



# Quest<sup>®</sup> SQL Optimizer *for Oracle*

- Analyze SQL statements for potential performance issues
- Identify resource intensive SQL statements
- Automate the process of optimizing individual or multiple SQL statements from multiple source code files
- Validate that you are using the most efficient SQL alternative for your environment
- Deploy optimized code to improve performance
- Obtain index recommendations
- Analyze impact of index changes through index simulation

## Maximum Performance through SQL Validation

Many factors impact the performance of applications and databases; however, none are more significant than problematic SQL. It is estimated that inefficient database code contributes to approximately 60 percent of all application performance issues.

The “performance” problem impacts others in the organization because it frequently leads to costly code fixes. If the application has already been deployed to production, SQL inefficiencies also lead to external-facing problems, such as slow response time and downtime incurred by end users. We estimate that it is at least five times more expensive (depending on the organization) to fix problems after the application has been deployed than if the problem had been fixed in development.

The goal of optimal-performing database applications is an elusive one for many organizations. This is because the process of identifying problematic code is a very challenging—time consuming, manual and error-prone—requiring an advanced skill set. This is further complicated by the dynamic nature of the database environment. Production databases need constant tuning and maintenance to ensure adequate performance, as problems have a tendency to snowball.

Quest SQL Optimizer for Oracle validates database code to ensure the best-possible performance. It makes sure SQL performs well before end users are impacted and the business suffers, as a result. Quest SQL Optimizer for Oracle helps to proactively identify problems directly from running SQL, PL/SQL or other source code. It takes into account the complexity of code by mimicking a human expert—scanning SQL to look for indicators that lead to performance issues, rewriting SQL code and testing performance.

## Developers

Developers live in a world of thousands of lines of code. They are pressured to meet ever-tightening deadlines while keeping up with constantly-changing project requirements. Writing SQL for optimal performance is a challenge for developers due to the complex nature of the SQL language—there are many ways to write a SQL statement to return the same result. Also inherent to their jobs are many manual processes and they are frequently required to work with code that was either written by another developer or that has returned to them from production for rework.

Quest SQL Optimizer for Oracle allows developers to focus on properly-functioning applications, while ensuring the highest quality code. There are hundreds of ways in which SQL statements can be written to produce the same result, the trick is ensuring you have the best-performing alternative.

Through its automated SQL optimization process, Quest SQL Optimizer for Oracle:

- Scans code multiple SQL statements from multiple sources for indicators of potential performance issues and identifies those areas
- Manipulates SQL statements in every possible way and presents the results
- Lists every possible execution plan in order from most optimal to least
- Allows you to test alternative code against a database environment to locate the most efficient statement
- Provides the ability to export the optimized code for implementation.

This process may prove or validate that you are already using the best-performing SQL for your environment.

## Database Administrators

DBAs are expected to meet high standards, they are held responsible when there are problems with the database environment. They make every effort to become more proactive in their jobs and there are many barriers to this goal. DBAs deal with constant change: patches, upgrades, configurations and user and data volume growth—some are easily managed and some are unpredictable. They are also frequently burdened by inefficient SQL that impacts the end user experience and needs to be fixed quickly. DBAs must decide whether to fix the problem themselves or send it back to development for rework, which often derails current development projects.

Quest SQL Optimizer for Oracle gives DBAs the power of automated SQL optimization. It allows them to become more proactive through quick and easy analysis of SQL statements and by pinpointing potential performance issues. SQL performance issues can then be resolved with automated SQL rewrite, validation, and indexing.

Quest SQL Optimizer for Oracle helps DBAs manage SQL performance due to database changes such as index creation, configuration changes, upgrades, migrations and others. DBAs can analyze and compare execution plans for multiple SQL statements in different database environments to proactively identify SQL performance variations and potential performance degradation.

Quest SQL Optimizer for Oracle combines unique analytical and preemptive capabilities with index management and generation functionality, proactive identification of problematic SQL and SQL optimization, making it the most advanced SQL performance management tool on the market.

### Integration with other Quest Tools:

Quest SQL Optimizer integrates with Toad for Oracle and SQL Navigator. While developing with Toad or SQL Navigator, code can be submitted to Quest SQL Optimizer for tuning and optimization. Once the code is optimized, it can be returned to Toad or SQL Navigator for implementation into the code base.

Quest's Benchmark Factory® for Databases integration validates SQL performance and scalability under simulated production-like conditions before deployment.

SQL Optimizer also integrates with Quest performance diagnostics, analytics and monitoring solutions, Spotlight, Quest Performance Analysis and Foglight.

### About Quest Software, Inc.

Quest Software, Inc., a leading enterprise systems management vendor, delivers innovative products that help organizations get more performance and productivity from their applications, databases, Windows infrastructure and virtual environments. Through a deep expertise in IT operations and a continued focus on what works best, Quest helps more than 90,000 customers worldwide meet higher expectations for enterprise IT. Quest provides customers with client management as well as server and desktop virtualization solutions through its subsidiaries, ScriptLogic and Vizioncore. Quest Software can be found in offices around the globe and at [www.quest.com](http://www.quest.com).



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