

Shrink Datafiles

How to shrink space in Oracle tablespaces after large DELETE operations

Shrink tables / adjust high-water-mark

```
-- Enable row movement.
ALTER TABLE scott.emp ENABLE ROW MOVEMENT;
-- Recover space and amend the high water mark (HWM) for the object and all dependant objects.
ALTER TABLE scott.emp SHRINK SPACE CASCADE;
```

This can be generated like:

```
select 'alter table '||owner||'.'||table_name||' shrink space cascade;'
  from dba_tables
  where (table_name like '%
  and owner like '%');
```

resize datafiles

```
-- This script was written by Tom Kyte and retrieved from asktom.oracle.com
set pages 0
set lin 150
set verify off
column file_name format a60 word_wrapped
column smallest format 999,990 heading "Smallest|Size|Poss."
column currsz format 999,990 heading "Current|Size"
column savings format 999,990 heading "Poss.|Savings"
column sum format 999,999,999
break on report
compute sum of savings on report
column value new_val blksize
select value from v$parameter where name = 'db_block_size'
/

select file_name,
       ceil( (nvl(hwm,1)*&&blksize)/1024/1024 ) smallest,
       ceil( blocks*&&blksize/1024/1024 ) currsz,
       ceil( blocks*&&blksize/1024/1024 ) -
       ceil( (nvl(hwm,1)*&&blksize)/1024/1024 ) savings
  from dba_data_files a,
       ( select file_id, max(block_id+blocks-1) hwm
         from dba_extents
         group by file_id ) b
  where a.file_id = b.file_id(+)
/

column cmd format a95 word_wrapped
select 'alter database datafile '||file_name||' resize ' ||
       ceil( (nvl(hwm,1)*&&blksize)/1024/1024 ) || 'm;' cmd
  from dba_data_files a,
       ( select file_id, max(block_id+blocks-1) hwm
         from dba_extents
         group by file_id ) b
  where a.file_id = b.file_id(+)
       and ceil( blocks*&&blksize/1024/1024 ) -
       ceil( (nvl(hwm,1)*&&blksize)/1024/1024 ) > 0
/
```

Table shrinking is redo log intense, so it is an option to disable archive logging, if possible, before performing a larger operation of this kind.