

News Letter

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DBA Online – On the front line of database administration – DBA Online powers Oracle DBA

DBA Online

Contents

Summary of August's Seminar	1
Message from the Editor-in-Chief	2
DBAOnline Picnic 2003	3
Running Scripts on Multiple Servers	4
Oracle9i Migration Q & A	6

Summary of August's Seminar

With careful planning and active preparation, DBAOnline launched another large-scale free technical seminar on August 24 at Clarion Hotel, Edison NJ. Over 100 people attended this seminar featuring trends and updates in Oracle technologies, Relational - Multidimensional Databases, useful Oracle tools from Quest Software and GoldenGate, and Oracle 9i Migration/Upgrades.

Leading off as usual, the president of DBAOnline and Youngtech, Mr. David Wang offered authoritative analysis of current database markets. David reviewed database market share, new trends, and the hottest Oracle technologies – all of which are hot topics for today's Oracle professionals. According to David, business intelligence applications, especially those incorporated through Web interfaces, are strongly impacting on the marketplace. Also, database optimization technology is a growing business that shows promise. His presentation undoubtedly helped all the attendees get a global view of today's database world.

Mr. Qi Wang, a senior principal consultant from Oracle Corporation, accentuated David's points by covering a business intelligence application in detail: Oracle 9i OLAP -- A Relational - Multidimensional Database. Although relational database (RDBMS) is familiar to all, the concept of Multidimensional Database (MDDS) is new to most members. Mr. Qi Wang started his presentation by quoting rumors about Oracle Express, and then went on summarizing its history and its evolution into Oracle OLAP. From the evolutionary change of Oracle Express itself to the horizontal comparison

between RDBMS and MDDS, Mr. Qi Wang clearly outlined the characteristic and advantages of MDDS.



Quest Software is a premier Oracle software company and has provided ongoing support to DBAOnline. In this seminar, Quest sent out three speakers, each of whom emphasized different areas. Their speakers covered the major problems experienced by Oracle DBA, the methodology used to tackle problems, and how Quest can help to identify and solve the problem. Oracle professionals in attendance were impressed with the speakers' good grasp of Oracle technology. No wonder their tools are so popular.

GoldenGate was another sponsor for this seminar. They are concentrating on developing real-time database replication. Mr. Werner He, a senior software analyst from Golden Gate gave a mesmerizing presentation. He diverted the normal style used by sales people, and instead delivered his message by telling the story of GoldenGate's eight-year evolution into its current position. Attendees found both the presentation and the product to be unique.

The last program on the agenda was a live Oracle 9i Migration/Upgrade contest hosted by Ms. Carol Sheng, VP and Chairperson of Seminar Committee of DBAOnline. Considering that many companies are busy in beating the deadline to migrate/upgrade their databases to 9i by the end of this year, DBAOnline collected some tricky problems that members encountered in the process of performing these tasks and put them in "Q/A with reward" format to help members exchange their ideas. Everybody was intrigued by the contest. Many members anxiously raised hands and offered their responses. This was a great participative event and held people's interest long after the seminar ended.



Message from the Editor-in-Chief

Dear DBAOnline members,
 Since I took over as editor-in-chief earlier this year, I have received tremendous help from many committee members. Here, I would like to express my deepest appreciation to all who have contributed their help.

As a committee member and editor-in-chief, I firmly believe that DBAOnline has a purposeful mission. This organization started as an Oracle database resource about four years ago and has experienced continuous growth since then. However, being bigger is not our goal. The ultimate goal of DBAOnline is to serve your needs by helping you grow as an Oracle professional. The difference between our association and others is that our members are not our clients, instead we are a collaborative team. Everybody is held responsible for the success of the organization. Besides the effort put forth to hold seminars and functions, DBAOnline committee members should act as an intermediary to collect inputs from all members and combine them into an efficient package for members to use. The more you contribute as an individual, the more we benefit as a whole team. Thus, I'm calling for all kinds of inputs from you. Your help can make a difference. If you don't know where to start, I would like to challenge you to answer the following four questions:

1. Are the formats and contents of the newsletters exactly what you expected? If not, do you have any suggestions?

2. Is the format and content of the newsletter exactly you expected? Do you have any useful Oracle tricks you would like to share?

3. Were you able to participate the seminars and activities organized by DBAOnline? If not, why? Was it because they are not interesting to you?

4. If you meant to participate but was unable to make it. What prevented you from coming? Is there anything we can do to clear that barrier?

Your responses to part or all of the questions will be highly appreciated. Please forward them to me at yan@dbaonline.org or admin@dbaonline.org.

DBAOnline Picnic on July 27

On July 27, 2003, DBAOnline held our summer picnic at the beautiful Spruce Run Recreation Area. Approximately 150 members and their families joined us. Some members came from as far as Connecticut, New York and Pennsylvania. The delicious barbecue, desert, fruits, drinks prepared by DBAONLINE and the home-made food brought by members created a fancy outdoor dining experience. The round-table talk show in the shade made members laugh to tears. Swimming lovers enjoyed themselves to the fullest in the lake. Kids were too busy at building sand castles to go home. Also featured were competitive volleyball and badminton matches. Members also took time to exchange work experience and a happy, relaxed day at the park was had by all.

Although DBAONLINE has hosted many successful technical seminars in the past, this was our first organized outdoor summer gathering. It was a great success due to the coordinated efforts of the committee members and the enthusiastic support of our members. Everybody suggested that we organize this kind of activity more often to enrich our life and improve communication and cooperation between members. We are going to take their advice and try to create more relaxed atmosphere to help strengthen our association.



Running Scripts on Multiple Servers

Donald Burleson

A "Change All" Command for Unix

The script shown in this section does a search and replace in all files in a directory, replacing one string with another. If I have a Unix directory with hundreds of files and I need to change the ORACLE_SID in each file, this script can make all the changes in seconds. It also creates a backup directory with the original contents of every file that it changed. This script has saved me hundred of hours of tedious editing.

```
#!/bin/ksh
tmpdir=tmp.$$
mkdir $tmpdir.new

for f in $*
do
    sed -e 's/oldstring/newstring/g\'
    < $f > $tmpdir.new/$f
done

# Make a backup first!
mkdir $tmpdir.old
mv $* $tmpdir.old/
cd $tmpdir.new
mv $* ../

cd ..
rmdir $tmpdir.new
```

The for loop that you see in the script causes the sed command to be executed for each file in the current directory. The sed command does the actual search and replace work, and at the same time writes the new versions of any affected files to a temporary directory.

To use this script, place the code shown here into a file named `chg_all.sh`. Whenever you want to make a global change, start by editing the old and new strings in the script file. Then, when executing the script, pass in a file mask as an argument. For example, to only change SQL files, you would execute the command like this:

```
root> chg_all.sh *.sql
```

When the script completes, the string substitution that you requested will be done, and you'll be left with a directory named `tmp.old`, which contains the original versions of any modified files.

A Script to Check Oracle Values on Hundreds of Databases

One thing I always needed for Unix was a way to run the same SQL*Plus command on every database, and even databases on other servers. I had a manager who wanted to know the default optimizer mode for every database at a shop that had over 150 databases on 30 database servers. The manager allotted me two days for this task, and he was quite surprised when I provided the correct answer in ten minutes. I did it using the following script:

```
# Loop through each host name . . .
for host in `cat ~oracle/.rhosts`
do
    cut -d"." -f1|awk '{print $1}'|sort -u`
echo " "
```

```

echo "*****"
echo "$host"
echo "*****"
# loop from database to database
for db in `cat /etc/oratab|grep ':N|:Y'\
grep -v \*|grep ${db}|cut -f1 -d:'`
do
  home=`rsh $host "cat /etc/oratab|grep ':N|:Y'\
grep -v \*|grep ${db}|cut -f2 -d:'`
  echo "*****"
  echo "database is $db"
  echo "*****"
  rsh $host "
ORACLE_SID=${db}; export ORACLE_SID;
ORACLE_HOME=${home}; export ORACLE_HOME;
${home}/bin/sqlplus -s /<<!
set pages 9999;
set heading off;
select value from v"\""$"parameter
where name='optimizer_mode';
exit
!"
done
done

```

This script requires the Unix remote shell (rsh) privilege so that it can bounce quickly between servers. You do this by making entries into your .rhosts file. The script will loop through all of the server names defined in the .rhosts file on your system, and will then loop through each database listed in each server's /etc/oratab file.

You can use this script to check any database values or to run any SQL*Plus script. You quickly can get user reports, performance statistics, and a wealth of information on every database in your enterprise. I have also used variations on this script to delete old trace files from the Oracle directories and to check free space in archived redo log file systems. This script has saved me many hours of repetitive work executing the same command against many databases.

A Fast Way to Change Oracle Environments

One of the most confounding problems when working in a large shop is the need to change between Oracle environments quickly. It seems that everyone has a different method for doing this, and it is always hard to remember the differences between servers. It's even harder when a server is running different versions of Oracle.

My solution is to install a standard .profile script on every server. This .profile is executed when I sign on to the server, and it automatically makes an alias for each database instance, which is the same as the Oracle SID [spell out?] name. When I enter the Oracle SID name at the Unix prompt, my entire Unix environment is reset for the new database. The following code is what I place in my .profile file:

```

for DB in `cat /etc/oratab|grep -v \#|grep -v \*|cut -d":" -f1`
do
  alias $DB='export ORAENV_ASK=NO;\
export ORACLE_SID=$DB;\
. $TEMPHOME/bin/oraenv;\
export ORACLE_HOME;\
export ORACLE_BASE=\
`echo $ORACLE_HOME | sed -e 's:/product/.*/:g`;\

```

```

export DBA=$ORACLE_BASE/admin;\
export SCRIPT_HOME=$DBA/scripts;\
export PATH=$PATH:$SCRIPT_HOME;\
export LIB_PATH=$ORACLE_HOME/lib64:$ORACLE_HOME/lib '
done

```

Now, if I want to switch my environment to the PROD database, I simply type in PROD as a command at the Unix command prompt.

Note that for Solaris you need to change the oratab directory name from /etc to /var/opt/oracle.

Oracle9i Migration Q & A

The following questions are gathered from our members and presented by Carol Sheng.

Questions:

1. Which oracle utility is used to migrate the database to 9i?
2. Which three areas you need to pay attention to have enough space during migration?
3. If your oracle 8i database's national character is US7ASCII, which will be set through wizard during/after migration?
A.AL16UTF16
B.UTF8
4. You ran into problem when attempt to create table outln.ol\$nodes. If you have enough space what could be wrong? What you should do?
5. In Oracle8i, my packages compiled file, why it gave me pls-00593 error after migrate to Oracle9i?
6. In my 9i init file:
_full_pwise_join_enabled=false
_always_semi_join=off
what is wrong?
7. I could select v\$\$session in 8i after migrate, when I select it I got table or view does not exist errors, why?
8. In the following initial parameters,
pga_aggregate_target
background_dump_dest
cpu_count
core_dump_dest
java_pool_size
which one is obsolete?
9. After 9i release 2 if you want to apply for interim patch, which utility need to use for that?
10. If you issue start up command to startup the 9i database can you recreate spfile after that? If you want to change spfile what you should do?

11. Which is the default tablespace created by dbua, locally managed tablespace or dictionary managed tablespace

12. In Oracle9i, what would you get if you issue svrmgrl? Which command you should issue instead?

Answers:

1. dbua

2. Prepare the system rollback segment; Ensure plenty of free space in the SYSTEM tablespace; Ensure plenty of free space in the ROLLBACK tablespace.

3. A

4. The default tablespace for outln is TEMP, it should change to SYSTEM

5. default value of parameter in body must match that of spec

6. The two parameters:
_always_semi_join=off
_full_pwise_join_enabled=false
should be by alphabetic order

7. The select any table role do not include data dictionary tables/views

8. cpu_count

9. opath

10. It won't allow you to recreate the spfile as it is in use. You should Startup with pfile then create spfile using pfile.

11. Locally managed tablespace

12. You get error on Command not found, use
sqlplus /nolog
connect / as sysdba