

ORACLE®

SQL Developer

Introducing Oracle's New Graphical Database Development Tool

Craig Silveira
Principal Sales Consultant
Oracle USA

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Agenda

- Introduction
- Why do we need SQL Developer?
- Features
 - Connections
 - Create and Browse Objects
 - Query and Update Data
 - Execute Queries
 - Create and Debug PL/SQL
 - Run Database Reports
 - IDE
 - Extensibility
- Roadmap for the Future



SQL Developer

- Provides a free client database development tool
- Comprehensive core functionality
- Great user experience
- Enhances productivity
- Simplifies database development tasks
- Initial focus
 - Object Browsing, Object Creation
 - SQL Worksheet (command and scripts)
 - PL/SQL editing, debugging
 - Developer centric, user extensible reports



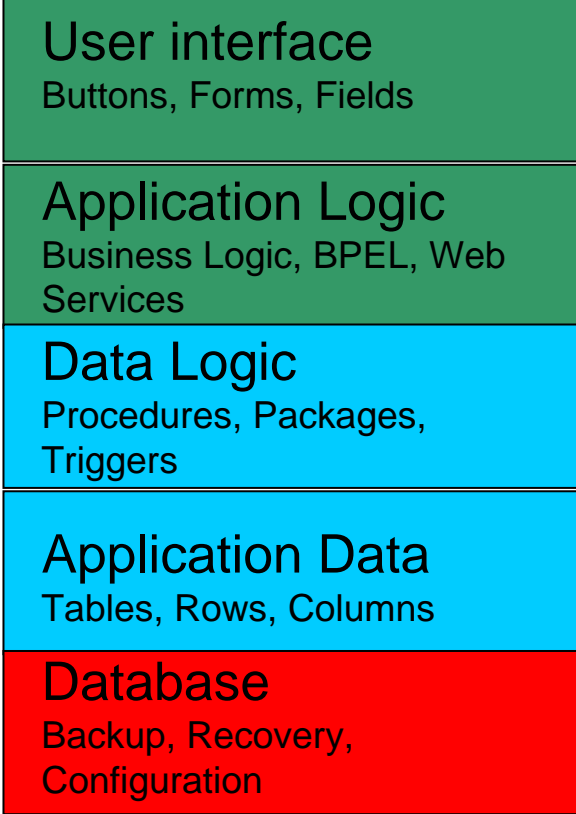
SQL Developer

- Developed in the JDeveloper IDE
 - Leveraging a robust extensible IDE Framework
 - First independently branded product on JDeveloper IDE
- Works with Database 9.2.0.1 and later
- Uses JDBC Thin driver
 - No Oracle Home required
 - JDBC Type 2 driver also supported
- Bundled with JRE 1.5
- Easy install by unzipping the downloaded file
- Supports Windows and Linux platforms today
- Mac OS X support for 1.0 production release

Database Developers Tool Coverage

Application Framework

Eclipse
JDeveloper
PHP
App Express
.NET



Application Developer

Database Developer

DBA

Data Tier

DB Dev Tool

Enterprise Manager

SQL Developer

DTP

Commitment to DB Developers

- Eclipse
 - Planning Oracle support for DTP 1.0 for Eclipse 3.2
- JDeveloper
 - Database support in Oracle JDeveloper (10.1.3)
 - Subsequent releases to incorporate SQL Developer
- PHP Development
 - Zend Core for Oracle
- Application Express
 - Includes basic SQL Workshop functionality
- .Net Development
 - Oracle Developer Tools for Visual Studio .Net
- SQL Developer
 - Oracle's premier tool for database development

Why Do I need SQL Developer?

- Easy graphical interface to Oracle database
- Uncluttered, intuitive interface
- Windows, Linux, and Mac OS X support
- Robust feature set
- Free

A Product Introduction

- Creating Connections
- Creating and Browsing Objects
- Querying and Updating Data
- Executing Queries
- Creating and Debugging PL/SQL
- Running and Defining Database Reports
- Reviewing the IDE
- Taking advantage of Extensibility

Database Connections

- Create and test connections
 - For multiple databases
 - For multiple schemas
- Store often-used connections
- Import and export connections
- Reuse connections
 - Database browsing
 - PL/SQL Development
 - Running reports
- Import connection details from tnsnames.ora

New / Select Database Connection

Connection Name: XE

Username: HR

Password: **

Role: default

Basic TNS Advanced

Hostname: localhost

Port: 1522

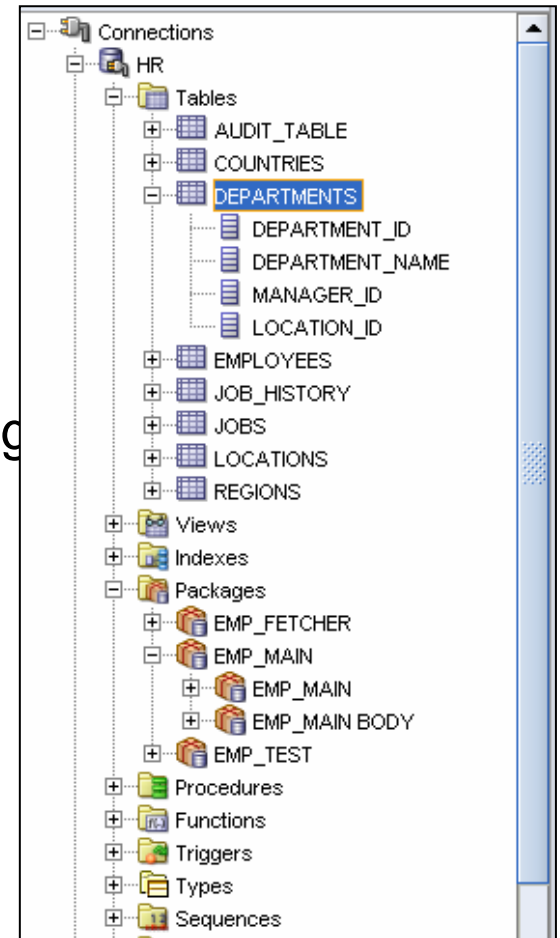
SID: XE

Service name

Status: Success

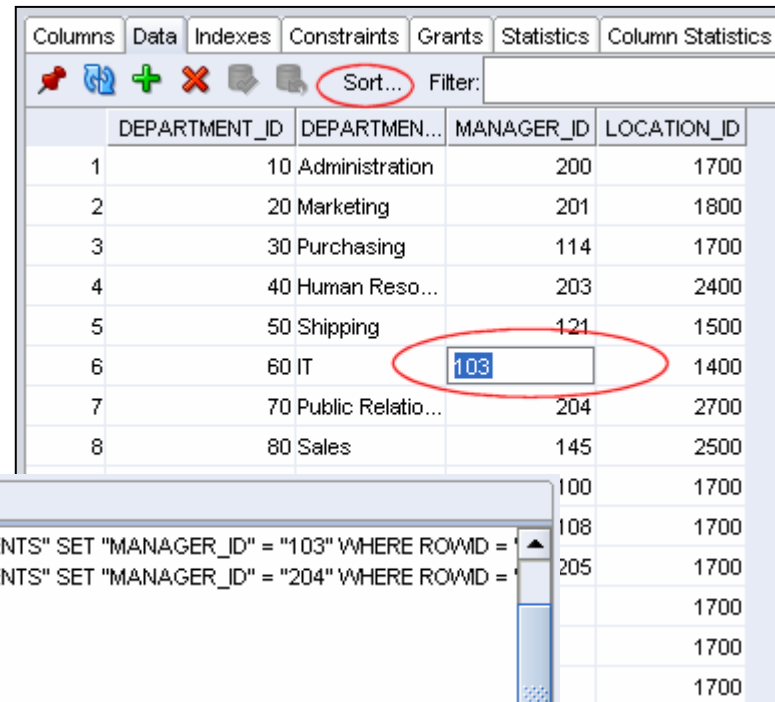
Object Browsing

- Tree Based Object Browser
- Create and Edit Database Objects
- Create and Browse Users
- Support for common objects
 - Tables, Views, Indexes
 - Packages, Procedures, Functions, Triggers
 - Types
 - Sequences
 - Materialized Views and Logs
 - Synonyms (public and private)
 - Database Links
 - Recycle Bin
 - Other Users

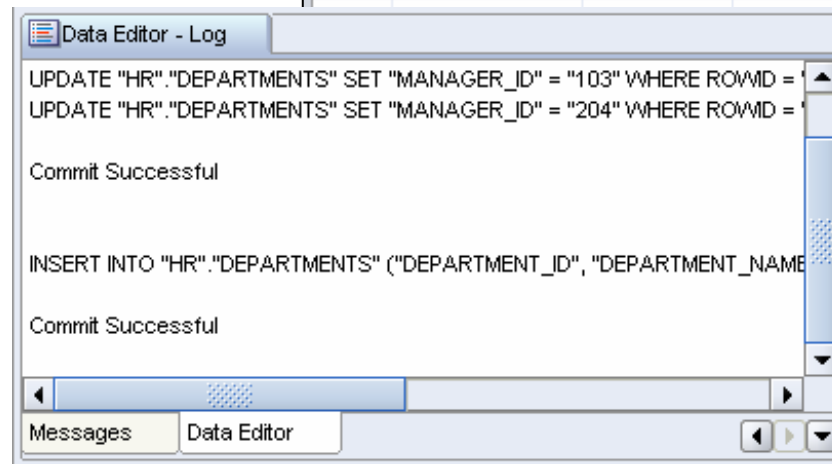


Querying and Updating Data

- Browse table grid data
 - Filter
 - Order
- Run scripts for mass updates
- Use grid for single value updates
- Track updates through message log
- Filter and sort data for views



	DEPARTMENT_ID	DEPARTMEN...	MANAGER_ID	LOCATION_ID
1	10	Administration	200	1700
2	20	Marketing	201	1800
3	30	Purchasing	114	1700
4	40	Human Reso...	203	2400
5	50	Shipping	121	1500
6	60	IT	103	1400
7	70	Public Relatio...	204	2700
8	80	Sales	145	2500
			100	1700
			108	1700
			205	1700
				1700
				1700
				1700



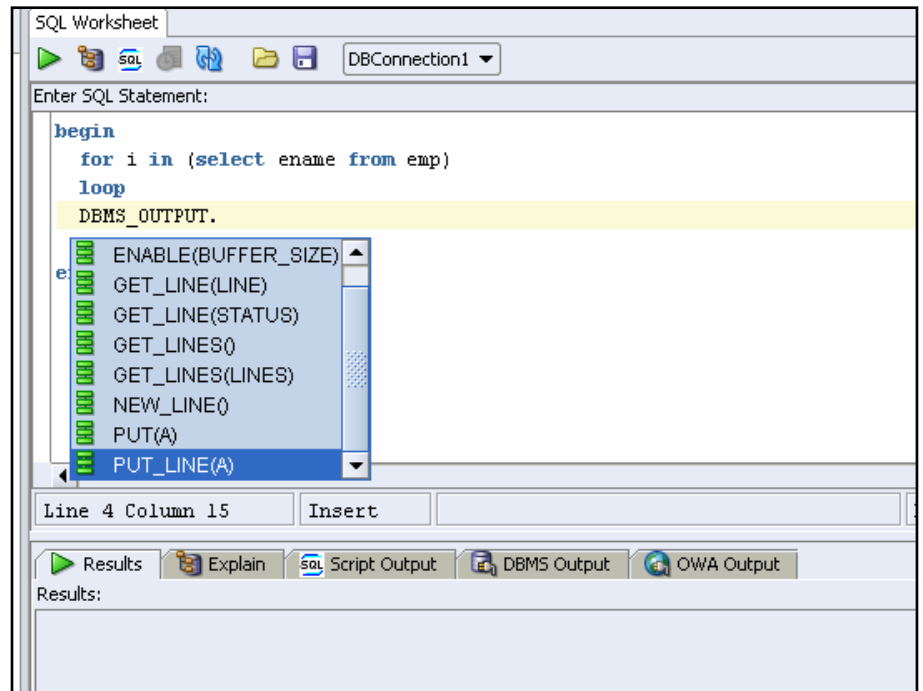
```
Data Editor - Log
UPDATE "HR"."DEPARTMENTS" SET "MANAGER_ID" = "103" WHERE ROWID =
UPDATE "HR"."DEPARTMENTS" SET "MANAGER_ID" = "204" WHERE ROWID =
Commit Successful

INSERT INTO "HR"."DEPARTMENTS" ("DEPARTMENT_ID", "DEPARTMENT_NAME
Commit Successful

Messages Data Editor
```

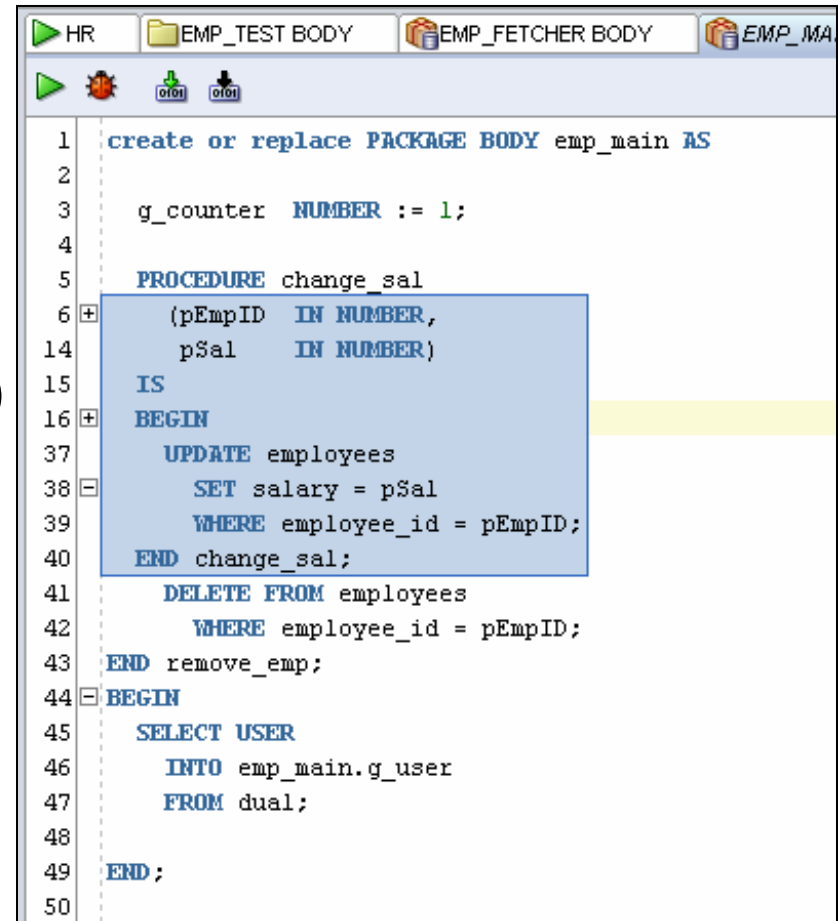
SQL Worksheet

- Syntax Highlighting
- Code Insight
- Single Statement Execution
- Script Execution
- Code Formatting
- Command History
- Explain Plan
- Bind Variable Support



PL/SQL Editing

- Full Function Editor
- Code Snippet Viewer
- Code Formatter
- Syntax Highlighting
- Code Insight (auto complete)
- Code Folding
- Inline Error Reporting
- Code Bookmarking
- Customizable Quick Keys
- Customizable Code Snippet Viewer



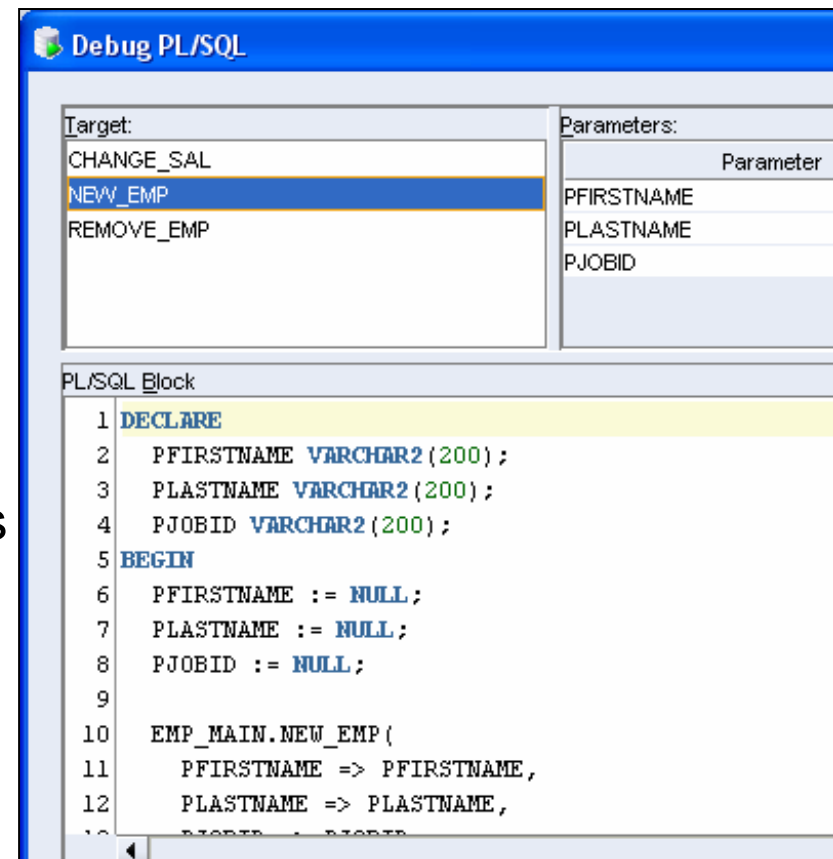
The screenshot displays the PL/SQL Editor interface with a code snippet viewer. The editor window shows the following code:

```
1 create or replace PACKAGE BODY emp_main AS
2
3     g_counter NUMBER := 1;
4
5     PROCEDURE change_sal
6     (pEmpID IN NUMBER,
14    pSal IN NUMBER)
15 IS
16 BEGIN
37     UPDATE employees
38     SET salary = pSal
39     WHERE employee_id = pEmpID;
40 END change_sal;
41     DELETE FROM employees
42     WHERE employee_id = pEmpID;
43 END remove_emp;
44 BEGIN
45     SELECT USER
46     INTO emp_main.g_user
47     FROM dual;
48
49 END;
```

The code snippet viewer highlights the procedure definition from line 6 to line 40. The viewer shows the procedure signature and the body of the procedure, including the UPDATE statement and the END statement. The viewer also shows the BEGIN and END statements of the procedure.

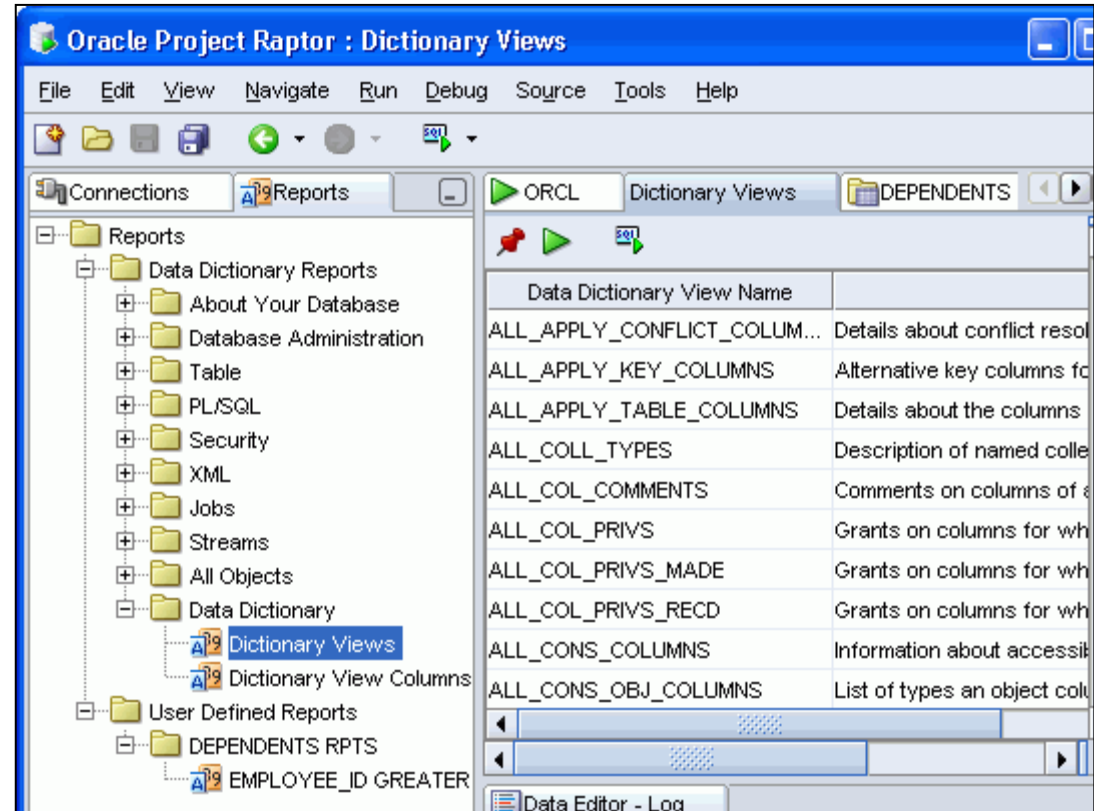
Run and Debug PL/SQL

- Run Procedures, Functions, and Packages
 - DBMS_OUTPUT
 - Function return values
 - OUT parameters
- Run PL/SQL dialog
 - Specify run target
 - Shows parameter information
 - Generates editable PL/SQL block for populating parameters
- Full functioning debugger
 - Control program execution (Step into, over...)
 - Inspect and modify variables
 - Configure breakpoint conditions



Reporting

- Suite of Reports
 - Data Dictionary
 - DBA
 - Monitoring
 - Table Object
 - PL/SQL Object
- User Defined



Reviewing the IDE

- Connections Navigator
- Reports Navigator
- Freeze view
- Split screen details
- Dockable windows
- Double-click tab maximise
- Drag and drop snippets
- Context menus...
- Check for updates...

Extensibility

- SQL Developer leverages the JDeveloper IDE, thus giving developers the option to extend the functionality
- User extensions
 - Users already writing their own extensions
- Custom plug ins
 - e.g. Oracle Migration Workbench will be an extension

Timeline

- Early Adopter release on OTN – December 28th 2005
- Subsequent Early Adopter releases early 2006
- Huge positive response from the Oracle user community
 - 48103 downloads from OTN (1 Jan to 9 Feb '06)
- Production release scheduled for early 2006

Direction

- Supported by Oracle Support for any customers with current Oracle Database support contracts
- SQL Developer to be included in JDeveloper(post 10.1.3)
- Product translations
- Basic developer DBA support
- Performance and Tuning
- Modeling
- File-Oriented PL/SQL Development
- Integration of Migration Tools
- Knowledge base (integrated, indexed, and scrubbed version of asktom.oracle.com)
- Support the Eclipse DTP project by incorporating features from SQL Developer

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D E M O N S T R A T I O N

SQL Developer

More Information

otn.oracle.com



- Free Software Download
- Getting Started
 - Installation Guide
 - Online Help
 - Release Notes
 - Feature Matrix
- Other Information
 - Discussion Forum
 - Technical Information
 - Tutorials, Demos, How-To's

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

Related Technologies

- Oracle Database 10g
- Oracle Database 10g Express Edition
- Oracle Application Express (aka HTML DB)
- Oracle JDeveloper
- PL/SQL
- SQL*Plus

Summary

- Lightweight easy install
- Initial release has good feature coverage
 - Browse schemas, users and data
 - Create and update objects
 - Create, execute and debug PLSQL
 - Run and create user defined reports
- Future releases
 - Statement of direction yet to be published
 - Focused on customer satisfaction
 - Including features such as tuning, source code control, file oriented PL/SQL development ...
- FREE

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