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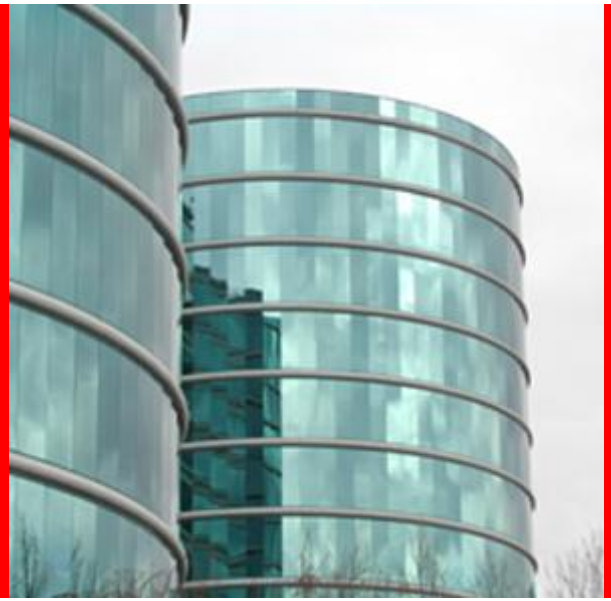

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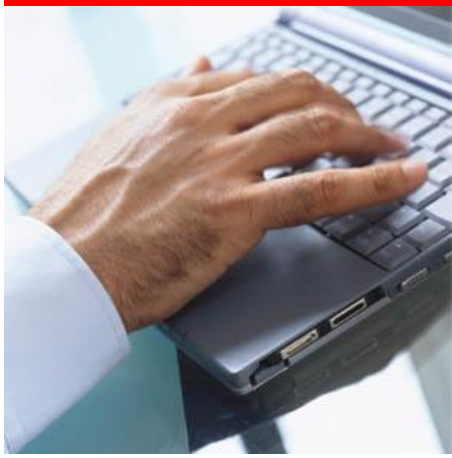
Move to Oracle Database with Oracle SQL Developer Migrations

The following is intended to outline our general product direction. It is intended for information purposes only, and may not be incorporated into any contract. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions.
The development, release, and timing of any features or functionality described for Oracle's products remains at the sole discretion of Oracle.

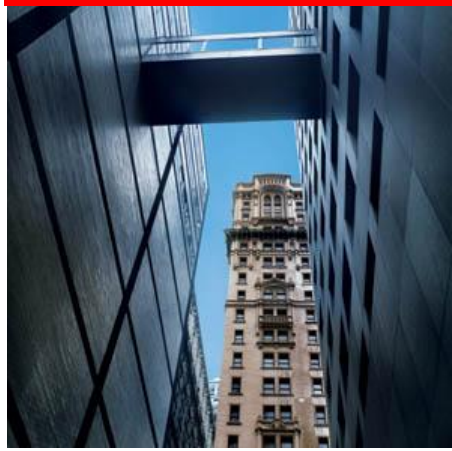
Agenda

- Types of migrations
- Migration space and project risk
- Project costs overview
- Exadata and database consolidation
- Predictable and measurable projects
- SQL Developer Migration functionality
- More information
- Summary

Introducing Migrations

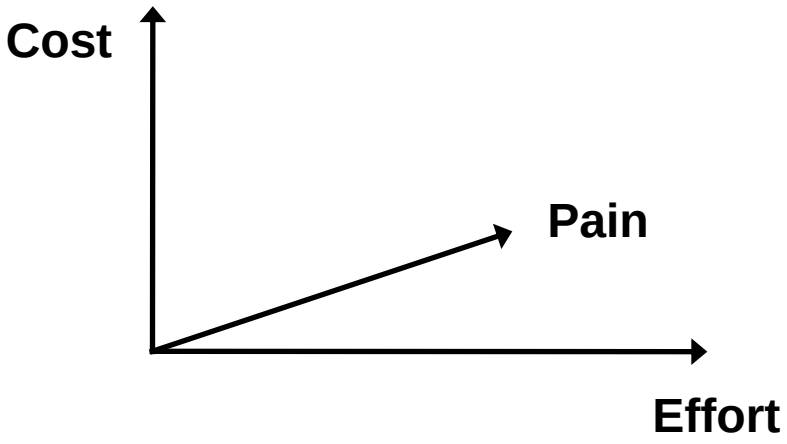


Types of Migration



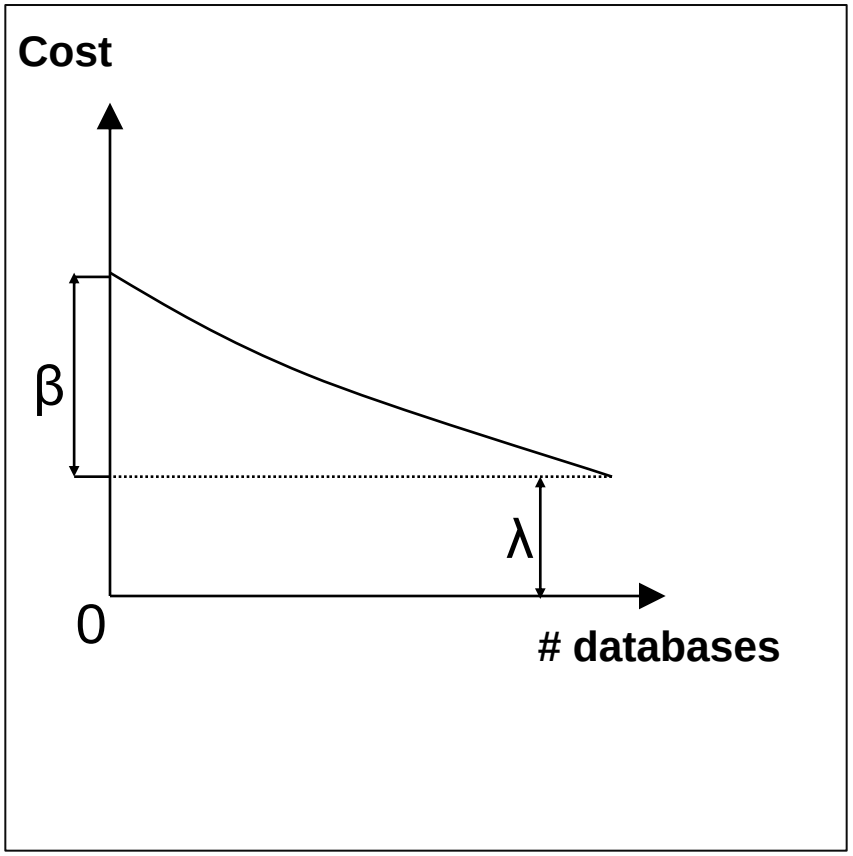
- A migration is required when you have an application system that you wish to move to another technology and/or platform
- You can migrate applications from:
  - Windows to Linux
  - Mainframe to UNIX
  - Sybase to Oracle Database 11g
  - Visual Basic to Java
  - Microsoft SQL Server to Oracle Database 11g on Linux
  - Microsoft Access to Oracle Application Express
  - Teradata to Exadata
- Migration includes moving objects, data and application code

Migration Space and Project Risk



- What factors are forcing us to look at migration?
- How much pain is involved?
- How much effort is involved? Is it measurable?
- How much will it cost? Is it worth it?

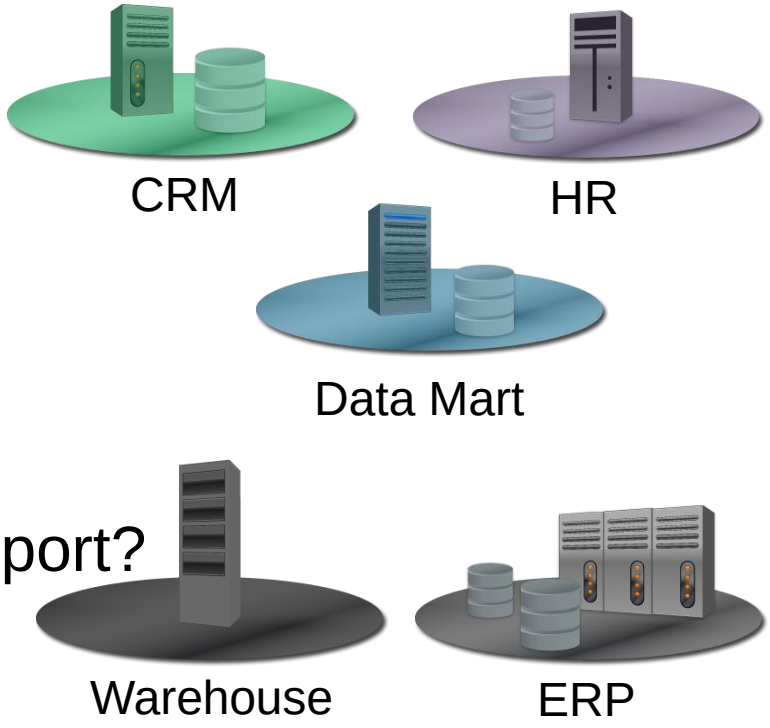
Project Costs



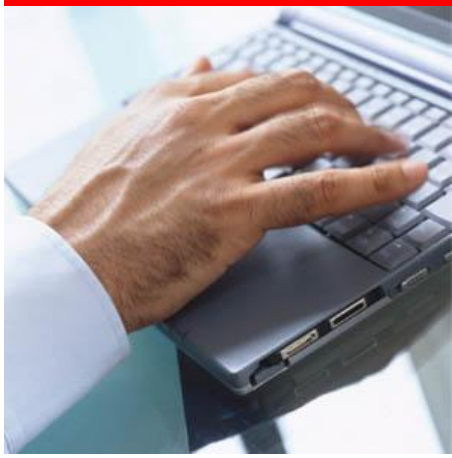
- Consolidation
  - Many platforms to one
  - Hardware and software consolidation
  - Centralized IT management
- Reliability - Scalability - Performance
  - Core competencies of Oracle
  - Key customer concerns
- Cost of Ownership
  - The more databases you have, the lower the relative cost of migration

Choices, Choices

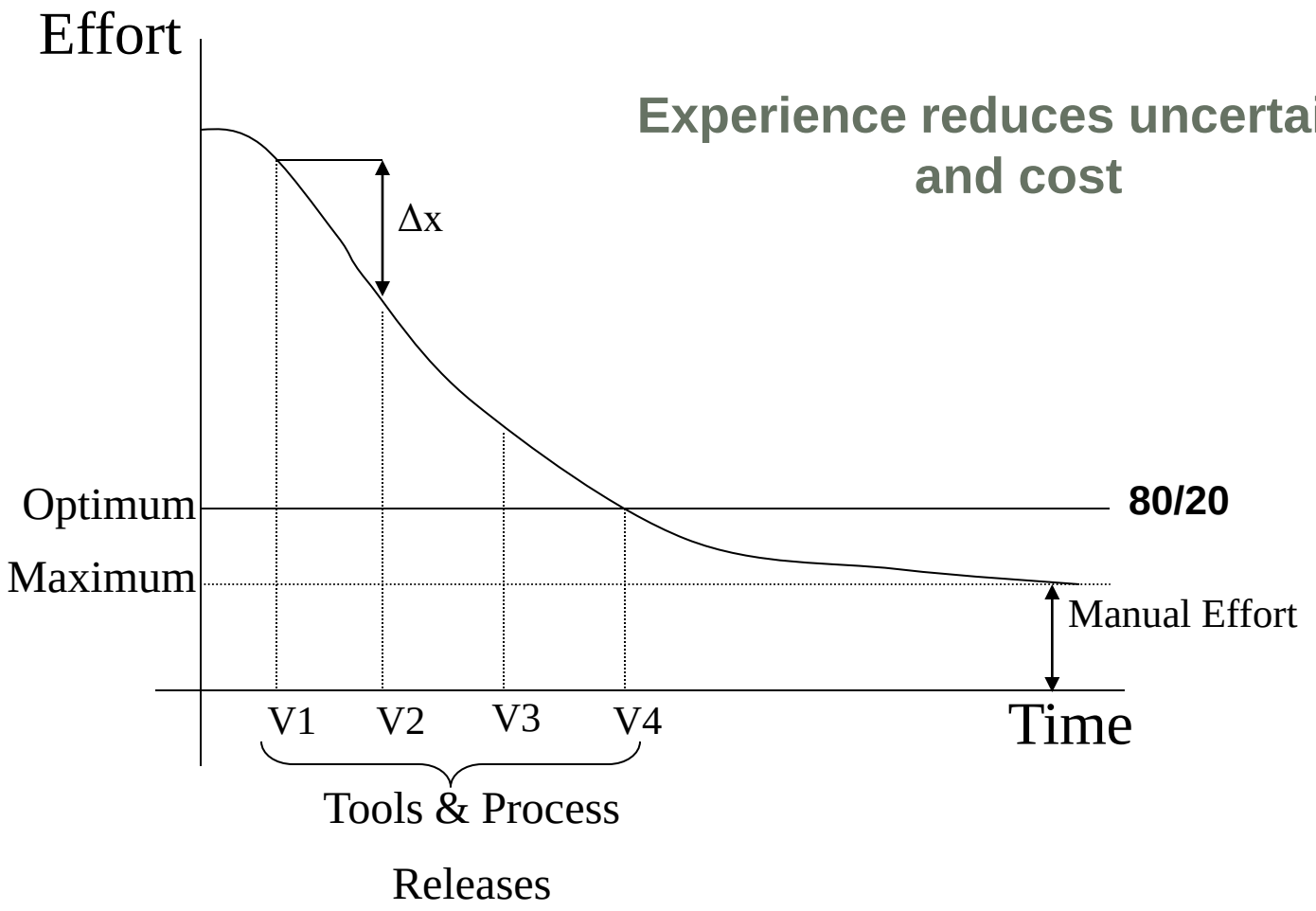
- How do you save money?
  - Consolidation of hardware
  - License reduction
  - Retire systems you can do without
  - Skill consolidation in your teams
- How many systems need to support?
  - Which are critical?
  - Where are the problems?
  - Is there a flexible way to reduce footprint over time, but have the ability to grow over time when required?



Automating Migrations

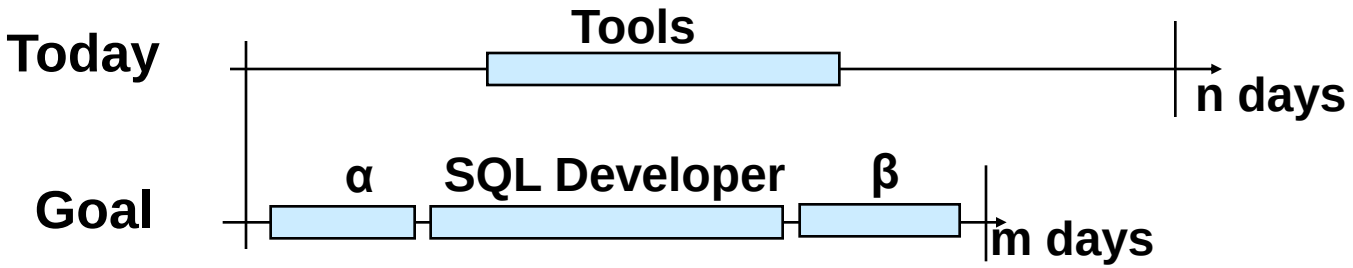


Predictable and Measurable Projects



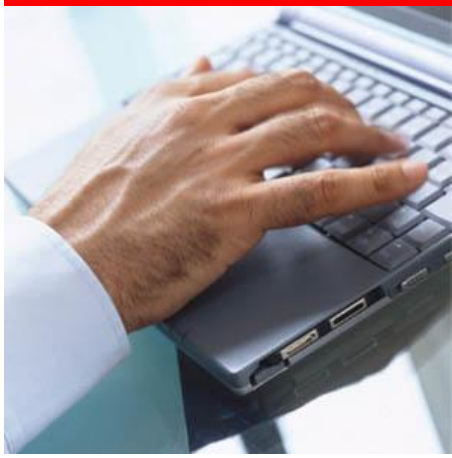
Automation in Projects

SQL Developer lowers cost and effort in projects



$$Efficiency = 100\left(\frac{(n-m)}{n}\right) \text{ where } \begin{cases} \alpha = \text{Pre-migration Automation} \\ \beta = \text{Post Migration Automation} \\ x = \%\ \text{Improvement} \end{cases}$$

- Goals
  - Maximize complex migration issues
  - Minimize manual intervention to minimum and standardize where possible



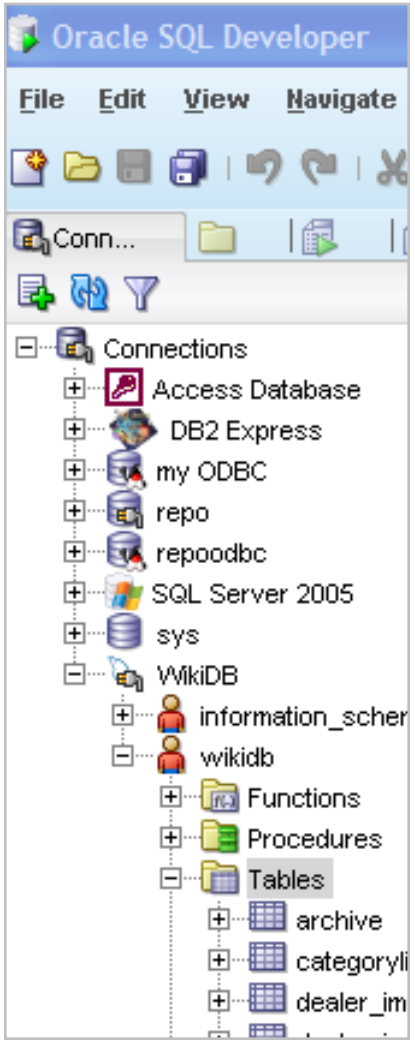
SQL Developer Migrations

Oracle SQL Developer

Completing the lifecycle

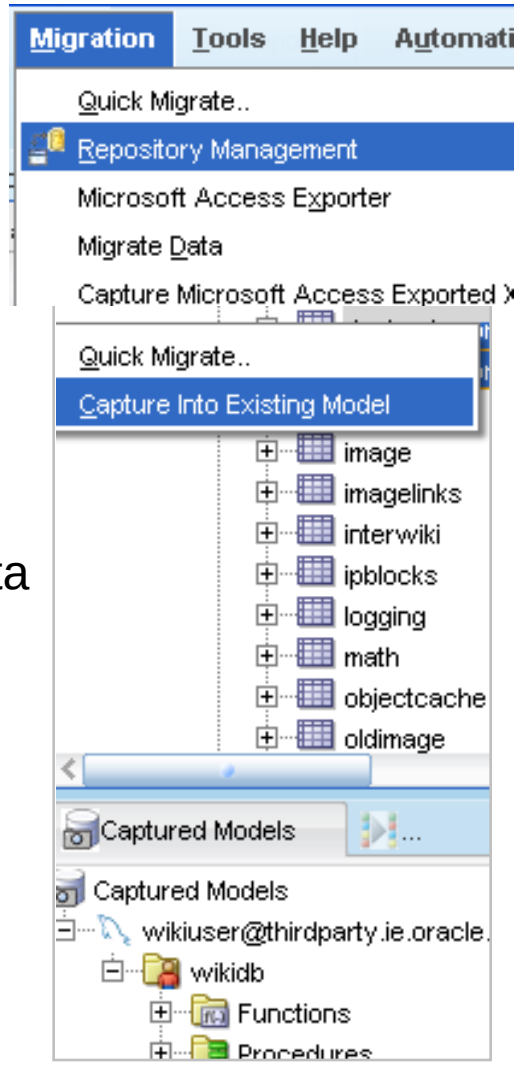
1.5 Million users and growing

- Migration technology built on SQL Developer
- Migrate third party databases to Oracle in 5 stages
  - Connect, capture, convert, generate, data move
- Native 3rd party database support
  - Create database connections
  - Create and browse third party database objects
  - SQL Worksheet support
  - Powerful reporting on objects migrated



SQL Developer Migrations

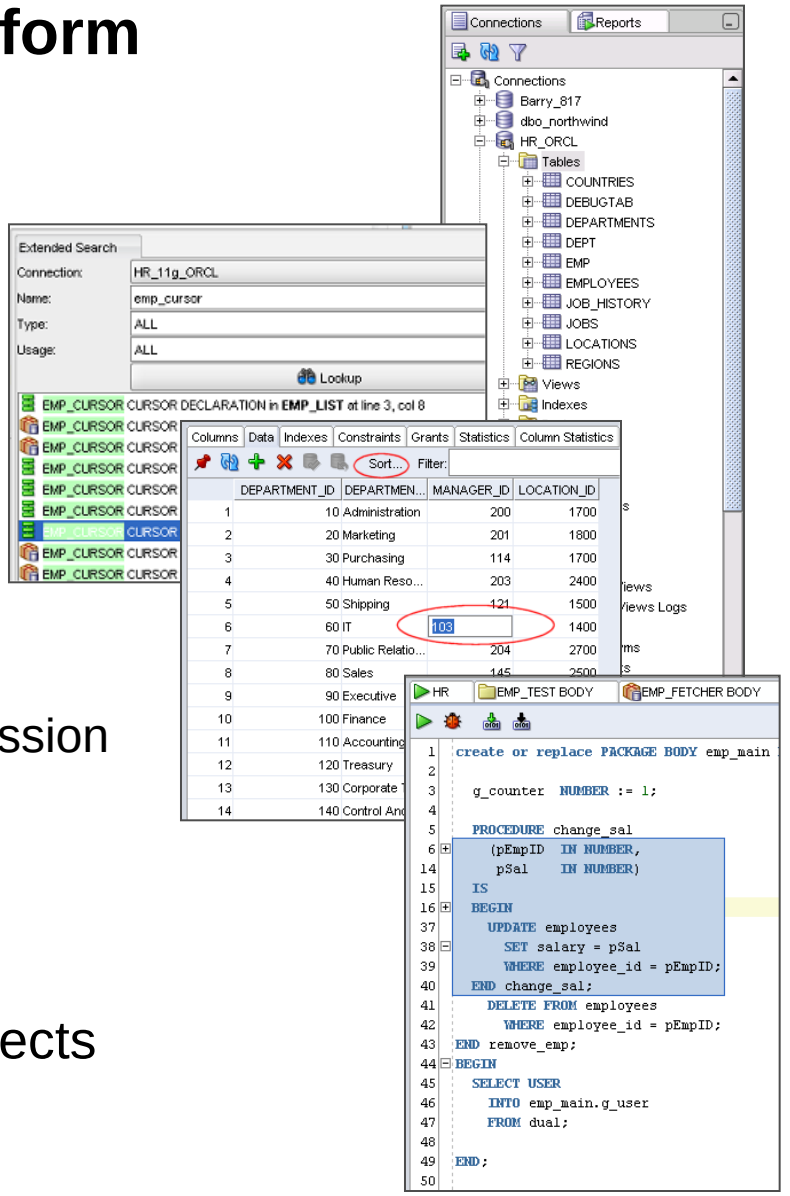
- Logical equivalence
- Simple and expert modes using repository
- Least Privilege Migration
  - Users can migrate any object they can access
- Sync Mode
  - Capture a snapshot of 3rd party database metadata
  - Static target used in the migration
  - Visual correlation of derived database objects
- All existing functionality supported
  - Offline data migration using generated scripts
  - Offline meta data load using SQL scripts
- Tailored generation of emulation package



Multiple projects, Concurrent users and Customizable

SQL Developer: Integrated Platform

- Create database connections
- Create and browse objects
- Query and update data
- Import data, export data and objects
- Use the SQL Worksheet
- Tune SQL using
  - Autotrace, Explain plan and monitor session
- Create, run and test PL/SQL
- Run and define reports
- Build extensions
- Importing data, exporting data and objects
- Working with files and version control



SQL Developer Migrations: Supported Databases

Database	Versions
Sybase Adaptive Server	12.5,15.x
Microsoft SQL Server	7.0, 2000, 2005
Microsoft Access	97, 2000, 2002, 2003
MySQL	3.x, 4.x, 5.x
IBM DB2 UDB	8 and 9
Teradata	12

SQL Developer Migrations Roadmap

- Current platforms
  - Microsoft SQL Server, Microsoft Access, MySQL, Sybase Adaptive Server, IBM DB2 UDB, Teradata
- Future Releases
  - Additional third party database support
    - JDBC and ODBC support
    - IBM DB2 ZSeries/iSeries
    - Informix Dynamic Services
  - Visual modeling of captured and converted data
  - Migration verifier integration – Is your migrated data intact?
  - VLDB data move support
  - Application migration support

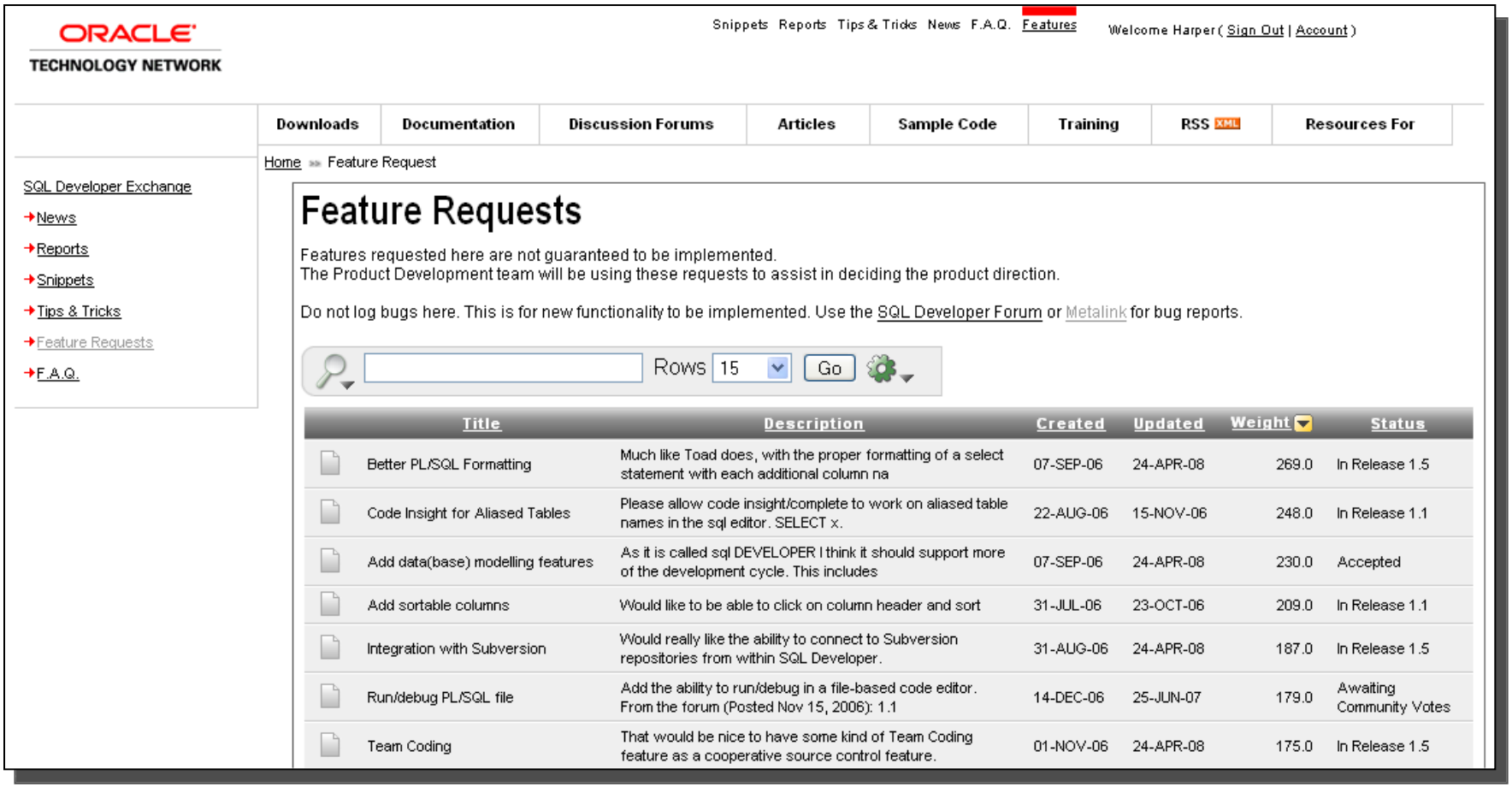
Finding More Detail

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

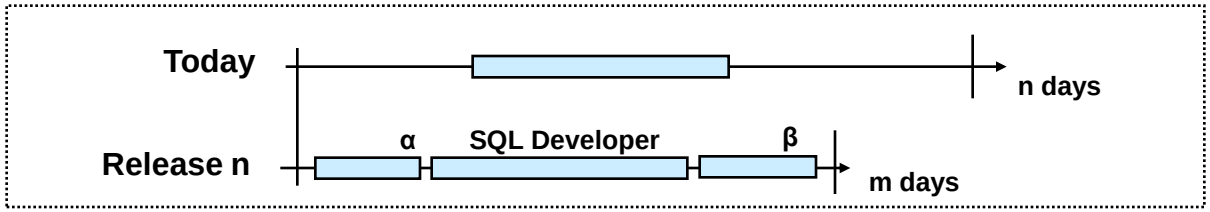
SQL Developer Exchange

http://sqldeveloper.oracle.com



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
- SQL Developer Forum: http://forums.oracle.com/forums/forum.jspa?forumID=260



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