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**Consolidate by Migrating Your
Databases to Oracle Database 11g**

Fred Louis
Enterprise Architect

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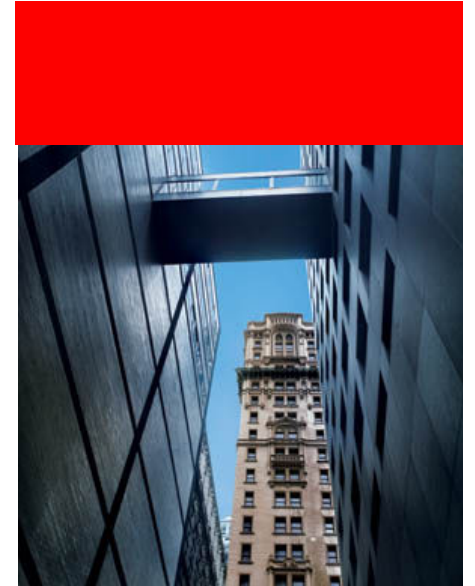


Agenda

- Why migrate to Oracle – What is migration?
- What can you migrate to Oracle?
- SQL Developer Migration Workbench
- Using SQL Developer Migration Workbench
- Migration Demo

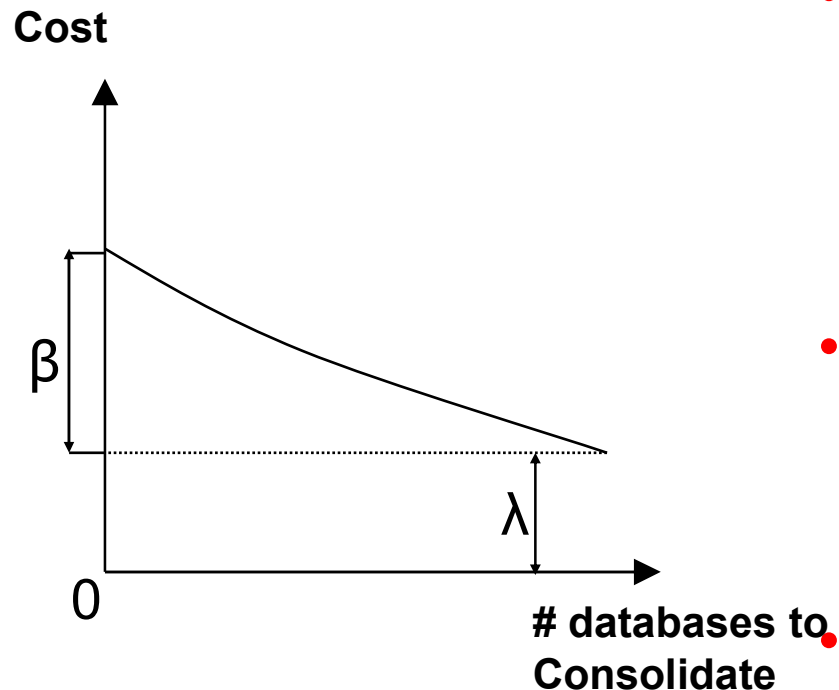
What Is Migration?

- A Migration is required when you have an application system that you wish to move to another technology and/or platform
- For example, you could migrate your application from:
 - Windows to Linux
 - Mainframe to UNIX
 - Sybase to Oracle 11g
 - Visual Basic to Java
 - Microsoft SQL Server to Oracle 11g on Linux
 - Microsoft Access to Oracle Application Express
- Migration is moving objects, data and code



Why Migrate to Oracle?

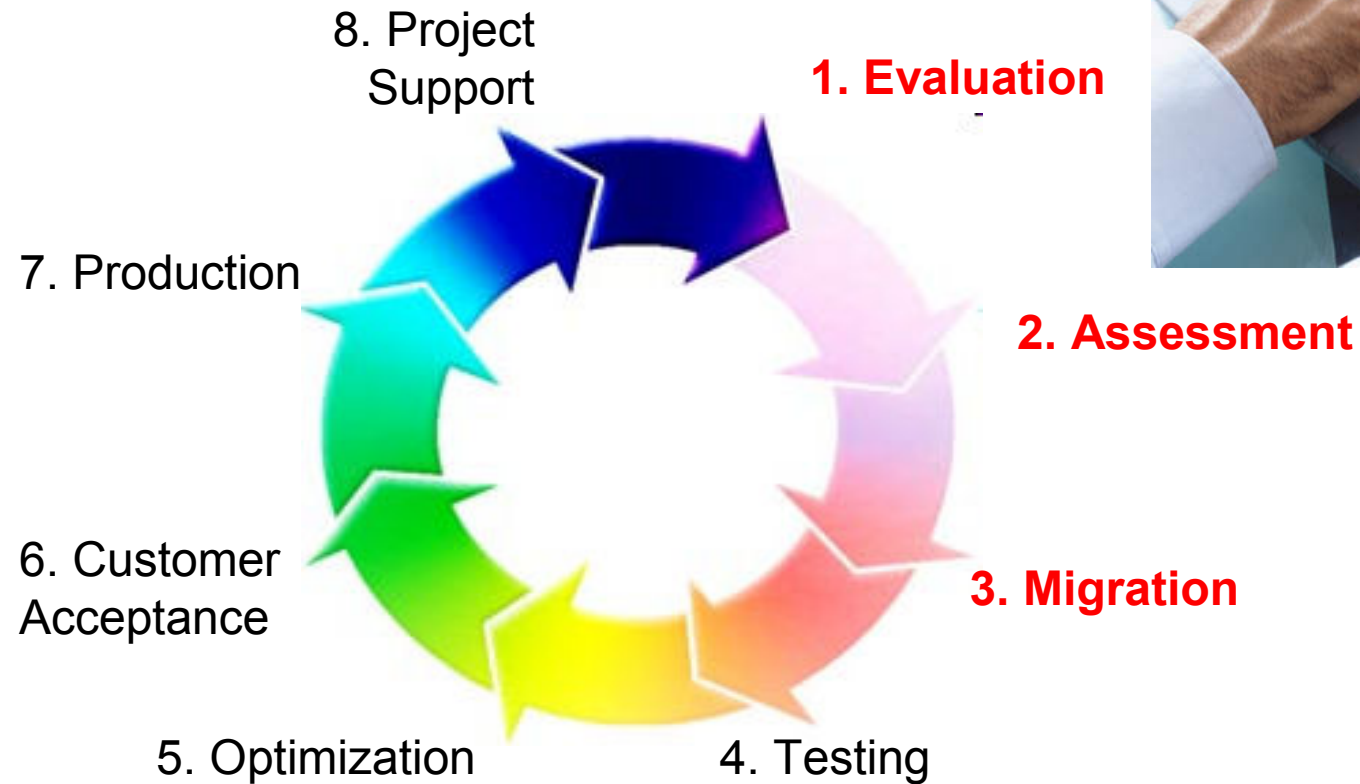
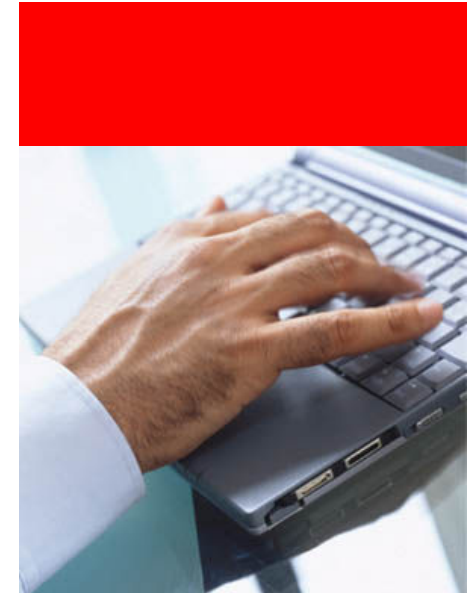
Business Drivers for Migration



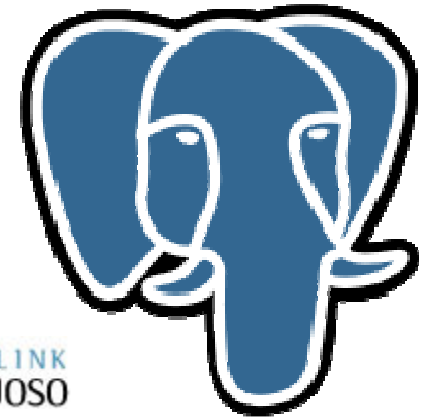
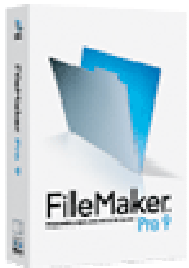
- **Consolidation**
 - Many platforms to one
 - Hardware and software consolidation
 - Centralized IT management
- **Reliability/Scalability/Performance**
 - Core competencies of Oracle
 - Key customer concerns
- **Cost of ownership**
 - The more databases you have, the lower the relative cost of migration

Why Migrate to Oracle?

Migration Project Support

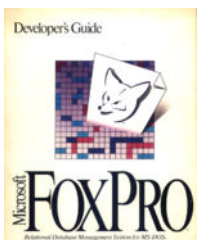


What can you migrate to Oracle?



SQLite

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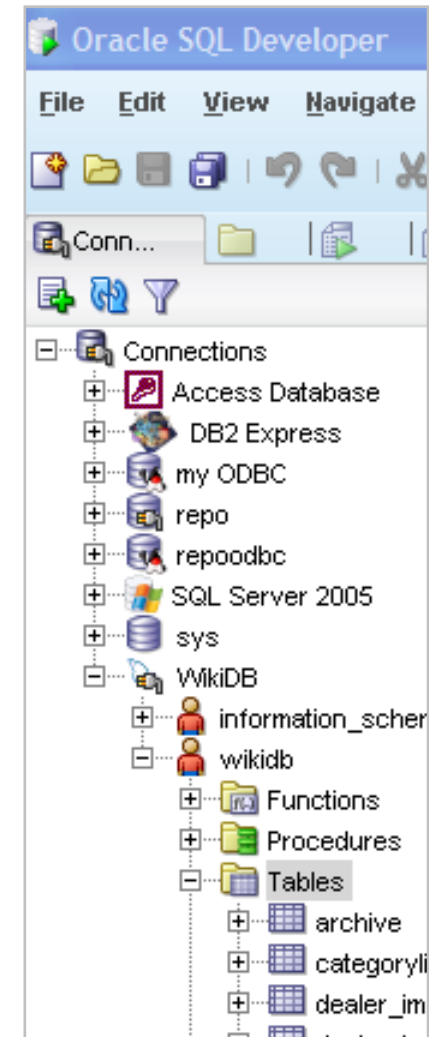
INGRES™



SQL Developer Migration Workbench

Automating your migration

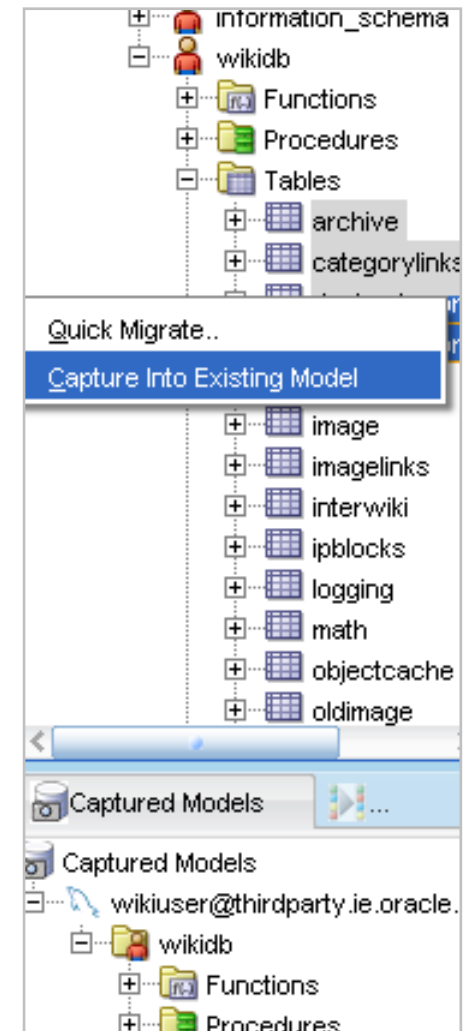
- Built on SQL Developer
 - Creating Database Connections
 - Creating and Browsing Objects
 - Migrate 3rd party databases to Oracle
 - Querying and Updating Data
 - Importing Data, Exporting Data and Objects
 - Using the SQL Worksheet
 - Running the Query Builder
 - Creating and Running PL/SQL
 - Running and Defining Reports
 - Building Extensions
- Native 3rd party support
 - Create and browse 3rd party database objects
 - SQL Worksheet support
 - Powerful reporting on objects migrated



SQL Developer Migration Workbench

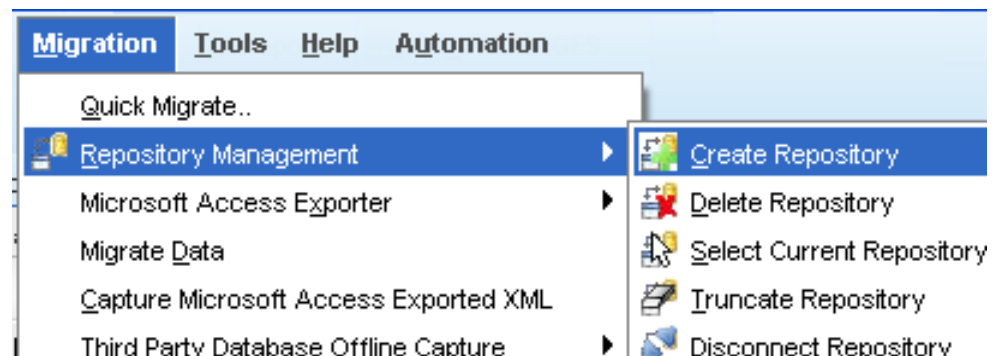
Existing Features

- Least Privilege Migration
 - Migrate objects you own without requiring DBA rights
 - Users can migrate any object they can access
- Sync Mode
 - Capture a snapshot of the third party database
 - Static target used in the migration
 - Visual correlation of Derived Database Objects
- All existing functionality supported
 - Offline data migration using generated scripts
 - Offline Meta data load using SQL scripts
- Tailored Generation of emulation package
 - Only include the referenced functions
 - Part of the migrated schema or its own schema



Flexible Repository Based Usage

- Simple mode: Provides a wizard driven UI
 - Minimal user interaction
- Expert mode: Provides fine grained control
 - Select only the objects you wish to migrate
 - Spread the workload among a migration team
 - Multiple projects, multiple users
 - Completely customizable migration
- Multiple projects
- Concurrent users
- Customizable migration



SQL Developer Migration Workbench

Supported Versions

Database	Versions
Sybase Adaptive Server	12.5, 15.X
Microsoft SQL Server	2000, 2005
Microsoft Access	97, 2000, 2003
MySQL	3.X, 4.X, 5.X
DB2 UDB	8 and 9
JDBC & ODBC (tables only)	Any

New in 1.5

Arriving in 2.0



SQL Developer Migration Workbench

Roadmap

- Current platforms
 - Microsoft SQL Server, Access , MySQL, Sybase Adaptive Server
- Future Releases
 - Additional 3rd party database support
 - JDBC & ODBC Support
 - IBM DB2 UDB/ZSeries/iSeries
 - Informix Dynamic Services
 - Visual modeling of captured and converted data
 - PL/SQL procedure testing
 - Migration verifier integration – is your migrated data intact?

Using The Workbench

SQL Developer Features

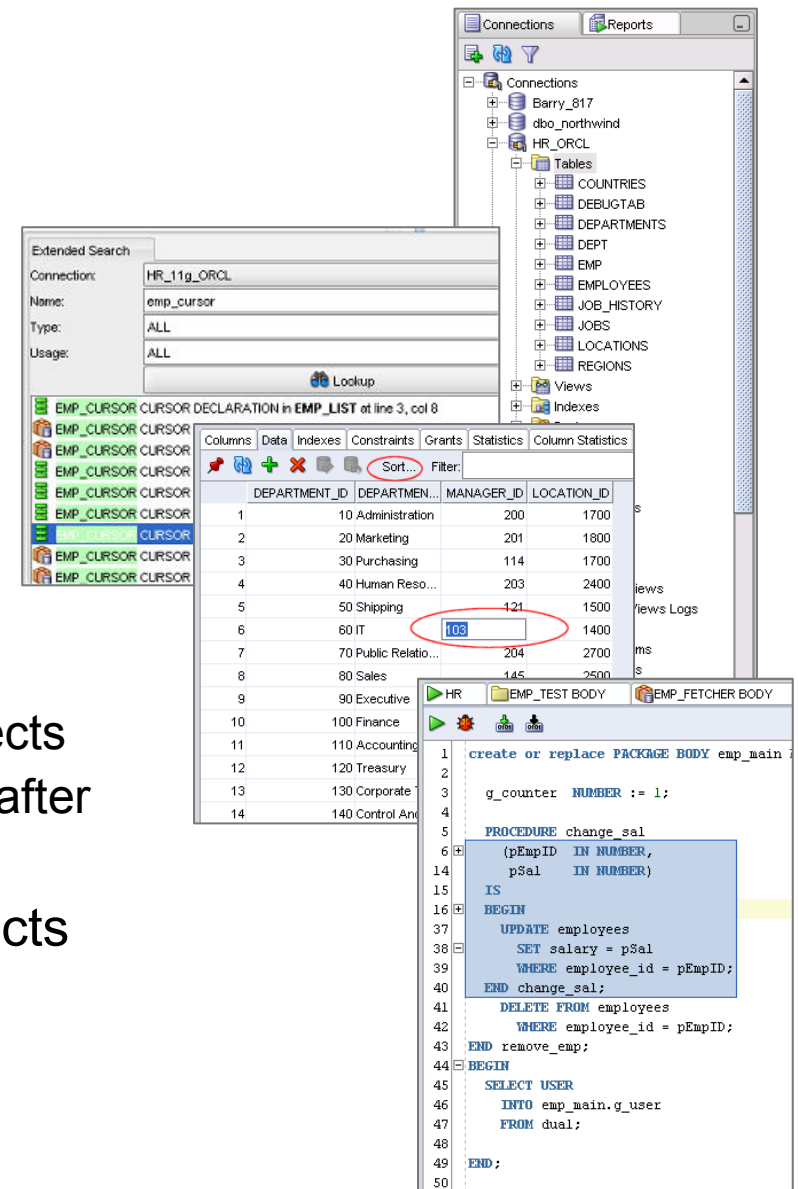
- Migration is a 5 step process:

-  Connect
-  Capture
-  Convert
-  Generate
-  Data Move

- Integrated with standard features:

- Creating database connections and objects
- Querying and updating data before and after
- Autotrace & Explain plan

- Importing data, exporting data and objects
- Creating and running PL/SQL
- Integrating with Oracle APEX 3.0.1+
- Working with files and version control



The screenshot displays the Oracle SQL Developer interface. On the right, the 'Connections' pane shows a tree view of the 'HR_ORCL' database schema, including tables like COUNTRIES, DEPT, EMP, and EMPLOYEES. In the center, the 'Extended Search' window is open, showing search results for 'emp_cursor'. Below the search results, a table displays employee data with columns DEPARTMENT_ID, DEPARTMENT_NAME, MANAGER_ID, and LOCATION_ID. The value '103' in the MANAGER_ID column is circled in red. At the bottom, the 'SQL Editor' window shows PL/SQL code for a package body, including a procedure 'change_sal' and a 'SELECT USER' statement.

DEPARTMENT_ID	DEPARTMENT_NAME	MANAGER_ID	LOCATION_ID
1	10 Administration	200	1700
2	20 Marketing	201	1800
3	30 Purchasing	114	1700
4	40 Human Resources	203	2400
5	50 Shipping	121	1500
6	60 IT	103	1400
7	70 Public Relations	204	2700
8	80 Sales	145	2500
9	90 Executive		
10	100 Finance		
11	110 Accounting		
12	120 Treasury		
13	130 Corporate		
14	140 Control		

```
create or replace PACKAGE BODY emp_main
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BEGIN
    UPDATE employees
    SET salary = pSal
    WHERE employee_id = pEmpID;
END change_sal;
DELETE FROM employees
WHERE employee_id = pEmpID;
END remove_emp;
BEGIN
    SELECT USER
    INTO emp_main.g_user
    FROM dual;
END;
```

SQL Developer Exchange

<http://sqldeveloper.oracle.com>

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Feature Requests

Features requested here are not guaranteed to be implemented. The Product Development team will be using these requests to assist in deciding the product direction.

Do not log bugs here. This is for new functionality to be implemented. Use the [SQL Developer Forum](#) or [Metalink](#) for bug reports.

Rows

Title	Description	Created	Updated	Weight	Status
Better PL/SQL Formatting	Much like Toad does, with the proper formatting of a select statement with each additional column na	07-SEP-06	24-APR-08	269.0	In Release 1.5
Code Insight for Aliased Tables	Please allow code insight/complete to work on aliased table names in the sql editor. SELECT x.	22-AUG-06	15-NOV-06	248.0	In Release 1.1
Add data(base) modelling features	As it is called sql DEVELOPER I think it should support more of the development cycle. This includes	07-SEP-06	24-APR-08	230.0	Accepted
Add sortable columns	Would like to be able to click on column header and sort	31-JUL-06	23-OCT-06	209.0	In Release 1.1
Integration with Subversion	Would really like the ability to connect to Subversion repositories from within SQL Developer.	31-AUG-06	24-APR-08	187.0	In Release 1.5
Run/debug PL/SQL file	Add the ability to run/debug in a file-based code editor. From the forum (Posted Nov 15, 2006): 1.1	14-DEC-06	25-JUN-07	179.0	Awaiting Community Votes
Team Coding	That would be nice to have some kind of Team Coding feature as a cooperative source control feature.	01-NOV-06	24-APR-08	175.0	In Release 1.5



Finding More Detail

www.oracle.com/technology/products/database/sql_developer

- SQL Developer on OTN
 - White papers, Oracle by Example (OBE) and online demos
 - Team Blogs: Blogs, Magazine Articles & Podcasts
 - http://www.oracle.com/technology/products/database/sql_developer
- SQL Developer Exchange
 - Share reports, snippets, code, and add feature requests
 - <http://sqldeveloper.oracle.com>
- Forums
 - SQL Developer
<http://forums.oracle.com/forums/forum.jspa?forumID=260>
 - Migration Workbench
<http://forums.oracle.com/forums/forum.jspa?forumID=1>
- Migration Sites
 - <http://otn.oracle.com/migration>



Summary

- Migration to Oracle is easy, configurable, faster and repeatable
- All data sources supported
- One development tool for all databases
- Migration Technology Center:
<http://otn.oracle.com/migration>
- SQL Developer Page: <http://sqldeveloper.oracle.com>
- Don't forget the forums – Developers are here everyday.



For More Information

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