

ORACLE SQL DEVELOPER 3.0

KEY FEATURES

- Browse, edit, create database objects using a Graphical User Interface
- Create and run SQL scripts
- Edit and debug PL/SQL; build and run PL/SQL unit tests
- Tune SQL queries
- Create and run SQL Reports
- Place files under version control
- Manage users and roles
- Migrate from IBM DB2, MySQL, Microsoft SQL Server, Microsoft Access and Sybase Adaptive Server and Teradata to Oracle

KEY BENEFITS

- One environment to browse, edit, create, tune and test SQL and PL/SQL
- Connect to all supported Oracle Databases
- Open platform support
- No charge
- Fully supported
- One environment to browse and query Oracle and non-Oracle Databases
- Extensible

Oracle SQL Developer is free and fully supported graphical tool that enhances productivity and simplifies database development tasks. Using SQL Developer, users can browse, edit and create database objects, run SQL statements, edit and debug PL/SQL statements and build PL/SQL unit tests, run reports, and place files under version control.

Audience

Oracle SQL Developer initially designed with a focus on database developers who spend large portions of their working days involved in database tasks, now also supports advanced users and DBAs. For all users, the role of SQL Developer is to simplify database development tasks and increase developer productivity.

Benefits

Developed in Java, SQL Developer runs on Windows, Linux and Mac OS X. This is a great advantage to the ever-increasing numbers of developers using multiple platforms. Multiple platform support also means that users can install SQL Developer on the same system as the database and connect remotely from their desktops, thus avoiding client-server network traffic. Default connectivity to the database is through the JDBC thin driver, so no Oracle Home is required. To install SQL Developer simply unzip the downloaded file. With SQL Developer, users can connect to any supported Oracle Databases including Oracle Express Edition. Users can create database connections for non-Oracle databases IBM DB2 LUW, MySQL, Microsoft SQL Server, Microsoft Access, Sybase Adaptive Server and Teradata for object and data browsing and migration. SQL Developer is a supported product for all customers with Oracle Database Support contracts.

SQL Developer 3.0 New Features

- **Data Miner** – Oracle Data Miner is the graphical user interface for Oracle Data Mining, an option to the Oracle Database Enterprise Edition. Oracle Data Mining provides in-database functionality that enables users to discover patterns and relationships hidden in their data to predict customer behavior, identify key factors, detect anomalous behavior and solve a wide range of data-driven problems.
- **Data Modeler** – SQL Developer Data Modeler 3.0 is fully integrated, providing read and write access for designing and developing data models.
- **Database Navigator** – The new navigator helps users manage Database configuration files, resource consumption, security for profiles, roles and users, and manage storage files such as control files, datafiles, archive and redo logs, rollback segments and tablespaces.
- **DBMS Scheduler** – The scheduler enables users to control when and where various computing tasks take place in the enterprise environment; helping them to manage and plan these tasks. Scheduler objects including programs, schedules, jobs and job classes are listed in the Connections navigator. Using the Scheduler Design Editor, a graphical editor, users can create and run scheduler objects.

- Migrations – A number of new features support the migration from non-Oracle databases to the Oracle Database. Most significant is the introduction of the Migration Project, a new navigator that holds all the servers in a project together. This allows users to run several projects together, and report centrally on any one of them at any time with detailed information. The Enterprise Capture allows users to point at a server and capture all the databases in that server. A number of different estimation reports provide detail on the high-level object and error summaries, detailed errors and detailed comparison between source objects, captured and converted objects and the new Oracle objects. The “Copy to Oracle” feature allows users to copy tables and procedures from third parties into an Oracle schema, without using a migration repository.
- SQL Tuning – The SQL Tuning Advisor analyzes high-volume SQL statements and offers tuning recommendations.
- TimesTen In-Memory Database – Previously introduced in SQL Developer, The TimesTen extension helps developers generate reports, perform cache group operations, manage users, browse and compile PL/SQL packages, procedures and functions, update table and column statistics and create, edit and drop a wider range of database objects.
- Query Builder – A visual SQL query builder allows users to drag and drop objects from the connection navigator to the Query Builder view. The SQL Worksheet and Query Builder view are tightly integrated, providing the ability to switch between the SQL query text and visual display views at any time.
- Spatial Data Management – Spatial Data Management provides a SQL schema and functions that facilitate the storage, retrieval, update, and query of collections of spatial features in an Oracle database.

Key Features

SQL Developer has two main navigation tabs. The first, the Connections navigator, allows users to browse database objects and users that they have access to. The second is a Reports navigator, where users can run predefined reports or create and add their own reports. In addition to these are a number of additional navigation tabs that users can open depending on the task. These tabs include:

- Data Modeler browser – Provides access to all elements that make up a data model design
- Data Miner connections – Allows users to browse and review their Data Mining components
- DBA navigator – Allows users to browse and review all aspects of their database
- Files navigator – Allows users to browse the file system and open files directly in SQL Developer
- Versioning navigator – Allows users to work with open source version control systems such as Subversion, Concurrent Versions System (CVS), Serena Dimensions and Perforce
- Unit Test navigator – Provides a navigator for browsing, creating and running unit tests

Using one or more of the navigators described, SQL Developer supports the following features.

Creating and Editing Objects

Users can connect to any target Oracle database schema using standard Oracle database authentication. While default connectivity is through the JDBC thin driver, users can also make connections using advanced authentication methods, such as LDAP and OS Authentication. Once connected, they can create, edit and update database objects. As new

objects are created or existing objects edited, the DDL for those adjustments is available for review. An Export DDL option is available for users wanting to create the full DDL for one or more objects in the schema.

SQL Worksheet

The SQL Worksheet supports the creation of SQL, PL/SQL and SQL *Plus commands. These can be run individually or consecutively. A SQL History option makes recalling previous commands easy, while the Explain Plan option allows users to see the execution plan for selected statements. The SQL Worksheet supports the ability to generate trace information through the Autotrace option. In SQL Developer 3.0, users can find and display the differences between two explain plans.

PLSQL Editing and Debugging

In this robust editing environment, users can create and edit PL/SQL, take advantage of the code formatting, add bookmarks and use code insight. When it comes to debugging PL/SQL, breakpoints, smart data, a debugger stack and watches are all available. These features allow the user to set a break point, and run and test the code, supplying alternate data at runtime while debugging.

Creating PL/SQL in the editor or using the SQL Worksheet is made easier by the availability of snippets. Snippets are code fragments, such as SQL functions, optimizer hints or miscellaneous PL/SQL programming techniques, which users can drag onto the PL/SQL Editor or the SQL Worksheet.

PL/SQL Unit Testing

Introduced in SQL Developer 2.1, the PL/SQL unit-testing feature allows users to create unit tests and save them to a unit test repository. The advantage of this is that users can run and rerun the tests whenever required. Single tests can be grouped together in a suite of tests, thus providing a power test bed for running regression test for PL/SQL in an application.

Reporting

SQL Developer provides a number of predefined reports about the database and its objects. Any report can be pushed over to a SQL Worksheet and manipulated further. SQL Developer allows users to create, save and share user-defined reports for repeated use. Report styles include charts and master-detail reports.

Version Control

SQL Developer provides tight integration with Subversion version control systems. There is provision for additional extensions for connecting to Concurrent Versions System (CVS), Serena Dimensions and Perforce. Once a connection is made to the version control system of choice, users can open files in SQL Developer and bring them under version control. Once under version control, files can be checked out, modified and checked back in.

Migration from Non-Oracle Databases

Oracle SQL Developer provides users with the ability to migrate database objects and data from IBM DB2 LUW, MySQL, Microsoft SQL Server, Microsoft Access, Sybase Adaptive Server and Teradata to Oracle.

Using the Migrations Projects to encapsulate the activity and the migrations wizard to control the flow, SQL Developer captures detail from the third-party database into a repository. Using the interactive migration, users can customize the converted model before progressing to the next stage. With the captured metadata stored in the migrations repository, SQL Developer generates the converted model, which is used for the DDL script that users run to

create the new objects in Oracle. The final stage of migration is to move the data to the newly converted objects.

SQL Developer provides a Translation Scratch Editor where users can enter third-party database SQL statements and translate them to their Oracle equivalent. A Translation Difference Viewer provides a full-color side-by-side comparison of the original and translated SQL code.

Architecture

SQL Developer was developed in Java leveraging the Oracle Fusion Client Platform. As such, it was the first independently branded product based on this IDE. There is a separate distribution available bundled with JRE 1.6, with an additional tools.jar to support Microsoft Windows clients. Non-Windows clients only need JDK 1.6 (update 11 or later).

Getting Started

Download SQL Developer from OTN, unzip it into a directory of your choice and create a database connection. All you need is the schema name and password of the schema you have access to and the host and SID of the database, and you are ready to go. Download the software, read the white paper, review the demos and try the tutorials available from OTN at: <http://www.oracle.com/technetwork/developer-tools/sql-developer/overview>

Contact Us

For more information about Oracle SQL Developer, visit oracle.com or call +1.800.ORACLE1 to speak to an Oracle representative.



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