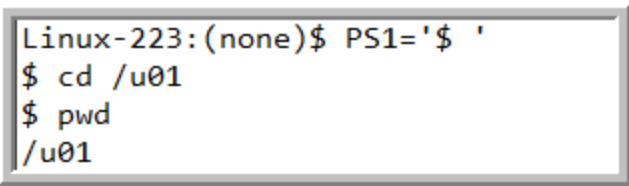
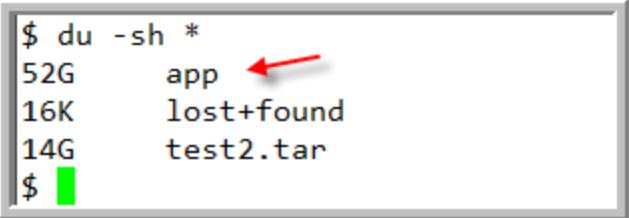
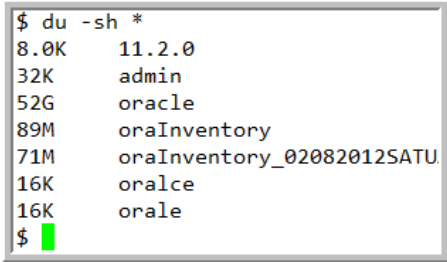


Scenario:

- 1. Database server is Linux
- 2. /u01/app/oracle (\$ORACLE_BASE) has 100G in total
- 3. /u01/app/oracle is 90% utilized and alarm has been raised.
- 4. DBA finds a location where there are thousands of trace files are residing and can be safely purged. This location is /u01/app/oracle/diag/rdbms/batch27/Batch27/trace
- 5. DBA however wants to clean the location by purging all the trace files older than 7 days.

Solution:

#	Description	Command and screenshot
1	Change directory to mount point in question	PS1='\$ ' cd /u01 pwd du -sh * <pre>Linux-223:(none)\$ PS1='\$ ' \$ cd /u01 \$ pwd /u01</pre>
2	Find the largest base directory	du -sh <pre>\$ du -sh * 52G app 16K lost+found 14G test2.tar \$</pre> Looks like app is holding 52 GB of space. Lets go inside app folder to find out what subdirectory is holding most of the space. cd app du -sh * <pre>\$ du -sh * 8.0K 11.2.0 32K admin 52G oracle 89M oraInventory 71M oraInventory_02082012SATU 16K oralc 16K orale \$</pre>

Directory called **oracle** is holding about 52 GB of space. Lets go inside **oracle** directory and check which sub directory holds most of the space.

```
pwd
cd oracle
pwd
du -sh * |grep -viE "[0-9]k|[0-9]m"|sort -nr
```

Note:

Please note that I have removed any value number which ends with K or M by adding **du -sh * |grep -viE "[0-9]k|[0-9]m"** and then use **sort -nr** to sort the number from in reverse order (from high to low)`

```
$ pwd
/u01/app
$ cd oracle
$ pwd
/u01/app/oracle
$ du -sh * |grep -viE "[0-9]k|[0-9]m"|sort -nr
23G → admin
16G → product
7.4G → diag
4.5G fast_recovery_area
2.2G oradata
$ █
```

From the screenshot above, it looks like **admin** and **diag** holds the most data. Lets look into **diag** as I know this is the diagnostic directory which mostly contains trace files which can be cleaned up by removing old files (perhaps all files older than 7 days?).

3 Find the largest directory in diag directory.

```
pwd
cd diag
pwd
for i in G M K; do du -ah /u01/app/oracle/diag | grep [0-9]$i | sort -nr -k 1; done | head -n 11
```

```
$ pwd
/u01/app/oracle
$ cd diag/
$ pwd
/u01/app/oracle/diag
$ for i in G M K; do du -ah /u01/app/oracle/diag | grep [0-9]$i | sort -nr -k 1; done | head -n 11
7.4G /u01/app/oracle/diag
4.2G /u01/app/oracle/diag/rdbms
3.2G /u01/app/oracle/diag/tnslnr/Linux-223
3.2G /u01/app/oracle/diag/tnslnr
2.8G /u01/app/oracle/diag/tnslnr/Linux-223/listener/alert →
2.8G /u01/app/oracle/diag/tnslnr/Linux-223/listener
497M /u01/app/oracle/diag/rdbms/primedg
450M /u01/app/oracle/diag/rdbms/primedg/PrimeDG
423M /u01/app/oracle/diag/rdbms/primedg/PrimeDG/trace →
254M /u01/app/oracle/diag/rdbms/ioandb
241M /u01/app/oracle/diag/rdbms/ioandb/IoanDB
$ █
```

		From the screenshot above, it looks like the following two directories need to be cleaned. • /u01/app/oracle/diag/tnslsnr/Linux-223/listener/alert → 2.8 GB • /u01/app/oracle/diag/rdbms/primedg/PrimeDG/trace → 423 MB Lets take a look at what can be cleaned from these directories.										
4	Change directory to trace files	cd /u01/app/oracle/diag/rdbms/primedg/PrimeDG/trace										
5	Lets collect some stats on kind of files “trace” directory has.	<pre>\$ pwd /u01/app/oracle/diag/rdbms/primedg/PrimeDG/trace</pre> <table><tr><td><pre>\$ ls -ltrh wc -l 4062</pre></td><td>Total files in trace directory</td></tr><tr><td><pre>\$ ls -ltrh *trm wc -l 2029</pre></td><td>Total trace map (trm) files in trace directory</td></tr><tr><td><pre>\$ ls -ltrh *trc wc -l 2028</pre></td><td>Total trace files in trace directory</td></tr><tr><td><pre>\$ ls -ltrh cdmp* wc -l 85</pre></td><td>Total of coredump files in trace directory</td></tr><tr><td><pre>\$ ls -ltrh *.log wc -l 1</pre></td><td>Total of log files in trace directory</td></tr></table> From the output, it looks like there are 4062 files in /u01/app/oracle/diag/rdbms/primedg/PrimeDG/trace	<pre>\$ ls -ltrh wc -l 4062</pre>	Total files in trace directory	<pre>\$ ls -ltrh *trm wc -l 2029</pre>	Total trace map (trm) files in trace directory	<pre>\$ ls -ltrh *trc wc -l 2028</pre>	Total trace files in trace directory	<pre>\$ ls -ltrh cdmp* wc -l 85</pre>	Total of coredump files in trace directory	<pre>\$ ls -ltrh *.log wc -l 1</pre>	Total of log files in trace directory
<pre>\$ ls -ltrh wc -l 4062</pre>	Total files in trace directory											
<pre>\$ ls -ltrh *trm wc -l 2029</pre>	Total trace map (trm) files in trace directory											
<pre>\$ ls -ltrh *trc wc -l 2028</pre>	Total trace files in trace directory											
<pre>\$ ls -ltrh cdmp* wc -l 85</pre>	Total of coredump files in trace directory											
<pre>\$ ls -ltrh *.log wc -l 1</pre>	Total of log files in trace directory											
6	Find the oldest of .trc file	<pre>find . -type f -name "*.trc" -print0 xargs -0 ls -ltr head -n 1</pre> <pre>\$ find . -type f -name "*.trc" -print0 xargs -0 ls -ltr head -n 1 -rw-r----- 1 oracle oinstall 655 Oct 26 23:36 ./PrimeDG_ora_10542.trc xargs: ls: terminated by signal 13 \$ █</pre> Looks like Oct 26th is the oldest trace file										
7	Find the newest .trc file	<pre>find . -type f -name "*.trc" -print0 xargs -0 ls -lt head -n 1</pre> <pre>\$ find . -type f -name "*.trc" -print0 xargs -0 ls -lt head -n 1 -rw-r----- 1 oracle oinstall 3227 Nov 26 13:29 ./PrimeDG_mmon_6220.trc xargs: ls: terminated by signal 13 \$ █</pre>										

		and looks like Nov 26th is the newest file.
8	Print all files which are older than 7 days	<pre>find /u01/app/oracle/diag/rdbms/primedg/PrimeDG/trace -type f -name "*.trc" -mtime +7 -exec ls -ltrh {} \;</pre> --to find count of total trace files older than 7 days, use the following: <pre>find /u01/app/oracle/diag/rdbms/primedg/PrimeDG/trace -type f -name "*.trc" -mtime +7 -exec ls -ltrh {} \; wc -l</pre>

9. To delete the files older than 7 days:

To delete all ARCHIVE files older than 7 days	<pre>find /u99/PrimeDG/Archive -type f -name "*.arc" -mtime +7 -exec rm {} \;</pre>
To delete all TRACE files older than 7 days	<pre>find /u01/app/oracle/diag/rdbms/primedg/PrimeDG/trace -type f -name "*.trc" -mtime +7 -exec rm {} \;</pre>
To delete all TRACE MAP files older than 7 days	<pre>find /u01/app/oracle/diag/rdbms/primedg/PrimeDG/trace -type f -name "*.trm" -mtime +7 -exec rm {} \;</pre>
To delete all CORE DUMP files older than 7 days	<pre>find /u01/app/oracle/diag/rdbms/primedg/PrimeDG/trace -type f -name "cdmp*" -mtime +7 -exec rm -rf {} \;</pre>
To delete all .dmp files that are older than 1 days.	<pre>find /u18/PrimeDG/Schema -type f -name ".dmp*" -mtime +1 -exec rm -rf {} \;</pre>
To delete all .aud files that are older than 7 days.	<pre>set linesize 200 col name format a40 col value format a40 select name, value from v\$parameter where name='audit_file_dest';</pre> <pre>SQL> SQL> SQL> NAME VALUE ----- audit_file_dest /u01/app/oracle/admin/PrimeDG/adump</pre> --Find the used size of audit_file_dest --Find the total # of files in audit_file_dest <pre>!du -sh /u01/app/oracle/admin/PrimeDG/adump !ls -ltrh /u01/app/oracle/admin/PrimeDG/adump wc -l</pre> <pre>SQL> !du -sh /u01/app/oracle/admin/PrimeDG/adump 162M /u01/app/oracle/admin/PrimeDG/adump SQL> !ls -ltrh /u01/app/oracle/admin/PrimeDG/adump wc -l 39562</pre> --Find the oldest and newest audit file

```
!find /u01/app/oracle/admin/PrimeDG/adump -type f -name "*.aud" -print0 | xargs -0 ls -ltr | head -n 1
!find /u01/app/oracle/admin/PrimeDG/adump -type f -name "*.aud" -print0 | xargs -0 ls -lt | head -n 1
```

```
SQL> !find /u01/app/oracle/admin/PrimeDG/adump -type f -name "*.aud" -print0 | xargs -0 ls -ltr | head -n 1
-rw-r----- 1 oracle oinstall 762 Feb  2  2014 /u01/app/oracle/admin/PrimeDG/adump/primedg_ora_8435_1.aud
xargs: ls: terminated by signal 13

SQL> !find /u01/app/oracle/admin/PrimeDG/adump -type f -name "*.aud" -print0 | xargs -0 ls -lt | head -n 1
-rw-r----- 1 oracle oinstall 758 Apr 24 15:00 /u01/app/oracle/admin/PrimeDG/adump/primedg_ora_18482_1.aud
xargs: ls: terminated by signal 13
```

--To delete all audit files older than 7 days

```
find /u01/app/oracle/admin/PrimeDG/adump -type f -name "*.aud" -mtime +7 -exec rm {} \;
```

10. Collect the stats again and compare

BEFORE DELETE		AFTER DELETE	
\$ pwd /u01/app/oracle/diag/rdbms/primedg/PrimeDG/trace		\$ pwd /u01/app/oracle/diag/rdbms/primedg/PrimeDG/trace	
\$ ls -ltrh wc -l 4062	Total files in trace directory	\$ ls -ltrh wc -l 1889	Total files in trace directory
\$ ls -ltrh *trm wc -l 2029	Total trace map (trm) files in trace directory	\$ ls -ltrh *trm wc -l 942	Total trace map (trm) files in trace directory
\$ ls -ltrh *trc wc -l 2028	Total trace files in trace directory	\$ ls -ltrh *trc wc -l 942	Total trace files in trace directory
\$ ls -ltrh cdmp* wc -l 85	Total of coredump files in trace directory	\$ ls -ltrh cdmp* wc -l 35	Total of coredump files in trace directory
\$ ls -ltrh *.log wc -l 1	Total of log files in trace directory	\$ ls -ltrh *.log wc -l 1	Total of log files in trace directory

Now you can do the same method to clear any directory. Be sure to clean the right files that are not needed.

Very important:

DO NOT delete any redo, datafiles, backups or archivelogs using this method. To clean up the following files, use the following tools.

Files	Tool to clean up files.
trc, trm, cdump, .dmp	use the above method.

Redo	Use SQL
Datafiles	Use SQL
Archivelogs	Use RMAN
Backup	Use RMAN

Hope this helps.
Moid