

ORACLE DATABASE TUNING ABBREVIATED

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TUNING OVERVIEW

ALERT & TRACE FILES

QUICK REFERENCE	
Initialization Parameters	BACKGROUND_DUMP_DEST USER_DUMP_DEST MAX_DUMP_FILE_SIZE SQL_TRACE
Dynamic Performance Views	V\$PARAMETER
Data Dictionary Views	None
Commands	ALTER SESSION SET SQL_TRACE
Packaged Procedures & Functions	DBMS_SYSTEM.SET_SQL_TRACE_IN_SESSION
Scripts	prvtutil.plb

UTILITIES & DYNAMIC PERFORMANCE VIEWS

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TUNING THE SHARED POOL

A cache miss on the data dictionary cache is more expensive than a miss on a database buffer cache so **tuning the shared pool is a priority**. Mainly concerned with the library cache because tuning it to an acceptable hit ratio automatically tunes the dictionary cache (LRU algorithm holds dictionary data in memory longer). The shared pool must not be too small.

The size of the shared pool is set by the init.ora parameter **SHARED_POOL_SIZE** which defaults to 3,500,000 bytes.

The **library cache** contains shared SQL and PL/SQL areas: the fully parsed or compiled representations of PL/SQL blocks and SQL statements. PL/SQL blocks include:

- Procedures
- Functions
- Packages
- Triggers
- Anonymous PL/SQL blocks

The **data dictionary cache** holds definitions of dictionary objects in memory.

LIBRARY CACHE

The **first goal** is to limit cache misses by reducing hard parses. To do this:

- Ensure SQL statements can share an SQL area whenever possible by using as much generic code as possible and by using bind variables.
- Prevent statements from being aged out by allocating enough memory.
- Avoid invalidations, or schema object that are referenced in an SQL statement that are later modified.

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TUNING THE BUFFER CACHE

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Scripts	prvtutil.plb
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TUNING THE REDO LOG BUFFER

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DATABASE CONFIGURATION & I/O ISSUES

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USING ORACLE BLOCKS EFFICIENTLY

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OPTIMIZING SORT OPERATIONS

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TUNING ROLLBACK SEGMENTS

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MONITORING & DETECTING LOCK DETECTION

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SQL ISSUES & TUNING CONSIDERATIONS FOR DIFFERENT APPLICATIONS

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MANAGING A MIXED WORKLOAD

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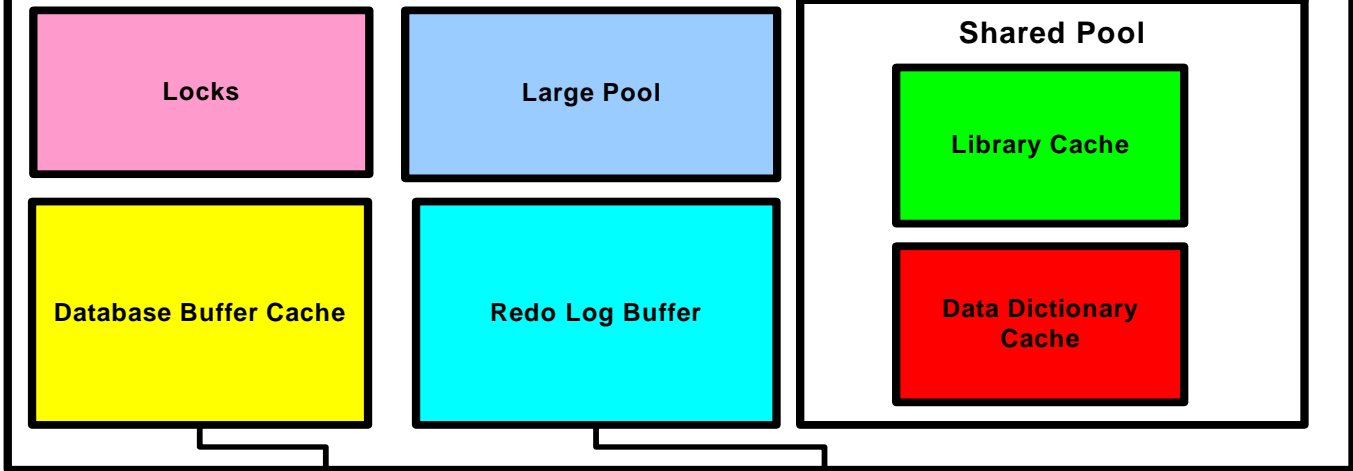
TUNING WITH ORACLE EXPERT

MULTITHREADED SERVER TUNING ISSUES

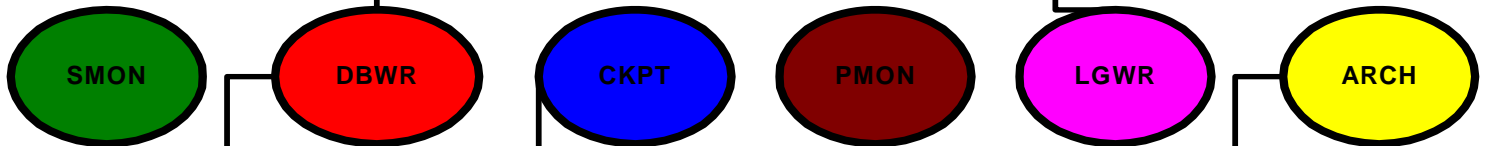
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ORACLE INSTANCE

SGA System Global Area



Background Processes



DATABASE

