[Introduction](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=0&mode=live" \t "psplayer)

[Title and Introduction](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=0&mode=live)

[This is Glenn Berry with sqlskills. com.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=0&mode=live&start=1.09) [And I'm recording this course for](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=0&mode=live&start=4.05) [Pluralsight and this is SQL Server 2014](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=0&mode=live&start=5.772857142857144) [DMV Diagnostic Queries Part 3. This is an](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=0&mode=live&start=8.781818181818183) [introductory module. So what are we going](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=0&mode=live&start=12.255999999999998) [to talk about during this course? Well,](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=0&mode=live&start=14.414545454545458) [database performance issues are actually](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=0&mode=live&start=16.3025) [very immediately noticeable to everybody](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=0&mode=live&start=17.94142857142857) [in your organization. They can quickly](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=0&mode=live&start=20.07) [affect multiple applications or the entire](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=0&mode=live&start=23.04) [organization. Usually you can't just](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=0&mode=live&start=25.56) [reboot the database server and hope that](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=0&mode=live&start=27.56) [that fixes the problem like you can with a](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=0&mode=live&start=29.895714285714284) [web server. And in case you don't know it,](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=0&mode=live&start=31.781428571428567) [DBA actually stands for Default Blame](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=0&mode=live&start=34.04) [Acceptor. You know I can't tell you how](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=0&mode=live&start=37.44285714285713) [many times I've heard what's wrong with](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=0&mode=live&start=39.3018181818182) [the database? Why is database server so](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=0&mode=live&start=40.663999999999994) [slow? And so because I used to hear those](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=0&mode=live&start=43.52166666666665) [so often in previous jobs, I put together](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=0&mode=live&start=45.61000000000002) [the scripts that help you deal with that](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=0&mode=live&start=47.65727272727272) [issue. Because the database or the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=0&mode=live&start=49.81750000000001) [database server is typically guilty until](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=0&mode=live&start=52.1942857142857) [proven innocent. People always assume that](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=0&mode=live&start=54.40666666666667) [it's the source of any application slow](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=0&mode=live&start=56.75857142857143) [down. So you really need some good tools](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=0&mode=live&start=59.62600000000001) [and the knowledge to interpret were you](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=0&mode=live&start=62.05) [fine with these tools to figure out what's](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=0&mode=live&start=64.44888888888889) [actually going on with your server and](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=0&mode=live&start=66.30857142857143) [what the actual problem might be. You](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=0&mode=live&start=68.3257142857143) [know, maybe there's nothing wrong at all](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=0&mode=live&start=70.28500000000001) [with the database or the database server](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=0&mode=live&start=72) [until you have the tools and the metrics](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=0&mode=live&start=73.06) [to prove that, people are always going to assume that it's a database problem.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=0&mode=live&start=75.94)

[How Can You Find Performance Problems?](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=1&mode=live)

[So how do you go about finding performance](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=1&mode=live&start=1.3491556) [problems with the database server? Well,](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=1&mode=live&start=3.9624889333333333) [the first thing I typically do is pull up](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=1&mode=live&start=5.5281556) [Windows Task Manager and take a quick look](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=1&mode=live&start=7.3191556) [at the Performance tab and see what's](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=1&mode=live&start=9.3191556) [going on at the server level, the very](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=1&mode=live&start=10.88248893333333) [high level. Next, I'll pull up Windows](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=1&mode=live&start=12.866655599999998)[Resource Monitor which you can get to from](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=1&mode=live&start=15.493441314285718) [Task Manager. I'll let you drill down a](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=1&mode=live&start=17.861655600000002) [little bit deeper into individual parts of](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=1&mode=live&start=19.689155599999992) [the server and see what's going on there.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=1&mode=live&start=21.662488933333332) [Then you might use Windows Performance](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=1&mode=live&start=24.3091556) [Monitor counters and you maybe look at in](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=1&mode=live&start=26.5591556) [real time or you have logged in long term](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=1&mode=live&start=28.111655599999995)[to get your base line and trending](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=1&mode=live&start=30.1291556) [information. Then you can also use the SQL](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=1&mode=live&start=32.6991556) [Server Management Studio Activity Monitor,](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=1&mode=live&start=35.410155599999996) [although there's a lot of problems with](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=1&mode=live&start=37.0416556) [this tool and people don't use it very](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=1&mode=live&start=39.4991556) [often to be honest. Also SQL Server has an](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=1&mode=live&start=41.099155600000024) [error log that's very useful. When there's](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=1&mode=live&start=43.83415559999999)[something wrong with your server, quite](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=1&mode=live&start=45.90629845714285) [often you'll find some good clues in the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=1&mode=live&start=47.57370105454545) [error log. You can also use a SQL Server](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=1&mode=live&start=49.77006469090908) [Profiler but that was deprecated in SQL](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=1&mode=live&start=52.10415560000002) [Server 2012 and you really should get out](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=1&mode=live&start=54.60165560000001) [of the habit of using it long term. You](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=1&mode=live&start=56.03582226666667) [might want to switch using Extended Events](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=1&mode=live&start=58.7391556)[which are actually much more powerful in](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=1&mode=live&start=61.3291556) [SQL Server Profiler. And then finally you](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=1&mode=live&start=63.8416556) [can use DMV and DMO queries is not going](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=1&mode=live&start=66.52715559999999) [to show you in this course. And I think](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=1&mode=live&start=69.01582226666667) [they're very easy to use and you can use](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=1&mode=live&start=71.46415559999998) [them in combination with the rest of these](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=1&mode=live&start=73.88915560000002) [tools to figure out what's going on with your database server.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=1&mode=live&start=75.45026671111114)

[DMV Queries to the Rescue](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=2&mode=live)

[DMV queries to the rescue. These were a](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=2&mode=live&start=1.7361112) [new feature that were added in SQL Server](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=2&mode=live&start=4.7711112) [2005 so they've been around quite some](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=2&mode=live&start=7.397777866666665) [time now. There's subtle improvements and](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=2&mode=live&start=9.256111199999996) [additions in each new version of SQL](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=2&mode=live&start=11.374111200000003) [Server to the DMV queries that are](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=2&mode=live&start=13.412474836363641) [available. The DMV and DMO queries](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=2&mode=live&start=15.462777866666668) [actually expose a lot of very useful](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=2&mode=live&start=17.90611120000001) [information about your server, such as](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=2&mode=live&start=20.412777866666662) [hardware details, missing indexes, what](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=2&mode=live&start=22.759444533333337) [your top wait stats are, what your most](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=2&mode=live&start=25.11277786666667)[extensive queries are. And you will see](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=2&mode=live&start=27.741111200000002) [that as you go through this course and run](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=2&mode=live&start=29.470656654545454) [this queries, how much useful information](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=2&mode=live&start=31.258611199999997) [they actually give you. Most of these](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=2&mode=live&start=32.7661112) [queries are very lightweight and they're](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=2&mode=live&start=35.613254057142846) [very easy to use. You can just run them](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=2&mode=live&start=37.43944453333333) [and then if you know how to interpret the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=2&mode=live&start=39.648838472727284)[results, you'll get some very useful](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=2&mode=live&start=41.5061112) [information back. Now most of them require](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=2&mode=live&start=43.21325405714284) [view server state permission in order to](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=2&mode=live&start=45.4572223111111) [run. And the information that you have](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=2&mode=live&start=48.2486112) [from this DMV queries is not persisted](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=2&mode=live&start=49.96611119999999) [between restarts. So if you need to you](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=2&mode=live&start=52.57411119999999) [can write the useful metrics to a user](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=2&mode=live&start=55.41883847272726) [database so you can keep the history and](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=2&mode=live&start=57.6931112) [trending information about what's going on](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=2&mode=live&start=60.12277786666667) [with your server and individual databases](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=2&mode=live&start=61.93325405714286) [that you're interested in. And you also](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=2&mode=live&start=64.05468262857143) [might want to use something like my](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=2&mode=live&start=66.09611119999998) [ServerMonitor database as a starting point](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=2&mode=live&start=67.3561112) [for some collecting some instance-level](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=2&mode=live&start=70.7161112) [metrics. And the link for that is this URL](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=2&mode=live&start=73.22444453333333) [right there where you can get this free](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=2&mode=live&start=76.11811120000004) [script to create a database that collects some metrics every minute by default.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=2&mode=live&start=78.36338392727276)

[DMV Diagnostic Query History](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=3&mode=live)

[DMV diagnostic query history. The first](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=3&mode=live&start=1.2524557) [public version of these queries became](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=3&mode=live&start=4.798169985714286) [available back in April of 2009. I've been](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=3&mode=live&start=6.641027128571428) [working along for some time before that](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=3&mode=live&start=9.661344588888888) [and I thought I'd share them with the SQL](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=3&mode=live&start=11.2324557) [Server community. There's separate](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=3&mode=live&start=13.69518297272727) [versions for each major SQL Server](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=3&mode=live&start=15.129122366666667) [version. So there's one for SQL Server](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=3&mode=live&start=17.78912236666666) [2005, 2008, SQL Server 2008 R2 which is](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=3&mode=live&start=21.202455700000005) [actually a separate major version from SQL](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=3&mode=live&start=24.19912236666666) [Server 2008. Then there's one for SQL](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=3&mode=live&start=27.189122366666666) [Server 2012, and then finally for SQL](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=3&mode=live&start=29.64674141428572) [Server 2014. And I put out new versions of](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=3&mode=live&start=32.37531284285715) [these queries pretty much every month. So](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=3&mode=live&start=34.79578903333336) [you want to make sure to get the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=3&mode=live&start=37.39791024545455) [appropriate version of the queries for](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=3&mode=live&start=38.881546609090925) [your version of SQL Server needs to match](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=3&mode=live&start=40.57245569999999) [your version of SQL Server or else some of](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=3&mode=live&start=42.976205699999994)[the queries just won't work. The monthly](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=3&mode=live&start=45.57912236666667) [updates that I talked about have subtle](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=3&mode=live&start=48.09959855714285) [improvements for each version of the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=3&mode=live&start=50.870233477777774) [script. And you can get them from either](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=3&mode=live&start=52.903566811111105) [this URL or that URL, typically every](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=3&mode=live&start=55.52912236666668) [month as I put new versions of these queries out.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=3&mode=live&start=57.86578903333333)

[Why Use DMV Diagnostic Queries?](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=4&mode=live)

[So why would you want to use these DMV](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=4&mode=live&start=1.3397557) [diagnostic queries instead of some of the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=4&mode=live&start=3.786119336363637) [other techniques that are available to](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=4&mode=live&start=5.3397556999999995) [look at the server performance. Well these](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=4&mode=live&start=6.8380890333333335) [are relatively quick and easy to use. They](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=4&mode=live&start=9.946422366666669) [don't require any special configuration or](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=4&mode=live&start=12.618089033333334) [knowledge to run these queries. It does](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=4&mode=live&start=14.8047557) [require some knowledge to properly](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=4&mode=live&start=17.792255700000002) [interpret the results but that's what](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=4&mode=live&start=19.07350570000001) [you're going to learn in this course. Most](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=4&mode=live&start=20.407533477777786) [DMV queries are very lightweight. They](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=4&mode=live&start=22.8497557) [don't affect your server very much and](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=4&mode=live&start=25.58118427142857) [they come back pretty quickly. I'll point](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=4&mode=live&start=27.448089033333336) [out as I run all the queries some of the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=4&mode=live&start=28.784200144444444) [exceptions where they might take a little](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=4&mode=live&start=31.082255699999997) [bit longer to return. They're going to](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=4&mode=live&start=32.993089033333334) [provide a lot of very valuable information](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=4&mode=live&start=35.2337557) [about your server. There's instance level](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=4&mode=live&start=37.3197557) [and database configuration information](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=4&mode=live&start=39.5317557) [you'll get back, some instance level](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=4&mode=live&start=41.499755699999994) [performance information. And then finally](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=4&mode=live&start=44.505755699999995) [what this course specializes in is the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=4&mode=live&start=46.0910057) [database level performance information](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=4&mode=live&start=48.33308903333333) [about particular database. It's going to](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=4&mode=live&start=50.2797557) [help you get much closer to the root cause](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=4&mode=live&start=53.0597557) [of many problems with your database](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=4&mode=live&start=55.3097557) [server. This is much better than just](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=4&mode=live&start=57.06689855714286) [guessing about performance issues and](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=4&mode=live&start=59.05689855714284) [doing silly things like rebooting the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=4&mode=live&start=60.82975570000001) [server or restarting the SQL Server service.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=4&mode=live&start=64.3197557)

[Diagnostic and Corrective Process](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=5&mode=live)

[So what is the general diagnostic and](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=5&mode=live&start=1.434778) [corrective process that I like to follow](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=5&mode=live&start=3.7603335555555555) [with a database server? Well the first](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=5&mode=live&start=6.069222444444444) [thing I always do is assess the health of](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=5&mode=live&start=7.744778) [the database server at a high level. So I](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=5&mode=live&start=9.361778) [want to see what's going on with the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=5&mode=live&start=11.996596181818182) [processors and the memory, and the I/O](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=5&mode=live&start=14.163868909090914) [just to see how the overall box is doing.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=5&mode=live&start=15.464778) [And this applies whether it's a physical](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=5&mode=live&start=18.424778) [server that's just bare metal or whether](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=5&mode=live&start=20.209777999999993) [it's a virtual machine running on a](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=5&mode=live&start=22.228778000000002)[virtualization host. Next, I'm going to](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=5&mode=live&start=24.640777999999997) [assess the health of the SQL Server](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=5&mode=live&start=26.584778000000004) [instance itself and see what's going on at](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=5&mode=live&start=28.75811133333333) [the instance level as far as SQL Server is](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=5&mode=live&start=30.77811133333333) [concerned. Next, I'm going to assess the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=5&mode=live&start=33.96620657142856) [health of the most important database or](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=5&mode=live&start=36.0156870909091) [databases on the server to see what's](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=5&mode=live&start=38.054778) [going on with them. And then you try to](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=5&mode=live&start=40.267635142857145) [determine the biggest performance issues](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=5&mode=live&start=42.904777999999986) [that you're seeing at the database level](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=5&mode=live&start=44.404778) [and the instance level, and the server](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=5&mode=live&start=46.384778)[level. Then you try to find the root cause](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=5&mode=live&start=49.001028000000005) [of the issue if possible. Then apply some](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=5&mode=live&start=50.444778) [corrective action such as creating a new](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=5&mode=live&start=53.632778) [index or tuning a query or changing a](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=5&mode=live&start=55.93977799999999) [configuration setting for the instance for](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=5&mode=live&start=58.642778) [example. And then you repeat that process](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=5&mode=live&start=61.00277800000001) [as needed until performance is acceptable.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=5&mode=live&start=63.629778000000016) [So this may be several iterations are](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=5&mode=live&start=65.464778) [going through and figuring out what the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=5&mode=live&start=67.76700022222218) [biggest problem sees to be and trying to](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=5&mode=live&start=69.90477799999996) [fix that and then going on to the next](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=5&mode=live&start=71.86247030769232) [thing. So it's pretty easy to move a](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=5&mode=live&start=73.29554723076929) [bottleneck from one place to another, so](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=5&mode=live&start=76.079778) [maybe you have to go through this several](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=5&mode=live&start=78.57023254545454) [times actually to get to where you need to be.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=5&mode=live&start=80.05386890909092)

[Database-Level Performance Queries](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=6&mode=live)

[Database-level performance queries. This](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=6&mode=live&start=1.3323003) [is a group of queries that you use to](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=6&mode=live&start=4.4759366636363636) [collect some database-level performance](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=6&mode=live&start=6.128663936363636) [metrics and this must be run in a context](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=6&mode=live&start=8.532300300000001) [of the database you are actually](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=6&mode=live&start=10.763209390909084) [interested and not the master system](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=6&mode=live&start=12.087300299999999) [database. That's one of the most common](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=6&mode=live&start=13.9923003) [errors that people make with the set of](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=6&mode=live&start=15.546300300000004) [queries are connected to master instead of](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=6&mode=live&start=17.67785585555555) [one of the more important databases on](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=6&mode=live&start=19.8198003) [their instance. So these are database](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=6&mode=live&start=21.6523003) [specific queries. Now many SQL Server](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=6&mode=live&start=24.318966966666665) [instances have database level issues and](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=6&mode=live&start=27.103411411111107) [these queries are going to help you](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=6&mode=live&start=29.544300300000003) [further focus your troubleshooting and](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=6&mode=live&start=30.95830029999999) [tuning efforts in the right area to get at](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=6&mode=live&start=32.556300300000004) [the bottom of the problem. Now I've got](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=6&mode=live&start=35.096466966666675) [another Pluralsight course called Scaling](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=6&mode=live&start=37.19944315714285)[SQL Server 2012 Part 1 that covers some](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=6&mode=live&start=38.84063363333333) [best practice instance-level performance](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=6&mode=live&start=42.514300299999995) [considerations that can help reduce the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=6&mode=live&start=44.675633633333334) [amount of problems you'll run into at the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=6&mode=live&start=46.72139120909092) [database level. And the URL for that is](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=6&mode=live&start=49.3223003) [right here. Kimberly Tripp has a very good](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=6&mode=live&start=51.82980030000001) [course called SQL Server: Optimizing](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=6&mode=live&start=53.857300299999984)[Stored Procedure Performance that's a very](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=6&mode=live&start=55.8623003) [valuable resource for tuning stored](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=6&mode=live&start=59.046586014285715) [procedures and that's what a lot of the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=6&mode=live&start=61.4933003) [queries in this course focus in on, is](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=6&mode=live&start=63.101300300000005) [finding the most expensive stored](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=6&mode=live&start=65.57515744285715) [procedures from several different](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=6&mode=live&start=67.03944315714287) [perspectives. So the URL for that is right here.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=6&mode=live&start=68.8398003)

[Summary and Course Structure](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=7&mode=live)

[So what have we talked about in this](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=7&mode=live&start=1.3737003) [introductory module? Well, DMV and DMO](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=7&mode=live&start=4.517700299999999) [queries can help you detect many](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=7&mode=live&start=6.223700300000002) [performance issues both at the instance](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=7&mode=live&start=7.7449503) [level and the database level. They can](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=7&mode=live&start=9.9724503) [help you get to the root cause very](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=7&mode=live&start=12.750366966666665) [quickly in many cases. They are very easy](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=7&mode=live&start=14.7197003) [to use compared to a lot of other](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=7&mode=live&start=17.46941458571428) [diagnostic methods that are out there. No](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=7&mode=live&start=19.672791209090917) [special configuration is required, you](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=7&mode=live&start=21.7057003) [just need to run some queries. You do need](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=7&mode=live&start=23.597986014285716) [view server state permission to run many](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=7&mode=live&start=26.16941458571429) [of these queries though. The DMV and DMO](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=7&mode=live&start=28.193700299999996) [information is not persisted between](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=7&mode=live&start=30.843700299999995) [restarts unless you decide to capture it](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=7&mode=live&start=32.7087003) [and write it to a user database so you](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=7&mode=live&start=35.3337003) [have historical and trending information](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=7&mode=live&start=38.3097003) [to look at. So how is this course](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=7&mode=live&start=40.8247003) [structured? Well, Module 1 was the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=7&mode=live&start=44.033700300000014) [Introduction that you've just listened to.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=7&mode=live&start=46.00703363333334) [Coming up is Module 2, which is the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=7&mode=live&start=48.3037003) [Database-Level Performance Queries Part 1.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=7&mode=live&start=50.81870029999999) [Then Module 3 will be Database-Level](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=7&mode=live&start=53.2937003) [Performance Queries Part 2. I have another](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=7&mode=live&start=54.9177003) [course called SQL Server 2014: DMV](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=7&mode=live&start=58.4512003) [Diagnostic Queries Part 1 that covers](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=7&mode=live&start=60.7197003) [instance-level configuration queries. And](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=7&mode=live&start=63.555700300000005) [then there's another course that I](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=7&mode=live&start=65.69925585555555) [published later called SQL Server 2014:](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=7&mode=live&start=67.65258918888887) [DMV Diagnostic Queries Part 2 that covers](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=7&mode=live&start=70.09925585555555) [instance-level performance queries. So you](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=7&mode=live&start=73.53970029999999) [really should listen to those two courses](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=7&mode=live&start=75.78036696666666) [along with this one, so you have coverage of the complete set of Diagnostic Queries.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m1-introduction&clip=7&mode=live&start=77.3437003)

[Database-Level Performance Queries Part 1](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=0&mode=live)

[Introduction](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=0&mode=live)

[Database-Level Performance Queries, Part](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=0&mode=live&start=2) [1. In this module, when we talk about](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=0&mode=live&start=4.416) [database-level performance queries, this](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=0&mode=live&start=6.787500000000002) [is a group of database-specific queries](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=0&mode=live&start=8.04) [that we're going to use to collect](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=0&mode=live&start=10.153749999999999) [database-level performance metrics. It's](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=0&mode=live&start=13.206000000000001) [very important that you run these in the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=0&mode=live&start=15.204) [context of the database that you're](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=0&mode=live&start=16.836000000000006) [concerned with and not the master system](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=0&mode=live&start=18.475714285714286) [database. Again, these are](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=0&mode=live&start=21.516666666666662) [database-specific queries. Many SQL Server](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=0&mode=live&start=23.822) [databases actually have performance](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=0&mode=live&start=26.177500000000002) [issues, and these queries are going to](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=0&mode=live&start=27.707500000000003) [help you further focus your tuning efforts](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=0&mode=live&start=29.860000000000007) [in the right area to get to the root cause](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=0&mode=live&start=31.897142857142853) [of the problem. My Pluralsight course,](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=0&mode=live&start=35.02666666666668) [Scaling SQL Server 2012 Part 1 covers some](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=0&mode=live&start=37.03666666666667) [best practice instance-level performance](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=0&mode=live&start=40.254) [considerations that can help you avoid](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=0&mode=live&start=42.46) [database-level performance issues. And the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=0&mode=live&start=45.04) [URL for that is right there. And Joe sack](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=0&mode=live&start=48.550000000000004) [has a very good Pluralsight course called](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=0&mode=live&start=51.06666666666667) [SQL Server Common Performance Issue](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=0&mode=live&start=53.472857142857144) [Patterns that's a very valuable resource](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=0&mode=live&start=55.63714285714287) [in this area. And the URL for that is right there.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=0&mode=live&start=57.95749999999999)

[File Sizes and Space](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=1&mode=live)

[File sizes and space. This query tells you](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=1&mode=live&start=1.351) [how large and how full your database files](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=1&mode=live&start=5.176555555555557) [are for the specific database that you're](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=1&mode=live&start=7.434749999999999) [connected to. It uses the sys.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=1&mode=live&start=9.815999999999999) [databases\_files catalog view, and the MSDN](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=1&mode=live&start=12.621) [link for that is right at that URL. It](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=1&mode=live&start=15.14918181818182) [also uses the sys. data\_spaces catalog](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=1&mode=live&start=17.824749999999998) [view, and the MSDN link for that is at](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=1&mode=live&start=20.78724999999999) [that URL. This is going to tell you where](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=1&mode=live&start=23.713000000000015) [your database files are located and what](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=1&mode=live&start=26.082666666666658) [file group they're also a part of. Log](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=1&mode=live&start=27.99655555555556) [files are not going to be in a file group,](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=1&mode=live&start=30.473727272727274) [but your data files are either going to be](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=1&mode=live&start=32.301) [in a primary file group by default or they](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=1&mode=live&start=34.301) [could be in another file group. Now it's](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=1&mode=live&start=36.821000000000005) [also important that you don't use percent](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=1&mode=live&start=38.94499999999999) [growth for auto grow, and this is going to show you that also in this query.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=1&mode=live&start=41.02399999999997)

[Demo: File Sizes and Space](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=2&mode=live)

[In this demonstration, I'm going to show](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=2&mode=live&start=1.734) [you the file sizes and space diagnostic](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=2&mode=live&start=3.0321818181818188) [query. Now notice that on purpose, I'm](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=2&mode=live&start=5.9864999999999995) [connected to the master system database,](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=2&mode=live&start=9.029714285714286) [which is actually not what I want you to](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=2&mode=live&start=10.744) [do. But when you run this query and you're](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=2&mode=live&start=13.407999999999994) [connected to master, you'll see the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=2&mode=live&start=15.209454545454541) [results here and it shows you the physical](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=2&mode=live&start=16.76066666666667) [name and the complete file path for the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=2&mode=live&start=19.489000000000004) [master system database. And it also shows](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=2&mode=live&start=22.934) [you the total size in megabytes and the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=2&mode=live&start=25.532000000000004) [available space in megabytes and then a](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=2&mode=live&start=28.077333333333335) [file ID and the file group name and](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=2&mode=live&start=31.299) [whether or not you're using percent](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=2&mode=live&start=32.984) [growth. And notice that the master](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=2&mode=live&start=34.484) [database on my instance is using percent](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=2&mode=live&start=36.37288888888888) [growth in both the data file and the log](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=2&mode=live&start=38.370666666666665) [file. And that's not a good idea,](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=2&mode=live&start=41.20649999999999) [especially for user databases. So what's](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=2&mode=live&start=42.734) [important, and the reason I connected the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=2&mode=live&start=45.224) [master on purpose, is you want to make](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=2&mode=live&start=46.924) [sure that you're connected to the user](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=2&mode=live&start=48.52400000000002) [database that you're worried about when](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=2&mode=live&start=50.47257142857145) [you run this. So if I run this and I'm](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=2&mode=live&start=52.014) [connected to AdventureWorks, then I see](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=2&mode=live&start=54.86399999999998) [where AdventureWorks is located and how](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=2&mode=live&start=57.46542857142857) [big the files are and how much space I](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=2&mode=live&start=60.39066666666667) [have available. And notice I've got a](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=2&mode=live&start=62.461142857142875) [nearly full transaction log here, which is](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=2&mode=live&start=64.729) [not good. But also notice that percent](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=2&mode=live&start=67.21900000000001) [growth is zero for both of these files,](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=2&mode=live&start=69.62525) [and not what you want because you don't](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=2&mode=live&start=71.73900000000002) [want to use percent growth, you want to](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=2&mode=live&start=73.4815) [use a fixed size in megabytes or gigabytes](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=2&mode=live&start=75.824) [for these files rather than percent growth.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=2&mode=live&start=78.704)

[I/O Stats by File](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=3&mode=live)

[I/O stats by file. This query uses the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=3&mode=live&start=1.829) [sys. dm\_io\_virtual\_file\_stats DMV joined](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=3&mode=live&start=6.114714285714285) [with sys. database\_files. The MSDN link](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=3&mode=live&start=8.568999999999999) [for that is right there. It's going to](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=3&mode=live&start=11.568999999999999) [return file-level statistics for the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=3&mode=live&start=14.354000000000003) [number of reads and writes along with the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=3&mode=live&start=16.401857142857143) [I/O stalls in milliseconds and the total](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=3&mode=live&start=18.69614285714286) [size of the reads and writes in megabytes.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=3&mode=live&start=20.96172727272727) [So I'm going to return results for the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=3&mode=live&start=23.849) [files in the current database. So this is](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=3&mode=live&start=25.61788888888888) [a database-specific query. This query is](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=3&mode=live&start=29.289) [going to help you understand your database](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=3&mode=live&start=31.19025) [file performance. It's going to show you](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=3&mode=live&start=32.869) [various read and write metrics by database](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=3&mode=live&start=35.378999999999984) [file so you can get an idea if you're](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=3&mode=live&start=37.532333333333334) [seeing lots of reads or lot of writes for](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=3&mode=live&start=40.415000000000006) [each data file and the log file in your](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=3&mode=live&start=43.07536363636363) [database. And these results are going to](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=3&mode=live&start=45.56263636363634) [be cumulative since SQL Server has been](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=3&mode=live&start=47.34649999999999) [running. It's going to help you](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=3&mode=live&start=49.515666666666675) [characterize your workload from an I/O](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=3&mode=live&start=51.10524999999999) [perspective and get a better idea, is this](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=3&mode=live&start=52.849) [more of an OLTP kind of a workload from an](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=3&mode=live&start=55.421) [I/O perspective, or is it more of a](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=3&mode=live&start=58.15445454545454) [reporting workload, for example? Instead](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=3&mode=live&start=59.6162727272727) [of guessing, you actually can see the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=3&mode=live&start=61.208999999999996)[metrics since SQL Server has been running](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=3&mode=live&start=63.518999999999984) [for your particular database. So this is a very useful query.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=3&mode=live&start=65.829)

[Demo: I/O Stats by File](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=4&mode=live)

[In this demonstration, I'm going to show](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=4&mode=live&start=2.097) [you the I/O stats by file diagnostic](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=4&mode=live&start=3.7133636363636366) [query. And again, this is](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=4&mode=live&start=6.151999999999999) [database-specific. And when you run this,](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=4&mode=live&start=8.273) [it comes back and shows you a lot of](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=4&mode=live&start=9.576999999999998) [useful information about each individual](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=4&mode=live&start=11.976999999999999) [file in the current database. So it shows](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=4&mode=live&start=14.176999999999996) [you the database name, the logical name,](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=4&mode=live&start=16.860000000000003) [which can be different from the database](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=4&mode=live&start=19.597) [name. Then the file ID, and file ID one is](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=4&mode=live&start=21.408249999999995) [going to be your primary data file, and](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=4&mode=live&start=23.89449999999999) [file ID two is always going to be your](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=4&mode=live&start=25.794692307692316) [first log file. And then it's also going](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=4&mode=live&start=28.3845) [to show you the physical name. So it shows](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=4&mode=live&start=31.51518181818182) [you the complete path and filename for](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=4&mode=live&start=33.617000000000004)[each individual file here. Then it's going](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=4&mode=live&start=36.028999999999996) [to show you the number of reads and the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=4&mode=live&start=38.27700000000001) [number of writes for that particular file.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=4&mode=live&start=40.339222222222226) [It's also going to show you the total I/O](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=4&mode=live&start=42.657) [stall reads in milliseconds, and the total](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=4&mode=live&start=45.13609090909089) [I/O stall and writes for milliseconds.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=4&mode=live&start=47.85922222222222) [It's going to show you the I/O stall read](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=4&mode=live&start=50.647) [percentage and the I/O stall write](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=4&mode=live&start=53.337999999999994) [percentage. So you can see that I have](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=4&mode=live&start=55.30366666666668) [lots and lots of reads against my data](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=4&mode=live&start=56.80366666666665) [file in this particular case. Then it's](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=4&mode=live&start=58.76575) [going to show you the total number of](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=4&mode=live&start=61.01245454545454) [writes and reads and the total megabytes](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=4&mode=live&start=62.4742727272727) [read and the megabytes written. So you can](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=4&mode=live&start=65.25414285714287) [see this is a very read intensive on this](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=4&mode=live&start=68.21999999999998) [particular database. Then it's also going](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=4&mode=live&start=70.612) [to show you the percentage of reads and](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=4&mode=live&start=72.06366666666669) [writes. And then the read bytes and the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=4&mode=live&start=74.132) [written bytes in percent. So again, this](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=4&mode=live&start=76.55518181818185) [is helping you figure out what's going on](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=4&mode=live&start=78.77075) [with this particular database for each](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=4&mode=live&start=81.83899999999998) [file. So you can see what's happening with this data file and with this log file.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=4&mode=live&start=84.26299999999996)

[Query Execution Counts](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=5&mode=live)

[Query execution counts. This query uses](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=5&mode=live&start=1.756) [the sys. dm\_exec\_query\_stats DMV cross](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=5&mode=live&start=5.179571428571429) [applied with sys. dm\_exec\_sql\_text. Sys.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=5&mode=live&start=7.872999999999999) [dm\_exec\_query\_stats, you can look up the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=5&mode=live&start=11.394) [reference on that at the MSDN link right](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=5&mode=live&start=13.513) [there. And sys. dm\_exec\_sql\_text has an](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=5&mode=live&start=16.665) [MSDN link at that URL. Now this query is](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=5&mode=live&start=19.568999999999996)[going to show your top queries by](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=5&mode=live&start=22.895000000000003) [execution counts. It's going to show you](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=5&mode=live&start=24.789) [ad hoc queries and then query text from](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=5&mode=live&start=27.76233333333334) [inside a stored procedure. They're all](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=5&mode=live&start=30.451) [going to show up in this query. It's going](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=5&mode=live&start=32.501222222222225) [to show some selected query execution](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=5&mode=live&start=34.72233333333333) [metrics for each query that shows up in](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=5&mode=live&start=36.74233333333333) [this particular query. It's going to help](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=5&mode=live&start=39.86499999999998) [you better understand your query workloads](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=5&mode=live&start=42.251000000000005) [so you understand which queries are](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=5&mode=live&start=44.039) [executed the most often and some of the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=5&mode=live&start=45.84500000000001) [costs of those particular queries. And](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=5&mode=live&start=47.973444444444446) [again, it's filtered by the current](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=5&mode=live&start=49.498999999999995) [database. So only queries from the current](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=5&mode=live&start=51.71899999999998) [database that you're connected to will show up in this query.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=5&mode=live&start=53.80328571428571)

[Demo: Query Execution Counts](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=6&mode=live)

[In this demonstration, I want to show you](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=6&mode=live&start=1.862) [the Query Execution Counts diagnostic](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=6&mode=live&start=3.822) [query. This query pulls back the top 100](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=6&mode=live&start=5.530333333333334) [cache queries from the plan cache and](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=6&mode=live&start=8.913111111111114) [shows you the execution count, the total](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=6&mode=live&start=11.306999999999999) [rows that have been returned for that plan](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=6&mode=live&start=13.422) [in the cache, the last execution, how many](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=6&mode=live&start=15.782)[rows came back, the minimum rows that came](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=6&mode=live&start=18.01472727272726) [back, the maximum rows that have come back](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=6&mode=live&start=20.501999999999995) [and the last times, the last time, the min](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=6&mode=live&start=22.842) [time, the max time, and these are all in](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=6&mode=live&start=26.423999999999996) [microseconds. Then we have the total](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=6&mode=live&start=29.533111111111108) [worker time and the total logical reads](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=6&mode=live&start=31.293428571428578) [for this query that's in the plan cache.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=6&mode=live&start=33.724500000000006)[And then finally, we have the query text.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=6&mode=live&start=36.782) [So this helps you find queries that might](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=6&mode=live&start=37.862) [not be in stored procedures, or they might](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=6&mode=live&start=40.23799999999998) [be statements within stored procedures and](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=6&mode=live&start=43.059500000000014) [shows you how often they're being executed and some metrics about their executions.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=6&mode=live&start=45.297000000000004)

[Stored Procedure Execution Counts](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=7&mode=live)

[Stored procedure execution counts. This](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=7&mode=live&start=1.788) [query uses the sys. procedures catalog](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=7&mode=live&start=5.1455) [view joined with the sys.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=7&mode=live&start=7.4105000000000025) [dm\_exec\_procedure\_stats DMV. Sys.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=7&mode=live&start=11.141333333333332)[procedures is documented at this MSDN link](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=7&mode=live&start=13.314) [right there, and sys.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=7&mode=live&start=16.786) [dm\_exec\_procedure\_stats is documented at](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=7&mode=live&start=18.978) [that MSDN link. Now this query is going to](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=7&mode=live&start=21.278) [tell you which cache stored procedures](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=7&mode=live&start=24.002000000000002) [that are in the plan cache are called the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=7&mode=live&start=25.5555) [most often. It's going to help you](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=7&mode=live&start=28.967999999999996) [understand your stored procedure workload](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=7&mode=live&start=30.626333333333335) [from one perspective. It's going to help](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=7&mode=live&start=32.529428571428575) [you identify possible candidates from](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=7&mode=live&start=34.833) [middle-tier caching. So if you see a](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=7&mode=live&start=36.498) [stored procedure that's called a lot and](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=7&mode=live&start=39.190727272727266) [you can tell through some further](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=7&mode=live&start=41.213) [investigation that it's mostly static data](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=7&mode=live&start=43.463) [for example, maybe that particular query](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=7&mode=live&start=45.980857142857154) [could have its data cached somewhere to](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=7&mode=live&start=48.5891111111111) [take the load off the database server.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=7&mode=live&start=51.23355555555556) [That's one very useful thing you can do](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=7&mode=live&start=52.828) [with this query. Another thing you can do](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=7&mode=live&start=55.70072727272728) [is have an understanding for what your](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=7&mode=live&start=57.87799999999999) [baseline workload is. So maybe your](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=7&mode=live&start=59.763000000000005) [particular stored procedure is called 200](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=7&mode=live&start=61.76299999999999)[times a second under a normal workload for](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=7&mode=live&start=63.682) [your server, and suddenly you see it being](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=7&mode=live&start=66.137) [called 1, 000 times a second. Well,](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=7&mode=live&start=68.52900000000005) [something has changed, maybe your website](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=7&mode=live&start=71.29050000000001) [is being hit after a Super Bowl ad or](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=7&mode=live&start=73.5998181818182) [maybe your developer has loaded some code](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=7&mode=live&start=76.18549999999999) [with a logic error that's calling the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=7&mode=live&start=78.758) [stored procedure more often than it needs](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=7&mode=live&start=80.36022222222222) [to be. So again, knowing what your normal](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=7&mode=live&start=82.22514285714288) [range is for execution counts is very, very useful.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=7&mode=live&start=85.0305)

[Demo: Stored Procedure Execution Counts](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=8&mode=live)

[In this demonstration, I'm going to show](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=8&mode=live&start=1.55) [you the SP Execution Counts diagnostic](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=8&mode=live&start=3.291249999999999) [query. And again, this is](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=8&mode=live&start=6.0649999999999995) [database-specific, so you want to make](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=8&mode=live&start=7.472222222222221)[sure you're connected to a database you](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=8&mode=live&start=8.894) [care about and not the master system](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=8&mode=live&start=10.952000000000004) [database. So when you run this query, it](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=8&mode=live&start=13.239999999999998) [comes back and shows you which stored](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=8&mode=live&start=15.89) [procedures have been called the most often](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=8&mode=live&start=18.215555555555554) [from the ones that are in the plan cache.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=8&mode=live&start=20.58) [So it's going to show you the stored](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=8&mode=live&start=23.58)[procedure name, the execution count, the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=8&mode=live&start=25.203999999999994) [number of calls per minute, the average](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=8&mode=live&start=27.378888888888895) [worker time, the total worker time and](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=8&mode=live&start=30.5825) [then the total elapsed time. And then](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=8&mode=live&start=33.900000000000006) [finally, the average elapsed time. And](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=8&mode=live&start=36.440000000000005) [these elapsed times are in microseconds,](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=8&mode=live&start=38.83428571428571) [not milliseconds. And then the last column](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=8&mode=live&start=40.6) [in this query is when this particular](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=8&mode=live&start=43.80125000000001) [stored procedures plan went into the plan](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=8&mode=live&start=46.26) [cache. So if all of these times are](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=8&mode=live&start=48.40599999999999) [relatively close together, then this is a](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=8&mode=live&start=51.40600000000002)[pretty accurate indication of what's going](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=8&mode=live&start=54.285714285714285) [on in this particular database. So it's](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=8&mode=live&start=56.3225) [showing me that this stored procedure at](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=8&mode=live&start=58.1125) [the very top is called quite often](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=8&mode=live&start=60.114999999999995) [compared to the other ones. So again, I](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=8&mode=live&start=63.58) [want to have a general idea for how often](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=8&mode=live&start=65.60000000000001) [stored procedures are called in a](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=8&mode=live&start=68.54) [particular database so I understand](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=8&mode=live&start=70.10750000000003) [whether I'm seeing a normal workload or](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=8&mode=live&start=71.70727272727272) [not. And if I see something in here that](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=8&mode=live&start=74.22090909090909) [looks like it might be static data and](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=8&mode=live&start=76.21999999999998) [it's called a lot, then I'm going to be](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=8&mode=live&start=78.99400000000003) [probably talking to my developers about](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=8&mode=live&start=81.50181818181818) [hey, is there any way we can maybe cache](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=8&mode=live&start=82.62) [this information in the middle tier? So](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=8&mode=live&start=85.04181818181816)[when you call this thousands of times a](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=8&mode=live&start=87.004) [minute, we're not hitting the database](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=8&mode=live&start=90.15600000000005) [every single time to pull back static](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=8&mode=live&start=91.80624999999999) [information. That's a very good case for caching in the middle tier.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=8&mode=live&start=94.21600000000001)

[Stored Procedure Average Elapsed Time](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=9&mode=live)

[Stored procedure average elapsed time.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=9&mode=live&start=2.064) [This query uses sys. procedures catalog](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=9&mode=live&start=5.064) [view joined with sys.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=9&mode=live&start=7.643999999999998) [dm\_exec\_procedure\_stats DMV. The](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=9&mode=live&start=10.479999999999999)[documentation for sys. procedures is found](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=9&mode=live&start=12.414) [at this MSDN link, and the documentation](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=9&mode=live&start=14.394) [for sys. dm\_exec\_procedure\_stats is found](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=9&mode=live&start=17.054) [at this MSDN link. Now this query is going](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=9&mode=live&start=19.320666666666664) [to tell you which cache stored procedures](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=9&mode=live&start=22.60900000000001) [have the highest average elapsed times in](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=9&mode=live&start=25.084) [microseconds. It's important you know that](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=9&mode=live&start=29.326500000000003) [it's microseconds, not milliseconds here.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=9&mode=live&start=30.831142857142858) [So this is going to help you understand](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=9&mode=live&start=33.084) [your stored procedure workload. It's also](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=9&mode=live&start=35.044) [going to help you identify possible query](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=9&mode=live&start=36.76066666666667) [tuning candidates where you can look like](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=9&mode=live&start=39.094) [a rock star or a hero where you find this](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=9&mode=live&start=41.19399999999998) [long-running query and you do some tuning](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=9&mode=live&start=44.41955555555555) [to make it run much, much better. And this](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=9&mode=live&start=46.733999999999995) [actually can have a very large beneficial](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=9&mode=live&start=49.848) [impact on your workload in many cases. So](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=9&mode=live&start=52.662000000000006) [I love to look here to find that low](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=9&mode=live&start=54.46066666666667) [hanging fruit of long-running queries. It](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=9&mode=live&start=57.40066666666668) [may be some simple query tuning or index](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=9&mode=live&start=60.248999999999995) [tuning can make a huge difference in the elapsed time of that stored procedure.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=9&mode=live&start=61.88899999999998)

[Demo: Stored Procedure Average Elapsed Time](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=10&mode=live)

[In this demonstration, I'm going to show](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=10&mode=live&start=1.819) [you the SP average elapsed time diagnostic](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=10&mode=live&start=2.7377500000000006) [query. So when you run this query against](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=10&mode=live&start=6.271857142857142) [the database that you're concerned with,](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=10&mode=live&start=8.379) [it's going to come back and tell you the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=10&mode=live&start=9.721222222222222) [stored procedures that have the highest](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=10&mode=live&start=12.189000000000004) [average elapsed time in microseconds, not](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=10&mode=live&start=14.561857142857141)[milliseconds. So it takes a million](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=10&mode=live&start=18.104) [microseconds to be one second. So you can](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=10&mode=live&start=20.864) [see this particular stored procedure is](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=10&mode=live&start=23.96025) [less than a 10th of a second when you look](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=10&mode=live&start=25.93823076923077) [at it from that perspective. But when you](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=10&mode=live&start=27.530538461538477) [do this, it's going to show you average](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=10&mode=live&start=30.385999999999996) [elapsed time for all your stored](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=10&mode=live&start=32.04025) [procedures that are in the plan cache, the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=10&mode=live&start=33.60774999999998) [total elapsed time, the execution count,](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=10&mode=live&start=36.61300000000002) [the number of calls per minute and then](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=10&mode=live&start=38.795666666666676) [the average worker time and total worker](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=10&mode=live&start=41.41499999999999) [time and then when it went into the plan](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=10&mode=live&start=43.53599999999997) [cache. So if all these times are fairly](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=10&mode=live&start=46.45233333333334) [close, then you know that this is a fairly](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=10&mode=live&start=48.55524999999998) [accurate accounting of which stored](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=10&mode=live&start=51.224999999999994) [procedures have the highest average](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=10&mode=live&start=52.703285714285705) [elapsed time. So anyways, what you're](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=10&mode=live&start=54.522333333333336) [doing with this query is looking for](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=10&mode=live&start=56.833999999999996) [stored procedures that maybe you can just](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=10&mode=live&start=58.92445454545454) [do some standard query tuning techniques](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=10&mode=live&start=61.457181818181795) [to really have a huge impact on how long](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=10&mode=live&start=63.849) [it takes on average for that stored](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=10&mode=live&start=66.31990909090914)[procedure to execute. And again, that's](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=10&mode=live&start=68.71275000000003) [where you can make a big impact on your](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=10&mode=live&start=70.43099999999998) [workload and make your user's lives a lot](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=10&mode=live&start=72.604) [easier if they click on a button on a](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=10&mode=live&start=75.33566666666667) [website for example and instead of waiting](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=10&mode=live&start=77.57066666666668) [10 or 15 seconds, it comes back in less](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=10&mode=live&start=79.62500000000001) [than a second because of something you did](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=10&mode=live&start=82.07275) [here. That's really a wonderful thing to](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=10&mode=live&start=83.69399999999999) [do for yourself and your career and for](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=10&mode=live&start=85.85566666666668) [your users that are using the database that, that website is based on.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=10&mode=live&start=88.31899999999999)

[Stored Procedure Average Elapsed Variable Time](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=11&mode=live)

[Stored procedure average elapsed variable](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=11&mode=live&start=2.274) [time. This query uses the sys. procedures](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=11&mode=live&start=4.7989999999999995) [catalog view joined with sys.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=11&mode=live&start=7.531499999999999) [dm\_exec\_procedure\_stats DMV. The](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=11&mode=live&start=10.674000000000001) [documentation for sys. procedures is at](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=11&mode=live&start=12.502888888888888) [this URL, and the documentation for sys.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=11&mode=live&start=13.876222222222223) [dm\_exec\_procedure\_stats is at that URL.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=11&mode=live&start=17.61733333333333) [This query basically tells you which cache](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=11&mode=live&start=20.334) [stored procedures have the highest elapsed](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=11&mode=live&start=22.643999999999988) [times in microseconds, but it also gets](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=11&mode=live&start=25.572571428571433) [into the variable time that you see. So](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=11&mode=live&start=28.728545454545454) [sometimes you're going to see stored](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=11&mode=live&start=31.52775) [procedures run more quickly than they do](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=11&mode=live&start=33.05024999999999) [other times, and this means sometimes you](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=11&mode=live&start=34.804) [might have a parameter sniffing problem or](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=11&mode=live&start=36.06114285714284) [just a plan stability problem. This is](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=11&mode=live&start=38.644) [also going to help you understand your](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=11&mode=live&start=40.559) [stored procedure workload. It's going to](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=11&mode=live&start=41.854)[show you the minimum, average, maximum and](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=11&mode=live&start=44.66066666666666) [the last elapsed time for each stored](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=11&mode=live&start=47.60733333333334) [procedure in the plan cache. Large](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=11&mode=live&start=49.94066666666669) [variances in the elapsed times, again,](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=11&mode=live&start=51.74257142857143) [might be an indicator that you've got](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=11&mode=live&start=54.314) [something going on with plan stability or](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=11&mode=live&start=55.73500000000002) [parameter sniffing. It's going to help you](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=11&mode=live&start=58.344) [identify possible query tuning candidates also, just like the previous query did.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=11&mode=live&start=60.7582857142857)

[Demo: Stored Procedure Average Elapsed Variable Time](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=12&mode=live)

[In this demonstration, I'm going to show](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=12&mode=live&start=1.806) [you the stored procedure average elapsed](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=12&mode=live&start=2.7247500000000007) [variable time diagnostic query. So what's](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=12&mode=live&start=4.98457142857143) [going on here is this is going to pull](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=12&mode=live&start=8.166) [back stored procedures in the plan cache](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=12&mode=live&start=9.650999999999993) [that are ordered by their average elapsed](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=12&mode=live&start=11.849333333333332) [time. But it's also going to show you the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=12&mode=live&start=14.482)[execution count and the minimum elapsed](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=12&mode=live&start=17.229999999999993) [time, and these times are in microseconds](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=12&mode=live&start=18.671999999999993) [by the way, not milliseconds. So it's](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=12&mode=live&start=20.826000000000004) [going to show you the minimum elapsed](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=12&mode=live&start=23.234) [time, the average elapsed time, the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=12&mode=live&start=24.627000000000013) [maximum elapsed time and then the last](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=12&mode=live&start=26.725999999999996) [elapsed time for this particular stored](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=12&mode=live&start=29.17266666666667) [procedure. Then it also shows you when it](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=12&mode=live&start=31.418) [went into the plan cache. And you want to](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=12&mode=live&start=33.011833333333335) [look at this and see whether or not](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=12&mode=live&start=34.84599999999999) [they're all roughly the same time or not.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=12&mode=live&start=36.806) [And that way, you know the validity of](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=12&mode=live&start=37.846) [this sort is really good or not. But](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=12&mode=live&start=40.25400000000001) [again, where this is useful is it's going](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=12&mode=live&start=42.12266666666667) [to show you whether you've got lots of](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=12&mode=live&start=44.096000000000025) [variation and the elapsed times for your](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=12&mode=live&start=46.536000000000016) [stored procedures, and then sometimes it's](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=12&mode=live&start=49.10350000000001) [really quick and sometimes it takes a much](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=12&mode=live&start=51.14600000000001) [longer time to execute. That might mean](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=12&mode=live&start=53.05000000000002) [that you've got parameter sniffing problem](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=12&mode=live&start=54.86600000000001) [which means that when the stored procedure](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=12&mode=live&start=56.826) [was first compiled, the parameter that was](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=12&mode=live&start=58.876) [used to come up with the execution plan is](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=12&mode=live&start=61.43100000000001) [not an appropriate parameter for your](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=12&mode=live&start=64.26266666666668) [average execution. So that's something that will show up here quite often.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=12&mode=live&start=66.94266666666671)

[Stored Procedure Total Worker Time](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=13&mode=live)

[Stored procedure total worker time. This](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=13&mode=live&start=2) [query uses sys. procedures catalog view](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=13&mode=live&start=4.795857142857143) [joined with sys. dm\_exec\_procedure\_stats](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=13&mode=live&start=7.333) [DMV. The documentation for sys. procedures](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=13&mode=live&start=9.772999999999998) [is at this MSDN URL, and the documentation](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=13&mode=live&start=12.852999999999998) [for sys. dm\_exec\_procedure\_stats is at](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=13&mode=live&start=16.838) [this URL. This query basically is going to](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=13&mode=live&start=19.372999999999998) [return the stored procedures that have the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=13&mode=live&start=22.193000000000005) [highest total worker time. And stored](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=13&mode=live&start=25.06871428571429) [procedure worker time or query worker time](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=13&mode=live&start=27.980777777777778)[relates to CPU cost. It's going to show](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=13&mode=live&start=30.353) [you which stored procedures are the most](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=13&mode=live&start=33.38300000000001) [expensive from a CPU perspective. So](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=13&mode=live&start=35.48675000000001) [again, this is going to help you](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=13&mode=live&start=37.563) [understand your overall stored procedure](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=13&mode=live&start=39.102999999999994) [workload and it's going to help you](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=13&mode=live&start=40.939000000000014) [identify possible tuning candidates if](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=13&mode=live&start=43.137) [you're under CPU pressure. So if you're](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=13&mode=live&start=44.729) [seeing signs of CPU pressure at the server](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=13&mode=live&start=47.07800000000001) [level or the instance level, then I'm](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=13&mode=live&start=49.11425) [going to want to run this query and try to](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=13&mode=live&start=50.820777777777785)[figure out which stored procedures are](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=13&mode=live&start=53.10675) [using the most CPU. And then I can go and](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=13&mode=live&start=54.767) [look at the query plans for those stored](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=13&mode=live&start=57.46845454545454) [procedures and try to figure out what if](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=13&mode=live&start=59.032999999999994) [anything I can do to try to reduce the CPU cost of those stored procedures.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=13&mode=live&start=60.96376923076924)

[Demo: Stored Procedure Total Worker Time](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=14&mode=live)

[In this demonstration, I'm going to show](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=14&mode=live&start=1.571) [you the SP Worker Time diagnostic query.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=14&mode=live&start=3.2772499999999996) [So this query is going to return the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=14&mode=live&start=6.531) [stored procedures that are in the plan](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=14&mode=live&start=8.171) [cache that have used the most worker time](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=14&mode=live&start=9.912818181818178) [since they've been in the plan cache. When](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=14&mode=live&start=12.184333333333331) [you run it, what happens is it comes back](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=14&mode=live&start=14.743) [and gives you the top 25 stored procedures](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=14&mode=live&start=16.561) [sorted by total worker time. So you can](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=14&mode=live&start=19.541) [see here that these top two are](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=14&mode=live&start=22.230999999999998) [significantly more than the rest of the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=14&mode=live&start=23.839333333333336) [ones in the list and it drops off pretty](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=14&mode=live&start=25.57766666666668) [quickly here. It shows you the total](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=14&mode=live&start=28.678142857142856) [worker time then the average worker time](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=14&mode=live&start=30.551) [for each execution, the execution count](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=14&mode=live&start=32.5685) [and then the calls per minute and the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=14&mode=live&start=35.531) [total elapsed time and the average elapsed](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=14&mode=live&start=37.74190909090907) [time and then when it went into the plan](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=14&mode=live&start=39.37100000000001) [cache. And then here's the stored](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=14&mode=live&start=42.041000000000004) [procedure name. So again, I'm going to](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=14&mode=live&start=43.94528571428573) [want to run this query if I'm under CPU](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=14&mode=live&start=45.50599999999999) [pressure and I'm trying to figure out](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=14&mode=live&start=47.59554545454545)[okay, which stored procedures are using](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=14&mode=live&start=49.511) [the most CPU? And what can I do, if](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=14&mode=live&start=51.55766666666667) [anything, to tune those stored procedures to reduce their CPU cost?](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=14&mode=live&start=54.25242857142855)

[Stored Procedure Total Logical Reads](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=15&mode=live)

[Stored procedure total logical reads. This](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=15&mode=live&start=1.488) [query again uses sys. procedures catalog](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=15&mode=live&start=4.96175) [view joined with the sys.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=15&mode=live&start=7.9242500000000025) [dm\_exec\_procedure\_stats DMV. The](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=15&mode=live&start=11.091333333333331)[documentation for sys. procedures is at](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=15&mode=live&start=12.828000000000001) [this MSDN link, and the documentation for](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=15&mode=live&start=15.228000000000003) [sys. dm\_exec\_procedure\_stats is at this](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=15&mode=live&start=18.428) [MSDN link. This query is going to return a](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=15&mode=live&start=21.228000000000005) [list of stored procedures that have the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=15&mode=live&start=23.738909090909093) [highest total logical reads. Stored](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=15&mode=live&start=25.77371428571428) [procedure logical reads relate to memory](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=15&mode=live&start=28.048) [and read I/O cost indirectly. Because](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=15&mode=live&start=31.408) [basically, logical reads means you're](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=15&mode=live&start=33.72657142857143) [finding the data in the buffer pool but it](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=15&mode=live&start=35.16942857142858) [has to go into the buffer pool from the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=15&mode=live&start=36.934363636363656)[I/O subsystem the first time at some](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=15&mode=live&start=38.99549999999999) [point. So it indirectly affects read I/O](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=15&mode=live&start=41.15633333333332) [costs. It's going to show you which stored](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=15&mode=live&start=44.8737142857143) [procedures are the most expensive from a](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=15&mode=live&start=47.17050000000002) [memory perspective. So if you're under](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=15&mode=live&start=49.668) [memory pressure, you have low page of life](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=15&mode=live&start=51.12466666666668) [expectancy and/or memory grants pending](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=15&mode=live&start=53.847999999999985)[for example, then I'm going to want to run](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=15&mode=live&start=55.67883333333333) [this query to try to figure out which](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=15&mode=live&start=57.93633333333332) [stored procedures are being the most](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=15&mode=live&start=59.923000000000016) [costly on my memory subsystem. It's going](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=15&mode=live&start=61.786888888888875) [to also help you understand your stored](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=15&mode=live&start=64.05799999999999) [procedure workload. And it's also going to](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=15&mode=live&start=66.44800000000001) [help you identify some possible tuning](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=15&mode=live&start=68.67550000000001)[candidates again if you're under memory](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=15&mode=live&start=70.91050000000001) [pressure. So this is a very useful diagnostic query in a lot of situations.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=15&mode=live&start=72.73466666666666)

[Demo: Stored Procedure Total Logical Reads](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=16&mode=live)

[In this demonstration, I'm going to show](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=16&mode=live&start=1.766) [you the stored procedure logical reads](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=16&mode=live&start=3.4810000000000008) [diagnostic query. And this query is going](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=16&mode=live&start=5.890285714285716) [to return the top 25 stored procedures](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=16&mode=live&start=8.426833333333333) [that have used the most logical reads](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=16&mode=live&start=10.766) [since they've been in the plan cache. So](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=16&mode=live&start=12.776) [when you run this, it comes back with a](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=16&mode=live&start=15.061454545454545) [list of 25 stored procedures if enough of](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=16&mode=live&start=17.450545454545455) [them are in the plan cache, sorted by](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=16&mode=live&start=19.48350000000001) [total logical reads. And you can see here](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=16&mode=live&start=21.878000000000007) [that the top two are quite a bit higher](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=16&mode=live&start=23.912666666666663) [than the rest of the ones in the list. So](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=16&mode=live&start=26.13781818181818) [if I was under memory pressure, I'd be](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=16&mode=live&start=28.953) [looking at these two stored procedures](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=16&mode=live&start=30.528999999999993) [first. And it shows you the total logical](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=16&mode=live&start=32.44266666666667) [reads and then the average logical reads.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=16&mode=live&start=34.52725000000001) [And you can see these numbers are also](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=16&mode=live&start=36.786) [quite high. It shows you the execution](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=16&mode=live&start=39.13799999999998) [count, the calls per minute, the total](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=16&mode=live&start=41.23100000000001) [elapsed time and again, this is in](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=16&mode=live&start=43.338) [microseconds, not milliseconds, and then](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=16&mode=live&start=45.445000000000014) [the average elapsed time for the stored](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=16&mode=live&start=47.24100000000001)[procedure, again in microseconds. And this](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=16&mode=live&start=49.61885714285714) [is when it went into the plan cache. So](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=16&mode=live&start=51.382) [again, where this is very useful is if](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=16&mode=live&start=53.909636363636366) [you're under memory pressure and you know](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=16&mode=live&start=55.3787272727273) [which database is causing the memory](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=16&mode=live&start=57.21742857142857) [pressure, which you can figure out with](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=16&mode=live&start=58.986000000000004) [another one of my queries, then you run](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=16&mode=live&start=61.086)[this against that database and you try to](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=16&mode=live&start=63.59742857142856) [figure out, okay, these stored procedures](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=16&mode=live&start=65.962) [are the ones that are causing the most](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=16&mode=live&start=67.786) [memory pressure. Let's see what I can do](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=16&mode=live&start=70.15399999999994) [to tune those. And quite often, tuning](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=16&mode=live&start=72.08599999999997) [those comes down to things like adding](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=16&mode=live&start=73.56800000000001) [indexes to avoid index scans or table](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=16&mode=live&start=75.33488888888888) [scans or making sure you don't have](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=16&mode=live&start=79.17711111111106) [implicit conversion problems, things of](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=16&mode=live&start=81.76600000000002) [that nature quite often have a huge effect](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=16&mode=live&start=83.38400000000001) [on the number of logical reads that a query will use.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=16&mode=live&start=85.776)

[Stored Procedure Total Physical Reads](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=17&mode=live)

[Stored procedure total physical reads.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=17&mode=live&start=2.05) [This query uses the sys. procedures](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=17&mode=live&start=4.11) [catalog view joined with the sys.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=17&mode=live&start=7.042499999999998) [dm\_exec\_procedure\_stats DMV. The](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=17&mode=live&start=10.073333333333334)[documentation for sys. procedures is at](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=17&mode=live&start=11.498999999999999) [this MSDN link, and the documentation for](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=17&mode=live&start=13.893000000000004) [sys. dm\_exec\_procedure\_stats is at this](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=17&mode=live&start=17.71) [MSDN link. Again, this query is going to](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=17&mode=live&start=20.237999999999996) [return stored procedures that have the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=17&mode=live&start=23.049999999999994) [highest total physical reads since they've](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=17&mode=live&start=25.331428571428575) [been in the plan cache. Stored procedure](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=17&mode=live&start=27.61714285714286)[physical reads relate to read I/O costs.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=17&mode=live&start=29.94888888888889) [It means you're not finding the data in](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=17&mode=live&start=33.06) [the buffer pool and you're having to go](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=17&mode=live&start=34.53636363636366) [out to your disk subsystem which is much,](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=17&mode=live&start=36.57499999999999) [much slower. Even if you have flash](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=17&mode=live&start=39.26) [storage, it's much slower than finding it](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=17&mode=live&start=41.193333333333335) [in the buffer pool and getting it from](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=17&mode=live&start=42.70000000000001) [actual RAM. It's going to show you which](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=17&mode=live&start=44.76) [stored procedures are the most expensive](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=17&mode=live&start=47.56500000000001) [from a read I/O perspective. It's also](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=17&mode=live&start=49.41555555555556) [going to help you understand your stored](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=17&mode=live&start=51.67) [procedure workload, and it's going to help](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=17&mode=live&start=53.660000000000004) [you identify some possible tuning](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=17&mode=live&start=55.725000000000016) [candidates if you're under memory or read](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=17&mode=live&start=57.668) [I/O pressure. So again, if I'm under](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=17&mode=live&start=60.33) [memory pressure and I have very low page](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=17&mode=live&start=63.18714285714285) [life expectancy or I'm seeing very high](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=17&mode=live&start=65.55249999999998) [read latency from my data files on my SQL](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=17&mode=live&start=67.8872727272727)[Server databases, then I definitely want](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=17&mode=live&start=70.89272727272726) [to run this query to try to figure out](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=17&mode=live&start=72.51818181818177) [which stored procedures are causing the most pain for me.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=17&mode=live&start=75.14600000000002)

[Demo: Stored Procedure Total Physical Reads](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=18&mode=live)

[In this demonstration, I'm going to show](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=18&mode=live&start=1.988) [you the stored procedure physical reads](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=18&mode=live&start=2.9067500000000006) [diagnostic query. This query pulls back](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=18&mode=live&start=5.852285714285715) [the top 25 stored procedures from the plan](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=18&mode=live&start=8.30688888888889) [cache ordered by the total physical reads,](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=18&mode=live&start=11.168000000000001) [and then ordered by total logical reads](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=18&mode=live&start=13.968) [after that. And so in this case, I've only](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=18&mode=live&start=16.301333333333336)[got a few stored procedures that actually](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=18&mode=live&start=18.712166666666672) [were doing physical reads, but you can see](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=18&mode=live&start=20.637999999999998) [these top two have a lot more physical](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=18&mode=live&start=23.21646153846154) [reads than any other ones in the list](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=18&mode=live&start=25.65338461538462) [here. So I'll be looking at those pretty](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=18&mode=live&start=27.71674999999999) [hard to try to figure out what's going on](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=18&mode=live&start=29.082615384615394) [with these stored procedures that are](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=18&mode=live&start=31.302285714285713) [actually having to go out to the disk](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=18&mode=live&start=33.358909090909094) [subsystem to get their data and they're](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=18&mode=live&start=34.84254545454547) [not finding it in the buffer pool. And](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=18&mode=live&start=36.35466666666668) [this is going to show you the total](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=18&mode=live&start=39.143454545454546)[physical reads, the average physical](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=18&mode=live&start=40.627090909090924) [reads, the execution count since it's been](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=18&mode=live&start=42.288) [in the plan cache, and then the total](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=18&mode=live&start=44.869428571428564) [logical reads, the total elapsed time in](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=18&mode=live&start=47.593999999999994) [microseconds and the average elapsed time](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=18&mode=live&start=50.25085714285714) [in microseconds. And then the last column](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=18&mode=live&start=52.008) [is the cache time, when it actually went](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=18&mode=live&start=54.67577777777777) [in the plan cache. So this query is very,](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=18&mode=live&start=56.978) [very useful if you're under memory](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=18&mode=live&start=59.406571428571425) [pressure or read I/O pressure. You're](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=18&mode=live&start=61.74688888888888) [seeing high read latency from your data files.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=18&mode=live&start=64.958)

[Stored Procedure Total Logical Writes](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=19&mode=live)

[Stored procedure total logical writes.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=19&mode=live&start=2.118) [This query uses the sys. procedures](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=19&mode=live&start=5.138) [catalog view joined with sys.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=19&mode=live&start=7.350500000000002) [dm\_exec\_procedure\_stats DMV. The](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=19&mode=live&start=9.942)[documentation for sys. procedures is right](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=19&mode=live&start=11.55175) [there at that MSDN link, and the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=19&mode=live&start=13.794249999999996) [documentation for sys.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=19&mode=live&start=16.679428571428573) [dm\_exec\_procedure\_stats is at this MSDN](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=19&mode=live&start=18.348) [link. This query is basically going to](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=19&mode=live&start=21.473) [return a list of stored procedures that](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=19&mode=live&start=23.023714285714277) [have the highest total logical writes. And](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=19&mode=live&start=25.569428571428574) [logical writes just means that you're](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=19&mode=live&start=28.40925)[updating or inserting or deleting data.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=19&mode=live&start=29.916749999999993) [Stored procedure logical writes relate to](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=19&mode=live&start=33.148) [write I/O cost. It's going to show you](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=19&mode=live&start=35.827999999999996) [which stored procedures are the most](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=19&mode=live&start=38.418) [expensive from a write I/O perspective. So](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=19&mode=live&start=40.16133333333334) [this is going to affect your transaction](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=19&mode=live&start=42.47577777777778) [log and then your data file somewhat later](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=19&mode=live&start=44.77022222222221) [after that. It's going to also help you](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=19&mode=live&start=47.47800000000002) [understand your stored procedure workload.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=19&mode=live&start=49.84657142857142) [I want to understand which stored](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=19&mode=live&start=51.168) [procedures are causing the most write](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=19&mode=live&start=52.86514285714288)[activity for this particular database. And](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=19&mode=live&start=54.82300000000001) [it's going to help you identify some](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=19&mode=live&start=57.36466666666667) [possible tuning candidates if you're under](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=19&mode=live&start=58.88133333333335) [write I/O pressure. So what I would do](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=19&mode=live&start=61.591750000000005) [here is make sure that we're not missing](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=19&mode=live&start=63.87261538461539) [any indexes on these stored procedures,](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=19&mode=live&start=65.128) [and also I'd want to understand do we](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=19&mode=live&start=68.098) [really need to update all of this data so](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=19&mode=live&start=70.09133333333334) [often? Maybe we can do some write caching](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=19&mode=live&start=71.98800000000003) [in the middle tier for example. But again,](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=19&mode=live&start=74.138) [I just want to understand what's causing](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=19&mode=live&start=76.42085714285713) [the most write activity especially if I'm](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=19&mode=live&start=78.03866666666667) [seeing bottlenecks on my transaction log, for example.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=19&mode=live&start=82.76)

[Demo: Stored Procedure Total Logical Writes](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=20&mode=live)

[In this demonstration, I'm going to show](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=20&mode=live&start=1.287) [you the stored procedure logical writes](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=20&mode=live&start=3.0107499999999994) [diagnostic query. This query returns the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=20&mode=live&start=6.085571428571429) [top 25 stored procedures that had the most](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=20&mode=live&start=8.241999999999999) [logical writes since they've been in the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=20&mode=live&start=10.613666666666663) [plan cache. And when you run this, it](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=20&mode=live&start=12.715571428571433) [comes back in my case just with four](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=20&mode=live&start=14.885181818181815) [stored procedures that have been doing](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=20&mode=live&start=17.459000000000003) [writes. And you can kind of tell from the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=20&mode=live&start=19.830999999999996) [names that they're probably write stored](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=20&mode=live&start=21.141444444444446) [procedures. But it shows you the total](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=20&mode=live&start=22.923666666666662) [logical writes, the average logical](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=20&mode=live&start=24.77200000000001) [writes, the execution count, the calls per](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=20&mode=live&start=26.965571428571433) [minute, the total elapsed time in](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=20&mode=live&start=30.35325) [microseconds and then the average elapsed](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=20&mode=live&start=32.50075) [time in microseconds. And then finally,](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=20&mode=live&start=34.023249999999976) [when it went into the plan cache. So I'm](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=20&mode=live&start=36.81600000000001) [going to look at these and try to figure](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=20&mode=live&start=38.57533333333334) [out why are we updating this data so much?](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=20&mode=live&start=40.09783333333336) [Can we possibly do some write caching in](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=20&mode=live&start=43.287) [the middle tier? Are we missing any](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=20&mode=live&start=46.13790909090911) [indexes on the tables that are affected by](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=20&mode=live&start=48.242) [these updates, for example? That's the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=20&mode=live&start=50.751999999999995) [kind of things I'm going to look at. And](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=20&mode=live&start=52.439) [again, I'll look at this more closely if](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=20&mode=live&start=53.65325) [I'm seeing high latency to my transaction log file, or I'm seeing write bottlenecks.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=20&mode=live&start=56.616)

[Top I/O Statements](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=21&mode=live)

[Top I/O statements. This query uses the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=21&mode=live&start=1.812) [sys. dm\_exec\_query\_stats DMV cross applied](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=21&mode=live&start=6.0762857142857145) [with sys. dm\_exec\_sql\_text. The](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=21&mode=live&start=8.986) [documentation for sys. dm\_exec\_query\_stats](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=21&mode=live&start=11.392) [is at this MSDN link, and then the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=21&mode=live&start=13.792) [documentation for sys. dm\_exec\_sql\_text is](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=21&mode=live&start=16.47644444444445) [at this MSDN link. This query is going to](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=21&mode=live&start=19.301999999999996) [show your top queries by average I/O cost.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=21&mode=live&start=22.91422222222222) [It's going to show the query text inside](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=21&mode=live&start=25.822) [of stored procedures. It's also going to](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=21&mode=live&start=28.003818181818186) [show ad hoc queries by themselves in some](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=21&mode=live&start=30.029999999999998) [cases. It's going to show you the average](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=21&mode=live&start=33.141999999999996) [I/O and execution counts for each one of](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=21&mode=live&start=35.701090909090915) [the queries that show up in this](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=21&mode=live&start=37.667555555555566) [diagnostic query. And again, this is going](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=21&mode=live&start=39.30199999999999) [to help you understand your query workload](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=21&mode=live&start=40.94199999999999) [from an I/O perspective, which exact](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=21&mode=live&start=43.09914285714286) [queries inside of your stored procedures](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=21&mode=live&start=45.791999999999994) [are the most costly from an I/O](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=21&mode=live&start=48.762) [perspective. And it's filtered by the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=21&mode=live&start=51.39574999999999) [current database. So only the database](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=21&mode=live&start=53.20057142857142) [you're connected to now is going to have result that show up in this query.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=21&mode=live&start=54.78199999999999)

[Demo: Top I/O Statements](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=22&mode=live)

[In this demonstration, I'm going to show](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=22&mode=live&start=2) [you the top I/O statements diagnostic](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=22&mode=live&start=3.1068750000000005) [query. This is going to return the top 50](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=22&mode=live&start=5.748333333333335) [statements from your stored procedures](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=22&mode=live&start=8.049444444444443) [that are in the plan cache that are](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=22&mode=live&start=9.458999999999998) [causing the most I/O. And what's going to](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=22&mode=live&start=11.921666666666667) [happen here is it's going to show you the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=22&mode=live&start=14.278333333333334) [name of the stored procedure and then the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=22&mode=live&start=16.519545454545455) [average I/O in terms of logical reads, the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=22&mode=live&start=18.715909090909083) [execution count, and then here's the exact](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=22&mode=live&start=21.522499999999994) [query text that's generating this I/O on](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=22&mode=live&start=23.94166666666666) [average. So again, if I'm under read I/O](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=22&mode=live&start=26.790000000000006) [pressure or under memory pressure, I want](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=22&mode=live&start=30.7425) [to run this query to understand which part](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=22&mode=live&start=32.46499999999999) [of these stored procedures is the most expensive from an I/O perspective.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=22&mode=live&start=34.78)

[Summary and What Is Next?](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=23&mode=live)

[So what have we talked about in this](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=23&mode=live&start=1.844) [module? Well, hopefully you've started to](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=23&mode=live&start=3.6662222222222227) [see by now that these DMV and DMO queries](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=23&mode=live&start=5.131499999999998) [can help you detect most database-level](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=23&mode=live&start=7.668000000000002) [performance issues. They're going to help](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=23&mode=live&start=10.339000000000002) [you focus your performance troubleshooting](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=23&mode=live&start=12.814) [efforts in the right area of a particular](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=23&mode=live&start=14.149000000000001)[database. They're also going to help you](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=23&mode=live&start=17.316499999999998) [characterize and understand your overall](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=23&mode=live&start=19.174) [database workload, which stored procedures](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=23&mode=live&start=20.869) [are using the most CPU, the most I/O and](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=23&mode=live&start=22.994000000000003) [the most memory, for example. Also, it's](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=23&mode=live&start=26.163999999999994) [going to help you understand what type of](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=23&mode=live&start=28.11114285714286) [overall workload you're seeing on the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=23&mode=live&start=29.754)[database. Is it more of an OLTP workload](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=23&mode=live&start=31.554000000000006) [or more of a data warehouse decision](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=23&mode=live&start=33.49092307692306) [support reporting kind of a workload? It's](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=23&mode=live&start=35.32114285714285) [going to help you get a better idea of how](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=23&mode=live&start=38.21066666666667) [your database is running using these](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=23&mode=live&start=41.49955555555556) [queries. And many SQL Server databases](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=23&mode=live&start=43.526222222222245) [actually have performance issues that you](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=23&mode=live&start=45.992571428571424) [can detect and diagnose with these](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=23&mode=live&start=48.33400000000001) [queries. So what's coming in the next](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=23&mode=live&start=51.184) [module? Module three is going to be](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=23&mode=live&start=53.578285714285705) [Database-Level Performance Queries Part 2.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=23&mode=live&start=54.884) [This is going to include bad non-clustered](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=23&mode=live&start=57.844) [indexes, missing indexes at the database](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=23&mode=live&start=60.495249999999984) [level, missing index warnings in the plan](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=23&mode=live&start=63.36566666666668) [cache, your buffer usage at the database](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=23&mode=live&start=66.45257142857142) [level, your table sizes, table properties,](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=23&mode=live&start=69.43828571428575) [statistics update information, index](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=23&mode=live&start=73.874) [fragmentation information and your overall](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=23&mode=live&start=76.86733333333333) [index usage for reads and for writes and then recent full backups.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m2-database-perf1&clip=23&mode=live&start=79.73199999999999)

[Database-Level Performance Queries Part 2](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=0&mode=live)

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This is the Database Level](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=0&mode=live&start=5.751428571428569) [Performance Queries Part 2 Module.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=0&mode=live&start=7.468571428571428)[Database level performance queries are a](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=0&mode=live&start=10.04) [group of queries that you use to collect](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=0&mode=live&start=12.04666666666667) [database level performance metrics. These](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=0&mode=live&start=15.249999999999998) [must be run in the context of a database](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=0&mode=live&start=17.183333333333334) [that you're concerned with and they are](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=0&mode=live&start=18.74333333333332) [database specific queries. Many SQL server](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=0&mode=live&start=21.583750000000006) [databases have performance issues and](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=0&mode=live&start=24.386666666666667)[these queries will help you further focus](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=0&mode=live&start=26.564444444444447) [your tuning efforts in the right area, so](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=0&mode=live&start=28.24799999999999) [you're not wasting your time, just](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=0&mode=live&start=30.260000000000005) [guessing with your tuning efforts. My](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=0&mode=live&start=32.03) [Pluralsight course Scaling SQL Server 2012](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=0&mode=live&start=34.52333333333333) [Part 1 covers some best practice instance](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=0&mode=live&start=37.183333333333344) [level performance considerations and you](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=0&mode=live&start=40.20571428571427) [can get to it at this URL. This course](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=0&mode=live&start=41.96300000000001) [will help you make sure that your instance](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=0&mode=live&start=44.60454545454545) [is set up correctly so that you won't have](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=0&mode=live&start=46.74272727272726) [as many database level performance issues](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=0&mode=live&start=49.184545454545464) [hopefully. Joe Sack has a very good](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=0&mode=live&start=51.5225) [Pluralsight course called SQL Server:](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=0&mode=live&start=53.81199999999998) [Common Performance Issue Patterns that I](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=0&mode=live&start=55.301) [think is a very valuable resource. You can get to it at that URL.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=0&mode=live&start=57.10700000000001)

[Bad Nonclustered Indexes](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=1&mode=live)

[Bad non-clustered indexes, this diagnostic](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=1&mode=live&start=1.756) [query is going to help you identify](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=1&mode=live&start=4.2372499999999995) [indexes that have more writes than reads,](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=1&mode=live&start=6.5619999999999985) [hence they are considered to be bad in](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=1&mode=live&start=8.177818181818182) [many cases. It's going to use the sys.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=1&mode=live&start=11.072363636363633) [dm\_db\_index\_usage\_stats DMV and the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=1&mode=live&start=15.538500000000006) [documentation for that is at this MSDN](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=1&mode=live&start=17.384) [link. It's also going to use the sys.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=1&mode=live&start=19.476999999999997) [indexes catalog view and the MSDN link for](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=1&mode=live&start=21.88300000000001) [that is right there. Now when you run this](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=1&mode=live&start=24.463777777777775) [query, you don't want to lose your mind](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=1&mode=live&start=27.03933333333333) [and just start dropping every index it](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=1&mode=live&start=29.051714285714283) [shows up in here. You want to be very](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=1&mode=live&start=30.965999999999998) [cautious about dropping any indexes that](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=1&mode=live&start=33.245999999999995) [show up here. You don't want to drop any](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=1&mode=live&start=34.986) [primary key or foreign key indexes for](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=1&mode=live&start=36.88418181818182) [example because that's going to affect](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=1&mode=live&start=38.46933333333334) [your referential integrity and data](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=1&mode=live&start=40.429333333333346) [quality. You want to make sure the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=1&mode=live&start=42.403999999999996) [instance has been running long enough to](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=1&mode=live&start=43.90145454545454) [see your complete workload and business](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=1&mode=live&start=45.67933333333333) [cycles. If you've only been running for a](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=1&mode=live&start=48.29933333333334) [few hours or even a few days, you want to](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=1&mode=live&start=49.81830769230768) [be very cautious about dropping indexes](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=1&mode=live&start=52.337999999999994) [that show up in this query. You want to](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=1&mode=live&start=54.726) [make sure you understand your workload](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=1&mode=live&start=56.67799999999999) [before you start dropping indexes too](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=1&mode=live&start=58.44199999999997) [because what I'm worried about is if you](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=1&mode=live&start=59.88599999999998) [drop an index that's using a report that's](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=1&mode=live&start=62.116) [only run once a week or once a month for](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=1&mode=live&start=64.736) [example, so that index may have lots of](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=1&mode=live&start=67.05907692307686) [writes and no reads. If you drop that](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=1&mode=live&start=69.96155555555556) [index, your report's going to be much,](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=1&mode=live&start=72.40933333333334) [much slower, so you need to be careful](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=1&mode=live&start=73.60516666666668) [with what you do with the results of this query.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=1&mode=live&start=75.36984615384615)

[Demo: Bad Nonclustered Indexes](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=2&mode=live)

[In this demonstration, I'm going to show](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=2&mode=live&start=1.83) [you the bad non-clustered indexes](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=2&mode=live&start=3.222999999999999) [diagnostic query. This query returns](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=2&mode=live&start=5.305) [non-clustered indexes that have more](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=2&mode=live&start=8.29375) [writes than reads. A lot of cases, those](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=2&mode=live&start=10.8) [are going to be considered bad indexes](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=2&mode=live&start=12.758181818181818) [since you're having to pay a cost to](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=2&mode=live&start=14.131818181818181) [maintain them and you're not really](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=2&mode=live&start=16.306363636363635) [getting any benefit from having those](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=2&mode=live&start=17.657999999999994) [indexes around. When you run this, I only](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=2&mode=live&start=18.87) [come back with two indexes on my](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=2&mode=live&start=22.9709090909091) [workstation that have more writes than](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=2&mode=live&start=25.64) [they do reads. A lot of people might see](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=2&mode=live&start=28.0525) [this and just immediately drop these two](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=2&mode=live&start=30.449090909090916) [indexes, but that's usually a big mistake.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=2&mode=live&start=32.24999999999999)[You want to make sure you understand your](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=2&mode=live&start=33.86) [workload and understand how long your](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=2&mode=live&start=36.227999999999994) [instance has been running. If it's only](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=2&mode=live&start=37.84000000000001) [been running for a few hours or even for a](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=2&mode=live&start=39.492142857142866) [few days, I would be much more cautious](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=2&mode=live&start=41.599285714285756) [about dropping any indexes that show up in](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=2&mode=live&start=43.93099999999998) [this query. If it's been running for a](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=2&mode=live&start=46.9542857142857)[month or two and you've seen your complete](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=2&mode=live&start=48.83) [business cycle and all your monthly and](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=2&mode=live&start=50.52666666666667) [quarterly reports for example have been](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=2&mode=live&start=52.86) [run against this database, then it's a lot](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=2&mode=live&start=54.860000000000014) [safer to start dropping indexes one by one](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=2&mode=live&start=57.84499999999999) [after you do a little bit more research to](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=2&mode=live&start=60.51307692307692) [try to understand whether or not some](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=2&mode=live&start=62.5623076923077)[infrequently run report or query actually](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=2&mode=live&start=64.87) [needs that index or not. Anyways, running](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=2&mode=live&start=67.955) [this query can help you find these indexes](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=2&mode=live&start=70.62400000000001) [that are not giving you any benefit and](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=2&mode=live&start=73.8) [they can help reduce the write I/O workload on your system.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=2&mode=live&start=75.98909090909096)

[Missing Indexes for Current Database](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=3&mode=live)

[Missing indexes for the current database,](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=3&mode=live&start=1.724) [this diagnostic query returns information](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=3&mode=live&start=3.9889999999999994) [about candidate missing indexes for the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=3&mode=live&start=6.432571428571429) [current database as opposed to all the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=3&mode=live&start=9.23309090909091) [databases on the instance. It uses sys.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=3&mode=live&start=11.154909090909097) [dm\_db\_missing\_index\_group\_stats, which you](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=3&mode=live&start=15.731499999999999) [can get the documentation for right there.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=3&mode=live&start=17.388444444444442) [It also uses sys.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=3&mode=live&start=19.714) [dm\_db\_missing\_index\_groups and the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=3&mode=live&start=22.89) [documentation is available at that URL. It](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=3&mode=live&start=24.444) [uses sys. dm\_db\_missing\_index\_details and](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=3&mode=live&start=27.7215) [the documentation for that is available at](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=3&mode=live&start=30.969) [that MSDN link. This query is both useful](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=3&mode=live&start=33.42542857142856) [and potentially quite dangerous. What I](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=3&mode=live&start=36.94400000000002) [mean by that is it's very easy to misuse](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=3&mode=live&start=39.357846153846154) [this query and do some bad things with the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=3&mode=live&start=42.12015384615385) [results. It can help find missing indexes](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=3&mode=live&start=45.3065) [that have very high impacts to your](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=3&mode=live&start=47.48000000000001)[workload, but it also encourages](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=3&mode=live&start=49.82024999999999) [less-experienced DBAs and developers to](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=3&mode=live&start=51.714) [over index their databases. It sometimes](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=3&mode=live&start=54.54971428571427) [recommends duplicate indexes and you](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=3&mode=live&start=57.63844444444444) [should be very careful not to just blindly](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=3&mode=live&start=59.84955555555554) [create every single index that this thing](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=3&mode=live&start=63.09799999999999) [recommends because then you're definitely going to over index your database.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=3&mode=live&start=65.43525)

[Demo: Missing Indexes for Current Database](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live)

[In this demonstration, I want to show you](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=1.907) [the missing indexes, DMV diagnostic query.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=3.4989999999999988) [Now, when you run this query, it comes](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=6.887) [back with all of what SQL server considers](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=8.940333333333331) [to be missing indexes. This shows a lot of](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=12.427000000000001) [information about these candidate missing](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=16.55366666666667) [indexes. Starting from the left, it shows](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=18.407)[you the index advantage number, which is a](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=20.720999999999997) [calculated number based on some of these](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=23.00063636363636) [other columns. It also shows you the last](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=24.897) [user seek time and that's a very important](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=27.300846153846155) [column because you want to understand was](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=29.36922222222222) [this index last wanted by SQL server just](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=32.46477777777776) [a few seconds ago or a few minutes ago or](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=35.055461538461536) [several weeks ago because that's going to](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=38.101000000000006) [have an effect on how important this index](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=40.15533333333333) [might be for your workload. The next](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=42.14200000000001)[column is going to show us the database](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=44.431999999999995) [and the schema and the table that this](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=46.45199999999998) [proposed index would be on. Then, it's](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=49.66245454545456) [going to show you the equality columns](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=52.247) [right here. This is generally going to be](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=54.11900000000001) [in order, so the first column here would](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=56.422000000000004) [be the first column in your index and then](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=58.41866666666667) [the inequality columns, which would be](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=60.67616666666666) [after the equality columns, usually in an](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=62.795750000000005) [index and then finally the included](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=65.50500000000002) [columns. With included columns, the order](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=67.887) [of the columns doesn't matter any, whereas](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=70.03588888888888) [it does on these two columns right there.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=72.20700000000001) [Then, you're going to go over to the far](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=74.947) [right and this particular query shows you](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=77.18200000000002) [how many rows are in this table that we're](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=79.38154545454545) [talking about. It gives you the table name](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=82.937) [and then it's going to tell you the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=85.3223846153846) [average user impact. This is a percentage](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=87.4195) [number that tells you what the query](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=89.99154545454543) [optimizer says would happen to the cost of](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=91.907) [this query if it had this index that is](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=93.94699999999996) [asking for, so 98% for example is very](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=97.05985714285713) [significant. That's claiming that we](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=100.51985714285716) [reduce the cost of this by 98. 02%. The](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=102.62366666666668) [next column over here to the left is the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=106.20616666666666) [average total user cost and this is just a](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=108.44866666666667) [relative number that gives you the cost of](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=112.01144444444448) [not having this index for the particular](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=114.04972727272727) [query that triggered this. Then, the user](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=116.5760909090909) [seeks, this column is the number of user](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=119.72609090909093) [seeks that's the number of times that SQL](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=121.937) [server has wanted this index since it went](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=124.11881818181813) [into the plan cache. By looking at all](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=127.13144444444441) [these, you can get an idea of whether or](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=129.527) [not this particular index that SQL server](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=130.967) [is asking for is part of your regular](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=133.506090909091) [workload and whether you might want to](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=136.38609090909085) [create it or not. Again, be very careful](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=138.887) [about this because one of the most common](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=141.35790909090915) [novice mistakes that people make is they](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=144.19899999999998) [just create every single index that shows](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=146.31299999999993) [up in this query and then you're](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=148.2806363636364) [definitely going to have too many indexes](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=150.214) [on most tables with most workloads if you](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=152.29299999999998) [do that. You want to take the results of this with a grain of salt.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=4&mode=live&start=154.41699999999997)

[Missing Index Warnings](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=5&mode=live)

[Missing index warnings, this query uses](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=5&mode=live&start=2.051) [the sys. dm\_exec\_cached\_plans DMV cross](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=5&mode=live&start=4.649571428571429) [applied with a sys. dm\_exec\_query\_plan](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=5&mode=live&start=7.492428571428571) [DMF. Sys. dm\_exec\_cached\_plans,](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=5&mode=live&start=10.121) [documentation for that is at this MSDN](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=5&mode=live&start=13.0685) [link and sys. dm\_exec\_query\_plan, the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=5&mode=live&start=16.121) [documentation for that is at this MSDN](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=5&mode=live&start=19.538777777777778)[link. This query is going to find cached](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=5&mode=live&start=22.60322222222223) [query plans that have missing index](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=5&mode=live&start=24.956454545454545) [warnings, just like you see when you look](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=5&mode=live&start=26.596454545454545) [at the graphical execution plan in](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=5&mode=live&start=28.778272727272732) [Management Studio. This is often going to](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=5&mode=live&start=31.22242857142857) [help you associate missing indexes with](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=5&mode=live&start=34.071000000000005) [particular stored procedures. It will](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=5&mode=live&start=36.563500000000005) [often find candidate indexes that don't](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=5&mode=live&start=38.646454545454546) [show up in other diagnostic queries like](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=5&mode=live&start=40.282818181818186) [the previous query from this module for](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=5&mode=live&start=42.42988888888888) [example. This query can take some time to](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=5&mode=live&start=45.39766666666667)[complete on a busy instance though, so if](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=5&mode=live&start=47.34918181818183) [you run this, don't be surprised if it](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=5&mode=live&start=49.52736363636364) [doesn't come back for a few seconds or even a minute or two in some cases.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=5&mode=live&start=52.199461538461534)

[Demo: Missing Index Warnings](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=6&mode=live)

[In this demonstration, I want to show you](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=6&mode=live&start=1.317) [the missing index warnings DMV diagnostic](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=6&mode=live&start=3.455181818181817) [query. This is going to give us the top 25](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=6&mode=live&start=5.7795000000000005) [queries or stored procedures that have](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=6&mode=live&start=9.264499999999998) [missing index warnings in the plan cache](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=6&mode=live&start=11.273666666666665) [as part of the execution plan. When you](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=6&mode=live&start=13.728428571428571) [run this, you'll notice that it takes some](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=6&mode=live&start=16.755333333333336)[time to come back. Even on my fast](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=6&mode=live&start=18.748666666666676) [workstation that's not really doing very](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=6&mode=live&start=20.507000000000005) [much. It took three seconds and it's not](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=6&mode=live&start=22.277) [uncommon for this to take several minutes](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=6&mode=live&start=25.156999999999996) [on a busy production server, but when you](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=6&mode=live&start=27.142999999999997) [get the results back, it's actually very](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=6&mode=live&start=29.555) [valuable here because it gives you the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=6&mode=live&start=31.641000000000012) [name of the stored procedure, then it](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=6&mode=live&start=33.60063636363637) [gives you the actual execution plan if you](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=6&mode=live&start=35.407000000000004) [click on this link and then it tells me](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=6&mode=live&start=36.76700000000002) [how many times this stored procedure has](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=6&mode=live&start=38.9351818181818) [been called where you have a missing index](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=6&mode=live&start=40.916999999999994) [warning. This will help you find missing](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=6&mode=live&start=43.317) [indexes and tie them to specific stored](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=6&mode=live&start=46.9151818181818) [procedures and that's another thing you](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=6&mode=live&start=48.96144444444444) [can use to make a judgment as to whether](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=6&mode=live&start=50.954777777777764) [or not you want to create the index that](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=6&mode=live&start=53.12084615384614) [is asking for. If you click on this link](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=6&mode=live&start=55.44414285714286)[here, it takes you and shows you the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=6&mode=live&start=58.1316153846154) [execution plan and right there, it's](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=6&mode=live&start=60.681444444444445) [claiming that it would have a 90% impact](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=6&mode=live&start=63.3481111111111) [on this stored procedure on this part of](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=6&mode=live&start=66.09099999999998) [the stored procedure if you created this](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=6&mode=live&start=68.447) [index. If you right click and go to](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=6&mode=live&start=70.90299999999999) [missing index details, then it gives you](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=6&mode=live&start=74.10700000000004) [the actual query creation text, so you'd](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=6&mode=live&start=77.07144444444445) [want to clean up and give it a proper](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=6&mode=live&start=79.61866666666667) [name, but it shows you it's on the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=6&mode=live&start=81.15616666666668) [customer table and the first name column is where the index would be in this case.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=6&mode=live&start=82.87063636363635)

[Buffer Usage](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=7&mode=live)

[Buffer usage, this query uses the sys.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=7&mode=live&start=1.774) [dm\_os\_buffer\_descriptors DMV, joined with](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=7&mode=live&start=5.120666666666667) [sys. allocation\_units and sys. partitions](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=7&mode=live&start=7.774) [catalog views. Sys.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=7&mode=live&start=10.638285714285711)[dm\_os\_buffer\_descriptors is documented at](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=7&mode=live&start=12.784) [this MSDN link, while sys.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=7&mode=live&start=15.259000000000002) [allocation\_units is documented at this](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=7&mode=live&start=17.534) [MSDN link and sys. partitions is](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=7&mode=live&start=19.264000000000003)[documented at this TechNet link. Now, this](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=7&mode=live&start=21.985111111111113) [query is going to show you which indexes](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=7&mode=live&start=25.093090909090908) [are taking the most buffer space in your](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=7&mode=live&start=26.569454545454537) [buffer pool. This is going to help you](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=7&mode=live&start=29.102888888888884) [better understand what's taking up all](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=7&mode=live&start=30.998000000000005) [your memory in the buffer pool. It's also](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=7&mode=live&start=32.314) [going to help you identify possible](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=7&mode=live&start=34.46955555555555) [candidates for SQL Server data compression](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=7&mode=live&start=36.436222222222206) [if you're running SQL Server Enterprise Edition.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=7&mode=live&start=37.902888888888874)

[Demo: Buffer Usage](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=8&mode=live)

[In this demonstration, I want to show you](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=8&mode=live&start=1.545) [the buffer usage diagnostic query. This](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=8&mode=live&start=3.6686363636363644) [shows you all the indexes that have space](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=8&mode=live&start=5.885909090909091) [in the buffer pool cache, so when you run](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=8&mode=live&start=8.773181818181817) [this, it can take some time on a large](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=8&mode=live&start=11.23333333333333) [database and when it comes back, it's](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=8&mode=live&start=13.498333333333333) [going to show you the name of the table](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=8&mode=live&start=15.289166666666667) [and then the index ID. Index ID 1 is](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=8&mode=live&start=18.584999999999994) [always going to be the clustered index and](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=8&mode=live&start=21.48833333333333) [then it shows you the buffer size in](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=8&mode=live&start=23.495) [megabytes, so that's how much space the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=8&mode=live&start=25.654999999999998) [clustered index for the event log table is](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=8&mode=live&start=27.588636363636365) [taking in my buffer pool. Then, it gives](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=8&mode=live&start=29.886666666666667) [you the buffer count and the row count, so](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=8&mode=live&start=32.292500000000004) [you get a general idea of how large this](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=8&mode=live&start=34.535) [table is and then it shows you whether or](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=8&mode=live&start=36.62576923076923) [not you're using compression on that index](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=8&mode=live&start=39.039999999999985) [data compression. With SQL Server data](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=8&mode=live&start=41.52) [compression that's an Enterprise only](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=8&mode=live&start=43.852777777777774) [feature and you can have either no](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=8&mode=live&start=45.525) [compression or row compression or page](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=8&mode=live&start=47.64599999999998) [compression. What I like to do with this](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=8&mode=live&start=50.752500000000005) [particular query is if I see particular](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=8&mode=live&start=53.09499999999998) [indexes that are using many gigabytes of](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=8&mode=live&start=54.81722222222222) [space for example, then I'm going to look](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=8&mode=live&start=57.21277777777775)[and see how large the table is and think](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=8&mode=live&start=59.29916666666667) [about whether or not that table is](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=8&mode=live&start=61.98136363636364) [relatively static or not. Then, I'm going](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=8&mode=live&start=64.495) [to actually maybe do some more](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=8&mode=live&start=67.15166666666667)[investigation to see whether or not it](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=8&mode=live&start=68.505) [might be a good candidate for data](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=8&mode=live&start=69.78409090909093) [compression because if you do data](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=8&mode=live&start=71.49833333333335) [compression that means that the index will](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=8&mode=live&start=73.465) [be compressed in the buffer pool, so not](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=8&mode=live&start=75.59300000000002) [only does it reduce your I/O requirements,](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=8&mode=live&start=77.87318181818185) [it also reduces your memory requirements.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=8&mode=live&start=79.94500000000001) [It can be a huge win in a lot of scenarios.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=8&mode=live&start=82.525)

[Table Sizes](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=9&mode=live)

[Table sizes, this query uses the sys.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=9&mode=live&start=1.635) [partitions catalog view. Sys. partitions](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=9&mode=live&start=4.818999999999999) [is documented at this TechNet link right](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=9&mode=live&start=7.114999999999999) [there. Now, this query is going to tell](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=9&mode=live&start=10.076666666666666) [you which tables have the most rows and](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=9&mode=live&start=11.754999999999999) [that's kind of useful for bragging rights](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=9&mode=live&start=13.42318181818182) [in one situation, but also you kind of](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=9&mode=live&start=15.332272727272734) [want to have an idea of which tables are](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=9&mode=live&start=17.737307692307695) [the largest because that can tell you some](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=9&mode=live&start=20.391363636363632) [things about your overall workload and](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=9&mode=live&start=22.595) [also it helps you identify some possible](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=9&mode=live&start=24.370999999999995)[candidates for SQL Server data](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=9&mode=live&start=26.3275) [compression. You're looking for tables](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=9&mode=live&start=27.615) [with lots and lots of rows and tables that](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=9&mode=live&start=29.709545454545452) [are relatively static and then tables that](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=9&mode=live&start=32.223) [have data that's very compressible. That's](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=9&mode=live&start=34.315999999999995) [a good candidate for SQL Server data](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=9&mode=live&start=36.93611111111111) [compression, assuming you're lucky enough to have SQL Server Enterprise Edition.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=9&mode=live&start=39.2538888888889)

[Demo: Table Sizes](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=10&mode=live)

[In this demonstration, I'm going to show](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=10&mode=live&start=1.787) [you the table sizes diagnostic query. This](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=10&mode=live&start=3.1660000000000004) [gives you basically a list of all your](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=10&mode=live&start=6.107909090909091) [tables ordered by the number of rows that](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=10&mode=live&start=8.995181818181821) [are in each table. When you run this](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=10&mode=live&start=10.965000000000002) [query, it comes back and just shows you](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=10&mode=live&start=12.79366666666667) [name of each table and then the row count](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=10&mode=live&start=14.787) [and then whether or not you've got any](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=10&mode=live&start=17.737) [data compression on the clustered index or](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=10&mode=live&start=19.360999999999994) [the heap. This is going to help you figure](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=10&mode=live&start=21.916999999999998) [out which tables are the largest and also](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=10&mode=live&start=24.515333333333345) [whether or not maybe this table for](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=10&mode=live&start=26.666000000000004) [example might be a good candidate for data](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=10&mode=live&start=28.787) [compression since it's pretty large. What](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=10&mode=live&start=31.462555555555547) [I'd want to do before I decided that](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=10&mode=live&start=33.90866666666667) [though is I'd want to look and see how](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=10&mode=live&start=35.282000000000004) [volatile the data in this table is and](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=10&mode=live&start=38.090846153846144) [also I would run around the SPSMA data](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=10&mode=live&start=41.07) [compression savings system stored](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=10&mode=live&start=43.49399999999998) [procedure to figure out whether or not the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=10&mode=live&start=44.80033333333333) [data in that table or index is going to be](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=10&mode=live&start=47.420846153846156) [very compressible or not, but again this](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=10&mode=live&start=50.49007692307693) [is just a good idea to have an impression of how large all your tables are.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=10&mode=live&start=52.50699999999998)

[Table Properties](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=11&mode=live)

[Table properties, this query uses the sys.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=11&mode=live&start=1.565) [tables catalog view. Sys. tables is](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=11&mode=live&start=4.7589999999999995) [documented at this MSDN link. This query](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=11&mode=live&start=7.671250000000001) [just gives you some useful information](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=11&mode=live&start=10.220555555555555) [about your tables. Number one, is the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=11&mode=live&start=12.18722222222222) [table replicated? Does the table have a](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=11&mode=live&start=14.871666666666664) [replication filter or not? Is the table](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=11&mode=live&start=17.21722222222222) [tracked by change data capture? What is](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=11&mode=live&start=20.028750000000002) [the lock escalation property for this](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=11&mode=live&start=23.151666666666664) [table? Then, finally is it a memory](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=11&mode=live&start=25.151666666666657) [optimized table a. k. a., Hekaton and if](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=11&mode=live&start=27.148636363636363) [it is a Hekaton table, what kind of durability is it using?](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=11&mode=live&start=29.34227272727273)

[Demo: Table Properties](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=12&mode=live)

[In this demonstration, I want to show you](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=12&mode=live&start=1.645) [the table properties diagnostic query.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=12&mode=live&start=3.245000000000001) [This basically just gives you a list of](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=12&mode=live&start=5.635) [all your tables and some of the more](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=12&mode=live&start=7.601666666666668) [interesting properties for each one of](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=12&mode=live&start=9.401000000000003) [your tables. You have the name of the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=12&mode=live&start=10.625) [table here, when the table was created,](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=12&mode=live&start=13.124999999999998) [whether or not it has lock on bulk loads](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=12&mode=live&start=14.946666666666667) [set or not, whether or not replication is](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=12&mode=live&start=17.93166666666667) [in effect for this table and if you do](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=12&mode=live&start=20.24227272727272) [have replication, does it have a](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=12&mode=live&start=22.698636363636357) [replication filter or not? Is this table](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=12&mode=live&start=24.324090909090895) [tracked by change data capture and what's](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=12&mode=live&start=26.46318181818182) [the lock escalation description for this](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=12&mode=live&start=28.372272727272733) [table? Then, finally the last two columns](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=12&mode=live&start=31.136666666666674) [are new for SQL Server 2014 is memory](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=12&mode=live&start=33.26045454545456) [optimized means is this a Hekaton table?](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=12&mode=live&start=36.54833333333333) [Then finally, if it is a Hekaton table, what's the durability description?](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=12&mode=live&start=39.605)

[Statistics Update](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=13&mode=live)

[Statistics update, this query uses the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=13&mode=live&start=2.061) [sys. objects catalog view joined with the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=13&mode=live&start=4.5089999999999995) [sys. index and sys. stats catalog views.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=13&mode=live&start=7.294999999999997) [It also uses sys. dm\_db\_partition\_stats](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=13&mode=live&start=10.121) [DMV. Sys. objects is documented at this](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=13&mode=live&start=14.229333333333336) [MSDN link. Sys\_indexes is documented at](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=13&mode=live&start=16.6185) [this MSDN link, while sys. stats is](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=13&mode=live&start=19.39814285714285)[documented at this MSDN link. Finally,](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=13&mode=live&start=22.851000000000006) [sys. dm\_db\_partition\_stats documented at](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=13&mode=live&start=26.054333333333332) [this link. This is going to tell you when](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=13&mode=live&start=29.066000000000003) [your index based statistics were last](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=13&mode=live&start=31.973727272727285) [updated. This is going to help you](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=13&mode=live&start=33.76766666666666) [evaluate the quality of your statistics](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=13&mode=live&start=35.72463636363636) [and whether or not you've got out-of-date](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=13&mode=live&start=37.39544444444444) [or stale statistics that might be](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=13&mode=live&start=39.73655555555555) [affecting your query optimizer plan choices.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=13&mode=live&start=41.352250000000005)

[Demo: Statistics Update](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=14&mode=live)

[In this demonstration, I'm going to show](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=14&mode=live&start=1.648) [you the statistics update diagnostic](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=14&mode=live&start=3.068999999999999) [query. This joins a number of different](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=14&mode=live&start=5.617999999999999) [catalog views and then one DMV right here.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=14&mode=live&start=8.235272727272728) [When you run this, it shows you all of](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=14&mode=live&start=11.588) [your indexes that have statistics](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=14&mode=live&start=13.868000000000004) [associated with them and it gives you the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=14&mode=live&start=15.225999999999999) [name of the table, the name of the index](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=14&mode=live&start=17.618) [and then the last time that the statistics](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=14&mode=live&start=19.715692307692297) [were updated for that particular index. It](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=14&mode=live&start=22.628000000000004) [also shows you a few other columns such as](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=14&mode=live&start=25.77133333333333) [whether or not this is an auto created](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=14&mode=live&start=27.33133333333332) [statistic, whether no recompute is in](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=14&mode=live&start=30.640499999999992) [effect, whether it's a user created](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=14&mode=live&start=33.212) [statistic and then the row count of the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=14&mode=live&start=35.05799999999999) [table and then finally some new columns](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=14&mode=live&start=37.152999999999984) [is\_incremental is a new feature for SQL](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=14&mode=live&start=39.168) [Server 2014. Is\_temporary was added in SQL](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=14&mode=live&start=42.668) [Server 2012 that has to do with, we were](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=14&mode=live&start=45.454363636363645) [using always-on availability groups on a](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=14&mode=live&start=48.28799999999999) [read-only replica, SQL server will create](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=14&mode=live&start=49.668) [temporary statistics and temp DV. Then](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=14&mode=live&start=53.02800000000001) [finally, it shows you the use page count](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=14&mode=live&start=55.945142857142855) [for this set of statistics. What you're](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=14&mode=live&start=58.80228571428569) [doing with this query is figuring out, are](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=14&mode=live&start=60.962545454545456) [your statistics being updated as often as](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=14&mode=live&start=62.460727272727276) [you think they should be. One thing that](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=14&mode=live&start=65.35549999999999) [could be a problem is maybe you've got](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=14&mode=live&start=67.15800000000002) [auto-update turned off and you're not](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=14&mode=live&start=68.598) [doing any kind of manual statistics](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=14&mode=live&start=69.84599999999999) [updates for example. This will help you find problems with things like that.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=14&mode=live&start=71.858)

[Index Fragmentation](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=15&mode=live)

[Index fragmentation, this query uses the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=15&mode=live&start=2.052) [sys. indexes catalog view joined with sys.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=15&mode=live&start=4.562) [dm\_index\_physical\_stats DMV. Sys. indexes](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=15&mode=live&start=8.552) [is documented at this MSDN link, while](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=15&mode=live&start=11.077) [sys. dm\_index\_physical\_stats is documented](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=15&mode=live&start=14.638) [at this MSDN link. This query returns](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=15&mode=live&start=17.062) [fragmentation levels for all indexes above](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=15&mode=live&start=20.562) [a given size. It's going to help you](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=15&mode=live&start=23.557000000000002) [evaluate your index maintenance](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=15&mode=live&start=26.18088888888889) [effectiveness. It's very common for people](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=15&mode=live&start=27.092) [to over maintain their indexes and what I](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=15&mode=live&start=30.061999999999998) [mean by that as they do dumb things like](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=15&mode=live&start=32.772) [rebuilding every single index every single](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=15&mode=live&start=35.022) [day whether it needs it or not. That](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=15&mode=live&start=37.05533333333333) [generates a lot of activity against your](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=15&mode=live&start=39.485) [system and creates a lot of transaction](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=15&mode=live&start=42.236000000000004) [log activity. It's also common to under](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=15&mode=live&start=44.47914285714284) [maintain your indexes, meaning that you](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=15&mode=live&start=46.728666666666676) [never ever go in and rebuild or reorganize](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=15&mode=live&start=48.73533333333333) [your indexes, so you have very high levels of index fragmentation.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=15&mode=live&start=52.04200000000001)

[Demo: Index Fragmentation](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=16&mode=live)

[In this demonstration, I want to show you](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=16&mode=live&start=2.158) [the index fragmentation diagnostic query.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=16&mode=live&start=3.0220000000000007) [This query is going to show you all your](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=16&mode=live&start=6.168) [indexes above a certain size, in this case](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=16&mode=live&start=8.4105) [where the page count is above 2, 500 pages](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=16&mode=live&start=10.098909090909087) [and show what their fragmentation level is](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=16&mode=live&start=12.425) [along with a few other properties](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=16&mode=live&start=15.218)[regarding the index. What this shows you](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=16&mode=live&start=17.20466666666666) [is the database name and then the name of](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=16&mode=live&start=19.52466666666667) [the table and then the index name, the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=16&mode=live&start=22.629818181818184) [index ID, the index type description and](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=16&mode=live&start=26.244363636363648) [then the average fragmentation in percent.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=16&mode=live&start=29.497999999999998) [These are all very lightly fragmented](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=16&mode=live&start=31.238) [indexes on my particular database. It also](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=16&mode=live&start=33.858000000000004)[shows you the fragment count and the page](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=16&mode=live&start=37.49633333333333) [count and then finally over here, the fill](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=16&mode=live&start=38.88966666666665) [factor and whether or not the index has a](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=16&mode=live&start=41.381636363636375) [filter and if it does have a filter, it](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=16&mode=live&start=44.08799999999999) [would show you the filter definition. One](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=16&mode=live&start=46.158) [thing you can do to try to balance index](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=16&mode=live&start=48.43618181818182) [fragmentation versus how often you need to](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=16&mode=live&start=50.93981818181821)[maintain your indexes is you can reduce](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=16&mode=live&start=52.865272727272725) [your fill factor. If you have a table](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=16&mode=live&start=55.41) [that's being updated a lot with lots of](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=16&mode=live&start=58.34107692307694) [inserts, updates and deletes, you're](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=16&mode=live&start=60.218) [likely going to start to see some index](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=16&mode=live&start=61.89022222222222) [fragmentation. One thing you can do to](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=16&mode=live&start=65.596) [reduce that is you can lower your fill](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=16&mode=live&start=67.58646153846153) [factor, so that leaves extra space, so you](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=16&mode=live&start=69.5789090909091) [don't get fragmentation building up as](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=16&mode=live&start=72.46618181818181) [quickly. The downside to that is it takes](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=16&mode=live&start=74.80399999999999) [up more space for the index, so you can do](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=16&mode=live&start=76.94050000000001)[some tuning over time to reduce the amount](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=16&mode=live&start=79.44466666666665) [of index maintenance you have to do at the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=16&mode=live&start=81.468) [cost of having slightly larger indexes.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=16&mode=live&start=83.718) [Overall, this is a good query to run and](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=16&mode=live&start=87.158) [figure out whether or not you're seeing](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=16&mode=live&start=89.46799999999995) [lots of fragmentation in your indexes or not.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=16&mode=live&start=94.238)

[Overall Index Usage - Reads](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=17&mode=live)

[Overall index usage for reads, this query](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=17&mode=live&start=1.858) [uses the sys. dm\_db\_index\_usage\_stats DMV](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=17&mode=live&start=4.509250000000001) [joined with the sys. indexes catalog view.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=17&mode=live&start=8.48175) [Sys. dm\_db\_index\_usage\_stats is documented](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=17&mode=live&start=12.848) [at this MSDN link, while sys. indexes is](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=17&mode=live&start=16.511333333333333) [documented at that MSDN link. This query](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=17&mode=live&start=19.646888888888896) [is going to return the indexes that have](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=17&mode=live&start=22.39618181818182) [the highest number of reads in your](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=17&mode=live&start=24.548909090909095) [database. It's going to show you which](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=17&mode=live&start=27.38085714285715) [indexes are most valuable for your](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=17&mode=live&start=28.931636363636365) [workload. That's something that I really](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=17&mode=live&start=30.363) [want to know. It's also going to help you](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=17&mode=live&start=31.507999999999996) [understand your query workload. You'll](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=17&mode=live&start=33.68600000000001) [understand which tables and which indexes](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=17&mode=live&start=35.211333333333336) [are being hit the hardest by your query](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=17&mode=live&start=37.21133333333335) [workload. It's also going to help you](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=17&mode=live&start=40.440857142857126) [identify possible data compression](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=17&mode=live&start=42.83466666666666) [candidates because if you're seeing](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=17&mode=live&start=44.24514285714285) [indexes with lots and lots of reads and](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=17&mode=live&start=46.380857142857124) [relatively no number of writes, then that](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=17&mode=live&start=48.76800000000001) [might be a good candidate for SQL server](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=17&mode=live&start=50.967999999999996) [data compression, again that's a SQL](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=17&mode=live&start=53.848) [Server Enterprise only feature that can be very useful in a lot of scenarios.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=17&mode=live&start=55.874666666666684)

[Demo: Overall Index Usage - Reads](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=18&mode=live)

[In this demonstration, I want to show you](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=18&mode=live&start=1.936) [the overall index usage reads diagnostic](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=18&mode=live&start=3.426909090909092) [query. When you run this query, it comes](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=18&mode=live&start=6.221) [back and shows you all of your indexes,](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=18&mode=live&start=9.092923076923077) [sorted by the number of reads. This is](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=18&mode=live&start=11.681000000000001) [very useful because I want an](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=18&mode=live&start=14.574) [understanding of which indexes have the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=18&mode=live&start=16.368) [most reads and they're the ones that are](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=18&mode=live&start=18.056909090909095) [most valuable for my workload. This shows](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=18&mode=live&start=20.297666666666668) [me the name of the table, the index ID,](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=18&mode=live&start=22.56369230769231) [index ID 1 is always the clustered index,](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=18&mode=live&start=25.29830769230771) [then the index name and then over here,](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=18&mode=live&start=27.591454545454546) [it's going to show me the number of reads](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=18&mode=live&start=29.746) [and the number of writes on this index.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=18&mode=live&start=31.996) [This is since SQL server has been running.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=18&mode=live&start=34.936) [Then next, I'm going to show the index](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=18&mode=live&start=36.976) [type, whether it's a clustered index or a](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=18&mode=live&start=39.615999999999985) [non-clustered index or some other index](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=18&mode=live&start=42.26488888888888)[type, the fill factor, if there is a fill](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=18&mode=live&start=44.257666666666665) [factor on this, whether or not you've got](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=18&mode=live&start=47.242666666666636) [a filter on this, is it a filtered index](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=18&mode=live&start=49.29523076923078) [and if so, what the filter definition is.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=18&mode=live&start=51.519999999999996)[Then, finally it's going to tell me when](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=18&mode=live&start=53.936) [the last user scan was, the last user lookup and then the last users seek.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=18&mode=live&start=55.936)

[Overall Index Usage - Writes](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=19&mode=live)

[Overall index usage writes, this query](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=19&mode=live&start=2.093) [uses the sys. dm\_db\_index\_usage\_stats DMV](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=19&mode=live&start=4.681571428571429) [joined with the sys. indexes catalog view.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=19&mode=live&start=8.593) [Sys. dm\_db\_index\_usage\_stats is documented](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=19&mode=live&start=12.093) [at that MSDN link, while sys. indexes is](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=19&mode=live&start=14.112999999999996) [documented at this MSDN link. This query](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=19&mode=live&start=17.91077777777777) [is going to return the indexes that have](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=19&mode=live&start=20.502090909090906) [the highest number of writes since SQL](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=19&mode=live&start=21.978454545454536) [server has been running. It's going to](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=19&mode=live&start=24.514999999999997) [show you which indexes are the most](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=19&mode=live&start=26.89845454545455) [volatile for your workload. It's also](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=19&mode=live&start=28.80118181818183) [going to help you understand your write](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=19&mode=live&start=30.697000000000003) [workload, so if you're seeing lots of high](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=19&mode=live&start=32.775999999999996) [latency, you're sure of your transaction](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=19&mode=live&start=34.402999999999984)[log or you're just seeing transaction log](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=19&mode=live&start=36.031888888888886) [related wait types, you might want to look](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=19&mode=live&start=39.073) [at this to understand, "Okay, these are](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=19&mode=live&start=41.27663636363635) [the indexes and tables "that are](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=19&mode=live&start=43.59300000000001) [generating the most write activity](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=19&mode=live&start=45.65728571428572) ["against this database. " It's also going](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=19&mode=live&start=47.093) [to help you identify possible indexes that](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=19&mode=live&start=49.11966666666666) [are not as useful. If you see indexes with](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=19&mode=live&start=51.279) [lots and lots of writes and very few](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=19&mode=live&start=53.36549999999999) [reads, you might want to do some more](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=19&mode=live&start=55.406636363636366) [investigation and think about possibly](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=19&mode=live&start=57.595727272727274) [dropping that index to reduce the write workload on your entire system.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=19&mode=live&start=59.456333333333326)

[Demo: Overall Index Usage - Writes](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=20&mode=live)

[In this demonstration, I'm going to show](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=20&mode=live&start=2) [you the overall index usage for writes](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=20&mode=live&start=3.0094000000000007) [diagnostic query. This query basically](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=20&mode=live&start=5.442) [just shows you a list of all your indexes](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=20&mode=live&start=7.254727272727272) [ordered by the number of writes, so it](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=20&mode=live&start=9.782909090909092) [starts off with the name of the table or](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=20&mode=live&start=12.670181818181822) [index view, then it's going to show you](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=20&mode=live&start=16.479777777777777) [the index ID and then the index name and](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=20&mode=live&start=18.36276923076923) [then it's going to see the number of](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=20&mode=live&start=21.125076923076925) [writes on this table and actually on this](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=20&mode=live&start=23.724500000000003) [index. Then, you're going to see the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=20&mode=live&start=26.149499999999996) [number of reads. Finally, you'll see the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=20&mode=live&start=28.378666666666675) [index type along with a few other things](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=20&mode=live&start=30.452909090909092) [such as the fill factor on the index,](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=20&mode=live&start=32.61366666666667) [whether or not is a filter index, whether](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=20&mode=live&start=34.62699999999999)[or not there's a filter definition on a](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=20&mode=live&start=36.87200000000001) [filtered index and then the last time the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=20&mode=live&start=39.18563636363636) [system updated that index and the last](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=20&mode=live&start=41.382) [time the user updated that index. What](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=20&mode=live&start=43.46800000000001) [this is useful for is understanding which](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=20&mode=live&start=45.87755555555556) [indexes are seeing the most write activity](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=20&mode=live&start=48.996444444444464) [and also which tables. Then, this will](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=20&mode=live&start=51.84199999999999) [help you identify possible indexes that](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=20&mode=live&start=54.76533333333334) [maybe you have lots and lots of writes and](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=20&mode=live&start=57.412) [zero reads. Here's an example right here,](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=20&mode=live&start=61.705333333333336) [before I started dropping indexes, it had](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=20&mode=live&start=64.04755555555556) [lots of writes and zero reads, I'd want to](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=20&mode=live&start=66.13199999999999) [understand how long my instance had been](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=20&mode=live&start=68.412) [running and whether or not I'd seen a](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=20&mode=live&start=71.5231111111111)[complete business cycle with all the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=20&mode=live&start=74.03199999999998) [normal queries and reporting queries that](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=20&mode=live&start=75.71422222222223) [are typically run that might use this](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=20&mode=live&start=77.7075555555556) [index. They just haven't been run yet,](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=20&mode=live&start=80.88033333333333) [since I've only been running for a few](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=20&mode=live&start=82.60599999999997) [hours for a few days. If you've been](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=20&mode=live&start=84.75088888888891) [running for a long time and you're](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=20&mode=live&start=87.22745454545453) [confident that you've seen your complete](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=20&mode=live&start=89.13018181818177) [business work load against this database](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=20&mode=live&start=91.05755555555557) [and then you run into indexes with lots](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=20&mode=live&start=93.10745454545454) [and lots of writes and zero reads, then](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=20&mode=live&start=96.0092727272727) [I'd start thinking about possibly dropping](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=20&mode=live&start=99.4753333333333) [that index as long as it's not a primary key or foreign key or a clustered index.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=20&mode=live&start=102.362)

[Recent Full Backups](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=21&mode=live)

[Recent full backups, this query uses the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=21&mode=live&start=1.847) [msdb. dbo. backupset system table. That](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=21&mode=live&start=5.477) [table is documented at this TechNet link.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=21&mode=live&start=9.20075) [This is going to show you some metrics](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=21&mode=live&start=11.817) [about your recent full database backups.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=21&mode=live&start=13.976999999999997) [It's going to show whether or not native](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=21&mode=live&start=15.847) [backup compression is being used or not.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=21&mode=live&start=18.199) [It'll show the backup compression ratio,](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=21&mode=live&start=19.817) [if there is one. It's also going to show](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=21&mode=live&start=21.617000000000004) [the backup elapsed time and the finish](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=21&mode=live&start=23.98238461538461) [date. It's going to help you basically](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=21&mode=live&start=25.613923076923065) [track the growth of your database and your](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=21&mode=live&start=27.450636363636356) [full backups over time. I want to](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=21&mode=live&start=29.661285714285714) [understand is my backup taking an hour and](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=21&mode=live&start=31.581999999999997) [then suddenly that turns into two or three](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=21&mode=live&start=33.59533333333332) [hours as either the I/O subsystem gets slower or the database just gets bigger.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=21&mode=live&start=36.354272727272736)

[Demo: Recent Full Backups](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=22&mode=live)

[In this demonstration, I want to show you](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=22&mode=live&start=1.89) [the recent full backups diagnostic query.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=22&mode=live&start=3.351818181818181) [When you run this query, it shows you the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=22&mode=live&start=5.91) [recent backups, the last 30 backups for](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=22&mode=live&start=9.15) [this database. You can set it to do full](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=22&mode=live&start=11.998571428571426) [backups or log backups. In this case, I've](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=22&mode=live&start=14.771818181818187) [got it set to pull back full backups from](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=22&mode=live&start=17.31) [MSDB. It's going to tell me the machine](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=22&mode=live&start=20.549999999999994) [name and the server name, which might be](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=22&mode=live&start=22.66) [different if you have named instances,](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=22&mode=live&start=24.801000000000002) [then the database name, the recovery model](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=22&mode=live&start=26.583000000000006) [of the database, the uncompressed backup](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=22&mode=live&start=29.261999999999993) [size in megabytes and then the compressed](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=22&mode=live&start=31.6025) [backup size if you're using backup](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=22&mode=live&start=34.2375)[compression. If you're not using backup](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=22&mode=live&start=36.50249999999998) [compression, it'll be the same size. Then,](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=22&mode=live&start=38.529999999999994) [you'll see the compression ratio. If](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=22&mode=live&start=41.163333333333334) [you're not using backup compression, it'll](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=22&mode=live&start=43.135) [be 1. 0. If you are using backup](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=22&mode=live&start=44.964999999999996) [compression, it might be a fairly high](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=22&mode=live&start=47.22090909090908) [number like this. Then, it shows you the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=22&mode=live&start=49.0975) [backup elapsed time in seconds and then](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=22&mode=live&start=51.263636363636365) [when the backup finished. This is going to](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=22&mode=live&start=53.298) [give me an idea of how often I'm doing](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=22&mode=live&start=55.80692307692307) [full database backups and then also how](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=22&mode=live&start=57.87) [large they are and how long they're](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=22&mode=live&start=60.38999999999999) [taking. This is all useful information for](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=22&mode=live&start=62.625) [a DBA to understand about their more important and larger databases.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=22&mode=live&start=65.266)

[Database Size History](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=23&mode=live)

[Database size history, this query uses the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=23&mode=live&start=2.24) [msdb. dbo. backupset system table. That's](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=23&mode=live&start=4.31) [documented at this TechNet link. This](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=23&mode=live&start=8.753333333333334) [query is going to show you some metrics](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=23&mode=live&start=11.453636363636363) [about your recent full database backups](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=23&mode=live&start=12.922727272727272) [going back over time. It's going to show](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=23&mode=live&start=15.285000000000004) [whether or not native backup compression](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=23&mode=live&start=18.49846153846154) [is being used. It's going to show you the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=23&mode=live&start=20.32615384615385) [backup compression ratio and also it's](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=23&mode=live&start=22.475999999999996) [going to show you the historical growth of](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=23&mode=live&start=23.843636363636367) [your databases and your full backups](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=23&mode=live&start=26.018181818181834) [grouped by month. Going back over the past](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=23&mode=live&start=28.165) [year, you can see the average size of your](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=23&mode=live&start=30.935833333333328) [database and your full backups for each](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=23&mode=live&start=34.038000000000004)[month. That's kind of nice to see that trend over time.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=23&mode=live&start=36.83100000000001)

[Demo: Database Size History](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=24&mode=live)

[In this demonstration, I'm going to show](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=24&mode=live&start=1.786) [you the database size history diagnostic](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=24&mode=live&start=3.1930000000000005) [query. This is going to basically give you](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=24&mode=live&start=6.001) [a list of all your database backups,](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=24&mode=live&start=8.526833333333332) [grouped by month, showing the average size](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=24&mode=live&start=10.5585) [of the database. It shows you the name of](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=24&mode=live&start=13.3085) [the database that you're connected to and](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=24&mode=live&start=16.389636363636363) [then the month that the average is for and](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=24&mode=live&start=18.192153846153843) [then what the backup size was without](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=24&mode=live&start=20.289846153846142) [compression. Then, if you're using](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=24&mode=live&start=23.231000000000005) [compression, it's going to show you the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=24&mode=live&start=24.525999999999996) [compressed backup size and then the](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=24&mode=live&start=26.063777777777776) [compression ratio. What is it useful for](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=24&mode=live&start=28.09044444444444) [is it's going to show you the growth of](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=24&mode=live&start=29.919846153846148) [your database over time, grouped by month, so that's useful information to know.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=24&mode=live&start=32.164)

[Course Summary](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=25&mode=live)

[Course summary, these queries can detect](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=25&mode=live&start=1.601) [most database level performance issues.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=25&mode=live&start=4.6084999999999985) [They can also help you find instance level](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=25&mode=live&start=7.601) [settings that may be incorrect that are](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=25&mode=live&start=9.968999999999996) [causing database level performance issues.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=25&mode=live&start=11.848500000000001) [They're going to give you performance](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=25&mode=live&start=14.561) [information about your stored procedures,](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=25&mode=live&start=15.356000000000002)[indexes and statistics. They can help you](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=25&mode=live&start=17.601) [find your database level bottlenecks that](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=25&mode=live&start=20.773000000000003) [warrant more detailed investigation and](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=25&mode=live&start=22.561) [troubleshooting. You want to make sure to](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=25&mode=live&start=25.07766666666667) [watch the other DMV courses that I've done](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=25&mode=live&start=27.081) [for more queries in this set. There's a](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=25&mode=live&start=29.086000000000002) [Part 1 and Part 2 that have been](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=25&mode=live&start=31.16385714285714) [previously published. Finally, I just want](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=25&mode=live&start=33.80100000000001) [to thank you for watching this. I really appreciate it.](https://app.pluralsight.com/player?course=sql-server-2014-dmv-diagnostic-queries-part3&author=glenn-berry&name=sql-server-2014-dmv-diagnostic-queries-part3-m3-database-perf2&clip=25&mode=live&start=35.58899999999999)