

Log Miner 10g Implementation Example

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Mining Archived Redo Logs

This document contains a brief example of how to test log miner on 10g.
Log Miner is a powerful tool in the hands of the DBA and time should be taken to know it and master it.

Choosing a period to mine

```
SQL> set pages 50000 lines 120
SQL> ALTER SESSION SET NLS_DATE_FORMAT = 'MM/DD/YYYY HH24:MI';
```

Session altered.

```
SQL>
select      count(*)                "# archives",
            to_char(first_time,'yymmdd') "archived day"
from        v$log_history
group      by to_char(first_time,'yymmdd')
order      by 2
SQL> /
```

```
# archives archived day
```

```
-----
      5 070522
      3 070523
      2 070621
     11 070726
```

4 rows selected.

Starting Log Miner

```
SQL> BEGIN
      DBMS_LOGMNR.START_LOGMNR(
        STARTTIME => '&datestart'
        ,ENDTIME => '&dateend'
        ,OPTIONS => DBMS_LOGMNR.DICT_FROM_ONLINE_CATALOG + DBMS_LOGMNR.CONTINUOUS_MINE
      );
      END;
      /
Enter value for datestart: 07/26/2007 15:00
old   3:          STARTTIME => '&datestart'
new   3:          STARTTIME => '07/26/2007 15:00'
Enter value for dateend: 07/26/2007 16:00
old   4:          ,ENDTIME => '&dateend'
new   4:          ,ENDTIME => '07/26/2007 16:00'
```

PL/SQL procedure successfully completed.

Checking top objects

```
SQL> set pages 50000 lines 120;
SQL> select count(*),TABLE_NAME
      from v$logmnr_contents
      group by TABLE_NAME
      having count(*) >1000
```

```
order by 1
SQL> /
```

```
COUNT(*) TABLE_NAME
-----
1110 COL_USAGE$
1836 WRI$_ADV_PARAMETERS
3793 WRI$_OPTSTAT_IND_HISTORY
4284 WRI$_OPTSTAT_TAB_HISTORY
14580 ALERT_QT
42933 WRI$_OPTSTAT_HISTHEAD_HISTORY
108344 WRI$_OPTSTAT_HISTGRM_HISTORY
397237
```

8 rows selected.

Checking operations on database objects

```
SELECT count(*) occurrences ,
       seg_owner      ,
       seg_name       ,
       operation
FROM   v$logmnr_contents
group  by seg_owner,seg_name,operation
having count(*) >999
order  by 1
/
```

```
OCURRENCES SEG_OWNER  SEG_NAME
```

```
OPERATION
```

```

-----
      1,110 SYS          COL_USAGE$                UPDATE
      1,277
      1,277
      1,836 SYS          WRI$_ADV_PARAMETERS          DELETE
      3,793 SYS          WRI$_OPTSTAT_IND_HISTORY      INSERT
      4,284 SYS          WRI$_OPTSTAT_TAB_HISTORY      INSERT
     14,362 SYS          ALERT_QT                      DELETE
     42,933 SYS          WRI$_OPTSTAT_HISTHEAD_HISTORY  INSERT
    108,344 SYS          WRI$_OPTSTAT_HISTGRM_HISTORY   INSERT
     394,679
-----

```

10 rows selected.

Checking Specific Actions

```

select  sql_redo
FROM    v$logmnr_contents
where   seg_ownerxi='SYS'
and     seg_name='WRH$_WAITCLASSMETRIC_HISTORY'
and     operation='INSERT'
and     rownum <4
/

```

SQL_REDO

```

-----
insert into
"SYS"."WRH$_WAITCLASSMETRIC_HISTORY" ("SNAP_ID", "DBID", "INSTANCE_NUMBER", "WAIT_CLASS_ID", "BE

```

```
GIN_TIME", "END_TIME", "INTSIZE", "GROUP_ID", "AVERAGE_WAITER_COUNT", "DBTIME_IN_WAIT", "TIME_WAI  
TED", "WAIT_COUNT") values ('3693', '519338572',  
'1', '1893977003', TO_DATE('07/26/2007 15:48', 'MM/DD/YYYY HH24:MI'), TO_DATE('07/26/2007  
15:49', 'MM/DD/YYYY HH24:MI'), '6011', '1', '.0550578772250873', '100', '330.9529', '202704');
```

```
insert into  
"SYS"."WRH$_WAITCLASSMETRIC_HISTORY" ("SNAP_ID", "DBID", "INSTANCE_NUMBER", "WAIT_CLASS_ID", "BE  
GIN_TIME", "END_TIME", "INTSIZE", "GROUP_ID", "AVERAGE_WAITER_COUNT", "DBTIME_IN_WAIT", "TIME_WAI  
TED", "WAIT_COUNT") values ('3693', '519338572',  
'1', '4217450380', TO_DATE('07/26/2007 15:48', 'MM/DD/YYYY HH24:MI'), TO_DATE('07/26/2007  
15:49', 'MM/DD/YYYY  
HH24:MI'), '6011', '1', '.000181001497255032', '3.54859752120026', '1.088', '12');
```

```
insert into  
"SYS"."WRH$_WAITCLASSMETRIC_HISTORY" ("SNAP_ID", "DBID", "INSTANCE_NUMBER", "WAIT_CLASS_ID", "BE  
GIN_TIME", "END_TIME", "INTSIZE", "GROUP_ID", "AVERAGE_WAITER_COUNT", "DBTIME_IN_WAIT", "TIME_WAI  
TED", "WAIT_COUNT") values ('3693', '519338572',  
'1', '3290255840', TO_DATE('07/26/2007 15:48', 'MM/DD/YYYY HH24:MI'), TO_DATE('07/26/2007  
15:49', 'MM/DD/YYYY HH24:MI'), '6011', '1', '0', '0', '0', '0');
```

3 rows selected.

Ending Log Miner Session

```
SQL> BEGIN  
      DBMS_LOGMNR.END_LOGMNR;  
END;  
/
```

PL/SQL procedure successfully completed.

Mining Online Redo Logs

Check online members

```
SQL> SELECT distinct member LOGFILENAME FROM V$LOGFILE;
```

```
LOGFILENAME
```

```
-----
```

```
+DATADG/racdbtst/onlinelog/group_3.286.621521877  
+DATADG/racdbtst/onlinelog/group_1.283.621521871  
+DATADG/racdbtst/onlinelog/group_4.280.621521881  
+DATADG/racdbtst/onlinelog/group_6.289.621521891  
+DATADG/racdbtst/onlinelog/group_2.273.621521875  
+DATADG/racdbtst/onlinelog/group_5.275.621521885
```

```
6 rows selected.
```

Check online members

```
BEGIN
```

```
  DBMS_LOGMNR.ADD_LOGFILE ('+DATADG/racdbtst/onlinelog/group_3.286.621521877');  
  DBMS_LOGMNR.ADD_LOGFILE ('+DATADG/racdbtst/onlinelog/group_1.283.621521871');  
  DBMS_LOGMNR.ADD_LOGFILE ('+DATADG/racdbtst/onlinelog/group_4.280.621521881');  
  DBMS_LOGMNR.ADD_LOGFILE ('+DATADG/racdbtst/onlinelog/group_6.289.621521891');  
  DBMS_LOGMNR.ADD_LOGFILE ('+DATADG/racdbtst/onlinelog/group_2.273.621521875');  
  DBMS_LOGMNR.ADD_LOGFILE ('+DATADG/racdbtst/onlinelog/group_5.275.621521885');
```

```
END;  
/
```

PL/SQL procedure successfully completed.

Set Log Miner to Work With Online members

```
BEGIN  
  DBMS_LOGMNR.START_LOGMNR  
  (options => dbms_logmnr.dict_from_online_catalog);  
END;  
/
```

Check Operations Contained on the Online Redo Logs

```
select  count(*) occurrences,  
        operation  
from    v$logmnr_contents  
group  by operation  
/
```

```
OCURRENCES OPERATION  
-----
```

```
       7 DDL  
    4040 START  
    4041 COMMIT  
         1 ROLLBACK
```

```
268380 DELETE
 4881 UPDATE
353511 INTERNAL
14424 INSERT
 1019 UNSUPPORTED
```

9 rows selected.

Check Last DDL's

```
select  username,
        to_char(timestamp,'mm/dd/yy hh24:mi') timestamp,
        seg_type_name,
        seg_name,
        sql_redo
from    v$logmnr_contents
where   operation = 'DDL'
/
```

USERNAME	TIMESTAMP	SEG_TYPE_N	SEG_NAME	SQL_REDO
SYS	07/26/07 17:57	USER		create user badguy identified by VALUES '208F025F9C3096D4' default tablespace users temporary tablespace temp;
SYS	07/26/07 17:57			grant dba, all privileges to badguy;
BADGUY	07/26/07 17:58	TABLE	MYBADTABLE	create table mybadtable as select * from dba_source where rownum <100;
BADGUY	07/26/07 17:58	TABLE	MYBADTABLE	create table mybadtable1 as select * from dba_source where rownum <100;

```
BADGUY      07/26/07 17:59 TABLE      MYBADTABLE truncate table mybadtable1;
BADGUY      07/26/07 18:00 TABLE      MYBADTABLE ALTER TABLE "BADGUY"."MYBADTABLE" RENAME TO
                                                "BIN$Nivj/8qz4mXgQAQKTx5Ovw==$0" ;
BADGUY      07/26/07 18:00 TABLE      MYBADTABLE drop table mybadtable AS
                                                "BIN$Nivj/8qz4mXgQAQKTx5Ovw==$0" ;
```

7 rows selected.

End Log Miner Session

```
SQL> BEGIN
      DBMS_LOGMNR.END_LOGMNR;
END;
/
```

PL/SQL procedure successfully completed.

End of Document