
Oracle 11g Gems



presentation for:





Victoria Oracle Users Group

January-February 2008

Daniel A. Morgan



Who am I?

- Daniel Morgan
- Oracle Ace Director 
- University of Washington 
 - Wrote UW Oracle curricula
 - Primary program instructor - 8 years
- Education Chair: PSOUG 
- Member: UKOUG 
- Frequent speaker – OOW and user group events
- 10g, 11g, and TimesTen Beta tester
- Oracle since version 6
- Too many years of Fortran and COBOL
- Contact: damorgan@u.washington.edu



Additional Resources

SQL University

www.sqluniversity.net

Streaming Video

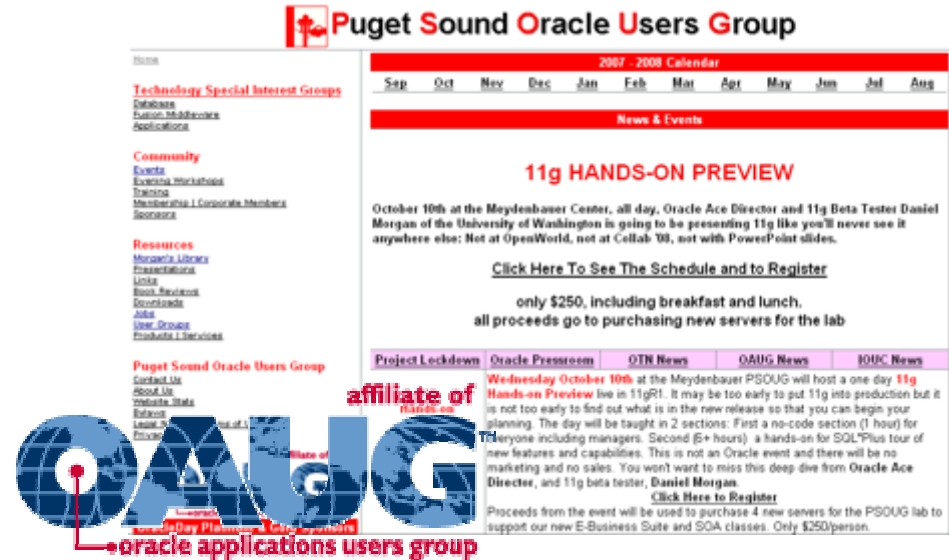


The screenshot shows the homepage of SQL University. At the top, it says "WELCOME TO SQL UNIVERSITY.NET A PASSION FOR EDUCATION". Below this is a banner image of people in a classroom setting. The main content area is titled "SQL UNIVERSITY DELIVERS:" and lists several features: "Streaming Video of live lectures and demos...not slow death by PowerPoint", "The best Oracle and SQL and PL/SQL education available.", "Online instruction from the best educators in the world", "Oracle 10g and 11g database instruction", and "Real world challenges. Real world solutions". There is a link to "Click here for free lectures and demos by Oracle Ace Dan Morgan!". Below this are two small portrait photos of men.

Morgan's Library

www.psoug.org

Demo Source Code



The screenshot shows the website for the Puget Sound Oracle Users Group (PSOUG). The header includes the group name and a "2007 - 2008 Calendar" with a navigation bar for months from Sep to Aug. A "News & Events" section features a prominent announcement for a "11g HANDS-ON PREVIEW" on October 10th at the Meydenbauer Center. The text describes the event as a one-day "Hands-on Preview live in 11gR1" and mentions Oracle Ace Director and 11g Beta Tester Daniel Morgan. It includes a "Click Here To See The Schedule and to Register" link and states that the event is "only \$250, including breakfast and lunch, all proceeds go to purchasing new servers for the lab". Below this, there are links for "Project Lockdown", "Oracle Pressroom", "OTN News", "OAGU News", and "IOUC News". A "Wednesday October 10th" section provides more details about the event, including a "Click Here to Register" link. At the bottom, there is a logo for "OAGU" (Oracle Applications Users Group) with the text "affiliate of Oracle Applications Users Group".

Daniel A. Morgan



Cary Millsap



"Oracle Performance Management Using Response Time Profiling"

February 19 - 21 ... reserve your seat today

[Click Here for Details](#)

When: February 19 – 21

Where: Mount Si Room, 2nd floor, 500 108th Av NE, Bellevue, WA

Price: \$1,500 USD – (special PSOUG price)

Daniel A. Morgan



Lab Hardware



HP DL360 G3 dual proc dual core server used as a repository for RMAN classes.

DUG's Pillar Data Systems Axiom 500 SAN 8 of disk allows members the abilities to work in a production fibre-channel environment when learning RAC, or ASM, or other technologies and contains enough room for a full-size Apps install.



NetApp 270C NAS with 1TB disk

NetApp 720 and FC9 for iSCSI





APRIL 13-17, 2008
COLORADO CONVENTION CENTER
DENVER, COLORADO

COLLABORATE 08, featuring the OAUG Forum, will offer more than **500 presentations** facilitated by industry experts, members of the OAUG and Oracle.

Early Bird Registration Deadline

March 13

Exhibitor Showcase Sales

Now open

For additional information and to register

<http://oaug.collaborate08.com>

What is a gem

- Something of value
- Something that requires effort to uncover
- As with the industrial uses for diamonds and sapphires
- Something that can be put to an industrial use.
- Requires polishing



Gems – The Short Program

- Architecture
 - BDUMP and UDUMP are gone
 - SQL*Plus (Windows is gone)
- Bugs – **do I have a good one for you <g>**
- Security
 - Passwords can be case sensitive
 - New System privileges
- SQL Changes
 - READ ONLY Tables
 - Virtual Columns
- PL/SQL Changes
 - Sequences
 - Follows Clause
 - PL/SQL Warnings
- WM_CONCAT Function



9i and 10g New Features – You May Have Missed

- Explain Plan w/ dbms_xplan
- ORA_ROWSCN pseudocolumn
- Collecting System Statistics
- DBMS_ASSERT
- DBMS_SPACE



Gems - Architecture

- ADR
 - BDUMP and UDUMP Deprecated
 - \$ADR_BASE and \$ADR_HOME
 - ADRCI
- Tools
 - SQL*Plus Windows
- Passwords
 - Case Sensitive
- PFILE
 - CREATE FROM MEMORY
- Flashback Archive



Gems - Architecture

- **Tablespaces**

- Exabytes
- Compressed
- SecureFiles
 - compression
 - deduplication
 - encryption

Kilobyte	1,000
Megabyte	1,000,000
Gigabyte	1,000,000,000
Terabyte	1,000,000,000,000
Petabyte	1,000,000,000,000,000
Exabyte	1,000,000,000,000,000,000

billions of gigabyte

- **SELECT**

- FOR UPDATE SKIP LOCKED
- Cross Tabulation
 - PIVOT
 - UNPIVOT
- REGEXP_COUNT
- SQL Result Cache



Gems - SQL

- Tables
 - READ ONLY
 - Compression
 - Transparent Data Encryption
 - Virtual Columns
- Partitioning
 - Partition by Interval
 - Partition by Reference
 - Partition by System
 - Composite Partitions
- Indexes
 - Invisible



Gems - SQL

- Explain Plan
 - dbms_xplan review
 - dbms_xplan.build_plan_xml
 - dbms_xplan.display_plan
- Mixed Notation
- DICOM
- XML Functions



Gems – PL/SQL

- Native Compilation
 - SIMPLE_INTEGER data type
- Sequences
- Loops
 - CONTINUE Statement
- Table Triggers
 - FOLLOWS Clause
 - Composite Triggers
- PL/SQL Result Cache
- PL/SQL Warnings
- PLscope
- PRAGMA INLINE



Gems – Built-in Packages

- Advanced Queuing
 - GET_MAILHOST
 - GET_MAILPORT
 - GET_PROXY
 - GET_SENDFROM
 - HTTP_SEND
 - SEND_PROXY
- DBMS_ADVISOR
 - Run library demo
- DBMS_AUTO_TASK_ADMIN
 - DBMS_AUTO_TASK
- DBMS_AUTO_TASK_IMMEDIATE



Gems – Built-in Packages

- DBMS_COMPARISON
 - COMPARE
 - CONVERGE
 - CREATE_COMPARISON
 - RECHECK
- DBMS_CONNECTION_POOL
- DBMS_CSX_ADMIN
- DBMS_DATAPUMP
- DBMS_DG
 - INITIATE_FS_FAILOVER
- DBMS_EDITIONS_UTILITIES



Gems – Built-in Packages

- **DBMS_FLASHBACK**
 - Transaction Backout
- **DBMS_HPROF**
 - replaces DBMS_PROFILER
- **DBMS_HM (Health Management)**
 - GET_RUN_REPORT
 - RUN_CHECK
- **DBMS_IR (Intelligent Repair)**
- **DBMS_LOB**
 - Deduplication
 - SecureFiles



Gems – Built-in Packages

- DBMS_METADATA
 - COMPARE_ALTER
 - COMPARE_ALTER_XML
 - COMPARE_SXML
 - GET_DEPENDENT_DDL
 - GET_GRANTED_DDL
- DBMS_MONITOR
 - DATABASE_TRACE_ENABLE
 - DATABASE_TRACE_DISABLE
- DBMS_NETWORK_ACL_ADMIN
- DBMS_NETWORK_ACL_UTILITY



Gems – Built-in Packages

- DBMS_REDEFINITION (now handles MView Logs)
- DBMS_RESOURCE_MANAGER
 - CALIBRATE_IO
- DBMS_RESULT_CACHE
- DBMS_SPM (SQL Plan Management)
- DBMS_SQL & NDS (now supports CLOBs)
- DBMS_SQLDIAG
- DBMS_SQLPA
- DBMS_STATS



Gems – Built-in Packages

- DBMS_STREAMS_ADM
- DBMS_STORAGE_MAP
- DBMS_WORKLOAD_CAPTURE
- DBMS_WORKLOAD_REPLAY
- DBMS_WORKLOAD_REPOSITORY
 - COLORED SQL
 - ASH REPORT
 - BASELINES
- DBMS_XA



Health Warning

Due to complaints made to the Minister of Health ...



You are now entering ...

... a ...



Gems - Architecture

- DBMSOBJG
 - CHECK_PERMISSIONS
- DBMS_DIMENSION
 - DESCRIBE_DIMENSION
 - VALIDATE_DIMENSION
- DBMS_FEATURE_USAGE_REPORT
 - DISPLAY_HTML
 - DISPLAY_TEXT
- DBMS_I_INDEX_UTL
 - GET_REBUILD_COMMAND
- DBMS_INDEX_UTL
 - BUILD_INDEXES
 - BUILD_SCHEMA_INDEXES
 - BUILD_TABLE_INDEXES

