ETI High Performance Connector for Oracle ODP Command

Setup Guide

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1 ABOUT THIS DOCUMENT

This document describes the steps involved in installing the ***ETI High Performance Connector*** *for* ***Oracle ODP Command Component,*** adding it to Microsoft SQL Server Business Intelligence Development Studio and configuring the component for operation within an SSIS data flow task using the ***ETI HPC Oracle ODP Command Component.***

1.1 Overview

Microsoft SQL Server 2005 Integration Services (SSIS) includes a generic set of components to facilitate loading, transforming, and unloading of data within the SSIS environment.

The ***ETI HPC for Oracle ODP Command Component*** is a transformation component that can be configured, within an *Integration Services* project of the SQL Server Business Intelligence Development Studio, to execute an SQL statement against an Oracle Database for each row in an SSIS data flow.

1.2 Intended Audience

This document is intended for users who are responsible for designing, developing, deploying, and operating SSIS Packages using business intelligence solutions.

This document assumes knowledge of:

- Microsoft SQL Server Business Intelligence Development Studio
- Microsoft SQL Server Integration Services (SSIS).

1.3 Typographic Conventions

The following table describes the conventions used in this document.

Convention	Description
Text	Used for emphasis.
Text	Indicates a page name, window name, application name, menu option, file name or any form object (like a button, link, etc.)
Note	Denotes a note.
Text	Indicates messages and project names.
Menu→Menu Item	Indicates a top menu and a menu option under that menu. E.g. Click **File→New** indicates that you have to select the **New** option in the **File** menu.

2 PREREQUISITES FOR INSTALLATION

This chapter lists the software requirements for installing the ***ETI HPC for Oracle ODP Command Component***.

2.1 Software Requirements

ETI HPC for Oracle ODP Command Component requires the following minimum system configuration:

- Microsoft SQL Server Business Intelligence Development Studio available with Microsoft SQL Server 2005
- Oracle Data Access Components 10.2.0.2.21 or later, including the Oracle Data Provider for .NET 2.102.2.20 or greater.

Note

Performing development under the SQL Server Business Intelligence Development Studio on a 64bit system using Oracle 10g requires an acceptable workaround for Oracle Bug 3807408 - **Unable to Connect to Oracle From 64-Bit OS With Microsoft's SQL Server Integration Services (SSIS),** or installation of one of the following Oracle patches which address Bug 3807408:

- 10.2.0.1 – Patch 4923787 or later
- 10.2.0.2 – Patch 5388871 or later
- 10.2.0.3 – Patch 5337014 or later

This bug is resolved with Oracle 11 installations.

Note

Performing development under the SQL Server Business Intelligence Development Studio on a 64bit system requires installation of the 32 bit version of the Oracle Data Provider for .NET. Running data flows in 64 bit mode on your development system will additionally require the 64bit version of the Oracle Data Provider for .NET to be installed.

If you do not install the 64bit version of the Oracle Data Provider for .NET on your 64 bit system, you will need to change the default behavior for each Integration Services package developed such that it can run in 32 bit mode:

- Within the Business Intelligence Development Studio Project, select the **Project->"Integration Services Project Name" Properties…** menu item
- From the **"Integration Services Project Name" Property Page**, select **Debugging** from the left pane.
- From the right pane, change the **Run64bitRuntime** property to **False**.
- Select **OK** to dismiss the Property Page and accept the setting.

3 INSTALLING ETI HPC FOR ORACLE ODP COMMAND

This chapter describes how to install and configure the ***ETI HPC for Oracle ODP Command Component***.

3.1 Installing the ETI HPC for Oracle ODP Command Component

To install the ***ETI HPC for Oracle ODP Command Component***, navigate to the folder containing the installation files and double-click **setup.exe**. Setup will complete the installation of the component.

Note **Microsoft SQL Server Integration Services** must be installed prior to the installation of the **ETI HPC for Oracle ODP Command** component.

3.2 Post-Installation Tasks

Perform the following tasks after installing the ***ETI HPC for Oracle ODP Command Component:***

- Install the License File.
- Add the ***ETI HPC Oracle ODP Command*** component to SQL Server Business Intelligence Studio.

3.2.1.1 Installing the License File

The **ETI HPC for Oracle ODP Command** installer places a dummy license file named **hpclicence.dat** in the following location*:*

C:\Documents and Settings\All Users\Application Data\Evolutionary Technologies International, Inc\High Performance Connector

Replace the **hpclicense.dat** file in the above location with a valid licence obtained from ETI. For more information on obtaining the license file, contact ETI support staff.

3.2.1.2 Adding the ETI HPC for Oracle ODP Command Component to SQL Server Business Intelligence Studio

To add ***ETI HPC for Oracle ODP Command*** component as a Transformation Component in **Microsoft SQL Server Business Intelligence Development Studio**:

1. Click **Start→Programs→Microsoft SQL Server 2005→SQL Server Business Intelligence Development Studio**.
2. Open either a new *Integration Services* project or select an existing one.
3. Select the **Data Flow** tab in the Designer.
4. Select the **Toolbox** tab in the left panel and navigate to the **Data Flow Transformations** section.

5. Right-click in the section and select **Choose Items**…option from the context menu.

   The **Choose Toolbox Items** window is displayed.

6. Select the **SSIS Data Flow Items** tab.

   A list of data flow items are displayed in the window.

7. Select **Oracle ODP Command** item from the list.

8. Click **OK**.

   The **Oracle ODP Command** component is displayed in the **Data Flow Transformations** section of the Toolbox tab.

You can use the newly added **Oracle ODP Command** component for designing an SSIS Data Flow task, which is explained in the next chapter.

4 ORACLE ODP COMMAND TRANSFORMATION

The Oracle ODP Command transformation runs an SQL statement for each row in a data flow. For example, you can run an SQL statement that inserts, updates, or deletes rows in a database table.

Typically, the SQL statement for an Oracle ODP Command transformation includes parameters. The parameter values are stored in external columns in the transformation input. Mapping an input column to an external column maps an input column to that parameter.

The Oracle ODP Command component uses dynamic discovery of parameters to automatically map the input columns to the available external columns based on the input SQL command and the target Oracle table.
For example, to locate rows in the **DimProduct** table by the value in their **ProductKey** column and then delete them, you would input the SQL statement *DELETE FROM DimProduct WHERE ProductKey = ?* .

The Oracle ODP Command transformation will automatically map the parameters in the SQL statement to external columns in the transformation input when the column names are the same. Parameter names that do not match available input columns will be automatically created, but must be manually mapped

5 CONFIGURING ORACLE ODP COMMAND COMPONENT

To add and configure an Oracle ODP Command transformation, the package must already include at least one Data Flow task and a source such as a Flat File source or an OLE DB source. The Oracle ODP Command transformation is typically used for running parameterized queries – as illustrated in the configuration description below.

To Configure the Oracle ODP Command transformation

1. In Business Intelligence Development Studio, open the Integration Services project that contains the package you want.

2. In Solution Explorer, double-click the package to open it.

3. Click the **Data Flow** tab, and then, from the **Toolbox**, drag the Oracle ODP Command transformation to the design surface.

4. Connect the Oracle ODP Command transformation to the data flow by dragging a connector—the green or red arrow—from a data source or a previous transformation to the Oracle ODP Command transformation.

5. Right-click the component and select **Edit** or **Show Advanced Editor**.

6. On the **Connection Managers** tab, select an ADO.NET connection manager from the **Connection Manager** list.

7. Click the **Component Properties** tab and click the ellipsis button (…) in the **SqlCommand** box.

8. In the String Value Editor, type the parameterized SQL statement using a question mark (?) as the parameter marker for each parameter.

9. Select the **Column Mappings** tab to display the available **Input** and **Destination** column mappings.

10. Verify the **Input Column** and **Destination Column** lists contain a column for each parameter in the SQL Statement. **Input Column** names will be automatically mapped to corresponding **Destination Column** names with the same name. You can manually map column names that are not the same by using drag and drop between the **Available Input Columns** and **Available Destination Column** lists in the top pane of the Advanced Editor, or within the lower pane select the column within the **Input Column** and select from the drop-down list of available **Input Columns**.

11. Click **OK**.

12. To save the updated package, click **Save** on the **File** menu.