

SQLintersection

Session: Monday, 2:00PM-3:00PM

Professor DMV

Glenn Berry

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Glenn Berry



- **Consultant/Trainer/Speaker/Author**
- **Principal Consultant, [SQLskills.com](http://www.SQLskills.com)**
 - Blog: <http://www.SQLskills.com/blogs/Glenn>
 - Twitter: @GlennAlanBerry
 - Regular presenter at worldwide conferences on hardware, scalability, and DMV queries
 - Author of SQL Server Hardware
 - Chapter author of Professional SQL Server 2012 Internals and Troubleshooting
 - Chapter author of MVP Deep Dives Volumes 1 and 2
- **Instructor-led training: Immersion Events**
- **Online training: pluralsight  <http://pluralsight.com/>**
- **Consulting: health checks, hardware, performance, upgrades**



- **Team of world-renowned SQL Server experts:**
 - Paul S. Randal (@PaulRandal)
 - Glenn Berry (@GlennAlanBerry)
 - Jonathan Kehayias (@SQLPoolBoy)
 - Kimberly L. Tripp (@KimberlyLTripp)
 - Erin Stellato (@ErinStellato)
 - Tim Radney (@TRadney)
- **Instructor-led training: Immersion Events and onsite**
- **Online training: pluralsight  <https://www.pluralsight.com/>**
- **Consulting: health checks, hardware, performance, upgrades**
- **Remote DBA: system monitoring and troubleshooting**
- **Conferences: PASS Summit, SQLIntersection**

I Know How to Brew Beer...



Some Examples...



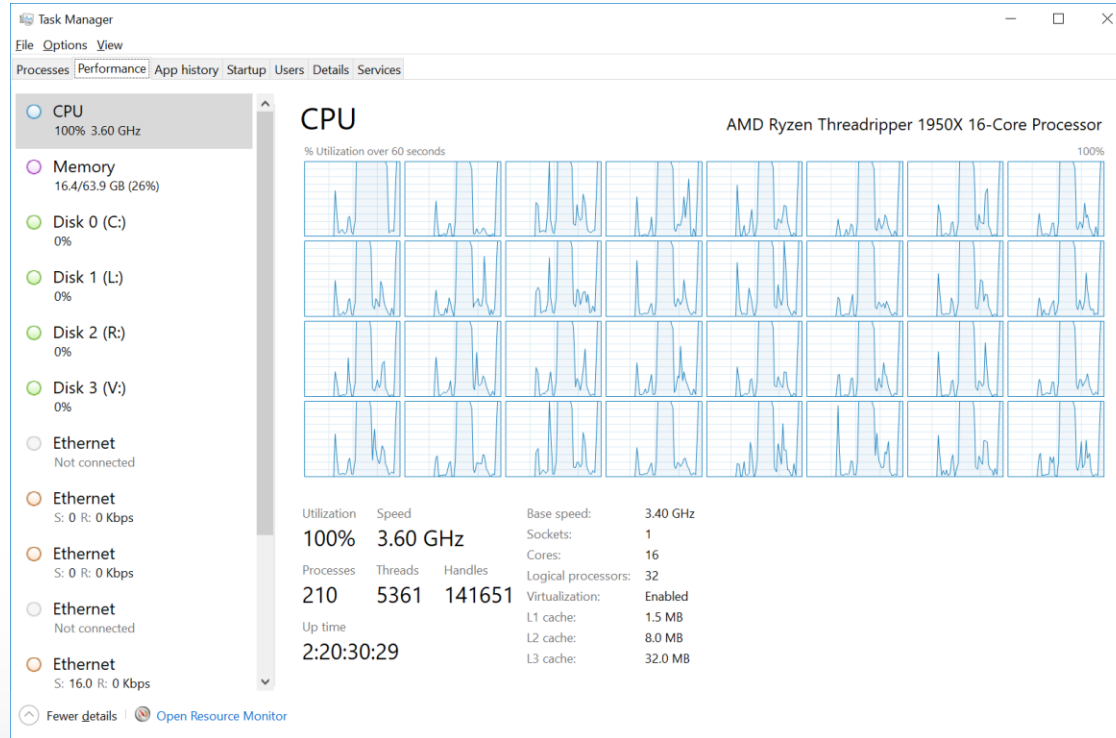
Agenda

- What Are DMV queries?
- Why would you want to use DMV queries?
- Where can you get these queries?
- Demonstrate DMV queries in action

Introduction

- **Database performance issues are immediately noticeable**
 - Can quickly affect multiple applications or your entire organization
 - You can't just reboot the database server and hope that fixes the problem
- **DBA = “Default Blame Acceptor”**
 - “What’s wrong with the database?”
- **The database/database server is guilty until proven innocent!**
 - You need tools and knowledge to help quickly determine the actual problem
 - Maybe there is nothing wrong with the database or database server...

This is your nightmare...



DMV Queries to the Rescue!

- **New feature in SQL Server 2005**
 - Improvements and additions in each new version of SQL Server
- **DMV/DMF queries expose a wealth of useful information**
 - Hardware, missing indexes, top waits, most expensive queries, etc.
- **Most DMV/DMO queries are very lightweight and easy to use**
 - Most require VIEW SERVER STATE permission
- **Information not persisted between restarts**
 - You can write useful metrics to a user database if desired for history and trending information
 - You can use my ServerMonitor database as a starting point
 - <http://bit.ly/1dpMmAq>

DMV Diagnostic Query History

- **First public version available in April 2009**
- **Separate versions for each major SQL Server version**
 - Including Azure SQL Database
- **Make sure to use the appropriate version of the queries**
 - It should match your version of SQL Server
- **Monthly updates and improvements for each version**
 - <http://bit.ly/Q5GAJU>

Demo

SQL Server 2017 Diagnostic Information Queries

Summary

- **DMV/DMF queries can help you detect many configuration and performance issues**
 - They can help you get to the root issue or cause more quickly
- **They are easy to use compared to other diagnostic methods**
 - No special configuration is required
 - Just VIEW SERVER STATE permission
- **DMV/DMF information is not persisted between restarts**
 - Unless you capture and write to a user database

References

- **SQL Server 2014 DMV Diagnostic Queries – Part 1**
 - <http://bit.ly/2plxCer>
- **SQL Server 2014 DMV Diagnostic Queries – Part 2**
 - <http://bit.ly/2luJpzi>
- **SQL Server 2014 DMV Diagnostic Queries – Part 3**
 - <http://bit.ly/2FILCPb>

Additional References

- **Two Pluralsight courses on Scaling SQL Server 2012/2014**
 - Scaling SQL Server 2012 – Part 1 (<http://bit.ly/2FA9ols>)
 - SQL Server: Scaling SQL Server 2012 and 2014: Part 2 (<http://bit.ly/2FDAtWY>)
- **Microsoft Visual Studio Dev Essentials**
 - Free access to SQL Server 2017 Developer Edition
 - Free three month Pluralsight subscription (<http://bit.ly/1q6xbDL>)
- **Microsoft IT Pro Cloud Essentials**
 - Lots of free Azure usage credits, MCP exam voucher,
 - Free three month Pluralsight subscription (<http://bit.ly/2443SAd>)

Questions?



Don't forget to complete an online evaluation on EventBoard!

Professor DMV

How to use Dynamic Management Views to diagnose SQL Server Performance Issues

**Your evaluation helps organizers build better conferences
and helps speakers improve their sessions.**



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Thank you!

Reminder: Intersect with Speakers and Attendees

- **Tweet tips and tricks that you learn and follow tweets posted by your peers!**
 - Follow: #SQLIntersection and/or #DEVIntersection
- **Join us – Tuesday Evening – for SQLafterDark**
 - Doors open at **7:00 pm**
 - Trivia game starts at **7:30 pm**
 - Winning team receives something fun!*
 - Raffle at the end of the night
 - Lots of great items to win including a seat in a SQLskills Immersion Event!*
 - The first round of drinks is sponsored by SentryOne and SQLskills



Save the Date

www.SQLintersection.com

Week of December 2, 2018
We're back in Vegas baby!

