



# ● Embarcadero DB Optimizer

## SQL Profiling and Tuning IDE

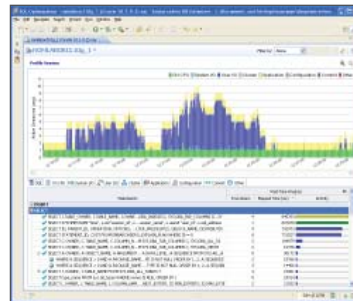
Embarcadero® DB Optimizer™ maximizes database performance by enabling developers and DBAs to quickly discover, diagnose, and optimize poor-performing SQL. Discovering data-intensive or frequently executed queries, focusing in on specific SQL statements through query statistics (i.e., CPU, I/O, wait times), and optimizing any problematic statements, DB Optimizer eliminates performance bottlenecks.

- Eliminate performance bottlenecks in production databases and applications
- Prevent poor-performing SQL from reaching production
- Develop, test, profile, and tune SQL in a single easy-to-use IDE

### ELIMINATE PERFORMANCE BOTTLENECKS IN PRODUCTION DATABASES AND APPLICATIONS

Production DBAs are tasked with maximizing database performance. While hardware upgrades are key, they are an expensive option and only temporarily mask poorly written SQL. DB Optimizer helps production DBAs quickly profile Oracle, Microsoft SQL, Sybase, and DB2 LUW databases to easily identify and correct the SQL causing performance bottlenecks.

DB Optimizer also automatically generates DDL to create a stored outline for the optimal execution plan after running a tuning job. Once the outline is placed on the database, SQL statements from the application will follow the optimized execution plan, bypassing other less efficient paths.



Graphical profiling results and hyperlink drilldowns make it easy to find the SQL that most impacts performance.

### PREVENT POOR-PERFORMING SQL FROM REACHING PRODUCTION

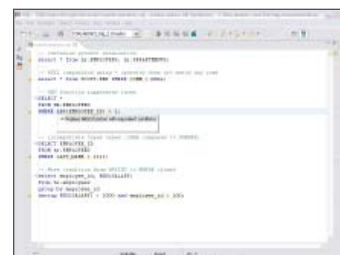
More and more responsibility for the development, quality, and performance of SQL code is being pushed to development teams. DB Optimizer allows you to profile and tune SQL code throughout the development process, rather than discovering only at Test or Production that the database will not meet Service Level Agreements. A user can therefore choose to profile a single stored routine at the click of a button, allowing you to run and diagnose the routine. You can also profile an entire database instance for a user-specified length of time and point DB Optimizer to gather wait time statistics on any SQL running on that database. DB Optimizer's ability to profile and tune within any development routine significantly increases productivity and reduces the time spent in testing and consultation with DBAs.

Get cost, wait time, and many other useful performance details for pinpointing trouble spots.

### DEVELOP, TEST, PROFILE, AND TUNE SQL IN A SINGLE EASY-TO-USE IDE

DB Optimizer provides a full SQL IDE by embedding Embarcadero® PowerSQL™ Professional Edition, including SQL Code Assist and SQL Project Insight. While using DB Optimizer to write SQL code for Oracle, the PowerSQL Quick Fix feature immediately identifies potential performance issues and provides suggested best practices that can be implemented with the click of a button.

DB Optimizer develops quality code faster by filling in object names as you type. This provides real-time syntactic and semantic error checking, making it easy to find objects across databases and manage SQL projects efficiently. When you add this to DB Optimizer's real-time profiling and tuning you get high quality, optimized code, written in less time.



Oracle Quick Fixes offer immediate, implementable performance improvements

### Related Products

#### Rapid SQL®

Write high-performance, quality SQL in an integrated cross-platform database development environment.

#### DBArtisan®

The leading cross-platform database administration solution, helps DBAs maximize performance, availability, and security.

#### Embarcadero®

#### Change Manager™

A complete set of schema, data, and configuration tools to manage the database change management lifecycle.

Feature	Description
<b>Profiling</b>	
Sampling	Identify actual performance bottlenecks without placing a significant load on the target database.
Profiling a Session	Profile an entire data source. Set the length of the profiling session in hours, minutes, and seconds. When the session ends, a profile editor opens, including all reporting features described below.
Profiling a Stored Routine	Profile the execution of a single stored routine.
Live Data	Show data in real-time while profiling is in progress.
Sharing Profile Sessions	All data and metadata pertaining to a profile session can be saved as a single entity into an archive file. Profiles can be shared across multiple workspaces and machines.

<b>Reporting</b>	
Profile Chart	Shows the CPU, I/O, and other wait activity over the course of the session. Zoom in/out functionality available. (Wait categories vary by platform.)
Execution Statistics Results	Detailed information on the profiled SQL and wait categories.
Region Selection	Highlights a time interval in the profile chart to instantly change the data displayed, making it easier to see the details.
Statistics at the SQL Statement Level	CPU, wait time statistics, and number of invocations are available at the SQL statement level. Statements may be grouped by type (SELECT, DELETE, UPDATE, etc.). Similar statements are rolled up for easier predicate analysis.
Drill-downs	Click the hyperlink on a SQL statement to show the full SQL text, the CPU, I/O, and other wait type activity for a particular statement.
Explain Plans	The Explain Plan for each SQL statement can be computed on demand via a context menu item in the Execution Statistics table. The Explain Plan appears in a separate view as a tree with columns and collapsible column groups.

<b>Tuning (Oracle only)</b>	
Quick fixes	Immediately flags problem code as you type, providing suggested fixes at the trouble spot. Implement suggested best practices by clicking on the light bulb icon and hitting 'enter'.
Batch Tuning	Tune all DML statements, stored routines, entire SQL files, and System Global Area.
Tuning job	Create and run tuning jobs for a single statement or batch tuning for all DML statements.
Case generation	Transformations and hint injection are used to generate all possible cases and find the best alternative to a given SQL statement.
Hint injection	Customize the subset of hints to be considered for hint injection. All hints for Oracle 8i through 11g are supported.
Cost generation	Compute the estimated plan cost for each original statement and each generated case to help the user determine which suggested cases are suitable and worth running.
Support for bind variables	Support for resolving bind variables and supplying input allow tuning of SQL extracted from a procedure.
Index recommendations	The Generated Cases grid shows index recommendations that may improve performance. The user can create the indexes or open the DDL in a SQL editor.
Textual comparison of cases	A visual diff viewer helps the user spot the textual differences between any two SQL statements.

System Requirements
<ul style="list-style-type: none"> <li>Microsoft Windows 2003, XP, Vista (32 bit), Red Hat Enterprise Linux 5.0 (32 bit), or SUSE Linux Enterprise Server 10 (32 bit)</li> <li>Sun Java 2 Standard Edition 5.0 Update 11 for Microsoft Windows or Linux: Sun Java 2 Standard Edition 5.0 Update 11 for Linux x86</li> <li>1024 MB memory</li> <li>500 MB disk space</li> </ul>

DBMS Support
<ul style="list-style-type: none"> <li>Oracle® 8i-11g</li> <li>Sybase® 12.5 - 15.0</li> <li>IBM® DB2® for LUW 8.0 - 9.0</li> <li>Microsoft® SQL Server 2000, 2005</li> </ul>

Download a Free Trial at [www.embarcadero.com](http://www.embarcadero.com)

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