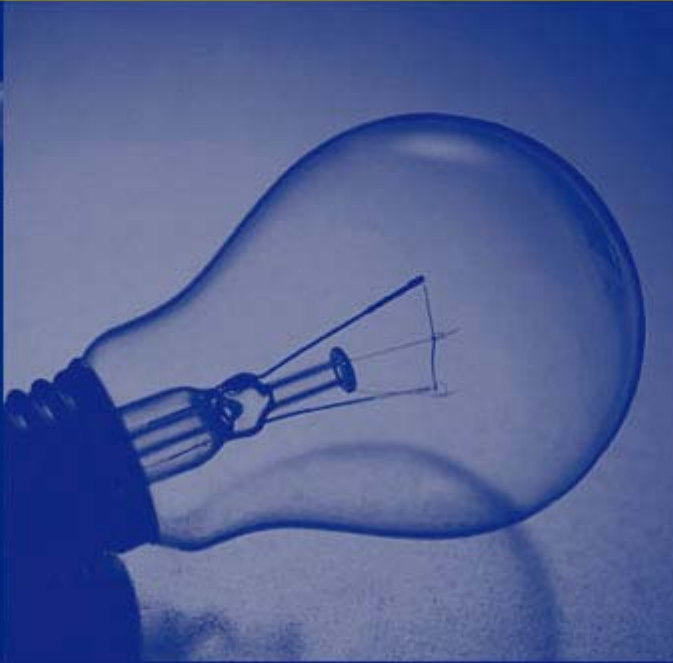


Tunning with Oracle OUTLINES



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Tuning and Performance



Optimize Mode

CHOOSE and RULE are no longer supported as OPTIMIZER_MODE initialization parameter values. If you set up any of these parameters, a warning is displayed in the alert log. The functionalities of those parameter values still exist but will be removed in the future release. Now with the 10g release, ALL_ROWS is the default value for the OPTIMIZER_MODE initialization parameter.

Moving from RBO to the Cost-Based Optimizer

As the RBO was in use for many years, many applications are developed using the rule-based optimizer. SQL statements are tuned manually and optimized. Now when you want to move the database environment to CBO, it becomes natural that you want to preserve the optimization work you have done.

By creating outlines for an application before switching to CBO, the plans generated by the RBO can be used. This section shows the methodology of creating the plan outlines and using in the new environment.

Tuning and Performance



Tuning for OutSource Applications

Rapid growth of data causes rapid changes of conditions in our database. The lack of source code is disabling us from effective tuning and improvement of performances for OutSource applications.

With Oracle OUTLINES feature, we are able to handle such a situations to. We can catch queries from SGA , tune it and put the optimal solutions to the OUTLINES.

Let us look all this at some examples!!

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Plan Stability (1)



GRANT CREATE ANY OUTLINE and
GRANT SELECT ANY TABLE privilege to the schema in which
the outlines will be created

For example, from SYS:

```
GRANT CREATE ANY OUTLINE TO user-name  
GRANT SELECT ANY TABLE TO user-name
```

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Plan Stability (2)



Execute syntax similar to the following to designate;
for example, the RBGROUP outline category.

```
ALTER SESSION SET CREATE_STORED_OUTLINES = RBGROUP;
```

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Plan Stability (3)



Then run the application long enough to capture stored outlines for all the important SQL statements.

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Plan Stability (4)



Suspend outline generation by statement:

```
ALTER SESSION SET CREATE_STORED_OUTLINES = FALSE;
```


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Plan Stability (5)



Gather statistics with the DBMS_STATS package.

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Plan Stability (6)



Execute the following statement to make Oracle use the outlines in category RBGROUP:

```
ALTER SESSION SET USE_STORED_OUTLINES = RBGROUP;
```

Then run the application. With this procedure of plan stability, access paths of the SQL statements can be used.

Tuning and Performance

Tuning with QUEST SQL Optimizer (Live)



Quest SQL Optimizer 7.3 for Oracle

QUEST® SQL OPTIMIZER FOR ORACLE

Connection Options Help

Home

Batch Optimizer

SQL Scanner

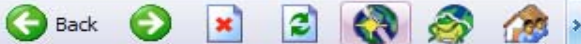
SGA Inspector

Tuning Lab

Indexing

Impact Analyzer

Outlines



Address file:///C:/Program Files/Quest Software/Quest SQL Optimizer for Oracle/HTML/Home Page/QSOO_HomePag... Go



Inside SQL Optimizer

Welcome to Quest SQL Optimizer for Oracle

Quest® SQL Optimizer for Oracle maximizes SQL performance by completely automating the manual, time-intensive and uncertain process of ensuring SQL is performing as fast as possible. Whether used by a developer or DBA, Quest SQL Optimizer automatically analyzes, rewrites, and evaluates SQL statements within multiple database objects, source code files or SQL collections and provides the replacement code with optimized statements, all in a simple batch process. Optimizing several SQL statements can be accomplished in parallel with development or administration efforts. Quest SQL Optimizer also provides a complete index optimization and execution plan change analysis solution, from index recommendations for multiple SQL statements to simulated index impact analysis, through comparison of multiple SQL execution plans to ensure that changes to SQL do not negatively impact other areas of database performance.



[Click here to go to SQL Optimizer Community](#)

Optimize SQL

The **Batch Optimizer** automatically identifies and optimizes in a batch process problematic SQL statements directly from source code. It generates optimized code that you can use to replace the problematic SQL in the source code with the fastest SQL alternatives.

The **Tuning Lab** displays the the detailed optimization results from the Batch Optimizer. It also enables you to rewrite, get index recommendations, test SQL scalability, and get best practices for one single SQL statement.

Optimize Indexes

Thank you

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