

Server Bottleneck Monitoring with Zero Impact SQL Monitoring

In two mouse clicks pinpoint the poor performing SQL and server bottlenecks

The 600+ wait types a database server posts that cause SQL statements to not complete on a timely basis due to **resource contention** or being queued due to a lack of **available resources** are monitored. Wait times are tracked by SQL statement, stored procedure, wait type, database and end-user. Reduce **SQL wait time -> reduces end-user response time -> improves server throughput-> eliminates unnecessary hardware upgrades.**

AGENTLESS MONITORING HIGHLIGHTS

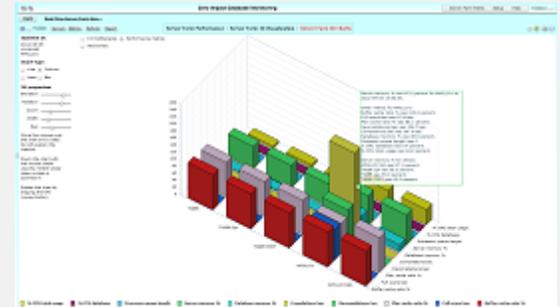
- Agentless monitoring of 600+ wait conditions that reduce server throughput
- Pinpoints in real-time inefficient SQL having table scans, missing indexes and more
- Monitors SQL I/O, plans, blocking, deadlocks, I/O stall times and TempDB contention
- View performance in real-time or over any prior time period plus real-time alerting
- 3D server farm real-time views of performance counters, wait times and I/O stall times
- 3D server farm views of buffer and procedure cache memory usage
- 3D server farm views of database and disk drive space usage
- 3D server farm views of index usage, missing indexes and index fragmentation
- Baseline analysis of server farm performance plus adhoc comparison of performance
- View the performance of the entire server farm in a 100% web enabled interface
- Product setup wizard makes installation a snap plus FREE product setup and training
- Optional FREE non-intrusive ZERO impact capture of 100% of the SQL performance

HOW WE DIFFER

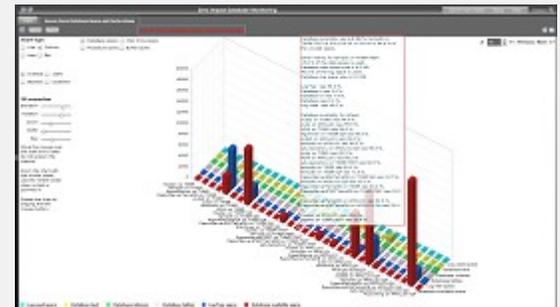
- **Low, low, low** CPU, I/O and network overhead on the monitored servers
- Do NOT issue millions of I/Os to the **TempDB** database on the monitored server
- Do NOT **bloat** the **procedure cache** with ad hoc SQL monitoring requests
- Do NOT send millions of characters of SQL monitoring text across the **network**
- Do NOT turn on **profilers** or **SQL traces** that can degrade throughput by 30%
- Does not use **ineffective SQL sampling** that misses much of what occurs
- SYSADMIN privilege is **NOT** used for agentless monitoring of the server farm
- Use 3D graphs so that **multiple servers** performance can be simultaneously viewed
- Does not increase server **wait time** which can impact end-user response time
- Automatic **drill down** into the SQL activity, wait conditions and performance counters
- Stealth SQL and wait type monitoring with **lower** overhead than agentless monitoring
- Optional **FREE Zero Impact SQL Capture Agent** that captures 100% of the SQL
- Low overhead does not cause annual cost of operation to exceed original **license fee**
- **FREE** product setup and training
- If you cannot pinpoint what is causing **poor server throughput**. Where the server **bottlenecks** are. What is causing long end-user response time. What the poor performing SQL is. Or your monitoring solution is **missing events**. Then Sql Power Tools can help. Plus we monitor VMware and Hyper-V!

Sql Power Tools

3D Graphs of Server Farm Performance



3D real-time view of entire Server Farm performance counters, wait times and I/O stall times by data and log file. View any subset of servers and metrics. Click on above graph to view.



3D view of entire Server Farm database and log space usage. With breakdown by text, indexes and table space. Click on above graph to view.

FREE Zero Impact SQL Capture Agent with every license to use when needed:

- Captures **100%** of the SQL activity 24x7
- Immediately pinpoints all poor performing SQL
- Non-intrusively sniffs the SQL packet flow
- Captures all SQL text, bind parameters, logins, errors, response time, network time and more
- View detailed SQL activity over any time period
- Optionally enable/disable at any time
- Does not connect to monitored server
- Does NOT use ineffective SQL sampling or intrusive database server SQL traces

PRODUCT FEATURES:

Agentless monitoring of I/O bottlenecks, SQL I/O performance, poor SQL plans, top N SQL, performance counters, blocking, deadlocks, jobs, performance baselines, VMware and Hyper-V with alerting. View performance in **real-time** or over any **prior time period**. Performance may be summarized and viewed by second, minute, hour, day, week, quarter or any time period of interest. With one click graphing of SQL plans.

Monitors the 600+ wait types that cause SQL statements and stored procedures to not **complete** on a **timely basis** due to **resource contention** or being queued due to a lack of **available resources** are monitored. **Wait condition wait times** are tracked by SQL statement, stored procedure, wait type, application, database and the end-user client. Reducing **SQL wait time** -> reduces **end-user response time** -> **improves server throughput**-> eliminate **expensive** and **unnecessary** hardware upgrades.

Automatic drill down into the wait types, wait times and performance counters for any poor performing SQL. Pinpoints the resource contention on the server that is causing the SQL statement to not complete on a **timely basis**! Just double click on any SQL statement displayed in the web browser interface.

Stealth wait state monitoring when the Zero Impact Agent SQL Agent is enabled. With stealth wait state monitoring wait times are only investigated when a SQL statement on the server runs **longer than N seconds**. E.g. 100 milli seconds. This provides the **lowest monitoring overhead** for any wait state monitoring product in the industry!

SQL statement I/O monitoring with automated plan mining. Low agentless monitoring overhead. Pinpoints SQL statements having high I/O, high CPU usage, long run times and **poor plans**! These cause poor end-user response time and high database server overhead. View in real-time or over any prior time period the SQL statements having plans that contain **table scans**, columns with **no statistics**, **missing indexes**, sorts, lookups, plan compilation timeouts and more. NO intrusive profiler sessions or traces are used that potentially degrade server performance by 30% and impact server I/O throughput. With one click graphing of SQL plans.

Database data and log file I/O stall and wait time monitoring monitors the I/O wait time and throughput for all database devices and files.

TempDB contention monitoring pinpoints all SQL statements, wait types, end-users and stored procedures experiencing a wait condition/wait time on the TempDB database and files. Average I/O stall times on all TempDb data and log files are monitored as well as the number of I/O operations and throughput on TempDB data and log files.

Database and disk drive space usage monitoring monitors the space usage and availability in 3D graphs. View the entire Server Farm database or disk drive space usage in one convenient 3D graph.

Procedure cache and buffer cache monitoring monitors memory usage in 3D graphs. View the entire Server Farm or any subset of server's procedure cache or buffer cache usage in one convenient 3D graph.

Daily baseline analysis of the day's performance is compared in 3D graphs to prior time periods for all SQL requests. Increases or decreases in **end-user response time** and wait times are identified. Baseline analysis identifies wait types, I/O bottlenecks, SQL statements, performance counters and SQL jobs that have **degraded** or **improved** performance. SQL statements, stored procedures, wait types, applications, databases and the end-user clients that have **increasing wait times** (i.e. increasing end-user response time) are identified.

Ad hoc comparison of server performance. End-user response time, SQL performance, wait times, I/O bottlenecks, performance counters and job run times may be compared between any servers over any time periods.

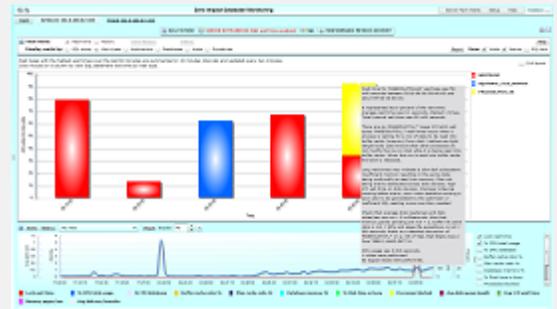
Alert thresholds. Daily baseline analysis will automatically **calculate** alert thresholds based upon historical performance. Preconfigured alert thresholds are also available.

End-user experience monitoring monitors the response time end-users actually receive when the **Zero Impact SQL Capture Agent** is enabled.

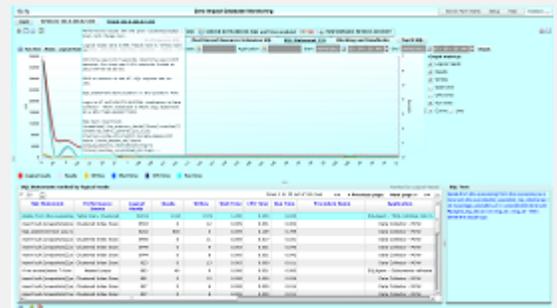
Customizable graph metrics. Dynamically change the performance metrics being graphed so that the most appropriate metrics are displayed for each server.

Product Database Repository allows trending and capacity planning analysis.

WAIT STATE KNOWLEDGE BASE:



Product knowledge base explains wait conditions and suggest course of action. Reduce **SQL wait time** -> reduces **end-user response time** -> improves **server throughput**-> eliminates unnecessary **hardware upgrades**. Click on above graph to view.



Automated **plan mining** for SQL statements having wait times and poor performance. Click on above graph to view.

MIGRATE TO ORACLE 11g, SQL SERVER 2012 or SYBASE ASE 15.7 with ease:

1. Capture 100% of the SQL activity from existing production server using **Zero Impact SQL Capture Agent**.
2. Replay **SQL activity** on new database release.
3. Our agentless monitor will **compare the releases** performance pinpointing SQL statements having a **poorer response time** and wait conditions having a **higher wait time**. Now resolve performance issues prior to putting new release into production.
Only available from Sql Power Tools!

Also use **Zero Impact SQL Capture Agent** before and after a hardware upgrade, **table index** changes, SQL code changes, **regression testing** of a new application release prior to deployment to production .

Sql Power Tools

www.sqlpower.com

2710 Thomes Ave.

Suite 652

Cheyenne, WY 82001

USA: 800.733.5978

International: 800.7007.0020