

SQL Server, Locks object

07/13/2021 • 2 minutes to read •



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Applies to:  SQL Server (all supported versions)

The **SQLServer:Locks** object in Microsoft SQL Server provides information about SQL Server locks on individual resource types. Locks are held on SQL Server resources, such as rows read or modified during a transaction, to prevent concurrent use of resources by different transactions. For example, if an exclusive (X) lock is held on a row within a table by a transaction, no other transaction can modify that row until the lock is released. Minimizing locks increases concurrency, which can improve performance. Multiple instances of the **Locks** object can be monitored at the same time, with each instance representing a lock on a resource type.

This table describes the SQL Server **Locks** counters.

SQL Server Locks counters	Description
Average Wait Time (ms)	Average amount of wait time (in milliseconds) for each lock request that resulted in a wait.
Average Wait Time Base	For internal use only.
Lock Requests/sec	Number of new locks and lock conversions per second requested from the lock manager.
Lock Timeouts (timeout > 0)/sec	Number of lock requests per second that timed out, but excluding requests for NOWAIT locks.
Lock Timeouts/sec	Number of lock requests per second that timed out, including requests for NOWAIT locks.
Lock Wait Time (ms)	Total wait time (in milliseconds) for locks in the last second.

SQL Server Locks counters	Description
Lock Waits/sec	Number of lock requests per second that required the caller to wait.
Number of Deadlocks/sec	Number of lock requests per second that resulted in a deadlock.


SQL Server can lock these resources.

Item	Description
_Total	Information for all locks.
AllocUnit	A lock on an allocation unit.
Application	A lock on an application-specified resource.
Database	A lock on a database, including all objects in the database.
Extent	A lock on a contiguous group of 8 pages.
File	A lock on a database file.
Heap/BTree	Heap or BTree (HOBTree). A lock on a heap of data pages, or on the BTree structure of an index.
Key	A lock on a row in an index.
Metadata	A lock on a piece of catalog information, also called metadata.
Object	A lock on table, stored procedure, view, etc, including all data and indexes. The object can be anything that has an entry in sys.all_objects .
OIB	Lock resource for online index build locks, specifically for a online index build LOB tracking table.
Page	A lock on an 8-kilobyte (KB) page in a database.
RID	Row ID. A lock on a single row in a heap.
RowGroup	Lock resource for a columnstore index rowgroup.

Item	Description
Xact	Lock resource for a transactions.

Example


You begin to explore the query performance counters in this object using this T-SQL query on the [sys.dm_os_performance_counters](#) dynamic management view:

SQL	 Copy
<pre>SELECT * FROM sys.dm_os_performance_counters WHERE object_name LIKE '%Locks%';</pre>	

See also

[Monitor Resource Usage \(System Monitor\)](#)

Is this page helpful?

 Yes  No

Recommended content

[Troubleshoot blocking issues caused by compile locks - SQL Server](#)

This article describes how to troubleshoot and resolve blocking issues caused by compile locks.