

.NET DEVELOPMENT WITH ODAC 11.2 RELEASE 4

OVERVIEW

ORACLE ON .NET

- Easy to use and learn
- No charge
- Support for Visual Studio 2010 and .NET Framework 4
- New Entity Framework, LINQ, and WCF Data Services support
- Supports the latest Oracle database features
- Access all database editions, including Express Edition

Oracle Data Access Components (ODAC) offers four components that simplify .NET development with the Oracle Database: Oracle Developer Tools for Visual Studio, Oracle Data Provider for .NET, Oracle Providers for ASP.NET, and .NET stored procedures. In ODAC 11.2 Release 4 (11.2.0.3.0), Oracle introduces tools and data provider support for ADO.NET Entity Framework, Language Integrated Query (LINQ), and WCF Data Services. ODAC can be downloaded from Oracle Technology Center (OTN) web site for free and is installable via graphical installer or xcopy for 32-bit or 64-bit platforms.

Oracle Developer Tools for Visual Studio

The Oracle Developer Tools for Visual Studio (ODT) is a tightly integrated "Add-in" for Microsoft Visual Studio. ODT is free and is available for Visual Studio 2010, Visual Studio 2008, and Visual Studio 2005.

ODT makes developing .NET code for Oracle easy and fast, allowing developers to stay in Visual Studio for the entire development lifecycle. ODT makes it easy to browse and edit Oracle schema objects using integrated visual designers and can automatically generate .NET code via a simple drag and drop. Developers can easily modify table data, execute Oracle SQL statements, edit and debug PL/SQL code, generate SQL scripts, and develop and deploy .NET stored procedures. The integrated context sensitive online help, including the Oracle SQL and PL/SQL Users Guides, puts the Oracle documentation at their fingertips.

In ODT 11.2.0.3.0, Oracle introduces integration with Visual Studio 2010's Entity Framework designers and wizards to support Database First and Model First object-relational mapping. In addition, Query Window has been enhanced to become a full fledged Visual Studio code window including such features as Intellisense, and collapsible regions and support for parameterized PL/SQL blocks.

In other recent releases of ODT, Oracle introduced a new SQL Tuning Advisor tool to help developers tune arbitrary SQL statements; Oracle Performance Analyzer, which analyzes a running .NET application's use of the Oracle database and provides detailed recommendations; Advanced Queuing Administration tools; new User and Role designers; and support for operations on multiple Server Explorer nodes at once, such as compiling multiple PL/SQL packages or generating a SQL script for multiple schema objects.

For more information, visit the [Oracle Developer Tools for Visual Studio home page](#).

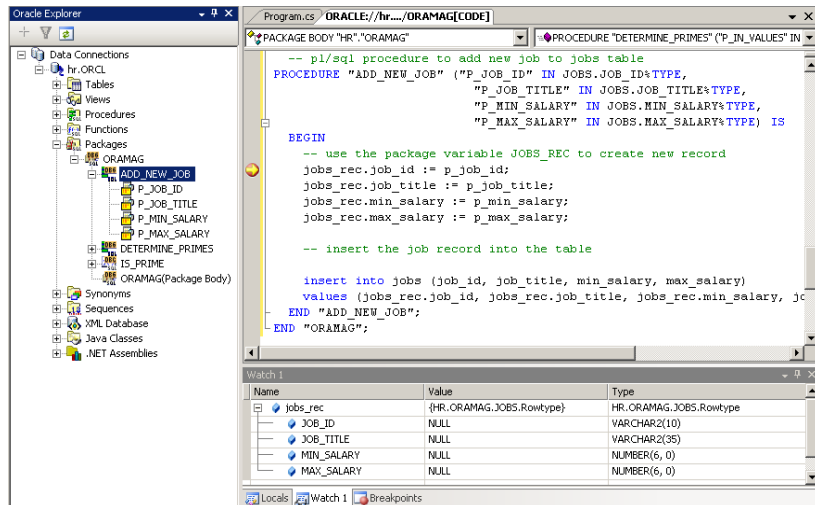


Figure1. Browsing the Oracle schema (left) and editing and debugging PL/SQL (right) are just two examples of Oracle's tight Visual Studio integration.

Oracle Data Provider for .NET

Oracle Data Provider for .NET (ODP.NET) features optimized .NET data access to the Oracle database while providing full accessibility to .NET Framework. ODP.NET developers can take advantage of Oracle's unique database functionality, including Real Application Clusters, performance optimizations, XML DB, and advanced security features. ODP.NET gives .NET programmers better performance, flexibility, and more feature availability. ODP.NET developers can use .NET, but not have to sacrifice the powerful Oracle data management capabilities.

ODP.NET 11.2.0.3.0, part of ODAC 11.2 Release 4, introduces support for ADO.NET Entity Framework, LINQ, and WCF Data Services for .NET Framework 4 and higher. It integrates with Visual Studio 2010's Entity Framework designers and wizards to support Database First and Model First object-relational mapping.

Features introduced with recent ODP.NET releases include support for self-tuning and faster data retrieval; TimesTen In-Memory Database; 64-bit xcopy deployment; an Oracle Advanced Queuing API; promotable transactions; code access security; high availability event notification and callback; and programmatic database startup and shutdown.

For more information, visit the [ODP.NET home page](#).

Oracle Providers for ASP.NET

ASP.NET includes service providers that store application state in databases. By storing state in a database, applications ensure web data is highly available and equally accessible among all web servers.

Oracle Providers for ASP.NET support these service providers on 32-bit Windows and Windows x64 for use with the Oracle database. For developers already familiar with ASP.NET providers, the Oracle Providers for ASP.NET are easy to learn since they share a common schema and application programming interface with other existing ASP.NET providers.

MORE INFORMATIONORACLE TECHNOLOGY
NETWORK (OTN)

Visit the [OTN .NET Developer Center](#) to learn more about Oracle database's .NET support.

Standard ASP.NET controls and services interact with the providers transparently without any Oracle-specific coding required.

Oracle offers the following ASP.NET providers:

- Membership Provider
- Role Provider
- Site Map Provider
- Session State Provider
- Profile Provider
- Web Events Provider
- Web Parts Personalization Provider
- Cache Dependency Provider

For more information, visit the [Oracle Providers for ASP.NET home page](#).

.NET Stored Procedures

The Oracle Database Extensions for .NET is a feature of Oracle Database on Windows that makes it easy to develop, deploy, and run stored procedures and functions written in a .NET managed language, such as C# or VB.NET. .NET stored procedures or functions are developed using Microsoft Visual Studio and deployed using the tightly integrated ODT .NET Deployment Wizard. After deployment, a .NET stored procedure can be called from .NET; from SQL or PL/SQL; from another .NET, PL/SQL, or Java stored procedure; from a trigger; or from anywhere else a stored procedure or function call is allowed.

For more information, visit the [Oracle Database Extensions for .NET home page](#).

Get Started Today

You can quickly start developing .NET applications with Oracle databases. Just download ODAC 11.2 Release 4 from [ODAC OTN download page](#).

Find getting started tutorials at the [OTN .NET Developer Center](#).

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