# SQL Query Tuner

# SQL QUERY PROFILING AND TUNING FOR SQL SERVER

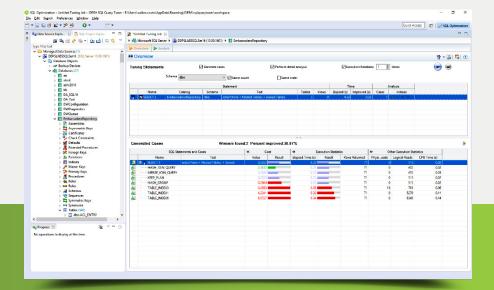
SQL Query Tuner is an automated SQL query optimization tool that maximizes database and application performance by quickly discovering, diagnosing, and optimizing poor-performing SQL queries. It empowers database administrators and database developers to eliminate performance bottlenecks by graphically profiling critical metrics inside the database, relating resource utilization to specific queries, and helping to tune problematic SQL queries visually.

# WHY SQL QUERY TUNER?

Database professionals are short on time when it comes to performance tuning and maintaining database availability. IT teams continue to shrink, leaving database professionals to work with a growing and fast evolving database infrastructure with less help. Necessary prioritization leads to inevitable performance problems in production databases. SQL Query Tuner optimizes SQL queries by quickly discovering, diagnosing, and optimizing poor-performing SQL queries. These capabilities reduce costs by maximizing productivity and IT infrastructure, improving database and application performance, and communicating with their organization via reporting.

#### **PRODUCT HIGHLIGHTS**

- Pinpoint problematic SQL queries with wait time analysis.
- Receive automated tuning suggestions.
- · Visually tune complex SQL queries.
- · Load test in simulated production environments.
- · Streamline SQL query tuning for SQL Server.



**Start for FREE!** 



#### **KEY BENEFITS**

**Identify Previously Undetected SQL Query Performance Issues**Display graphical visualizations of wait time analysis to pinpoint poorly performing SQL queries. Continually monitor data sources to identify periodic issues. Get a clear understanding of SQL query execution and performance costs using explain plans.

**Accelerate SQL Query Tuning and Optimization** Maximize your productivity using automatically generated tuning suggestions for fast fixes. View color-coded index analysis for used, not used, and missing indexes for comprehensive insights. Generate all possible cases for changes including SQL query rewrites.

**Simulate Production Environments** Run queries multiple times in parallel to analyze performance in a simulated production environment. Save time and improve results by load testing and verifying the performance of existing and alternative SQL queries.

# **SQL QUERY TUNING**

**Enjoy Intuitive Tuning Interface** Automate SQL query tuning for SQL Server from the intuitive interface. Streamline and automate frequent and repetitive tasks with an easy-to-use graphical user interface and powerful wizards.

**Tune in Batches** Create and run tuning jobs for a single statement or a batch of statements. Tune all data manipulation language statements, stored routines, and entire SQL files.

**Rewrite SQL Queries** Generate cases in the SQL tuner or type SQL queries into the integrated development environment to view suggested SQL rewrites.

**Generate Cases** Generate all possible cases and find the best alternative to a given SQL statement with SQL query rewrites and hint injection.

**Manage Hint Injection** Customize the subset of hints for consideration for hint injection and alternative execution paths.

**View Explain Plan Cost** Display the explain plan cost for each original statement and each generated case to examine the expected cost given the execution path utilized by SQL Server.

Visually Tune SQL Queries Turn text-based SQL queries into graphical tuning diagrams that display the tables and views used in the queries, and the relationships defined in those queries. Display indexes and constraints on tables and views, and the joins used in a SQL statement (such as Cartesian joins, implied Cartesian joins and many-to-many relationships) with table statistics with the visual tuning diagrams.

**Analyze Indexes** View used, not used, and missing indexes and view indexing recommendations for optimum performance with the color-coded index analysis.

**Examine Execution Statistics** Discover the fastest running SQL statement by running SQL queries with alternative execution paths, and apply the change with a single button click.

**Compare Cases** Spot the textual differences between any two SQL statements with the visual difference viewer.

## SQL QUERY PROFILING

**Use Low-impact Sampling** Identify and diagnose performance bottlenecks and problematic SQL queries without agents and without placing a significant load on the target database.

**Test under Load** Simulate parallel users and parallel executions over a specific period or execution cycle with stress testing of SQL queries.

**Profile Continuously** Continuously profile an entire data source within a configurable span of time.

**Show Live Data** Show data in real-time while profiling is in progress.

**Share Profile Sessions** Save all data and metadata about a profile session as a single entity into an archive file. Share profiles across multiple workspaces and machines to collaborate with others.

## VISUAL DIAGNOSTICS

**View Profile Chart** Show the CPU, input and output, and other wait activity over the course of the session in the profile chart, and zoom in and out as desired.

**Examine Execution Statistics** Display detailed information on the profiled SQL query and wait categories. Break down this information into SQL statements, events, and sessions.

**Drill Down into Profiling Details** Drill down into the execution details for any given statement which includes the SQL query text, events, sessions, child cursors, blockers, procedures, and SQL query details.

**Summarize Execution Analysis** Roll up SQL statements for an accurate analysis of the number of executions in real-time.

**Generate Explain Plans** Compute the explain plan for each SQL statement on demand via a context menu item in the execution statistics table. Display the explain plan in a separate view as a tree with columns and collapsible column groups.

**Crop Time Displays** Highlight a time interval in the profile chart to instantly change the data displayed to make it easier to see the details.

#### ENTERPRISE MANAGEMENT

 $\begin{tabular}{ll} \textbf{Store Profiling Data} & \textbf{Stream profiling data into a central repository} \\ for the open session. \end{tabular}$ 

**Save Profiling Session** Save an entire profiling session to file for future analysis and reference, and to share with others.

**Automate and Remote-control Tuning Sessions** Automate and launch profiling and tuning sessions remotely with the intuitive command-line interface.

**Use Unicode Characters** Utilize Unicode characters throughout the application.

