ff12
Magento\Framework\View\Element\AbstractBlock::toHtml
Magento\Framework\View\Layout::_renderBlock
Magento\Framework\View\Layout::renderNonCachedElement@6
Magento\Framework\View\Layout\Interceptor::renderNonCachedElement@6
Magento\Framework\View\Layout::renderElement@6
Magento\Framework\View\Layout\Interceptor::renderElement@6
Magento\Framework\View\Layout::_renderContainer@5
Magento\Framework\View\Layout::renderNonCachedElement@5
Magento\Framework\View\Layout\Interceptor::renderNonCachedElement@5
Magento\Framework\View\Layout::renderElement@5
Magento\Framework\View\Layout\Interceptor::renderElement@5
Magento\Framework\View\Layout::_renderContainer@4
Magento\Framework\View\Layout::renderNonCachedElement@4
Magento\Framework\View\Layout\Interceptor::renderNonCachedElement@4
Magento\Framework\View\Layout::renderElement@4
Magento\Framework\View\Layout\Interceptor::renderElement@4
Magento\Framework\View\Layout::_renderContainer@3
Magento\Framework\View\Layout::renderNonCachedElement@3
Magento\Framework\View\Layout\Interceptor::renderNonCachedElement@3
Magento\Framework\View\Layout::renderElement@3
Magento\Framework\View\Layout\Interceptor::renderElement@3
Magento\Framework\View\Layout::_renderContainer@2
Magento\Framework\View\Layout::renderNonCachedElement@2
Magento\Framework\View\Layout\Interceptor::renderNonCachedElement@2
Magento\Framework\View\Layout::renderElement@2
Magento\Framework\View\Layout\Interceptor::renderElement@2
Magento\Framework\View\Layout::_renderContainer@1
Magento\Framework\View\Layout::renderNonCachedElement@1
Magento\Framework\View\Layout\Interceptor::renderNonCachedElement@1
Magento\Framework\View\Layout::renderElement@1
Magento\Framework\View\Layout\Interceptor::renderElement@1
Magento\Framework\View\Layout::_renderContainer
Magento\Framework\View\Layout::renderNonCachedElement
Magento\Framework\View\Layout\Interceptor::renderNonCachedElement
Magento\Framework\View\Layout::renderElement
Magento\Framework\View\Layout\Interceptor::renderElement
Magento\Framework\View\Layout::getOutput
Magento\Framework\View\Layout\Interceptor::___callParent
Magento\Framework\View\Layout\Interceptor::Magento\Framework\Interception\{closure}
Magento\Framework\View\Layout\Interceptor::___callPlugins
Magento\Framework\View\Layout\Interceptor::getOutput
Magento\Framework\View\Result\Page::render
Magento\Framework\View\Result\Layout::renderResult
Magento\Framework\View\Result\Page\Interceptor::___callParent
Magento\Framework\View\Result\Page\Interceptor::Magento\Framework\Interception\{closure}
Magento\Framework\View\Result\Page\Interceptor::___callPlugins
Magento\Framework\View\Result\Page\Interceptor::renderResult
Magento\Framework\App\Http::launch
Magento\Framework\App\Http\Interceptor::launch
Magento\Framework\App\Bootstrap::run
main()
172.31.0.10
ualize where long running methods are, as well as methods that have deep call stacks.

Local setup

Profiles everything

Local setup

Profiles everything

Not so fancy

Tideways

Tideways php extension
Daemon for communication
Browser extension
Configuration needed
Token to identify
Hosted web interface
Also has APM functionality

30 day trial

Menu | Tops - Women | SETest / TidewaysDemo

https://app.tideways.io/o/SETest/TidewaysDemo/transaction/921577

SETest / TidewaysDemo Performance > default

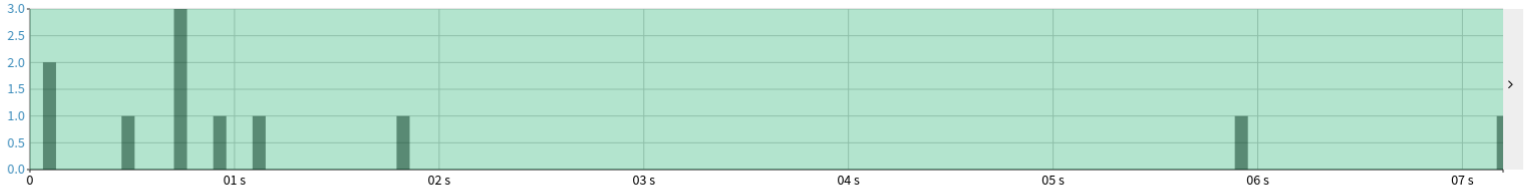
Invite your colleagues and team-members to Tideways. You can invite as many collaborators as you want - there are no limits.

XDEBUG default

5.92 s 95% Percentile | 11 Requests | 0 Events | 0.00% Error Rate

Response Time Distribution

739 ms 50% | 1.79 s Average | 5.92 s 90% | 7.20 s 95% | 7.20 s 99% | 7.20 s Max | 11 Requests



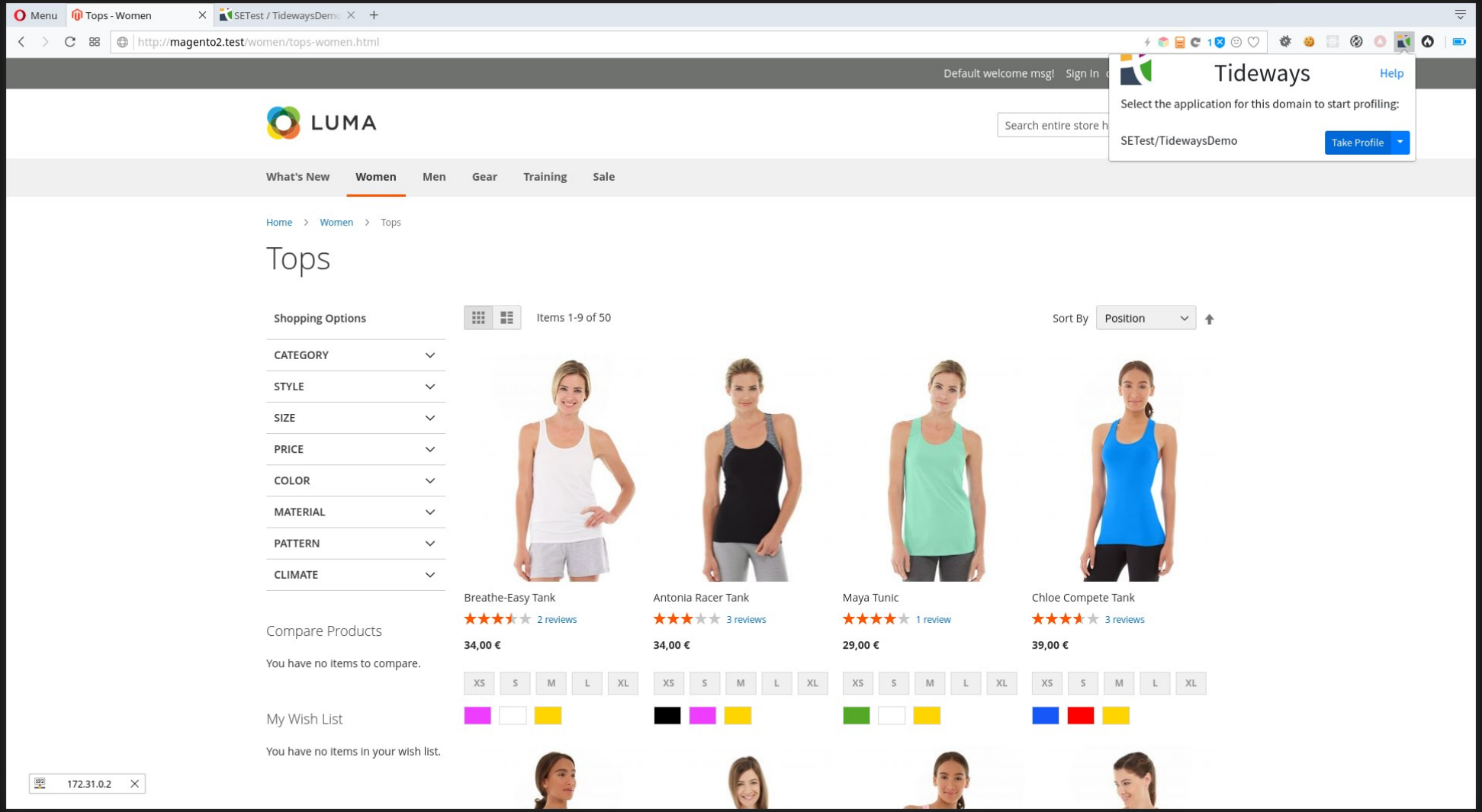
Traces

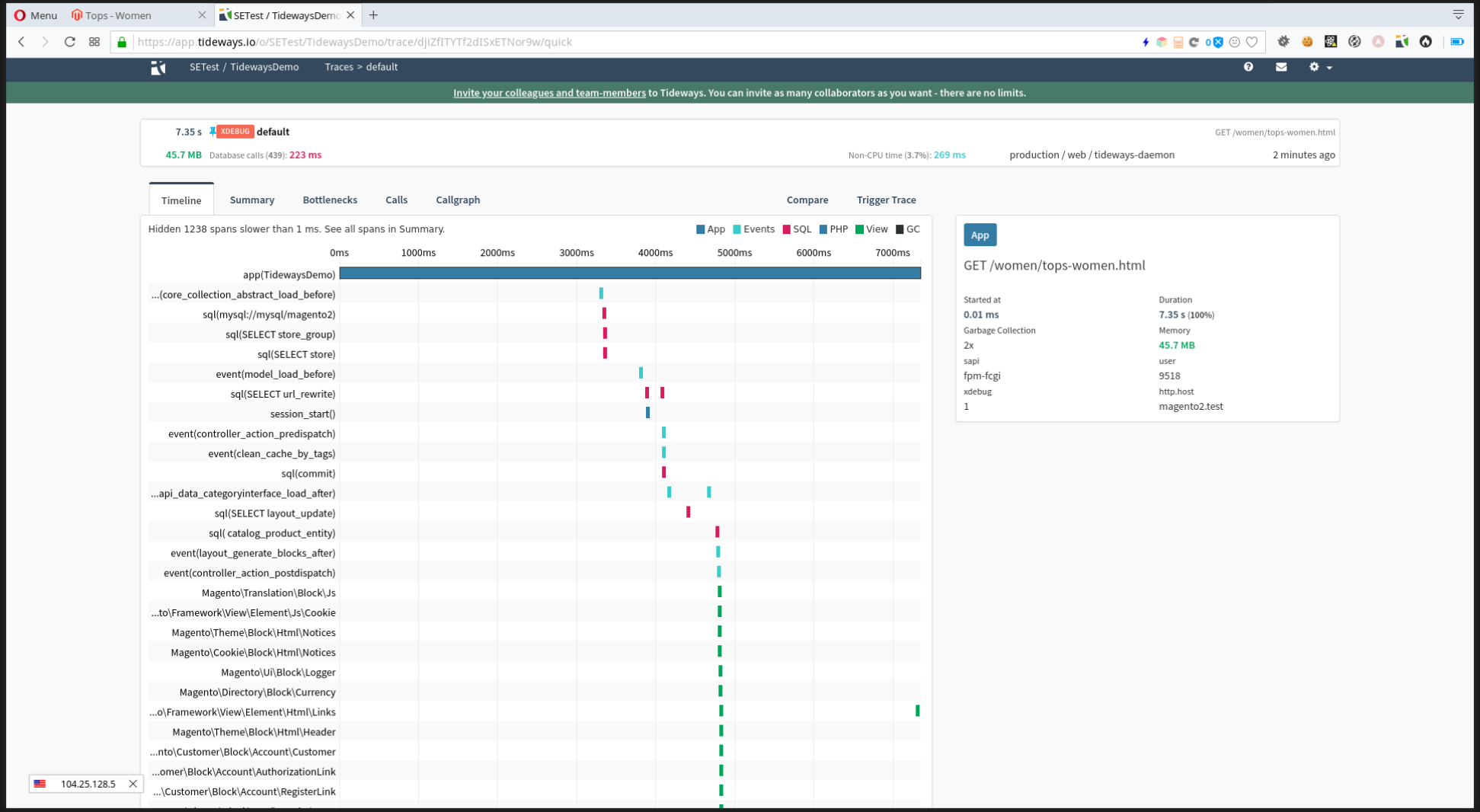
Response: All | Search... | Filter: All Filters | View: Detailed | Date | Clear Filters

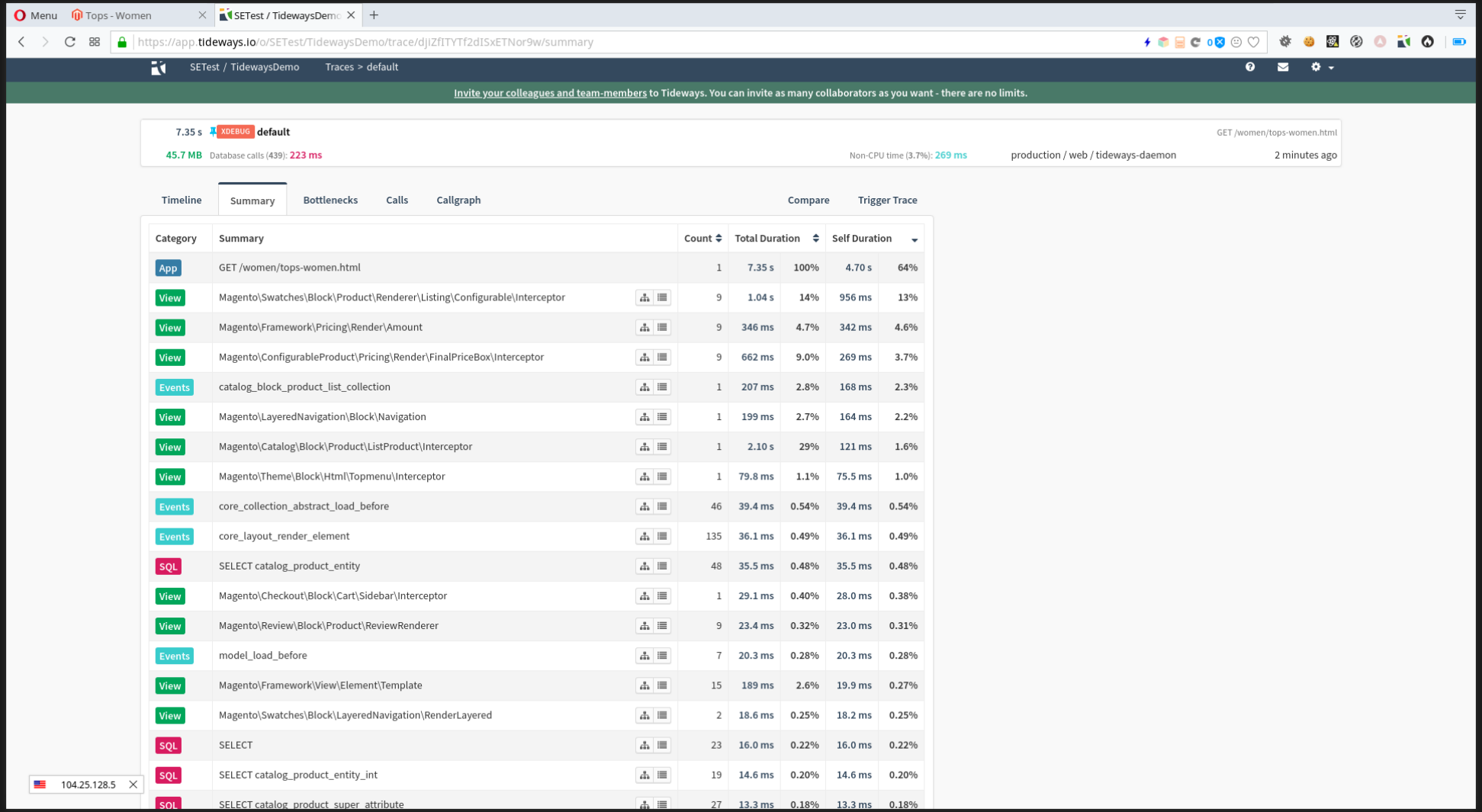
93.3 ms	XDEBUG default			GET /women/tops-women.html
9.5 MB	Database calls (7): 1.59 ms	Non-CPU time (3.4%): 3.14 ms	production / web / tideways-daemon	4 minutes ago
7.35 s	XDEBUG default			GET /women/tops-women.html
45.7 MB	Database calls (439): 223 ms	Non-CPU time (3.7%): 269 ms	production / web / tideways-daemon	4 minutes ago

1

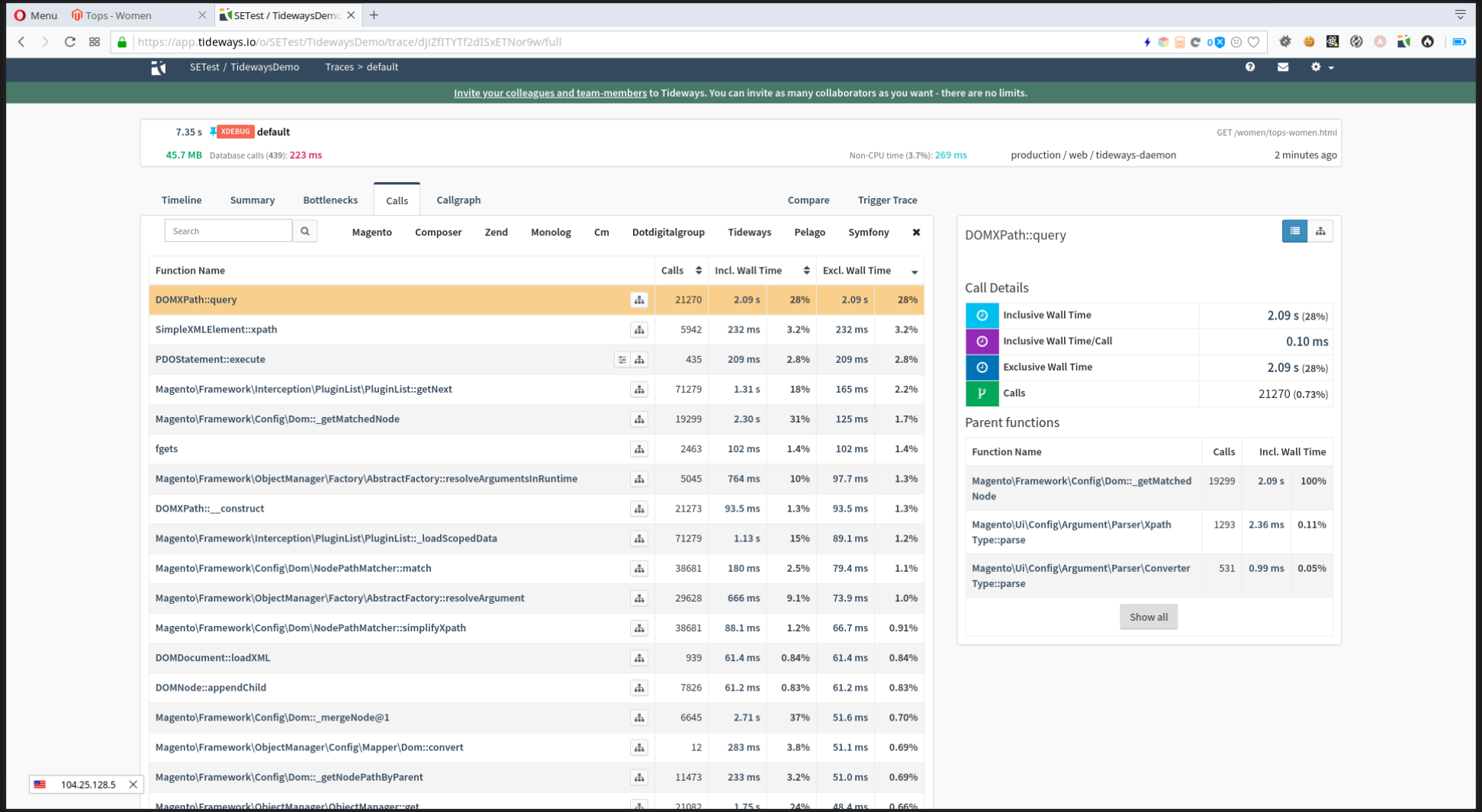
104.25.128.5


Menu
Tops - Women
SETest / TidewaysDemo
http://magento2.test/women/tops-women.html
Default welcome msg!
Sign In
Tideways
Help
Select the application for this domain to start profiling:
SETest/TidewaysDemo
Take Profile
LUMA
Search entire store h
What's New
Women
Men
Gear
Training
Sale
Home
Women
Tops
Tops
Shopping Options
CATEGORY
STYLE
SIZE
PRICE
COLOR
MATERIAL
PATTERN
CLIMATE
Items 1-9 of 50
Sort By
Position
Breathe-Easy Tank
2 reviews
34,00 €
Antonia Racer Tank
3 reviews
34,00 €
Maya Tunic
1 review
29,00 €
Chloe Compete Tank
3 reviews
39,00 €
XS
S
M
L
XL
Compare Products
You have no items to compare.
My Wish List
You have no items in your wish list.
172.31.0.2


Menu
Tops - Women
SETest / TidewaysDemo
https://app.tideways.io/o/SETest/TidewaysDemo/trace/djIZfITYTf2dISxETNor9w/quick
SETest / TidewaysDemo
Traces > default
Invite your colleagues and team-members to Tideways. You can invite as many collaborators as you want - there are no limits.
7.35 s
XDEBUG
default
GET /women/tops-women.html
45.7 MB
Database calls (439): 223 ms
Non-CPU time (3.7%): 269 ms
production / web / tideways-daemon
2 minutes ago
Timeline
Summary
Bottlenecks
Calls
Callgraph
Compare
Trigger Trace
Hidden 1238 spans slower than 1 ms. See all spans in Summary.
App
Events
SQL
PHP
View
GC
0ms
1000ms
2000ms
3000ms
4000ms
5000ms
6000ms
7000ms
app(TidewaysDemo)
...(core_collection_abstract_load_before)
sql(mysql://mysql/magento2)
sql(SELECT store_group)
sql(SELECT store)
event(model_load_before)
sql(SELECT url_rewrite)
session_start()
event(controller_action_predispatch)
event(clean_cache_by_tags)
sql(commit)
...api_data_categoryinterface_load_after)
sql(SELECT layout_update)
sql(catalog_product_entity)
event(layout_generate_blocks_after)
event(controller_action_postdispatch)
Magento\Translation\Block\Js
...to\Framework\View\Element\Js\Cookie
Magento\Theme\Block\Html\Notices
Magento\Cookie\Block\Html\Notices
Magento\Ui\Block\Logger
Magento\Directory\Block\Currency
...o\Framework\View\Element\Html\Links
Magento\Theme\Block\Html\Header
...nto\Customer\Block\Account\Customer
...omer\Block\Account\AuthorizationLink
...\Customer\Block\Account\RegisterLink
App
GET /women/tops-women.html
Started at
0.01 ms
Duration
7.35 s (100%)
Garbage Collection
2x
Memory
45.7 MB
sapi
fpm-fcgi
user
9518
xdebug
1
http.host
magento2.test
104.25.128.5



Category	Summary	Count	Total Duration		Self Duration	
App	GET /women/tops-women.html	1	7.35 s	100%	4.70 s	64%
View	Magento\Swatches\Block\Product\Renderer\Listing\Configurable\Interceptor	9	1.04 s	14%	956 ms	13%
View	Magento\Framework\Pricing\Render\Amount	9	346 ms	4.7%	342 ms	4.6%
View	Magento\ConfigurableProduct\Pricing\Render\FinalPriceBox\Interceptor	9	662 ms	9.0%	269 ms	3.7%
Events	catalog_block_product_list_collection	1	207 ms	2.8%	168 ms	2.3%
View	Magento\LayeredNavigation\Block\Navigation	1	199 ms	2.7%	164 ms	2.2%
View	Magento\Catalog\Block\Product\ListProduct\Interceptor	1	2.10 s	29%	121 ms	1.6%
View	Magento\Theme\Block\Html\Topmenu\Interceptor	1	79.8 ms	1.1%	75.5 ms	1.0%
Events	core_collection_abstract_load_before	46	39.4 ms	0.54%	39.4 ms	0.54%
Events	core_layout_render_element	135	36.1 ms	0.49%	36.1 ms	0.49%
SQL	SELECT catalog_product_entity	48	35.5 ms	0.48%	35.5 ms	0.48%
View	Magento\Checkout\Block\Cart\Sidebar\Interceptor	1	29.1 ms	0.40%	28.0 ms	0.38%
View	Magento\Review\Block\Product\ReviewRenderer	9	23.4 ms	0.32%	23.0 ms	0.31%
Events	model_load_before	7	20.3 ms	0.28%	20.3 ms	0.28%
View	Magento\Framework\View\Element\Template	15	189 ms	2.6%	19.9 ms	0.27%
View	Magento\Swatches\Block\LayeredNavigation\RenderLayered	2	18.6 ms	0.25%	18.2 ms	0.25%
SQL	SELECT	23	16.0 ms	0.22%	16.0 ms	0.22%
SQL	SELECT catalog_product_entity_int	19	14.6 ms	0.20%	14.6 ms	0.20%
SQL	SELECT catalog_product_super_attribute	27	13.3 ms	0.18%	13.3 ms	0.18%


Menu
Tops - Women
SETest / TidewaysDemo
https://app.tideways.io/o/SETest/TidewaysDemo/trace/djIZfITYTf2dISxETNor9w/full
SETest / TidewaysDemo
Traces > default
Invite your colleagues and team-members to Tideways. You can invite as many collaborators as you want - there are no limits.
7.35 s XDEBUG default
GET /women/tops-women.html
45.7 MB Database calls (439): 223 ms
Non-CPU time (3.7%): 269 ms
production / web / tideways-daemon
2 minutes ago
Timeline
Summary
Bottlenecks
Calls
Callgraph
Compare
Trigger Trace
Search
Magento
Composer
Zend
Monolog
Cm
Dotdigitalgroup
Tideways
Pelago
Symfony
Function Name
Calls
Incl. Wall Time
Excl. Wall Time
DOMXPath::query 21270 2.09 s 28% 2.09 s 28%
SimpleXMLElement::xpath 5942 232 ms 3.2% 232 ms 3.2%
PDOStatement::execute 435 209 ms 2.8% 209 ms 2.8%
Magento\Framework\Interception\PluginList\PluginList::getNext 71279 1.31 s 18% 165 ms 2.2%
Magento\Framework\Config\Dom::_getMatchedNode 19299 2.30 s 31% 125 ms 1.7%
fgets 2463 102 ms 1.4% 102 ms 1.4%
Magento\Framework\ObjectManager\Factory\AbstractFactory::resolveArgumentsInRuntime 5045 764 ms 10% 97.7 ms 1.3%
DOMXPath::__construct 21273 93.5 ms 1.3% 93.5 ms 1.3%
Magento\Framework\Interception\PluginList\PluginList::_loadScopedData 71279 1.13 s 15% 89.1 ms 1.2%
Magento\Framework\Config\Dom\NodePathMatcher::match 38681 180 ms 2.5% 79.4 ms 1.1%
Magento\Framework\ObjectManager\Factory\AbstractFactory::resolveArgument 29628 666 ms 9.1% 73.9 ms 1.0%
Magento\Framework\Config\Dom\NodePathMatcher::simplifyXpath 38681 88.1 ms 1.2% 66.7 ms 0.91%
DOMDocument::loadXML 939 61.4 ms 0.84% 61.4 ms 0.84%
DOMNode::appendChild 7826 61.2 ms 0.83% 61.2 ms 0.83%
Magento\Framework\Config\Dom::_mergeNode@1 6645 2.71 s 37% 51.6 ms 0.70%
Magento\Framework\ObjectManager\Config\Mapper\Dom::convert 12 283 ms 3.8% 51.1 ms 0.69%
Magento\Framework\Config\Dom::_getNodePathByParent 11473 233 ms 3.2% 51.0 ms 0.69%
DOMXPath::query
Call Details
Inclusive Wall Time 2.09 s (28%)
Inclusive Wall Time/Call 0.10 ms
Exclusive Wall Time 2.09 s (28%)
Calls 21270 (0.73%)
Parent functions
Function Name
Calls
Incl. Wall Time
Magento\Framework\Config\Dom::_getMatchedNode 19299 2.09 s 100%
Magento\Ui\Config\Argument\Parser\XpathType::parse 1293 2.36 ms 0.11%
Magento\Ui\Config\Argument\Parser\ConverterType::parse 531 0.99 ms 0.05%
Show all
104.25.128.5

More than a profiler

Easy to use

More than a profiler

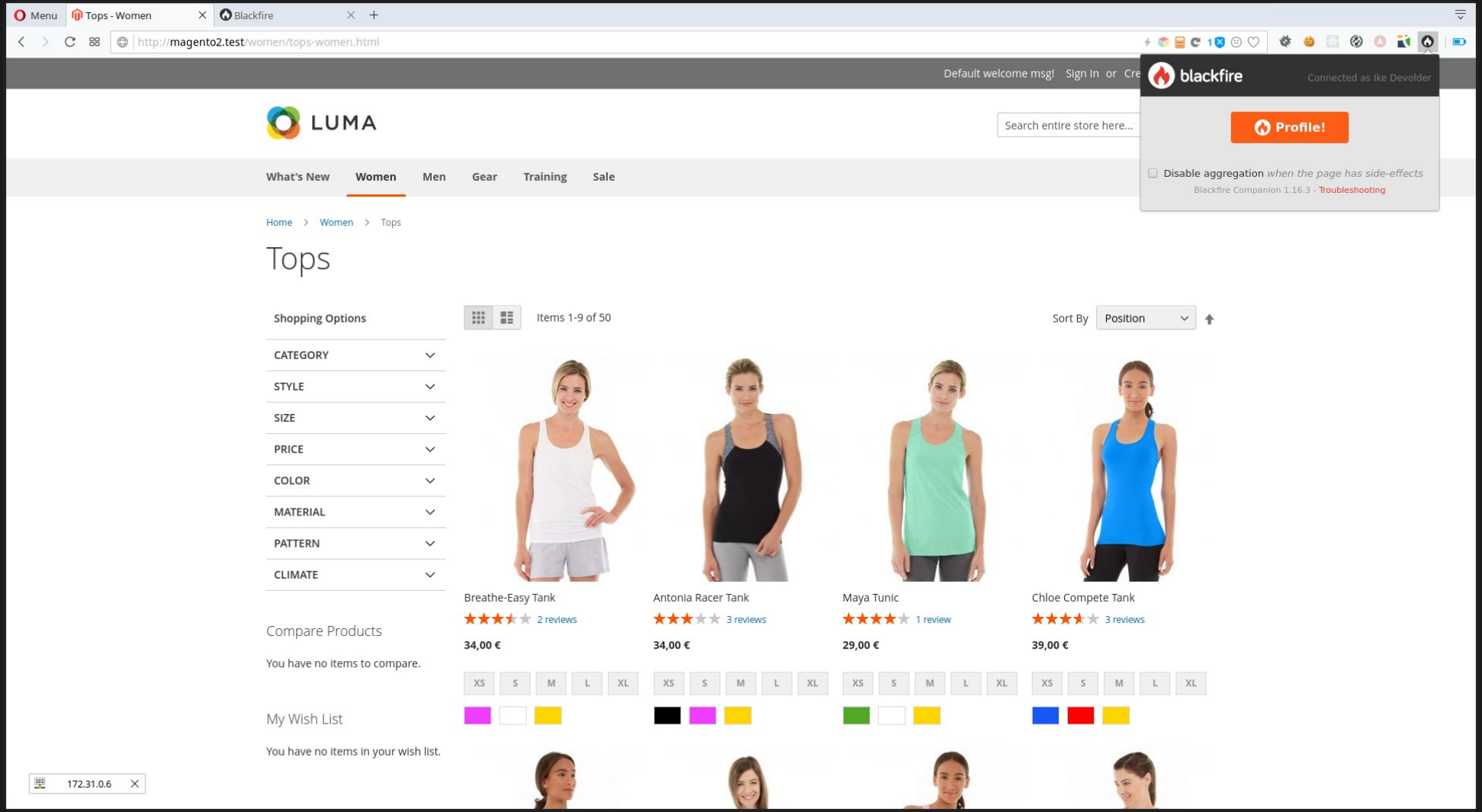
Easy to use

Trial → Paying

Blackfire

Blackfire php extension
Daemon for communication
Browser extension
Configuration needed
Token to identify
Hosted web interface

Freemium


Menu
Tops - Women
Blackfire
http://magento2.test/women/tops-women.html
Default welcome msg!
Sign In
or
Cre
blackfire
Connected as Ike Devolder
Profile!
Disable aggregation when the page has side-effects
Blackfire Companion 1.16.3 - Troubleshooting
LUMA
Search entire store here...
What's New
Women
Men
Gear
Training
Sale
Home
Women
Tops
Tops
Shopping Options
CATEGORY
STYLE
SIZE
PRICE
COLOR
MATERIAL
PATTERN
CLIMATE
Compare Products
You have no items to compare.
My Wish List
You have no items in your wish list.
Items 1-9 of 50
Sort By
Position
Breathe-Easy Tank
2 reviews
34,00 €
Antonia Racer Tank
3 reviews
34,00 €
Maya Tunic
1 review
29,00 €
Chloe Compete Tank
3 reviews
39,00 €
XS
S
M
L
XL
172.31.0.6

Menu Men | Tops - Women profile - | https://blackfire.io/profiles/05107995-27d8-4625-bcc4-4e775ab4b6ef/graph?settings%5Bdimension%5D=wt&settings%5Bdisplay%5D=landscape&settings%5BtabPane%5D=nodes&selected=&calln

Tops - Women | 128 ms | 8.74 MB | Start Premium Free Trial

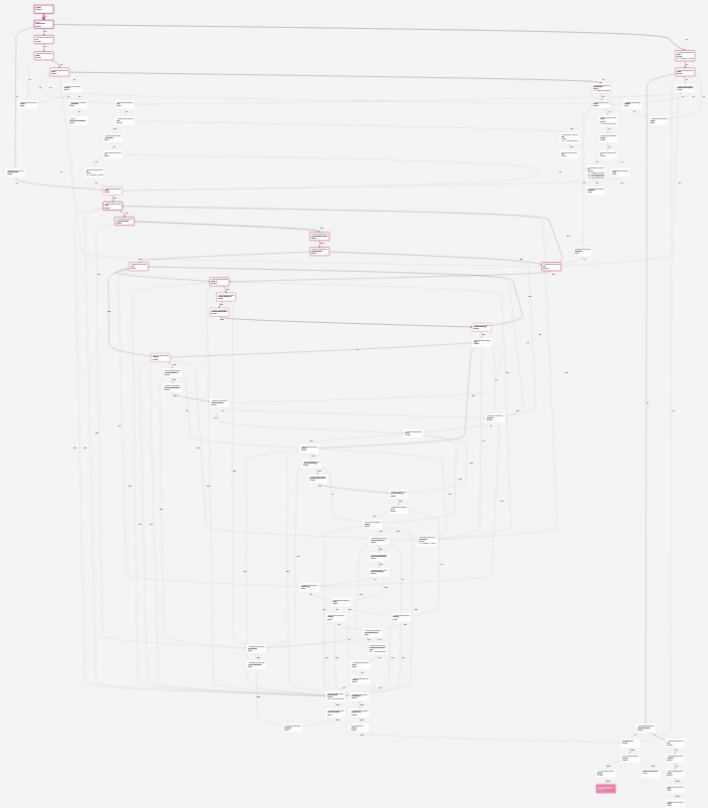
Functions | Recommendations | Assertions

search

Function / Metric	% Excl.	% Incl.	Calls
..ssLoader::findFileWithExtension			548
Composer\Autoload\includeFile			383
...er\ClassReader::getConstructor			214
gzuncompress			11
..\AbstractFactory::createObject			190
..er\Config\Mapper\Dom::convert			1
...eader\ClassReader::getParents			499
...g\Converter\Dom\Flat::convert			228
...\ObjectManagerFactory::create			1
unserialize			9
..nfig\Config::_inheritInterception			167
file_exists			988
...onverter\Dom\Flat::convert@1			131
..mposer\Autoload\includeFile@1			114
...nvironment\Request::setServer			2
...8357adda20c9567af7c555867			161
...Manager\Config\Config::extend			3
...fig\Developer::getInstanceType			266
..fig\Proxy::getConnectionName			4
..nterpreter\Composite::evaluate			228
...rk\App\PageCache\Kernel::load			1
...\Config::_inheritInterception@1			140
..\Relations\Runtime::getParents			674
...onfig::_collectConfiguration@1			197
stream_socket_client			4
...anager\Relations\Runtime::has			674
...stem\DirectoryList::__construct			3
...nList\PluginList::_inheritPlugins			6
...pe\System::get			11

54.75.240.245

main()



Support

Relatively easy to use

Relatively easy to use

Freemium

→ not all features

Pick one
Learn it!

Photo by rihaij on Pixabay

How to approach profiling

Photo by Victor Van Welden on Unsplash

What first?

Photo by Victor Van Welden on Unsplash

What first?

- Slow things

Photo by Victor Van Welden on Unsplash

What first?

- Slow things
- popular things

Photo by Victor Van Welden on Unsplash

What first?

- Slow things
- popular things
- application initialisation

Analyse the profile

- hot path
- find the cause
- fix it
- …
- 👍

Photo by Aaron Sunday on Pixabay

demo

Photo by Ha Ess on Pixabay

Photo by rihaij on Pixabay

Slow code

Slow code

Bad SQL queries

Slow code

Bad SQL queries

Disk I/O

Slow code

Bad sql queries

Disk I/O

Bad external services

And then it happens, slowness in production

Photo by Aaron Sunday on Pixabay

First response

Don't Panic

Photo by rihaij on Pixabay

First response

Don't Panic

Add more CPU

Photo by rihaij on Pixabay

First response

Don't Panic

Add more CPU

Add more RAM

Photo by rihaij on Pixabay

First response

Don't Panic

Add more CPU

Add more RAM

Block malicious actors

Photo by rihaij on Pixabay

When system is normalized

- Find slow parts
- Start profiling

Some usefull tools in production

- Monitoring
- APM
- atop
- strace
- ...

Photo by rihaij on Pixabay

Closing

- find slower things while developing
- xhprof + xhgui
- don't trust profiles from systems under stress
- make popular pages cachable
- profile periodicaly

Questions?

I'm Ike, Developer / Operations
at Studio Emma

- @BlackIkeEagle
- PHP-WVL
- DockerWest
- Parchive
- BlackIkeEagle
- Archlinux TU
- VdeBug
- herecura.eu

Thanks https://joind.in/talk/dc40d

I'm Ike, Developer / Operations at Studio Emma

- @BlackIkeEagle
- PHP-WVL
- DockerWest
- Parchive
- BlackIkeEagle
- Archlinux TU
- VdeBug
- herecura.eu