

# .NET DEVELOPMENT WITH ODAC

## 11.1.0.7.20

### OVERVIEW

#### ORACLE ON .NET

- Easy to use and learn
- No charge
- Works with the latest versions of .NET Framework and Visual Studio
- Supports the latest Oracle database features
- Access all database editions, including Express Edition
- New performance, messaging, and promotable transaction enhancements

*Oracle 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. These components are free and are easy to use for either the novice database programmer or the advanced developer. They provide extensive support for basic tasks, such as drag and drop .NET data access code generation, and advanced operations, such as integrated PL/SQL debugging with .NET applications. These components can be downloaded from the Oracle Technology Center (OTN) web site.*

#### 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 it is available for 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 your fingertips.

New features in ODT 11.1.0.7.20 include: 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; 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; and Server Explorer performance enhancements such as collection node filtering, and node paging.

For more information, visit the Oracle Developer Tools for Visual Studio home page: <http://www.oracle.com/technology/tech/dotnet/tools>

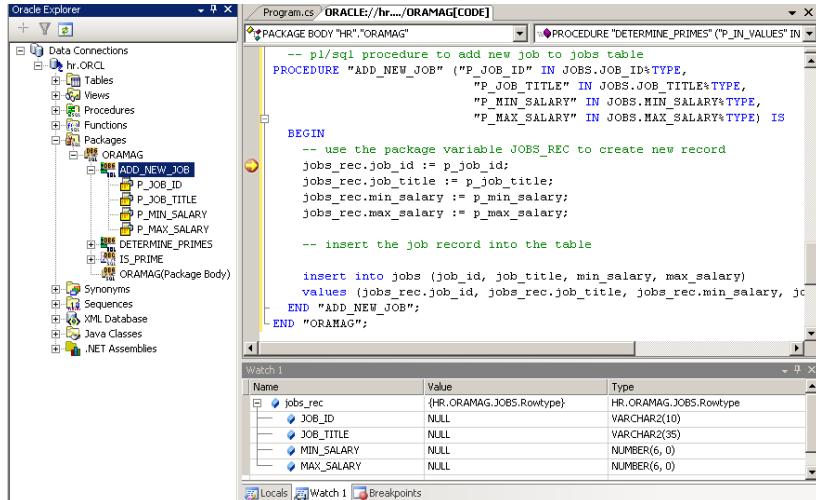


Figure1. Browsing the Oracle schema (left) and editing and debugging PL/SQL (right) are just two examples of Oracle's tight Visual Studio integration.

### 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 feature choice. ODP.NET developers can use .NET, but not have to sacrifice the powerful Oracle data management capabilities.

ODP.NET 11.1.0.7.20 supports .NET Framework 2.0 and higher. It can run on either 32-bit Windows or Windows x64 with 32-bit .NET Framework.

New features include support for self-tuning and faster data retrieval; 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:

<http://www.oracle.com/technology/tech/windows/odpnet>

### Oracle Providers for ASP.NET

Beginning with .NET Framework 2.0, 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 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. Standard ASP.NET controls and services interact with the providers transparently without any Oracle-specific coding required.

**MORE INFORMATION****ORACLE TECHNOLOGY  
NETWORK (OTN)**

Visit the OTN .NET Developer Center to watch product demonstrations and learn more about Oracle database's .NET support:

- <http://otn.oracle.com/dotnet>

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:

<http://www.oracle.com/technology/tech/dotnet/aspnet>

**.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 .NET Deployment Wizard, which is a feature of the Oracle Developer Tools for Visual Studio. After deployment, a .NET stored procedure can be called from within .NET application code; 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:

<http://www.oracle.com/technology/tech/dotnet/ode>

**Get Started Today**

You can quickly start developing .NET applications with Oracle databases. Just download ODT, ODP.NET, Oracle Providers for ASP.NET, and .NET stored procedures as part of the Oracle Data Access Components (ODAC) version 11.1.0.7.20 or higher from the Oracle Technology Network .NET download page:

<http://www.oracle.com/technology/software/tech/windows/odpnet>

Find getting started tutorials at the OTN .NET Developer Center:

<http://otn.oracle.com/dotnet>

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