NYOUG Spring 2012 Training Session

"Oracle PL/SQL for the 21st Century with Steven Feuerstein"

DATE: Wednesday April 18, 2012

TIME: 9:00-4:45

LOCATION: St. John's University - 101 Murray St. New York, NY 10007 - Auditorium

SCHEDULE:

8:00-9:00 Registration and Breakfast
9:00-10:30 Training
10:30-10:45 Break
10:45-12:00 Training
12:00-1:00 Lunch – Buffet lunch provided
1:00-2:30 Training
2:30-2:45 Break
2:45-3:45 Training
3:45-4:00 "Stretch Break"
4:00 – 4:45 Training

SESSION SUMMARY:

In 2012, the Oracle PL/SQL language will celebrate its 23rd birthday. Not bad for a language that initially found its application inside SQL*Forms V3 and is now widely regarded as the most powerful, flexible and well-structured relational database programming language. Twenty-three years also has provided Oracle with lots of opportunity to enhance PL/SQL, which makes it ever more challenging for programmers to keep up with all the enhancements.

This one-day training covers the most critical features you need to know about if you are going to write PL/SQL programs that fully utilize the capabilities of modern PL/SQL in the 21st century, including the most important enhancements of Oracle Database 11g.

We will finish the day with a quiz on the topics covered, and prizes awarded to the top 5 scorers. Winners will be announced at the PL/SQL Challenge website, where thousands of Oracle technologists play daily, weekly and monthly quizzes on PL/SQL, SQL and APEX.

Detailed Description of Topics to be Covered

1. **Bulk Processing with BULK COLLECT and FORALL**: the most important performance optimization feature of PL/SQL, bulk processing turbo-charges the speed of repeated execution of the same SQL statement (think: DML inside a loop) by reducing the number of context switches. We'll explore every nook and cranny of BULK COLLECT and FORALL.
2. **The Function Result Cache (11g):** a fantastically elegant and high-impact feature, the function result cache provides an SGA-based cache that helps you optimize the performance of queries across an entire instance that repeatedly retrieve the same rows of data.
3. **Row-Level Error Suppression in DML**: added in Oracle Database 10g Release 2, the LOG ERRORS clause (along with the built-in package, DBMS_ERRLOG) offers row-level suppression of errors in DML statements, especially helpful when modifying large numbers of rows.
4. **PL/Scope (11g):** new to Oracle Database 11g, PL/Scope analyzes the way that all identifiers (variables, constants, subprograms, exceptions, types, etc.) are used in your code. It allows us to perform analysis on our code in a way never before possible. For example, you can implement your own scripts to check code for compliance with naming conventions - no parser required!
5. **The NOCOPY Hint**: so simple, and yet so impactful. Add one keyword to your IN OUT parameter definition and get a significant boost in performance. Along the way, learn about the difference between formal parameters and actual argument values, passing by reference vs. value.
6. **Dynamic SQL Advanced Features:** Oracle Database 11g includes many enhancements for dynamic SQL, especially for Method 4 dynamic SQL.
7. **Advanced Collection Features:** the year is 2012 and all PL/SQL developers should be aware of and use collections (PL/SQL's version of arrays). So we'll skip the basics and concentrate on advanced features like use of the TABLE operator, string-indexed associative arrays, and nested collections.

Prerequisites

You should have a working knowledge of PL/SQL and at least a year's worth of experience with the language. All developers, from beginner to expert, will benefit from Steven's ideas and examples.

Oracle Version

Steven will demonstrate techniques and principles that apply to all recent versions of Oracle, but will also showcase new features in Oracle Databases 10*g* and 11*g* that can dramatically improve the quality and performance of code that you write.