[Course Overview](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=f2121088-68d0-4a89-8ae1-12926b472791&clip=0&mode=live" \t "psplayer)

[Course Overview](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=f2121088-68d0-4a89-8ae1-12926b472791&clip=0&mode=live)

[My name is Glenn Berry, and welcome to my](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=f2121088-68d0-4a89-8ae1-12926b472791&clip=0&mode=live&start=6) [course: SQL Server 2017: Diagnosing](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=f2121088-68d0-4a89-8ae1-12926b472791&clip=0&mode=live&start=9.51) [Configuration Issues with DMVs. I'm a](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=f2121088-68d0-4a89-8ae1-12926b472791&clip=0&mode=live&start=11.809800000000001) [Principal Consultant with SQLskills, and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=f2121088-68d0-4a89-8ae1-12926b472791&clip=0&mode=live&start=15.3225) [this topic is one that I feel very](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=f2121088-68d0-4a89-8ae1-12926b472791&clip=0&mode=live&start=16.70625) [passionate about. In the course of my](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=f2121088-68d0-4a89-8ae1-12926b472791&clip=0&mode=live&start=19.3974) [career as a database administrator and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=f2121088-68d0-4a89-8ae1-12926b472791&clip=0&mode=live&start=21.890249999999995) [consultant, I've used my DVM diagnostic](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=f2121088-68d0-4a89-8ae1-12926b472791&clip=0&mode=live&start=23.83574999999999) [queries extensively to find and correct](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=f2121088-68d0-4a89-8ae1-12926b472791&clip=0&mode=live&start=26.01954545454546) [many common SQL Server configuration](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=f2121088-68d0-4a89-8ae1-12926b472791&clip=0&mode=live&start=28.251) [issues. The queries that are detailed and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=f2121088-68d0-4a89-8ae1-12926b472791&clip=0&mode=live&start=31.35266666666667)[demonstrated in this course will help you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=f2121088-68d0-4a89-8ae1-12926b472791&clip=0&mode=live&start=33.612636363636355) [detect and correct many common](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=f2121088-68d0-4a89-8ae1-12926b472791&clip=0&mode=live&start=35.652454545454546) [configuration issues with your hardware,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=f2121088-68d0-4a89-8ae1-12926b472791&clip=0&mode=live&start=37.33609090909091) [storage, operating system, SQL Server](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=f2121088-68d0-4a89-8ae1-12926b472791&clip=0&mode=live&start=39.36363636363637) [instance, and your database properties. I](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=f2121088-68d0-4a89-8ae1-12926b472791&clip=0&mode=live&start=42.7668181818182) [want to give you the best practices and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=f2121088-68d0-4a89-8ae1-12926b472791&clip=0&mode=live&start=46.411) [configuration settings that you can use to](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=f2121088-68d0-4a89-8ae1-12926b472791&clip=0&mode=live&start=48.339) [have a more reliable and better performing](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=f2121088-68d0-4a89-8ae1-12926b472791&clip=0&mode=live&start=50.89771428571429) [SQL Server environment. If you work with](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=f2121088-68d0-4a89-8ae1-12926b472791&clip=0&mode=live&start=54.11021428571429) [SQL Server in any capacity, whatever your](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=f2121088-68d0-4a89-8ae1-12926b472791&clip=0&mode=live&start=56.70233333333333) [level, this course is relevant to you.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=f2121088-68d0-4a89-8ae1-12926b472791&clip=0&mode=live&start=58.82916666666664) [Experience using SQL Server 2005 or newer](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=f2121088-68d0-4a89-8ae1-12926b472791&clip=0&mode=live&start=61.627) [is helpful, along with a basic](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=f2121088-68d0-4a89-8ae1-12926b472791&clip=0&mode=live&start=64.21699999999998) [understanding of how SQL Server works. I](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=f2121088-68d0-4a89-8ae1-12926b472791&clip=0&mode=live&start=66.529) [hope you'll join me as we explore proper](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=f2121088-68d0-4a89-8ae1-12926b472791&clip=0&mode=live&start=69.64416666666666) [SQL Server configuration, with SQL Server](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=f2121088-68d0-4a89-8ae1-12926b472791&clip=0&mode=live&start=72.38949999999996) [2017: Diagnosing Configuration Issues with DMVs, here on Pluralsight.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=f2121088-68d0-4a89-8ae1-12926b472791&clip=0&mode=live&start=75.24733333333334)

[Introduction](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live)

[Introduction and DMV Configuration Queries](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live)

[This is Glenn Berry with sqlskills. com.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=0) [This is SQL Server 2017: Diagnosing](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=4.232666666666667) [Configuration Issues with DMVs. So what](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=8.1296) [are we going to cover in this module?](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=12.187800000000001) [We're going to start off talking about](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=14.443) [what are DMV configuration queries? Then](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=17.21908333333333) [we're going to talk about the benefits of](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=19.479333333333336) [using DMV configuration queries, and these](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=21.698000000000015) [include finding basic configuration](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=24.052666666666667) [problems at your hardware level, your](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=26.08288888888889) [storage level, with your OS, and with SQL](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=28.57466666666666) [Server at the instance level. Then we're](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=31.528) [going to talk about the course objectives](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=33.535833333333336) [and structure for the entire course. DMV](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=36.19799999999999) [configuration queries. The DMV queries and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=40.30881818181818) [the object needed to support them were](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=42.86972727272729) [added way back in SQL Server 2005, so](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=45.412846153846154) [they've been around for quite a long time,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=47.641769230769235) [and they're extremely useful. There's been](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=50.4016) [improvements and additions, such as new](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=52.65883333333333) [DMVs and new DMFs added in each new](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=55.025333333333315) [version of SQL Server. So they get more](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=57.9395) [and more useful as you have newer versions](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=60.22914285714287) [of SQL Server, and most of these DMV and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=62.1354285714286) [DMO queries are pretty lightweight, they](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=65.31575000000001) [don't put much of a load on your system,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=67.44453333333334) [so they're safe to run at any time. You do](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=69.2223333333334) [need VIEW SERVER STATE permission to run](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=71.8025)[most of these queries, and they're very](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=74.032) [easy to use and understand. They don't](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=76.75949999999997) [require any complicated setup like you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=79.4625) [might have to do with SQL Server Profiler](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=81.30000000000004) [or Extended Events, for example, and, you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=84.29260000000002) [can use these to detect many common](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=87.2660909090909) [configuration issues at multiple layers in](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=89.52072727272723) [your system. Now diagnosing configuration](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=92.8696) [issues; most SQL Server instances that](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=95.77799999999999) [I've ever seen out in the wild have](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=98.418) [multiple configuration issues and they're](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=101.16266666666672) [very easy to spot and work on correcting](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=102.91876923076923) [by using these queries. Now, you can look](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=105.98892307692309) [at hardware configuration issues and find](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=108.75200000000001) [out what's going on with NUMA, for](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=110.59400000000002) [example, and multiple other hardware](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=113.23436363636365) [things. You can look at your storage](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=115.26072727272731) [configuration and see how it's performing.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=117.518)[You can look at your operating system](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=119.37) [configuration and make sure it's](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=121.05933333333331) [configured correctly for SQL Server usage.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=122.266) [You can also look at your instance-level](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=125.405) [configuration settings, and make the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=127.92033333333337) [changes you need to for a best-practices](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=129.75153846153844) [setup; and also, database-level](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=132.34746153846146) [configuration. There's a lot of](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=133.848) [database-level properties that you might](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=135.78800000000004) [want to change from their default values.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=138.34836363636367) [So DMV queries are just extremely useful,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=142.15) [and we're going to be looking at a whole](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=144.08258333333333) [range of queries in this course that make](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=146.66528571428572) [it easy to spot all these configuration](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=149.06985714285716) [issues. So what are the main benefits of](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=153.73433333333335) [DMV configuration queries? Well they're](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=157.03829999999994) [very quick and easy to use. The reason I](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=158.6624615384615) [developed these back when I was a](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=161.16653846153835) [production DBA, is that I got tired being](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=162.9163333333333) [asked what was wrong with the database](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=164.8256666666666) [server, and I wanted a way to find out](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=166.5033571428572) [quickly whether there were any](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=168.664)[configuration problems or any performance](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=170.6323333333333) [problems with my database server. So](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=172.5955) [that's where these queries came from. Now,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=174.93733333333336) [they don't require any special preparation](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=177.73266666666677) [to run; you just have to have a script](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=179.8829230769231) [with the queries ready to go, to run](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=182.37107692307703) [whether it's in a crisis situation or just](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=184.7527142857143) [during your normal work looking for](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=187.191) [configuration issues. They do give you a](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=190.3065) [lot of very useful configuration](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=193.17125000000001) [information that is hard to find through](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=194.99750000000003) [other methods, and again, it's all set up](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=197.0183571428572) [and ready for you to use. And this is](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=199.08292857142874) [going to help you get a lot closer to the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=201.4944999999999) [root cause of many of your performance](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=204.34661538461538) [issues by running these queries and making](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=206.7917692307692) [sure that everything is configured correctly.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=0&mode=live&start=211.189)

[Course Objectives, Course Structure, and Module Summary](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=1&mode=live)

[So let's go through the course objectives.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=1&mode=live&start=2.415) [First, I want to provide a very thorough](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=1&mode=live&start=4.718) [understanding of how to use my DMV](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=1&mode=live&start=6.788153846153843) [configuration queries. This includes](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=1&mode=live&start=9.28725) [understanding the capabilities, and the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=1&mode=live&start=11.69775) [benefits, and the limitations of the DMV](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=1&mode=live&start=13.964699999999999) [configuration queries, so you know how to](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=1&mode=live&start=16.442) [use them to find all the configuration](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=1&mode=live&start=18.407923076923066) [issues in your system. Also, I want to](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=1&mode=live&start=20.38008333333333) [make sure you understand how to check out](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=1&mode=live&start=22.676750000000013) [your hardware configuration using these](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=1&mode=live&start=25.431499999999993) [queries, and also, I want to make sure you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=1&mode=live&start=27.325) [understand how to check your storage](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=1&mode=live&start=29.74253846153845) [configuration using these queries. Another](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=1&mode=live&start=32.476333333333336) [important course objective is explaining](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=1&mode=live&start=36.1169) [how to understand and modify important](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=1&mode=live&start=37.7264) [configuration settings at all levels of](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=1&mode=live&start=39.918) [your system. This includes understanding](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=1&mode=live&start=42.62999999999999) [how to check your operating system](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=1&mode=live&start=44.53) [configuration, understanding how to check](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=1&mode=live&start=46.522) [your instance-level configuration](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=1&mode=live&start=49.07057142857144) [settings, and finally, understanding how](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=1&mode=live&start=50.48844444444445) [to check your database-level configuration](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=1&mode=live&start=52.480666666666664) [settings. The final course objective is](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=1&mode=live&start=55.032) [explaining how to implement best-practice](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=1&mode=live&start=59.1) [configuration settings at all levels of](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=1&mode=live&start=61.12124999999999) [your system. This includes best-practice](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=1&mode=live&start=63.467400000000005) [hardware and storage configuration](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=1&mode=live&start=65.35639999999998) [settings, best-practice operating system](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=1&mode=live&start=67.47566666666665) [configuration settings, and then](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=1&mode=live&start=70.203) [best-practice instance and database level](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=1&mode=live&start=72.38649999999998) [configuration settings. So let's go over](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=1&mode=live&start=75.88266666666667) [the course focus and structure for the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=1&mode=live&start=79.35571428571428) [rest of the modules in this course. We're](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=1&mode=live&start=80.83921428571429) [going to talk about diagnosing hardware](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=1&mode=live&start=83.4881818181818) [and storage configuration issues in the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=1&mode=live&start=85.904) [next module. Then we'll have a module on](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=1&mode=live&start=88.48249999999999) [diagnosing operating system configuration](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=1&mode=live&start=91.61600000000003) [issues, and then we'll talk about](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=1&mode=live&start=93.132) [diagnosing instance-level configuration](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=1&mode=live&start=95.96699999999998) [issues, and then finally, we'll talk about](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=1&mode=live&start=97.38177777777778) [diagnosing database-level configuration](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=1&mode=live&start=100.67022222222224) [issues. So what did we cover in this](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=1&mode=live&start=104.06933333333335) [module? Well we talked about what are DMV](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=1&mode=live&start=107.24300000000004) [configuration queries? Then we talked](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=1&mode=live&start=109.41527272727272) [about the benefits of DMV configuration](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=1&mode=live&start=111.73163636363634) [queries, they're extremely useful in day](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=1&mode=live&start=114.40754545454546) [to day use for a production DBA. Then we](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=1&mode=live&start=116.56481818181818) [went over the course objectives and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=1&mode=live&start=120.09300000000003) [structure. Next, we're going to talk about](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=1&mode=live&start=122.60100000000007) [how you can diagnose hardware and storage configuration issues in the next module.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=fb2abe37-67b8-41d4-a124-59b9b3e51c80&clip=1&mode=live&start=124.97999999999996)

[Diagnosing Hardware and Storage Configuration Issues](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live)

[Introduction and Hardware Information](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live)

[Diagnosing Hardware and Storage](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=0) [Configuration Issues. So what are we going](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=4.323333333333333) [to cover in this module, and why is it](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=7.689999999999999) [important? Well we're going to talk about](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=9.858999999999996) [hardware and storage configuration queries](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=11.726000000000004) [that you can use to find out how your](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=13.080714285714286) [hardware and storage is configured, and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=15.51714285714286) [whether or not it's configured properly](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=17.168727272727274) [for the best performance and scalability.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=18.874909090909092) [We're also going to talk about best-](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=20.888700000000004) [practice hardware and storage](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=23.597)[configuration settings that you want to](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=24.8714) [use for most SQL Server workloads.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=26.783) [Hardware information. It's very handy to](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=31.611) [be able to query your hardware](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=33.35209090909092) [configuration from within SQL Server using](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=35.31518181818181) [T-SQL, the DMV query. You can look at](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=38.38827272727271) [processor core counts and figure out what](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=41.47099999999999) [your situation is for licensing and what](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=43.280499999999975) [kind of processor you have, sort of](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=45.785571428571444) [indirectly. You can also look at your](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=48.40657142857146) [memory information to figure out how much](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=49.847615384615374) [memory is installed either on your bare](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=51.092) [metal machine or in a VM if that's where](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=53.023500000000006) [you're running. You can look at your NUMA](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=55.47633333333333) [nodes and whether or not soft NUMA is](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=57.56166666666665) [enabled or not. You can also look at your](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=60.008333333333326) [SQL Server memory model, whether or not](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=62.48253846153846) [you're using locked pages in memory or](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=64.246) [not. So this gives you some useful](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=68.07849999999999) [information about what kind of processor](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=70.59181818181816) [you have, and how your memory is](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=72.6049) [configured, again, how many cores you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=75.22919999999998) [have, how many sockets you have, how much](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=77.43623076923076) [memory you have, and how the memory is](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=80.35069230769228) [configured. It also helps you understand](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=83.54125000000002)[your basic environment that you're running](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=85.22699999999999) [in, so you get an idea, are you running on](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=86.7566923076923) [a four-socket server, are you running on a](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=89.23361538461535) [two-socket server, how many cores do you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=91.86038461538463) [have in your processor? That sort of](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=94.347) [thing. You also find out some new things](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=96.86437499999997) [in SQL Server 2017. So, now instead of](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=99.51236363636359)[having to guess, we know how many physical](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=102.27800000000002) [cores we have, and we know how many NUMA](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=105.19400000000007) [nodes we have, and these are some of the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=107.47093333333329) [new columns that were added in SQL Server](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=109.536) [2017, which really took some of the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=111.90400000000005) [mystery out of your hardware situation.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=114.42833333333334) [It's also very useful, this information,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=117.109) [for virtual machines and bare metal](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=119.74300000000004) [physical machines; and then finally,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=122.32536363636363) [there's a column in there called Virtual](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=124.26218181818179) [Machine Type, and don't be deceived by](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=126.95971428571428) [that if it says hypervisor. That just](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=129.62221428571434) [means there's a hypervisor running on your](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=132.13799999999998) [host, it doesn't necessarily mean that](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=134.2869999999999) [your SQL Server instance is running inside](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=136.39172727272734) [of the hypervisor. It probably is, it](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=138.86076923076925) [might be, but you don't know for sure until a later query in this set.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=0&mode=live&start=141.04315384615396)

[Demo: Hardware Information](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=1&mode=live)

[So the first thing we want to with all](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=1&mode=live&start=2.378) [these scripts is confirm that we're](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=1&mode=live&start=4.095714285714285) [running on the right version of SQL](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=1&mode=live&start=5.302222222222222) [Server. We want to be running on SQL](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=1&mode=live&start=7.06777777777778)[Server 2017. So this query right here is](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=1&mode=live&start=9.514111111111111) [going to just double-check that. So when I](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=1&mode=live&start=12.026636363636369) [run this, this comes back and says I'm on](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=1&mode=live&start=14.2674) [the correct major version of SQL Server](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=1&mode=live&start=16.2756) [for this diagnostic script, so that's what](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=1&mode=live&start=18.192076923076918) [we want. So the actual query for this](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=1&mode=live&start=20.374461538461524) [demonstration is hardware information from](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=1&mode=live&start=23.424399999999995)[SQL Server 2017, and we're querying sys.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=1&mode=live&start=25.787333333333336) [dm\_os\_sys\_info, and we have a lot of new](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=1&mode=live&start=31.00466666666668) [columns in this query that were introduced](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=1&mode=live&start=33.28346666666668) [in SQL Server 2017. So when I run the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=1&mode=live&start=34.816933333333374) [query, it comes back, and we've got](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=1&mode=live&start=38.20266666666669) [Logical CPU Count which is 32,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=1&mode=live&start=41.0945) [scheduler\_count is 32, Physical Core Count](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=1&mode=live&start=43.71149999999999) [is 16, Socket Count is 1, and we have 16](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=1&mode=live&start=46.27123076923076) [cores\_per\_socket, and 2 numa nodes. So now](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=1&mode=live&start=50.442) [we know, we don't have to guess, that we](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=1&mode=live&start=52.91084615384616) [have a certain kind of processor that has](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=1&mode=live&start=56.192249999999994) [hyper- threading enabled, and we know how](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=1&mode=live&start=59.29958333333331) [many physical cores it has, and before on](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=1&mode=live&start=61.3510909090909) [earlier versions of SQL Server, some of](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=1&mode=live&start=63.473928571428566)[this we had to sort of guess at and figure](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=1&mode=live&start=65.19342857142856) [out with other queries, but now we have](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=1&mode=live&start=67.66014285714284) [all the information we need right here.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=1&mode=live&start=69.639) [And then scrolling over to the right, we](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=1&mode=live&start=71.52549999999997) [have Physical Memory, we have 64 GB in](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=1&mode=live&start=74.64323076923077) [this workstation. Max Worker Count is set](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=1&mode=live&start=79.36384615384614) [to 960. The processor affinity is set to](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=1&mode=live&start=82.22669230769233) [AUTO, so SQL Server can do what it wants](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=1&mode=live&start=84.919) [to, to set schedulers on different](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=1&mode=live&start=88.1390714285714) [processor cores; and then we'd also show](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=1&mode=live&start=90.26227272727273) [that SQL Server started on May 24th at](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=1&mode=live&start=92.60218181818186) [8:00 AM, which is very useful to know when](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=1&mode=live&start=95.10892857142855) [you're looking at some of the results of](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=1&mode=live&start=97.816) [queries later on. Then, we can take a](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=1&mode=live&start=100.60218181818183) [look, and Virtual Machine Type is](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=1&mode=live&start=103.26991666666669) [HYPERVISOR, and that's what I talked about](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=1&mode=live&start=105.21741666666671) [earlier; just because it says HYPERVISOR](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=1&mode=live&start=106.78781818181821) [there, that means there's a hypervisor on](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=1&mode=live&start=108.19999999999999)[the host, but it doesn't necessarily mean](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=1&mode=live&start=110.81799999999996) [that you're running inside of that](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=1&mode=live&start=113.53641666666664) [hypervisor. Soft NUMA Configuration is ON,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=1&mode=live&start=115.9009166666666) [which means SQL Server will set up the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=1&mode=live&start=118.11346153846152) [NUMA nodes automatically, and then,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=1&mode=live&start=121.023) [sql\_memory\_model\_description is](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=1&mode=live&start=123.90657142857144) [CONVENTIONAL, which means a Lock Pages In](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=1&mode=live&start=125.06) [Memory is not enabled, and that's by](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=1&mode=live&start=127.66718181818182) [design on my workstation. On a production](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=1&mode=live&start=130.05025000000003) [SQL Server instance, typically I recommend that people enable that setting.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=1&mode=live&start=132.1345000000001)

[System Manufacturer and BIOS Date](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=2&mode=live)

[System manufacturer and BIOS date. We have](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=2&mode=live&start=2.45) [a couple of queries that can be used to](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=2&mode=live&start=4.636333333333332) [identify the make and model of your](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=2&mode=live&start=7.416333333333334) [server, and that's very useful information](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=2&mode=live&start=9.548416666666668) [to have. You can also use this to identify](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=2&mode=live&start=11.680142857142858) [whether or not you're running inside of a](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=2&mode=live&start=14.484615384615385) [virtual machine or not, because instead of](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=2&mode=live&start=16.817999999999998) [an actual manufacturer of hardware, it'll](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=2&mode=live&start=18.76399999999999) [show you the manufacturer or the vendor of](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=2&mode=live&start=21.005230769230767) [the hypervisor. And then it's going to](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=2&mode=live&start=24.75784615384615) [show you the BIOS date, which is mainly](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=2&mode=live&start=26.77207142857143) [useful for physical machines, so, knowing](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=2&mode=live&start=28.493785714285714) [the date of your main BIOS helps you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=2&mode=live&start=30.51358333333334) [understand how well-maintained that server](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=2&mode=live&start=33.69025) [has been. So diving a little bit more](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=2&mode=live&start=36.9415) [deeply into those two queries, we can](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=2&mode=live&start=39.97763636363634) [figure out once we know the manufacturer](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=2&mode=live&start=41.953384615384614) [and model number of the server, then we](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=2&mode=live&start=43.806230769230766) [can understand, is it a two-socket server,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=2&mode=live&start=45.95328571428572) [is it a four-socket server? How old is it?](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=2&mode=live&start=47.857785714285725) [What kind of processors does that](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=2&mode=live&start=50.9035) [particular model server support? How much](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=2&mode=live&start=53.133) [memory can you put in that particular](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=2&mode=live&start=55.332857142857144) [server? How many PCI expansion slots you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=2&mode=live&start=57.89935714285714) [have. Also, understanding how old it is](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=2&mode=live&start=61.135) [helps you sort of figure out how well it](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=2&mode=live&start=64.30664285714286) [performs and what it's total capacity is,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=2&mode=live&start=67.03042857142857) [especially compared to a newer server](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=2&mode=live&start=69.7704) [perhaps. Then, understanding absolutely](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=2&mode=live&start=72.82919999999999) [whether to not you're running on a virtual](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=2&mode=live&start=74.44780000000002) [machine or not is very useful, and this](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=2&mode=live&start=77.4282857142857) [query helps you understand that. Then,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=2&mode=live&start=80.57457142857139)[knowing the BIOS release date helps you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=2&mode=live&start=82.88108333333334) [figure out whether that machine has been](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=2&mode=live&start=85.26166666666671) [properly maintained, and BIOS updates](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=2&mode=live&start=87.86339999999998) [typically have a lot of critical fixes in](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=2&mode=live&start=89.93239999999996) [them, and especially if you're worried](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=2&mode=live&start=92.47350000000002) [about the Spectre and Meltdown processor](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=2&mode=live&start=94.187) [vulnerabilities, you need microcode](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=2&mode=live&start=97.68842857142859) [updates that come from BIOS updates, to be](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=2&mode=live&start=99.42775) [fully patched against those vulnerabilities.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=2&mode=live&start=102.50975)

[Demo: System Manufacturer and BIOS Date](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=3&mode=live)

[For this demonstration, I'm going to pull](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=3&mode=live&start=2.355) [back some information about the system](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=3&mode=live&start=3.7250909090909077) [manufacturer and model number, and also](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=3&mode=live&start=5.301571428571429) [the date of the main BIOS. So the first](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=3&mode=live&start=7.682285714285716) [one's going to read from the SQL Server](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=3&mode=live&start=10.802384615384616) [Error log, and when we run this query,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=3&mode=live&start=12.774076923076924) [it's going to tell us the model number and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=3&mode=live&start=15.024999999999995)[manufacturer of our server; and in my](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=3&mode=live&start=17.662) [case, I've got a Dell Precision 5520,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=3&mode=live&start=19.91707692307692) [which is my main company laptop. But,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=3&mode=live&start=22.310333333333336) [this'll tell you whether it's a regular](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=3&mode=live&start=25.532666666666678) [server, a physical server, or if you're](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=3&mode=live&start=28.294999999999995) [virtualized, it'll tell you what kind of](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=3&mode=live&start=30.443999999999985) [virtualization host you're running on. So](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=3&mode=live&start=32.743) [it's a very handy query, and this query](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=3&mode=live&start=34.67764285714286) [won't give you any results if the SQL](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=3&mode=live&start=36.87478571428572) [Server Error log has been recycled since](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=3&mode=live&start=39.126142857142845) [the instance was started. So keep that in](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=3&mode=live&start=41.17514285714282) [mind. Now the next query in the set is](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=3&mode=live&start=43.3735) [going to pull back the date of the main](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=3&mode=live&start=45.68537500000001) [BIOS, and this comes from the Windows](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=3&mode=live&start=48.6717142857143) [registry. So when I run this, it shows me](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=3&mode=live&start=51.25671428571432) [that I've updated my BIOS fairly recently,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=3&mode=live&start=53.38599999999999) [and this is a good way to keep track of](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=3&mode=live&start=54.94586666666667) [whether or not the server is fully up to](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=3&mode=live&start=57.34453333333331) [date, and whether it's been](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=3&mode=live&start=59.82358333333333) [well-maintained or not; and this is not so](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=3&mode=live&start=61.34316666666666) [useful if it's virtualized. But on a](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=3&mode=live&start=64.38519999999998) [physical server, that's good to know](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=3&mode=live&start=66.67335714285714) [because then you can go to the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=3&mode=live&start=68.00407142857144) [manufacturer's website and find out if](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=3&mode=live&start=69.81016666666667) [that's the latest BIOS or not, and if you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=3&mode=live&start=71.9016666666667) [need to do an update or not on that particular server.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=3&mode=live&start=78.296)

[Processor Description](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=4&mode=live)

[Processor description. This helps you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=4&mode=live&start=2.441) [identify the exact processor model that's](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=4&mode=live&start=5.08488888888889) [in your server, and this is really](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=4&mode=live&start=7.739666666666667) [important for SQL Server for both](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=4&mode=live&start=9.628499999999997)[performance and licensing purposes. I](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=4&mode=live&start=11.97914285714286) [always get really frustrated when I ask](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=4&mode=live&start=14.303) [the DBA, what kind of processor do you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=4&mode=live&start=16.186) [have in your main mission critical](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=4&mode=live&start=18.469727272727273) [database server, and they're like, well](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=4&mode=live&start=20.34718181818182) [I'm not sure, I think it's a Xeon. That's](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=4&mode=live&start=21.882666666666665) [terrible. You should know exactly what](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=4&mode=live&start=24.056900000000002) [model processor that you have, especially](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=4&mode=live&start=26.186300000000006) [in your most important database servers.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=4&mode=live&start=28.67133333333333) [This works for both physical machines and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=4&mode=live&start=31.512) [for virtual machines, and, you can find](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=4&mode=live&start=34.50450000000001)[out more detailed information about your](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=4&mode=live&start=37.10466666666667) [processor online. So once you know the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=4&mode=live&start=39.08116666666667) [model number, you can use your favorite](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=4&mode=live&start=40.99884615384614) [search engine and find information about](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=4&mode=live&start=42.76123076923073) [all its statistics and specifications, and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=4&mode=live&start=45.635222222222204) [how old it is; so that's something you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=4&mode=live&start=48.25899999999999) [really want to do once you identify the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=4&mode=live&start=50.36299999999998) [model number of the processor. So going a](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=4&mode=live&start=53.22245454545453) [little bit deeper into this, this is](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=4&mode=live&start=56.0705) [extremely important information to](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=4&mode=live&start=58.17866666666667) [understand, because if you're running on](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=4&mode=live&start=59.3978)[an older server with an older, slower](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=4&mode=live&start=61.24819999999999) [processor, having lots of performance](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=4&mode=live&start=63.90549999999999) [issues just because of that, and you can](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=4&mode=live&start=65.946) [use that to help build a case for an](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=4&mode=live&start=68.03560000000002) [upgrade to a new server, for example. You](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=4&mode=live&start=70.702) [also want to understand how old it is, and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=4&mode=live&start=73.87323076923077) [how it performs relative to new](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=4&mode=live&start=76.01730769230768) [processors, and I have ways of doing that](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=4&mode=live&start=78.21653846153846) [using TPCE benchmark scores and some basic](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=4&mode=live&start=82.1753076923077) [calculations to get an idea of where your](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=4&mode=live&start=85.05374999999998) [processor compares to the latest and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=4&mode=live&start=88.15963636363635)[greatest processor, for example. Now,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=4&mode=live&start=90.9294545454545) [understanding what processor you have also](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=4&mode=live&start=93.16118181818182) [helps you figure out how much memory can](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=4&mode=live&start=95.47227272727274) [you support because the memory controllers](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=4&mode=live&start=97.94066666666666) [are in the processors, so knowing the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=4&mode=live&start=99.33216666666664) [processor model number, you can indirectly](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=4&mode=live&start=102.25224999999998) [figure out how much memory you can have in](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=4&mode=live&start=104.56407142857141) [the system. And then finally, knowing what](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=4&mode=live&start=107.07828571428564) [processor you have, tells you what](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=4&mode=live&start=109.5538181818182) [generation of PCIe support is supported by](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=4&mode=live&start=111.854) [that processor, and that's really important for overall storage performance.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=4&mode=live&start=114.80333333333336)

[Demo: Processor Description](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=5&mode=live)

[You can use this query to read from the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=5&mode=live&start=2.503) [Windows registry to find out the exact](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=5&mode=live&start=4.669428571428571) [processor that you have in your system. So](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=5&mode=live&start=6.518555555555555) [when I run this query, it's going to come](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=5&mode=live&start=9.0585) [back and tell me that I have an AMD Ryzen](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=5&mode=live&start=11.583) [Threadripper 1950X 16-Core Processor, and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=5&mode=live&start=15.655454545454548) [if I didn't know anything about that](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=5&mode=live&start=18.642272727272726)[processor, I could just search for that](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=5&mode=live&start=21.060181818181817) [model number and manufacturer online, and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=5&mode=live&start=22.871454545454544) [find out all the specifications of that](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=5&mode=live&start=24.932181818181814) [particular processor; and that's very](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=5&mode=live&start=27.739000000000004) [important information to know, again, for](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=5&mode=live&start=30.127333333333343) [performance reasons and for licensing](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=5&mode=live&start=32.892272727272726) [reasons. And, I've got more details about](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=5&mode=live&start=35.179545454545455) [processor selection and how important it](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=5&mode=live&start=38.032636363636385) [is for SQL Server, if you follow this link](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=5&mode=live&start=40.35886666666667) [at the bottom of the screen here, and I've](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=5&mode=live&start=43.32766666666668) [written a number of articles and blog](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=5&mode=live&start=45.90807692307691) [posts that get into a lot of detail about](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=5&mode=live&start=47.537461538461514) [picking the right processor for SQL Server](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=5&mode=live&start=50.618846153846164) [to minimize your license costs and to get](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=5&mode=live&start=53.233333333333334) [the best performance. And you can also use](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=5&mode=live&start=56.211999999999975) [the free CPU-Z tool to check your actual](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=5&mode=live&start=58.97592307692306) [processor core speed, and make sure you've](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=5&mode=live&start=61.611) [got power management set up correctly. So that's what that link talks about.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=5&mode=live&start=63.75192307692308)

[SQL Server NUMA Information](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=6&mode=live)

[SQL Server NUMA information. NUMA stands](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=6&mode=live&start=2.415) [for Non-uniform Memory Access, and all](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=6&mode=live&start=5.410333333333335) [modern servers use this architecture so](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=6&mode=live&start=8.188454545454546) [that each processor has its own local pool](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=6&mode=live&start=10.749363636363633) [of memory on its own NUMA node, and it has](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=6&mode=live&start=13.551153846153847) [very fast access to that local memory.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=6&mode=live&start=16.8302) [Now, older machines use something called](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=6&mode=live&start=19.178) [Symmetrical Multiprocessing, where you had](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=6&mode=live&start=22.658749999999994) [a single front-side bus that all the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=6&mode=live&start=24.78130769230769) [processors try to use to access all of the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=6&mode=live&start=27.026692307692297) [memory in the machine, and this was very](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=6&mode=live&start=29.793714285714294) [inefficient as your socket counts went up.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=6&mode=live&start=32.2) [So NUMA is much better than SMP for](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=6&mode=live&start=34.881) [scalability. NUMA gives you better memory](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=6&mode=live&start=39.025000000000006) [performance than you got with SMP. Now,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=6&mode=live&start=41.40072727272727) [getting a little bit deeper into NUMA and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=6&mode=live&start=43.86) [why it's important for SQL Server, this](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=6&mode=live&start=45.699999999999974) [shows you the number of NUMA nodes in the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=6&mode=live&start=47.70207692307693) [system, and this is valid whether it's a](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=6&mode=live&start=50.94830769230773) [virtual machine or a bare metal physical](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=6&mode=live&start=53.8052) [machine. Also helps you determine whether](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=6&mode=live&start=56.3014) [or not NUMA's been disabled in the BIOS](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=6&mode=live&start=58.35383333333332) [because you can actually do that, which is](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=6&mode=live&start=61.01692857142857) [usually a bad thing to do for most SQL](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=6&mode=live&start=63.328357142857136) [Server workloads. So for example, if you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=6&mode=live&start=65.86585714285715) [had a two- socket server, you should see](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=6&mode=live&start=67.77835714285717) [two NUMA nodes when you run this query,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=6&mode=live&start=70.2160769230769) [but if somebody's disabled NUMA, you'll](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=6&mode=live&start=72.805) [just see one NUMA node. It's also very](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=6&mode=live&start=75.53063636363635) [useful for seeing how many schedulers are](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=6&mode=live&start=78.82015384615386) [on each NUMA node, and if they're balanced](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=6&mode=live&start=81.19584615384618) [across all the NUMA nodes like they should](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=6&mode=live&start=83.71900000000001) [be. So for example, if somebody installs](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=6&mode=live&start=86.12700000000002) [SQL Server Standard Edition, which has a](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=6&mode=live&start=88.588) [limit of 24 licenses, then what'll happen](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=6&mode=live&start=91.26807142857142) [is if you do this on a machine with more](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=6&mode=live&start=94.16157142857138) [cores than you're allowed to use, then](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=6&mode=live&start=97.5795) [it'll be unbalanced. So it'll take up all](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=6&mode=live&start=99.65864285714285) [the cores on the first NUMA node, and any](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=6&mode=live&start=102.17578571428571) [leftover ones will go to the second NUMA](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=6&mode=live&start=104.88838461538464) [node, and they won't be balanced, and this](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=6&mode=live&start=107.16715384615392) [query helps you spot that issue. It also](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=6&mode=live&start=109.63384615384618) [tells you what's going on with your VM or](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=6&mode=live&start=112.158) [your physical machine. So, when you create](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=6&mode=live&start=115.10099999999998) [a VM, you can say, well I'm going to give](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=6&mode=live&start=117.06349999999998) [this VM four sockets with two cores each,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=6&mode=live&start=119.51724999999993) [or eight sockets with one core each, for](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=6&mode=live&start=122.09553846153848) [example, and this helps you figure that](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=6&mode=live&start=124.79981818181818) [out; and again, you need to be wary of](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=6&mode=live&start=126.68154545454541) [that because with SQL Server Standard](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=6&mode=live&start=129.2543076923077) [Edition you're only allowed to use four](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=6&mode=live&start=131.02061538461538) [sockets. So if somebody creates a VM with](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=6&mode=live&start=133.73557142857146) [eight sockets, SQL Server Standard Edition](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=6&mode=live&start=136.40116666666677) [won't be able to use all those sockets,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=6&mode=live&start=138.32764285714285) [and that's a common VM misconfiguration that I see out in the field.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=6&mode=live&start=140.81278571428567)

[Demo: SQL Server NUMA Information](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=7&mode=live)

[In this demonstration, we're going to look](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=7&mode=live&start=2.391) [at sys. dm\_os\_nodes to pull back the NUMA](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=7&mode=live&start=4.51725) [information for SQL Server. So when I run](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=7&mode=live&start=7.147285714285714) [this query, it comes back and tells me](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=7&mode=live&start=9.87175) [that I have two rows here, that means two](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=7&mode=live&start=12.357250000000002) [NUMA nodes, and you can see the NUMA](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=7&mode=live&start=14.941785714285714) [node\_id is 0 and 1. Both NUMA nodes are](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=7&mode=live&start=17.08864285714285) [online, and then it tells me that I've got](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=7&mode=live&start=20.277533333333338) [16 CPUS and 16 schedulers on each NUMA](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=7&mode=live&start=23.595799999999997) [node, and if I scroll over to the right,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=7&mode=live&start=26.64699999999999) [this tells me some more information.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=7&mode=live&start=29.5956) [They're all idle right now, how many](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=7&mode=live&start=31.158) [workers I have on each NUMA node, and also](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=7&mode=live&start=33.434500000000014) [some more information about how hard each](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=7&mode=live&start=36.453500000000005) [node is working; and this is just useful](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=7&mode=live&start=39.05225000000003) [information because now I understand how](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=7&mode=live&start=41.73058333333333) [many NUMA nodes I have, and I can see the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=7&mode=live&start=43.608083333333326) [number of schedulers is balanced across](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=7&mode=live&start=46.85114285714286) [each NUMA node, which is what you want to](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=7&mode=live&start=48.737) [see. And I've got more information about](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=7&mode=live&start=51.059000000000026) [how to interpret the results of this in](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=7&mode=live&start=52.67350000000001) [the links below, and one last thing I want](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=7&mode=live&start=54.53653333333334) [to throw out here is that, again, what](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=7&mode=live&start=56.815933333333355) [you're going to find out in many cases](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=7&mode=live&start=58.88346153846154) [when people in using the Standard Edition,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=7&mode=live&start=60.992384615384616) [you have a limit of 4 sockets, or 24](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=7&mode=live&start=63.614000000000004) [cores, and if you exceed those limits,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=7&mode=live&start=67.08771428571428) [you're going to have problems. And you'll](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=7&mode=live&start=69.6172142857143) [be able to spot that with this query, and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=7&mode=live&start=71.93328571428572) [this is useful for both physical machines and virtual machines.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=7&mode=live&start=74.22507142857141)

[Memory-optimized Checkpoint Mode](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=8&mode=live)

[Memory-optimized Checkpoint Mode. SQL](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=8&mode=live&start=2.476) [Server 2016 introduced a new feature](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=8&mode=live&start=4.579111111111112) [called large checkpoint mode, and this is](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=8&mode=live&start=7.6425833333333335) [enabled if you have the right](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=8&mode=live&start=10.684666666666661) [specifications in your machine, and if you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=8&mode=live&start=13.009833333333335) [have a certain trace flag enabled. So it's](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=8&mode=live&start=15.063750000000006) [based on your memory size, and your core](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=8&mode=live&start=17.695538461538458) [counts, and how fast you can actually read](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=8&mode=live&start=20.498) [from the In-Memory OLTP checkpoint file,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=8&mode=live&start=24.27400000000001) [and this is measured during SQL Server's](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=8&mode=live&start=26.988799999999998) [startup, and it controls whether or not](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=8&mode=live&start=29.882599999999993) [you're going to use large checkpoint mode](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=8&mode=live&start=31.838500000000003) [or not. So drilling a little bit deeper](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=8&mode=live&start=33.811571428571426) [into this, using this is chosen during](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=8&mode=live&start=37.256142857142834) [startup based on your machine](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=8&mode=live&start=40.4466) [specifications and your read IO subsystem](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=8&mode=live&start=43.04059999999999) [performance, and it lets you use large](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=8&mode=live&start=45.80054545454546) [checkpoint mode if you have a machine that](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=8&mode=live&start=48.60881818181819) [qualifies for that. Now you also have to](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=8&mode=live&start=51.4222) [enable global trace flag 9912 to enable](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=8&mode=live&start=54.70023076923078) [large checkpoint mode, and it's really](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=8&mode=live&start=57.84215384615386) [important that you check your performance](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=8&mode=live&start=59.987500000000004) [with and without this trace flag if you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=8&mode=live&start=62.04308333333333) [have a large enough machine that would](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=8&mode=live&start=64.91574999999997) [qualify for it, to see which one performs better with your workload.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=8&mode=live&start=67.07166666666666)

[Demo: Memory-optimized Checkpoint Mode](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=9&mode=live)

[So this query's going to read the SQL](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=9&mode=live&start=1.966) [Server Error log, and it's going to figure](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=9&mode=live&start=4.0357142857142865) [out whether or not you're using large](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=9&mode=live&start=6.3226666666666675) [checkpoints or not. So, every time SQL](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=9&mode=live&start=8.894000000000002) [Server starts up, it checks your system](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=9&mode=live&start=11.41672727272727) [specifications, and it also will try to](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=9&mode=live&start=13.903) [actually measure how quickly you can read](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=9&mode=live&start=16.997636363636364) [the In-Memory OLTP checkpoint file. So](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=9&mode=live&start=19.961874999999996) [when I run this query, it comes back and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=9&mode=live&start=22.24085714285714) [says that it's initialized on a standard](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=9&mode=live&start=24.81357142857143) [machine, and the reason for that is](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=9&mode=live&start=27.013799999999996) [because I have 16 or more logical](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=9&mode=live&start=29.479666666666652) [processors, I qualify for that, but I've](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=9&mode=live&start=31.892538461538464) [only got 64 GB of memory, and I need 128](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=9&mode=live&start=34.17292307692309) [or more, and then you also need to be able](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=9&mode=live&start=37.093749999999986) [to read at greater than 200 MBPS when you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=9&mode=live&start=39.79) [start up SQL Server and you're reading](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=9&mode=live&start=43.36492857142856) [that In-Memory OLTP checkpoint file. And](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=9&mode=live&start=46.38042857142857) [you also have to have trace flag 9912](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=9&mode=live&start=49.264384615384614) [enabled to get large checkpoint mode, so,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=9&mode=live&start=51.74746153846152) [this helps you figure out whether or not](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=9&mode=live&start=53.809250000000006) [you're using large checkpoint mode or not,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=9&mode=live&start=55.99658333333336) [and you want to measure a performance](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=9&mode=live&start=58.1115) [either way to see which performs better with your workload.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=9&mode=live&start=60.953)

[System Memory and BPE Configuration](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=10&mode=live)

[System memory and Buffer Pool Extension](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=10&mode=live&start=1.956) [configuration. Your system memory amount](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=10&mode=live&start=4.975714285714285) [is a pretty good indicator of the overall](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=10&mode=live&start=6.512333333333335) [size of the system. There's a big](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=10&mode=live&start=8.579) [difference between having, say, 32 GB of](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=10&mode=live&start=10.703181818181822) [RAM versus 1 TB of RAM. Lock Pages In](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=10&mode=live&start=12.966470588235294) [Memory is a right you grant to the SQL](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=10&mode=live&start=16.114882352941176) [Server service account, and that's](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=10&mode=live&start=18.99709090909091) [something I recommend you typically do on](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=10&mode=live&start=20.41345454545455) [a production SQL Server system, and this](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=10&mode=live&start=22.627999999999997) [query will tell you that. System memory](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=10&mode=live&start=24.944461538461535) [state is a good indicator of external](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=10&mode=live&start=27.28407692307691) [memory pressure. So it's a flag the OS](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=10&mode=live&start=29.6025) [sets when it's under memory pressure to](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=10&mode=live&start=32.219833333333334) [signal all the applications and services](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=10&mode=live&start=34.808454545454524) [to release some memory back to the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=10&mode=live&start=37.0462) [operating system, and this query will tell](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=10&mode=live&start=39.518600000000006) [you what's going on with system memory](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=10&mode=live&start=41.9676923076923)[state. Finally, Buffer Pool Extension is a](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=10&mode=live&start=44.407461538461526) [new feature that can be used to cache](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=10&mode=live&start=46.671384615384625) [clean buffer pool pages, and it can help](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=10&mode=live&start=49.22653846153846) [with some SQL Server workloads, especially](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=10&mode=live&start=51.790846153846154) [if you're running on SQL Server Standard](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=10&mode=live&start=54.075399999999995) [Edition. So drilling further into this,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=10&mode=live&start=57.583799999999975) [this gives you the total amount of memory](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=10&mode=live&start=60.01125) [that the operating system has and how much](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=10&mode=live&start=63.006181818181815) [is available, and that's really good](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=10&mode=live&start=65.39163636363635) [information to know. It also tells you the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=10&mode=live&start=67.54971428571429) [current system memory state, which is an](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=10&mode=live&start=70.12975000000002) [indicator whether or not the operating](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=10&mode=live&start=72.102) [system is under memory pressure or not. It](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=10&mode=live&start=74.56107692307697) [tells you whether or not Buffer Pool](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=10&mode=live&start=77.71315384615386) [Extension is enabled or not, it tells you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=10&mode=live&start=79.69523076923082) [where the BPE cache file is and how large](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=10&mode=live&start=82.2557142857143) [it is, and BPE can help performance with](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=10&mode=live&start=85.6898571428572) [some workloads; and where it's going to](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=10&mode=live&start=88.52199999999996) [help you is if you've got an OLTP workload](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=10&mode=live&start=91.0042) [and you have very slow magnetic storage](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=10&mode=live&start=94.72300000000003) [that does very poorly on random read IO.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=10&mode=live&start=97.76899999999999) [If you have a local flash storage file to](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=10&mode=live&start=101.689) [put the BPE cache file on, you can](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=10&mode=live&start=105.06220000000006) [sometimes see a performance increase by](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=10&mode=live&start=108.0224) [doing that, and it's very easy to check](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=10&mode=live&start=110.1566) [this out and see if it's going to help you or not.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=10&mode=live&start=116.868)

[Demo: System Memory and BPE Configuration](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=11&mode=live)

[We have two queries in this demonstration.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=11&mode=live&start=1.966) [The first one's going to look at sys.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=11&mode=live&start=3.577) [dm\_os\_sys\_memory, and it's going to tell](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=11&mode=live&start=6.099666666666666) [us what's going on with the operating](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=11&mode=live&start=7.953) [system as far as memory is concerned. So](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=11&mode=live&start=10.024999999999997) [when I run this query, it comes back and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=11&mode=live&start=12.382823529411764) [tells me I've got 64 GB of Physical](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=11&mode=live&start=14.955235294117648) [Memory, I've got roughly 51 GB available.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=11&mode=live&start=17.468875) [My page file is 75 GB, which I don't](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=11&mode=live&start=21.059) [really care about to be honest, and how](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=11&mode=live&start=23.72479999999999) [much is available; and then scrolling over](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=11&mode=live&start=26.296333333333333)[to the right, the column that I really](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=11&mode=live&start=29.076500000000003) [care about is System Memory State, and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=11&mode=live&start=32.13754545454545) [that shows available physical memory is](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=11&mode=live&start=34.6385) [high, and that's what you want to see at](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=11&mode=live&start=36.1835) [all times. This is telling us that the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=11&mode=live&start=38.81746153846154) [operating system is not under any memory](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=11&mode=live&start=41.510384615384616) [pressure. So that's what you want to see.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=11&mode=live&start=43.71385714285713) [But going down here in the notes, there's](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=11&mode=live&start=46.203) [other values you might see for that. So it](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=11&mode=live&start=48.67393333333334) [might say available physical memory is](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=11&mode=live&start=51.64083333333333) [low, or running low, or transitioning, or](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=11&mode=live&start=54.05533333333334) [it's steady; and those are all bad. You](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=11&mode=live&start=57.043499999999995) [want it to say available physical memory](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=11&mode=live&start=60.5822) [is high. So if we go down to the second](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=11&mode=live&start=62.837600000000016) [query in the set, it's Buffer Pool](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=11&mode=live&start=65.67293333333332) [Extension, and we want to find out if this](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=11&mode=live&start=67.59) [feature is enabled or not, and again, this](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=11&mode=live&start=70.31507142857147) [is when you set aside some space in your](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=11&mode=live&start=72.81578571428572)[file system hopefully on local flash](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=11&mode=live&start=75.77614285714291) [storage to cache clean buffer pool pages.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=11&mode=live&start=78.74672727272727) [And it turns out that I have it enabled on](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=11&mode=live&start=82.794) [my system, so it shows me where the file](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=11&mode=live&start=85.35962500000001) [is located, and the fact that it's](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=11&mode=live&start=87.99890909090908) [enabled, and how large it is, it's 64 GB,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=11&mode=live&start=90.5653636363636) [and it needs to be at least as large as](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=11&mode=live&start=93.11270588235298) [your max server memory setting in SQL](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=11&mode=live&start=96.06522222222222) [Server. So, I've got this set to 64 GB](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=11&mode=live&start=99.55977777777773) [right here, and then I've got some links](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=11&mode=live&start=102.18486666666664) [here that explain this feature in more detail.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=11&mode=live&start=105.045)

[Fixed Drives and Volume Information](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=12&mode=live)

[Fixed drives and volume information. We](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=12&mode=live&start=2.42) [have a couple of useful queries that pull](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=12&mode=live&start=4.208545454545454) [back information about all the drives that](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=12&mode=live&start=6.432090909090909) [are visible to the operating system, and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=12&mode=live&start=8.142636363636363) [then all the drives that have SQL Server](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=12&mode=live&start=9.787307692307692) [database files on them. So, we get](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=12&mode=live&start=11.8165) [information about all the drives that are](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=12&mode=live&start=14.585) [visible to the operating system, and it](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=12&mode=live&start=16.993249999999996) [just shows the space available for each](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=12&mode=live&start=18.92116666666665) [drive that is available to the operating](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=12&mode=live&start=20.92783333333333) [system whether or not it has any SQL](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=12&mode=live&start=22.966)[Server database files on it. We also have](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=12&mode=live&start=25.33215384615385) [a separate query that gives us the size](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=12&mode=live&start=27.665785714285718) [and free space for all your logical drives](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=12&mode=live&start=29.9452142857143) [that have any SQL Server database files on](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=12&mode=live&start=32.27692307692308) [them, and this is useful information](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=12&mode=live&start=34.64) [because you want to not run out of space,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=12&mode=live&start=36.402153846153865) [and also as you get low on space,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=12&mode=live&start=39.01215384615385) [performance can be affected, both with](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=12&mode=live&start=41.22876923076926) [magnetic storage and with flash storage.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=12&mode=live&start=43.833666666666666) [So going further into this, fixed drives](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=12&mode=live&start=47.381) [shows you the available space on all the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=12&mode=live&start=49.92083333333334)[logical drives available to the operating](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=12&mode=live&start=53.12863636363635) [system, and, fixed drives is actually kind](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=12&mode=live&start=55.91590909090906) [of a bad name for it because it also will](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=12&mode=live&start=57.81857142857142) [show removable drives, like thumb drives.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=12&mode=live&start=60.01428571428571) [And then, the volume information query](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=12&mode=live&start=62.674) [gives you the total size and the available](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=12&mode=live&start=64.97) [space for all the logical drives that have](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=12&mode=live&start=67.95133333333334) [any SQL Server database files, and that's](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=12&mode=live&start=70.69266666666672) [very useful information to know, and it's](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=12&mode=live&start=73.48299999999998) [going to help you detect when you're](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=12&mode=live&start=76.03230769230768) [running low on disk space, which is bad](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=12&mode=live&start=77.5873846153846) [for a number of reasons, and also, being](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=12&mode=live&start=79.62314285714285) [low on disk space can affect your](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=12&mode=live&start=81.91742857142856) [performance with both magnetic and with flash storage.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=12&mode=live&start=87.491)

[Demo: Fixed Drives and Volume Information](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=13&mode=live)

[We have two queries in this demonstration.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=13&mode=live&start=2.496) [The first one's going to pull back](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=13&mode=live&start=4.006) [information about all the drives that are](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=13&mode=live&start=5.894833333333335) [available to the operating system, and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=13&mode=live&start=7.968615384615385) [when I run this query, it shows me the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=13&mode=live&start=10.142461538461534) [fixed\_drive\_path and the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=13&mode=live&start=13.756500000000003) [drive\_type\_description, whether it's a](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=13&mode=live&start=15.108375000000004) [fixed drive or a removable drive, which](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=13&mode=live&start=16.282) [happens to be a thumb drive in this case,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=13&mode=live&start=17.968999999999998) [and how much space do they have available.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=13&mode=live&start=20.25030769230769) [So, this is showing you all the drives](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=13&mode=live&start=22.358) [whether or not they have SQL Server](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=13&mode=live&start=24.253428571428568) [database files or not. The next query in](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=13&mode=live&start=26.032857142857143) [this set is going to give us the volume](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=13&mode=live&start=28.89571428571428) [information for all the logical drives](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=13&mode=live&start=31.945666666666664) [that have SQL Server database files, and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=13&mode=live&start=33.83666666666668) [this actually gives us more information](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=13&mode=live&start=36.161545454545454) [about them too. So it shows us the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=13&mode=live&start=38.195) [mount\_point, the file\_system\_type, the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=13&mode=live&start=41.336090909090906) [logical\_volume\_name, the Total Size of the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=13&mode=live&start=42.89963636363637) [drive, and how much space is available,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=13&mode=live&start=45.21345454545456) [and then the percentage of space that's](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=13&mode=live&start=47.9600909090909) [free, and then whether or not it supports](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=13&mode=live&start=50.76963636363634) [compression, or sparse files, or alternate](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=13&mode=live&start=54.214) [streams. So that's a lot of information](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=13&mode=live&start=56.82228571428571) [you get, and this is again, only the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=13&mode=live&start=58.4605) [drives that have any SQL Server database](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=13&mode=live&start=60.3275) [files with their user databases or system databases.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=13&mode=live&start=62.64975)

[Module Summary](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=14&mode=live)

[So what have we covered in this module? We](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=14&mode=live&start=2.427) [looked at a number of useful hardware and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=14&mode=live&start=4.5182142857142855) [storage configuration queries, and how to](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=14&mode=live&start=6.876333333333334) [interpret the results of those queries.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=14&mode=live&start=9.269) [These included basic hardware information](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=14&mode=live&start=11.608400000000003) [such as the socket and processor core](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=14&mode=live&start=13.61811111111111) [counts. The system manufacturer and model](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=14&mode=live&start=16.768888888888892) [number of your server, which is really](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=14&mode=live&start=18.87177777777778) [useful to know in real life. The main BIOS](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=14&mode=live&start=21.136) [date of your server, which helps you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=14&mode=live&start=23.65535714285714) [figure out if the server's been properly](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=14&mode=live&start=25.13785714285714) [maintained. The processor description,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=14&mode=live&start=27.44557142857143) [which is extremely important for both](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=14&mode=live&start=29.393) [licensing and performance purposes. SQL](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=14&mode=live&start=32.69) [Server NUMA information, system memory and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=14&mode=live&start=35.3196) [Buffer Pool Extension information, and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=14&mode=live&start=37.90920000000002) [then fixed drives and logical volume](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=14&mode=live&start=40.15644444444444) [information. So we looked at a lot of](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=14&mode=live&start=43.013777777777754) [useful things at the hardware and storage](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=14&mode=live&start=45.5545) [level of your server. In the next module,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=14&mode=live&start=47.619) [we'll be covering operating system](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=14&mode=live&start=50.767666666666656) [configuration settings. These'll include](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=14&mode=live&start=52.881875) [things like version information for SQL](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=14&mode=live&start=55.04137500000001) [Server and the operating system, the core](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=14&mode=live&start=57.74399999999999) [counts that are seen by SQL Server,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=14&mode=live&start=60.27099999999997)[whether or not instant file initialization](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=14&mode=live&start=62.926727272727256) [is enabled or not, whether or not Lock](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=14&mode=live&start=65.14083333333333) [Pages In Memory is enabled or not, and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=14&mode=live&start=67.55550000000001) [then information about your SQL Server services.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=40bde5a1-c938-4dfa-ab6a-03ecc3ccab47&clip=14&mode=live&start=73.461)

[Diagnosing Operating System Configuration Issues](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=0&mode=live)

[Introduction and Version Information](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=0&mode=live)

[Diagnosing Operating System Configuration](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=0&mode=live&start=0) [Issues. So what are we going to talk about](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=0&mode=live&start=5.0840000000000005) [in this module? We're going to talk about](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=0&mode=live&start=8.176090909090906) [the operating system configuration queries](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=0&mode=live&start=10.459999999999999) [to actually find out how your operating](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=0&mode=live&start=12.061) [system is configured and whether you need](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=0&mode=live&start=14.131090909090911) [to make any changes. We'll talk about how](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=0&mode=live&start=16.00975) [to interpret the query results, and then](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=0&mode=live&start=17.865083333333335) [we'll also get into some best- practice](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=0&mode=live&start=19.936) [configuration settings for your operating](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=0&mode=live&start=22.56742857142857) [system. Version information. The first](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=0&mode=live&start=26.529571428571437) [query in this module is going to let us](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=0&mode=live&start=28.396666666666672) [see the SQL Server version and edition](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=0&mode=live&start=30.903777777777776) [information, including the exact build](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=0&mode=live&start=33.408222222222214) [number. It's also going to show us the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=0&mode=live&start=34.89166666666666) [operating system version and edition, and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=0&mode=live&start=37.143) [it's going to let us know whether or not](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=0&mode=live&start=39.04849999999999) [we have a hypervisor present on the host.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=0&mode=live&start=42.12618181818183) [Going a little bit deeper into this first](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=0&mode=live&start=45.252) [query, it's going to give us the exact SQL](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=0&mode=live&start=46.90742857142856) [Server version, edition, and build number;](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=0&mode=live&start=49.486000000000004) [and that's really important to know. Then](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=0&mode=live&start=52.16) [it's going to give us the operating system](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=0&mode=live&start=54.021999999999984) [version and edition information. Then it's](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=0&mode=live&start=56.805) [going to let us understand whether we can](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=0&mode=live&start=59.752692307692314) [take advantage of Enterprise Edition](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=0&mode=live&start=62.04746153846156) [features, and also whether we have to](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=0&mode=live&start=63.44381818181819) [worry about Standard Edition license](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=0&mode=live&start=65.3191818181818) [limits. It's going to help us know whether](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=0&mode=live&start=67.16736363636363) [SQL Server's been properly patched. So if](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=0&mode=live&start=70.667) [I run this and I find out that I'm way,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=0&mode=live&start=72.62899999999998) [way behind on my builds, I want to do](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=0&mode=live&start=75.39521428571429) [something about that; and then finally,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=0&mode=live&start=77.80785714285717) [knowing if a hypervisor is present or not](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=0&mode=live&start=79.76153846153846) [is useful, but it doesn't necessarily mean](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=0&mode=live&start=82.5966153846154) [that you're running inside of the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=0&mode=live&start=84.81238461538462)[hypervisor. There's other queries you can](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=0&mode=live&start=86.67376923076924) [run to determine that 100% one way or the other.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=0&mode=live&start=91.984)

[Demo: Version Information](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=1&mode=live)

[As always, I always like to run this first](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=1&mode=live&start=2.44) [query to make sure we're on the right](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=1&mode=live&start=4.304199999999999) [version of SQL Server before we start](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=1&mode=live&start=5.96976923076923) [running the rest of the queries in the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=1&mode=live&start=7.449461538461535) [script. So I have the right version of SQL](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=1&mode=live&start=9.75757142857143) [Server, I'm running SQL Server 2017, and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=1&mode=live&start=13.048357142857146) [then here's the first query we want to](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=1&mode=live&start=15.387538461538464) [demonstrate right here, and just select](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=1&mode=live&start=18.069083333333335) [@@VERSION, and it gives us the information](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=1&mode=live&start=20.34358333333334) [about SQL Server and the operating system.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=1&mode=live&start=23.03166666666667) [So when we do that, it shows us SQL Server](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=1&mode=live&start=25.806) [2017 RTM-CU7, and the KB article for that](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=1&mode=live&start=29.692000000000004) [accumulative update, here's the exact](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=1&mode=live&start=33.156) [build number. Then it tells us that we](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=1&mode=live&start=35.69099999999999) [have X64 and when this build was released,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=1&mode=live&start=39.105428571428575) [and if we scroll over to the right, it](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=1&mode=live&start=42.306) [shows us that it has Developer Edition,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=1&mode=live&start=43.95839999999998) [and we're on Windows 10 Pro for](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=1&mode=live&start=45.512166666666666)[Workstations, and the exact build of that;](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=1&mode=live&start=48.67733333333331) [and then it shows Hypervisor, which tells](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=1&mode=live&start=51.43146153846154) [us that a hypervisor is on the host, but](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=1&mode=live&start=53.637538461538476) [not necessarily that we're running inside](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=1&mode=live&start=56.499727272727284) [of the hypervisor. So if we go back and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=1&mode=live&start=58.385357142857146) [look at the query, here's what the results](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=1&mode=live&start=60.980571428571444) [look like, just so you can look at it all](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=1&mode=live&start=62.9636) [in one screen in this comment, and then](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=1&mode=live&start=65.03760000000004) [you can see I have a build list here with](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=1&mode=live&start=66.89980000000003) [links to each one of these CUs. And I also](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=1&mode=live&start=69.59722222222223) [have multiple links down below that have](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=1&mode=live&start=73.51007692307691) [KB articles from Microsoft that explain](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=1&mode=live&start=76.05592307692304) [all the build versions and links to them,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=1&mode=live&start=78.34127272727274) [and then I have a blog post that point out](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=1&mode=live&start=81.526) [some of the more important fixes in each one of the CUs.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=1&mode=live&start=83.71999999999993)

[Host Information](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=2&mode=live)

[Host information. This query shows you the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=2&mode=live&start=1.863) [host platform and distribution. So whether](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=2&mode=live&start=5.262454545454546) [it's Windows or Linux, and what](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=2&mode=live&start=8.058636363636364) [distribution of Linux. Then it shows you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=2&mode=live&start=10.61954545454546) [the host release and stock keeping unit](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=2&mode=live&start=13.553666666666667) [number, and it handles Windows and Linux](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=2&mode=live&start=16.447583333333334) [because that's the only two supported](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=2&mode=live&start=18.345499999999998) [platforms for SQL Server 2017, and this is](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=2&mode=live&start=19.83) [a new DMV that was added in SQL Server](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=2&mode=live&start=22.69613333333332) [2017 since they had to support Linux on](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=2&mode=live&start=26.099384615384615) [top of Windows. So going a little bit more](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=2&mode=live&start=29.680923076923072) [deep into this particular query shows you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=2&mode=live&start=32.88307692307691) [what operating system you're running on.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=2&mode=live&start=35.052) [So whether it's Windows or Linux, and then](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=2&mode=live&start=37.23490909090909) [it's going to tell you the version and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=2&mode=live&start=40.02438461538461) [edition of Windows, or the distribution of](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=2&mode=live&start=42.612076923076906) [Linux. So it could be Red Hat Linux, and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=2&mode=live&start=44.81284615384616) [the version number of that, for example,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=2&mode=live&start=47.630545454545455) [and then also, by running this query, it](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=2&mode=live&start=49.951363636363645) [helps you understand how old is your](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=2&mode=live&start=52.33725) [operating system, and what edition of the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=2&mode=live&start=54.285) [operating system are you running. Because](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=2&mode=live&start=56.67258333333331) [it has an effect on your license limits](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=2&mode=live&start=58.69141666666667) [and your performance, so, you want to know](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=2&mode=live&start=61.19875000000002) [this information, and also, it helps you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=2&mode=live&start=63.85858333333333)[understand whether you need to go in and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=2&mode=live&start=66.266) [make any operating system configuration](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=2&mode=live&start=68.41000000000001) [setting changes because that's going to be](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=2&mode=live&start=69.8082) [different for Windows versus Linux, for example.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=2&mode=live&start=72.0916)

[Demo: Host Information](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=3&mode=live)

[For this demonstration, I'm going to query](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=3&mode=live&start=1.946) [sys. dm\_os\_host\_info, and that's a new DMV](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=3&mode=live&start=5.225888888888889) [that was added in SQL Server 2017. So when](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=3&mode=live&start=7.767999999999999) [I run this query, it's going to pull back](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=3&mode=live&start=10.490076923076924) [information about the operating system. So](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=3&mode=live&start=12.627923076923077) [in this case I'm running on Windows, not](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=3&mode=live&start=14.280454545454544) [Linux, and the distribution is Windows 10](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=3&mode=live&start=16.773818181818182) [Pro for Workstations, which is a special](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=3&mode=live&start=19.80354545454545) [SKU they added in late 2017, and here's](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=3&mode=live&start=22.50107692307692) [the host\_release number, and there's no](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=3&mode=live&start=25.299230769230757) [service pack, and the SKU is 161, and then](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=3&mode=live&start=27.952750000000005) [if I scroll to the right, the language is](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=3&mode=live&start=31.782625) [1033, which is US English. So this tells](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=3&mode=live&start=34.5034375) [me a lot of useful information about my](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=3&mode=live&start=36.70675000000001)[operating system, and if I was running on](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=3&mode=live&start=38.55141666666669) [a distribution of Linux, I'd pull back](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=3&mode=live&start=40.5335) [that information also. So this is very](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=3&mode=live&start=42.285) [useful to have, and I've got comments in](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=3&mode=live&start=44.635923076923085) [the script that explain what the codes mean in more detail.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=3&mode=live&start=48.651)

[Windows Information](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=4&mode=live)

[Windows information. There's another DMV](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=4&mode=live&start=1.806) [you can query to find out information](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=4&mode=live&start=3.577818181818181) [about the Windows release, this is an](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=4&mode=live&start=5.9647499999999996) [older DMV that was there before SQL Server](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=4&mode=live&start=7.789999999999998) [2017. So it gives you your Windows](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=4&mode=live&start=10.543333333333331) [release, and your Windows service pack](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=4&mode=live&start=13.53641666666666) [level if any, along with the Windows SKU,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=4&mode=live&start=15.50233333333333) [and also what language the operating](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=4&mode=live&start=18.02575) [system is, so whether it's US English or](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=4&mode=live&start=20.244249999999997) [some other language, for example. So,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=4&mode=live&start=23.365375) [going a little bit deeper into this DMV,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=4&mode=live&start=25.812428571428573)[it gives you the exact Windows operating](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=4&mode=live&start=28.42385714285715) [system version, and it doesn't say in a](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=4&mode=live&start=30.782666666666668) [text format, it gives you like Windows 6.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=4&mode=live&start=33.689333333333316) [3 or Windows 10, which you have to](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=4&mode=live&start=36.55200000000001) [translate into what it really means, which](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=4&mode=live&start=39.4) [is a little bit unfortunate. Then it shows](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=4&mode=live&start=41.43641666666667) [you the Windows service pack level. So for](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=4&mode=live&start=43.586000000000006) [example, Windows 10 doesn't have service](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=4&mode=live&start=45.58088888888889) [packs, but earlier versions of Windows](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=4&mode=live&start=47.395555555555575) [might have a service pack on them. Then it](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=4&mode=live&start=49.79008333333333) [gives you the Windows SKU information in a](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=4&mode=live&start=53.28869230769231) [numeric format that you have to translate](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=4&mode=live&start=55.56746153846154) [to what it really means, and I've got](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=4&mode=live&start=57.23369230769231) [comments in the script that explain what](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=4&mode=live&start=58.85707692307693) [the different SKUs are; and then finally,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=4&mode=live&start=61.5206) [the reason you care about all this is that](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=4&mode=live&start=63.98946153846154) [knowing what operating system you have](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=4&mode=live&start=66.47484615384616) [will tell you whether or not you have to](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=4&mode=live&start=68.01946153846153) [go in to make any changes to the operating](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=4&mode=live&start=70.26464285714286) [system, and what the capabilities of the operating system are.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=4&mode=live&start=72.20542857142854)

[Demo: Windows Information](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=5&mode=live)

[For this demonstration, we're going to](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=5&mode=live&start=2.424) [look at the older sys. dm\_os\_windows\_info](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=5&mode=live&start=3.4073999999999995) [DMV. So when I run this query, it pulls](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=5&mode=live&start=4.977833333333334) [back four columns of information, and it](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=5&mode=live&start=9.094583333333336) [shows us the windows\_release, the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=5&mode=live&start=12.2046) [windows\_service\_pack\_level, the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=5&mode=live&start=14.78475) [windows\_sku, and the os\_language\_version;](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=5&mode=live&start=16.40825) [and so, going back to the script itself,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=5&mode=live&start=18.59645454545454) [I've got a bunch of notes that explain](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=5&mode=live&start=22.267) [what all these numbers mean, and it's a](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=5&mode=live&start=24.697153846153842) [little bit harder to see this than it is](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=5&mode=live&start=26.808) [in the Windows host info query that](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=5&mode=live&start=28.583999999999996) [actually tells you in text what the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=5&mode=live&start=31.05133333333333) [operating system is, and this only works](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=5&mode=live&start=34.33316666666667) [for Windows, not for Linux, by the way. So](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=5&mode=live&start=36.269428571428556) [this was an older DMV that was present](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=5&mode=live&start=38.578384615384614) [before SQL Server 2017 that's still in the product for SQL Server 2017.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=5&mode=live&start=41.397461538461535)

[Core Counts](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=6&mode=live)

[Core counts. This query reads from the SQL](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=6&mode=live&start=2.413) [Server error log to pull back information](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=6&mode=live&start=4.710846153846154) [about your socket count, how many physical](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=6&mode=live&start=6.928454545454546) [cores you have in a system, how many](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=6&mode=live&start=9.663545454545451) [logical cores you have in the system, and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=6&mode=live&start=12.613769230769233) [then how many cores SQL Server is actually](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=6&mode=live&start=15.5312) [using. And this is really important](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=6&mode=live&start=18.6288)[information because a lot of times,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=6&mode=live&start=20.68827272727272) [especially with SQL Server Standard](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=6&mode=live&start=22.695) [Edition, somebody might have installed SQL](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=6&mode=live&start=24.494999999999997) [Server on a machine that has more sockets,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=6&mode=live&start=26.777615384615384) [or more cores than SQL Server Standard](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=6&mode=live&start=30.148076923076925) [Edition is allowed to use, and the results](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=6&mode=live&start=32.61661538461538) [of this query will tell you if that's the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=6&mode=live&start=35.02584615384614) [case. So it shows you how many cores and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=6&mode=live&start=37.89055555555558) [how many NUMA nodes are actually visible](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=6&mode=live&start=40.606428571428566) [and being used by SQL Server, and it shows](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=6&mode=live&start=42.747214285714286) [how many cores SQL Server is using based](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=6&mode=live&start=45.84514285714287) [on the license constraints. So again, if](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=6&mode=live&start=48.7135) [you've got more than 4 sockets, you can't](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=6&mode=live&start=51.08678571428572) [use more than 4 with Standard Edition, and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=6&mode=live&start=53.4382142857143)[more than 24 cores also cannot be used by](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=6&mode=live&start=56.19999999999999) [SQL Server Standard Edition. So, this](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=6&mode=live&start=59.584) [helps you identify any issues with your](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=6&mode=live&start=62.05000000000001) [configuration and with your SQL Server](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=6&mode=live&start=64.89166666666667) [licensing, and so this is a very useful](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=6&mode=live&start=67.25166666666665) [query in real life, and I've found a lot of issues using this.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=6&mode=live&start=69.47725000000004)

[Demo: Core Counts](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=7&mode=live)

[This query reads from the most recent SQL](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=7&mode=live&start=2.415) [Server error log, and when we run it, what](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=7&mode=live&start=5.017181818181819) [it pulls back is information about your](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=7&mode=live&start=8.157285714285715) [core counts and licensing. So if I](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=7&mode=live&start=10.682285714285715) [double-click on this and then we can](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=7&mode=live&start=12.727615384615383) [scroll across and see the results, it](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=7&mode=live&start=14.693) [shows that I have 1 socket with 16 cores](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=7&mode=live&start=17.103) [per socket and 32 logical processors per](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=7&mode=live&start=20.43869230769231) [socket, and a total of 32 logical](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=7&mode=live&start=23.67861538461539) [processors. So that's what the system, the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=7&mode=live&start=26.398999999999997) [operating system can see, and then after](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=7&mode=live&start=28.551384615384617) [that, it says using 32 logical processors](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=7&mode=live&start=31.45207692307693) [based on SQL Server licensing; and so this](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=7&mode=live&start=34.31733333333334) [is where you might run into an issue where](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=7&mode=live&start=37.490666666666684) [again, if somebody's put SQL Server](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=7&mode=live&start=40.68015384615384) [Standard Edition on a machine that has](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=7&mode=live&start=42.734) [more than 24 cores or more than 4 sockets,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=7&mode=live&start=45.04099999999999) [it won't use all those sockets or cores](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=7&mode=live&start=48.019999999999996) [because of the license limits of Standard](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=7&mode=live&start=50.707999999999984) [Edition. You also can run into an issue](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=7&mode=live&start=53.15800000000001) [here if somebody's using grandfathered](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=7&mode=live&start=56.042) [legacy licensing from the old processor](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=7&mode=live&start=58.50150000000001) [licensing model before SQL Server 2012,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=7&mode=live&start=61.424) [and they're using that on a version of SQL](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=7&mode=live&start=64.202) [Server 2017, and they're limited to 20](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=7&mode=live&start=67.88459999999999) [logical processors. So this also points](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=7&mode=live&start=70.56046666666666) [out an issue there. So, this is very](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=7&mode=live&start=72.4859230769231) [useful. The one thing to keep in mind on](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=7&mode=live&start=74.8077692307693) [this is that if you are recycling your](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=7&mode=live&start=77.23826666666666) [error log, you won't get this information](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=7&mode=live&start=79.384) [back because it only adds it to the log](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=7&mode=live&start=81.29499999999997) [when you actually start SQL Server and not](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=7&mode=live&start=83.54933333333334) [when you recycle the log. So be careful about that.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=7&mode=live&start=85.40906666666667)

[Instant File Initialization](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=8&mode=live)

[Instant file initialization. This query](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=8&mode=live&start=2.4) [can help determine whether instant file](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=8&mode=live&start=4.654999999999999) [initialization, or IFI, is enabled or not](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=8&mode=live&start=7.287166666666666) [by reading the most recent SQL Server](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=8&mode=live&start=10.185750000000002) [error log. If you've recycled the SQL](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=8&mode=live&start=12.844666666666665) [Server error log since the last time SQL](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=8&mode=live&start=15.323833333333328) [Server service was started, this query](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=8&mode=live&start=18.269909090909092) [won't return any results. IFI eliminates](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=8&mode=live&start=20.705181818181817) [the zeroing out process on SQL Server data](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=8&mode=live&start=23.567727272727264) [files that occurs by default when IFI is](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=8&mode=live&start=27.157999999999994) [not enabled. IFI should be enabled in most](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=8&mode=live&start=30.612399999999987) [cases, even though it does open a very](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=8&mode=live&start=33.442714285714295) [small potential security vulnerability.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=8&mode=live&start=36.065) [Imagine that someone created a sensitive](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=8&mode=live&start=38.19499999999999) [document or file that has some](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=8&mode=live&start=41.21300000000001)[confidential information on the same drive](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=8&mode=live&start=43.877000000000024) [and directory as your SQL Server database](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=8&mode=live&start=46.654500000000006) [data file. Sometime later, they delete](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=8&mode=live&start=50.027333333333345) [that sensitive document and a SQL Server](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=8&mode=live&start=52.53354545454546) [database data file subsequently overwrites](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=8&mode=live&start=55.233) [that file location when it was created,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=8&mode=live&start=57.68850000000001) [grown, or restored from a backup. After](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=8&mode=live&start=60.921) [this sequence of unlikely events, someone](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=8&mode=live&start=63.77133333333334) [could use DBCC PAGE to potentially read](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=8&mode=live&start=66.88733333333334) [what was in that deleted file. Going a](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=8&mode=live&start=70.731) [little bit deeper into this diagnostic](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=8&mode=live&start=75.08800000000001) [query, it attempts to determine whether](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=8&mode=live&start=76.93600000000005) [IFI is enabled or not. Enabling IFI lets](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=8&mode=live&start=79.1445) [SQL Server skip the zeroing out process](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=8&mode=live&start=83.05049999999994) [that occurs for database data files when](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=8&mode=live&start=86.55283333333334) [you don't have IFI enabled. If you have a](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=8&mode=live&start=90.089) [database with large data files, this](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=8&mode=live&start=92.8672307692308) [zeroing out process can take a long time,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=8&mode=live&start=94.89520000000002) [anywhere from seconds to minutes,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=8&mode=live&start=98.068) [depending on the size of the file and your](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=8&mode=live&start=99.76674999999997) [sequential write performance. This can](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=8&mode=live&start=102.98281818181819) [come into play during a typical full](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=8&mode=live&start=105.07736363636367) [database backup restore, and also on a](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=8&mode=live&start=107.84336363636363) [disaster recovery situation, when you are](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=8&mode=live&start=110.38754545454545) [trying to complete your database restore](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=8&mode=live&start=112.37049999999998)[sequence as quickly as possible. Enabling](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=8&mode=live&start=114.4965) [IFI can help improving your recovery time](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=8&mode=live&start=117.53550000000001) [or RTO capability. IFI does not have any](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=8&mode=live&start=121.33785714285716) [effect on SQL Server database log files,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=8&mode=live&start=124.94958333333335) [which always have to be zeroed out during](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=8&mode=live&start=127.609) [file creation, database restore, or file growth.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=8&mode=live&start=130.83060000000006)

[Demo: Instant File Initialization](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=9&mode=live)

[In this demonstration, we're going to read](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=9&mode=live&start=2.346) [from the SQL Server error log to find out](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=9&mode=live&start=3.6456666666666666) [whether or not instant file initialization](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=9&mode=live&start=5.746666666666668) [is enabled on this instance. So, this is a](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=9&mode=live&start=7.50566666666667) [right that you grant to the SQL Server](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=9&mode=live&start=10.119499999999999) [service account, and you can do it when](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=9&mode=live&start=12.404166666666667) [you're installing SQL Server or you can do](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=9&mode=live&start=14.4615) [it later with group policy editor. So when](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=9&mode=live&start=16.394363636363636) [you run this, it comes back and says that](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=9&mode=live&start=18.32384615384615) [Database Instant File Initialization is](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=9&mode=live&start=20.735153846153832) [enabled, and then it tells you a little](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=9&mode=live&start=22.17825) [bit about the possible security risk that](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=9&mode=live&start=24.597583333333326) [is involved by doing this. And again, just](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=9&mode=live&start=27.466363636363646) [to be specific what this is, is if you had](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=9&mode=live&start=30.49257142857143) [something like say a Word document in the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=9&mode=live&start=33.45114285714288) [directory where the data file lives, and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=9&mode=live&start=36.34830769230767) [then if somebody deleted that and then you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=9&mode=live&start=38.913000000000004) [just happened to grow your data file over](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=9&mode=live&start=41.59300000000001) [the top where that Word document was, then](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=9&mode=live&start=44.41772727272727) [you could use something like DBCC PAGE](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=9&mode=live&start=47.396166666666666) [potentially to read what had been in that](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=9&mode=live&start=50.05733333333334) [Word document. So that's a lot of bad](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=9&mode=live&start=52.568857142857155) [things that shouldn't happen, but could](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=9&mode=live&start=54.55057142857146) [happen. So if you're really concerned](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=9&mode=live&start=56.49519999999999) [about that, then you wouldn't want to](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=9&mode=live&start=58.669) [enable this, but for most people that](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=9&mode=live&start=60.27684615384617) [shouldn't be a concern, and this will only](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=9&mode=live&start=61.981307692307695) [read the most recent error log with this](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=9&mode=live&start=64.59176923076924) [particular query, and if you're recycling](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=9&mode=live&start=67.19118181818182) [your error log on a frequent basis, you're](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=9&mode=live&start=69.13245454545454) [not going to get the results back by](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=9&mode=live&start=71.16723076923076) [reading this. But there's other queries](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=9&mode=live&start=73.10076923076925) [that you can get this information from if that's the case.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=9&mode=live&start=74.50107692307698)

[SQL Server Services Information](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=10&mode=live)

[SQL Server services information. This](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=10&mode=live&start=1.885) [query pulls back information about your](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=10&mode=live&start=4.216666666666667) [Windows services that are running the SQL](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=10&mode=live&start=6.736363636363635) [Server database engine, and SQL Server](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=10&mode=live&start=9.026636363636364) [agent, so it shows you the process\_id and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=10&mode=live&start=10.98223076923077) [the current status, like whether they're](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=10&mode=live&start=13.58469230769231) [running or not, for example; and the last](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=10&mode=live&start=15.620000000000003) [startup time, which is really important to](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=10&mode=live&start=18.293272727272726) [know. Also tells you whether or not you're](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=10&mode=live&start=20.54090909090909) [using a Windows failover cluster instance](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=10&mode=live&start=22.908916666666673) [or not, and also tells you information](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=10&mode=live&start=24.734272727272725) [about which service account is being used](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=10&mode=live&start=27.277181818181806) [for each service. Now, going a little bit](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=10&mode=live&start=29.716999999999995) [deeper into this, it shows you the process](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=10&mode=live&start=32.417) [ID, the startup type, whether it's manual](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=10&mode=live&start=35.223666666666674) [or automatic; and the current status](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=10&mode=live&start=37.59218181818182) [whether it's running or not for your main](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=10&mode=live&start=39.52254545454546) [SQL server services. Also, knowing the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=10&mode=live&start=42.42) [last startup time is really, really](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=10&mode=live&start=44.78627272727273) [important when you're interpreting some of](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=10&mode=live&start=47.2648181818182) [the other query results you might do](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=10&mode=live&start=49.148454545454534) [later, such as missing index queries, for](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=10&mode=live&start=50.999) [example. Whether you've been running a few](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=10&mode=live&start=54.015125000000005) [hours, or many days, or weeks makes a big](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=10&mode=live&start=56.09461538461538) [difference for interpreting other query](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=10&mode=live&start=58.91720000000001) [results; and then, knowing which service](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=10&mode=live&start=61.16520000000003) [account you're using and the clustering](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=10&mode=live&start=63.76050000000001) [status is pretty useful to know. And then](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=10&mode=live&start=66.25349999999997) [also finally, if you recycle your error](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=10&mode=live&start=69.00538461538464) [log a lot and you can't read it to find](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=10&mode=live&start=71.3498125) [out your IFI status in the previous query](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=10&mode=live&start=74.76793750000003) [in this set, then it's going to show up as](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=10&mode=live&start=77.07119999999999) [a column in this query. So you'll know one](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=10&mode=live&start=79.05186666666661) [way or the other, whether or not Instant](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=10&mode=live&start=81.42350000000002) [File Initialization is enabled for this instance.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=10&mode=live&start=84.399)

[Demo: SQL Server Services Information](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=11&mode=live)

[In this demonstration, we're going to look](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=11&mode=live&start=1.863) [at sys. dm\_server\_services to find out](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=11&mode=live&start=3.9371) [information about our service accounts. So](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=11&mode=live&start=5.969) [when I run this query, it tells me the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=11&mode=live&start=8.151428571428571) [servicename for the database engine in the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=11&mode=live&start=10.648285714285707) [first row, and then SQL Server Agent in](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=11&mode=live&start=12.547214285714286) [the second row. Then we see the process\_id](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=11&mode=live&start=14.651785714285719) [and the startup\_type\_description, which is](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=11&mode=live&start=17.721625) [Automatic for both, and they're both](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=11&mode=live&start=19.6615) [running, and if we scroll over to the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=11&mode=live&start=21.376) [right, the last\_startup\_time for the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=11&mode=live&start=23.992600000000003)[database engine, that's really important](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=11&mode=live&start=25.83460000000001) [to know, as I talked about before. Then it](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=11&mode=live&start=27.48990909090909) [shows you the service\_account for both of](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=11&mode=live&start=30.40036363636364) [the services, and it shows you the fact](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=11&mode=live&start=32.70463636363637) [that neither one of them are clustered,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=11&mode=live&start=34.969285714285704) [so, the cluster\_nodename is irrelevant,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=11&mode=live&start=36.84328571428569) [but it would tell you which node in your](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=11&mode=live&start=38.533909090909084) [cluster owned the instance if it wasn't a](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=11&mode=live&start=41.641333333333336) [failover cluster; and finally, the last](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=11&mode=live&start=44.110666666666674) [column tells us that](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=11&mode=live&start=46.65377777777777) [instant\_file\_initialization is enabled for](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=11&mode=live&start=48.57955555555554) [this instance. So, if you couldn't get it](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=11&mode=live&start=49.86338461538462) [from reading the error log because you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=11&mode=live&start=52.00307692307693) [recycle your error log on a frequent basis, you can get it from this query.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=11&mode=live&start=53.91184615384615)

[Process Memory](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=12&mode=live)

[Process memory. We can query this DMV to](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=12&mode=live&start=2.435) [figure out how much memory is actually](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=12&mode=live&start=5.05776923076923) [being used by the SQL Server process. This](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=12&mode=live&start=7.368333333333333) [is much more accurate than Task Manager,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=12&mode=live&start=10.01209090909091) [by the way. You can also find out whether](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=12&mode=live&start=12.070727272727279) [to not Lock Pages In Memory is enabled](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=12&mode=live&start=14.381428571428572) [from this query, and you can find out](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=12&mode=live&start=16.286) [whether or not you're under memory](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=12&mode=live&start=19.086000000000013) [pressure as far as the process is](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=12&mode=live&start=21.139333333333333) [concerned, although it's very rare to ever](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=12&mode=live&start=23.262666666666675) [see those two flags set to one. So going a](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=12&mode=live&start=25.926199999999998) [little bit deeper into this, it shows you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=12&mode=live&start=30.115714285714283) [the actual SQL Server memory usage, and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=12&mode=live&start=32.2642857142857) [whatever you see in Task manager is](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=12&mode=live&start=34.43771428571428) [usually not accurate. You want to look at](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=12&mode=live&start=36.83121428571425) [this if you want to find out how much](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=12&mode=live&start=38.7404375) [memory is SQL Server actually using for](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=12&mode=live&start=40.330625) [the entire process. It also is going to](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=12&mode=live&start=43.620249999999984)[tell you whether or not Lock Pages In](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=12&mode=live&start=46.25399999999999) [Memory is enabled or not, and I typically](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=12&mode=live&start=47.64919999999998) [recommend that people do enable Locked](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=12&mode=live&start=50.139499999999984) [Pages In Memory, and that's a right you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=12&mode=live&start=52.281) [have to grant to the SQL Server service](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=12&mode=live&start=53.98671428571429) [account. And then, it's going to show you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=12&mode=live&start=55.86933333333334) [whether or not your process is low on](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=12&mode=live&start=58.28266666666669) [physical memory, and it's going to show](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=12&mode=live&start=61.244857142857136) [you whether it's low on virtual memory,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=12&mode=live&start=63.996857142857124) [but in real-world conditions, I very](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=12&mode=live&start=66.84160000000003) [rarely see either one of those conditions](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=12&mode=live&start=69.22709090909092) [being true. I'll see low page life](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=12&mode=live&start=71.85590909090914) [expectancy, but I won't see either one of these flags set to one very often at all.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=12&mode=live&start=73.92771428571429)

[Demo: Process Memory](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=13&mode=live)

[This query looks at sys.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=13&mode=live&start=2.387) [dm\_os\_process\_memory to find out how much](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=13&mode=live&start=4.044272727272728) [memory SQL Server is actually using. So](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=13&mode=live&start=6.033) [when I run this query, it tells me that](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=13&mode=live&start=8.344166666666668) [I'm using 2118 MB of memory, and then,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=13&mode=live&start=11.927333333333332) [since locked\_page\_allocations in kilobytes](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=13&mode=live&start=15.792) [is 0, that means I do not have Locked](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=13&mode=live&start=17.28036363636363) [Pages In Memory enabled, and that's by](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=13&mode=live&start=20.509000000000004) [design on my workstation; and then if I](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=13&mode=live&start=22.693000000000012) [scroll over to the right,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=13&mode=live&start=25.801000000000002) [process\_physical\_memory\_low and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=13&mode=live&start=27.973) [process\_virtual-memory\_low, the two](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=13&mode=live&start=30.121000000000002) [right-hand columns. Those are both set to](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=13&mode=live&start=31.960538461538462) [0, which means that neither one of those](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=13&mode=live&start=34.639923076923054) [conditions is true. They're not low on](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=13&mode=live&start=37.47833333333333)[physical memory or virtual memory, and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=13&mode=live&start=39.76616666666666) [again in my experience, it's very, very](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=13&mode=live&start=41.841333333333324) [rare to see either one of those set to](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=13&mode=live&start=44.289) [one, and if they are set to one that's a](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=13&mode=live&start=46.776375000000016) [pretty unusual condition, and you probably](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=13&mode=live&start=49.72772727272727) [would see other signs of memory pressure](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=13&mode=live&start=51.76118181818182) [long before you saw either one of those set to one.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=13&mode=live&start=54.10861538461539)

[Loaded Modules](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=14&mode=live)

[Loaded modules. We can actually run a](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=14&mode=live&start=2.033) [query to find out all the DLLs that are](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=14&mode=live&start=4.007999999999999) [loaded into the SQL Server process space,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=14&mode=live&start=6.640538461538461) [and this is going to show you the version](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=14&mode=live&start=8.941923076923077) [and location of each one of those DLLs.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=14&mode=live&start=11.628538461538461) [It's going to tell you what company](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=14&mode=live&start=13.823) [actually created the DLL, and you want](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=14&mode=live&start=16.19090909090909) [them all to be Microsoft. You want to](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=14&mode=live&start=18.233142857142862) [beware of any third-party modules that](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=14&mode=live&start=20.07085714285716) [might be there that can cause issues for](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=14&mode=live&start=22.15307142857143) [SQL Server potentially. So going a little](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=14&mode=live&start=25.86792857142857) [bit deeper into this, this is going to](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=14&mode=live&start=28.164999999999996) [show you the description and the file path](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=14&mode=live&start=29.97299999999999) [of each loaded module which is a DLL in](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=14&mode=live&start=32.44921428571429) [the SQL Server executable process space.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=14&mode=live&start=35.686) [It's going to show you the company that](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=14&mode=live&start=38.091999999999985) [produced the DLL, the file version, and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=14&mode=live&start=41.16745454545454) [the product version of each one of the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=14&mode=live&start=43.510545454545436) [modules, and it's going to help you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=14&mode=live&start=45.93707692307694) [identify if there's any third-party](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=14&mode=live&start=47.987) [modules that are loaded into the SQL](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=14&mode=live&start=49.489727272727286) [Server process; and those are known over](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=14&mode=live&start=51.750083333333336) [time to cause performance stability](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=14&mode=live&start=54.949666666666644) [problems for SQL Server. So if you find](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=14&mode=live&start=57.071090909090906) [any there, they might be filter drivers or](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=14&mode=live&start=59.41581818181816) [antivirus kind of things for example, you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=14&mode=live&start=62.2045) [want to be suspicious of that and try to find out what might be going on there.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=14&mode=live&start=64.61773333333333)

[Demo: Loaded Modules](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=15&mode=live)

[This query looks at sys.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=15&mode=live&start=1.965) [dm\_os\_loaded\_modules about what modules or](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=15&mode=live&start=4.1545000000000005) [DLLs are loaded in the SQL Server process](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=15&mode=live&start=6.344) [space. So when you run this query, it](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=15&mode=live&start=9.839111111111112) [shows you the description of the module,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=15&mode=live&start=11.743846153846153) [the file path of the module, the company](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=15&mode=live&start=13.463333333333335) [that produced it, the file version and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=15&mode=live&start=17.154000000000003) [product version, and then some other](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=15&mode=live&start=19.841636363636358) [information about the module. And what you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=15&mode=live&start=21.797090909090894) [want to be looking for is anything that's](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=15&mode=live&start=23.658076923076923) [in this list that's not from Microsoft,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=15&mode=live&start=25.8488)[and again, the most common thing you might](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=15&mode=live&start=28.647399999999994) [see here are filter drivers that can cause](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=15&mode=live&start=31.912200000000002) [problems. So, if certain third-party](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=15&mode=live&start=35.199133333333315) [products are installed on your system,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=15&mode=live&start=36.85520000000001) [they might install a filter driver that](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=15&mode=live&start=38.723) [causes an issues for SQL Server, and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=15&mode=live&start=40.94550000000002) [there's more information in the links and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=15&mode=live&start=43.04833333333333) [the script about this issue; and also, if](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=15&mode=live&start=44.85199999999999) [you are ever on a Microsoft support call,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=15&mode=live&start=47.139999999999986) [they might want you to run this query to](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=15&mode=live&start=49.564) [find out if any of those kinds of things are installed on your system.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=15&mode=live&start=51.31059999999998)

[Module Summary](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=16&mode=live)

[So what did we cover in this module? Well](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=16&mode=live&start=2.508) [we talked about some useful operating](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=16&mode=live&start=4.7110714285714295) [system configuration queries that you can](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=16&mode=live&start=6.220818181818181) [use to find out what's going on with your](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=16&mode=live&start=7.935727272727272) [operating system from a SQL Server](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=16&mode=live&start=10.669833333333333) [perspective. Also talked about how to](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=16&mode=live&start=12.578833333333332) [interpret the query results, and how to](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=16&mode=live&start=14.261230769230766) [act on them, and we talked about some](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=16&mode=live&start=16.17115384615384) [best-practice configuration settings that](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=16&mode=live&start=19.314) [you typically want to use for most SQL](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=16&mode=live&start=20.875272727272726) [Server installations. Now, in the next](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=16&mode=live&start=23.525454545454533)[module, we're going to talk about instance level configuration queries.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=63c3d25c-15cb-4277-abaa-5571beedcfa2&clip=16&mode=live&start=28.188)

[Diagnosing SQL Server Instance-level Configuration Issues](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=0&mode=live)

[Introduction and Server Properties](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=0&mode=live)

[This is Glenn Berry with sqlskills. com,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=0&mode=live&start=0) [and this is Diagnosing SQL Server](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=0&mode=live&start=3.6131666666666673) [Instance-level Configuration Issues. So](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=0&mode=live&start=7.19275) [what are we going to talk about in this](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=0&mode=live&start=10.408727272727273) [module? We'll be covering instance-level](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=0&mode=live&start=12.386272727272726) [configuration queries, and how to](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=0&mode=live&start=14.381111111111109) [interpret the results of those queries,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=0&mode=live&start=16.6) [and the finally I'll talk about some](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=0&mode=live&start=18.6830909090909) [best-practice configuration settings for](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=0&mode=live&start=21.884333333333334) [instance level settings. Server](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=0&mode=live&start=24.815) [properties. We can call this built-in](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=0&mode=live&start=27.415200000000002) [server property function to pull back a](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=0&mode=live&start=29.828400000000006) [lot of useful information such as the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=0&mode=live&start=31.90471428571428) [machine name and server name, you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=0&mode=live&start=33.426714285714276) [clustering status, detailed build](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=0&mode=live&start=36.22625) [information. You can also get your process](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=0&mode=live&start=39.08925) [ID and what collation you're using. You](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=0&mode=live&start=41.919999999999995) [can also get your default data and log](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=0&mode=live&start=44.3696) [paths, along with information about](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=0&mode=live&start=47.04640000000001) [whether or not you're using Polybase or R](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=0&mode=live&start=48.953923076923076) [services. So drilling deeper into this](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=0&mode=live&start=52.099769230769226) [particular set of queries, it's going to](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=0&mode=live&start=54.12799999999999) [give you a lot of useful information about](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=0&mode=live&start=56.417) [your machine and your instance-level](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=0&mode=live&start=58.500333333333316) [information, and it's going to help you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=0&mode=live&start=59.9127) [just understand your basic environment](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=0&mode=live&start=62.5076) [that you're running in. It gives you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=0&mode=live&start=64.82357142857143)[discrete version, edition, and build](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=0&mode=live&start=67.94866666666667) [information, so when you do select Adapt](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=0&mode=live&start=69.65811111111111) [Version for example, you get one big, long](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=0&mode=live&start=71.76630769230769) [string that you have to parse and pull out](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=0&mode=live&start=74.06371428571428) [all the different pieces. This'll show you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=0&mode=live&start=76.19414285714285) [all the things in discrete columns that](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=0&mode=live&start=78.07376923076923) [you can use for different versions](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=0&mode=live&start=80.25023076923075)[programmatically, for example; and it's](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=0&mode=live&start=82.53) [also going to show you the default data](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=0&mode=live&start=84.77499999999999) [and log file paths that you set up when](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=0&mode=live&start=87.07713333333338) [you installed SQL Server or later on if](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=0&mode=live&start=89.53386666666665) [you ever want to change that. And then](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=0&mode=live&start=92.24479999999994) [finally, it gives you more information](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=0&mode=live&start=94.92300000000002) [about security, whether you're using](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=0&mode=live&start=96.85800000000005) [FILESTREAM or not, whether you're using Polybase and/or R services.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=0&mode=live&start=98.56079999999999)

[Demo: Server Properties](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=1&mode=live)

[So as usual, I want to just make sure](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=1&mode=live&start=2.398) [we're running on the right version of SQL](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=1&mode=live&start=3.9948571428571436) [Server before we start running the rest of](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=1&mode=live&start=5.532750000000001) [these queries for the demos. So when I run](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=1&mode=live&start=7.268083333333338) [this, it'll tell me whether or not I'm](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=1&mode=live&start=10.108428571428576) [running on SQL Server 2017, and I am, so](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=1&mode=live&start=12.719882352941177) [that's what I want to see. So the actual](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=1&mode=live&start=15.61735294117647) [query for this demo is just calling](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=1&mode=live&start=18.687090909090905) [SERVERPROPERTY multiple times passing in](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=1&mode=live&start=21.342636363636352) [different parameters, and there's quite a](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=1&mode=live&start=23.406) [few built into this, so I have to scroll](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=1&mode=live&start=25.932)[down a little bit to show you the entire](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=1&mode=live&start=28.289437500000012) [query, but this is it right here. So when](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=1&mode=live&start=30.801222222222226) [I run it, it comes back and shows me a lot](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=1&mode=live&start=33.72019999999999) [of useful information about my hardware](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=1&mode=live&start=36.71879999999996) [and my instance level configuration](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=1&mode=live&start=39.33800000000001) [settings. So my machine name is BIGBEAST,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=1&mode=live&start=41.93050000000002) [I'm running a named instance called](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=1&mode=live&start=44.37950000000001) [SQL2017, and then there's the instance](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=1&mode=live&start=46.31) [name. It's not clustered. There's the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=1&mode=live&start=49.863714285714295) [NetBIOS name. Running Developer Edition](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=1&mode=live&start=53.2817142857143) [64-bit. It's RTM, and there's not going to](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=1&mode=live&start=55.63872727272727) [be any service packs for 2017, by the way,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=1&mode=live&start=58.91) [and I'm running CU7, and then there's the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=1&mode=live&start=62.84230769230771) [exact build number, and then the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=1&mode=live&start=65.8416) [ProductMajorVersion is 14, and the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=1&mode=live&start=67.719) [ProductBuild is 3026, and it's even the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=1&mode=live&start=70.76036363636366) [Product KB article for that CU. Then I can](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=1&mode=live&start=74.98407692307693) [see the ProcessID, and the Collation I'm](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=1&mode=live&start=80.1507692307693) [using, and I also find out that I'm not](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=1&mode=live&start=83.24785714285714) [using FullText search, I'm not using](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=1&mode=live&start=86.3412857142857) [IntegratedSecurityOnly. FileStream is not](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=1&mode=live&start=90.39833333333333) [configured. I'm not using always on](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=1&mode=live&start=93.30372727272727) [availability groups. There's my](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=1&mode=live&start=97.6291818181818) [InstanceDefaultDataPath and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=1&mode=live&start=100.8306) [DefaultLogPath. There is the build number](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=1&mode=live&start=102.59020000000001) [for the CLR, and then I've got information](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=1&mode=live&start=105.48999999999998) [about Polybase and R services, and I'm not](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=1&mode=live&start=108.722) [using either one of those; and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=1&mode=live&start=111.61492307692312) [XTPSupported, that is In Memory OLTP. So,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=1&mode=live&start=113.93085714285715) [you can see all this useful information](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=1&mode=live&start=117.33058333333332) [about your instance level by running this](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=1&mode=live&start=119.79866666666662) [query, and if you go back and look at the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=1&mode=live&start=122.05714285714288) [query, I've got some information down here](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=1&mode=live&start=124.8842857142858) [below that gives you more interpretation](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=1&mode=live&start=127.51409090909092) [information and documentation about](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=1&mode=live&start=130.16533333333334) [SERVERPROPERTY, which is a built-in function.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=1&mode=live&start=132.9466666666667)

[Configuration Properties](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=2&mode=live)

[Configuration properties. This query pulls](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=2&mode=live&start=2.449) [back all the instance- level configuration](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=2&mode=live&start=4.742333333333334) [values that you get from sp\_configure. So,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=2&mode=live&start=7.613249999999999) [all the values that can be changed, you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=2&mode=live&start=11.042833333333332) [use the sp\_configure stored procedure to](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=2&mode=live&start=13.609499999999995) [actually change them, but this query lets](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=2&mode=live&start=15.358) [you pull them back a lot easier than](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=2&mode=live&start=17.192000000000004)[pulling them back individually with](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=2&mode=live&start=20.12300000000001) [sp\_configure. And, some of these](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=2&mode=live&start=22.128833333333354) [properties definitely should be changed](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=2&mode=live&start=23.911454545454546) [from their default values, and this](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=2&mode=live&start=25.638272727272728)[depends on your workload obviously, and,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=2&mode=live&start=27.971799999999995) [the demo script is going to identify some](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=2&mode=live&start=30.436) [of the key configuration values that are](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=2&mode=live&start=32.78266666666667) [often incorrect with most instances of SQL](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=2&mode=live&start=35.28172727272728) [Server. Now, going a little bit deeper](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=2&mode=live&start=38.37509090909093) [into this, this gives you all the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=2&mode=live&start=40.84961538461538) [instance-level settings that are available](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=2&mode=live&start=43.221) [from sp\_configure just by running one](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=2&mode=live&start=45.75155555555555) [query, and a lot of these settings, or](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=2&mode=live&start=48.398) [some settings I should say, might be](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=2&mode=live&start=50.886) [incorrect for your workload, and I quite](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=2&mode=live&start=53.07766666666667)[often change some of these from their](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=2&mode=live&start=55.280333333333346) [default values; although there is fewer](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=2&mode=live&start=57.358454545454535) [things you have to change with SQL Server](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=2&mode=live&start=59.16476923076923) [2017 than with older versions of SQL](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=2&mode=live&start=61.858923076923055) [Server. And finally, once you have changed](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=2&mode=live&start=64.25981818181819) [the settings, you can run this query again](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=2&mode=live&start=66.71872727272729) [to confirm what the value is and make sure that the change actually went into effect.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=2&mode=live&start=69.11507692307696)

[Demo: Configuration Properties](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=3&mode=live)

[This query looks at the system view sys.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=3&mode=live&start=2.397) [configurations to pull back all the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=3&mode=live&start=4.856333333333334) [instance-level configuration values for](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=3&mode=live&start=6.90925) [the instance. So when I run this query,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=3&mode=live&start=8.55575) [it's going to pull back about 75 roughly](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=3&mode=live&start=11.392857142857146) [rows of data, actually 77 for SQL Server](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=3&mode=live&start=14.078) [2017, and they are in alphabetical order,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=3&mode=live&start=17.52846153846153) [and shows you the name of the property,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=3&mode=live&start=20.4558) [and then the current value and the value](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=3&mode=live&start=23.539) [that's in use. And it shows you the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=3&mode=live&start=26.155727272727276) [minimum and maximum, and then it gives you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=3&mode=live&start=28.2195) [a description of what the property is](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=3&mode=live&start=29.9515) [about and whether or not it's dynamic and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=3&mode=live&start=32.43049999999999) [whether or not it's advanced. And knowing](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=3&mode=live&start=35.41757142857142) [whether it's advanced or not is important](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=3&mode=live&start=37.62883333333333) [because when you call sp\_configure to](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=3&mode=live&start=39.02825) [change it later on, knowing whether or not](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=3&mode=live&start=40.77974999999999) [it's advanced or not is important. So,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=3&mode=live&start=43.85108333333331) [there's certain ones in here that I like](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=3&mode=live&start=46.743066666666664) [to focus on and the ones that I like to](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=3&mode=live&start=49.05559999999997) [look at are backup checksum default,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=3&mode=live&start=52.607200000000006) [backup compression default. I want to know](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=3&mode=live&start=55.333) [what's going on with those. I think those](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=3&mode=live&start=57.440583333333315) [should be enabled in most cases. I want to](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=3&mode=live&start=59.822) [know is the CLR enabled. So that's row 16,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=3&mode=live&start=62.7186875) [and then I want to know the cost threshold](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=3&mode=live&start=66.15275000000001) [for parallelism, and the default for that](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=3&mode=live&start=69.33108333333332) [is five, and quite often you want to raise](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=3&mode=live&start=71.644) [that to a higher value, but that depends](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=3&mode=live&start=74.3118571428572) [on your workload, and there's queries you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=3&mode=live&start=76.589) [can run to determine that later on. Next](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=3&mode=live&start=78.444) [thing I want to know is what's going on](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=3&mode=live&start=81.02900000000002) [with max degree of parallelism, and the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=3&mode=live&start=84.251) [default for that is 0, and you might want](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=3&mode=live&start=87.01016666666665) [to change that depending on how your](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=3&mode=live&start=90.28446666666667) [hardware is set up. And then I want to](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=3&mode=live&start=92.56553333333336) [know max server memory in megabytes, and I](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=3&mode=live&start=95.07633333333334) [want to change that from a default value](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=3&mode=live&start=97.00806666666668) [to an appropriate value based on how much](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=3&mode=live&start=99.74976923076925) [memory you have in your machine, and what](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=3&mode=live&start=102.61266666666667) [other SQL Server components you have](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=3&mode=live&start=104.43399999999998) [installed besides just the database](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=3&mode=live&start=106.73533333333333) [engine. And, then I want to look at](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=3&mode=live&start=109.43255555555554)[optimize for ad hoc workloads, row 53, and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=3&mode=live&start=112.49099999999996) [that should always be enabled in my](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=3&mode=live&start=115.26638461538462) [opinion, even though it's not turned on by](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=3&mode=live&start=117.06107692307695) [default; and so those are the main ones](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=3&mode=live&start=119.02839999999999) [that I like to look at, and going back to](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=3&mode=live&start=120.85613333333329) [the script right here, I've got some](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=3&mode=live&start=123.52892307692305) [comments here about things that I think](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=3&mode=live&start=125.581) [should be turned on or off, and what the value should be for most people.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=3&mode=live&start=127.85115384615389)

[Global Trace Flags](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=4&mode=live)

[Global trace flags. SQL Server 2016 and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=4&mode=live&start=0) [newer don't have to have as many trace](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=4&mode=live&start=3.861846153846154) [flags enabled by default as you used to](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=4&mode=live&start=7.712) [have to do with legacy versions of SQL](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=4&mode=live&start=9.871999999999996) [Server, because many of the old trace](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=4&mode=live&start=12.449) [flags that we commonly would enable as a](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=4&mode=live&start=15.06875) [best-practice, have their behavior enabled](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=4&mode=live&start=18.59363636363637) [by default with SQL Server 2016 and newer.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=4&mode=live&start=20.77711111111111) [Now, one important exception here is trace](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=4&mode=live&start=23.842) [flag 3226, and what this trace flag does](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=4&mode=live&start=27.18275000000001) [is it stops the default practice of](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=4&mode=live&start=30.91576923076923) [putting a message in a SQL Server error](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=4&mode=live&start=34.05823076923078) [log every time you have a successful](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=4&mode=live&start=37.107499999999995) [database backup. Because most of the time,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=4&mode=live&start=39.490999999999985) [your backups are going to succeed, or if](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=4&mode=live&start=41.77664285714287) [you don't have that enabled, what's going](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=4&mode=live&start=44.34407142857146) [to happen is you're going to have lots and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=4&mode=live&start=45.55449999999998) [lots of messages in your error log about](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=4&mode=live&start=47.28775) [successful database backups, and it's](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=4&mode=live&start=49.53775) [going to be harder to find more important](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=4&mode=live&start=51.319) [errors. Now if you have a backup that](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=4&mode=live&start=54.319) [fails, it will go into the error log, and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=4&mode=live&start=56.47946666666665) [plus you'll still have a record in MSDB](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=4&mode=live&start=58.811615384615386) [about all your backups. So you're not](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=4&mode=live&start=61.14453846153845) [really losing any important information.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=4&mode=live&start=63.590875000000004) [Now, going deeper into this, running DBCC](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=4&mode=live&start=65.724) [TRACESTATUS is going to show you what](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=4&mode=live&start=68.75499999999997) [global trace flags are currently enabled,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=4&mode=live&start=71.64825) [and that's important to know, and SQL](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=4&mode=live&start=73.833) [Server 2017 doesn't require as many things](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=4&mode=live&start=76.79808333333338) [to be turned on as a best practice as](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=4&mode=live&start=79.66542857142858) [legacy versions did. And, some workloads](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=4&mode=live&start=83.03785714285719) [and some situations might require that you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=4&mode=live&start=85.5488181818182) [still turn on some global trace flags, but](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=4&mode=live&start=88.78472727272734) [it's just not as common as it used to be with legacy versions of SQL Server.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=4&mode=live&start=91.10300000000004)

[Demo: Global Trace Flags](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=5&mode=live)

[If we run DBCC TRACESTATUS -1, that's](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=5&mode=live&start=2.398) [going to show us all the global trace](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=5&mode=live&start=4.603999999999999) [flags that are currently enabled on this](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=5&mode=live&start=7.163333333333333) [instance. When I run this, it shows me](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=5&mode=live&start=9.636666666666667) [3226, and again, that's the trace flag](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=5&mode=live&start=12.308000000000005) [that disables the default behavior of](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=5&mode=live&start=14.626) [recording an error message in the SQL](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=5&mode=live&start=17.232181818181814) [Server error log every time you have a](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=5&mode=live&start=20.007499999999997) [successful database backup, and that makes](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=5&mode=live&start=22.421499999999984) [your error log smaller and makes it easier](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=5&mode=live&start=24.262538461538462) [to find important errors. Now if we go](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=5&mode=live&start=26.73761538461539) [back to the query here, I've got some](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=5&mode=live&start=29.508666666666667) [links and comments that explain about some](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=5&mode=live&start=32.258153846153846) [of the more common trace flags, and why](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=5&mode=live&start=34.57084615384616) [some of the ones that used to be best](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=5&mode=live&start=37.146285714285725) [practices trace flags are not needed anymore with documentation from Microsoft.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=5&mode=live&start=39.998)

[SQL Server Agent Jobs](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=6&mode=live)

[SQL Server Agent jobs. This query's going](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=6&mode=live&start=2.409) [to pull back a lot of interesting](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=6&mode=live&start=4.533230769230769) [information about your SQL Server Agent](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=6&mode=live&start=6.6705000000000005) [job through the instance, such as the job](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=6&mode=live&start=8.569499999999998) [name, the description, and the owner. It](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=6&mode=live&start=11.679454545454549) [also tells you what category the job is,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=6&mode=live&start=14.5024) [and I'm a big believer in having](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=6&mode=live&start=16.345599999999997) [categories that you create yourself, so](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=6&mode=live&start=18.074) [all your jobs are in particular](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=6&mode=live&start=20.150000000000002) [categories, and it shows you the job](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=6&mode=live&start=22.417444444444442) [schedule, and whether or not the job is](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=6&mode=live&start=26.17955555555554) [enabled. Now we can give some more](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=6&mode=live&start=28.712) [detailed information about this. It's](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=6&mode=live&start=30.707) [going to give us a lot of useful](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=6&mode=live&start=32.117833333333344) [information about all the Agent jobs, and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=6&mode=live&start=34.38990909090909) [some people have dozens or hundreds of](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=6&mode=live&start=36.46827272727272) [Agent jobs on an instance, so running this](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=6&mode=live&start=38.8106923076923) [query is a lot easier than just looking at](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=6&mode=live&start=41.714076923076895) [it in the management studio GUI. And, the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=6&mode=live&start=44.31185714285715) [Agent job should always be owned by the sa](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=6&mode=live&start=46.729666666666674) [account, not an individual login, because](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=6&mode=live&start=50.06716666666671) [that way if that account gets disabled](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=6&mode=live&start=52.40709090909092) [because if somebody leaves a company, for](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=6&mode=live&start=55.12077777777778) [example, it doesn't have any effect on the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=6&mode=live&start=57.576222222222235) [job; and it's also going to show if the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=6&mode=live&start=59.83146666666667) [job is enabled, and if you have a](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=6&mode=live&start=62.29675)[notification operator enabled for the job,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=6&mode=live&start=64.60674999999999) [so if the job fails, then the operator can](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=6&mode=live&start=66.3637857142857) [do something like send an email to a](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=6&mode=live&start=69.03614285714279) [distribution list. And then it's also](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=6&mode=live&start=72.16725000000002) [going to show whether the schedule is](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=6&mode=live&start=73.83084615384618) [enabled for that job, because if you don't](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=6&mode=live&start=75.26207692307699) [have a schedule enabled, the job's never](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=6&mode=live&start=77.47039999999997) [going to run. Finally, you can see the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=6&mode=live&start=79.71121428571428) [next run date and time for that job. So](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=6&mode=live&start=82.48778571428568) [seeing this programmatically for all your jobs is pretty useful.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=6&mode=live&start=85.82699999999997)

[Demo: SQL Server Agent Jobs](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=7&mode=live)

[This query looks at all your SQL Server](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=7&mode=live&start=2.473) [Agent jobs and gives you some useful](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=7&mode=live&start=4.207285714285715) [information about each one of them. So](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=7&mode=live&start=5.8265714285714285) [when I run this query, it's going to pull](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=7&mode=live&start=8.002285714285716) [back all this information starting with](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=7&mode=live&start=10.380857142857144) [the Job Name, then the Job Description,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=7&mode=live&start=12.080923076923076) [and I'm a big believer in having a](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=7&mode=live&start=14.33115384615384) [description for each job. You can see I've](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=7&mode=live&start=16.6) [got the ola. hallengren jobs here. Then](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=7&mode=live&start=19.089799999999997) [the Job Owner, which should always be sa](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=7&mode=live&start=21.759846153846155) [rather than individual login. Shows you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=7&mode=live&start=25.038615384615383)[when the job was created, whether it's](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=7&mode=live&start=27.419500000000003) [enabled or not, whether you have a](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=7&mode=live&start=30.01475000000001) [notify\_email\_operator\_id set up or not,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=7&mode=live&start=32.557) [and I don't for most of these, but in real](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=7&mode=live&start=34.34450000000001) [life I'd want to have this so that an](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=7&mode=live&start=37.20200000000002) [operator is set up that you can trigger](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=7&mode=live&start=39.497) [notification to if the job fails. I also](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=7&mode=live&start=42.73985714285713) [like to have category names, and you've](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=7&mode=live&start=45.53146666666666) [got to go in and create most of these](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=7&mode=live&start=46.78959999999998) [category names yourself, but it helps you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=7&mode=live&start=49.026230769230764) [organize your jobs. And then it shows me](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=7&mode=live&start=51.72876923076921)[whether or not the schedule is enabled,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=7&mode=live&start=54.349916666666665) [and the next\_run\_date and the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=7&mode=live&start=56.398) [next\_run\_time for this job. So you can see](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=7&mode=live&start=58.082444444444434) [most of these ola. hallengren jobs don't](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=7&mode=live&start=60.90685714285714) [have a schedule enabled, so they're never](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=7&mode=live&start=63.49135714285714) [going to run, and this one right here](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=7&mode=live&start=65.72515384615384) [does, and it shows a next\_run\_date and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=7&mode=live&start=67.97746153846153) [next\_run\_time. So having all this](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=7&mode=live&start=71.56500000000001) [information programmatically for all of](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=7&mode=live&start=73.6458181818182) [your Agent jobs is really useful and it's](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=7&mode=live&start=75.55809090909095) [easier to comprehend than looking at it in the management studio GUI.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=7&mode=live&start=78.49546153846156)

[SQL Server Agent Alerts](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=8&mode=live)

[SQL Server Agent alerts. Agent alerts are](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=8&mode=live&start=2.404) [different from Agent jobs, and a lot of](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=8&mode=live&start=5.742363636363637) [DBs I run into don't seem to understand](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=8&mode=live&start=8.542800000000002) [this or don't even really know what Agent](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=8&mode=live&start=10.328400000000004) [alerts are, but you can generate an alert](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=8&mode=live&start=12.788769230769226) [for certain kinds of errors or performance](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=8&mode=live&start=15.654) [conditions, and normally, these things](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=8&mode=live&start=18.877499999999998) [just get written to the SQL Server error](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=8&mode=live&start=20.795428571428573) [log, but you can have an alert fire that](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=8&mode=live&start=22.941142857142864) [can run an Agent job, or you can notify a](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=8&mode=live&start=25.703375) [SQL Server operator when one of these](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=8&mode=live&start=29.082125000000005) [alerts fires. That's really pretty handy.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=8&mode=live&start=31.073000000000008) [Now going a little bit deeper into this,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=8&mode=live&start=33.565) [SQL Server Agent alerts are a good early](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=8&mode=live&start=37.447) [warning sign for impending problems. So if](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=8&mode=live&start=40.6666923076923) [you're having problems with corruption, or](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=8&mode=live&start=43.40881818181818) [hardware or storage problems, quite often](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=8&mode=live&start=45.5982727272727) [you can have an alert fire, and then you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=8&mode=live&start=47.74092307692307) [find out about that sooner rather than](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=8&mode=live&start=50.884692307692276) [later; and things that you might not](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=8&mode=live&start=53.1443076923077) [notice in the SQL Server error log file](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=8&mode=live&start=55.373) [can fire an Agent alert and you can find](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=8&mode=live&start=58.14385714285715) [out sooner rather than later. And when one](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=8&mode=live&start=61.165875) [of these alerts fires, you can run an](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=8&mode=live&start=63.5565) [Agent job to try to correct the situation,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=8&mode=live&start=65.73649999999996) [or you can just notify a SQL Server](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=8&mode=live&start=68.30075) [operator. The SQL operator can be on an](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=8&mode=live&start=71.50541666666663) [email distribution list, and then you find](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=8&mode=live&start=73.94623076923074) [out sooner rather than later that you've](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=8&mode=live&start=76.05824999999999) [got a fairly serious problem that you need to look into.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=8&mode=live&start=78.60099999999994)

[Demo: SQL Server Agent Alerts](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=9&mode=live)

[We can query an msdb. dbo. sysalerts to](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=9&mode=live&start=2.403) [find out information about our SQL Server](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=9&mode=live&start=5.039923076923076) [Agent alerts that we have in place on this](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=9&mode=live&start=7.283) [instance. So when I run this query, it](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=9&mode=live&start=9.960499999999998) [shows me the name of each alert, and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=9&mode=live&start=12.489999999999997) [there's the full name of the alert. Then](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=9&mode=live&start=15.173) [the event\_source, so it's this instance of](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=9&mode=live&start=18.781000000000002) [SQL Server, and then the message\_id, and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=9&mode=live&start=21.97027272727273) [the severity, whether or not the alert is](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=9&mode=live&start=25.010692307692306) [enabled, whether it has a notification](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=9&mode=live&start=27.376230769230755) [tied to it. The delay\_between\_responses,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=9&mode=live&start=29.463) [which is set to 15 minutes in this case.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=9&mode=live&start=31.722999999999992) [Then how many occurrences you've had of](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=9&mode=live&start=35.151307692307704) [this alert, and the last date and time of](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=9&mode=live&start=37.569) [one of these alerts; and so, this is](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=9&mode=live&start=41.940600000000025) [really going to give you an early warning](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=9&mode=live&start=45.32592307692307) [system for these kinds of errors. Some of](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=9&mode=live&start=47.209615384615354) [these are IO related, some of these are](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=9&mode=live&start=49.38023076923078) [hardware related, some of these are](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=9&mode=live&start=51.723) [related to corruption in your database. So](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=9&mode=live&start=53.80250000000001) [these are all important things that you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=9&mode=live&start=56.178461538461534) [might not notice in your SQL Server error](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=9&mode=live&start=58.25369230769228) [log file, and if you've got this set up](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=9&mode=live&start=60.724153846153854) [correctly with an operator, and you've got](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=9&mode=live&start=63.688615384615424) [database mail enabled, then you can find](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=9&mode=live&start=65.8545)[out as soon as these things actually](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=9&mode=live&start=68.04866666666666) [happen. And if I go back to the query,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=9&mode=live&start=70.55233333333328) [I've got a link down here at the bottom to](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=9&mode=live&start=72.88552941176468) [a blog post that I wrote that talks about](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=9&mode=live&start=75.39764285714286) [this in more detail, and also you'll have](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=9&mode=live&start=78.00442857142852) [a script that you can run to create these](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=9&mode=live&start=80.64185714285712) [alerts on your server. All you've got to](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=9&mode=live&start=83.96928571428565) [do is make sure you have a SQL operator](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=9&mode=live&start=85.95460000000001) [set up that matches what's in the script.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=9&mode=live&start=88.10255555555555) [So it's really easy to use to get all these alerts in place on your instance.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=9&mode=live&start=90.515)

[Memory Dump Information](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=10&mode=live)

[Memory dump information. You can use this](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=10&mode=live&start=2.507) [query to find out if you've had any SQL](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=10&mode=live&start=4.4955384615384615) [Server memory dumps, and if SQL Server has](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=10&mode=live&start=7.225357142857142) [had a fairly serious error just short of](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=10&mode=live&start=9.959642857142859) [crashing completely, it'll generate a](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=10&mode=live&start=12.901000000000002) [memory dump, and if you have any of those,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=10&mode=live&start=14.817) [you can see the date and the path to any](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=10&mode=live&start=17.5734) [of your memory dump files from this query.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=10&mode=live&start=20.805666666666667) [Now, you don't want this query to return a](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=10&mode=live&start=23.595) [result because memory dumps are a bad](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=10&mode=live&start=26.088692307692302) [thing. If you run this query and nothing](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=10&mode=live&start=28.015307692307694) [comes back, that's the best possible](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=10&mode=live&start=30.197461538461546) [situation. Now, if you do run this query](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=10&mode=live&start=32.285769230769226) [and you get results, what's happened is](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=10&mode=live&start=35.3713076923077)[that SQL Server's had a pretty serious](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=10&mode=live&start=37.912500000000016) [error and it generated a memory dump,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=10&mode=live&start=40.41353846153846) [which is a binary file plus there'll be a](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=10&mode=live&start=42.83230769230768) [couple of associated text files that you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=10&mode=live&start=45.71828571428571) [can look at. And you can open up those](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=10&mode=live&start=47.74528571428571) [text files in Notepad, or you can open up](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=10&mode=live&start=50.20599999999998) [the actual dump file with a debugger if](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=10&mode=live&start=52.594) [you know what you're doing, but most](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=10&mode=live&start=54.654923076923076) [people are going to prefer sending that](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=10&mode=live&start=56.5685) [dump file to Microsoft to have them look](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=10&mode=live&start=58.75775000000001) [at it and find out what might've happened.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=10&mode=live&start=61.429846153846164) [And also, the best thing you can do is](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=10&mode=live&start=64.204) [you're seeing lots of memory dumps is make](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=10&mode=live&start=66.35950000000005) [sure you're on the latest service pack and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=10&mode=live&start=68.53925)[cumulative update for your version of SQL](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=10&mode=live&start=71.15858333333331) [Server, and of course, SQL Server 2107](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=10&mode=live&start=73.5223076923077) [doesn't have any service packs. So you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=10&mode=live&start=75.898) [just want to be on the latest cumulative](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=10&mode=live&start=77.59949999999998) [update, and ideally, you're not going to](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=10&mode=live&start=79.70172727272727) [find any dump files with this query. That's a good thing.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=10&mode=live&start=82.50681818181813)

[Demo: Memory Dump Information](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=11&mode=live)

[We can query sys. dm\_server\_memory\_dumps](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=11&mode=live&start=1.937) [to find out if we've had any SQL Server](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=11&mode=live&start=3.4178333333333333) [memory dumps since this instance has been](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=11&mode=live&start=6.312199999999999) [installed. So when I run this query, it](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=11&mode=live&start=9.186399999999999) [comes back empty, and that's a good thing,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=11&mode=live&start=11.114999999999995) [but if it came back with any rows, it](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=11&mode=live&start=12.902357142857142) [would show you the filename for the actual](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=11&mode=live&start=15.326571428571423) [dump file, when the dump occurred, and how](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=11&mode=live&start=17.86030769230769) [big the dump file is. And once you find](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=11&mode=live&start=20.772923076923067) [out where it's located, you can see the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=11&mode=live&start=23.555000000000007) [binary dump file and you'll also see a](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=11&mode=live&start=25.86771428571429) [couple of accompanying text files that you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=11&mode=live&start=28.07514285714287) [can open up in any text editor, try to get](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=11&mode=live&start=29.89741666666667) [an idea what's going on, and if you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=11&mode=live&start=32.102642857142854)[actually know what's going on; and if you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=11&mode=live&start=33.240357142857164) [actually know what you're doing and you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=11&mode=live&start=34.90664285714287) [can use Windows debugger, you can open up](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=11&mode=live&start=36.642142857142886) [the dump file itself and try to find out](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=11&mode=live&start=38.63542857142857) [what's in there or what might've happened,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=11&mode=live&start=40.954375) [and there's documentation about this right](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=11&mode=live&start=43.211) [there. But if you see anything in here,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=11&mode=live&start=45.389857142857124) [again what you're going to want to do is](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=11&mode=live&start=47.135266666666645) [make sure you're on the latest service](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=11&mode=live&start=49.06433333333334) [pack and cumulative update, and then if](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=11&mode=live&start=51.509666666666675) [you're still seeing lots of memory dumps,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=11&mode=live&start=53.538153846153854) [you might want to open a support case with](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=11&mode=live&start=55.01084615384619) [Microsoft so you can send the memory dumps to them to analyze.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=11&mode=live&start=57.21528571428572)

[Suspect Pages](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=12&mode=live)

[Suspect pages. You can query the suspect](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=12&mode=live&start=2.374) [pages table in the msdb system database,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=12&mode=live&start=5.266166666666669) [and this is going to be limited to 1000](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=12&mode=live&start=8.05923076923077) [rows across all your databases. So if](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=12&mode=live&start=11.331769230769227) [you've got a lot of databases, you could](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=12&mode=live&start=13.403090909090906) [potentially fill this up, but hopefully](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=12&mode=live&start=15.762923076923078) [that's not going to happen. So, what you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=12&mode=live&start=18.003692307692305) [want to do is look here and find if any](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=12&mode=live&start=20.583687499999996) [rows come back because any suspect pages](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=12&mode=live&start=22.95931249999999) [that show up from this query are an](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=12&mode=live&start=25.030000000000005) [important early warning sign of database](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=12&mode=live&start=27.746) [corruption. Now diving deeper into this,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=12&mode=live&start=31.663142857142862) [any time you see any rows come back with](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=12&mode=live&start=33.90599999999999) [this query, it's going to show the suspect](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=12&mode=live&start=36.768) [page, including what database, what file](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=12&mode=live&start=39.25866666666664) [ID, and what page ID within that file](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=12&mode=live&start=41.63208333333333) [where it was located. Also tells you when](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=12&mode=live&start=44.89083333333333) [it was encountered, so how long ago it](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=12&mode=live&start=47.86550000000001) [happened, and you can find out what the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=12&mode=live&start=50.37314285714285) [disposition of the suspect page is; and if](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=12&mode=live&start=52.60057142857141) [you find any rows coming back from here,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=12&mode=live&start=55.11) [again, this is a very important early](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=12&mode=live&start=57.73742857142857) [warning sign of database corruption](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=12&mode=live&start=60.51242857142858) [issues. So you need to do more](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=12&mode=live&start=62.49457142857144) [investigation if you come back with any rows from this query.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=12&mode=live&start=64.77885714285715)

[Demo: Suspect Pages](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=13&mode=live)

[You can query the Suspect Pages table and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=13&mode=live&start=2.435) [the MSDB system database to find out if](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=13&mode=live&start=5.030076923076924) [you've had any suspect pages cross all](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=13&mode=live&start=7.892153846153845) [your user databases. So when I run this](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=13&mode=live&start=10.785846153846151) [query, we want it to come back with now](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=13&mode=live&start=13.489999999999998) [rows, and thankfully that's the case, but](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=13&mode=live&start=16.125199999999996) [if I did have any rows, it would show me](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=13&mode=live&start=18.21750000000001) [the Database Name, the file\_id, the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=13&mode=live&start=21.87736363636363) [page\_id, the event\_type, the error\_count,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=13&mode=live&start=24.667909090909074) [and then when it actually happened; and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=13&mode=live&start=26.301000000000005) [going back to the script, I've got notes](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=13&mode=live&start=28.620833333333334) [that explain the event\_type values. So](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=13&mode=live&start=33.1635) [one, two, three, four, five, or seven, you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=13&mode=live&start=36.11110000000001) [can see what those different reasons are](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=13&mode=live&start=39.377500000000005) [for a suspect page; and again, you don't](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=13&mode=live&start=41.92200000000002) [want this to have any results coming back,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=13&mode=live&start=44.583333333333336) [and if you do have any results coming](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=13&mode=live&start=46.998) [back, you want to do more investigation.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=13&mode=live&start=49.26200000000001) [You want to run DBCC CHECKDB, and look in](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=13&mode=live&start=51.243) [your SQL Server error log, and just do](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=13&mode=live&start=54.2374285714286) [more investigation of what might be](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=13&mode=live&start=56.97776923076923) [causing these pages to come back as suspect.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=13&mode=live&start=59.13130769230769)

[Tempdb Data Files](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=14&mode=live)

[Tempdb data files. We can query the SQL](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=14&mode=live&start=2.41) [Server error log to find out the number of](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=14&mode=live&start=4.824285714285714) [tempdb data files. Now you're only going](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=14&mode=live&start=7.518615384615385) [to get results from this query if you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=14&mode=live&start=9.580384615384618) [don't recycle your error log because that](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=14&mode=live&start=11.943999999999997) [only writes this when SQL Server actually](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=14&mode=live&start=14.015999999999993) [starts up, it doesn't write it again when](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=14&mode=live&start=16.087999999999997) [you recycle the log. Now, you can](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=14&mode=live&start=18.52369230769231) [configure the number of data files when](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=14&mode=live&start=20.832615384615398) [you install SQL Server, or you can do it](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=14&mode=live&start=23.150307692307692) [later; and going deeper into this, it's](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=14&mode=live&start=26.145230769230764)[going to show you how many data files are](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=14&mode=live&start=28.177714285714288) [in the tempdb system database, and this is](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=14&mode=live&start=30.87781818181818) [configured during installation or any time](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=14&mode=live&start=34.348363636363636) [afterwards. And typically, it's a good](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=14&mode=live&start=36.99490909090908) [idea to have multiple tempdb data files](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=14&mode=live&start=39.663272727272705) [because that's going to reduce your](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=14&mode=live&start=41.983500000000014) [allocation contention issues, and you also](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=14&mode=live&start=43.859) [want to make sure you're on the latest](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=14&mode=live&start=45.48000000000001) [cumulative update of SQL Server 2017](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=14&mode=live&start=47.968999999999994) [because Microsoft's made a lot of hot](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=14&mode=live&start=50.57299999999998) [fixes to help improve tempdb performance.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=14&mode=live&start=54.21781818181819) [You also want to make sure that all your](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=14&mode=live&start=57.55) [tempdb data files are the same size and they have the same auto growth setting.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=14&mode=live&start=59.44385714285715)

[Demo: Tempdb Data Files](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=15&mode=live)

[We can query the SQL Server error log to](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=15&mode=live&start=1.954) [try to find out how many data files are in](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=15&mode=live&start=3.7978749999999994) [the tempdb database. So when I run this](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=15&mode=live&start=6.422076923076924) [extended store procedure here, it comes](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=15&mode=live&start=9.595615384615384) [back and tells me in this case that I've](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=15&mode=live&start=11.352142857142855) [got eight data files in tempdb on my](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=15&mode=live&start=13.51921428571428) [instance; and, if you recycle your error](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=15&mode=live&start=16.99992307692308) [log on a frequent basis or even ever,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=15&mode=live&start=20.05392857142857) [you're not going to get any results from](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=15&mode=live&start=22.26935714285713) [this query, and there's other ways to find](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=15&mode=live&start=24.331999999999997) [out this information if that's the case.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=15&mode=live&start=26.13999999999999) [But, you want to have multiple data files](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=15&mode=live&start=28.18825) [in most cases, and a good starting point](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=15&mode=live&start=30.724999999999998) [is four to eight data files, but it](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=15&mode=live&start=33.141) [depends on your workload, and you can run](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=15&mode=live&start=35.91953846153846) [other queries to try and figure out if you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=15&mode=live&start=39.30230769230767) [need to add more tempdb data files if](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=15&mode=live&start=41.72673333333332) [you're seeing allocation contention issues.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=15&mode=live&start=43.531)

[Module Summary](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=16&mode=live)

[So what have we covered in this module?](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=16&mode=live&start=1.937) [Well we've talked about instance-level](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=16&mode=live&start=3.8809999999999993) [configuration queries, and we got into how](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=16&mode=live&start=5.2888) [to interpret the query results for each](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=16&mode=live&start=8.339400000000003) [one of them, and I also talked about some](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=16&mode=live&start=10.594214285714285) [best-practice configuration settings. Now](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=16&mode=live&start=13.084) [in the next module, we're going to talk](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=16&mode=live&start=14.898) [about database-level configuration queries.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=edc3c5d5-d4ec-41c8-ae69-5febc6b5963c&clip=16&mode=live&start=20.712)

[Diagnosing SQL Server Database-level Configuration Issues](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=0&mode=live)

[Introduction and Database Properties](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=0&mode=live)

[This is Glenn Berry with sqlskills. com,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=0&mode=live&start=0) [and this is Diagnosing SQL Server](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=0&mode=live&start=3.6586666666666674) [Database-level Configuration Issues. So](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=0&mode=live&start=7.3775) [what are we going to talk about in this](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=0&mode=live&start=10.940818181818182) [module? We're going to go over a series of](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=0&mode=live&start=13.162181818181812) [database-level configuration queries. Then](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=0&mode=live&start=16.454090909090905) [we'll get into how to interpret all the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=0&mode=live&start=17.874357142857143) [query results from those queries. Then I'm](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=0&mode=live&start=20.101214285714285) [going to talk about some best-practice](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=0&mode=live&start=22.1896) [configuration settings at the database](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=0&mode=live&start=24.27940000000001) [level. Database properties. This query](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=0&mode=live&start=27.471249999999998)[returns a lot of very useful database](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=0&mode=live&start=30.03354545454545) [properties for all the databases on your](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=0&mode=live&start=33.062) [instance, all the user databases and all](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=0&mode=live&start=35.090727272727285) [the system databases. It shows you the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=0&mode=live&start=37.407727272727264) [recovery model for each database, the log](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=0&mode=live&start=40.10909090909088) [reuse wait description, all your](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=0&mode=live&start=43.62566666666667) [statistics properties for the database,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=0&mode=live&start=45.91445454545455) [whether or not you have delayed durability](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=0&mode=live&start=47.72309090909091) [enabled or not, and whether Query Store is](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=0&mode=live&start=50.25436363636363) [enabled or not for each one of your](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=0&mode=live&start=53.146) [databases. Going deeper into this query,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=0&mode=live&start=57.235777777777784) [the database owner should be sa, not an](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=0&mode=live&start=59.63063636363636) [individual login. That's one of the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=0&mode=live&start=62.49833333333333) [columns that comes back from this query.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=0&mode=live&start=64.32033333333332) [You also want to figure out what the log](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=0&mode=live&start=66.38550000000001) [reuse wait description is and your log](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=0&mode=live&start=68.93700000000004) [used percentage because that's going to](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=0&mode=live&start=71.09218181818184) [help you figure out if you have a runaway](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=0&mode=live&start=72.998) [transaction log, for example. You also](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=0&mode=live&start=76.70046153846158) [want to know your compatibility level](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=0&mode=live&start=78.86236363636365) [because it's super important to understand](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=0&mode=live&start=80.4114545454546) [that because of the new cardinality](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=0&mode=live&start=82.4532)[estimator that was introduced in SQL](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=0&mode=live&start=84.98759999999997) [Server 2014. You also want to understand](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=0&mode=live&start=87.31541666666668) [your static properties because that can](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=0&mode=live&start=89.983) [have a big effect on your query](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=0&mode=live&start=91.72099999999998) [performance, and then finally, knowing](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=0&mode=live&start=93.94766666666666) [your isolation level, whether you're using](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=0&mode=live&start=96.39099999999996) [snapshot isolation or read committed](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=0&mode=live&start=99.12666666666667) [snapshot isolation can have a big effect on locking and blocking issues.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=0&mode=live&start=101.24277777777777)

[Demo: Database Properties](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live)

[As in the previous modules, I just want to](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=2.35) [double-check that I have the right version](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=4.2725384615384625) [of SQL Server for this set of queries. So](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=6.144272727272726) [I'll run this preliminary query right here](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=9.291333333333332) [and see what happens. So this tells me I](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=12.331666666666663) [have the correct version of SQL Server,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=15.153583333333332) [which is SQL Server 2017, for this set of](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=16.672) [queries. So we always want to run that,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=20.780499999999986) [and then the actual query that goes for](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=22.85726666666666) [this demo is right here, and it's a fairly](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=24.709) [long query, so I'm going to just highlight](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=27.801399999999987) [the entire thing and then run it and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=30.521461538461537) [explain all the columns that are in it, or](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=33.15530769230769) [at least all the important ones. So when I](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=35.55600000000001) [run this, this pulls back information for](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=38.09169230769231) [all my databases on the instance; all the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=40.711307692307706) [user databases and all the system](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=43.53900000000001) [databases. So it shows you the Database](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=45.585000000000015) [Name, the Database Owner, which should be](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=47.94846153846153) [sa, not me, like it is on some of these.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=50.308) [Your Recovery Model, whether or not it's](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=54.520307692307675) [online or not, whether or not you're using](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=56.66707692307691) [a contained database, and then a really](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=58.43323076923074) [important one is Log Reuse Wait](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=61.2725) [Description, and your Log Size and your](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=63.891) [Log Used, and your Log Used %. So this'll](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=67.2835) [help show that you've got a runaway](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=71.25723076923076) [transaction log or not. So you can see the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=73.29153846153841) [second row, 93%, LOG\_BACKUP is the Wait](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=76.81649999999998)[Description, and then Log Used % is 93%.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=80.124) [So that means my transaction log is 93%](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=83.55107692307692) [full, and it's waiting on a transaction](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=86.94349999999999) [log backup. So that's not a good thing.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=89.86133333333329) [Then you can see the Compatibility Level](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=92.28084615384617) [for each database, and that's going to](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=94.131) [have an effect on what cardinality](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=96.18200000000004) [estimator you're using unless it's](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=98.1149090909091) [overridden by some other setting. You can](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=100.45445454545454) [also see some other things about whether](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=103.35061538461538) [or not you're using mixed\_page\_allocation,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=105.29876923076922)[what your Page Verify Option is, which](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=106.99942857142858) [should always be CHECKSUM for all your](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=110.98388888888888) [databases. Here's all your statistics](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=114.20311111111107) [properties; auto\_create\_stats,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=116.98566666666669)[auto\_update\_stats, and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=118.147) [auto\_update\_stats\_asynchronously; those](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=120.43966666666667) [should all be enabled in my opinion in](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=121.98) [most cases. Whether or not you're using](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=125.13200000000005)[forced parameterization, whether or not](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=127.88150000000002) [you're using snapshot\_isolation,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=129.843) [read\_committed\_snapshot\_isolation,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=134.26275) [auto\_close and auto\_shrink, those should](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=135.736) [never ever be turned on in my opinion. You](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=137.69830769230765) [can also see your](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=141.4305) [target\_recovery\_time\_in\_seconds. So if](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=143.8005) [it's not 0, then it's using indirect](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=145.2234)[checkpoints. You can see whether or not](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=148.1298) [change data capture is enabled, whether or](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=150.3520909090909) [not this database is a publisher for](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=152.62763636363638) [transactional replication. Is it a](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=155.3213636363637) [distribution database? This next set of](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=157.17423076923077) [columns has to do with availability](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=159.3406923076923) [groups. Then you can also see what's going](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=161.50566666666666) [on with this database, whether it's using](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=164.3883333333333) [In Memory OLTP, and then you can see](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=167.14438461538458) [delayed\_durability in this column; and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=170.401) [then you can see whether or not](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=172.39516666666665) [query\_store is enabled or not. And you can](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=175.187) [also see whether you're using temporal](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=178.25300000000004) [tables, and you can also see if you're](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=180.70566666666667) [using stretch database with](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=184.38433333333336)[is\_remote\_data\_archive\_enabled, and then](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=186.93566666666666) [finally, you can see whether or not the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=189.38316666666665) [database is encrypted with transparent](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=192.12808333333342) [database encryption and how if it's in the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=193.506) [process of being encrypted, how far along](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=196.36466666666675) [it is, and then what algorithm it's using](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=199.08314285714286) [for the encryption. So a lot of useful](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=202.52085714285712)[information in this query, many, many](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=205.63000000000002) [columns, and if we go back to the query](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=207.81400000000005) [itself, underneath it I've got a lot of](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=210.64600000000007) [useful notes about things you want to look](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=213.114) [for, and I've got some links to](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=215.67153846153857) [knowledge-based articles and blog posts](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=218.38054545454546) [that explain some of the important columns in this query.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=1&mode=live&start=221.15690909090907)

[Database Filenames and Paths](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=2&mode=live)

[Database filenames and paths. This Query](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=2&mode=live&start=2.555) [is very useful because it shows you all](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=2&mode=live&start=4.7215454545454545) [your databases along with all their files.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=2&mode=live&start=7.3736) [So your data files and your log file for](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=2&mode=live&start=9.349) [your user databases and your system](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=2&mode=live&start=13.118875) [databases. It's going to show you where](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=2&mode=live&start=15.632124999999998) [they're located in your file system, it's](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=2&mode=live&start=17.66249999999999) [going to show you how large each one of](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=2&mode=live&start=19.605076923076926) [the files is. So if we go a little bit](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=2&mode=live&start=22.584769230769247) [deeper into this query, it shows you all](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=2&mode=live&start=25.084750000000007) [the SQL Server database files and where](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=2&mode=live&start=26.806750000000015)[they're located, along with some](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=2&mode=live&start=28.662727272727267) [properties for each one of your files, and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=2&mode=live&start=30.03) [knowing this helps you understand how your](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=2&mode=live&start=32.596) [storage subsystem is being used and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=2&mode=live&start=34.940999999999995) [whether there's any issues with your](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=2&mode=live&start=37.06499999999999) [database files. You want to make sure that](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=2&mode=live&start=40.368285714285705) [none of your database files are using](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=2&mode=live&start=42.762399999999985) [percent growth. Instead you want to use a](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=2&mode=live&start=44.179199999999966) [fixed size and megabytes for each one of](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=2&mode=live&start=46.38914285714284) [your database files for the growth](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=2&mode=live&start=48.796) [increment. You also want to understand how](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=2&mode=live&start=52.33857142857145) [large each one of your database files is,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=2&mode=live&start=54.383769230769246) [and if you've got multiple data files in](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=2&mode=live&start=56.375846153846155) [tempdb like you should, for example, you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=2&mode=live&start=58.73461538461537) [want to make sure they're all the same](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=2&mode=live&start=60.643249999999995) [size, and this query will help show you that.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=2&mode=live&start=62.58791666666664)

[Demo: Database Filenames and Paths](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=3&mode=live)

[This query's going to show you all your](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=3&mode=live&start=2.399) [database files across your entire file](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=3&mode=live&start=4.663666666666668) [system, and we're just looking at sys.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=3&mode=live&start=6.6352) [master\_files. So when we run this query,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=3&mode=live&start=9.572400000000004) [it comes back and shows us the Database](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=3&mode=live&start=11.43457142857143) [Name, the file\_id, the logical name of the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=3&mode=live&start=13.358) [file, and then the physical\_name that](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=3&mode=live&start=17.449333333333335) [shows you where it is in your file system.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=3&mode=live&start=20.157181818181822) [And you can see if it's ROWS, means it's a](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=3&mode=live&start=23.137) [data file, and if it shows LOG it's a log](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=3&mode=live&start=25.231999999999985) [file, and it shows me whether or not it's](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=3&mode=live&start=27.633266666666668) [online or not, and then is\_percent\_growth,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=3&mode=live&start=30.207866666666668) [and you want all of these to be 0s; and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=3&mode=live&start=32.431692307692316) [then it shows you the actual growth in](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=3&mode=live&start=36.48461538461539) [megabytes, and the total size in](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=3&mode=live&start=39.17753846153847) [megabytes. So, one thing you want to look](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=3&mode=live&start=41.07066666666667) [for is if you have tempdb with multiple](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=3&mode=live&start=43.257333333333335) [data files. So let's go down and look at](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=3&mode=live&start=46.04253846153847) [tempdb. Then you want to scroll across and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=3&mode=live&start=50.29815384615387) [just make sure that they're all the same](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=3&mode=live&start=52.996) [size, that's really important, and it's](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=3&mode=live&start=55.534666666666666) [the same way for if you've got multiple](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=3&mode=live&start=57.416666666666686) [data files in a file group for a user](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=3&mode=live&start=59.82915384615385) [database, they should all be the same size so they're all used equally by SQL Server.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=3&mode=live&start=62.361615384615405)

[VLF Counts](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=4&mode=live)

[VLF Counts. This query shows you your VLF](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=4&mode=live&start=0) [counts for all the databases on the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=4&mode=live&start=4.681923076923077) [instance, and, keeping your VLF counts low](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=4&mode=live&start=7.441) [is important for a number of reasons that](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=4&mode=live&start=10.0345) [I'll get to in just a bit. This particular](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=4&mode=live&start=12.798700000000002) [query uses a new DMF that was introduced](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=4&mode=live&start=15.573846153846153) [in SQL Server 2017, and then it was](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=4&mode=live&start=18.165230769230767)[backported to SQL Server 2016 Service Pack](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=4&mode=live&start=21.5093076923077) [2. So going a little bit more deep into](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=4&mode=live&start=24.83053846153848) [this particular query, you want to know](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=4&mode=live&start=28.04245454545454) [what your VLF counts are for all your](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=4&mode=live&start=30.050846153846148) [databases, and you want to keep those](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=4&mode=live&start=32.01453846153845) [counts under control. Having high VLF](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=4&mode=live&start=34.63533333333334) [counts causes several negative effects for](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=4&mode=live&start=37.29927272727274) [SQL Server, and this includes longer crash](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=4&mode=live&start=40.25181818181821) [recovery and longer recovery when you're](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=4&mode=live&start=43.18249999999999) [restoring a database. So, every time you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=4&mode=live&start=45.44090909090909) [start SQL Server, for example, all your](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=4&mode=live&start=47.62427272727272) [databases have to go through crash](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=4&mode=live&start=49.96181818181819) [recovery, and if you have high VLF counts,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=4&mode=live&start=52.06454545454547) [that takes longer and that makes SQL](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=4&mode=live&start=54.483999999999995) [Server take longer to start up. The same](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=4&mode=live&start=56.553) [thing comes into play if you're restoring](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=4&mode=live&start=59.00346153846152) [a database from a full backup. If you've](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=4&mode=live&start=61.230999999999995) [got very high VLF counts, it'll go through](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=4&mode=live&start=64.013) [the restore portion of it, and then at the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=4&mode=live&start=66.78899999999996) [end it'll go through the recovery portion,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=4&mode=live&start=69.38107692307696) [which takes a lot longer than it needs to](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=4&mode=live&start=71.3474375) [if you have high VLF counts. SQL Server](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=4&mode=live&start=74.40237500000002) [takes longer to start up, and it also](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=4&mode=live&start=77.08484615384614) [makes your failover cluster instance](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=4&mode=live&start=79.66823076923075) [failovers take longer because when you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=4&mode=live&start=81.40459999999999) [have a failover cluster instance failover,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=4&mode=live&start=83.70739999999995) [you're moving your cluster resources from](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=4&mode=live&start=86.32399999999998) [one node to another node, and then](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=4&mode=live&start=88.84333333333333) [starting SQL Server up on the new node,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=4&mode=live&start=91.1895) [and again, all the databases have to go](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=4&mode=live&start=93.28178571428569) [through crash recovery, which takes longer if you've got high VLF counts.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=4&mode=live&start=95.0206428571428)

[Demo: VLF Counts](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=5&mode=live)

[This query uses a new DMF that was](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=5&mode=live&start=2.447) [introduced in SQL Server 2017, and it's](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=5&mode=live&start=4.7146923076923075) [sys. dm\_db\_log\_info and you have to pass](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=5&mode=live&start=7.055999999999999) [in the database\_id, and if we cross apply](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=5&mode=live&start=10.289999999999997) [that with sys. databases, we can get all](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=5&mode=live&start=12.900999999999996) [the information for the VLF counts for](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=5&mode=live&start=14.86099999999999) [every single database on the instance. So](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=5&mode=live&start=17.90149999999999) [when I run this query, it comes back and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=5&mode=live&start=21.003) [shows me all my databases, and what their](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=5&mode=live&start=23.75700000000001) [VLF count is, and I can scroll down and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=5&mode=live&start=25.954312500000004) [you can see all those results there. And I](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=5&mode=live&start=27.95625000000002) [typically like to keep my VLF counts under](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=5&mode=live&start=30.446769230769235) [200, but it depends on how big your log](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=5&mode=live&start=33.008) [file is, but 200's a decent rule of thumb,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=5&mode=live&start=35.9996) [and, going back to the query, I've got](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=5&mode=live&start=39.03028571428571) [some notes here that document this DMF,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=5&mode=live&start=41.79371428571427) [and also a link to a Paul Randall blog](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=5&mode=live&start=44.498571428571424) [post that explains how they changed the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=5&mode=live&start=48.25285714285713) [VLF creation algorithm in SQL Server 2014](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=5&mode=live&start=51.011636363636384) [and newer. So, the number of VLFs that get](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=5&mode=live&start=53.64715384615385) [added whenever your log file grows is](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=5&mode=live&start=56.72584615384616)[different than it used to be on older versions of SQL Server.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=5&mode=live&start=58.79714285714286)

[Last Backup by Database](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=6&mode=live)

[Last backup by database. This query shows](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=6&mode=live&start=2.422) [you the database name and recovery model](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=6&mode=live&start=4.967083333333333) [for all your databases. It also shows you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=6&mode=live&start=7.506666666666668) [your log reuse wait description, which is](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=6&mode=live&start=10.393333333333338) [really important to monitor in day- to-day](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=6&mode=live&start=12.624545454545451) [usage as a DBA because it'll help you spot](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=6&mode=live&start=14.818833333333334) [runaway transaction log issues, for](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=6&mode=live&start=18.26433333333334)[example. It's also going to show you the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=6&mode=live&start=19.96438461538462) [last backup time for each backup type. So](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=6&mode=live&start=22.45607692307694) [your full backups, your differential](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=6&mode=live&start=25.567666666666675) [backups, and your log backups. So going](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=6&mode=live&start=27.940285714285718) [deeper into this query, it's going to show](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=6&mode=live&start=31.307) [you all the SQL Server databases, what](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=6&mode=live&start=33.491000000000014) [their current recovery model is, and what](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=6&mode=live&start=35.58172727272727) [their log reuse wait description is. It's](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=6&mode=live&start=37.91209090909091) [also going to help you spot runaway](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=6&mode=live&start=40.36349999999998) [transaction logs. So if your transaction](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=6&mode=live&start=42.884299999999996) [log is say, 90% or 100% full and you look](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=6&mode=live&start=45.29809999999998) [at the log reuse wait description, that](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=6&mode=live&start=48.94046153846152) [can help you figure out, oh yeah, I've got](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=6&mode=live&start=51.242333333333335) [a problem that I need to clear up so that](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=6&mode=live&start=53.17133333333336) [my transaction log doesn't fill up and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=6&mode=live&start=55.7397857142857) [grow until you run out of disk space. It's](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=6&mode=live&start=57.83528571428568) [going to show you your last full backup,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=6&mode=live&start=60.33600000000002) [your last differential backup, and your](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=6&mode=live&start=62.6394) [last transaction log backup for each one](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=6&mode=live&start=65.0478) [of your databases; and this is going to](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=6&mode=live&start=67.70628571428573) [help you evaluate how efficient your](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=6&mode=live&start=70.61485714285719) [database backup schedule is and whether](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=6&mode=live&start=73.25840000000001) [it's going to be able to meet the RPO SLA,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=6&mode=live&start=76.133) [Recovery Point Objective, that you're trying to meet, for example.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=6&mode=live&start=79.22223076923079)

[Demo: Last Backup by Database](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=7&mode=live)

[This query looks at the last backup](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=7&mode=live&start=2.389) [information by database, and it's looking](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=7&mode=live&start=4.342) [at sys. databases, and then msdb. dbo.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=7&mode=live&start=6.547249999999999) [backupset to figure out when this](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=7&mode=live&start=9.739833333333333) [happened. So when I run this query, it's](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=7&mode=live&start=11.947272727272724) [going to show all my databases, and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=7&mode=live&start=14.6859) [they're name, the Recovery Model, the Log](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=7&mode=live&start=17.989200000000007) [Reuse Wait Description, the Last Full](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=7&mode=live&start=20.976636363636363) [Backup date and time, the Last](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=7&mode=live&start=23.429) [Differential Backup date and time, and the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=7&mode=live&start=26.33300000000001) [Last Log Backup date and time. And by](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=7&mode=live&start=29.358666666666664)[knowing this, this'll help you spot](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=7&mode=live&start=31.781333333333322) [runaway transaction logs, and also you'll](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=7&mode=live&start=33.93245454545453) [be able to understand whether or not your](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=7&mode=live&start=36.25063636363633) [backups have been running like you think](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=7&mode=live&start=38.27791666666668) [they are, and whether your backup schedule](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=7&mode=live&start=39.94200000000001) [is going to be able to help you meet your RPO SLA goals.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=7&mode=live&start=41.66400000000002)

[File Sizes and Space](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=8&mode=live)

[File sizes and space. This is a](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=8&mode=live&start=2.338) [database-specific query, so make sure](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=8&mode=live&start=5.026583333333333) [you're connected to the database you care](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=8&mode=live&start=6.947) [about and not the master system database](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=8&mode=live&start=8.836416666666668) [when you run this; and it's going to show](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=8&mode=live&start=10.684142857142856) [you all the filenames in your current](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=8&mode=live&start=12.925785714285707) [database and where they're located. It's](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=8&mode=live&start=15.781888888888892) [also going to show you how large each one](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=8&mode=live&start=18.622785714285712) [of the files is, and how much space is](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=8&mode=live&start=20.465857142857125) [available inside of the file, and a lot of](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=8&mode=live&start=22.768214285714283) [people get confused about the size on disk](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=8&mode=live&start=25.438) [for a SQL Server database file, and how](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=8&mode=live&start=28.203538461538454) [much space is actually being used inside](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=8&mode=live&start=30.932846153846153) [of the file, and this query shows you that](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=8&mode=live&start=33.268153846153844) [very clearly. It's also going to show you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=8&mode=live&start=36.934499999999986) [what file group all your data files are,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=8&mode=live&start=39.37785714285713) [and then the auto growth information for](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=8&mode=live&start=41.451) [all the files in the database. So going](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=8&mode=live&start=44.12230769230771) [into more detail for this particular](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=8&mode=live&start=47.012499999999996) [query, it's going to give you the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=8&mode=live&start=48.813999999999986) [location, and the size, and the available](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=8&mode=live&start=51.103769230769224) [space for all of the files in the current](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=8&mode=live&start=53.644230769230745)[database, and of course, a lot of](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=8&mode=live&start=56.16376923076921) [databases out there only have one data](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=8&mode=live&start=57.833) [file and one log file. But if you're](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=8&mode=live&start=59.95225000000002) [following best practices, in my opinion,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=8&mode=live&start=62.28875000000001)[you want to have multiple data files in a](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=8&mode=live&start=63.93425000000002) [second file group for your database, and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=8&mode=live&start=66.98200000000003) [regardless if you're doing that or not,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=8&mode=live&start=69.3745) [this is going to show you what's going on](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=8&mode=live&start=70.54700000000003) [with all of your files. It's also going to](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=8&mode=live&start=72.39371428571431) [let you see if all your data files are the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=8&mode=live&start=74.91885714285722) [same size in the same file group. So,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=8&mode=live&start=78.62933333333329) [that's really important because if you've](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=8&mode=live&start=81.61625000000001) [got a really large file and a bunch of](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=8&mode=live&start=83.00375000000003) [smaller files in the same file group, SQL](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=8&mode=live&start=85.34200000000001) [Server will virtually ignore the smaller](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=8&mode=live&start=87.70600000000005)[files and mainly use the large files. It's](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=8&mode=live&start=90.30172727272728) [also going to let you see how much free](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=8&mode=live&start=94.02553333333334) [space you have in all your database files,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=8&mode=live&start=95.9653333333334) [and that's important for a number of](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=8&mode=live&start=97.817) [different reasons; managing your data file](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=8&mode=live&start=99.62299999999996) [sizes and making sure that you don't have](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=8&mode=live&start=101.89725) [a runaway transaction log. If your](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=8&mode=live&start=105.04790909090909) [transaction log is nearly full and your](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=8&mode=live&start=107.01536363636362) [log reuse wait description is log backup](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=8&mode=live&start=109.43374999999999) [for example, well then you've got a](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=8&mode=live&start=112.01616666666663) [runaway transaction log, and there's lots](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=8&mode=live&start=113.6465) [of other reasons you might have a runaway](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=8&mode=live&start=114.7175) [transaction log, and this helps you spot that.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=8&mode=live&start=117.06833333333333)

[Demo: File Sizes and Space](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=9&mode=live)

[This query shows you the individual file](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=9&mode=live&start=2.375) [sizes and the space available on each one](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=9&mode=live&start=4.616750000000001) [of those files for the current database,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=9&mode=live&start=7.029846153846153) [and it's really important that you use the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=9&mode=live&start=8.924153846153843) [database that you're concerned with, don't](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=9&mode=live&start=11.2915) [just use the master database by accident.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=9&mode=live&start=13.239875) [So, make sure you're connected to the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=9&mode=live&start=15.99)[database that you want to check out here.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=9&mode=live&start=17.630333333333326) [So, when I run this query, it's going to](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=9&mode=live&start=19.505) [show me the File Names, the logical File](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=9&mode=live&start=22.58750000000001) [Names for each one of the files in the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=9&mode=live&start=25.114384615384612) [database, and then the Physical name](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=9&mode=live&start=27.557538461538446) [including the complete path to where it](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=9&mode=live&start=29.41092307692307) [lives. Then you can see the Total Size in](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=9&mode=live&start=31.625615384615365) [MB for that file, and the Available Space](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=9&mode=live&start=35.357466666666646) [in MB for that file. So there's lots of](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=9&mode=live&start=38.60857142857142) [space on all these files, which is good,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=9&mode=live&start=40.97171428571426) [and it shows you the file\_id for each one](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=9&mode=live&start=42.98653333333332) [of the files, and what Filegroup the files](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=9&mode=live&start=45.15673333333329) [are in, and of course log files don't have](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=9&mode=live&start=48.29284615384616) [file groups. And then it also shows you is](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=9&mode=live&start=52.071000000000005) [this file using is\_percent\_growth, which](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=9&mode=live&start=55.140000000000015) [is a bad thing for its auto growth](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=9&mode=live&start=56.93372727272727) [increment, and then it shows you what the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=9&mode=live&start=60.01663636363635) [growth setting is at right now and whether](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=9&mode=live&start=62.56750000000002)[or not the file group is the default file](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=9&mode=live&start=64.98907692307692) [group or not, whether it's a read only](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=9&mode=live&start=67.29376923076919) [file group, and do you have](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=9&mode=live&start=69.29018181818182) [is\_autogrow\_all\_files turned on for this](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=9&mode=live&start=70.764)[particular database. So you can see that](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=9&mode=live&start=74.16400000000003) [I've got one main data file, and then I've](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=9&mode=live&start=77.28000000000003) [got four data files in another file group,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=9&mode=live&start=80.44080000000008) [the main file group here. So that's sort](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=9&mode=live&start=83.51791666666664) [of a best-practice that I like to do when](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=9&mode=live&start=86.21800000000002) [I set up a new database. So this is a very](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=9&mode=live&start=88.47700000000006) [useful query in real life and I use it all the time.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=9&mode=live&start=94.983)

[Database-scoped Configuration](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=10&mode=live)

[Database-scoped configurations. This is a](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=10&mode=live&start=2.44) [useful new feature that was added in SQL](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=10&mode=live&start=4.503) [Server 2016, and it had some enhancements](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=10&mode=live&start=7.869285714285715) [over SQL Server 2017. It lets you control](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=10&mode=live&start=10.91028571428571) [some properties that you could only](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=10&mode=live&start=14.017090909090907) [control formerly at the instance-level](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=10&mode=live&start=16.070727272727268) [through instance wide configuration](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=10&mode=live&start=18.635499999999997) [settings or trace flags. So for example,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=10&mode=live&start=20.858) [Max Degree of Parallelism. It used to be](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=10&mode=live&start=24.0970909090909) [that you could set that for the entire](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=10&mode=live&start=26.941230769230764) [instance, or you could set it at the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=10&mode=live&start=28.92769230769229)[individual query level, but now you have](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=10&mode=live&start=30.805999999999994) [the ability to set it at the database](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=10&mode=live&start=32.436) [level, so each database could have a](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=10&mode=live&start=34.79046153846152) [different Max Degree of Parallelism](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=10&mode=live&start=37.339749999999995) [setting. You also get control over whether](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=10&mode=live&start=40.03412499999998) [or not you're using the Legacy Cardinality](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=10&mode=live&start=42.00400000000001) [Estimator, and again, before you could](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=10&mode=live&start=43.81009090909091) [control that with a compatibility level or](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=10&mode=live&start=46.060636363636355) [using a trace flag, but now you can set](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=10&mode=live&start=48.63315384615385) [the compatibility level to what you want](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=10&mode=live&start=51.84961538461541) [it to be, and use this setting to set the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=10&mode=live&start=53.78114285714285) [Cardinality Estimator to what you want it](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=10&mode=live&start=56.501) [to be independently of the compatibility](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=10&mode=live&start=58.67449999999998) [level, and you don't have to use a trace](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=10&mode=live&start=60.398428571428575) [flag for the entire instance, for example.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=10&mode=live&start=62.775714285714294) [You also have control whether or not each](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=10&mode=live&start=65.09354545454545) [database uses parameter sniffing, whether](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=10&mode=live&start=67.96809090909092) [it uses the query optimizer hotfixes, and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=10&mode=live&start=69.78581818181821) [whether it uses identify cache or not. So](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=10&mode=live&start=72.5489) [if you've got databases that have tables](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=10&mode=live&start=75.98836363636363) [with identity columns, you can control](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=10&mode=live&start=78.68590909090908) [behavior of those identity columns if you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=10&mode=live&start=80.86875) [restart SQL Server and you want to avoid](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=10&mode=live&start=83.26450000000006) [having a gap in your identity values, for](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=10&mode=live&start=86.171) [example. It used to be you had to use a](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=10&mode=live&start=89.13366666666668)[trace flag for that, and now you have the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=10&mode=live&start=90.92017647058823) [ability to control that at the database](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=10&mode=live&start=92.52691666666666) [level with this setting. So, also, when](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=10&mode=live&start=94.9623333333333) [you're doing this, you've got five](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=10&mode=live&start=97.36363636363637) [important things that you can control with](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=10&mode=live&start=99.38290909090912) [it for the current database, and before](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=10&mode=live&start=101.7975384615385) [SQL Server 2016, you could only control](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=10&mode=live&start=104.23569230769239) [these at the instance-level with](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=10&mode=live&start=106.86945454545452) [sp\_configure settings, or in some cases](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=10&mode=live&start=108.774) [with instance wide trace flags. Now you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=10&mode=live&start=112.09636363636363) [can set these and you can have separate](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=10&mode=live&start=115.361) [values if you were using availability](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=10&mode=live&start=117.34500000000004) [groups. So you can have one value on your](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=10&mode=live&start=119.02983333333334) [AG primary, and then a separate value on](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=10&mode=live&start=122.14758333333337) [your AG replica databases, which might be](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=10&mode=live&start=125.29527272727275) [useful depending on your workload and your](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=10&mode=live&start=127.7357) [infrastructure; and this just gives you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=10&mode=live&start=129.695) [more flexibility in making more granular](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=10&mode=live&start=132.36439999999993)[configuration changes at the database level instead of at the instance level.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=10&mode=live&start=135.0584)

[Demo: Database-scoped Configuration](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=11&mode=live)

[This query looks at sys.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=11&mode=live&start=1.887) [database\_scoped\_configurations to pull](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=11&mode=live&start=4.136444444444444) [back the database scoped configuration](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=11&mode=live&start=5.486111111111112) [values for the current database. So this](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=11&mode=live&start=7.713333333333335) [is going to be different for each one of](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=11&mode=live&start=10.393923076923079) [your databases, and when I run this query,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=11&mode=live&start=12.45907692307693) [it shows you the five rows that are in SQL](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=11&mode=live&start=14.509124999999997) [Server 2017, and these include Max Degree](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=11&mode=live&start=17.161) [of Parallelism,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=11&mode=live&start=20.54433333333334) [LEGACY\_CARDINALITY\_ESTIMATION,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=11&mode=live&start=21.511) [PARAMETER\_SNIFFING,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=11&mode=live&start=23.256999999999998) [QUERY\_OPTIMIZER\_HOTFIXES, and then the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=11&mode=live&start=25.003)[IDENTITY\_CACHE; and you can see that you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=11&mode=live&start=26.998111111111115) [can set one value for the primary and then](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=11&mode=live&start=30.134533333333334) [if you had an availability group secondary](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=11&mode=live&start=33.025933333333334) [replica, you could set a separate value](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=11&mode=live&start=35.541500000000006) [for that. And just need to be aware that](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=11&mode=live&start=38.41266666666669) [if you've got multiple replicas, they all](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=11&mode=live&start=40.9725) [use the same value that you have set for](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=11&mode=live&start=42.88238461538462)[the secondary, if you decide to go that](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=11&mode=live&start=45.88561538461541) [way, and this is again, just handy if you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=11&mode=live&start=48.151799999999994) [want to have more flexibility in how you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=11&mode=live&start=50.55) [set these configuration settings. And](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=11&mode=live&start=53.249999999999986) [there's one other command that's really](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=11&mode=live&start=54.85518181818182) [useful that came along with this, you can](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=11&mode=live&start=56.386272727272726) [run ALTER DATABASE SCOPED CONFIGURATION](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=11&mode=live&start=59.21900000000001)[CLEAR PROCEDURE\_CACHE, and that lets you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=11&mode=live&start=61.48400000000002) [clear the entire plan cache for just the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=11&mode=live&start=63.965181818181804) [current database, and there was a way of](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=11&mode=live&start=66.95623076923076) [doing this before, but it was a little bit](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=11&mode=live&start=69.18515384615378) [kludgy, and this also works with Azure SQL](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=11&mode=live&start=72.05580000000002) [Database. So if you want to clear a cache](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=11&mode=live&start=74.76886666666671) [for one of your databases in Azure SQL](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=11&mode=live&start=77.18249999999995)[Database, you have to use this command.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=11&mode=live&start=79.257) [The old way of doing it at the database level is not supported.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=11&mode=live&start=81.29399999999998)

[Table Properties](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=12&mode=live)

[Table properties. This query shows you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=12&mode=live&start=2.379) [some very useful properties for each table](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=12&mode=live&start=4.695) [and each index in your current database.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=12&mode=live&start=7.724) [One of the things you're going to get from](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=12&mode=live&start=11.189) [this is whether or not each one of the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=12&mode=live&start=12.805400000000006) [tables is involved in transactional](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=12&mode=live&start=15.289000000000001) [replication. You're also going to get some](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=12&mode=live&start=17.63233333333334)[information that'll help you identify](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=12&mode=live&start=19.61627272727273) [possible row store data compression](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=12&mode=live&start=20.879) [candidates. Going deeper into this query,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=12&mode=live&start=24.642333333333333) [we're going to get some useful information](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=12&mode=live&start=27.08136363636363) [for every table and index in the current](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=12&mode=live&start=29.4232) [database, including things like whether or](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=12&mode=live&start=31.96880000000001) [not it might be a good row-store data](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=12&mode=live&start=33.79161538461538) [compression candidate, whether or not it's](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=12&mode=live&start=36.199) [involved in transactional replication or](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=12&mode=live&start=38.45233333333334) [change data capture, whether or not it's a](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=12&mode=live&start=40.407909090909094) [memory- optimized table In Memory OLTP or](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=12&mode=live&start=43.723545454545466) [a temporal table. You'll also get](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=12&mode=live&start=47.11066666666667) [information about whether it's a stretch](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=12&mode=live&start=49.47050000000001) [table or not that has data up in Azure for](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=12&mode=live&start=51.21750000000002) [some of the older data in the particular](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=12&mode=live&start=54.62237500000002) [table. So it's a very useful query to see what's going on with all of your tables.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=12&mode=live&start=57.51537500000005)

[Demo: Table Properties](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=13&mode=live)

[This query pulls back some key table](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=13&mode=live&start=2.441) [properties using sys. partitions and sys.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=13&mode=live&start=5.477500000000001) [tables. So when I run this query, it's](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=13&mode=live&start=8.080214285714288) [going to show me all the tables and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=13&mode=live&start=10.177666666666672) [indexes in the current database. So you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=13&mode=live&start=12.079) [can see the name of the table, and then](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=13&mode=live&start=14.15153846153846) [the number of rows in a table, and the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=13&mode=live&start=17.10123076923077) [index\_id, and whether or not the index is](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=13&mode=live&start=20.62092307692308) [using row store data compression for](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=13&mode=live&start=22.738307692307696) [either ROW compression or PAGE](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=13&mode=live&start=24.218) [compression. And if we scroll over to the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=13&mode=live&start=27.033833333333337) [right, it shows us when the table was](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=13&mode=live&start=29.473933333333346) [created, whether or not it has](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=13&mode=live&start=31.619) [lock\_on\_bulk\_load, whether it's replicated](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=13&mode=live&start=34.31385714285716) [so it's part of transactional replication,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=13&mode=live&start=36.00399999999999) [whether there's a replication\_filter on](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=13&mode=live&start=38.486) [that table, whether the table's tracked by](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=13&mode=live&start=41.077428571428584) [change data capture. What the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=13&mode=live&start=44.99650000000001) [lock\_escalation\_description is, whether](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=13&mode=live&start=47.666) [it's a filetable or not, whether it's a](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=13&mode=live&start=49.07599999999999) [memory\_optimized table In Memory OLTP,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=13&mode=live&start=53.09777777777778) [what the durability\_description for the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=13&mode=live&start=55.775) [memory optimized table is, whether it's a](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=13&mode=live&start=58.30555555555555) [temporal table or not,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=13&mode=live&start=62.34) [remote\_data\_archive\_enabled refers to](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=13&mode=live&start=65.02000000000001) [stretch tables, and then whether it's an](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=13&mode=live&start=66.26953846153845) [external table or not. So you get a lot of](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=13&mode=live&start=68.29792307692301) [useful properties about all your tables by](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=13&mode=live&start=71.44514285714286) [running this query, and going back to the notes, I've got documentation about this.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=13&mode=live&start=73.76464285714286)

[Query Store Options](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=14&mode=live)

[Query Store options. This query will pull](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=14&mode=live&start=2.408) [back the Query Store state for the current](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=14&mode=live&start=5.234250000000001) [database and all the options you have set](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=14&mode=live&start=8.06) [for query store for the current database.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=14&mode=live&start=10.212000000000002) [Includes things like how much storage can](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=14&mode=live&start=12.93) [be used for the query stored data and how](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=14&mode=live&start=15.798615384615385) [the storage is configured for the Query](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=14&mode=live&start=18.072153846153853) [Store data. Also shows you the capture](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=14&mode=live&start=20.068333333333328) [mode and the cleanup mode for Query Store,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=14&mode=live&start=22.235416666666655) [and Query Store is a very useful feature](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=14&mode=live&start=25.21000000000001) [that was added in SQL Server 2016, and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=14&mode=live&start=28.221642857142857) [this goes into a little bit more detail.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=14&mode=live&start=30.994785714285715) [So it's going to show you all the Query](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=14&mode=live&start=33.35038461538461) [Store options for the current database,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=14&mode=live&start=35.217538461538446)[and you have to go in and enable Query](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=14&mode=live&start=36.720384615384624) [Store for each one of your databases. It's](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=14&mode=live&start=39.076125) [not enabled by default, and it's very](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=14&mode=live&start=41.54309090909091) [useful for capturing information about](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=14&mode=live&start=44.938727272727256) [your query execution and what plans are](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=14&mode=live&start=47.11472727272727) [being used, and you can use it to freeze a](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=14&mode=live&start=49.63727272727273) [particular plan to get around parameter](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=14&mode=live&start=52.95171428571427)[sniffing problems and plan stability](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=14&mode=live&start=54.897) [problems that are very hard to fix with](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=14&mode=live&start=56.828363636363626) [older versions of SQL Server. And](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=14&mode=live&start=59.956) [sometimes you might want to go in and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=14&mode=live&start=62.38600000000001) [change the default Query Store options](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=14&mode=live&start=65.13399999999999) [when you just enable it from the SQL](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=14&mode=live&start=66.82599999999996) [Server GUI at the database level. So this](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=14&mode=live&start=69.75563636363636) [shows you what all the current options](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=14&mode=live&start=72.84492307692307) [are; and Erin Stellato has a really good](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=14&mode=live&start=74.9061538461538) [blog post that goes into a lot more detail](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=14&mode=live&start=77.15285714285716) [about what these options mean and why you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=14&mode=live&start=79.55778571428576)[might want to change them depending on your workload.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=14&mode=live&start=82.19391666666662)

[Demo: Query Store Options](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=15&mode=live)

[This query uses sys.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=15&mode=live&start=2.438) [database\_query\_store\_options to pull back](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=15&mode=live&start=4.029111111111111) [the Query Store options for the current](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=15&mode=live&start=5.620222222222222) [database. So when I run this query with a](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=15&mode=live&start=8.231142857142858)[database that has Query Store enabled,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=15&mode=live&start=11.216571428571433) [here's the default values. So it shows you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=15&mode=live&start=13.179) [the actual\_state\_description, the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=15&mode=live&start=15.65188888888889) [desired\_state\_description, the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=15&mode=live&start=18.308333333333334)[interval\_length\_minutes, the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=15&mode=live&start=20.97) [current\_storage\_size\_mb the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=15&mode=live&start=23.945999999999998) [max\_storage\_size\_mb, the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=15&mode=live&start=26.622500000000002) [query\_capture\_mode\_description, and then](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=15&mode=live&start=28.999499999999998) [whether it's using size\_based\_cleanup\_mode](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=15&mode=live&start=31.121999999999996) [or not, and what mode it's using for that.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=15&mode=live&start=32.989999999999995) [So that's what it looks like when you've](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=15&mode=live&start=35.79049999999999) [got Query Store enabled, and if I pick a](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=15&mode=live&start=37.961749999999995) [different database that doesn't have Query](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=15&mode=live&start=40.70449999999998) [Store enabled and run the query again, you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=15&mode=live&start=42.84527272727272) [can see that it's set to OFF. So this](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=15&mode=live&start=45.79385714285714) [means Query Store is disabled for this](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=15&mode=live&start=48.213571428571434) [particular database; and if we go back to](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=15&mode=live&start=50.20953846153846) [the query, I've got some documentation](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=15&mode=live&start=52.66430769230767) [about how Query Store works, and this a](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=15&mode=live&start=54.68833333333334) [very, very useful feature that was added](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=15&mode=live&start=57.509) [in SQL Server 2016 that, in my experience,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=15&mode=live&start=60.08325000000001) [a lot of people are not using yet. And](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=15&mode=live&start=62.87599999999999) [this is very valuable, so give it a look](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=15&mode=live&start=65.7108125) [and learn how to use it because it'll](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=15&mode=live&start=68.32812500000001) [really help you in your day-to-day usage as a DBA.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=15&mode=live&start=72.073)

[Automatic Tuning Options](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=16&mode=live)

[Automatic tuning options. This is a new](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=16&mode=live&start=2.458) [feature that was added in SQL Server 2017,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=16&mode=live&start=4.665692307692306) [and this query pulls back your tuning](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=16&mode=live&start=7.48) [options, giving you the name of the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=16&mode=live&start=10.707000000000003) [option, and there's only one in SQL Server](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=16&mode=live&start=12.677857142857139) [2017, and the desired and actual state of](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=16&mode=live&start=14.691) [the option, and then why the desired and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=16&mode=live&start=18.684714285714282) [actual state are actually different. So](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=16&mode=live&start=22.274571428571427) [maybe you asked for automatic tuning to be](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=16&mode=live&start=24.08681818181818) [turned on, but there's some problem where](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=16&mode=live&start=26.693363636363635) [it can't be turned on, and this would](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=16&mode=live&start=28.636153846153853) [explain why that had happened. So going in](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=16&mode=live&start=30.702) [a little bit more detail about this](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=16&mode=live&start=33.146307692307694) [particular query, this is a very useful](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=16&mode=live&start=35.34916666666667) [new feature that's in Enterprise Edition](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=16&mode=live&start=37.71225000000001) [only for SQL Server 2017, and it relies on](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=16&mode=live&start=40.161307692307695) [Query Store being enabled for the current](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=16&mode=live&start=44.470230769230774) [database. So if you don't have Query Store](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=16&mode=live&start=46.86214285714284)[turned on, you can't use automatic tuning,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=16&mode=live&start=49.009615384615394) [and what this particular feature does for](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=16&mode=live&start=51.141083333333334) [2017 is it helps automatically spot](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=16&mode=live&start=55.08966666666669) [performance regressions from query plan](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=16&mode=live&start=58.60857142857143) [instability, and it's based on CPU time.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=16&mode=live&start=61.765) [So if you've got a query that suddenly](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=16&mode=live&start=63.93123076923079) [starts using a lot more CPU than it was](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=16&mode=live&start=66.51350000000001) [recently, this will spot that and revert](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=16&mode=live&start=69.77825000000006) [back to the last known good plan](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=16&mode=live&start=72.43669230769227) [automatically, and that's something you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=16&mode=live&start=75.115) [can do manually in SQL Server 2016, but](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=16&mode=live&start=76.88681818181821) [2017 lets you do this automatically if you](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=16&mode=live&start=79.97366666666667) [enable automatic tuning for that](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=16&mode=live&start=83.81633333333335) [particular database. And, it just](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=16&mode=live&start=86.3244) [basically automates the plan forcing that](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=16&mode=live&start=88.90339999999999) [you can do with Query Store in 2016 and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=16&mode=live&start=91.33842857142855) [newer, and this only works in 2017, this](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=16&mode=live&start=94.49614285714279) [particular new feature; and I think it's](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=16&mode=live&start=96.97661538461539) [going to be very useful for a lot of people's workloads.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=16&mode=live&start=99.802)

[Demo: Automatic Tuning Options](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=17&mode=live)

[This query will show you your current](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=17&mode=live&start=1.91) [database automatic tuning options, and in](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=17&mode=live&start=4.014200000000001) [SQL Server 2017, you only have one option.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=17&mode=live&start=6.05109090909091) [So when I run this particular query, it's](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=17&mode=live&start=9.078) [database-specific, so we want to pick a](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=17&mode=live&start=12.556222222222228) [database that we have Query Store enabled](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=17&mode=live&start=14.503000000000004) [on. So if I pick that database, and then](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=17&mode=live&start=16.267000000000007)[run this query, this shows me that right](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=17&mode=live&start=19.11214285714285) [now automatic tuning is turned on for](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=17&mode=live&start=22.220200000000002) [FORCE\_LAST\_GOOD\_PLAN, which is the only](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=17&mode=live&start=26.291400000000014) [option you're going to get in SQL Server](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=17&mode=live&start=28.03576923076923) [2017. If you're using Azure SQL Database,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=17&mode=live&start=30.361307692307687) [you've got additional options having to do](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=17&mode=live&start=32.68299999999999) [with index tuning, but for on-premises SQL](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=17&mode=live&start=35.440250000000006) [Server 2017, this is your only option, and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=17&mode=live&start=38.71450000000002) [this shows that the desired\_state is on,](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=17&mode=live&start=41.370615384615384) [and the actual\_state is also turned on;](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=17&mode=live&start=43.378) [and then underneath this, I've got an](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=17&mode=live&start=46.42236363636361) [example of how you would turn it on or](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=17&mode=live&start=48.759461538461544) [off. So it's already turned on, so I can](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=17&mode=live&start=50.55184615384618) [come down here and turn it off by running](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=17&mode=live&start=53.39799999999999) [this command, and then I can go back and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=17&mode=live&start=56.36376923076923) [run the original query and see that now](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=17&mode=live&start=59.232692307692275) [it's set to turn off. And again, what this](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=17&mode=live&start=62.3015) [does is it spots query plan regressions](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=17&mode=live&start=65.89738461538464) [based on CPU usage, and then it forces the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=17&mode=live&start=68.49330769230775) [last known good plan automatically, and](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=17&mode=live&start=72.67433333333331) [you can do this in SQL Server 2016](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=17&mode=live&start=75.56323076923077) [manually, but 2017 automates the process for you.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=17&mode=live&start=79.02107692307693)

[Module and Course Summaries](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=18&mode=live)

[So what have we covered in this module?](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=18&mode=live&start=2.371) [Well we talked about database-level](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=18&mode=live&start=4.506333333333332) [configuration queries, and how to go about](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=18&mode=live&start=6.063444444444444) [properly interpreting the query results;](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=18&mode=live&start=9.489555555555556) [and then I also talked about some](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=18&mode=live&start=11.24009090909091) [best-practice configuration settings that](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=18&mode=live&start=13.447) [are appropriate for most people's SQL](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=18&mode=live&start=15.129000000000001) [Server workloads. So what now? This is the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=18&mode=live&start=18.551000000000002) [last module in this course, what should](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=18&mode=live&start=22.157) [you do next? Well, this summary of the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=18&mode=live&start=24.334) [course shows that many SQL Server](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=18&mode=live&start=27.180333333333326) [instances have basic configuration issues.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=18&mode=live&start=29.47633333333332) [When I run health checks and just look at](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=18&mode=live&start=31.204090909090915) [people's servers out in the field, almost](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=18&mode=live&start=34.06646153846153) [every server I ever look at has a number](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=18&mode=live&start=35.84607692307689) [of basic configuration issues that cause](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=18&mode=live&start=39.341750000000005) [problems. So, DMV queries such as the ones](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=18&mode=live&start=42.31625000000001) [you've seen here, can detect most of these](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=18&mode=live&start=44.88949999999998) [configuration issues. Proper](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=18&mode=live&start=47.468333333333334) [configuration's going to give you much](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=18&mode=live&start=48.97233333333334) [better performance and reliability in the](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=18&mode=live&start=51.91090909090909) [long-haul, and you want to have a set of](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=18&mode=live&start=54.50236363636361) [best-practice configuration settings that](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=18&mode=live&start=57.917083333333345) [you can use as a baseline. You should have](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=18&mode=live&start=59.26675000000002) [a checklist of all the settings you want](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=18&mode=live&start=61.777153846153844) [to change when you stand up a new SQL](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=18&mode=live&start=63.891333333333336) [Server instance, and if you're going in](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=18&mode=live&start=67.1883333333333) [and looking at a strange instance that](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=18&mode=live&start=68.98253846153845) [you've never set up before, you can run](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=18&mode=live&start=70.46869230769228)[these queries to find out what's going on](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=18&mode=live&start=72.76700000000001) [with all the configuration settings that are going to affect SQL Server.](https://app.pluralsight.com/player?course=sqlserver-diagnosing-configuration-issues-dmv&author=glenn-berry&name=ff43f95c-88bd-4bfd-9e9d-7aabe71bc668&clip=18&mode=live&start=76.555)