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If you have any questions, feel free to contact me, John Jeunnette, at trainingdaysdir@rmoug.org, or Lindsey Jacks at 910.452.0006 or Lindsey@teamycc.com. We look forward to receiving your abstract submission.

Information & Registration

http://www.meetup.com/RMOUGLabs/events/19570781
On the Cover:
The cover photo is an unnamed historic mining structure on US-550, the “Million-Dollar Highway”, between Silverton and Red Mountain Pass, in the gorgeous San Juan Mountains. The photo was taken in the fall of 2010, when the aspen trees were near the peak of autumn color. It is representative of the strong history of industry and technology in Colorado, a predecessor to the computer technology industry today, of which RMOUG is a part. The photographer was Glenn Goodrum, the data architect at SquareTwo Financial, a developer of Oracle databases since 1988, and a member of RMOUG since 2008.
I've been active in RMOUG since 1992, when I made my first presentation at “Training Days” on the topic of working with PRO*C (precompilers) to best advantage. I joined the Board of Directors of RMOUG in 1995 as the liaison to Oracle Corporation, took a “real” board position in 1998, and the only period I have not been on the RMOUG board is 2007-2009.

That two-year hiatus from the RMOUG board gave me a new perspective on this wonderful organization and community. RMOUG is the only Oracle users group in the nation that has achieved true charitable non-profit (a.k.a. “501c(3)”) status with the IRS, which is really remarkable considering that we have the name of Oracle Corporation embedded in our own name. However, we achieved that status by emphasizing the educational nature of RMOUG, how we promote continuing professional education, and how we support education in information technology among the students at the high school, under-graduate, and graduate levels in Colorado through the Stan Yellott Scholarship Fund. This charitable non-profit status comes at a cost, because as an organization we're held to a higher standard of transparency and compliance than most corporations. But the advantages are making themselves apparent, as we can accept charitable gifts from donors, including vendors such as Oracle, and use those resources to deliver educational value to our members.

But something has happened to this wonderful organization over the years. We've become old-fashioned.

RMOUG is still mainly operating as it did in the 1980s and 1990s. In February, we have our two-day annual “Training Days” conference which has grown into one of the top six Oracle conferences in the world, on a par with Oracle Open World, Collaborate, ODTUG Kaleidoscope, UKOUG, and the Hotsos Symposium. In May, August, and November, we have our quarterly educational workshops. We have our highly-regarded and award-winning newsletter; we have an email list for technical questions (i.e. techies@list.rmoug.org); we have an email list for job postings and job seekers (i.e. misc@list.rmoug.org); and of course we have a website (www.rmoug.org).

Lately, RMOUG has set up special interest groups (SIGs) for E-Business Suites and for Fusion Middleware, and most exciting, we have partnered with Regis University and meetup.com to create the DBLabs, which have been both popular and successful.

But, we still operate much the same way we did in the 1980s and 1990s. Except for the SIGs and the DBLabs, everything we do, we've been doing for the past 15-20 years.

And the world has changed.

Mobile devices have spawned social media services like YouTube, Facebook, Twitter, Google+, Meetup, and LinkedIn -- RMOUG and its members have only begun adopting “new media” as a way of networking, communicating, teaching, and learning. The wide geography of Colorado and the distances and traffic problems along the Front Range have always made meetings and face-to-face interaction challenging. RMOUG has not yet expanded opportunities for its members through webcasts and web-conferences, taking full advantage both of mobile devices as well as conferencing over the internet.

Colorado is an exciting and beautiful place to live, and we in the IT profession have a wonderful life here. In addition, in RMOUG we have a terrific and mature community of like-minded professionals with whom to network, and now we need to take advantage of the technology available.

Over the coming year, RMOUG will be modernizing in several ways...

1. More informative and up-to-date website
   - From static HTML to a hosted solution featuring dynamically-generated content and better look-n-feel
   - RSS feeds from popular blogs -- Facebook, Twitter, and LinkedIn, as well as the Oracle website
   - Online versions of “SQL> Update”, the RMOUG newsletter
   - Additional pages, such as a “Apply To Join The Board” section and Membership Status/Renewal section

2. Greater RMOUG presence on Facebook, Twitter, and LinkedIn
   - RMOUG groups have been created on Facebook and LinkedIn, but we are hoping for more posts and participation
   - We want to encourage members to tweet about speakers, their colleagues, and their experiences at RMOUG events

3. Attend RMOUG events virtually, remotely from office or home or mobile device
   - Sessions at the Training Days conference
   - Sessions at quarterly education workshops and SIG meetings

...continued on page 20
Who, What, Where, and When
John Jeunnette, 2012 Training Days Conference Chair

The Rocky Mountain Oracle Users Group (RMOUG) presents a two and half day conference each year in February called “Training Days” that draws hundreds of IT professionals from all over the world to Denver. This year the conference will happen February 14-16, 2012. (For some reason, we end up right around Valentine’s Day. This makes the evening events a bit awkward sometimes.)

RMOUG presents Training Days as a service to our membership and larger community. Our goal is the best possible content presented by world-class speakers at a break-even cost. A lower cost per attendee lets organizations send more folks and generally makes everybody happy.

The heart of the conference is the technical content provided by our membership and other speakers organized into “topics” or “tracks” based on what the committee thinks is important these days in the Oracle IT world. We ask potential presenters to submit abstracts for consideration by a content review committee. As I write this in mid-September, we are in the abstract submission period. One of my tasks during this period is to keep an eye on what folks are submitting and try to fill obvious holes. Likewise, we ask recognized experts to submit papers on their area of expertise.

In early October we will close the submission process and let the reviewers (the “content committee”) read each abstract and assign a rating. The final selection step is one grand meeting to review the ratings and comments and select a set of presentations to fit the available space and what we think folks will want to hear about. We assign presentations to rooms and session slots to build a schedule. Once the schedule is set, we publish it because many of the attendees want to see what will be available before registering for the conference.

After the schedule is set we focus on volunteers for the conference itself. We use a professional management company (Your Conference Connection) for many of the conference administrative tasks, but we rely on volunteers to do the heavy lifting. Registration volunteers work at the registration/information desk in rotating shifts and Room Ambassadors make sure everything runs smoothly for the presenters so they (the presenters) can focus on their presentations and not have to worry about how many people can sit in the room or the audio-visual equipment.

An important aspect of the conference is something many technical folks disdain: marketing. Vendors and sponsors looking for an audience that may be interested in their products or services provide significant income to offset our expenses (and thereby keep the registration cost lower). We do corral them in an exhibit hall so they are not out roaming the halls and ask that any product-specific presentations are clearly labeled as “Vendor Presentations” so the attendees know what they are getting into. Take a few minutes at the conference to see what is available. You may find a product that can save your organization money or make your professional life easier.

So, what can you do to help make Training Days a success besides attending and learning something new? Some possibilities:

- Submit an abstract for a dynamite presentation. (See the web site for details.)
- Volunteer as an abstract reviewer. (Send me an email.)
- Volunteer as a Registration Volunteer (this one gets you a 50% registration fee discount and a great T-shirt).
- Volunteer as a Room Ambassador (this one gets you a registration credit and a great shirt, too).
- Have your company buy a sponsorship or exhibit hall booth. (We will be happy to put your name and logo on just about anything...contact me for details.)

Contact me at TrainingDaysDir@rmoug.org with questions or comments. I look forward to seeing everyone at the conference.

About the author: John has been involved with Training Days and other IT conferences for something like fifteen years as an attendee, conference committee member, content chair, conference chair and user group board member and officer. He has the privilege of being Training Days Conference Chair for the 2012 conference.
Leveraging Oracle External Tables

by Darl Kuhn

Introduction

Sometimes DBAs and developers don’t grasp the full utility of external tables. The Oracle external table feature enables you to perform two distinct operations:

- Directly select information from operating-system flat files via SQL, which allows you to do tasks such as loading operating-system comma-separated-value (CSV) files into the database.
- Create platform-independent dump files that can be used to transfer data. You can also create these files as compressed and encrypt them for efficient and secure data transporta-

One common use of an external table is that it allows you to use SQL*Plus to select data from an operating-system flat file. When using an external table in this mode, you must specify what type of data is in the file and how it’s organized. You can select from an external table but aren’t permitted to modify the data (no inserts, updates, or deletes).

You can also use Oracle’s external table feature that lets you select data from the database and write that information to a binary dump file. The definition of the external table defines what tables and columns will be used to unload data. Using an external table in this mode provides a method for extracting large amounts of data to a platform-independent file that you can later load into a different database.

All that is required to enable external tables is to first create a database-directory object that specifies the location of the operating-system file. Then, you use the CREATE TABLE...ORGANIZATION EXTERNAL statement to make the database aware of operating-system files that can be used as sources or targets of data.

This article starts by comparing using SQL*Loader—Oracle’s traditional data-loading utility—to external tables for the loading of data into the database. A simple example is then shown to illustrate the flexibility and power of using external tables as a data loading tool. This article then details how to use external tables to transfer data from one database environment to another.

SQL*Loader vs. External Tables

One general use of an external table lets you use SQL to load data from an operating-system file into a regular database table. This facilitates the loading of large amounts of data from flat files into the database. In older versions of Oracle, this type of loading was performed via SQL*Loader or through custom Pro*C programs.

Almost anything you can do with SQL*Loader, you can achieve with external tables. External tables are more flexible and intuitive to use than SQL*Loader. Additionally, you can obtain very good performance when loading data with external tables by using direct path and parallel features.

A quick comparison of using SQL*Loader and external tables highlights the differences. Listed next are the SQL*Loader steps that you use to load and transform of data:

1. Create a parameter file that SQL*Loader uses to interpret the format of the data in the operating-system file.
2. Create a regular database table into which SQL*Loader will insert records. The data will be staged here until it can be further processed.
3. Run the SQL*Loader sqlldr utility to load data from the operating-system file into the database table (created in step 2). When loading data, SQL*Loader has some features that allow you to transform data. This step is sometimes frustrating because it can take several trial-and-error runs to correctly map the parameter file to the table and corresponding columns.
4. Create another table that will contain the completely transformed data.
5. Execute SQL statements to load and transform the data from the staging table (created in step 2) into the production table (created in step 4).

Compare the previous SQL*Loader list to the following steps to load and transform data using external tables:

1. Execute a CREATE TABLE...ORGANIZATION EXTERNAL script that maps the structure of the operating-system file to table columns. After this script is run, you can directly use SQL to query the contents of the operating-system file.
2. Create a regular table to hold the completely transformed data.
3. Run SQL statements to load and fully transform the data from the external table (created in step 1) into the regular table (created in step 2).

For many shops, SQL*Loader underpins large data-loading operations. It continues to be a good tool to use for that task. However, you may want to investigate using external tables. External tables have the following advantages:

- Loading data with external tables is more straightforward and requires fewer steps.
- The interface for creating and loading from external tables is SQL*Plus. Many DBAs/developers find using SQL*Plus more intuitive and powerful than SQL*Loader's parameter-file interface.
• You can view data in an external table before it's loaded into a database table.
• You can load, transform, and aggregate the data without an intermediate staging table. For large amounts of data, this can be a huge space savings.

The next section details how to use external tables to read from operating-system files.

**Loading CSV Files into the Database**

You can load small or very large CSV flat files into the database using external tables and SQL. Figure 1 shows the architectural components involved with using an external table to view and load data from an operating-system file. A directory object is required that specifies the location of the operating-system file. The CREATE TABLE...ORGANIZATION EXTERNAL statement creates a database object that SQL*Plus can use to directly select from the operating-system file.

The next several paragraphs detail how to setup and use an external table to load a regular database table. In this example, the flat file is named ex.csv and is located in the /oraet directory. It contains the following data:

```
5|2|0|0|12/04/2009|Half
6|1|0|1|03/31/2010|Quarter
7|4|0|1|05/07/2010|Full
8|1|1|0|04/30/2010|Quarter
```

First, create a directory object that points to the location of the flat file on disk:

```sql
SQL> create directory exa_dir as '/oraet';
```

This example uses a database account that has the DBA role granted to it; therefore, you don’t need to grant READ and WRITE to the directory object to the user (your account) that is accessing the directory object. If you’re not using a DBA account to read from the directory object, then grant these privileges to the account using this object (in this example, the account name is LARRY):

```sql
SQL> grant read, write on directory exa_dir to larry;
```

Next, fashion the script that creates the external table that will reference the flat file. The CREATE TABLE...ORGANIZATION EXTERNAL statement provides the database with the following information:

• How to interpret data in the flat file, and a mapping of data in file-to-column definitions in the database
• A DEFAULT DIRECTORY clause that identifies the directory object, which in turn specifies the directory of the flat file on disk
• The LOCATION clause, which identifies the name of the flat file

The next statement creates a database object that looks like a table yet is able to retrieve data directly from the flat file:
Typically you'll want to move data from an external table into a regular table so that it can be manipulated through standard DML statements. When you do this, you can take advantage of Oracle’s direct-path loading and parallel features. This example creates a regular database table that will be loaded with data from the external table:

```
cREATE TABLE exa_info(
exa_id NUMBER,
machine_count NUMBER,
hide_flag NUMBER,
oracle NUMBER,
ship_date DATE,
rack_type VARCHAR2(32)
) nologging parallel 2;
```

You can direct-path load a regular table with one of the following options:

- INSERT /*+ APPEND */ on queries that use a subquery for determining which records are inserted
- INSERT /*+ APPEND_VALUES */ on queries that use a VALUES clause
- CREATE TABLE...AS SELECT

Here’s an example of using INSERT /*+ APPEND */ direct path loading option:

```
SQL> insert /*+ APPEND */ into exa_info select * from exadata_et;
```

You can verify that the table was direct-path loaded by attempting to select from it before you commit the data:

```
SQL> select * from exa_info;
```

Here’s the expected error:

```
ORA-12838: cannot read/modify an object after modifying it in parallel
```

After you commit the data, you can select from the table:

```
SQL> commit;
SQL> select * from exa_info;
```

The second way to direct path load a table is using INSERT /*+ APPEND_VALUES */ on queries that use a VALUES clause. This type of direct path loading is useful when you can’t use a subquery (as the prior several lines of code illustrated) and isn’t relevant for this example.

```
SQL> create table exa_info nologging parallel 2 as select * from exadata_et;
```

By using direct-path loading and parallelism, you can achieve loading performance similar to that from using SQL*Loader. The advantage of using SQL to create a table from an external table is that you can perform complex data transformations using standard SQL*Plus features when populating your regular database table.

As a last step, you should generate statistics for any table that has been loaded with a large amount of data. Here’s an example:

```
exec dbms_stats.gather_table_stats(-
  ownername=>'LARRY',-
  tabname=>'EXA_INFO',-
  estimate_percent => 20, -
  cascade=>true);
```

### Unloading and Loading Data Using an External Table

Another use for external tables is to select data from a regular database table and create a binary dump file. This is referred to as unloading data. The advantage of this technique is that the dump file is platform independent and can be used to move large amounts of data between servers of different platforms.

Figure 2 illustrates the components involved with using an external table to unload and load data. On the source database (referred to as Database A), you create a dump file using an external table that selects data from a table named INV. After it’s created, you copy the dump file to a destination server (referred as Database B) and subsequently load it into the database using an external table.

```
CREATE TABLE inv external (
TYPE ORACLE_DATAPUMP,
LOCATION ('inv.dmp')) AS SELECT * FROM inv;
```

```
CREATE TABLE inv external (inv_id NUMBER,inv_desc VARCHAR2(30)) AS SELECT inv_id,inv_desc FROM inv;
```

```
CREATE TABLE inv external (inv_id NUMBER,inv_desc VARCHAR2(30)) AS SELECT inv_id,inv_desc FROM inv;
```

A small example illustrates the technique of using an external table to unload data. In this example, I’ll use a regular table named

Figure 2. Using external tables to unload, transfer, and load data
INV that contains the data to be unloaded. For reference, here’s how the INV table was created and populated:

```sql
SQL> create table inv (inv_id number, inv_desc varchar2(30));
SQL> insert into inv values(1,’box’);
SQL> insert into inv values(2,’book’);
SQL> insert into inv values(3,’chair’);
```

Next, create a directory object. The next bit of code creates a directory object named DP that points at the /oradump directory:

```sql
SQL> create directory dp as ‘/oradump’;
```

If you’re not using a user with DBA privileges, then explicitly grant access to the directory object to the required user:

```sql
SQL> grant read, write on directory dp to larry;
```

To create a dump file, use the ORACLE_DATAPUMP access driver of the CREATE TABLE...ORGANIZATION EXTERNAL...AS SELECT statement. This example unloads the INV table’s contents into the inv.dmp file:

```sql
CREATE TABLE inv_et
ORGANIZATION EXTERNAL (TYPE ORACLE_DATAPUMP DEFAULT DIRECTORY dp LOCATION (‘inv.dmp’) )
AS SELECT * FROM inv;
```

The previous command does two things:
- Creates an external table named INV_ET based on the INV table
- Creates a platform-independent dump file named inv.dmp

Now you can copy the inv.dmp file to a separate database server and base an external table on this dump file. The remote server (to which you copy the dump file) can be a different platform than the server where you created the file. For example, you can create a dump file on a Windows box, copy to a Solaris server, and select from the dump file via an external table. In this example, the external table is named INV_DW:

```sql
CREATE TABLE inv_dw
(inv_id number
,inv_desc varchar2(30))
ORGANIZATION EXTERNAL (TYPE ORACLE_DATAPUMP DEFAULT DIRECTORY dp LOCATION (‘inv.dmp’) )
AS SELECT * FROM inv;
```

After it’s created, you can access the external table data from SQL*Plus:

```sql
SQL> select * from inv_dw;
```

This provides a simple and efficient mechanism for transporting data from one platform to another.

Note You can also encrypt and/or compress data when creating an external table dump file. Doing so provides you with a secure and efficient way of transporting data between database servers.

**Summary**

I used to use SQL*Loader for all types of data-loading tasks. In the past few years, I’ve become an external table convert. Almost anything you can do with SQL*Loader, you can also do with an external table. The external table approach is advantageous because there are fewer moving parts and the interface is SQL*Plus. Most DBAs and developers find SQL*Plus easier to use than a SQL*Loader control file.

You can easily use an external table to enable SQL*Plus access to operating-system flat files. You simply have to define the structure of the flat file in your CREATE TABLE...ORGANIZATION EXTERNAL...AS SELECT statement. After the external table is created, you can select directly from the flat file as if it were a database table. You can select from an external table, but you can’t insert, update, or delete.

When you create an external table, if required, you can then create regular database tables by using CREATE TABLE AS SELECT from the external table. Doing so provides a fast and effective way to load data stored in external operating-system files.

The external table feature also allows you to select data from a table and write it to a binary dump file. The external table CREATE TABLE...ORGANIZATION EXTERNAL...AS SELECT statement defines which tables and columns are used to unload the data. A dump file created in this manner is platform independent, meaning you can copy it to a server using a different operating system and seamlessly load the data. Additionally, the dump file can be encrypted and compressed for secure and efficient transportation. You can also use parallel features to reduce the amount of time it takes to create the dump file.

**About the Author**

Darl Kuhn is currently a DBA working for Oracle Corp. He has written books on a wide variety of database topics including the most recent titles of Oracle Database 11g Performance Tuning Recipes and Pro Oracle Database 11g Administration. Darl teaches Oracle classes for Regis University and is also a long-time volunteer for the Rocky Mountain Oracle Users Group (where he is colloquially referred to as “Heidi’s husband”).

![Darl Kuhn](image)
Introduction

The following procedures and processes were used in order to prepare for a database that was originally running Oracle 10g version 10.2.0.4 and Oracle eBusiness Suite 11.5.10.2. The client had a desire to upgrade the database to 11.2.0.2 from 10.2.0.4 with the least amount of risk possible. One of the risks associated with a database upgrade is the risk that the SQL execution plan will change adversely, thus causing some SQL statements to run much slower. In order to limit this risk, we have decided to use Oracle plan stability to save the Oracle 10.2.0.4 execution plans.

In order to execute this goal SQL Tuning Sets (STSs) were created to save SQL statements and execution plans. In the event of a poorly performing plan, the SQL Tuning Set will be used to activate the original (10g) execution plan, thus resetting it to its original behavior. This will be accomplished by converting the Original 10g SQL Tuning Set into an 11g SQL Plan Baseline plan. This 11g plan will then be configured as the only enabled and accepted plan, thus forcing the plan to be used if at all possible. The workflow is as follows:

Create SQL Tuning Set

A SQL Tuning set contains both the SQL statement and the execution plan for a set of SQL statements. The set of SQL statements can be taken from the cursor cache or some other source. We have chosen to take the SQL statements from the top 100 long running SQL statements within AWR snapshots for each hour. As part of the pre-upgrade process the snapshot retention period has been increased to 60 days and the topnsql has been increased to 100. Saving the SQL Tuning Set is a two step process; create the STS then populate it.

The first step is to create the STS using the create_sts.sql script. The contents of this script are shown here:

```
create_sts.sql
BEGIN
DBMS_SQLTUNE.CREATE_SQLSET(
  sqlset_name => '&1',
  description => 'Long running SQL for STS');
END;
/
```

The STS name will be set from the run_sts.sh script.

Populate SQL Tuning Set from AWR SQL Statements

The second step is to populate the STS from SQL statements determined by the AWR report snapshots. With this process we can choose the number of SQL statements to select as well as the criteria for selecting them. In our case, we are going to choose the top 100 SQL statements by duration for each hour. This is done via the DBMS_SQLTUNE.LOAD_SQLSET procedure. The DBMS_SQLTUNE.SELECT_WORKLOAD_REPOSITORY procedure is run with 'TYPICAL' which specifies both SQL statements and execution plans. By default, the execution plans are not kept. The SQL statement that we use to capture the statements and plans are shown here:

```
load_sts.sql
DECLARE
  baseline_cursor DBMS_SQLTUNE.SQLSET_CURSOR;
BEGIN
  OPEN baseline_cursor FOR
  SELECT VALUE(p)
  FROM TABLE (DBMS_SQLTUNE.SELECT_WORKLOAD_REPOSITORY(
    &1,
    &2,
    NULL,
    NULL,
    'elapsed_time',
    NULL,
    NULL,
```

A Case Study

by Edward Whalen of Performance Tuning Corp
null,
&3,
'TYPICAL') p;
DBMS_QLTUNE.LOAD_SQLSET(
    sqlset_name => '&4',
    populate_cursor => baseline_cursor);
END;
/

This is available in the load_sts.sql script.

A shell script is created to populate the SQL Tuning Sets from a range of AWR snapshot data points. This script increments through the minimum and maximum values creating a STS for each one-hour period. The run_sts.sh script is provided in Appendix A.

Once the SQL Tuning set has been captured in production this is all that is needed to save the execution plans. In addition, if desired these plans can be exported, copied to another system, imported and converted into Oracle 11g SQL Plan baselines. The steps for export and import are presented in Appendix A.

### Convert Specific SQL Statement to SQL Plan Baseline

In order to convert a specific SQL statement to a SQL Plan Baseline you must first identify the sql_id and plan_hash_value as well as the sql_tuning_set_name. This information can be obtained via two SQL statements.

The first SQL statement lists the SQL Tuning sets that are available in the system.

```sql
SELECT name, owner, statement_count FROM dba_sqlset;
SELECT count(*) AS "SQLSET Statements" from dba_sqlset_statements;
SELECT count(*) AS "SQLSET Plans" from dba_sqlset_plans;
```

This is available in the list_sts.sql script.

<table>
<thead>
<tr>
<th>NAME</th>
<th>OWNER</th>
<th>STATEMENT_COUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>sts_2224_2225</td>
<td>SYS</td>
<td>100</td>
</tr>
<tr>
<td>TOP_SQL_1191524739244</td>
<td>SYSTEM</td>
<td>1</td>
</tr>
</tbody>
</table>

### SQLSET Statements

```
100
```

### SQLSET Plans

```
1664
```

Once you know which SQL Tuning Set you want to apply the plan from, use the following SQL statement to view the SQL statements in the SQL Tuning Set. From this information you will find the sql_id and the plan_hash_value.

```sql
set linesize 2000 pagesize 2000;
select sql_id, plan_hash_value, substr(sql_text,1, 40) text
from dba_sqlset_statements
where sqlset_name = '&5'
order by sql_id;
```

This is available in the show_sts.sql script.

```sql
SQL> @show_sts
Enter value for sts_name: sts_2224_2225
old 3: where sqlset_name = '&5'
new 3: where sqlset_name = 'sts_2224_2225'
```

### SQL_ID PLAN_HASH_VALUE TEXT

```
0dwr2vd6vbqzs 2255591275 SELECT count(*) over () as total_count,
0h6b2sajwb74n 3007987167 select privilege#,level
0k8522rmdzg4k 781879863 select privilege# from sysauth$ where (g
0r69s3sj62j03 1095140119 select RELEASE_ID ,BASE_RELEASE_FLAG int
0v6s91manuhz8 4212191762 /* OracleOEM */
```

### Examples

#### Convert Specific SQL Statement to SQL Plan Baseline

Set linesize 2000 pagesize 2000;

```sql
select sql_id, plan_hash_value, substr(sql_text,1, 40) text
from dba_sqlset_statements
where sqlset_name = 'sts_2224_2225'
order by sql_id;
```

100 rows selected.
Once you have the sql_id and plan_hash_value you can import the SQL statement and plan into the SQL Plan Baseline (11g only).

```sql
set serveroutput on
declare
  v_int pls_integer;
begin
  v_int := dbms_spm.load_plans_from_sqlset (sqlset_name => 'sts_2224_2225',
                                          sqlset_owner => 'SYS',
                                          basic_filter => q'#sql_id='&sql_id' and plan_hash_value =&plan_hash#',
                                          fixed => 'NO',
                                          enabled => 'NO');
  DBMS_OUTPUT.PUT_line(v_int);
end;
/
```

Once you have run this SQL statement. The plan will be available as a SQL Plan Baseline. The SQL Plan Baselines are available within Grid Control or by querying dba tables.

```sql
set pagesize 2000 linesize 2000;
SELECT sql_handle, substr(sql_text,1,30) AS "SQL Text"
FROM dba_sql_plan_baselines;
```

The SQL Plan baselines can now be used.

**Manage SQL Plan Baseline**

A SQL Plan baseline is a set of approved plans that can be used for a SQL statement. This can be seen from the Oracle Enterprise Manager Grid Control console by selecting the database and then the Server Tab and selecting SQL Plan Control (under the Query Optimizer section). From the SQL Plan Control screen select the SQL Plan Baseline tab. Here you should see the SQL Plan Baselines. This screen is shown in Figure 1 to the right.

There are several settings for the SQL Plan Baseline SQL statements. They are:

- **Enabled (YES/NO):** If YES, the plan is available for the optimizer if it is also marked as accepted. Enabled plans are chosen by the optimizer as the best cost plan.
- **Accepted (YES/NO):** Accepted YES means that the plan has been verified as a good plan and is in the SQL plan baseline for this statement and can be used for execution. An unaccepted plan will only be used after it has been verified to perform better than the existing plan. A plan that is imported from a SQL Tuning Set will be set to Enabled.
- **Fixed (YES/NO):** If YES, the SQL plan baseline will not evolve over time. Fixed plans are used in preference to non-fixed plans.
- **Autopurge (YES/NO):** If YES, the SQL plan baseline is purged automatically if it is not used for a period of time.

In order to force a particular plan to be used, regardless of decisions made by the optimizer, it should be set to Fixed.

If a new plan is found by the optimizer, it will be shown as Enabled = No. The plan can be tested by selecting the plan and clicking the Evolve button. This will bring up the Evolve SQL Plan Baselines screen as shown in Figure 2.

Choose whether to Report and Accept or to just Report on the viability of the new plan. The plan will be tested against the baseline and only accepted if it performs better than the baseline plan. The accepted and enabled plan will be used to run this SQL statement. The report compares the new plan against the existing plan as shown in Figure 3.

If the new plan is better, you can accept this new plan and allow it to be used along with the original plan. If desired, the original plan baseline can be dropped.

**Summary**

This process allows the ability to back out 11g changes and restore the execution plan to the pre-11g state, thus providing a safety net for upgrading with more confidence.

**Appendix A - Moving SQL Execution Plans**

For testing purposes a SQL Tuning Set can be exported from one system and imported into another system. For example, during our testing, SQL Tuning Sets were exported from Oracle 10g and imported into Oracle 11g. The process to do this is presented here.

In order to export a SQL Tuning Set it must first be packed into a staging table and then exported using exp or expdp utilities.

The first step is to pack the SQL Tuning Set into a staging table. The staging table is created with the DBMS_SQLTUNE.create_stgtab_sqlset procedure as shown here:

```sql
BEGIN
  DBMS_SQLTUNE.create_stgtab_sqlset (table_name =>
```

![Figure 1. SQL Plan Baselines](image)
At this point the SQL Tuning set should be fully visible and accessible on the target system. Follow instructions in this paper to convert specific SQL statements to SQL Plan Baseline plans.

Appendix B - Scripts

```bash
#!/bin/sh

# run_sts.sh

echo $SHELL

sqlplus / as sysdba << EOF
@get_snap
exit;
EOF

echo "Beginning Snap > \c" # read var at prompt
read bsnap

echo "Ending Snap > \c" # read var at prompt
read esnap

echo "Beginning snapshot is: " $bsnap

echo "Ending snapshot is: " $esnap

s1=$bsnap
s2=`expr $bsnap + 1`

while [ "$s1" -ne "$esnap" ];
        do
            stsname=sts_${s1}_${s2}
            echo $stsname
            sqlplus / as sysdba @create_sts $stsname << EOF
                exit
            EOF
            sqlplus / as sysdba @load_sts $s1 $s2 100 $stsname << EOF
                exit
            EOF
        done

# Increase the counters
s1=`expr "$s1" + 1`
    s2=`expr "$s2" + 1`
    echo $s1 $s2

```

About the author

Edward is founder and CTO of Performance Tuning Corporation. He consults as a senior database architect with over 25 years of experience in operating systems, computer hardware and database technologies. He is experienced with designing and implementing high performance database systems and enterprise disaster recovery (DR) plans on UNIX, Linux and Windows operating systems. He is also an author of 11 books and numerous technical papers on Oracle and Microsoft technologies. Ed is an expert on Oracle performance tuning, Oracle RAC, SAN implementation, and application workload testing. In addition, Ed's experience includes assessing customer business requirements and objectives, and evaluating existing server, storage, network and database design and architecture in order to make recommendations regarding long term database and IT infrastructure planning. Ed routinely participates in Oracle technical symposia, at the request of Oracle Corporation, and harvests leading edge knowledge of database related technologies. His close relationship with Oracle and his maintenance of hands-on experience make him a unique contributor to the strategic planning process.
SQL In Enterprise Analytics

by Nanci Kelly

Though there are many definitions and iterations of data warehouse, the simplest, perhaps, is “a database for reporting”. Barry Devlin and Paul Murphy of IBM developed the “business data warehouse” in the late 1980s and, in 1989, Howard Dresner proposed that the term business intelligence be used to define “concepts and methods to improve business decision making by using fact-based support systems.” As data warehousing (DW) and business intelligence (BI) have evolved to support the analytics, benchmarking, data mining, process mining, text mining and, among others, predictive analytics functions of organizations, so has SQL been enhanced with new processes, functions and analytical processing capabilities to support the development and utility of data warehouse environments and decision support systems (DSS).

As leading companies like Oracle, Microsoft, IBM, SAP, and Informatica compete for their portion of the DW/BI pie, systems and applications for business process analytics in global organizations are ever-increasing their performance: scalability, capacity, and capability. IBM touts its DB2/Power Systems platform as offering 3x improvements for I/O performance. Administration management of files and disks as design and tuning advancements. In addition, Oracle provides data capture, and ETL advancements. In addition, Oracle provides data administration management of files and disks as design and tuning improvements for I/O performance. Automatic Storage Management and Oracle Managed Files have enriched Oracle hardware for the DW environment. And Oracle’s SQL functions and BI features are leaders in enterprise analytics.

SQL, as the most ubiquitous database language, has also advanced exponentially at Oracle in terms of aggregation and analytics for BI reporting. CUBE and ROLLUP in the GROUP BY clause are available along with Grouping Sets that “can be parallelized: multiple processes can simultaneously execute all of these statements”. Three Group functions have been upgraded to deliver higher-level aggregates to improve sorting and filtering subtotal calculations. Dr. John Cohn of IBM calls this the “age of analytics”. Oracle has responded with “a new family of analytic SQL functions” to analyze data for multidimensional requests.

Beginning with 10g, Oracle introduced CUBE and ROLLUP as extensions to SQL for aggregation. Rollup allows for increased levels of aggregation for calculations of SUM, AVG, COUNT, MAX, and MIN beginning with detailed lists through subtotals and grand totals. An extension related to ROLLUP, the CUBE extension, will calculate every possible combination of aggregations. GROUPING SETS give the analyst a choice of only the groupings needed when using the GROUP BY clause. Because a CUBE is resource-intensive in comparison, using GROUPING SETS improves performance significantly. With endless possibilities for available categories of data, these implementations enable analysts to produce substantial information for multidimensional analytics.

Facts refer to the entities and events that are related to sets of dimension values. Multidimensional analysis requires that aggregations be performed across numerous dimensions using specific facts. Aggregations of facts measured by dimensions can be sliced and diced in any number of combinations, detailed, subtotaled, sorted, and filtered to yield precise information with relevant values.

Some complexities have been added to the GROUP BY functions as well. CUBE and ROLLUP functions allow NULLS and may create NULLS. The GROUPING function allows the analyst to determine if a NULL value is created by assigning a 1 or included in the column, assigning a 0. GROUPING will also distinguish between a subtotal row of aggregates and the level of aggregation of each subtotal. This is very useful when it is necessary to determine the percent-of-total value(s). Readability of grouping of result sets can be accomplished by using the GROUPING function as well. When using GROUPING with HAVING, sorting subtotal rows and filtering aggregates of data is enabled. These are several of the most commonly used aggregate functions in Oracle 10g; 11g has many more enhancements, particularly in analytics, hardware, and security.

Oracle 11g delivers a calculation engine called Oracle OLAP to support enterprise level advanced analytical applications: “...planning, budgeting, forecasting, sales, and marketing to help identify key business trends and model complex business scenarios”. Using the OLAP cube materialized views for complex analytic queries against multi-dimensional data executes faster and is significantly improved. Very Large Multi-dimensional Databases (VLDM) in Oracle 11g with Real Application Clusters gives thousands of users simultaneous access to data and information. For the decision maker, this translates to effectively providing the agility to make informed, real-time decisions based on accurate reporting.

Oracle Database 11g on Fujitsu SPARC Supercluster servers has broken world records for performance and availability. According to Oracle CEO, “This thing is just tuned to make Java scream.” The performance improvement of these technologies is measured and verified in a release from the Oracle Grid Center, Oracle, Japan. In 1989, an OEM agreement between Fujitsu and Oracle initiated a collaboration to deliver safety, security, construction and support for innovative solutions to enterprise clients. Performance verification tests were run against Oracle 11g Database to confirm the data segment compression function and the Automatic Storage Management rebalancing function using Fujitsu SPARC Enterprise (UNIX) servers. Loaded with 1 quadrillion rows
of day, running 43 trillion transactions a day, response time was less than half a second. World-record performance was achieved by engineering both hardware and software to work together.

All tests were performed by using 18 types of verification queries. These ranged from “finding the supplier whose supply cost was lowest for an area” to “calculating income from orders for which one of the supplier or client was located in country A AND the other was located in Country B over a given two-year period” to a calculation of “total income from items for which each order was less than 25 pieces AND a discount rate of 0.3 to 0.5 was applied over a given one-year period”. In 11g, the Oracle Advanced Compression function increased capacity by reducing the size of the data to 62% of the original size. Query execution time and physical reads were also measured between compressed and non-compressed data with a very high coefficient of correlation. This indicates that faster query execution from compression is the result of decreased I/O.

The results were similar with tests of ASM’s dynamic disk addition and data rebalancing functions, improving query performance significantly. Combining the data segment compression function with disk addition/data rebalancing improved database performance even more. The results of these tests provide verification that Oracle 11g and SPARC Enterprise together offer superior processing capability and performance.

Although these are only a few of the advanced features available in Oracle 11g, it is apparent that Oracle delivers ever-greater performance and availability industry standards. With 30.2 million transactions per second, Oracle beat IBM’s best performance by three to one and HP’s by seven to one, achieving a new world record for OLTP, with enormous gains for data warehousing and business intelligence.

References:

Nanci Kelly has been an IT Professional for nearly 13 years. She is a Data Analyst working on a Master’s Degree in Database Technology at Regis University. Having worked in many technologies and developed applications in a variety of industries, her experience and expertise are focused on and committed to Oracle for its stability and flexibility.

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Present Our DBLabs

Back in December of 2009, RMOUG and Regis University teamed up to start offering hands-on lab sessions on various topics. These events are open to the public (you do not have to be an RMOUG member), and they are a great way to learn new skills, get some hands-on experience in a lab environment, and network with other users and members! The meetings happen in one of the computer labs on the Regis campus in Denver, so each person gets their own workstation where they can do the labs. They are typically held on a weeknight evening, with food and drinks provided, so you can just show up, have some dinner, learn some new skills and meet new people!

Past topics have included OEM, Oracle on Linux, RMAN, Oracle database security, and Oracle automatic SQL tuning features. And we’ve had some well-know RMOUG “masters” as presenters, including Darl Kuhn and Tim Gorman. Future topics being planned include MySQL, OEM11g and more. And we are always open to new presenters and topics. So if you’d be interested in running a future lab session, feel free to contact

Brad Blake at SigsDir@rmoug.org.

To stay up-to-date and informed on upcoming sessions, be sure to join the group here:

http://www.meetup.com/RMOUGLabs/

Also, be sure to “friend” us on Facebook to get updates on the labs, as well as other RMOUG events:

http://www.facebook.com/RMOUG

You can also follow us on Twitter @RMOUG_ORG
This schoolhouse, on display in the South Park City historic town in Fairplay, is representative of the state of the art in education during the "low tech" days at the beginning of the 20th century. Inside were artifacts illustrating school life at the time, including rows of wooden desks, maps, textbooks covering many grade levels, individual slate chalkboards, an abacus for arithmetic, and a pump organ for music lessons.

The photo was taken in Summit County last September (2010). It was a gorgeous, warm, sunny fall day with beautiful pine, gold aspen leaves and red hot sun. Anthony has been working with Oracle products for the last 17 years. He is presently a developer with the Douglas County School District, has been a volunteer and speaker. In addition, he has also spoken at Oracle OpenWorld, presenting different implementations of Oracle products used by Douglas County. He is an avid runner and spends most of his free time driving his kids to their events.

Photos From Our Members

We've had so many wonderful photos submitted to us - we would like to share them with you!
Our Members

We've had so many wonderful photos submitted to us - we would like to share them with you!
PL/Scope allows for all kinds of additional PL/SQL program information to be collected at compile time! The upside is that Oracle collects this information; the downside is that the reporting is left up to the developer/end user in this case. Maybe this is an upside too because the information is formatted such that it is easy to find various items such as:

- Variable name
- Line locations
- Call references
- Variable assignments

### Enabling PL/Scope

```sql
ALTER SESSION SET PLSCOPE_SETTINGS='IDENTIFIERS:ALL'

- Updates '*IDENTIFIERS'
- ALL and DBA have an additional USER column
```

```sql
ALTER SESSION SET PLSCOPE_SETTINGS='IDENTIFIERS:NONE'

- Turns the collection off
```

PL/Scope is easy to enable. It maintains 3 database views:

- USER_IDENTIFIERS
- ALL_IDENTIFIERS
- DBA_IDENTIFIERS

The information is only available during the current session.

This slide shows the information that is available.
I got this to work using SQL*Plus.

These scripts show useful information from the USER_IDENTIFIERS table. These scripts are in the download file...ask me for this.

---

**PL/Scope Summary**

There are a number ways to report this information. These scripts are available on my website. As you create your own, share them with me and I'll add your name to my presentation and share them with others!

---

Dan Hotka is a Training Specialist and an Oracle ACE Director who has over 32 years in the computer industry and over 27 years of experience with Oracle products. His experience with the Oracle RDBMS dates back to the Oracle V4.0 days. Dan's latest book is Oracle SQL Tuning: A Close Look at Explain Plans by Amazon. He is also the author of TOAD Handbook by Pearson, SQL Developer Handbook by Oracle Press, Oracle 8i Development By Example, and Oracle 8i from Scratch by Que and has co-authored seven other popular books including the Database Oracle10g Linux Administration by Oracle Press. He is frequently published in Oracle trade journals, and regularly speaks at Oracle conferences and user groups around the world.

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- November 7-10, 2011

Visit Dan’s web site for course outlines or email Dan with your level of interest. Dan also provides all of his course offerings for your company both over the web or on-site at a low course-fee (on-site course guides priced per student).

Contact Dan at:
www.DanHotka.com
Dhotka@Earthlink.net - (515) 279-3361
This is all going to take a lot of work, but we're all excited and we're working to make it happen. The RMOUG community in Colorado comprises an extraordinary group of almost 1,000 professionals and students, and together we can do a lot.

If you're interested in helping with anything, please email me at "president@rmoug.org". Also, please come out and participate in upcoming RMOUG events, such as the 18-November 2011 quarterly educational workshop (QEW) and the Training Days conference on 14-16 February 2012. Even though we want to see more of each other online, there is still a lot to be said for good old face-to-face contact every once in a while.

So, see y'all around, one way or the other!

Tim Gorman
Performance Tuning Corporation (PTC) reduces the cost of deploying and managing business systems reliant on Oracle. For more than a decade, we have improved the performance of Oracle systems in the largest corporate and government environments. We bring the experience of these engagements to clients of all sizes. Our proven methodology ensures that you:

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**Date/Time:** Tuesday October 18, 2011, 3-3:30PM Eastern / 12-12:30PM Pacific

**Register at:** [www.perftuningevents.com](http://www.perftuningevents.com)

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**Webinar Overview:**

When upgrading a database from Oracle 10g to Oracle 11g one of the biggest risks is to performance. Most 11g execution plans are improvements over 10g plans, however, there are times where 11g execution plans result in poor performance and excessive query execution times. One way to mitigate this risk is to save and store 10g execution plans in SQL Tuning Sets (STS) and use these execution plans in the 11g environment if necessary.

This webinar provides benefits of saving and using these 10g plans. Detailed scripts and SQL statements that can be used to save these STSs and convert them into SQL Plan Baselines are provided. How to find and lock in the original 10g plan will be outlined. In addition, real-world experiences with using this methodology will be presented.

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In today’s business environment where prestige is often measured by the view from your window, nothing says down-to-earth like a small corner office in a four-story building.

So it makes sense to find Frank Bommarito, co-founder and Chief Services Officer for Oracle services provider DBAK, working at his computer there on a recent sunny Denver afternoon. Walking in, the first thing that greets you is the easy grin and the upbeat hello. And instead of a fancy pen stand, his desktop is pretty sparse. Some cords for his laptop and monitor loop over his desk – but other than that there’s only one apple and two framed photos of his children.

It’s been a pretty good year for Frank – he was invited to speak at the AUSOUG in Australia and the annual IOUG/OAUG/Quest COLLABORATE event that was held in Orlando, Florida this year. And under his co-leadership, DBAK has added more than a dozen new customers to the roster of businesses turning to DBAK for Oracle services. For Frank, the new customers mark new opportunities to do what he loves best – dig in to complex Oracle systems and solve problems.

Known for his open and straightforward style, Frank is happy to sit down and chat with me about his background and how he got started working on Oracle. The conversation is refreshingly direct, punctuated with a few jokes, and if I ask him to clarify some information, he doesn’t talk down or simply repeat himself. Instead he politely backs up and explains himself.

As we talk about his history and what brought him to Colorado, what stands out from story to story is his passion for computer systems and technology. Frank was born and raised in Roseville, Michigan, a friendly community just northwest of Detroit. He moved to Big Rapids, Michigan to attend Ferris State University, a school with a rare 15:1 student to faculty ratio whose core philosophy is based on a practical, hands-on approach to education. Frank studied computer technology and graduated with a Bachelor of Science degree in Business Computer Information Systems, demonstrating an early eagerness for the kind of work that would become his life’s focus. He was selected for an internship at a local company, Compuware, in his junior year at Ferris and accepted an offer to join the company full time once he graduated – as their youngest ever employee.

When asked to talk about the time he spent at Compuware, his first professional job working in computers, he describes it by saying that he “worked harder than anyone else – seven days a week all summer – and I stayed three extra weeks to finish the project without pay.” As Frank tells it, the company was having issues with some of the work they were doing for customers and projects were not getting completed. When asked what he thought the company most valued about his individual efforts, he describes working on his own project as well as a second project – and then he thinks for another quick minute about what he felt the company might have found valuable,
and he says in a characteristically short and direct sentence “I got it all right.”

After a few years with Compuware, Frank moved on to work for Warner-Lambert/Parke Davis and eventually landed in North Carolina at Computer Horizons. From there he moved to Florida where he worked for Dataforce and eventually moved to Colorado with his wife and children in 1998 as an independent consultant.

Frank got his start working on internal systems, developing systems using COBOL with Oracle on MVS. Early on, he switched to VMS and then moved on to UNIX – all with Oracle. One of his first encounters with Oracle was a 9 month project implementing a large scale Oracle Database for CIGNA where he still provides ongoing remote DBA support. Since then, he has worked on a comprehensive set of Oracle products and technologies including Oracle Database, Oracle Applications, Oracle Application Server, and a variety of Oracle’s development tools, and over the past 25 years he has been architect, lead architect, developer, and DBA. He has advised, implemented, converted, trained, and documented solutions for clients in areas including high availability, disaster recovery, data warehousing, data replication, online transaction processing, and process automation.

In 1998, Frank first met Ed Hut when Frank worked for TimeBridge, a local company (acquired in 2010 by Merchant Circle) that developed a web-based software application for coordinating and running meetings and collaborating online. Ed was selling Oracle at the time, and the two of them would go out on calls together. It was while they were out talking to customers about Oracle that they discovered an easy camaraderie that eventually led them to found DBAK (DBA Knowledge, Inc.) in 2005. Just prior to founding DBAK, Frank worked with SageLogix and Statera – two other local consulting companies.

Frank attributes much of DBAK’s success to its employees, the complementary skill sets that he and Ed bring to the business, and the shared conviction in paying laser-like attention to the importance of the company’s customers and the need to serve them better. If you ask DBAK employees how they feel about working with Frank, some of the comments are “he’s so bright ... it’s fascinating to watch his thought process, and he knows so much about so many things even outside of technology”; and “he’s so great at rescuing people and saving the day – it’s like he comes in with a
cape to rescue people's databases"; and "the first thing I'd say is he's a brilliant DBA"; and "he's an amazing resource – anything you ask him about Oracle, he just knows it and can explain it to you".

Today, Frank is responsible for the consulting group within DBAK, or as he calls it "the people side of our projects" where, he explains "the goal is to empower consultants to be Oracle experts, perform at their best, and help customers". He has become widely regarded as a thought leader in the Oracle ecosphere – particularly around topics like data replication, performance tuning, and Fusion Middleware, and has been invited to speak not only at AUSOUG and COLLABORATE, but Oracle OpenWorld as well. He has been a familiar face to RMOUG as a recent speaker at last year’s August RMOUG QEW, as well as the 2011 Training Days this past February.

When he's not solving mission critical database issues, or enjoying a brew after hours with his employees, Frank enjoys bowling, trivia, golf, and hockey. He's a wine enthusiast and an avid Red Wings fan. But the telling detail is the photo of Frank's teenage children on his desk. Frank lives in Castle Rock with his wife and two children, and when asked about his philosophy in being a parent, Frank says "Sometimes you just have to eat a little dirt. You have to let the small stuff go. And you have to be nice, but you're still the parent, and they need to know that first."

With an objective outlook and a down-to-earth, collaborative, straightforward, and direct personality, Frank has been able to forge strong relationships in his personal life and throughout his career that have brought him to his current success. In a recent communication to DBAK employees he explains "My main goal is to empower each of you ... and from time to time, I will make mistakes. On occasions where we need to resolve an issue or conflict, please talk to me. The goal is to arrive at a resolution or at least for all of us to have a better understanding of the issues and points of view."

A first floor office and a smart guy who works hard, likes to communicate, and just wants to help.

How refreshing.

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Article written by Therese Pickard, Marketing Director for DBAK. With a Master of Fine Arts degree from the California Institute of the Arts and a BA in English Linguistics, she has been providing marketing and communications expertise to IT and Engineering companies since 2003.

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c/o RMOUG
As the new kid on the block, I've now learned why I should not volunteer so quickly as I write this article that I, without thinking, volunteered for... :) Upon reflection, I realize my involvement in RMOUG, new as it is to the board, has been much longer as a member and longer still in database administration than I realized.

I came into database administration due to an odd set of circumstances. As any of us can guess, no one as a kid says, “I want to be a DBA when I grow up!” The bizarre course of events that lead me to my role as a database administrator still surprises me. The carefully laid out plans of my childhood are nowhere to be seen in my current life. The detour started when I suffered a number of strokes in my 20’s due to a rare auto-immune condition and found myself searching for a new career as I completed physical and speech therapy. As I was quite young when the stroke damage occurred, I healed and adapted quickly, where anyone would be hard-pressed to recognize I had ever experienced one now. I’m missing much of my memories from my 20’s, so if you ask me what commonly are people’s favorite college years, I like to say, my memories are akin to someone being on a really good bender and having blacked out, but if you don’t remember something, how can you really miss it?

At the point in my life where my career started to veer towards database administration, I was in my late 20’s and I had been selling computers at Circuit City, a large retail giant in the Denver area. I had been recognized as having a knack for computer repair, especially when it came to software issues. My ex-husband was a desktop support staff for an airlines and he finally confronted me and said, “You know, I have guys receiving great salaries who can’t load Windows at a C:\ prompt. You could go pro anytime you want...” I took his advice and became a desktop support specialist at one of US West’s specialized technical groups and quickly became their Oracle applications support person. I became so adept at Oracle workstation configurations that Oracle actually sent someone out to review how I was able to have so many 16-bit Oracle apps running for each workstation. They posted the interview and recommended to my CIO that he should “really make a DBA out of Kellyn.” This was back in 1998 and DBA’s were high in demand. Due to the short supply, my training was paid for in full by one of the Global Web groups I had supported and I became a DBA in the IT department shortly after.

I worked for numerous companies for years after that, taking on many database platforms. I had the philosophy that a database was a database and once I had Oracle under my belt, enjoyed learning first SQL Server, then Sybase, Informix, Postgres and finally MySQL. I’ve worked primarily in Oracle and SQL Server since then, with MySQL peppered in from time to time and still enjoy a challenge when I have the time to investigate any database architecture. My trouble-shooting skills pulled me towards large databases, both warehouse and hybrid design performance tuning.
and I've enjoyed the opportunity to excel in this area. The last few years I've been managing multi-TB databases including an Exadata environment for Pythian Group. I am currently at I-behavior, a great little company in Louisville, CO, returning there in March and am happily working on their large database environments.

During my stint as a DBA with Duke Energy Field Services, back in 2002, I had the opportunity to work with some wonderful DBA’s, plus a number of contract individuals from Sage Logix which included Jeff Maresh, Tim Gorman, David Ryall and Bill Pass. These seasoned veterans always spoke of RMOUG training days and the other DBA’s at the company started to plan to attend for the event, adding to my own enthusiasm. I was not disappointed and have ensured that I attend every year since. I finally got the nerve to present at RMOUG training days 2010 and enjoyed myself thoroughly, and will be presenting again this year.

My personal life is busy, chaotic and yet easy-going. I've lived Northwest of Denver for a majority of years and love the area's community and new technical centers that have started to grow around the Flat Iron's area.

My family consists of my three children, Sam, my sixteen year old son, Caitlyn, my 14 year old daughter and my youngest son, Joshua, who is 11 yrs old. The great location has lent to each of the children excelling in their areas of expertise. Sam is out of school and can be found playing computer games or one of his many musical instruments. He is impatient for his friends to also be out of school and is happy just helping me whenever I need it. Cait is going to be a freshman this year, is in the color guard and is an honor student. Joshua is a gifted student and starting his first year in middle-school. They are all pleasant and fun to be around, definitely never boring. As they are all older now, hoping their Mother will find other things to do than to baby them, I approached Tim Gorman and Ron Bich this year at RMOUG Training Days and asked how I could help more with RMOUG. I was then informed there was no escape once offering to volunteer and that I needed to run for the Board of Directors. At first I thought they couldn't be serious for my first stint out, but realized that they were quite serious and I needed to actually put some thought into how I could best contribute to the group.

Over the last couple of years I had noticed the impact of social media to database user groups. I had become more known in the database world due first to email lists, then my technical blog, which in turn escalated with social network sites such as Twitter, LinkedIn and Facebook. Anyone who is involved in this type of social media knows the impact it's had on technical conferences. This was an area that I felt I could contribute something positive to RMOUG and have worked hard to initiate the user group’s interfaces to the world so that they also interact with the social media sites. I'm still learning what it means to be the Membership and Vendors Director and appreciate the patience the other board members have with my lack of knowledge in the role. My children on the other hand, are just happy to have Mom out of the house and pre-occupied with something other than their personal lives all the time.

I look forward to contributing to RMOUG and helping it continue to be the great local area user group for those in the Oracle community.
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A full page, full color ad in RMOUG SQL>UPDATE costs as little as 70 cents per printed magazine and even less for smaller ads.

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Discounts available for RMOUG Members and Full Year Contracts

See Media Kit for deadlines and mechanical requirements.
Submit ad materials to: Pat Van Buskirk, RMOUG Newsletter Director
38101 Comanche Creek Road • Kiowa, CO 80117
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SQL>UPDATE is mailed to all RMOUG Members and distributed during Quarterly Education Workshops and Training Days each year
Meet Your Board

RMOUG Board of Directors

Tim Gorman
President & Treasurer
E-mail: President@rmoug.org
Treasurer@rmoug.org

Kelly Pot’vin
Membership & Vendors Director
E-mail: Membership@rmoug.org

John Jenuette
Training Days Director
E-mail: TrainingDaysDir@rmoug.org

Kathy Robb
Board Member Emeritus
Arisant, LLC
E-mail: BoardME@rmoug.org

Ron Bich, SofTec Solutions, Inc.
IS Director
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E-mail: TrainingDaysDir@rmoug.org

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Scholarship Director
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VicePresident@rmoug.org

Brad Blake
SIGS Director
E-mail: SIGSDir@rmoug.org

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Voice Mail: (303) 948-1786
Fax: (303) 933-6603
E-mail: Admin@rmoug.org

Pat Van Buskirk
Newsletter Director
E-mail: NewsletterDir@rmoug.org
RMOUG Events Calendar

9/23/11   Training Days   Training Days 2012 - Call For Papers ends (first notice)
9/27/11   QEW             RMOUG Quarterly Educational Workshop - Call for Presentations for 11/18 meeting
9/30/11   Training Days   Training Days 2012 - Call For Papers ends (final notice)
10/2-6/11 Conference       Oracle Open World - Moscone Convention Center - San Francisco, CA
10/12/11  Board           Board Meeting at 6:00 pm
10/12/11  Training Days   Training Days 2012 - Agenda Selection
10/13/11  DB Labs          MySQL For Oracle DBAs - Regis University
10/15/11  Newsletter       Call for Papers, Winter 2011 Issue
10/18/11  Board           Board Meeting at 6:00 pm
11/1/11   Training Days   Training Days 2012 - Call for Volunteers
11/5/11   Training Days   Training Days 2012 - Early Registration Opens
11/15/11  Training Days   Training Days 2012 - Schedule at a Glance Posted to Website
11/16/11  Board           Board Meeting at 6:00 pm
11/18/11  QEW             RMOUG Quarterly Educational Workshop - Oracle Corporation in DTC
11/18/11  Scholarship      Winter Scholarship Recipients Announced at QEW
12/14/11  Board           Board Meeting at 6:00 pm
12/15/11  Newsletter       Mail Winter 2011 Issue
2/14-16/12 Training Days   Training Days 2012 - Denver Convention Center

Please note dates are subject to change. For the most current events calendar visit our website at www.rmoug.org.

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Help RMOUG Members and Receive Recognition in An Upcoming Issue of SQL>Update

Contact Carolyn Fryc - Programs Director - 720-221-4432 - cfryc@orsportal.com

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Join us for our next Quarterly Education Workshop in November. The location will be announced via email or please check our web site. RMOUG hosts quarterly workshops in May, August and November of each year with the fourth and largest educational event being Training Days in February. Learn about the newest technologies, gain more insight into Oracle techniques and enjoy the camaraderie of meeting with other Oracle professionals.

If you or your organization are interested in partnering with RMOUG to host an upcoming meeting, or to submit an abstract for presentation, please contact Carolyn Fryc, Programs Director at ProgramsDir@rmoug.org

Watch RMOUG’s Web Page for May Training Topics  www.rmoug.org
MARK YOUR CALENDAR NOW!

RMOUG TRAINING DAYS
February 14-16, 2012 | Denver, Colorado
Colorado Covention Center
www.rmoug.org

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