The Right Way to Monitor an Oracle Database

NYOUG

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Classic alerts

- Space
- Connectivity
- Down database
- Trace file buildup
- Backups
- Best practices


Space-related concerns "

Objects close to their max extents

- maxextents unlimited??
- this is 2008 not 1988
  - speed of modern disk technology
  - is too many extents still an issue
- nature of the beast with locally managed tablespaces
- defrag activities—a thing of the past??

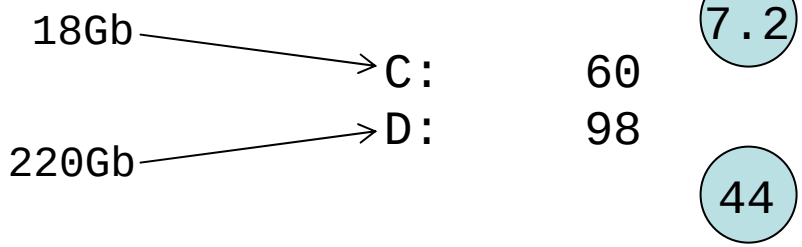
Objects unable to extend

- frequency of monitoring runs
  - between iterations, transactions could fail
  - why not run every minute
    - collide with one another
    - end up the problem rather than the solution
- next to impossible to avoid extension by many many objects simultaneously
- autoextend-sensitive scripts

Disks over threshold

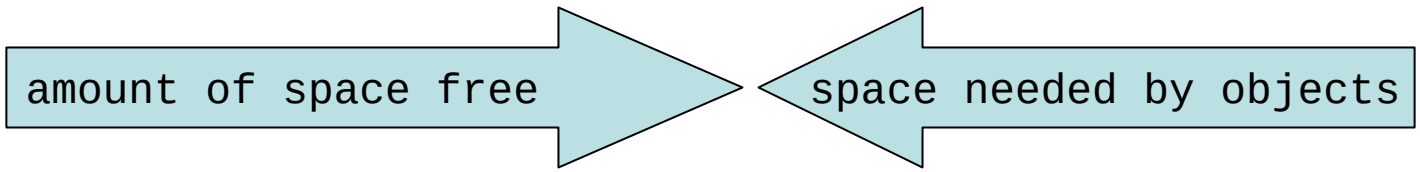
- especially of concern in archived redo location
  - with rman, failed backups can leave a plethora of files behind
- map each mount point/device to a tolerance
  - the bigger the disk, the higher the tolerance

```
/u01      90
/u02      80
```



Tablespace % occupied

- what really matters



- the former is an unnecessary can of worms
  - running around worrying about situation that has no affect on apps
  - may have no choice based on O/S counterparts or application owners


Connectivity ...

Listener

- ideally parse the listener.ora file
- stat each listener
- attempt connection via SQL*Net
- size of listener log
  - 2Gb file limit
  - inhibit successful connections
- imitate application connection every iteration

Listener log file

- keeping well under 2Gb
  - *lsnrctl*
  - *set log_file temp_listener.log*
  - *erase listener.log*
  - *lsnrctl*
  - *set log_file listener.log*
- how useful is its information anyways?


Down database

Open or mounted

- mounted

```
ADDR                INDX INST_ID D
---------------- ----- ------- -
00000000055A76BC       0       1 X
```

- open

```
D
-
X
```

Role

```
select database role
from v$database;
```

Know the data dictionary

- PRIMARY
- PHYSICAL STANDBY

Not a problem

- check the instance alert log before going any further
- do not automatically restart a down database when evidence shows normal shutdown

```
Shutting down instance (immediate)
. . .
ALTER DATABASE CLOSE NORMAL
```


Trace file buildup

You think, ∴ udump

- most information is just that
- few clues as to what may indeed be
  - service affecting
  - problematic requiring immediate attention
  - in need of human intervention
- cryptic (outside of stack trace)

Handling trace files

/admin/PRD/udump/PRD_20080812.tar
/admin/PRD/udump/PRD_20080813.tar
/admin/PRD/udump/PRD_20080814.tar
/admin/PRD/udump/PRD_20080815.tar
/admin/PRD/udump/PRD_20080816.tar
/admin/PRD/udump/PRD_20080817.tar
/admin/PRD/udump/PRD_20080818.tar
/admin/PRD/udump/PRD_20080819.tar

Handling trace files

/admin/PRD/udump/PRD_20080820.tar
/admin/PRD/udump/PRD_20080821.tar
/admin/PRD/udump/PRD_20080822.tar
/admin/PRD/udump/PRD_20080823.tar
/admin/PRD/udump/PRD_20080824.tar
/admin/PRD/udump/PRD_20080825.tar
/admin/PRD/udump/PRD_20080826.tar
/admin/PRD/udump/PRD_20080827.tar

Handling trace files

```
find
/admin/PRD/udump/PRD\*.\*
-atime +3 –exec rm {} \;
```

```
forfiles /p
c:\oracle\admin\PRD\udump
/c "cmd /c del @fname"
```

5.2.3790.0


But I need those trace files to send to support …
Don’t worry, Oracle will produce some fresh ones …


Backups
Backups

Did they run / complete

- standard formatted log file
  - system date {YYYMMDD}
  - details evident from file name (e.g. *rman_prd_level0_20080906.log*)
- keywords for completion
  - *terminated*
  - *anager complete*

Did they report errors

- rman
  - RMAN-00569
- online
  - compare file sizes?
  - scour log file?
- export / datapump
  - decide if export error(s) fatal to import

All too easily forgotten

- events to page on
  - did not run
  - did not complete
  - threw 1 or more errors
- ran error-free
  - communicate success

Best practices

- present the client with a list of what is monitored and what is not
- ensure you have an "argument" to support each monitoring decision
- be willing to monitor everything that the client wants that may deviate from your normal setup

Best practices

- provide documentation supporting your off-the-shelf approach to monitoring
- document / document / document
- use an electronic ticket system

Best practices

- an internal knowledgebase
  - accelerate time-to-market for solutions
  - avoid re-living the same nightmare over and over again
  - easily accessible and able to reference in ticket system
- track contributions to the knowledgebase and deal with "delinquent" participants

Newbie

- knows hours per day and minutes per hour
- tracks down 00600 and 07445 errors
- trusts everything returned from Google searches on Oracle tech issues
- knows the Fresh Prince of Belair is on Nick at Nite at 3AM

Experienced

- 1440 minutes per day and its impact on the job queue
- reports on 00600 and 07445 errors with client participation
- picks sites run by "reputable" and "well-respected" technicians, not *mobile mountain range* techies
- knows that Roseanne and Home Improvement replace the Prince in the Saturday and Sunday time slots

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AIM YAHOO! msn

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