Oracle® Rdb Developer Tools for Visual Studio

Release Notes
Release 7.3.4.0
June 2015

Contents

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Oracle Rdb Developer Tools for Visual Studio Release Notes, Release 7.3.4.0

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Preface

This document is your primary source of release information for Oracle Rdb Developer Tools for Visual Studio.

This preface contains these topics:
- Audience
- Access to Oracle Support
- Organization
- Related Documentation
- Conventions

Audience

Oracle Rdb Developer Tools for Visual Studio Release Notes is intended for developers who are developing applications within Microsoft Visual Studio to access an Oracle Rdb database using Oracle Rdb Data Provider for .NET. This documentation is also valuable to systems analysts, project managers, and others interested in the development of database applications.

To use this document, you must be familiar with Microsoft .NET Framework classes and ADO.NET and have a working knowledge of application programming using Microsoft C#, Visual Basic, or C++.

Users should also be familiar with the use of Structured Query Language (SQL) to access information in relational database systems.

Access to Oracle Support

Oracle customers have access to electronic support through My Oracle Support. For information, visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info or visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs if you are hearing impaired.

Organization

This document contains:

- **Chapter 1, "Installing and Configuring"**
  Describes how to install Oracle Rdb Data Developer Tools for Visual Studio and provides system requirements. Read this chapter *before* installing or using Oracle Rdb Developer Tools for Visual Studio.

- **Chapter 2, "Enhancements Provided in Oracle Rdb Developer Tools for Visual Studio Release 7.3.4.0"**
  Describes new and changed features in Oracle Rdb Developer Tools for Visual Studio Release 7.3.4.0.

- **Chapter 3, "Problems Corrected"**
  Describes problems corrected in Oracle Rdb Developer Tools for Visual Studio Release 7.3.4.0.

- **Chapter 4, "Known Problems, Restrictions and Workarounds"**
  Describes known problems, restrictions, and workarounds Oracle Rdb Developer Tools for Visual Studio Release 7.3.4.0.

- **[Chapter 5, "New Features and Corrections in Previous Releases"](#)**
  Describes new and changed features and problems corrected in previous versions of Oracle Rdb Developer Tools for Visual Studio.

Related Documentation

For more information, see these Rdb resources:
- *Oracle Rdb Data Provider for .NET Release Notes*
- *Oracle Rdb Data Provider for .NET Developer's Guide*
- *Oracle Rdb Developer Tools for Visual Studio Developer's Guide.*

To download free release notes, installation documentation, white papers, or other collateral, please visit the Rdb web site:

http://www.oracle.com/technetwork/database/rdb

For additional information on .NET, see:

http://msdn.microsoft.com/netframework

Conventions

Oracle Rdb Developer Tools for Visual Studio is often referred to as ORDT.

Oracle Rdb Data Provider for .NET is often referred to as ORDP.NET or simply ORDP.

Hewlett-Packard Company is often referred to as HP.

The following conventions are used in this document:

word	A lowercase word in a format example indicates a syntax element that you supply.
[ ]	Brackets enclose optional clauses from which you can choose one or none.
{ }	Braces enclose clauses from which you must choose one alternative.
...	A horizontal ellipsis means you can repeat the previous item
. . .	A vertical ellipsis in an example means that information not directly related to the example has been omitted.

Conventions in Code Examples

Code examples illustrate SQL or other command-line statements. They are displayed in a monospace (fixed-width) font and separated from normal text as shown in this example:

```
SELECT last_name FROM employees WHERE last_name = 'TOLIVER';
```

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Chapter 1
Installing and Configuring

This chapter describes installation and configuration requirements for Oracle Rdb Developer Tools for Visual studio (ORDT).

This chapter contains:

- [System Requirements](#)
- [De-install previous version of Oracle Rdb Developer Tools for Visual Studio](#)
- [De-install previous Oracle Rdb Data Provider for .NET versions.](#)
- [Installing .NET Products](#)

1.1 System Requirements

ORDT requires the following products to be installed:

If you use Visual Studio 2008:

Software	Minimum Version
Microsoft .NET Framework	V3.5
Microsoft Visual Studio 2008	Version 9.0.21022
Windows Server 2008, Windows 7, or Windows 8	As released

If you use Visual Studio 2010:

Software	Minimum Version
Microsoft .NET Framework	V3.5
Microsoft Visual Studio 2010	Version 10.0
Windows Server 2008, Windows 7, or Windows 8	As released

If you use Visual Studio 2012:

Software	Minimum Version
Microsoft .NET Framework	V4.0
Microsoft Visual Studio 2012	Version 11.0
Windows Server 2008, Windows 7, or Windows 8	As released

If you use Visual Studio 2013:

Software	Minimum Version
Microsoft .NET Framework	V4.5
Microsoft Visual Studio 2013	Version 12.0
Windows 7, or Windows 8	As released

Note:
ORDP.NET will be installed as part of the ORDT installation process.

ORDP.NET has certain system requirements that must be met before you can successfully install and deploy ORDP.NET.

Refer to your Oracle Rdb Data Provider for .NET Release Notes for information on system requirements for ORDP.NET.

1.2 De-install previous version of Oracle Rdb Developer Tools for Visual Studio

If you have a previously installed version of ORDP.NET you must de-install this prior to installing Release 7.3.4.0 of ORDT.

If this is the first version of ORDT you will be installing on your system then see the following section.

1.3 De-install previous Oracle Rdb Data Provider for .NET versions.

Note:

The following section is only relevant if this is the very first version of ORDT you will be installing on your system.

If you have a previously installed version of ORDP.NET that is earlier than Release 7.3.2.0 you must de-install this prior to installing Release 7.3.4.0 of ORDT**.**

In addition if you have changed your machine.config to add references to ORDP.NET then you should remove these changes prior to installing the new version of ORDP.NET.

In particular, if the following sections exist in your current machine.config, they should be removed:

```
<system.data>
   <DbProviderFactories>
     <add name="Oracle Rdb Data Provider"   . . .
```

and

```
<configuration>
  <configSections>
    <section name="oracle.dataaccess.rdbclient" . . .
```

1.4 Installing .NET Products

These steps demonstrate how to install Oracle Rdb Developer Tools for Visual Studio once Visual Studio is installed.

As well as integrating ORDP.NET into Visual Studio, the ORDT installation will also install ORDP.NET if you select the default (Typical) installation options.

You may choose to customize the installation to only install ORDP.NET if you do not require the Visual Studio integration features of ORDT.

Note:

As new versions of Oracle Rdb .NET products are released, the installation process may change slightly from what is shown in this guide. The screenshots are based on Oracle Rdb Developer Tools for Visual Studio Release 7.3.4.0.

To install:

1. **Download the Oracle Rdb Developer Tools for Visual Studio installation kit:**

    1) Connect to MyOracleSupport http://support.oracle.com/.

    2) Navigate to **Patches and Updates**, and locate the Oracle Rdb Developer Tools for Visual Studio**, Release 7.3.4.0** kit.

    3) Download the .ZIP file. The **ORDT73400.ZIP** file contains the following files:
        The README file.
        The ORDT Release Notes containing the installation guide.
        The ORDP Release Notes.
        The ORDT Developers Guide.
        The ORDP Developers Guide.
        The OracleRdbDeveloperTool73400.msi file
        The Setup.exe file.

    4) Unzip **ORDT73400.ZIP** into a temporary directory.

2. **Double-click** Setup.exe. (Or you may double-click the `.msi` file instead.)

    Windows Installer launches and the Welcome screen appears.

3. **Click** Next.

An End-User License Agreement will be displayed. If you agree with the license conditions tick the acceptance box.

4. **Click** Next.

The Choose setup type window appears, allows you to install the different ORDT components.

For the purposes of this guide, we will do a Custom installation but accept all the components.

5. Click Custom**.**

The Custom Setup screen appears.

Browse allows you to choose the installation location. For the purposes of this guide, accept the default.

6. **Click** Next**.**

   A confirmation screen is displayed allowing you to proceed with the installation or cancel or go to back to change the installation directory.

7. **Click** Install**.**

   The installation will proceed.

   The final steps of the installation merge the ORDT Visual Studio extension into your Visual Studio environments.

Note:

The re-configuration of Visual Studio that occurs at the end of the installation and de-installation may take some time to complete as it must merge all the VSPackages present within the Visual Studio environment.

Please do not interrupt the installation/de-installation during this process as it may leave your Visual Studio environment in an unstable state.

Once complete the finish screen will appear.

8. **Click Finish.**

9. **Optional Reboot.**

If this is the first time you have installed ORDP.NET on your system you may be required to reboot your system.
On a new installation, if you do not reboot after installing ORDP.NET (as part of the ORDT installation), it is possible that an exception may be raised when trying to access the ORDP.NET libraries:

```
"Rdbnet.dll" not found
```

Rebooting your system should prevent this exception from being raised.

1.4.1 ORDP.NET Assembly Version in Release 7.3.4.0

Starting with ORDP.NET Release 7.3.2.1, the ORDT installation procedure may install one or two versions of the ORDP.NET assembly file Oracle.DataAccess.Rdb.dll onto your system.

To ensure that applications built against prior releases of ORDP.NET will still work without recompilation, the ORDP.NET assembly version numbers have not changed since ORDP.NET Release 7.3.2.1.

If your system has .NET Framework versions 4.0 or above installed, Release 7.3.2.1 of the ORDP.NET assembly will be installed. If your system has .NET Framework version 3.5 installed, Release 7.3.2.0 of the ORDP.NET assembly will be installed.

If both version 4.0 and an earlier version of the .NET framework are installed then both versions of the ORDP.NET assembly will be installed.

The ORDP.NET assemblies also retains the same PublicKeyToken as previous versions of ORDP.NET.

The ORDP.NET for .NET framework version 4.0 assembly will have the following specifications:

- Name =Oracle.DataAccess.Rdb,
- Version=7.3.2.1
- Culture=neutral
- PublicKeyToken= 24caf6849861f483

The ORDP.NET for .NET framework version 3.5 assembly will have the following specifications:

- Name =Oracle.DataAccess.Rdb,
- Version=7.3.2.0
- Culture=neutral
- PublicKeyToken=24caf6849861f483

References made to prior version ORDP.NET strongly named assemblies in your configuration and system registry files may need to be changed to reflect the new assembly information to ensure that applications on your system will use the new version of ORDP.NET from the System Assembly Cache.

> **Note:**
> **The ORDT installation procedure will automatically update the standard .NET `machine.config` file and Visual Studio registration files to reference the correct version of the ORDP.NET assembly.**
>
> **However there may be optional features within Visual Studio or third party products that may require changes to the referenced ORDP.NET assembly version in order to function properly. Please refer to your Visual Studio or third party product documentation for further details.**

1.5 File Locations

The installation files will be placed in the directory chosen during the installation procedure. The default directory is:

```
<system program files>\Oracle\
```

The ORDP-specific installation files will be copied to the ORDP sub-directory under the installation directory which, by default, will be:

```
<system program files>\Oracle\ORDP
```

ORDT documentation files will be copied to the ORDT\docs sub-directory within the installation directory which, by default, will be:

```
<system program files>\Oracle\ORDT\docs\
```

Where **<system program files>** will depend on your windows system:

Typically:
- On 32 Bit Windows machines – `C:\Program Files\`
- On 64 Bit Windows machines - `C:\Program Files (x86)\`

.

In addition, the ORDP.NET assembly will be added to your Global Assembly Cache.

1.6 Post Installation Procedures

ORDT installation will update your system PATH variable to include the ORDP.NET installation directory, so this no longer has to be done as a post-installation step.

The ORDT installation will also update your `machine.config` file to register ORDP.NET correctly for use with Visual Studio and other .NET applications.

However there are still some manual post-installation steps that have to be carried out.

If specific SQL/Services configuration settings are required, the template `SQSAPI32.INI` file provided with the ORDP.NET kit must be modified to reflect the required settings and moved to the windows sub-directory of your system directory. See your SQL/Services documentation for more information.

The actual post-installation steps you will have to carry out will depend on how the DLL files will be used and may require changes to your development environment to either include this new directory path or to move the provided DLL files to the appropriate third-party directory.

Please refer to the documentation provided with your development software to determine what steps may be involved in order to use the ORDP.NET classes and libraries.

1.7 ORDT and NuGet

Microsoft NuGet is the software development package manager for Microsoft .NET. The NuGet client tools produce and consume these packages, including non-Microsoft software, such as ORDP.NET.

The [NuGet Gallery](#) is the central repository for hosting and consuming packages.

With release 7.3.4 ORDT, you can use the Oracle Rdb Entity NuGet package to configure your Microsoft Projects to use ORDT in conjunction with Entity Framework release 6 (EF6) .

Note: Currently the Oracle Rdb Entity NuGet package only configures your projects for use with EF6, you still must manually

download and install ORDT 7.3.4. This may change in future releases of ORDT.

The following steps show how to use NuGet to help configure your project to use ORDT with EF6.

1. Select **View** > **Solution Explorer**.

2. Right-click **References** in the Solution Explorer and choose **Manage NuGet Packages**.

3. In the **Manage NuGet Packages** window, ensure that you have selected **nuget.org** in the left panel, under the **Online** tab. On the upper right side of the window, there is is search bar. Search for **Oracle Rdb**. Select **EntityFramework.Oracle.Rdb** in the search results and click **Install**.

The package installation will not download any software, but it will setup your environment so that you may use the NuGet package to configure your projects. Once the package has been installed, a green tick mark will be placed against the product name.

4. To confirm that ORDP.NET and Entity Framework have been automatically configured, from the Solution Explorer window, open **App.config**.

You will see that ORDP.NET and Entity Framework configuration information has been added to the project.

```
app.config*  ⊣ ✕  NuGet.config        NuGet Gallery        Package.nuspec        Variables.wxi        Ident.cs
        </applicationSettings>
      <startup>
          <supportedRuntime version="v4.0" sku=".NETFramework,Version=v4.5" />
        </startup>
      <entityFramework>
        <providers>
            <provider invariantName="System.Data.SqlClient" type="System.Data.Entity.SqlServer.SqlProviderSe
            <provider invariantName="Oracle.DataAccess.RdbClient" type="Oracle.DataAccess.RdbClient.RdbProvi
          </providers>
          <defaultConnectionFactory type="Oracle.DataAccess.RdbClient.Entity.RdbConnectionFactory, Oracle.Da
        </entityFramework>
      <connectionStrings>
```

Chapter 2
Enhancements Provided in Oracle Rdb Developer Tools for Visual Studio Release 7.3.4.0

This chapter describes new and changed features in Oracle Rdb Developer Tools for Visual Studio release 7.3.4.0.

2.1 Visual Studio 2013 Integration

ORDT release 7.3.4.0 will now automatically integrate with Visual Studio 2008, 2010, 2012 and 2013 when installed.

Integration into Visual Studio 2008, 2010, 2012 and 2013 is automatically enabled during ORDT installation. This may be turned off using the Custom installation feature.

2.2 Entity Framework 6 Supported.

ORDT release 7.3.4.0 now supports Entity Framework 6.

2.3 Entity Framework fluent API Supported.

ORDT release 7.3.4.0 now supports Entity Framework (EF) fluent API.

The default conventions used when Entity Framework Code First maps POCO classes to tables may be changed by using either annotations or EFs fluent API. The ability to use annotations has been available in prior versions of ORDT, however the fluent API was not supported.

ORDT now supports the use of the fluent API to update Oracle Rdb database object definitions, and to create or drop databases.

Note: Create or drop database is only supported when using JDBC connectivity with ORDP. See the ORDT Developer's guide for more information.

The ORDT Developer's guide provides examples on you may use fluent API to manage Oracle Rdb tables automatically from your Code First applications.

Chapter 3
Problems Corrected

This chapter describes problems corrected in Oracle Rdb Developer Tools for Visual Studio Release 7.3.4.0.

See also:
Oracle Rdb Data Provider for .NET Release Notes.

None.

Chapter 4
Known Problems, Restrictions and Workarounds

This chapter describes known problems, restrictions, and workarounds for Oracle Rdb Developer Tools for Visual Studio Release 7.3.4.0.
This chapter contains:

-

4.1 Time Remaining during Uninstall

When you choose ORDT uninstall option from the Programs Menu or use uninstall from the Programs and Features in the Control Panel, the Microsoft Uninstaller application does not correctly determine the amount of time remaining until the operation completes.

It is possible the progress popup may remain on the screen for several minutes displaying: `1 Seconds Remaining.`

Although it would appear that the uninstall has hung, it is still working in the background to remove the ORDT package from Visual Studio, an operation that may take several minutes to complete.

4.2 TableAdapter Limitations.

4.2.1 LIMIT TO

The `LIMIT TO` clause may be used in the SQL text of statements executed within the Rdb data provider to limit the number of records returned by the query.

However `LIMIT TO` is not valid TSQL syntax and may not be accepted by various SQL Text parsers found within the Microsoft Visual Studio environment.

Currently Microsoft does not provide a mechanism for third-part data providers to extend the query parsing of components within Visual Studio such as the `TableAdapter` wizards used when configuring `DataSets`. Until an appropriate mechanism is provided by Microsoft to do this, these wizards may raise an exception when `LIMIT TO` is used in the SQL text of the statement.

For example, the `TableAdapter` wizard allows you to create or modify the SQL text used to retrieve data from the Rdb database to use in a dataset. The addition of a `LIMIT TO` clause to the query text will cause the wizard to raise a query parsing exception.

You can safely choose to ignore the exception dialog raised by pressing the `OK` button. The SQL text will be saved with the `LIMIT TO` clause and will be executed by the Rdb Data Provider to carry out the data retrieval.

The number of records returned will be limited to the value you have specified.

4.2.2 Parameter Prefix

The Rdb Data Provider allows the use of both the "@" and the ":" characters as valid parameter prefix characters in SQL text.

However a data provider may only register a single prefix character within a Visual Studio DDEX provider.

In keeping with standard Rdb SQL syntax, ORDT registers the ":" character as the valid parameter prefix used within SQL text within the DDEX provider.

If you use the "@" as a parameter prefix in SQL text associated with wizards such as the `TableAdapter` wizards, Visual Studio may raise an parsing error.

If you choose to ignore this error by pressing `OK`, the query text will be saved as-is. However, Visual Studio will not recognize the existence of parameters in the statement and will not prompt for their input in wizards such as the Preview Data wizard.

4.3 Unsupported features.

The following Visual Studio features are not available in this version of ORDT.

- Foreign Key support
- Open Table definition
- Alter Procedure
- Data View Designer
- Import/export table data as XML.

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Chapter 5
New Features and Corrections in Previous Releases

5.1 New Features for Release 7.3.3.0.

This section describes new and changed features in the Oracle Rdb Data Provider for .NET Release 7.3.3.0.

5.1.1 Visual Studio 2005 Integration no Longer Supported

ORDT release 7.3.3.0 will now no longer integrate with Visual Studio 2005 when installed.

5.1.2 Visual Studio 2012 Integration

ORDT release 7.3.3.0 will now automatically integrate with Visual Studio 2008, 2010 and 2012 when installed.

Integration into Visual Studio 2008, 2010 and 2012 is automatically enabled during ORDT installation. This may be turned off using the Custom installation feature.

5.2 Corrections in Release 7.3.3.0.

None.

5.3 New Features for Release 7.3.2.2.

This section describes new and changed features in the Oracle Rdb Data Provider for .NET Release 7.3.2.2.

None.

5.4 Corrections in Release 7.3.2.2.

This section describes new and changed features in Oracle Rdb Developer Tools for Visual Studio Release 7.3.2.2.

5.4.1 Entity Framework and SQL/Services connectivity.

The use of SQL/Services connectivity in conjunction with Entity Framework (EF) may raise internal exceptions if EF generated INSERT code is executed.

The code built by EF for inserting data into the Rdb database, contains a `RETURNING` clause to return the primary key value of the newly inserted record.

Unfortunately SQL/Services limits the use of the returning clause in the `INSERT` statement to only allow DBKEY values to be returned. This limitation means that the primary key value is not returned to EF and may cause problems in later operations.

Changes have been made in ORDP Release 7.3.2.2 to work around this limitation.

Another workaround is to use JDBC connectivity instead.

5.5 New Features for Release 7.3.2.1.

This section describes new and changed features in the Oracle Rdb Data Provider for .NET Release 7.3.2.1.

5.5.1 Visual Studio 2010 Integration.

ORDT Release 7.3.2.1 integrates into Visual Studio 2010 by proving a Visual Studio 2010 compatible DDEX provider.

Integration into Visual studio 2005, 2008 and 2010 is automatically enabled during ORDT installation. This may be turned off using the Custom installation feature.

5.5.2 Oracle Rdb Entity Framework Provider.

Additional classes and templates have been added to ORDT and ORDP to allow the Oracle Rdb Data Provider to carry out the appropriate operations

required of an Entity Framework Provider within .NET framework 3.5 and
.NET 4.0.

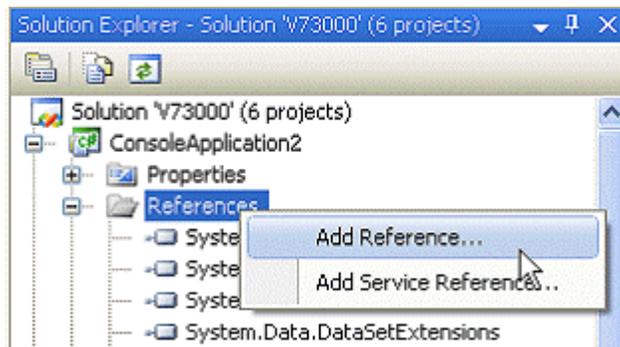Please refer to your .NET framework documentation for information on
Entity Framework.

Examples on how use the Rdb Entity Framework Provider may be found in
the *Oracle Rdb Developer Tools for Visual Studio Developer's Guide.*

5.6 Corrections in Release 7.3.2.1.

This section describes new and changed features in Oracle Rdb Developer
Tools for Visual Studio Release 7.3.2.1.

5.6.1 ORDP Assembly not added to Visual Studio .NET References.

Installation of ORDT Release 7.3.2 failed to add the appropriate registry
entry to enable the discovery of the ORDP assembly by Visual Studio
when **Add Reference…** is invoked from the project **References**
elements within the **Solution Explorer**.

A work-around for this problem is to manually add the following entry to
your system registry:

```
 [SOFTWARE\Microsoft\.NETFramework\AssemblyFolders\ORDP
]@="[installation dir]Oracle\\ORDP"
```

into either:
·   [HKEY_LOCAL_MACHINE] or
·   [HKEY_CURRENT_USER]

For example, the following will add the ORDP reference directory for access by all users of the system (assuming that you have installed ORDT to the default installation directory):

```
[HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\.NETFramework\AssemblyFolde
rs\ORDP]@="C:\\Program Files\\Oracle\\ORDP"
```

5.6.2 Keyword Not Supported : "DATABASE" Problem.
Bug 9804702.

When trying to create a new Database Connection in the Visual Studio Server Explorer using a SQS connection to a dedicated Database Service, the following exception was raised:

```
Keyword Not Supported : "DATABASE"
```

A work-around for this problem is to connect to your database using a SQS type connection but use SQL/Services Universal service and provide the database filename instead of a specifying a SQL/Services database service.

5.6.3 GridView using RdbDataReader returns Incorrect Data.

Using an RdbDataReader object as a DataSource for a GridView component of a web application fails to deliver the correct data rows to the grid.

Instead of the data rows from the underlying RdbDataReader, the grid contains a dataset composed of the various Property fields for the RdbDataReader object.

The problem only occurs if you explicitly add data access code to the Page_Load method of the GridView and the code binds to an RdbDataReader.

The following example code shows the problem:

```
//C#
using Oracle.DataAccess.RdbClient;
using System;
using System.Data;
using System.Configuration;
using System.Web;
using System.Web.Security;
using System.Web.UI;
using System.Web.UI.WebControls;
using System.Web.UI.WebControls.WebParts;
using System.Web.UI.HtmlControls;

public partial class  Default : System.Web.UI.Page
{
    protected void Page_Load(object sender, EventArgs e)
```

```
    {
        try
        {
            RdbConnection conn = new RdbConnection();
            conn.ConnectionString =
                "User Id=xxxx;Password=yyyy;" +
                "Server=myserver";
            conn.Open();
            RdbCommand cmd = new RdbCommand(
                " select * from employees ", conn);
            RdbDataReader reader = cmd.ExecuteReader();
            GridView1.DataSource = reader;
            GridView1.DataBind();
        }
        catch (RdbException ex)
        {
            //  add your exception code
        }
    }
}
```

Instead of displaying the expected employees data, a table containing a column for each of the property fields of the RdbDataReader object is displayed.

Two suggested workarounds are:

1/. Use an implicit SQLDataSource targeting an Oracle.DataAccess.RdbClient connection when building the GridView rather than adding explicit Page_load code, or

2/. Bind to a DataSet instead of the DataReader, for example change the DataSource bind in the code above to the following:

```
// C#
//   RdbDataReader reader = cmd.ExecuteReader();
//   GridView1.DataSource = reader;

    DataSet ds = new DataSet();
    RdbDataAdapter adapter = new RdbDataAdapter();
    adapter.SelectCommand = cmd;
    adapter.Fill(ds, "Rdb");
    GridView1.DataSource = ds;
```

See your Microsoft ADO.NET documentation on the use and coding of GridView in web applications.

This problem has now been fixed.

5.7 New Features for Release 7.3.2.

This section describes new and changed features in the Oracle Rdb Data Provider for .NET Release 7.3.2.

This was the first release of ORDT.

5.8 Corrections in Release 7.3.2

This section describes new and changed features in Oracle Rdb Developer Tools for Visual Studio Release 7.3.2.

This was the first release of ORDT.