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www.dbaOnline.org

Email: admin@dbaOnline.org

Current Vol. Editor: Yan Lin

DBA ONLINE

美國數據管理協會

Newsletter

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

DBA Online

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DBA Online’s May 2010 Seminar



American DBA Online successfully hosted another technical seminar on May 15th at the Crowne Plaza Hotel in Edison, New Jersey. Many IT professionals from the New Jersey, New York, Pennsylvania and Connecticut area attended the seminar.

The seminar was hosted by committee member Yan Lin. President David Wang started his opening remarks with a very warm greeting by saying “I am happy to see you again after 10 years” which made the audience smile right away. American DBA online was founded more than ten years ago. It has hosted numerous technical seminars and events during its long journey. By attending the seminars, members not only learning cutting-edge technologies and real life experiences but also establishing strong network connections in the community.

Compared to seminars in the past, this seminar is special because both speakers, John Zhong and Stan Ma, are committee members of DBA Online. They have worked in this field for more than a decade and have been active speakers in the IT community. As senior database administrators and architects in various financial companies, they have accumulated years of working experience and know what topics can provide the most benefit to our members.

Cost reduction is a major concern for most companies nowadays. Data grows every day, at the same time data was deleted and updated and that lead to fragmentation. One of the issues faced by every DBA is how to control storage cost and regained unused space due to these data manipulation activities. In John Zhong’s presentation ‘Database Storage

Optimization', he shared with members how to identify index, table and tablespace fragmentation using Data Dictionary views, DBMS_SPACE Package and Segment_Advisor. He also explained different ways to defragment and regain the storage that was allocated but not used.

Performance tuning is a very popular but challenging topic for every DBA. Presentation given by Stan Ma is "SQL Tuning and Performance Tuning of Batch Jobs". His speech focused on two real cases. Stan showed members how to use "explain plan" to effectively identify performance root cause during trouble-shooting. Especially he emphasized on how to lower Logical I/O which caused performance issue in both of his examples.

As usual, President of DBA Online David Wang gave another useful tip this time. He introduced performance tuning tool, The SQLT package from Oracle. He explained how to use SQLT to generate trace file report and talked about how to browse reports, identify issues and solve the problem quickly.

Finally, Learn DBA, one of sponsors of this seminar conducted sweepstakes. Our veteran member Ken who had been actively involved in our activities and seminars was the final winner.

Our credits also go to ORACLE Corporation for their financial support to DBA Online. As always, DBA online appreciates the effort of our committee and all continuous support from our members.

DBA Online Committee

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SQLT Overview

Oracle Support

SQLT Overview

SQLTXPLAIN, also known as SQLT, is a tool provided by Oracle Support Center of Expertise CoE. SQLT inputs one SQL statement and outputs a set of diagnostics files. These files are commonly used to diagnose SQL statements performing poorly.

SQLT connects to the database and collects execution plans, Cost-based Optimizer CBO statistics, schema objects metadata, performance statistics, configuration parameters, and similar elements that influence the performance of the SQL being analyzed.

SQLT may also use the Oracle Diagnostic and the Oracle Tuning Packs if your site has a license for them. These two provide enhanced functionality to the SQLT tool.

The SQL statement to be analyzed by SQLT can be provided as SQL text, or using an ID, or within a script that contains the SQL text together with optional bind variables (declaration and assignment). These 3 [standard methods](#) are materialized as [XPLAIN](#), [XTRACT](#) and [XECUTE](#) respectively. Due to better quality of the output provided, try using the latter two and avoid the former.

Installing SQLT

SQLT installs under its own schema SQLTXPLAIN. It does not install any objects into the application schema(s). You can install this version of SQLT in Oracle databases 10.2 and higher, on UNIX, Linux or Windows platforms.

Installation steps:

1. [Uninstall](#) a prior version.

This optional but recommended step removes all obsolete SQLTXPLAIN schema objects and prepares the environment for a fresh install. Skip this step only if you have valuable records in your old SQLT repository.

```
# cd sqlt/install
# sqlplus / as sysdba
SQL> START sqdrop.sql
```

2. **Execute** `sqlt/install/sqcreate.sql` **connected as SYS.**

```
3. # cd sqlt/install

4. # sqlplus / as sysdba

5. SQL> START sqcreate.sql
```

During installation you will be asked these questions:

1. **SQLTXPLAIN password.**

It may be case sensitive in some systems.

2. **SQLTXPLAIN Default Tablespace.**

Select from a list of available permanent tablespaces which one should be used by SLTXPLAIN for the SQLT repository.

3. **SQLTXPLAIN Temporary Tablespace.**

Select from a list of available temporary tablespaces which one should be used by SLTXPLAIN for volatile operations and objects.

4. **Application User.**

This is the user that issued the SQL statement to be analyzed. For example, if this were an EBS system specify APPS. You won't be asked to enter the password for this user. You can add additional SQLT users by granting them role SQLT_USER_ROLE after SQLT is installed, or by using provided script `sqlt/install/sqguser.sql`

5. Licensed Oracle Pack.

You can specify "T" for Oracle Tuning, "D" for Oracle Diagnostic or "N" for none. If "T" or "D" is selected, SQLT may include licensed content within the diagnostics files it produces.