OracleTalk#03 By Mohammed Arshad

Generic oracle query to check block corruption and segment integrity :

```
prompt
####################################################################################

prompt

prompt >>>>>> Data Block Integrity Check

prompt No rows selected means  'OK'

prompt
####################################################################################


select * from v$database_block_corruption;


prompt
####################################################################################

prompt

prompt >>>>>> Undo Segment Integrity Check

prompt No rows selected means  'OK'

prompt
####################################################################################


select * from v$corrupt_xid_list;
```

------------------------ From Blog -----------------------------

```
spool D:\DB_Monitoring_Performace\CBSPROD.txt

prompt**---------------Database General Information-----------------------------**

SELECT DBID "DATABASE_ID", NAME "DB_NAME", LOG_MODE, OPEN_MODE, RESETLOGS_TIME  FROM
V$DATABASE;

SELECT instance_name, status, to_char(startup_time,'DD-MON-YYYY HH24:MI:SS') "DB Startup Time"
```

```
FROM   sys.v_$instance;
column "Host Name" format a15;
column "Host Address" format a15;
SELECT UTL_INADDR.GET_HOST_ADDRESS "Host Address", UTL_INADDR.GET_HOST_NAME "Host Name" FROM DUAL;
SELECT BANNER "VERSION" FROM V$VERSION;
col "Database Size" format a15;
col "Free space" format a15;
select round(sum(used.bytes) / 1024 / 1024/1024 ) || ' GB' "Database Size",
round(free.p / 1024 / 1024/1024) || ' GB' "Free space"
from (select bytes from v$datafile
union all select bytes from v$tempfile
union all select bytes from v$log) used,
(select sum(bytes) as p from dba_free_space) free
group by free.p;


prompt**---------------Database SGA Component Size------------------------------**
set line 200;
select    pool, m_bytes from ( select     pool, to_char( trunc(sum(bytes)/1024/1024,2), '99999.99' ) as M_bytes
   from     v$sgastat
   where     pool is not null   group     by pool
   union
   select     name as pool, to_char( trunc(bytes/1024/1024,3), '99999.99' ) as M_bytes
   from     v$sgastat
   where    pool is null  order     by 2 desc
   ) UNION ALL
   select    'TOTAL' as pool, to_char( trunc(sum(bytes)/1024/1024,3), '99999.99' ) from v$sgastat;
```

```
prompt**---------------DB Characterset Information------------------------------**

Select * from nls_database_parameters;

col name  format A60 heading "Control Files";

select name from   sys.v_$controlfile;

col member  format A40 heading "Redolog Files";

set line 200;

col archived format a15;

col status format a10;

col first_time format a20;

select a.group#, a.member, b.archived, b.status, b.first_time from v$logfile a, v$log b

where a.group# = b.group# order by a.group#;


prompt**---------------DB Profile and Default Information-------------------------**

set line 200;

col username format a25;

col profile format a20;

col default_tablespace format a25;

col temporary_tablespace format a25;

Select username, profile, default_tablespace, temporary_tablespace from dba_users;


prompt**---------------PGA_AGGREGATE_TARGET-----------------------------------**

set line 200;

select  name, cnt, decode(total, 0, 0, round(cnt*100/total)) percentage

from (select name, value cnt, (sum(value) over()) total

from v$sysstat where name like 'workarea exec%'

);

Prompt--DBA increase this Parameter when "multipass" value are greater than ZERO and Reduce
whenever the optimal executions are 100 percent.

select name, value from v$pgastat;
```

OracleTalk#03 By Mohammed Arshad

```
prompt**---------------Users Log on Information------------------------------------**

set line 200;

col OSUSER format a40;

col STATUS format a15

col MACHINE format a35;

Select to_char(logon_time,'dd/mm/yyyy hh24:mi:ss') "Logon_Time",osuser,status,machine from
v$session where type !='BACKGROUND';


prompt**---------------Monitoring Schema Growth Rate---------------------------**

select    obj.owner "Owner",  obj_cnt "Objects",  decode(seg_size, NULL, 0, seg_size) "Size in MB"

from (select owner, count(*) obj_cnt from dba_objects group by owner) obj,

(select owner, ceil(sum(bytes)/1024/1024) seg_size

   from dba_segments group by owner) seg

where obj.owner  = seg.owner(+)

order by 3 desc ,2 desc, 1;


prompt**---------------Largest object in Database----------------------------------**

SET LINE 200;

col SEGMENT_NAME format a30;

col SEGMENT_TYPE format a30;

col BYTES format a30;

col TABLESPACE_NAME FORMAT A30;

SELECT * FROM (select SEGMENT_NAME, SEGMENT_TYPE, BYTES/1024/1024/1024 GB,
TABLESPACE_NAME from dba_segments order by 3 desc ) WHERE ROWNUM <= 5;


prompt**--------------Monitoring Most resource usnig SQL statements-------------------**

set line 200;

SELECT * FROM   (SELECT Substr(a.sql_text,1,50) sql_text,
            Trunc(a.disk_reads/Decode(a.executions,0,1,a.executions)) reads_per_execution,
            a.buffer_gets, a.disk_reads, a.executions, a.sorts, a.address
      FROM   v$sqlarea a
      ORDER BY 2 DESC)
WHERE  rownum <= 5;


prompt**--------------Monitoring Objects Created within 7 days---------------------**
select count(1) from user_objects where CREATED >= sysdate - 7;


prompt**--------------Counting Invalid object in Database---------------------------**
Select owner, object_type, count(*) from dba_objects where status='INVALID' group by  owner, object_type;


prompt**--------------Monitoring Current Running Long Job in DB--------------------**
SELECT SID, SERIAL#, opname, SOFAR, TOTALWORK,
ROUND(SOFAR/TOTALWORK*100,2) COMPLETE
FROM   V$SESSION_LONGOPS
WHERE TOTALWORK != 0 AND    SOFAR != TOTALWORK order by 1;


prompt**----------------Monitoring DML Lock------------------------------------------**
set line 200;
col username format a30;
col lock_type format a20;
col osuser format a30;
col owner format a25;
col object_name format a50;
SELECT s.sid, s. serial#, s.username, l.lock_type, s.osuser, s.machine,
   o.owner, o.object_name, ROUND(w.seconds_in_wait/60, 2) "Wait_Time"
FROM
```

```
    v$session s, dba_locks l, dba_objects o, v$session_wait  w
WHERE   s.sid = l.session_id
  AND l.lock_type IN ('DML','DDL')
  AND l.lock_id1 = o.object_id
  AND l.session_id = w.sid
ORDER BY   s.sid;


prompt**-----------Monitor Non-Sys owned tables in SYSTEM Tablespace-----------------**
SELECT owner, table_name, tablespace_name FROM dba_tables WHERE tablespace_name = 'SYSTEM'
AND owner NOT IN ('SYSTEM', 'SYS', 'OUTLN');


prompt**---------------Track Redolog Generation-------------------------------------**
select trunc(completion_time) logdate, count(*) logswitch, round((sum(blocks*block_size) / 1024 /
1024)) "REDO PER DAY(MB)"
from v$archived_log
group by trunc(completion_time)
order by 1;


prompt**--------------Monitor DB Corruption or Need of Recovery--------------------**
set line 200;
SELECT r.FILE# AS df#, d.NAME AS df_name, t.NAME AS tbsp_name, d.STATUS,
   r.ERROR, r.CHANGE#, r.TIME FROM V$RECOVER_FILE r, V$DATAFILE d, V$TABLESPACE t
   WHERE t.TS# = d.TS# AND d.FILE# = r.FILE#;


prompt**---------------Tablespace Information--------------------------------------**
col tablespace_name format a15 heading "Tablespace Name"
SELECT Total.name "Tablespace Name",
      nvl(Free_space, 0) Free_space,
      nvl(total_space-Free_space, 0) Used_space,
      total_space
FROM
  (select tablespace_name, sum(bytes/1024/1024) Free_Space
     from sys.dba_free_space
    group by tablespace_name
  ) Free,
  (select b.name,  sum(bytes/1024/1024) TOTAL_SPACE
     from sys.v_$datafile a, sys.v_$tablespace B
    where a.ts# = b.ts#
    group by b.name
  ) Total
WHERE Free.Tablespace_name(+) = Total.name
ORDER BY Total.name
/
prompt**---------------Shows Used/Free Space Per Datafile---------------------------**


set linesize 200
col file_name format a50 heading "Datafile Name"



SELECT SUBSTR (df.NAME, 1, 40) file_name, df.bytes / 1024 / 1024 allocated_mb,
        ((df.bytes / 1024 / 1024) - NVL (SUM (dfs.bytes) / 1024 / 1024, 0))
              used_mb,
        NVL (SUM (dfs.bytes) / 1024 / 1024, 0) free_space_mb
    FROM v$datafile df, dba_free_space dfs
   WHERE df.file# = dfs.file_id(+)
GROUP BY dfs.file_id, df.NAME, df.file#, df.bytes
ORDER BY file_name;
```

OracleTalk#03 By Mohammed Arshad

```
TTI off

prompt**---------------Report Tablespace < 10% free space-----------------------------**
set pagesize 300;
set linesize 100;
column tablespace_name format a15 heading Tablespace;
column sumb format 999,999,999;
column extents format 9999;
column bytes format 999,999,999,999;
column largest format 999,999,999,999;
column Tot_Size format 999,999 Heading "Total Size(Mb)";
column Tot_Free format 999,999,999 heading "Total Free(Kb)";
column Pct_Free format 999.99 heading "% Free";
column Max_Free format 999,999,999 heading "Max Free(Kb)";
column Min_Add format 999,999,999 heading "Min space add (MB)";
select a.tablespace_name,sum(a.tots/1048576) Tot_Size,
sum(a.sumb/1024) Tot_Free, sum(a.sumb)*100/sum(a.tots) Pct_Free,
ceil((((sum(a.tots) * 15) - (sum(a.sumb)*100))/85 )/1048576) Min_Add
from (select tablespace_name,0 tots,sum(bytes) sumb
from sys.dba_free_space a
group by tablespace_name
union
select tablespace_name,sum(bytes) tots,0 from
sys.dba_data_files
group by tablespace_name) a
group by a.tablespace_name
having sum(a.sumb)*100/sum(a.tots) < 10
order by pct_free;
```

```
prompt**-------------------File I/O statistics--------------------------------------**


prompt


set linesize 150

col name format a50 heading "Datafile Name"

select name,PHYRDS "Physical Reads",PHYWRTS "Physical Writes",READTIM "Read Time(ms)",WRITETIM
"Write Time(ms)",AVGIOTIM "Avg Time" from v$filestat, v$datafile where
v$filestat.file#=v$datafile.file#;

set feedback on

prompt


rem -----------------------------------------------------------------------

rem Filename:   sga_stat.sql

rem Purpose:    Display database SGA statistics

rem -----------------------------------------------------------------------

prompt Recommendations:

prompt ======================

prompt* SQL Cache Hit rate ratio should be above 90%, if not then increase the Shared Pool Size.

prompt* Dict Cache Hit rate ratio should be above 85%, if not then increase the Shared Pool Size.

prompt* Buffer Cache Hit rate ratio should be above 90%, if not then increase the DB Block Buffer value.

prompt* Redo Log space requests should be less than 0.5% of redo entries, if not then increase log
buffer.

prompt* Redo Log space wait time should be near to 0.

prompt

set serveroutput ON

DECLARE

    libcac number(10,2);

    rowcac number(10,2);

    bufcac number(10,2);
```

```
   redlog number(10,2);
   redoent number;
   redowaittime number;
BEGIN
select value into redlog from v$sysstat where name = 'redo log space requests';
select value into redoent from v$sysstat where name = 'redo entries';
select value into redowaittime from v$sysstat where name = 'redo log space wait time';
select 100*(sum(pins)-sum(reloads))/sum(pins) into libcac from v$librarycache;
select 100*(sum(gets)-sum(getmisses))/sum(gets) into rowcac from v$rowcache;
select 100*(cur.value + con.value - phys.value)/(cur.value + con.value) into bufcac
from v$sysstat cur,v$sysstat con,v$sysstat phys,v$statname ncu,v$statname nco,v$statname nph
where cur.statistic# = ncu.statistic#
    and ncu.name = 'db block gets'
    and con.statistic# = nco.statistic#
    and nco.name = 'consistent gets'
    and phys.statistic# = nph.statistic#
    and nph.name = 'physical reads';
dbms_output.put_line('SGA CACHE STATISTICS');
dbms_output.put_line('********************');
dbms_output.put_line('SQL Cache Hit rate = '||libcac);
dbms_output.put_line('Dict Cache Hit rate = '||rowcac);
dbms_output.put_line('Buffer Cache Hit rate = '||bufcac);
dbms_output.put_line('Redo Log space requests = '||redlog);
dbms_output.put_line('Redo Entries = '||redoent);
dbms_output.put_line('Redo log space wait time = '||redowaittime);
if
libcac < 90  then dbms_output.put_line('*** HINT: Library Cache too low! Increase the Shared Pool Size.');
END IF;
```

```
if

rowcac < 85  then dbms_output.put_line('*** HINT: Row Cache too low! Increase the Shared Pool Size.');

END IF;

if

bufcac < 90  then dbms_output.put_line('*** HINT: Buffer Cache too low! Increase the DB Block Buffer value.');

END IF;

if

redlog > 1000000 then dbms_output.put_line('*** HINT: Log Buffer value is rather low!');

END IF;

END;

/

spool off
```