

## *DBA Views*

### *Storage Information*

DBA\_EXTENTS, DBA\_FREE\_SPACE, DBA\_OBJECTS,  
DBA\_OBJECT\_SIZE, DBA\_SEGMENTS, DBA\_TABLESPACES,  
DBA\_ROLLBACK\_SEGS, DBA\_UNDO\_EXTENTS

### *Operating System*

DBA\_DATA\_FILES, DBA\_EXP\_FILES, DBA\_TEMP\_FILES

### *Privileges*

DBA\_COL\_PRIVS, DBA\_PROFILES, DBA\_ROLES,  
DBA\_ROLE\_PRIVS, DBA\_SYS\_PRIVS, DBA\_TAB\_PRIVS,  
DBA\_UPDATABLE\_COLUMNS

### *Indexes*

DBA\_INDEXES, DBA\_IND\_COLUMNS,  
DBA\_IND\_EXPRESSIONS, DBA\_IND\_PARTITIONS

### *Tables/Views*

DBA\_TABLES, DBA\_TAB\_COLUMNS, DBA\_TAB\_PARTITIONS,  
DBA\_TAB\_COMMENTS,  
DBA\_UNUSED\_COL\_TABS, DBA\_VIEWS

### *Constraints*

DBA\_CONSTRAINTS, DBA\_CONS\_COLUMNS

### *Triggers*

DBA\_TRIGGERS, DBA\_TRIGGER\_COLS,  
DBA\_INTERNAL\_TRIGGERS

### *Materialized Views*

DBA\_MVIEW\_AGGREGATES, DBA\_MVIEW\_ANALYSIS,  
DBA\_MVIEW\_DETAIL\_RELATIONS, DBA\_MVIEW\_JOINS,  
DBA\_MVIEW\_KEYS

### *Partitions*

DBA\_PART\_COL\_STATISTICS, DBA\_PART\_HISTOGRAMS,  
DBA\_PART\_INDEXES, DBA\_PART\_KEY\_COLUMNS,  
DBA\_PART\_LOBS, DBA\_PART\_TABLES,  
DBA\_IND\_SUBPARTITIONS, DBA\_LOB\_PARTITIONS,  
DBA\_LOB\_SUBPARTITIONS

### *Objects, Methods and Types*

DBA\_OBJECT\_TABLES, DBA\_METHOD\_PARAMS,  
DBA\_METHOD\_RESULTS, DBA\_TYPES, DBA\_TYPE\_ATTRS,  
DBA\_TYPE\_METHODS, DBA\_DIMENSIONS, DBA\_LOBS

### *Operators*

DBA\_OPANCILLARY, DBA\_OPARGUMENTS,  
DBA\_OPBINDINGS, DBA\_OPERATORS

### *Summaries*

DBA\_SUMMARIES, DBA\_SUMMARY\_AGGREGATES,  
DBA\_SUMMARY\_DETAIL\_TABLES, DBA\_SUMMARY\_JOINS,  
DBA\_SUMMARY\_KEYS

### *Miscellaneous*

DBA\_DB\_LINKS, DBA\_SOURCE, DBA\_SEQUENCES,  
DBA\_SYNONYMS, DBA\_USERS, DBA\_OUTLINES,  
DBA\_JOBS, DBA\_JOBS\_RUNNING, DBA\_LIBRARIES,  
DBA\_PENDING\_TRANSACTIONS, DBA\_RULESETS,  
DBA\_OUTLINE\_HINTS, DBA\_POLICIES,  
DBA\_SUBPART\_KEY\_COLUMNS, DBA\_TS\_QUOTAS,  
DBA\_JAVA\_POLICY, USER\_JAVA\_POLICY

## *Dynamic Performance Views*

### *Instance Level Tuning*

v\$GLOBAL\_TRANSACTION, v\$OBJECT\_DEPENDENCY,  
v\$\$SHARED\_POOL\_RESERVED, v\$\$SORT\_SEGMENT,  
v\$\$SYSTEM\_CURSOR\_CACHE, v\$\$SORT\_USAGE, v\$\$STATNAME,  
v\$\$SYSSTAT, v\$\$SYSTEM\_EVENT, v\$TRANSACTION, v\$SLATCH,  
v\$LIBRARYCACHE, v\$ROLLSTAT, v\$ROWCACHE,  
v\$SGASTAT, v\$\$SQLAREA, v\$\$SQLTEXT, v\$WAITSTAT

### *Recovery Based Views*

v\$ARCHIVE, v\$ARCHIVE\_DEST, v\$BACKUP\_CORRUPTION,  
v\$BACKUP\_DEVICE, v\$BACKUP\_REDOLOG,  
v\$DELETED\_OBJECT, v\$RECOVERY\_LOG, v\$RECOVER\_FILE,  
v\$ARCHIVED\_LOG, v\$BACKUP, v\$BACKUP\_DATAFILE,  
v\$BACKUP\_PIECE, v\$BACKUP\_SET,  
v\$RECOVERY\_FILE\_STATUS, v\$RECOVERY\_STATUS,  
v\$DATABASE\_BLOCK\_CORRUPTION,  
v\$DATABASE\_INCARNATION

### *Cache Views*

v\$CACHE, v\$LIBRARYCACHE, v\$SUBCACHE,  
v\$DB\_OBJECT\_CACHE, v\$ROWCACHE

### *Control File Views*

v\$CONTROLFILE, v\$CONTROLFILE\_RECORD\_SELECTION

### *Cursor and SQL Views*

v\$\$SYSTEM\_CURSOR\_CACHE, v\$OPEN\_CURSOR, v\$\$SQLAREA,  
v\$\$SQL, v\$\$SQLTEXT, v\$\$SQLTEXT\_WITH\_NEWLINES,  
v\$\$SQL\_CURSOR, v\$\$SQL\_BIND\_METADATA,  
v\$\$SQL\_SHARED\_MEMORY, v\$\$SQL\_BIND\_DATA,  
v\$\$SQL\_WORKAREA, v\$\$SQL\_WORKAREA\_ACTIVE

### *Security Views*

v\$ENABLEDPRIVS, v\$PWFILERS\_USERS

### *Session Views*

v\$ACCESS, v\$MYSTAT, v\$PROCESS, v\$SESSION,  
v\$SESSION\_CONNECT\_INFO, v\$SESSION\_CURSOR\_CACHE,  
v\$SESSION\_EVENT, v\$SESSION\_LONGOPS,  
v\$SESSION\_OBJECT\_CACHE, v\$SESSION\_WAIT, v\$SESSTAT  
(needs v\$statname, v\$session join), v\$SESS\_IO

### *Latch and Lock Views*

v\$BUFFER\_POOL, v\$CACHE\_LOCK, v\$CLASS\_PING,  
v\$DLM\_CONVERT\_LOCAL, v\$DLM\_CONVERT\_REMOTE,  
v\$DLM\_LATCH, v\$DLM\_MISC, v\$ENQUEUE\_LOCK,  
v\$EVENT\_NAME, v\$FALSE\_PING, v\$FILE\_PING, v\$SLATCH,  
v\$SLATCHHOLDER, v\$SLATCHNAME, v\$SLATCH\_CHILDREN,  
v\$SLATCH\_MISSES, v\$SLATCH\_PARENT, v\$LOCK,  
v\$LOCK\_ACTIVITY, v\$LOCK\_ELEMENT, v\$LOCKED\_OBJECT,  
v\$LOCKS\_WITH\_COLLISIONS, v\$PING, v\$RESOURCE,  
v\$RESOURCE\_LIMIT, v\$TRANSACTION\_ENQUEUE, v\$LOCK

### *Instance Views*

v\$ACTIVE\_INSTANCES, v\$BGPROCESS, v\$BH,  
v\$COMPATIBILITY, v\$COMPATSEG, v\$COPY\_CORRUPTION,  
v\$DATABASE, v\$DATAFILE, v\$DATAFILE\_COPY,  
v\$DATAFILE\_HEADER, v\$DBFILE, v\$DBLINK, v\$DB\_PIPES,  
v\$INSTANCE, v\$LICENSE, v\$OFFLINE\_RANGE, v\$OPTION,  
v\$ROLLSTAT, v\$\$SGA, v\$\$SGA\_STAT, v\$TABLESPACE,  
v\$TRANSACTION, v\$UNDOSTAT, v\$VERSION

## *Dynamic Performance Views (continued)*

### *Fixed Views*

v\$FIXED\_TABLE, v\$FIXED\_VIEW\_DEFINITION,  
v\$INDEXED\_FIXED\_COLUMN

### *Miscellaneous Views*

v\$TIMER, v\$TYPE\_SIZE, v\$SEQUENCES

### *MTS and Parallel Server Views*

v\$CIRCUIT, v\$DISPATCHER, v\$DISPATCHER\_RATE, v\$MTS,  
v\$QUEUE, v\$REQDIST, v\$SHARED\_SERVER, v\$THREAD

### *File Mapping*

v\$MAP\_LIBRARY, v\$MAP\_FILE, v\$MAP\_FILE\_EXTENT,  
v\$MAP\_ELEMENT, v\$MAP\_EXT\_ELEMENT,  
v\$MAP\_SUBELEMENT, v\$MAP\_COMP\_LIST,  
v\$MAP\_FILE\_IO\_STACK

## *Popular Instance Statistics*

Descriptions for key statistics stored in the v\$SESSTAT and v\$\$SYSSTAT views; Set TIMED\_STATISTICS = TRUE in the database init.ora

### **The Statistics Query:**

```
SELECT n.name, s.value  
FROM v$statname n, v$$sysstat s  
WHERE n.statistic# = s.statistic#  
ORDER BY n.class, n.name;
```

**enqueue timeouts** – lock timed out

**enqueue waits** – # of times waited for a lock

**enqueue requests** – # of locks requested

**enqueue conversions** – # of times lock type changed

**enqueue releases** – # of locks released

**db block gets** – # of requests for current copy of block

**consistent gets** – this + db block gets = # logical reads

**physical reads** – reads directly from disk

**free buffer requested** – # of free buffers

**DBWR free buffers found** – # of clean buffers found in scan

**DBWR lru scans** – number of times lru scanned

**DBWR buffers scanned** – # of lru scanned for dirty buffers

**logons cumulative** – a since last warm start

**logons current** – current users

**opened cursors cumulative** – since last warm start

**opened cursors current** – current SQL cursors

**recursive calls** – high value indicates dictionary cache too small

**redo entries** – # redo entries created

**redo size** – bytes of generated redo entries

**redo buffer allocation retries** – indicates redo problem

**redo wastage** – filler added to redos, high value is ok

**redo log space requests** – requests to write to redo buffer

**session logical reads** – total # of reads (logical/physical)

**sorts(disk)** – # of sorts sent to disk

**sorts(memory)** – # of sorts performed in memory

**sorts(rows)** – total # of rows sorted cumulative

**table scans (long tables)** – minimize in application

**table scan rows gotten** – minimize in application

**table fetch by rowid** – indexed fetches

## Initialization Parameters

**audit\_file\_dest** = /u01/app/oracle/admin/ORCL/adump – Sets the path to which audit files are written

**audit\_trail** = FALSE – Enables (TRUE) or disables (FALSE) writing of rows to the audit table

**background\_dump\_dest** = /u01/app/oracle/admin/ORCL/bdmp – Directory in which to write debugging trace files for the background processes (LGWR, DBWn, and so on)

**control\_files** = (/u01/oradata/ORCL/controlORCL01.ctl, /u02/oradata/ORCL/controlORCL02.ctl) – Full path to database control files

**core\_dump\_dest** = /u01/app/oracle/admin/ORCL/cdumpn – Directory in which to write core dumps in an error situation

**db\_block\_buffers** = 6000 – Sets the size of the database buffer cache in memory; in 8.1.x, the default buffer cache size is calculated to be as many buffers as will fit in 48MB

**db\_block\_size** = 8192 – Size of each database buffer in bytes (2048 to 32768; Oracle recommends that you set the parameter to a minimum of 8 KB and that it be a multiple of the OS block size; this parameter takes effect only at the time the database is created)

**db\_domain** = my\_company.com – Specifies the extension components of a global database name, consisting of valid identifiers, separated by periods

**db\_files** = 80 – Number of database files that can be open when the database is running

**db\_file\_multiblock\_read\_count** = 8 – Number of blocks read into the buffer cache at once when performing a sequential scan

**db\_name** = ORCL – The name of this database

**dispatchers** = ("PRO=TCP)(DIS=3)" – Configures dispatcher processes in the shared server architecture

**enqueue\_resources** = 9999 – Sets the number of resources (10-65535) that can be locked by the operating system lock manager

**global\_names** = TRUE – Enables (TRUE) or disables (FALSE) db link name checking

**java\_pool\_size** = 50000000 – minimum for 11i

**log\_archive\_dest** = /u08/oraarch/ORCL/arch – Directory location and the first part of the name of each archive log that will be written

**log\_archive\_format** = %s.log – Sets format for archived logs

**log\_archive\_start** = TRUE – Enables (TRUE) or Disables (FALSE) archiving

**log\_buffer** = 65536 – Number of bytes allocated to redo log buffer in the SGA; Max = 500K or 128K \* CPU\_COUNT

**log\_checkpoint\_interval** = 10000 – Number of new redo log file blocks needed to trigger a checkpoint; values: 2 to UNLIMITED

**max\_dispatchers** = 5 – Maximum number of dispatcher processes allowed to be running simultaneously

**max\_dump\_file\_size** = 500 – Limits physical size of the trace file to the specified number of operating system blocks (or UNLIMITED)

**max\_enabled\_roles** = 20 – Maximum number of roles per user

**max\_rollback\_segments** = 30 – Maximum number of rollback segments that can be kept online simultaneously by one instance

**max\_shared\_servers** = 20 – Maximum number of shared server processes allowed to be running simultaneously

**mts\_dispatchers** = "tcp,1" – Retained for backward compatibility only, deprecated in Oracle9i; use DISPATCHERS instead

**mts\_max\_dispatchers** = 5 – Retained for backward compatibility only, deprecated in Oracle9i; use MAX\_DISPATCHERS instead

**mts\_max\_servers** = 20 – Retained for backward compatibility only, deprecated in Oracle9i; use MAX\_SHARED\_SERVERS instead

**mts\_servers** = 1 – Retained for backward compatibility only, deprecated in Oracle9i; use SHARED\_SERVERS instead

**open\_cursors** = 64 – Maximum number of cursors that a user session can have open at any one time

**parallel\_max\_servers** = 5 – Maximum number of servers that are allowed to exist concurrently; Set the value to (maximum number of PQO users \* their maximum degree of parallelism \* 2)

**pga\_aggregate\_target** = 1000m – Specifies the target aggregate PGA memory available

**processes** = 25 – Max number of simultaneous connections allowed to the instance

**query\_rewrite\_enabled** = FALSE #enable or disable query rewriting (ex: materialized views/function indexes)

**rollback\_segments** = (r01,r02,r03,r04) – Indicates all of the private rollback segments that you want brought online at instance startup

**row\_locking** = ALWAYS – Should row locking be used?

**shared\_pool\_size** = 3500000 – Size of shared buffer pool in the SGA

**shared\_servers** = 1 – Number of server processes that you want to create when an instance is started up

**sort\_area\_size** = 2048000 – Size in bytes that a user process has available for sorting

**\_system\_trig\_enabled** = TRUE – Set to FALSE when upgrading rdbms

**timed\_statistics** = TRUE – If set TRUE, provides needed CPU timing information on your SQL statements and by user sessions

**undo\_management** = AUTO – Specifies the undo space management mode

**undo\_retention** = 1800 – Specifies (in seconds) the amount of committed undo information to retain

**undo\_tablespace** = UNDOTS – Undo tablespace to be used when instance starts

**user\_dump\_dest** = /u01/app/oracle/admin/ORCL/udump – Directory in which to write user process trace files

**workarea\_size\_policy** = AUTO – Controls mode in which working areas are tuned

## Accessing Utilities Help

### Import

\$ imp help = y

**import example:** \$ imp system/manager file=expdat.dmp full=y rows=y buffer=2048000 indexes=y ignore=y commit=y log=full\_import.log

### Export

\$ exp help = y

**export example:** \$ exp system/manager file=expdat.dmp full=y compress=y consistent=y buffer=1024000 log=full\_exp.log

### SQL\*Loader

\$ sqlldr <Enter>

### SQL\*Plus

Installing Help into SQL\*Plus – As user **oracle** ...

Set the SYSTEM\_PASS environment variable:

\$ SYSTEM\_PASS=system/<password>; export SYSTEM\_PASS  
execute the script, \$ORACLE\_HOME/bin/helpins

## Database Control (UNIX)

As user **oracle** ...

\$ sqlplus / nolog

SQL> connect / as sysdba

SQL> startup

**startup** = startup the database

**shutdown** – shutdown the database



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