Which is fastest in PHP- MySQL or MySQLi?

Asked 16 years, 2 months ago   Modified 8 years, 11 months ago

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I'd like to know if anyone has any first-hand experience with this dichotomy. A few blogs say the mysql extension is faster than mysqli. Is this true?

And I'm only asking about speed. I know mysqli has features that are not present in the older extension.

PHP php mysql mysqli

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edited Oct 5, 2008 at 2:58

nickf
546k 🟡 198 ⚪ 658 🟤 725

asked Oct 5, 2008 at 2:53

David
7,797 🟡 6 ⚪ 33 🟤 25

10 Answers

Sorted by: Highest score (default) ▲▼

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The MySQL extension is very slightly faster than MySQLi in most benchmarks I've seen reported. The difference is

88

so slight, however, that this should probably not be your criterion for deciding between the two.

Other factors dwarf the difference in performance between mysql and mysqli. Using mod_php or FastCGI, a bytecode cache like APC, or using data caching judiciously to reduce database hits, are far more beneficial for overall performance of PHP scripts than the choice of MySQL extension.

Don't be penny wise and pound foolish! :-)

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answered Oct 5, 2008 at 3:47

Bill Karwin
561k ● 87 ● 698 ● 854

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1   What is the biggest difference between using mysql and mysqli then? I was taught to only use mysqli and i was never told why. Could you give me a brief explanation? Thanks – Drewdin Sep 22, 2010 at 14:18

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1   ext/mysqli supports more features of the underlying MySQL API, such as transactions and prepared queries with parameters. Also you can call mysqli functions in an object-oriented manner. – Bill Karwin Sep 22, 2010 at 14:44

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4   @Drewdin: The mysql extension is deprecated and will be removed in later versions. You should not ever be using mysql over mysqli any more. Also the older mysql extension has issues with string escaping as well as persistent connection problems on later versions of MySQL. – Geoffrey Jun 3, 2013 at 4:17 ✎

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1   @Geoffrey, yes good point if you're considering which extension to choose, that presumes you have the freedom to switch. Now almost five years after I originally answered the

question, the mysql extension should not be considered if the project has any choice. – Bill Karwin Jun 3, 2013 at 4:45

1 @Pacerier, yes, and you can also run PREPARE and EXECUTE statements. But the mysql API in PHP is still deprecated. – Bill Karwin Aug 14, 2015 at 1:28

"It depends."

10

For example, PHP MySQL vs MySQLi Database Access Metrics and the subsequent comments point out arguments both ways.

If you have a mature database and codebase, do some testing and see what works in your system. If not, stop worrying about premature optimization.

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answered Dec 29, 2009 at 15:28

Alkini
1,479 ● 2 ● 12 ● 26

See http://php.net/manual/en/mysqlinfo.api.choosing.php

6

> The overall performance of all three extensions is considered to be about the same. Although the performance of the extension contributes only a fraction of the total run time of a PHP web request. Often, the impact is as low as 0.1%.

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answered Jan 17, 2012 at 8:33

Gordon 🏆

317k • 76 • 545 • 565

3

According to all the Google results for benchmarks linked by ceejayoz it looks like MySQL is at least slightly faster than MySQLi in all the benchmark tests. I do recommend reading the results for details but just figured I'd post something that directly answered the question and bumps up ceejayoz's answer.

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edited May 23, 2017 at 12:09

Community Bot

1 • 1

answered Oct 5, 2008 at 3:08

Jay

42.6k • 14 • 68 • 83

3

The PHP documentation has a good comparison of mysql, mysqli, and PDO. I know you only asked about speed, but others might find this useful. It talks about the feature differences between the options.

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edited Nov 17, 2023 at 19:24

Community Bot

1 • 1

answered Apr 8, 2009 at 18:46

Don Kirkby

56.5k • 27 • 219 • 301

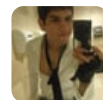Maybe, this can be a reason to make the right choice :: [The Plot to Kill PHP MySQL Extension](#)

" Yes, you read it right. Recently, Phillip Olson sent to the PHP internals mailing list a proposal to kill the original PHP MySQL extension in future PHP versions. "

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answered Jul 15, 2011 at 18:04

AgelessEssence
6,733 ● 5 ● 35 ● 38

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2 I tested. For me an old mysql extension is notable faster than mysqli extension – Jeff_Alieffson Nov 25, 2013 at 2:13

@Jeff_Alieffson Thats not much help without giving some testable metrics – RiggsFolly Aug 18, 2015 at 8:39 ✏️

In relation to PHP programming language, MySQL is the old database driver, and MySQLi is the Improved driver. MySQLi takes advantage of the newer features of MySQL 5.

Features of MySQLi taken from php.net site:

- Object-oriented interface

- Support for Prepared Statements

- Support for Multiple Statements

- Support for Transactions

- Enhanced debugging capabilities

- Embedded server support

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answered Dec 28, 2011 at 7:24

Pank
14.2k ● 10 ● 34 ● 46

9   Not sure why this has been up-voted so many times. I'm down-voting it as it doesn't answer the actual question. – Martin Bean Jun 22, 2013 at 19:36

3   The question is about the speed, not about the beauty or additional features. – Fedir RYKHTIK Jul 4, 2013 at 15:18 ✎

I guess this is the thing that should matter, even if MYSQL is 'slightly' faster the MySQLi, i will not build a system on MYSQL becuase sooner or later it might become depricated, hence rewrite all your your db engines and any related codes ! – TeAmEr Jul 25, 2013 at 13:28

@RonanDejhero, There is still PECL. Deprecated != unavailable. – Pacerier Oct 17, 2014 at 20:05

Unless milliseconds matter then don't worry. Surely if you have no need for the extra functionality provided by mysqli then just stick with the tried and tested mysql.

1

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answered Feb 25, 2010 at 16:08

Taylor
1,790 ● 4 ● 17 ● 19

```php
<?php
$start = microtime();
$c = new mysqli('localhost', 'username', 'userpass', '
$c -> select_db('username_dbname');



$q = $c -> query("SELECT * FROM example");

while ($r = $q -> fetch_array(MYSQLI_ASSOC))
  {
  echo $r['col1'] . "<br/>\n";
  }

$me = $c -> query("SELECT col1 FROM example WHERE id='
fetch_array(MYSQLI_ASSOC);

echo $me['col1'];
echo (microtime() - $start);
?>
```

Why when using mysqli oop is there a slight speed increase from using this script with mysql or mysqli procedural style? When testing the above script I get .0009 seconds consistantly more than when using the other 2. When using mysql or mysqli procedural, I loaded the scripts 20x in each different style and the two were always above .001. I load the above script 20x and I get below .001 5x.

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answered Dec 24, 2013 at 20:11

Josh
11

When testing generally I would suggest using SQL_NO_CACHE to help make sure the queries are running. Additionally the test you have is not very robust and the

slightly random RAM / Harddisk access performance could easily skew results. Realistically a battery of tests under the same conditions is required to be certain that one or other has a performance improvement. – Andrew Jan 27, 2017 at 14:01

MySQLi has two basic advantages over **MySQL**; prepared statements are a great way to avoid SQL injection attacks. Secondly MySQL (or mariaDB) will do their best to optimize prepared statements and thus you have the potential for speed optimizations there. Speed increases from making the database happy will vastly outsize the tiny difference between MySQL and MySQLi.

-2

If you are feeding in statements you mangle together yourself like `SELECT * FROM users WHERE ID=$user_id` the database will treat this as a unique statement with each new value of `$user_id`. But a prepared statement `SELECT * FROM users WHERE ID=?` stands a much better chance of having some optimizations/caching performed by the database.

But comparisons are fairly moot as MySQL is now **officially deprecated**. From the horse's mouth:

Deprecated features in PHP 5.5.x

ext/mysql deprecation

The original MySQL extension is now deprecated, and will generate `E_DEPRECATED` errors when connecting to a

database. Instead, use the **MySQLi** or **PDO_MySQL** extensions.

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you can make it `"SELECT * FROM users WHERE ID IN ($user_id, $user_id2)"` and have it even faster
– Your Common Sense Jun 22, 2013 at 19:44 ✏

1   And one can make a prepared statement out of mysql too.
– Your Common Sense Jun 22, 2013 at 19:45

This contains inaccurate if at some point SELECT * FROM users WHERE ID=1 had run, you have query caching enabled and this query was stored then running it again will get this from the cache regardless of if this statement was generated as a direct query string or a prepared statement.
– Andrew Jan 27, 2017 at 13:58