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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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- American DBA Online Annual Conference



American DBA Online successfully hosted the annual technical conference on Saturday, October 29, 2005 at the Clarion Hotel & Towers, Edison, New Jersey. More than one hundred IT professionals attended the seminar, which featured four well-known industry speakers with important and interesting topics covering a wide range of data management. The highlight of the day came when Mr. David Wang gave the trophies to Dr. Paul Dorsey and Mr. Dave Anderson for their great contribution to this great event and their continuing support to American DBA Online.



Mr. David Wang, the president of American DBA Online, kicked off the seminar by offering a warm welcome to all the guesses and audience. He also provided a DBA tip on backing up a 1.5TB database in less than 10 minutes with IPStor. The American DBA Online committee member, Mr. Stan Ma, hosted the seminar. He not only introduced the speakers to the audience, but also helped audience to understand the importance of the topics the speakers presented with his own working experience.

Four technical presentations covered hot topics at the current job market: performance tuning, Oracle 10g Release 2 new feature, security, and backup and recovery.



The keynote speech was given by Dr. Paul Dorsey, the president of New York Oracle User Group (NYOUG). Dr. Dorsey has a “rock star” status in Oracle community. He is one of the six initial honorary Oracle 9i Certified Masters, with seven Oracle Press books published and translated into nine

languages. He is the founder and the president of Dulcian, Inc. His speech focused on *Ultra High Performance SQL and PL/SQL in Batch Processing*. Applying traditional programming techniques to large batch routines typically results in inadequate performance. Thus processing large amounts of data using SQL and PL/SQL poses a unique set of challenges. Different strategies of programming are needed. With three case studies of different large batches routine, Dr. Dorsey discussed his own “best practice” approaches in batch programming.



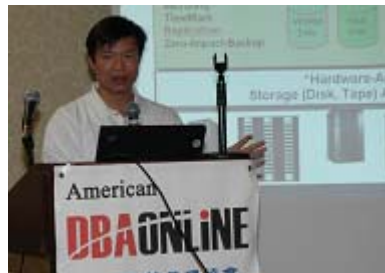
Mr. Dave Anderson, the president of Skillbuilders, presented the *Oracle 10g Release 2 New Feature*. He also is a well-known senior Oracle instructor and an active speaker at the Oracle User Group conference

over the past years. Mr. Anderson focused on the most practical features among many Oracle 10g R2 new improvements. He compared the Data Pump utility with the traditional Export and Import method. He reviewed the Flashback feature of Oracle 9i and the improvement of this feature in 10g R2. The improvement of the performance tuning and RMAN enhancement were also covered in his speech.



Dr. Prat Moghe, the founder and CEO of Tizor Systems, provided a unique technology presentation on *Activity Auditing for Database Security and Compliance*. He focused on that activity auditing solution must be intelligent to allow

automated correlation and analytics to be able to specify and detect composite or anomalous critical activities needed by compliance. Done right, activity auditing solutions can be reused across different projects and create significant ROI in the trenches.



Mr. Wayne Lam, vice president and a co-founder of FalconStor Software Inc., showcased an innovative technology for database backup and recovery by IPStor. In his presentation, titled *Implementing Effective BDCR solutions for Oracle*

Environment, he introduced a new concept and method on database disaster recovery. In a world where the backup window has shrunk to virtually nil, and downtime is not an option, three things are crucial to enterprise survival: super-fast non-impact backup; rapid, if not immediate, recovery, and a comprehensive backup plan that addresses not just one type of data loss, but all types. IPStor achieves these ends for true data protection and surefire continuity of business operations. If you would like to learn more about the IPStor, you can attend the next FalconStor's seminar and register online at <http://www.falconstor.com/wevent>.

The popular program "Oracle 10g Technical Quiz" was hosted by the committee member, Ms. Lin Yan. All the audiences were excited by the challenging questions. The winners of the quizzes were rewarded by both the admiration from other participants and the SAP Mini Hub.

We were honored to have Tizor, FalconStor, Skillbuilders, Noetix, AXA Advisor (Joyce Qi Huang) and Clarion Hotel sponsoring this seminar. Thanks to their generous gifts, including iPods, USB flash drives, gift certificate, and bags, this seminar was both rewarding and fun for the audiences.

This seminar represented another milestone achieved by the non-profit organization, American DBA Online. All four speakers are the

founder and/or CEO in the IT industry. They had high remarks about the effort made by the organization to help IT professionals, especially Oracle related specialists, to be on the cutting edge of the Oracle technology. They sincerely acknowledged the platform built by the American DBA Online committee to promote more communication and social network among IT professionals. They expressed their enthusiasms about the long term collaboration with the organization. Dr. Dorsey, the president of NYOUG, invited American DBA Online to co-host the annual New York Metro Area Oracle User Group Meeting, one of the largest Oracle user conferences in the nation. Mr. Anderson, the senior Oracle instructor, is willing to give us on-going updates on Oracle new features. He gave a presentation prior to this one, focusing on Oracle 9i new features.

We look forward to having your participation and support in the future!

American DBA Online Committee





- **Community News**

Red Cross Donation for Hurricane Katrina Victims



The second annual New Jersey Mid-Autumn Festival was held on September 17, 2005 at the Edison township municipal park. Over one hundred local merchants set up booths at the

festival selling a variety of tasty small dishes. One of the best decorated booths was set up by American DBA Online. The American DBA Online committee members and their children were selling authentic home-made food to raise money for the worthy cause on helping hurricane Katrina victims although this event is a market sale of products. All funds raised by the charity sale were donated to Red Cross.

Committee members and their children prepared Sichuan spicy noodle, Shanghai spring rolls, five-spiced tea eggs, eight-ingredient congee, jelly, cake, etc. Each portion was sold for \$1. The children, ranging from 6-year old to 15-year old, were enthusiastically selling the products, handing out specially designed donation stickers “Love in Middle Autumn”, and directing customers to sign the American flag which was donated to Red Cross along with the money.

Through this activity, we showed to the world that DBA Online is not only a non-profit user group organization for the Oracle technical professional, but also a contributor to the local communities and worthy social causes. Through our own actions, we also educated and influenced the next generation to become responsible, loving and caring citizens.



Conference of Presidents of Overseas Chinese Professional Associations



The conference of Presidents of Overseas Chinese Professional Associations was held in the People’s Great Hall in Beijing, China on August 5, 2005. The president of American DBA Online, Mr. David Wang, was

recommended by the General Consulate of China in New York and chosen by the event committee to attend this two-days meeting, proudly representing American DBA Online organization.

It was a national-scale event. Sixty overseas representatives from around the world met with major local science & technology companies from Shanghai, Beijing, Jinan, etc. High-ranking Chinese officials responsible for science & technology gave keynote speeches, praised all overseas Chinese professionals for their contributions helping advance the science, technology and economic development in China. Also, they pointed out the opportunities for mutually beneficial cooperative ventures in the future.

American DBA Online is not just a local non-profit Oracle user group organization in the tri-state area, it’s also recognized on the radar scope of the mainland China science & technology.

Summer BBQ/Picnic



American DBA Online successfully held a summer BBQ/picnic at Donalson Park in Highland Park, NJ on July 16, 2005. Over 100 members and their families, friends

attended the event. Each family brought their favorite dishes to share with others while DBA Online provided BBQ, drinks, etc. The president of DBA Online, Mr. David Wang, gave brief remarks welcoming all comers to feel at home and have a good time.

After enjoying plenty of delicious food, attendees also eagerly participated in various after-meal entertainments playing volley ball, badminton, cards, etc. The committee member, Mr. Stan Ma, also a champion of Atlantic City Texas Hold ‘em, introduced the game to

us. Children busied themselves with playing with the colorful balloons and building sand castles by the river. Unnoticeably, five hours passed in a sunshiny Saturday afternoon.

DBA Online wants our members to lead a happy, healthy life balancing between work and family! Cheers!



- **Index Monitoring** provided by Lin, Yan

The SQL engine maintains all indexes defined against a table regardless of their usage. Index maintenance can cause significant amounts of CPU and I/O usage, which can be detrimental to performance in a write-intensive system. With this in mind, it makes sense to identify and remove any indexes that are not being used as they are a pointless drain on resources. Index monitoring allows unused indexes to be identified accurately, removing the risks associated with dropping useful indexes.

It is important to make sure that index monitoring is performed over a representative time period. If you only monitor indexes during specific time frames you may incorrectly highlight indexes as being unused. The safest method is to use a monitoring period which spans the whole lifecycle of your application, including any OLTP and batch operations. In a Decision Support System (DSS) this may involve a period of weeks or months, while OLTP systems typically have shorter cycles.

- **ALTER INDEX**

Index monitoring is started and stopped using the ALTER INDEX syntax shown below.

```
ALTER INDEX my_index_i MONITORING USAGE;  
ALTER INDEX my_index_i NOMONITORING USAGE;
```

Information about the index usage can be displayed using the V\$OBJECT_USAGE view.

```
SELECT index_name,  
       table_name,  
       monitoring,  
       used,  
       start_monitoring,  
       end_monitoring  
FROM v$object_usage
```

```
WHERE index_name = 'MY_INDEX_I'  
ORDER BY index_name;
```

The V\$OBJECT_USAGE view does not contain an OWNER column so you must to log on as the object owner to see the usage data.

- **FOREIGN KEY INDEXES**

To quote the Oracle Database Concepts manual: “You should almost always index foreign keys. The only exception is when the matching unique or primary key is never updated or deleted.”

When a foreign key is unindexed, DML on the parent primary key results in a share row exclusive table lock (or sharesub exclusive table lock, SSX) on the child table, preventing DML from other transactions against the child table. If the DML affects several rows in the parent table, the lock on the child table is obtained and released immediately for each row in turn. Despite the speed of the lock-release process, this can cause significant amounts of contention on the child table during periods of heavy update/delete activity on the parent table.

When a foreign key is indexed, DML on the parent primary key results in a row share table lock (or subshare table lock, SS) on the child table. This type of lock prevents other transactions from issuing whole table locks on the child table, but does not block DML on either the parent or the child table. Only the rows relating to the parent primary key are locked in the child table.



- **Database Quiz** provided by Hu, Tong

1. You created a database (using DBCA) by using one of the default templates. Which one below is set to the default permanent tablespace for the non-system users, excluding DBSNMP and OUTLN users?

- A. USERS
- B. SYSTEM
- C. SYSAUX
- D. EXAMPLE

2. Which statement regarding the COMPATIBLE parameter is correct?

- A. It is an advanced parameter.

- B. It is a new parameter in Oracle 10g.
- C. It can have any value between 8.0.0 and 10.1.0 in Oracle 10g database.
- D. After it is set to 10.0.0 or greater and the database is opened, it can not be set back.

3. Which dynamic performance views would you query to determine the platform your database is on?

- A. V\$DATABASE
- B. V\$INSTANCE
- C. V\$PLATFORM
- D. V\$TRANSPORTABLE_PLATFORM

4. The application tables owned by the user TEST in a test database need to be exported to the APPS schema in the production database by using Data Pump. Which option of Data Pump Import would you use to accomplish this?

- A. owner
- B. touser
- C. remap_schema
- D. fromuser

5. You enabled Flashback Database with the following command:

```
ALTER DATABASE FLASHBACK ON;
```

Which view would you query to determine whether the Flashback Database has been enabled?

- A. V\$SGA
- B. V\$DATABASE
- C. V\$INSTANCE
- D. V\$FLASHBACK_DATABASE_LOG

Answers:

1. A. 2. D. 3. A. 4. C. 5. B



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