Product Documentation

Embarcadero® DB Optimizer™

New Features Guide

Versions 3.6/XE 3.5
Last Revised March, 2013

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NEW FEATURES

New features for this release fall into the following categories:
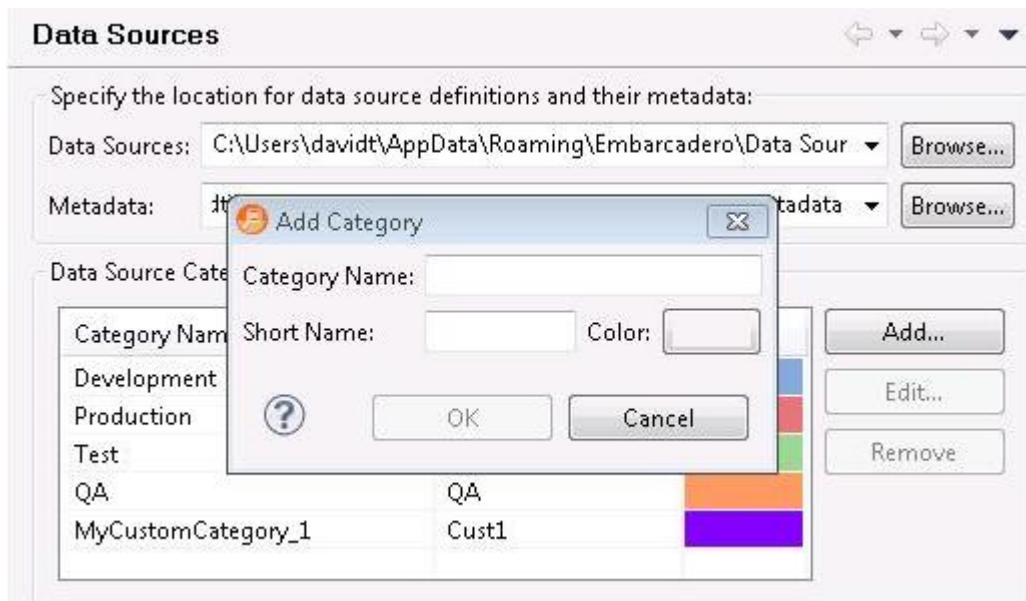
- [Data Source/Connectivity Updates](#)

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DATA SOURCE/CONNECTIVITY UPDATES

The following topics provide high-level descriptions of data source management and connectivity improvements for this release.

Custom Data Source Categories

In previous releases, you could assign a category to a data source to make it visually distinctive in the Data Source Explorer and in other relevant areas of the user interface. Your choices were restricted to a set of default categories: Development, Production, Test, and QA. You can now create your own custom categories, providing a category name, short name, and identifying color for each.

TUNING UPDATES

The following topics describe SQL Tuner updates for this release.

New Sub-tabs Available from the SQL Server Analysis Tab

Previously only available for Oracle, **Table Statistics** and **Column Statistics and Histograms** tabs are now available when tuning against SQL Server data sources. The **Table Statistics** tab lets you view current table statistics settings as well as manually perform tasks such as updating statistics.

The C**olumn Statistics and Histograms** tab lets you view column statistics and identify histogram candidates.

In addition, you can now view any plan guides existing on a server for statements being tuned. The new **Plan Guide** tab also lets you enable/disable, delete, and edit service plans.

DB2 9.7 Execution Statistics

When tuning against a DB2 9.7 datasource, the **Generated Cases** area of the **Overview** tab now includes an additional set of execution statistics gathered for the suggested cases.

‹‹	Other Execution Statistics					
Physical Reads	Logical Reads	CPU Time (s)	Direct Reads	Sorts	Sort Time	Sorts ...rflows
67	5	0.07	0	20	0	0
24	0	0.00	0	3	0	1
62	0	0.07	0	4	15625	0
62	0	0.07	0	4	15625	0
62	0	0.07	0	2	0	0

Oracle Database Links Support

In previous releases, attempting to tune a statement containing a DBLink reference generated an error. While a warning is still generated, you can now execute and generate cases for transformations, SQL rewrites, and hints that do not rely on column, index, or primary key information.

Oracle OPTIMIZER_FEATURES_ENABLE Hint

This hint lets you enable Optimizer features for a specified Oracle release.

Oracle 11g R1 and R2 Hints

The following table lists Oracle 11g r1 AND r2 hints, newly available for this release:

Hint	Description
BIND_AWARE	Makes the cursor aware of bind values.
IGNORE_ROW_ON_DUPKEY_INDEX	Attempts to insert duplicate key values are silently ignored, rather than causing an ORA-0001 error.
INDEX_RS_ASC	Instructs the optimizer to perform an ascending index range scan for the specified table.
INDEX_RS_DESC	Instructs the optimizer to perform a descending index range scan for the specified table.
NO_BIND_AWARE	Disables bind peeking for the current query.
NO_RESULT_CACHE	Disables caching of results for the current query.
NO_STATEMENT_QUEUING	Lets a statement bypass the parallel statement queue regardless of the PARALLEL_DEGREE_POLICY setting.
NO_USE_INVISIBLE_INDEXES	Makes invisible indexes unusable by the current query.
STATEMENT_QUEUING	Lets a statement bypass the parallel statement queue regardless of the PARALLEL_DEGREE_POLICY setting.

Hint	Description
RESULT_CACHE	Caches the result set of the current query, ensuring that another session issuing the same query will be returned results from the cache.
USE_INVISIBLE_INDEXES	Makes invisible indexes unusable by the current query.

Oracle 10g R2 Hints

The following table lists the Oracle 10g r2 hints, newly available for this release:

Hint	Description
NATIVE_FULL_OUTER_JOIN	A directive that instructs the optimizer to use native full outer join.
NO_NATIVE_FULL_OUTER_JOIN	A directive that instructs the optimizer to exclude the native execution method when joining specified tables.
NO_USE_HASH_AGGREGATION	A directive that disables hash aggregation.
NO_XML_DML_REWRITE	A directive that explicitly disables XML DML operator rewrite.
PRECOMPUTE_SUBQUERY	A directive that instructs the optimizer to execute the subquery before executing the outer query.
USE_HASH_AGGREGATION	A directive that enables hash aggregation.

SQL Server MERGE statement support and Related Hints

You can now tune MERGE statements against SQL Server 2008 and higher data sources. In addition, the following related hints are available:
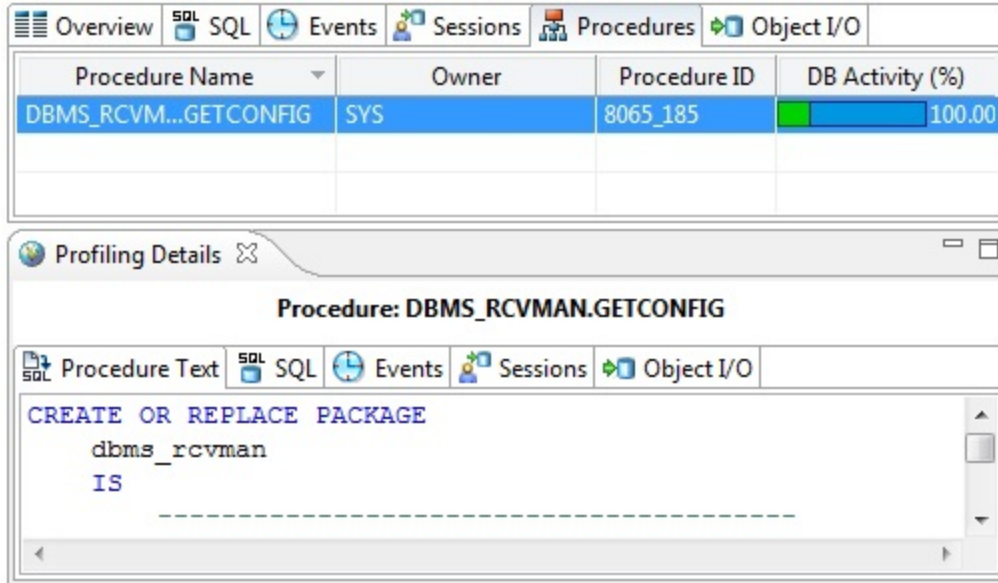
Hint	Description
FORCESCAN	Forces the optimizer to use an index scan operation as the access path to the referenced table or view.
FORCESEEK	Forces the optimizer to use an index seek operation as the access path to the referenced table or view.

PROFILING UPDATES

The following topics describe SQL Profiler updates for this release.

Oracle Procedures Load details

When profiling against an Oracle (10g or higher) data source, the **Top Activity** area and the **Profiling Details** pane now have dedicated **Procedures** tabs that provide information about the procedures load on the data source.

Oracle Blocking Sessions Details

When profiling against an Oracledata source, the **Top Activity** area and the **Profiling Details** pane now have dedicated **Blockers** and **Blocked Sessions** tabs that provide information about sessions holding blocking locks.