DATASHEET

Embarcadero® DB Optimizer™ XE2

SQL profiling and tuning IDE

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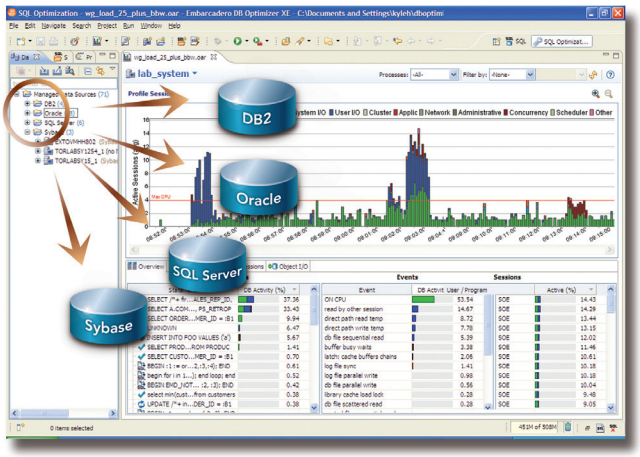
Embarcadero® DB Optimizer™ XE2 is a heterogeneous tool that maximizes database and application performance by quickly discovering, diagnosing, and optimizing poor-performing SQL. DB Optimizer XE2 empowers DBAs and developers to eliminate performance bottlenecks by visually profiling key metrics inside the database (CPU, I/O, wait times), relating resource utilization to specific queries, and helping to visually tune problematic SQL.

- Optimize SQL performance throughout the development lifecycle
- Eliminate performance bottlenecks in production databases and applications
- Develop, test, profile, and tune SQL in a single, easy-to-use IDE



Only DB Optimizer XE2 provides you with a single interface to view detailed, graphical profiling on SQL statements, events, and sessions to make it easy to find the SQL that most impacts performance.

OPTIMIZE SQL PERFORMANCE THROUGHOUT THE DEVELOPMENT LIFECYCLE

More responsibility for the quality and performance of SQL code is being pushed to development and quality assurance teams.

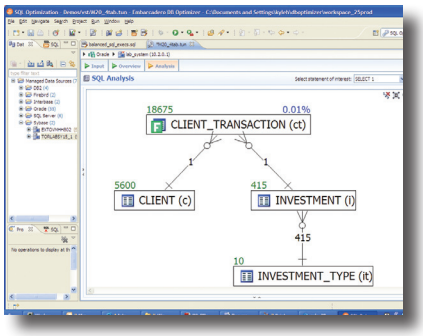
DB Optimizer XE2 allows you to profile and tune SQL code throughout the development process, rather than discovering costly performance bottlenecks after they've reached Production. You can either profile a single stored routine or continuously profile an entire database instance. Continuous profiling lets you monitor performance within a configurable span of time so you can see the effects of your tuned statements immediately, and take snapshots that can be saved and shared between developers, QA, and DBAs for more focused diagnosis and increased productivity.

ELIMINATE PERFORMANCE BOTTLENECKS IN PRODUCTION DATABASES AND APPLICATIONS

Production DBAs are tasked with maximizing database performance and availability. A key concern is meeting Service Level Agreements (SLAs.) 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.

Once you identify the poor performing SQL, DB Optimizer lets you add SQL to a tuning job directly from a profiling session, or add stored routines and SQL files from the data source explorer or file system.

DB Optimizer XE2 takes SQL tuning beyond standard hint injections and SQL rewrites and offers innovative features for faster and more advanced SQL tuning and analysis. Graphical tools like the Index Analysis feature let DBAs and developers fully examine SQL execution paths to better understand which indexes are used, not used, or missing. If an index is missing, DB Optimizer XE2 will offer indexing recommendations for optimum performance. The Visual SQL Tuning (VST) diagram displays indexes and constraints on tables and views, as well as the joins used in a SQL statement. This innovative visual format quickly reveals opportunities to tune the SQL or schema and enhance overall database performance.



DB Optimizer's unique Visual SQL Tuning (VST) diagrams enable the developer to quickly understand the relationships in a SQL query, spot design flaws and determine the best path of execution of the query

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

DB Optimizer XE2 is comprised of four major components including a SQL profiler, tuner, SQL IDE, and a stress testing tool called the Load Editor. The profiler quickly pinpoints poor-performing SQL, the tuner tunes the top problematic SQL, and the Load Editor stress tests the tuned SQL code to ensure performance gains are realized. DB Optimizer XE2 offers more advanced tuning features such as Index Analysis, Visual SQL Tuning (VST) diagrams, and a powerful SQL IDE to reveal every opportunity to further tune and optimize SQL code. The SQL IDE is a full-featured SQL editor that includes code assist, real-time error checking, explain plans, and on-the-fly tuning. Quick fixes work as you type your SQL to identify potential performance issues and provides suggested best practices that can be implemented with the click of a button.

Key Features

- Single interface for all major DBMS'
- Graphical visualization of wait-time analysis
- Continuous profiling
- Batch tuning of DML statements, stored routines, entire SQL files
- Hint injection
- SQL rewrites
- Robust diagnostics with execution statistics, profiling details, predicate analysis and explain plans
- SQL IDE with code assist, error checking, debugging, and real-time quick fixes
- Color-coded Index Analysis indicating index usage
- SQL stress testing

New! in DB Optimizer XE2

- Ability to stream profiling data into a central repository
- Determine resource usage for stored procedures with visibility into underlying SQL usage for SQL Server and Sybase
- Visual SQL tuning diagram displaying indexes and constraints, now enhanced with table statistics
- AppWave™ is an enterprise-grade private PC app store that provides a mobile-like app experience for PC software applications, so you can quickly discover and run PC apps including DB Optimizer

DB Optimizer™ XE2

Features	Description
General Features	
DBMS Support	Full support for DB2 for LUW, Oracle, SQL Server and Sybase ASE.
Unicode	Offers full Unicode support
Command-Line API	Launch profiling and tuning sessions remotely
Visual Diagnostics	
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	Detailed information on the profiled SQL and wait categories, broken down by SQL statements, events, and sessions.
Profiling Details	Drill down into the execution details for any given statement, including the SQL text, events, sessions, child cursors, and SQL details.
Predicate Analysis	SQL statements are rolled up for a true analysis of the number of executions in real-time
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.
Cropping	Highlights a time interval in the profile chart to instantly change the data displayed, making it easier to see the details.
Profiling	
Sampling	Identify and diagnose performance bottlenecks and problematic SQL without agents or placing a significant load on the target database.
Load Editor	SQL stress testing simulates a number of parallel users and executions over a specific period of time or execution cycle.
Continuous Profiling	Continuously profile an entire data source within a configurable span of time.
Profiling a Stored Routine	When fine tuning or testing SQL, profile the execution of a single stored routine when profiling an entire data source is not desired.
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 for collaboration purposes.
Tuning	
Tuning Job	Create and run tuning jobs for a single statement or batch of statements.
Batch Tuning	Tune all DML statements, stored routines, and entire SQL files.
Case Generation	SQL rewrites and hint injection are used to generate all possible cases and find the best alternative to a given SQL statement.
SQL Rewrites	SQL rewrites are suggested as part of the case generation in the SQL tuner. SQL rewrites are also suggested as you type in the SQL IDE.
Hint Injection	Customize the subset of hints to be considered for hint injection and alternative execution paths.
Cost Generation	Display the explain plan cost for each original statement and each generated case to give the user the expected cost given the execution path utilized by the database.
Visual SQL Tuning	The Visual SQL Tuning (VST) diagram displays indexes and constraints on tables and views, as well as the joins used in a SQL statement such as Cartesian joins, implied Cartesian joins and many-to-many relationships, with table statistics
Index Analysis	The color-coded Index Analysis feature shows indexes that are used (green), not used (blue), or missing (orange) and offers indexing recommendations for optimum performance.
Execution Statistics	Run the SQL with alternative execution paths to discover the fastest running SQL statement, and apply the change at the click of a button.
Textual Comparison of Cases	A visual diff viewer helps the user spot the textual differences between any two SQL statements.
Data Capture	
File Capture	Save an entire profiling session to a file for future analysis and reference or to share with others
Repository Capture	Stream profiling data into a central repository for your open session

DBMS Support

- Oracle® 8i-11g
- Sybase® 12.5 - 15.0
- IBM® DB2® for LUW 8.0 - 9.0
- Microsoft® SQL Server 2000, 2005 and 2008

System Requirements

- Microsoft Windows 2003, XP, Vista (32 bit), Red Hat Enterprise Linux 5.0 (32 bit), or SUSE Linux Enterprise Server 10 (32 bit)
- 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
- 1024 MB memory
- 500 MB disk space

Download a Free Trial at www.embarcadero.com

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