

Migrating from Oracle^(R) to Postgres Plus^(R) Advanced Server

A Postgres Evaluation Quick Tutorial From EnterpriseDB

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Introduction

Migrating from Oracle to another database is not a trivial task and will have a variety of issues that need to be resolved either manually, with migration tools, or with compatible feature/function mappings and substitutions. Before you can address these issues though, you'll need to move your schema and data first to Postgres Plus Advanced Server.

This [EnterpriseDB Quick Tutorial](#) helps you get started with [Postgres Plus Advanced Server](#). It is assumed that you have already downloaded and installed Postgres Plus Advanced Server on your desktop or laptop computer.

This Quick Tutorial is designed to help you expedite your Technical Evaluation of Postgres Plus Advanced Server. For more informational assets on conducting your evaluation of Postgres Plus, visit the self-service web site, [Postgres Plus Open Source Adoption](#).

In this Quick Tutorial you will learn how to do the following:

- Prepare a connection from Advanced Server to your Oracle database
- Establish connections to your Oracle database
- Browse and select the Oracle objects you wish to migrate
- Migrate your selected Oracle schema and data and review it in Advanced Server
- Find additional resources related to Oracle migration

Feature Description

This tutorial has the following prerequisites:

- An Oracle database is installed and running
- Postgres Plus Advanced Server is installed and running
- You have the proper login credentials for both databases
- The Oracle listener is running

This tutorial migrates the sample HR schema that comes installed with Oracle XE 10.2.0. If you attempt a more complex migration and encounter any issues, please save the migration log and send it to migrations@enterprisedb.com and an EnterpriseDB engineer will analyze it and provide you the appropriate guidance.

This Quick Tutorial will show you how to migrate Oracle schema and data to Postgres Plus Advanced Server. For additional resources explaining the application level support and other compatibility features in Advanced Server, refer to the resource links in the

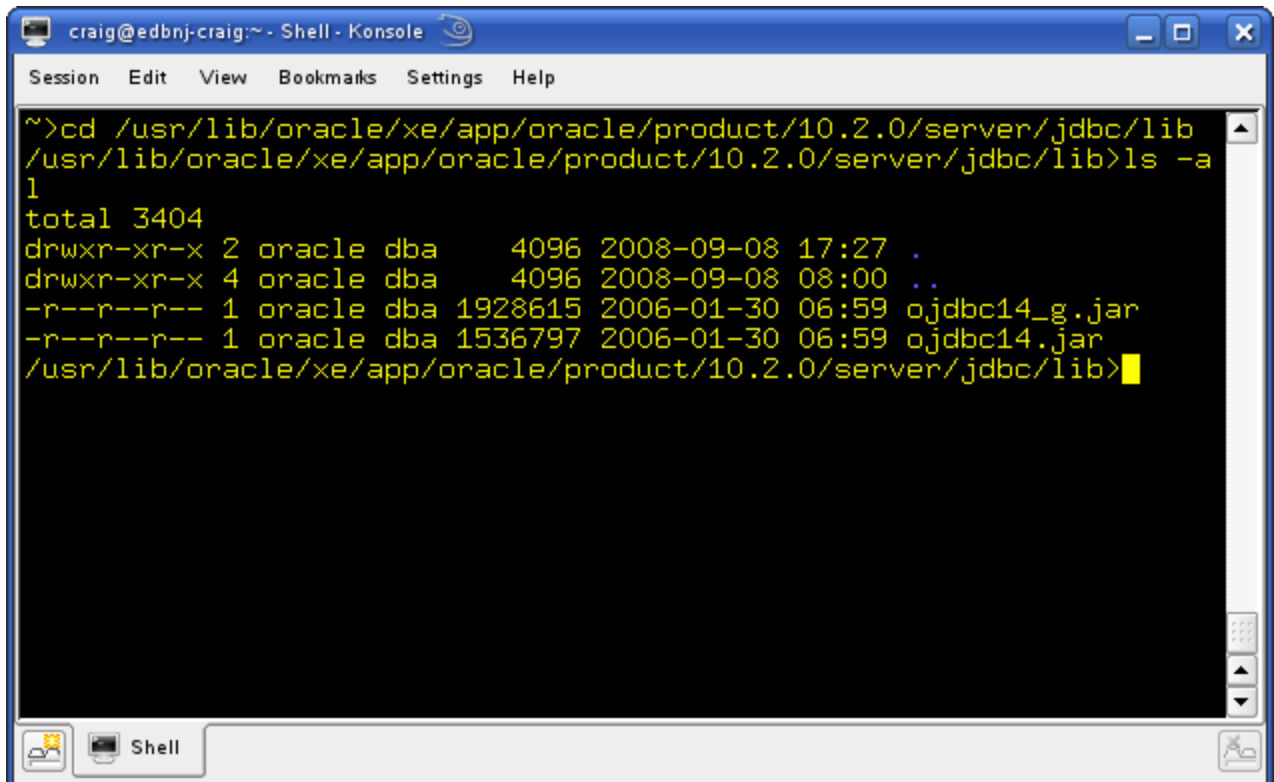
Conclusion section at the end of this tutorial.

Tutorial Steps

Step 1: Prepare a Connection to Oracle

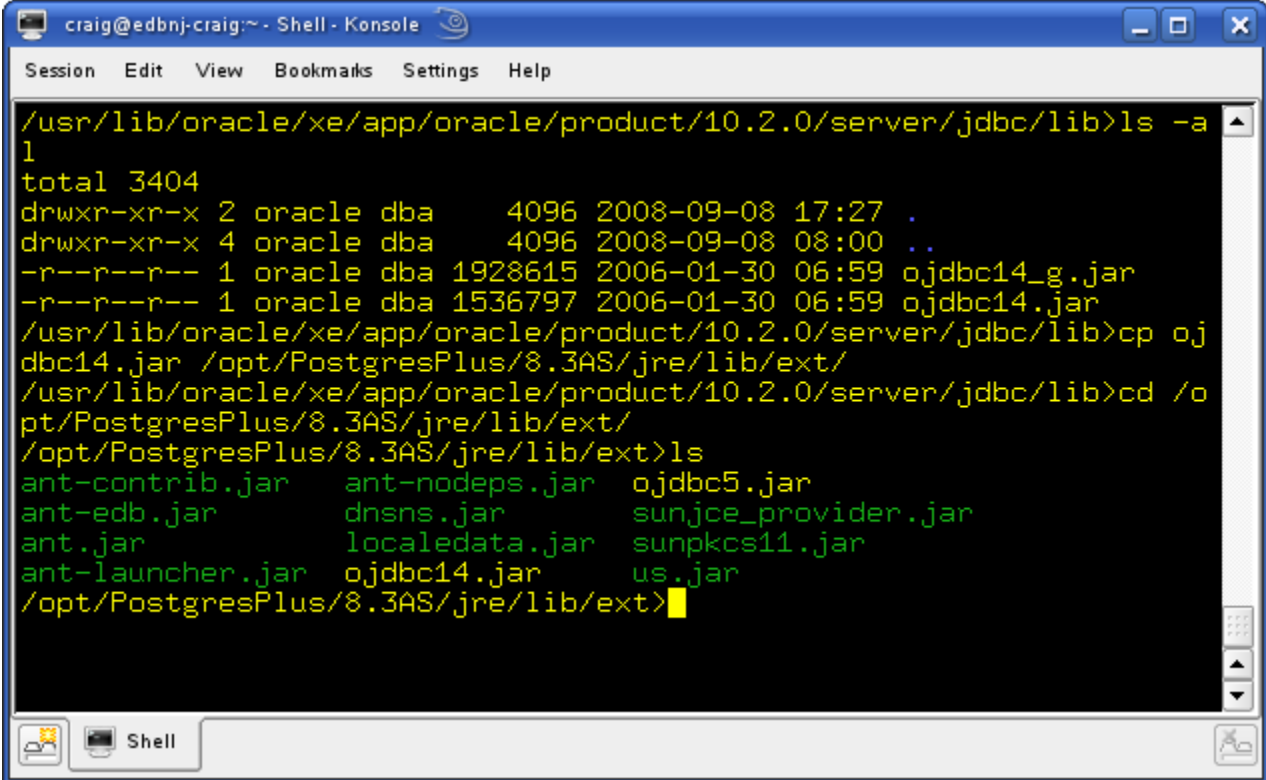
In this step, you will copy the Oracle jdbc driver from the Oracle database home to the appropriate directory in the Postgres Plus Advanced Server home directory.

Make the Oracle home directory (in this case we are using Oracle XE version 10.2.0) your current directory and locate the jdbc sub-directory. The driver is located in the lib sub-directory as shown below:



```
craig@edbnj-craig:~ - Shell - Konsole
Session Edit View Bookmarks Settings Help
~>cd /usr/lib/oracle/xe/app/oracle/product/10.2.0/server/jdbc/lib
/usr/lib/oracle/xe/app/oracle/product/10.2.0/server/jdbc/lib>ls -a
.
..
total 3404
drwxr-xr-x 2 oracle dba    4096 2008-09-08 17:27 .
drwxr-xr-x 4 oracle dba    4096 2008-09-08 08:00 ..
-r--r--r-- 1 oracle dba 1928615 2006-01-30 06:59 ojdbc14_g.jar
-r--r--r-- 1 oracle dba 1536797 2006-01-30 06:59 ojdbc14.jar
/usr/lib/oracle/xe/app/oracle/product/10.2.0/server/jdbc/lib>
```

Next, copy that the ojdbcX.jar file, in this case ojdbc14.jar, to the jre/lib/ext directory in the Postgres Plus Advanced Server home:



```
craig@edbnj-craig:~ - Shell - Konsole
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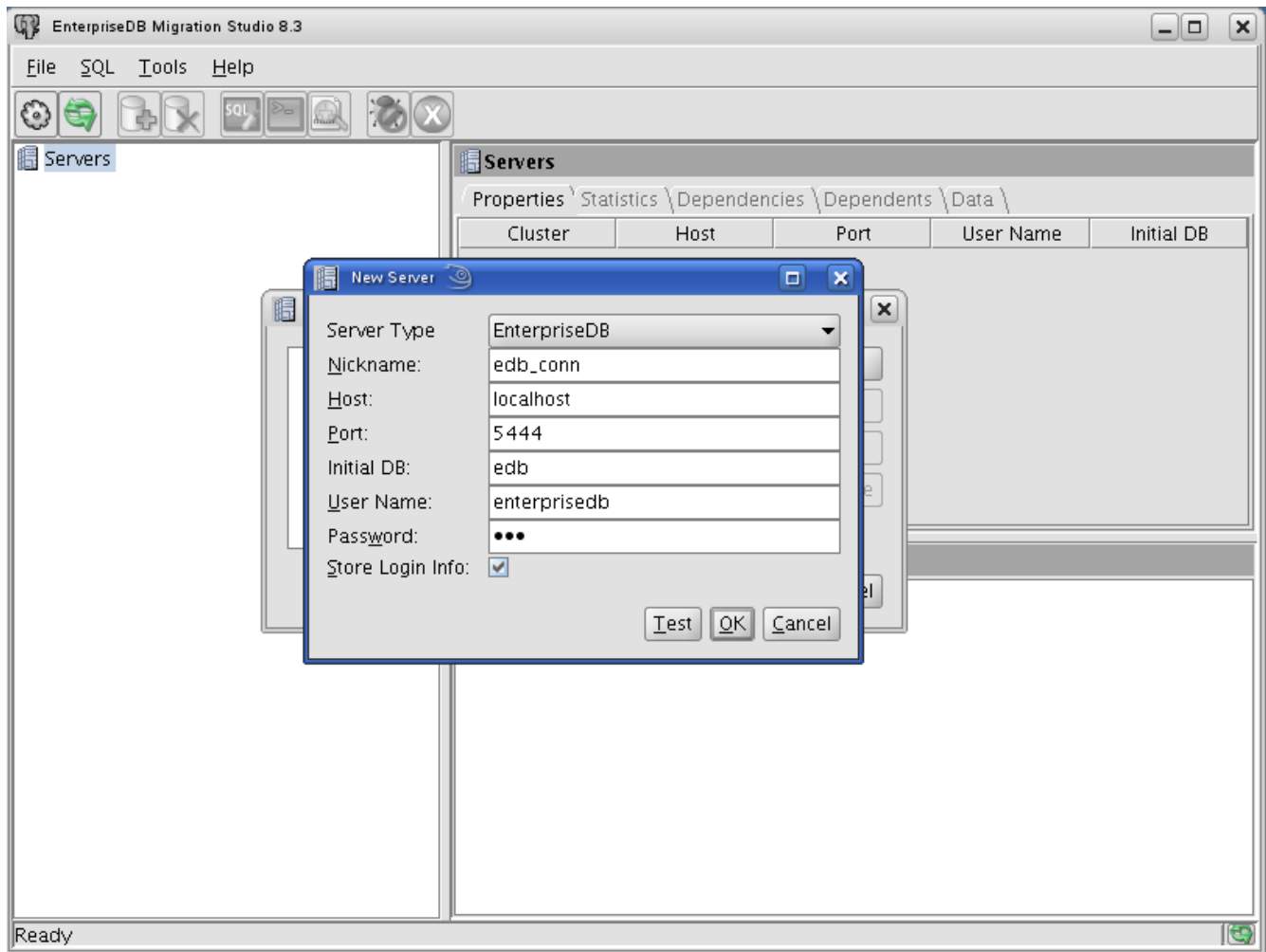
/usr/lib/oracle/xe/app/oracle/product/10.2.0/server/jdbc/lib>ls -a
1
total 3404
drwxr-xr-x 2 oracle dba    4096 2008-09-08 17:27 .
drwxr-xr-x 4 oracle dba    4096 2008-09-08 08:00 ..
-r--r--r-- 1 oracle dba 1928615 2006-01-30 06:59 ojdbc14_g.jar
-r--r--r-- 1 oracle dba 1536797 2006-01-30 06:59 ojdbc14.jar
/usr/lib/oracle/xe/app/oracle/product/10.2.0/server/jdbc/lib>cp ojdbc14.jar /opt/PostgresPlus/8.3AS/jre/lib/ext/
/usr/lib/oracle/xe/app/oracle/product/10.2.0/server/jdbc/lib>cd /opt/PostgresPlus/8.3AS/jre/lib/ext/
/opt/PostgresPlus/8.3AS/jre/lib/ext>ls
ant-contrib.jar    ant-nodeps.jar    ojdbc5.jar
ant-edb.jar        dnsns.jar         sunjce_provider.jar
ant.jar            localedata.jar   sunpkcs11.jar
ant-launcher.jar  ojdbc14.jar      us.jar
/opt/PostgresPlus/8.3AS/jre/lib/ext>
```

You are now ready to start the EnterpriseDB Migration Studio tool and establish a connection to the source Oracle database.

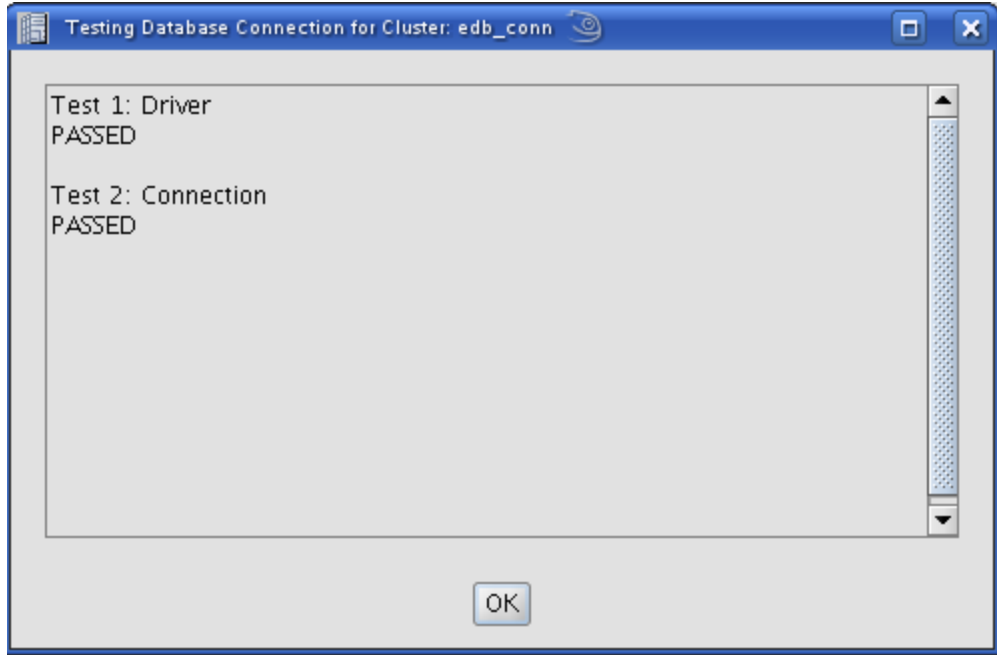
Step 2: Establish Oracle Connections

Start up Migration Studio by selecting 'Migration Studio' from the Postgres Plus Advanced Server 8.3 Program group in your Start menu.

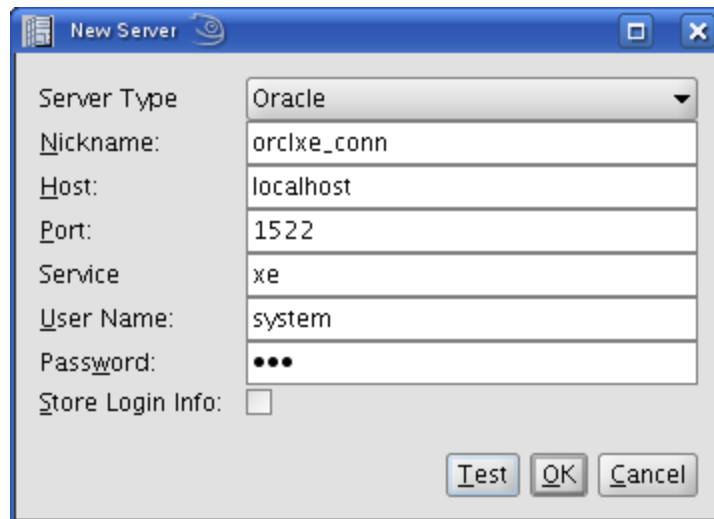
Once Migration Studio starts, add the connection information for EnterpriseDB if it is not already configured. Right click on 'Servers' and select 'Add Server' and then click on the 'New' button in the Add Server dialog. Enter the Postgres Plus Advanced Server connection information for your database as illustrated below:



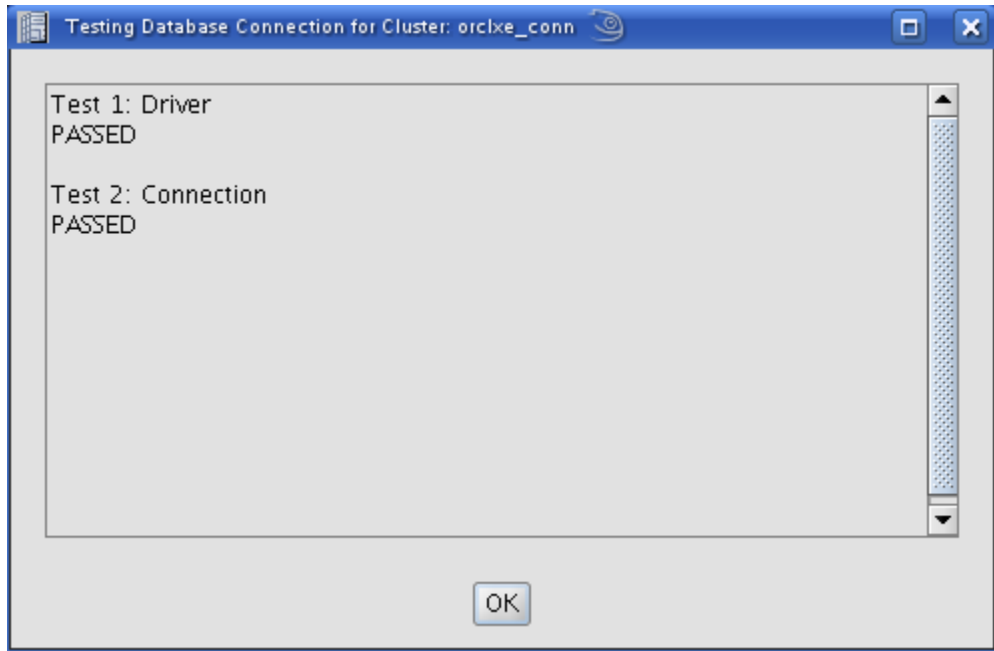
To ensure that the information you have entered is correct, click the 'Test' button. You should see the following dialog if the information is correct:



Click OK, then, OK again to get back to the main window. Next add the connection to your Oracle database. Right click on 'Servers' again and click 'New'. In the 'Server Type' pull down menu, select Oracle. Then enter the Oracle connection information:



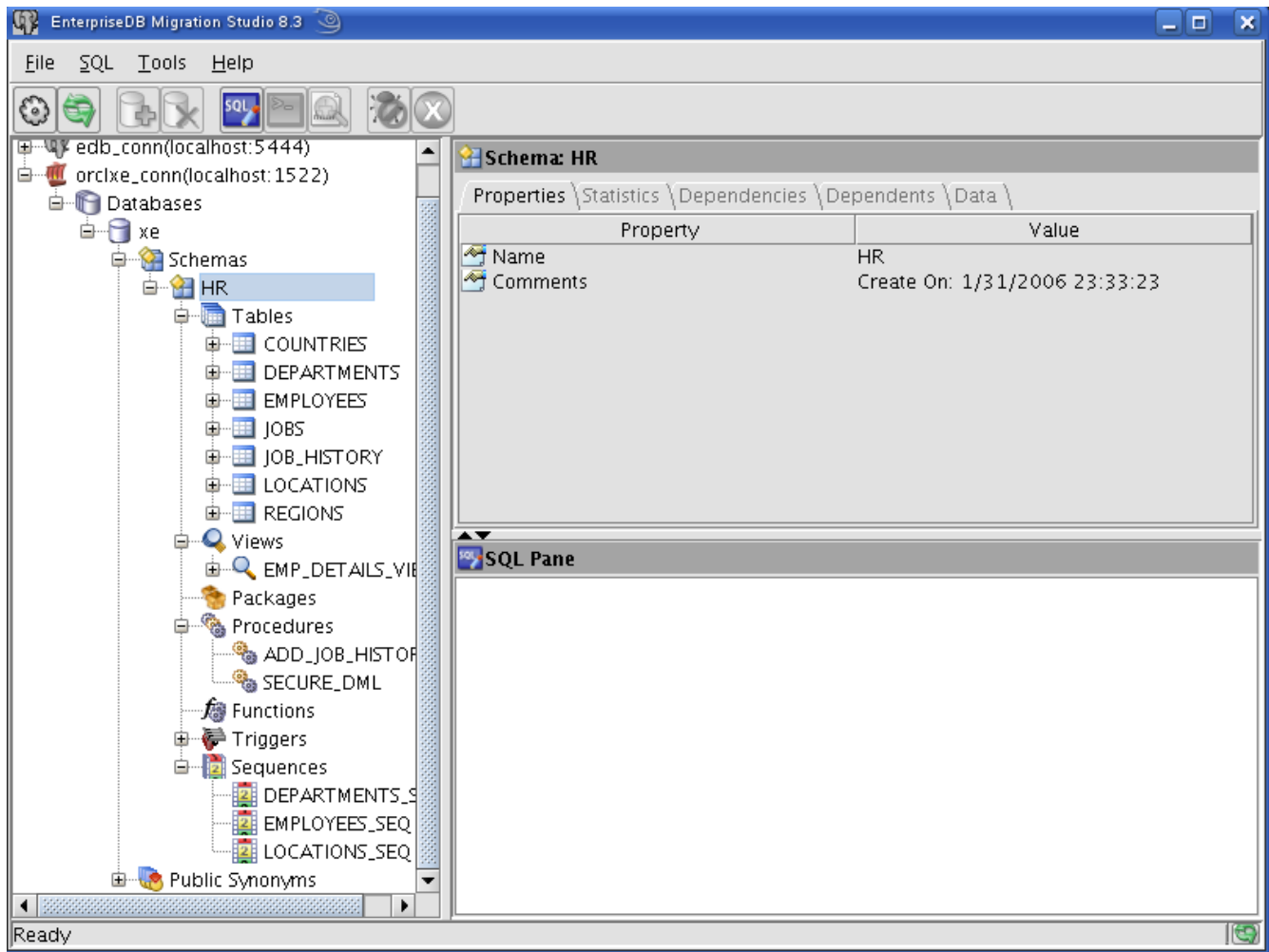
Test the connection to make sure everything is working and you should see the success message again.



Click OK, and OK again to return to main window.

Step 3: Browse and Choose Oracle Objects to Migrate

Expand the Oracle database connection folder, then the 'Databases' folder and finally the 'Schema' folder. If you continue to expand the HR schema folder, you will see folders for all the tables, views, packages, procedures, functions and sequences in the HR schema as show below.



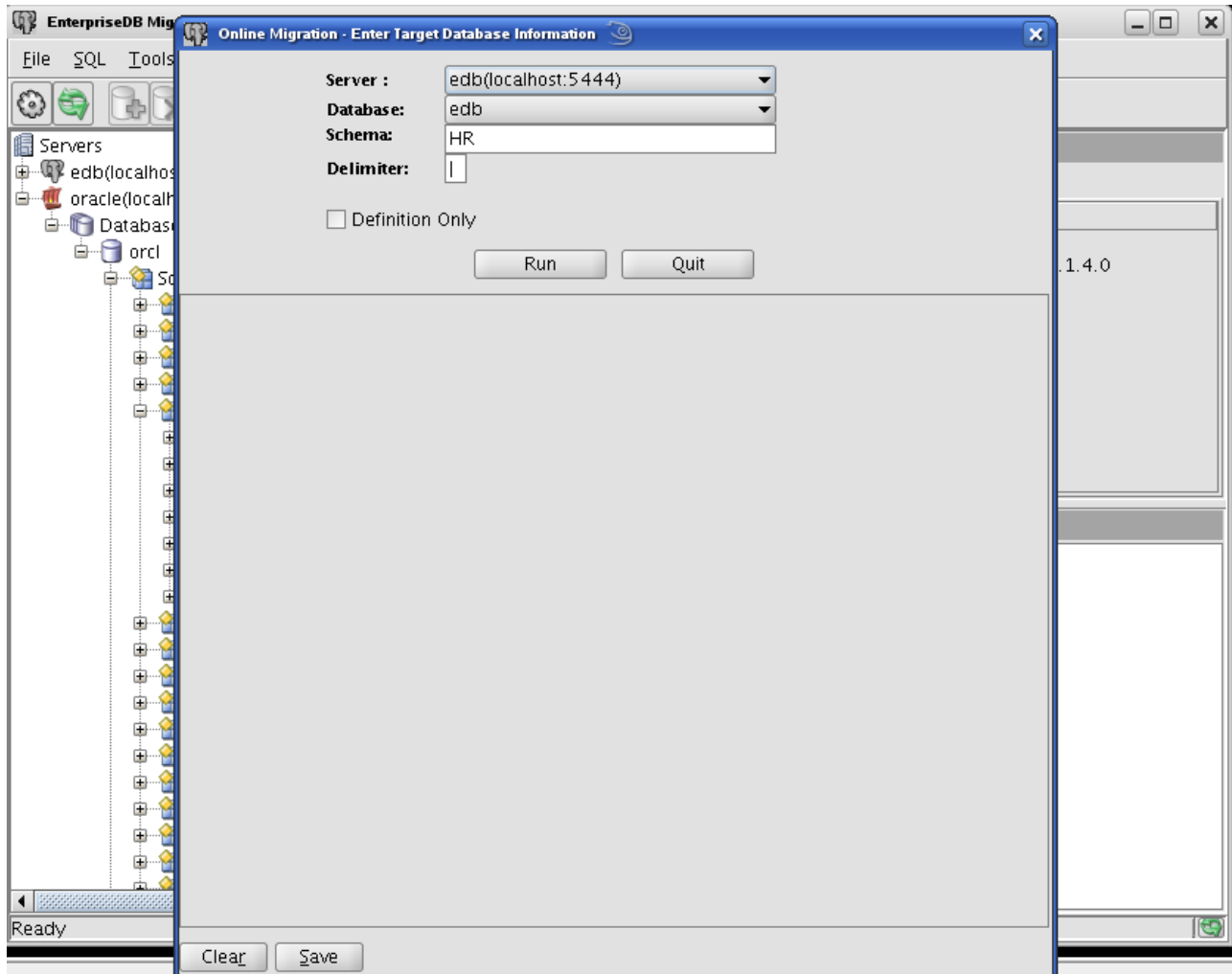
This tutorial migrates the entire HR schema but you have the choice to migrate individual objects or groups of objects. Right click on an object name or folder name and choose 'Online Migration'. This will display the Migration Wizard dialog.

The Migration Wizard contains selections for:

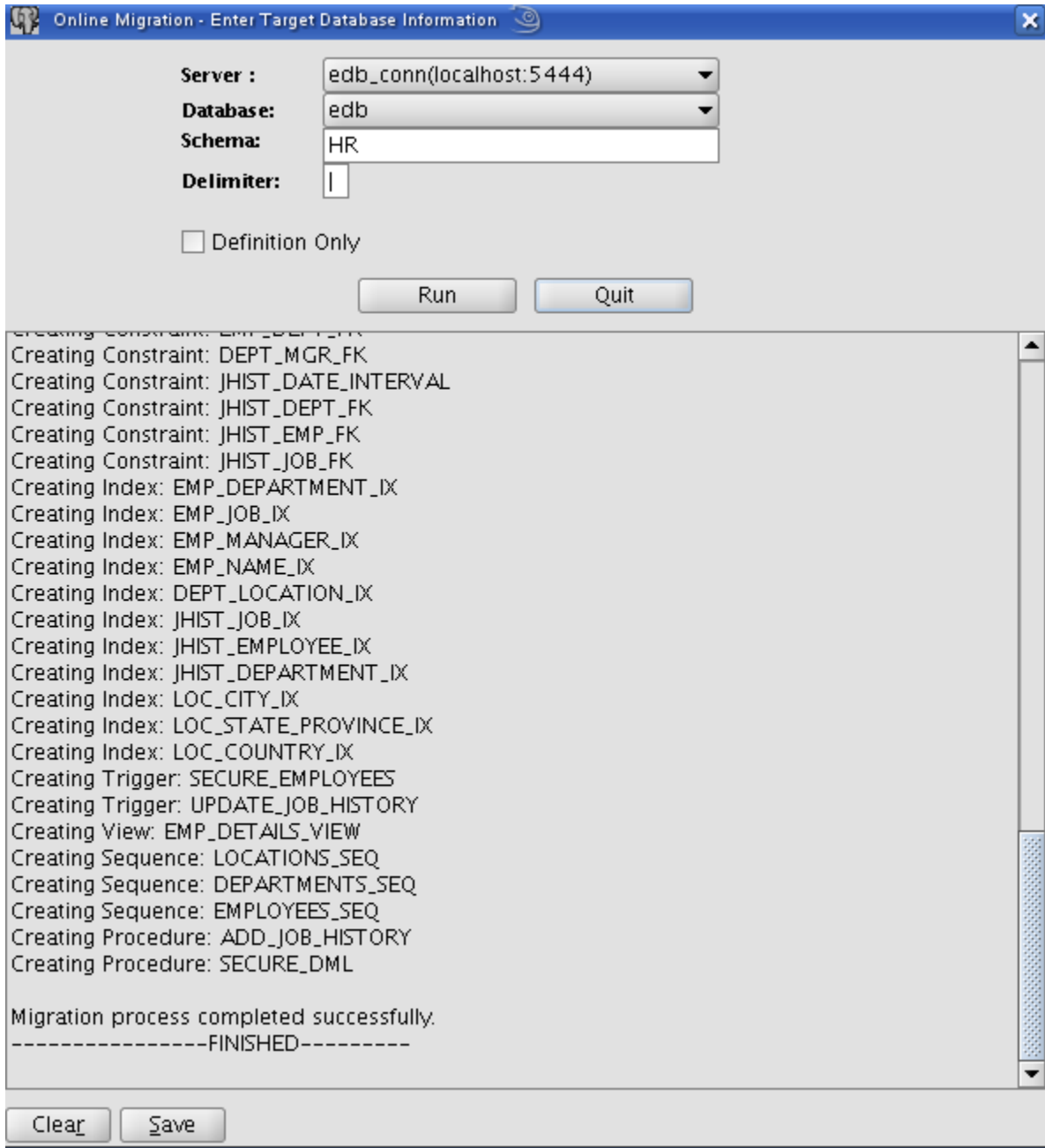
- The destination Postgres Plus Advanced Server instance
- The destination database in the Advanced Server instance
- The source schema to be migrated (the same schema will be created in the destination database)
- The delimiter used to separate columns of data in your tables
- An option to migrate the schema and data or just the schema

Typically, the only changes needed in the Migration Wizard are:

- Changing the data delimiter if the default value occurs in your data
- migrating the schema only initially to review the results prior to returning to the dialog and migrating the data later

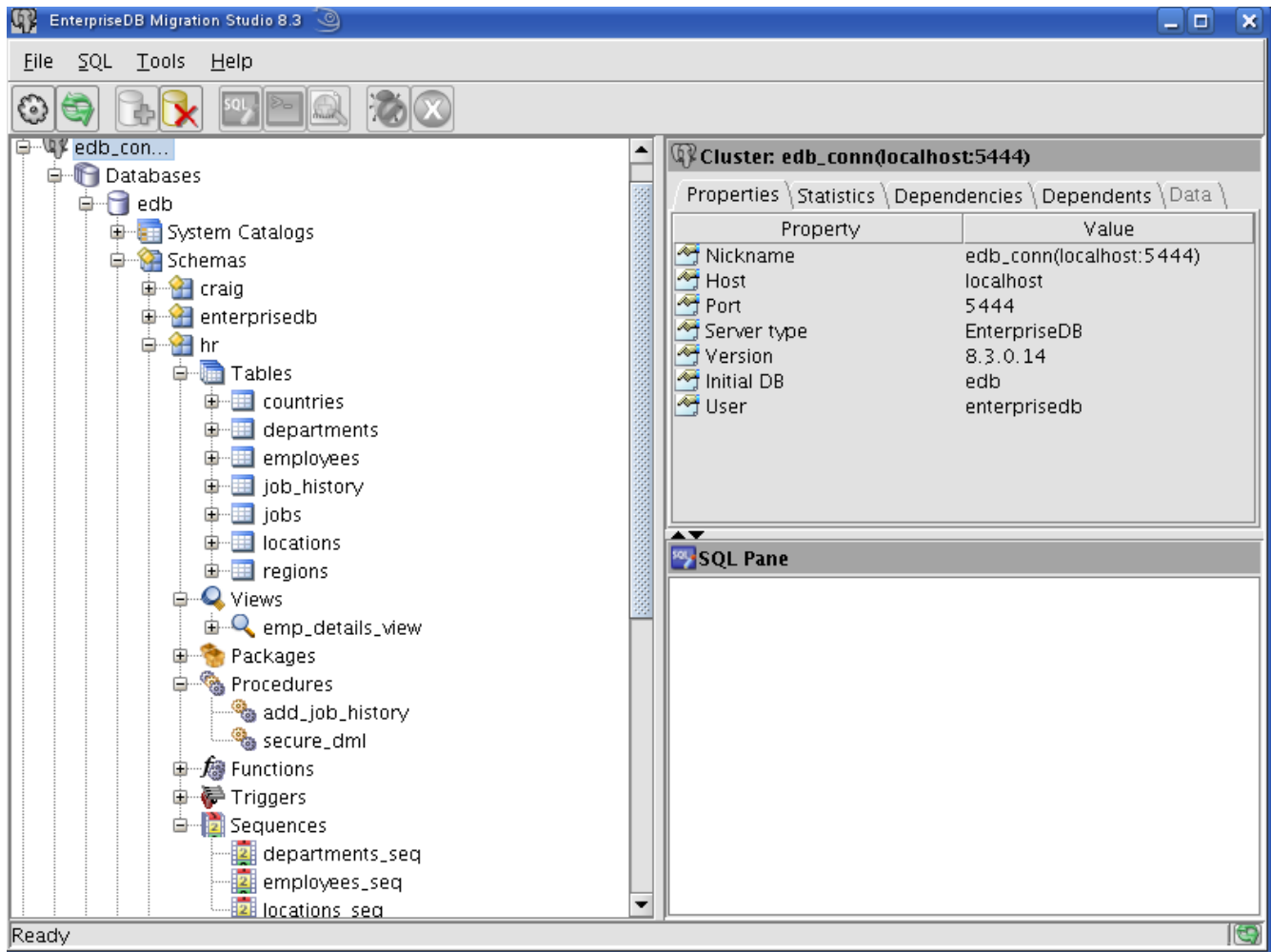


When you are ready to start the migration, click 'Run'. The migration will be executed and you will see a running log of the migration activity. Scroll down to the bottom of the log and you will see a message indicating the success of the migration.

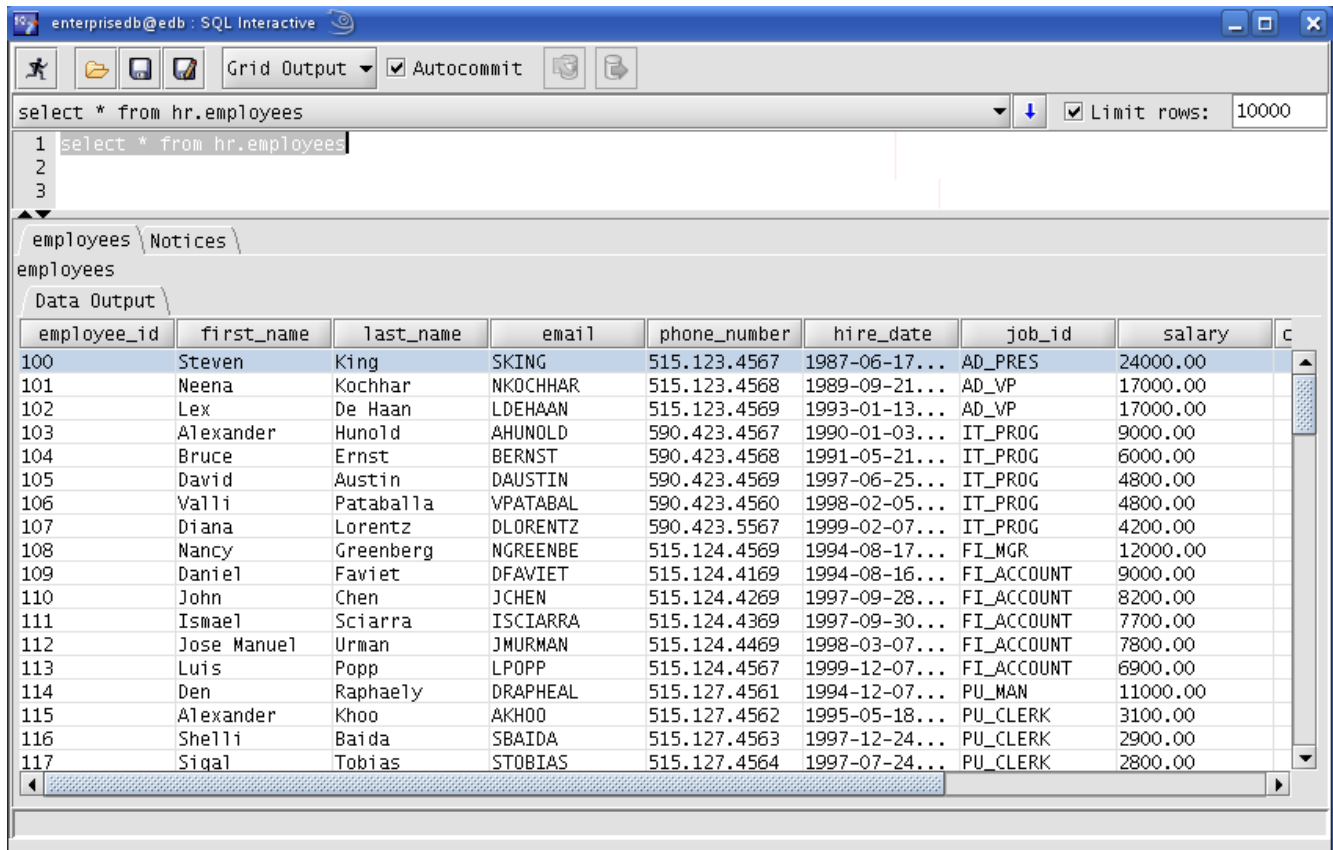


Click 'Quit' to exit the wizard and return to the main window.

You can now browse the Postgres Plus Advanced Server database and review all the migrated Oracle objects.



For example, you can select the 'employees' table, right click on it, and choose 'View Data' from the popup menu. This gesture displays the built in SQL Interactive tool and allows you to run queries and view the data in the migrated table.



That's all it takes for a successful schema and data migration from Oracle to Postgres Plus Advanced Server!

Conclusion

In this Quick Tutorial you learned how to perform a migration of Oracle schema and data to Postgres Plus Advanced Server.

As stated earlier, this migration focused on the sample HR schema in Oracle. If your schema is more complex and you encounter issues during the migration process, email the migration log to migrations@enterprisedb and an EnterpriseDB engineer can review it and provide assistance.

You should now be able to proceed with a Technical Evaluation of Postgres Plus Advanced Server. The following resources should help you move on with this step:

- [Oracle Compatibility Developer's Guide](#)

- [Oracle Database Migration: Pitfalls and Promise](#)
- [Delivering Oracle Compatibility: An EnterpriseDB White Paper](#)
- [What is Oracle Compatibility?](#)
- [A Manager's Guide to Oracle Cost Containment](#)
- [Oracle Migration Assessment Service](#)
- [Postgres Plus Technical Evaluation Guide](#)
- [Postgres Plus Getting Started resources](#)
- [Postgres Plus Documentation](#)
- [Postgres Plus Webinars](#)

EnterpriseDB also offers professional services to perform these migrations for you. We can even perform a Migration Feasibility review of your Oracle database to give you an indication of the ease or difficulty your Oracle application may encounter in moving to Postgres Plus Advanced Server.

EnterpriseDB engineers have extensive experience in database migration from various database products allowing us to perform migrations quickly and efficiently saving your company time and money. If you are interested in learning more about our migration services or any other services, send an email to sales@enterprisedb.com