



Performance Troubleshooting Made Easier

New Features in Management Studio

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Data Professional

Microsoft Data Platform MVP. 16 Years working with Microsoft Data Platform. Microsoft and MongoDB certified. Worked in ecommerce, healthcare and finance industry.

Giving Back

Board member NESQL user group and Founder of DBA virtual group. Organizer of Boston Data Saturday. Frequent speaker at local and virtual user groups, Data Saturdays and Azure conferences.

When Not Working

Running – 1x26.2 and 30+x 13.1, Learning US history. Shuttling 3 kids.

showplan the one-stop-shop for query performance analysis and troubleshooting

https://blogs.msdn.microsoft.com/sql_server_team/more-showplan-enhancements-row-goal/

Feature	Earliest SQL Version	New SSMS Required
Data Discovery & Classification	SQL2008	YES
SQL Server Performance Dashboard	SQL2012	YES
Active Expensive Queries	SQL2012	YES
SSMS XEvent Profiler	SQL2012	YES
Vulnerability Assessment	SQL2008	YES
EstimateRowsWithoutRowGoal	SQL2016 SP2	YES
QueryTimeStats	SQL2012 SP4	YES
Node-actual time elapsed, actual vs. estimated rows	SQL2012	YES
WaitStats	SQL2012 SP4	YES
Trace Flag	SQL2012 SP4	YES
Actual I/O Statistics	SQL2016 RC0, SQL2014SP2	YES
Actual Time Statistics	SQL2016 RC0, SQL2014SP2	YES
Number of Rows Read	SQL2016	YES
Estimated Number of Rows to be Read	SQL2016 SP1	YES

Feature	Earliest SQL Version	New SSMS Required
CXCONSUMER Wait Type	SQL2017 CU3, SQL2016 SP2	NO
New Set of Icons		YES
Compare Showplan Improvement		YES
Single Plan Analysis	SQL2008	YES
Spill Information	SQL2012 SP3	NO
MaxQueryMemory under MemoryGrantInfo	SQL2016 SP1, SQL2014 SP2	YES
MaxCompileMemory under OptimizerHardwareDependentProperties	SQL2016 SP1, SQL2014 SP2	YES
Statistics Used	SQL2016 SP2	YES
Query_thread_profile	SQL2014 SP2, SQL2016	NO
Search Graphical Showplan	SQL2008	YES
AUTOGROW_ALL_FILES via GUI	SQL2016	YES
BatchModeOnRowStoreUsed	SQL2019	YES
ContainsInlineScalarTsqludfs	SQL2019	YES
Query Store - Wait Statistics report	SQL2017	YES

Feature	Earliest SQL Version	New SSMS Required
Estimated Number of Rows Per Execution	All versions	YES
Estimated Number of Rows for All Executions	All versions	YES
Actual Number of Rows for All Executions	All versions	YES

- Command line installation can exclude ADS
- [Feature comparison between SSMS and ADS](#)
- Solution Explorer is deprecated
- The SQL Server PowerShell module is a separate install through the PowerShell Gallery
- To continue utilizing Azure Active Directory authentication with MFA, you need **SSMS 18.6 or later** after December 2021.



SQL2019 CU16
SSMS 18.11.1

<https://www.invotide.com/demo>

- ❑ SQL Server Management Studio - Changelog (SSMS)
- ❑ SQL Client Tools update for SQL Server 2016
- ❑ All articles with Showplan tag
- ❑ Extended Events Profiler (XE Profiler) in SSMS by Dennes Torres
- ❑ SQL Vulnerability Assessment
- ❑ New in SSMS – Always On Availability Group Latency Reports by Sourabh Agarwal
- ❑ 2017 Schema
- ❑ SQL Server Execution Plans, Third Edition, by Grant Fritchey



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