

PHP7 Benchmark

1. 基本环境

一台 8G 内存的普通 PC，在公司办公网，ubuntu 系统，请先绑定以下 HOSTS 信息以查看具体 php info。

```
192.168.30.212 php5.batman.me
192.168.30.212 php7.batman.me
```

可用以下 URL 查看两个版本的系统信息：

<http://php5.batman.me/info.php>

<http://php7.batman.me/info.php>

在另一台 PC 上用相同的 ab 参数施压：

```
ab -n 1000 -c 200 http://php5.batman.me/wordpress/
```

2. Round 1

■ CONDITION

- nginx worker: 10
- php-fpm max_children: 15
- requests: 1000
- concurrency: 200

■ RESULT

指标	php7	php5
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指标	php7	php5
Request per second	327.85	258.34
Time per request	2.75(ms)	4.41(ms)

3. Round 2

■ CONDITION

- nginx worker: 20
- php-fpm max_children: 15
- requests: 1000
- concurrency: 200

■ RESULT

指标	php7	php5
Request per second	354.15	266.66
Time per request	2.824(ms)	3.75(ms)

4. Round 3

■ CONDITION

- nginx worker: 20

- php-fpm max_children: 15
- requests: 1000
- concurrency: 500

■ RESULT

指标	php7	php5
Request per second	346.62	232.75
Time per request	2.885(ms)	4.297(ms)

5. 性能报告图表

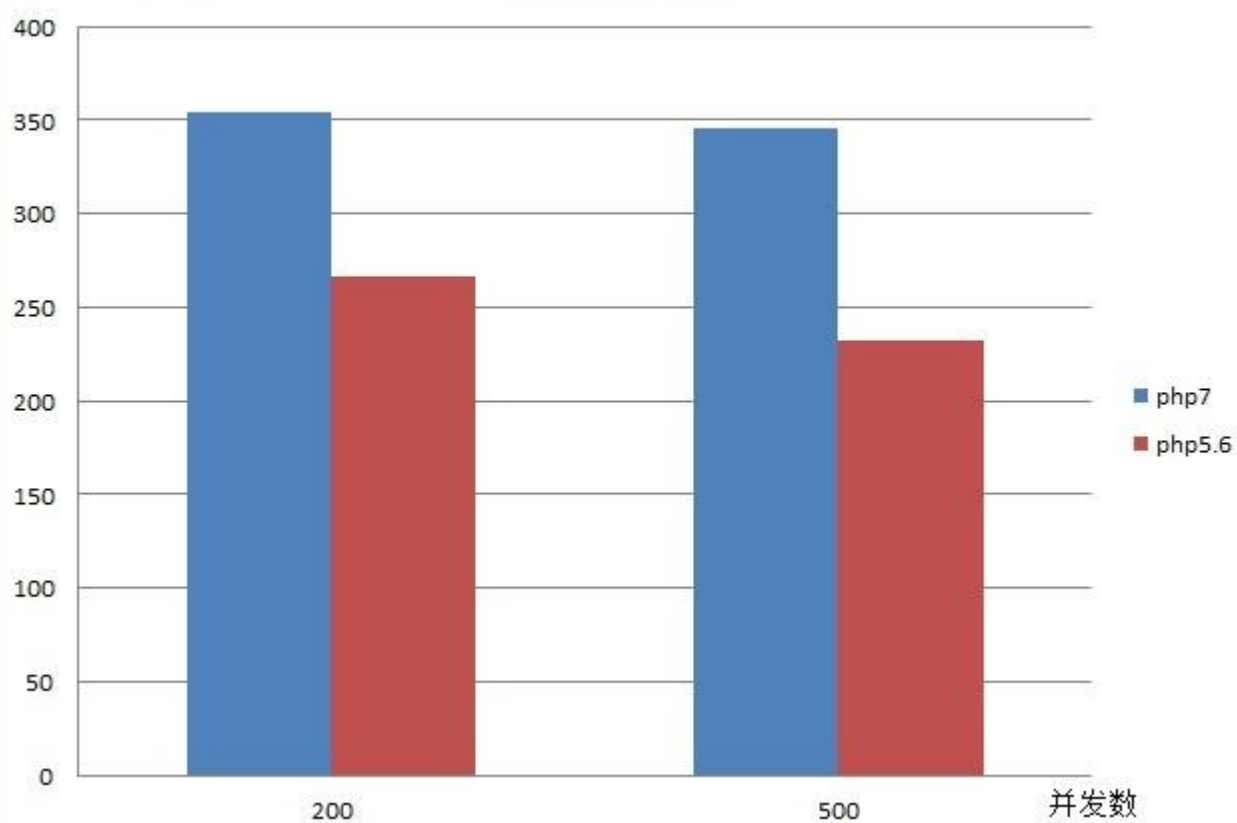
自带的 sapi benchmark:

php-7.0.0 sapi/cli/php Zend/bench.php	php-5.6.16 sapi/cli/php Zend/bench.php
simple 0.056	simple 0.056
simplecall 0.016	simplecall 0.078
simpleucall 0.039	simpleucall 0.083
simpleudcall 0.039	simpleudcall 0.083
mandel 0.100	mandel 0.135
mandel2 0.088	mandel2 0.192
ackermann(7) 0.022	ackermann(7) 0.072
ary(50000) 0.005	ary(50000) 0.014
ary2(50000) 0.004	ary2(50000) 0.012
ary3(2000) 0.055	ary3(2000) 0.115
Fibo(30) 0.079	Fibo(30) 0.255
hash1(50000) 0.012	hash1(50000) 0.022
hash2(500) 0.009	hash2(500) 0.020
heapsort(20000) 0.024	heapsort(20000) 0.051
matrix(20) 0.026	matrix(20) 0.058
nestedloop(12) 0.039	nestedloop(12) 0.094
sieve(30) 0.016	sieve(30) 0.067
strcat(200000) 0.004	strcat(200000) 0.009
Total 0.633	Total 1.417

性能统计图:

Request per second

Wordpress



ab 测试 1 和 2

```
Benchmarking php7.batman.me (be patient)
Completed 100 requests
Completed 200 requests
Completed 300 requests
Completed 400 requests
Completed 500 requests
Completed 600 requests
Completed 700 requests
Completed 800 requests
Completed 900 requests
Completed 1000 requests
Finished 1000 requests

Server Software:      nginx/1.9.6
Server Hostname:      php7.batman.me
Server Port:          80

Document Path:        /wordpress/
Document Length:      172 bytes

Concurrency Level:    200
Time taken for tests:  2.756 seconds
Complete requests:    1000
Failed requests:       150
  (Connect: 0, Receive: 0, Length: 150, Exceptions: 0)
Write errors:         0
Non-2xx responses:    850
Total transferred:    3275750 bytes
HTML transferred:     3111100 bytes
Requests per second:  362.79 [#/sec] (mean)
Time per request:     551.281 [ms] (mean)
Time per request:     2.756 [ms] (mean, across all concurrent requests)
Transfer rate:        1160.56 [Kbytes/sec] received

Connection Times (ms)
  min   mean[+/-sd] median   max
Connect:    1    15   8.4      13     42
Processing:  6   237  593.9    16   2561
Waiting:    5   233  594.3    13   2559
Total:      14   252  597.3    29   2586

Percentage of the requests served within a certain time (ms)
 50%    29
 66%    36
 75%    46
 80%    53
 90%   1111
 95%   2003
 98%   2401
 99%   2481
100%   2586 (longest request)
```

```
Benchmarking php5.batman.me (be patient)
Completed 100 requests
Completed 200 requests
Completed 300 requests
Completed 400 requests
Completed 500 requests
Completed 600 requests
Completed 700 requests
Completed 800 requests
Completed 900 requests
Completed 1000 requests
Finished 1000 requests

Server Software:      nginx/1.9.6
Server Hostname:      php5.batman.me
Server Port:          80

Document Path:        /wordpress/
Document Length:      172 bytes

Concurrency Level:    200
Time taken for tests:  4.418 seconds
Complete requests:    1000
Failed requests:       140
  (Connect: 0, Receive: 0, Length: 140, Exceptions: 0)
Write errors:         0
Non-2xx responses:    860
Total transferred:    3079040 bytes
HTML transferred:     2915160 bytes
Requests per second:  226.37 [#/sec] (mean)
Time per request:     883.515 [ms] (mean)
Time per request:     4.418 [ms] (mean, across all concurrent requests)
Transfer rate:        680.66 [Kbytes/sec] received

Connection Times (ms)
  min   mean[+/-sd] median   max
Connect:    2    15   6.8      14     36
Processing:  8   406 1036.5    18   4347
Waiting:    0   402 1037.0    13   4344
Total:      15   421 1038.5    31   4355

Percentage of the requests served within a certain time (ms)
 50%    31
 66%    36
 75%    41
 80%    46
 90%   2173
 95%   3365
 98%   4023
 99%   4257
100%   4355 (longest request)
```

```
Benchmarking php7.batman.me (be patient)
Completed 100 requests
Completed 200 requests
Completed 300 requests
Completed 400 requests
Completed 500 requests
Completed 600 requests
Completed 700 requests
Completed 800 requests
Completed 900 requests
Completed 1000 requests
Finished 1000 requests

Server Software:      nginx/1.9.6
Server Hostname:      php7.batman.me
Server Port:          80

Document Path:        /wordpress/
Document Length:      172 bytes

Concurrency Level:    200
Time taken for tests:  2.824 seconds
Complete requests:    1000
Failed requests:       157
  (Connect: 0, Receive: 0, Length: 157, Exceptions: 0)
Write errors:         0
Non-2xx responses:    843
Total transferred:    3413545 bytes
HTML transferred:     3248258 bytes
Requests per second:  354.15 [#/sec] (mean)
Time per request:     564.737 [ms] (mean)
Time per request:     2.824 [ms] (mean, across all concurrent requests)
Transfer rate:        1180.56 [Kbytes/sec] received

Connection Times (ms)
  min   mean[+/-sd] median   max
Connect:    1    10  13.2      16     62
Processing:  8   251  606.6    21   2642
Waiting:    4   246  607.5    15   2640
Total:      18   270  612.3    36   2691

Percentage of the requests served within a certain time (ms)
 50%    36
 66%    42
 75%    48
 80%    75
 90%   1172
 95%   2072
 98%   2379
 99%   2494
100%   2691 (longest request)
```

```
Benchmarking php5.batman.me (be patient)
Completed 100 requests
Completed 200 requests
Completed 300 requests
Completed 400 requests
Completed 500 requests
Completed 600 requests
Completed 700 requests
Completed 800 requests
Completed 900 requests
Completed 1000 requests
Finished 1000 requests

Server Software:      nginx/1.9.6
Server Hostname:      php5.batman.me
Server Port:          80

Document Path:        /wordpress/
Document Length:      172 bytes

Concurrency Level:    200
Time taken for tests:  3.750 seconds
Complete requests:    1000
Failed requests:       149
  (Connect: 0, Receive: 0, Length: 149, Exceptions: 0)
Write errors:         0
Non-2xx responses:    851
Total transferred:    3256214 bytes
HTML transferred:     3091506 bytes
Requests per second:  266.66 [#/sec] (mean)
Time per request:     750.006 [ms] (mean)
Time per request:     3.750 [ms] (mean, across all concurrent requests)
Transfer rate:        847.97 [Kbytes/sec] received

Connection Times (ms)
  min   mean[+/-sd] median   max
Connect:    2    17   7.2      16     37
Processing:  3   314  810.7    17   3610
Waiting:    3   310  811.4    12   3608
Total:      10   331  814.1    32   3633

Percentage of the requests served within a certain time (ms)
 50%    32
 66%    38
 75%    42
 80%    48
 90%   1432
 95%   2680
 98%   3320
 99%   3382
100%   3633 (longest request)
```

