

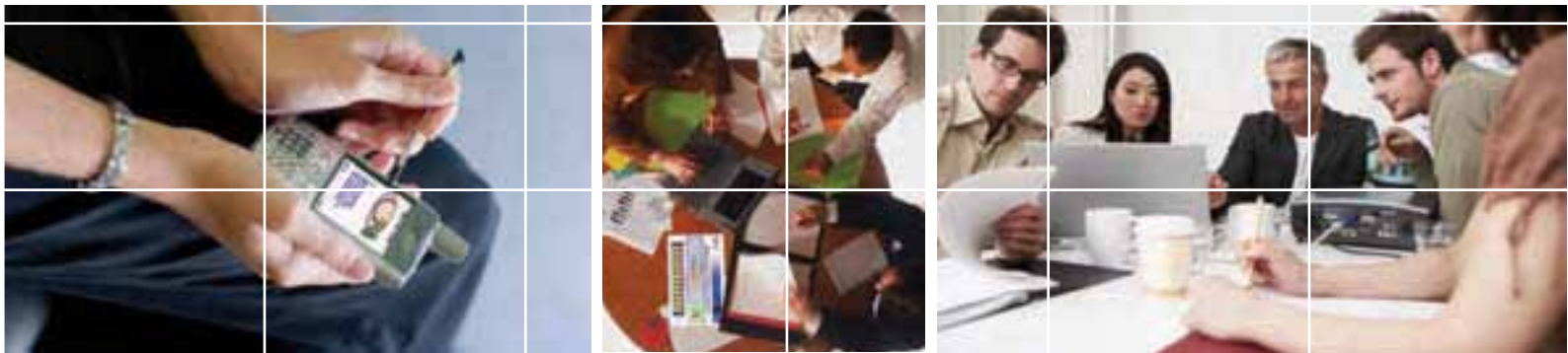


ELIXIR REPERTOIRE

Integrated Business Intelligence Suite



Intelligence On Demand



Using JDBC Data Source with
Oracle Database 10g

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Summary

About Elixir Technology Pte Ltd

Using JDBC Data Source with Oracle Database 10g

Elixir Repertoire supports JDBC connectivity to Oracle Database 10g.

Prerequisites

Below is a list of prerequisites needed for a successful connection to Oracle Database 10g.

1) Oracle Database 10g (Express Edition is used for this document)

Oracle Database 10g Express Edition Release 10.2.0.1.0 - Production

PL/SQL Release 10.2.0.1.0 - Production

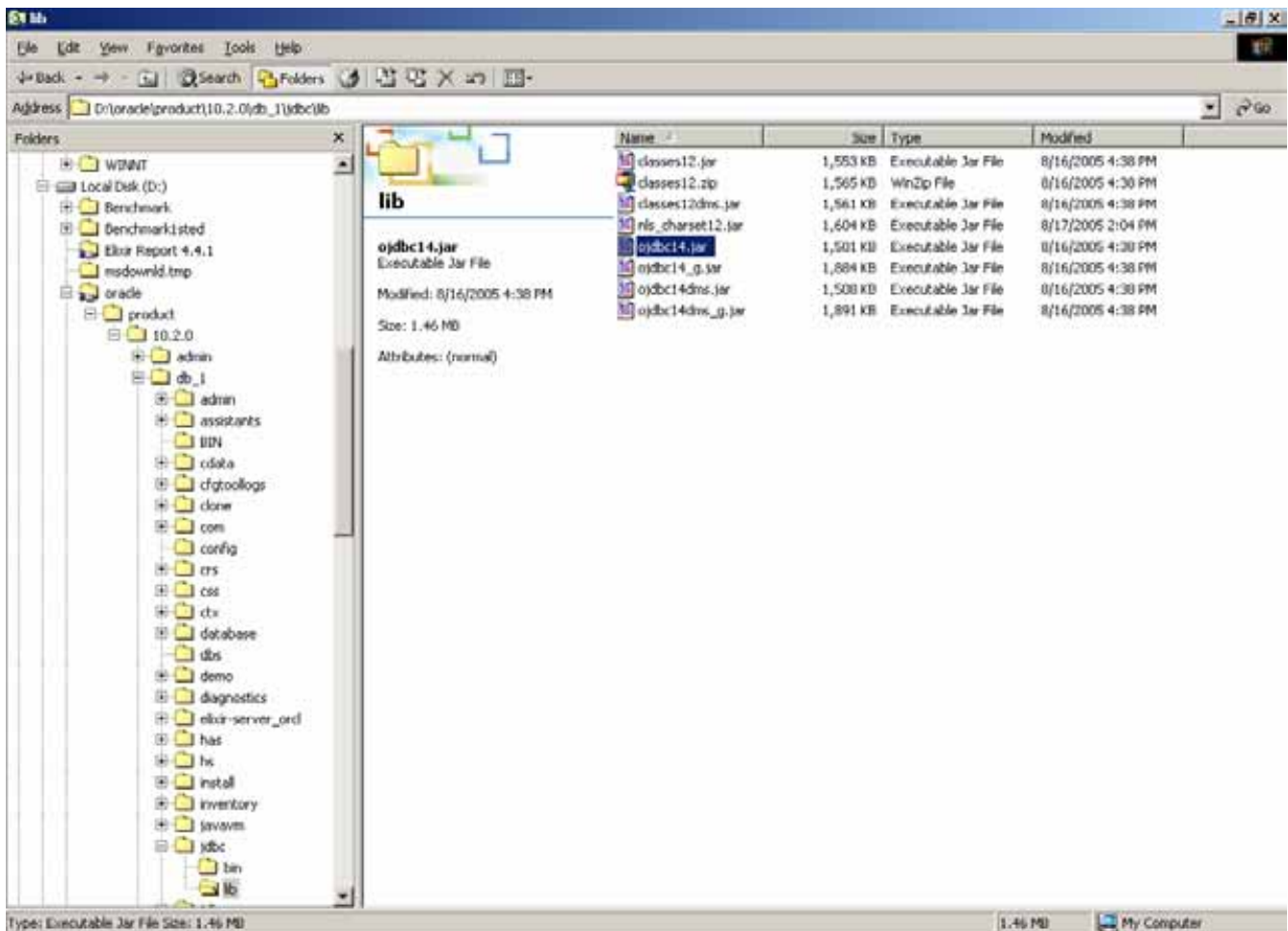
CORE 10.2.0.1.0 - Production

TNS for 32-bit Windows: Version 10.2.0.1.0 - Production

NLSRTL Version 10.2.0.1.0 - Production

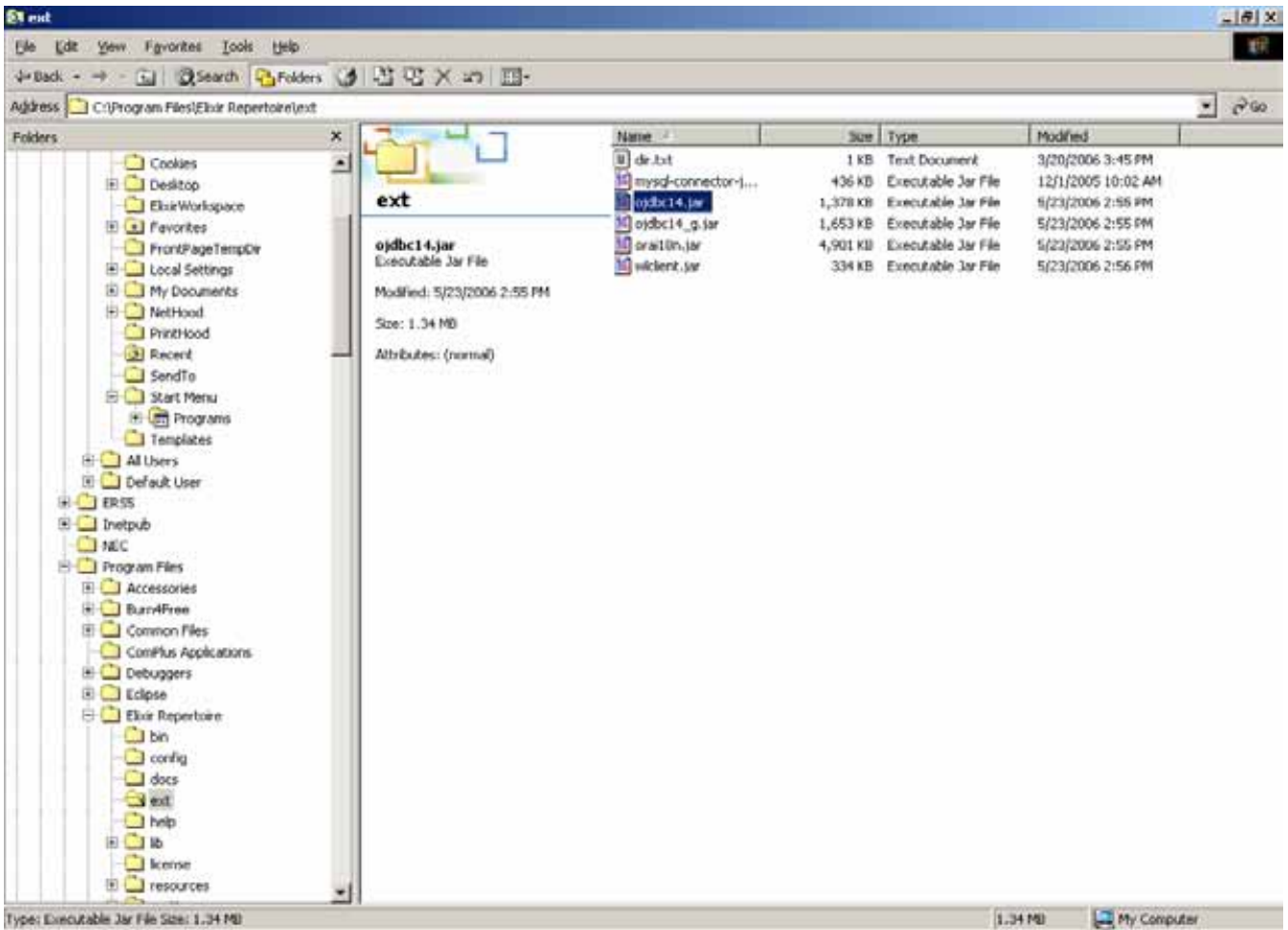
2) JDBC Driver (ojdbc14.jar – classes for use with JDK 1.4)

The driver jar file is usually found in the Oracle jdbc lib directory.



3) Oracle Database 10g services are started.

4) Oracle JDBC driver is deployed in Elixir Repertoire ext directory. The same applies to Elixir Repertoire Server.



You can verify database setup via Oracle Database Console

Object Browser - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Media Print

Address http://127.0.0.1:8080/apex/f?p=4500:1001:63519262989363::NO:RP:OB_CURRENT_TYPE:TABLE

ORACLE Database Express Edition

User: HR

Home > Object Browser

Tables

COUNTRIES
 DEMO_CUSTOMERS
 DEMO_IMAGES
 DEMO_ORDERS
 DEMO_ORDER_ITEMS
 DEMO_PAGE_HIERARCHY
 DEMO_PRODUCT_INFO
 DEMO_STATES
 DEMO_USERS
 DEPARTMENTS
EMPLOYEES
 IMAGES
 JOBS
 JOB_HISTORY
 LOCATIONS
 REGIONS

EMPLOYEES

Table Data Indexes Model Constraints Grants Statistics UI Defaults Triggers Dep

Add Column Modify Column Rename Column Drop Column Rename Copy Drop Tru

Column Name	Data Type	Nullable	Default	Primary Key
EMPLOYEE_ID	NUMBER(6,0)	No	-	1
FIRST_NAME	VARCHAR2(20)	Yes	-	-
LAST_NAME	VARCHAR2(25)	No	-	-
EMAIL	VARCHAR2(25)	No	-	-
PHONE_NUMBER	VARCHAR2(20)	Yes	-	-
HIRE_DATE	DATE	No	-	-
JOB_ID	VARCHAR2(10)	No	-	-
SALARY	NUMBER(8,2)	Yes	-	-
COMMISSION_PCT	NUMBER(2,2)	Yes	-	-
MANAGER_ID	NUMBER(6,0)	Yes	-	-
DEPARTMENT_ID	NUMBER(4,0)	Yes	-	-

1 - 11

Done Internet

Creating a JDBC Data Source in Elixir Repertoire

Follow the steps below to create a JDBC Data Source in Elixir Repertoire.

1) Obtain JDBC connection parameters.

Database Name: XE

Host: localhost (for connection on the same machine)

Port: 1521 (Default)

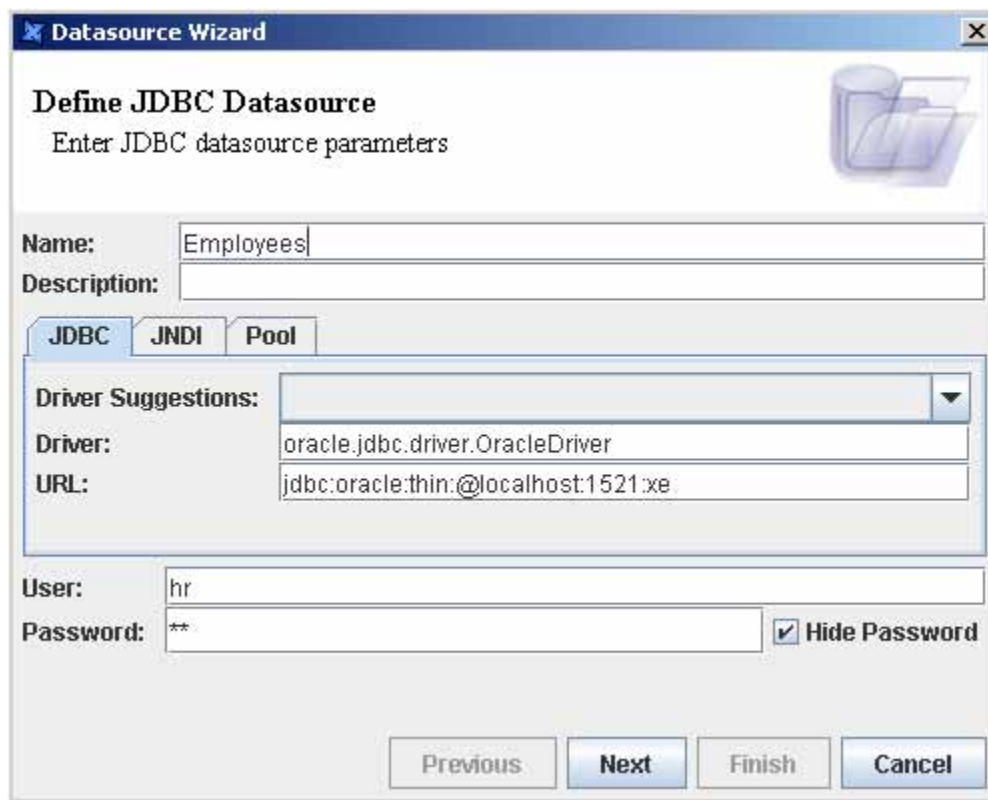
JDBC Driver Class Name: oracle.jdbc.driver.OracleDriver

User Name: hr (from default schema)

Password: hr (from default schema)

URL: jdbc:oracle:thin:@[host]:[port]:[DatabaseName]

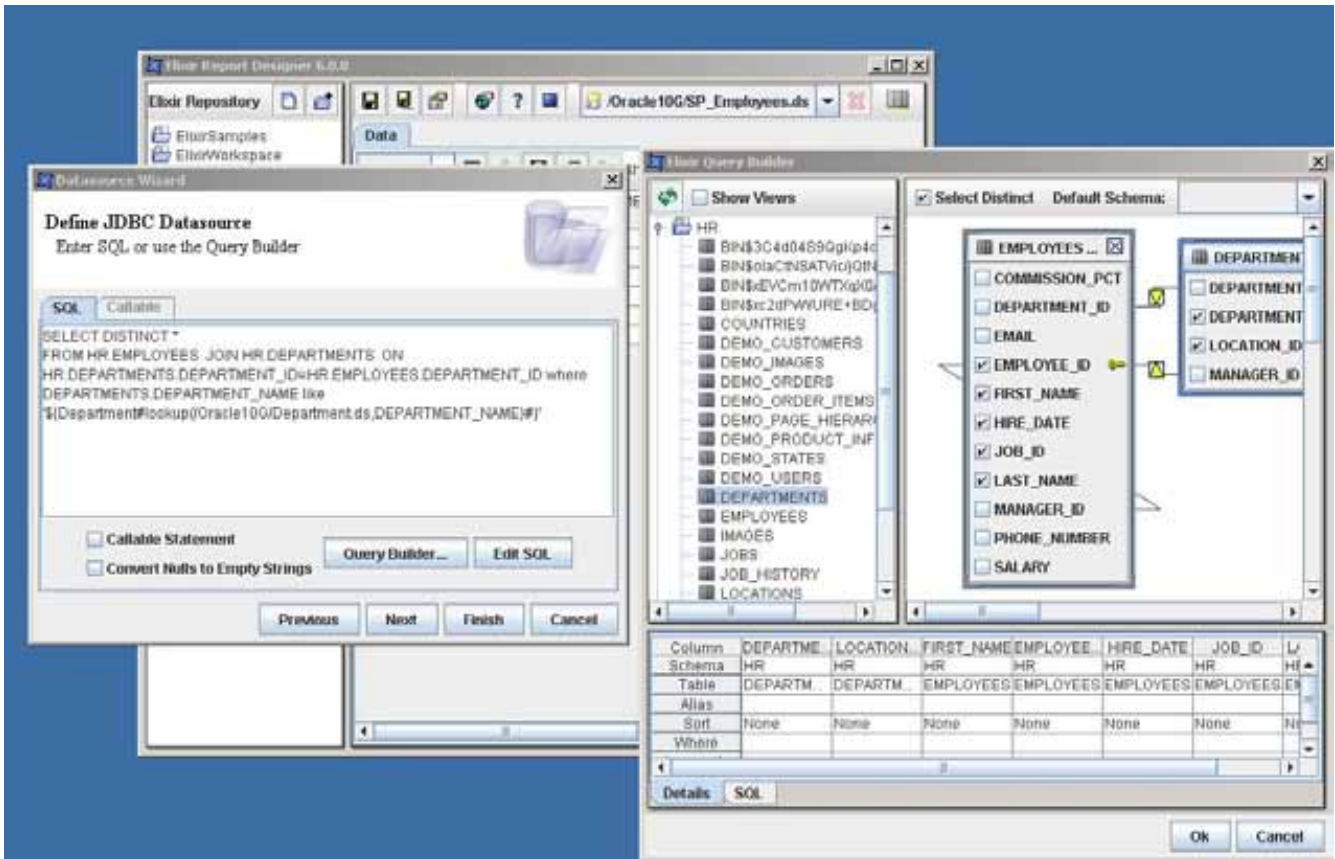
Please refer to the driver readme file for latest changes.



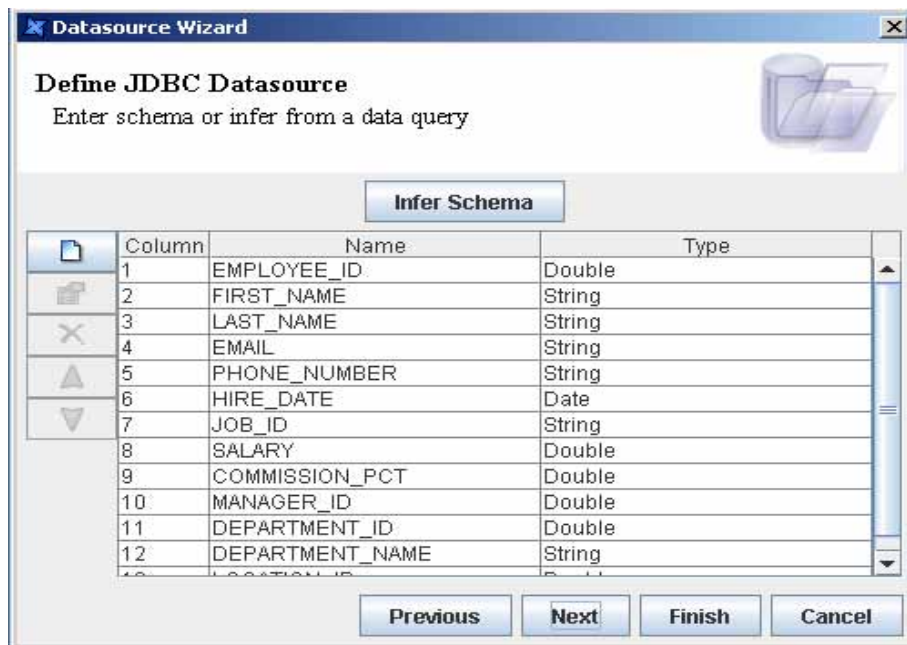
The screenshot shows the 'Datasource Wizard' dialog box, specifically the 'Define JDBC Datasource' step. The dialog has a title bar with 'Datasource Wizard' and a close button. Below the title bar, the text 'Define JDBC Datasource' is displayed, followed by the instruction 'Enter JDBC datasource parameters'. There is a small icon of a folder and a document on the right side. The dialog is divided into several sections:

- Name:** A text box containing 'Employees'.
- Description:** An empty text box.
- Driver Selection:** Three tabs labeled 'JDBC', 'JNDI', and 'Pool'. The 'JDBC' tab is selected. Below the tabs, there is a 'Driver Suggestions:' dropdown menu, a 'Driver:' text box containing 'oracle.jdbc.driver.OracleDriver', and a 'URL:' text box containing 'jdbc:oracle:thin:@localhost:1521:xe'.
- User and Password:** A 'User:' text box containing 'hr' and a 'Password:' text box containing two asterisks (**). A checkbox labeled 'Hide Password' is checked.
- Navigation:** Four buttons at the bottom: 'Previous', 'Next', 'Finish', and 'Cancel'.

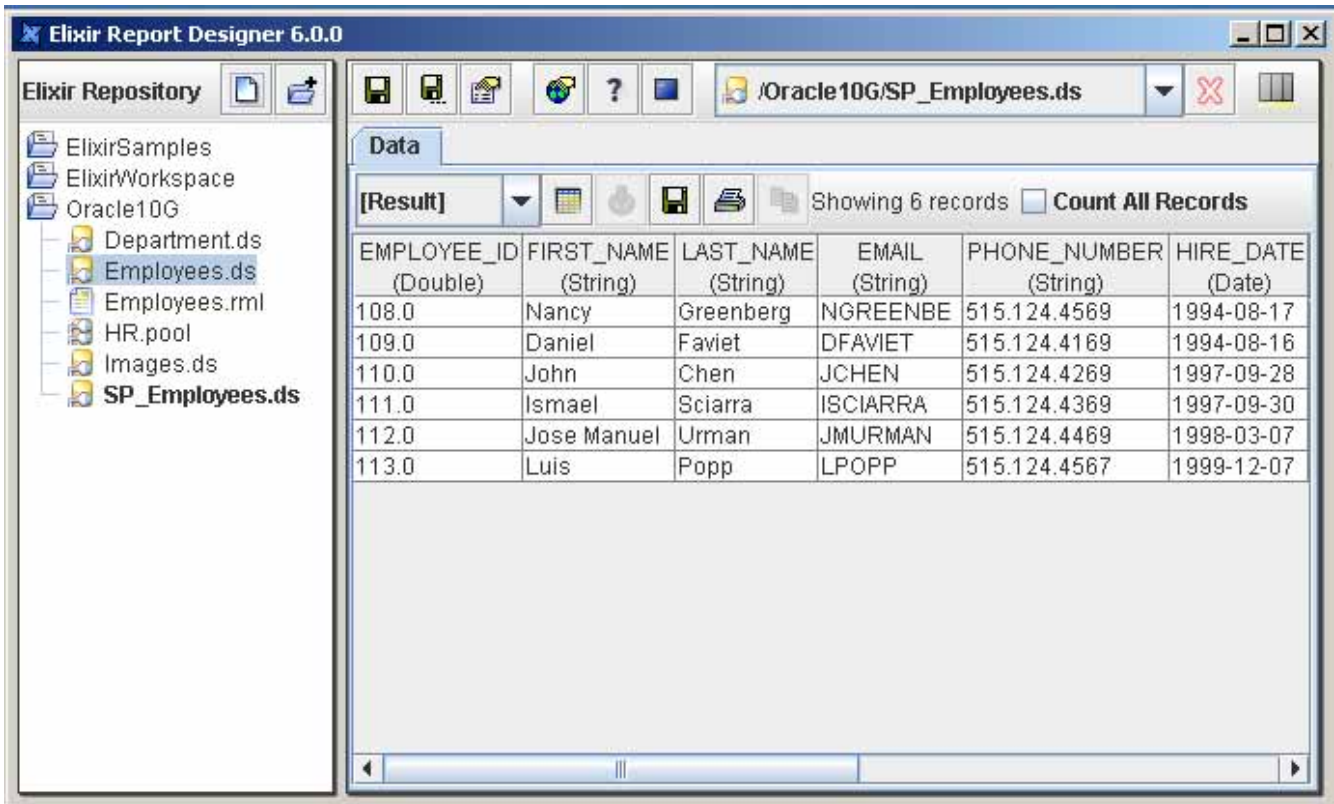
2) Click on the Next button and then construct a SQL Statement using Elixir Query Builder.



3) Click on the “Infer Schema” button



4) Test the correctness of the SQL Statement by clicking on the “Load Data” button in Data tab.



Using Oracle Stored Procedure

You can use Oracle stored procedure with Elixir Repertoire JDBC data source.

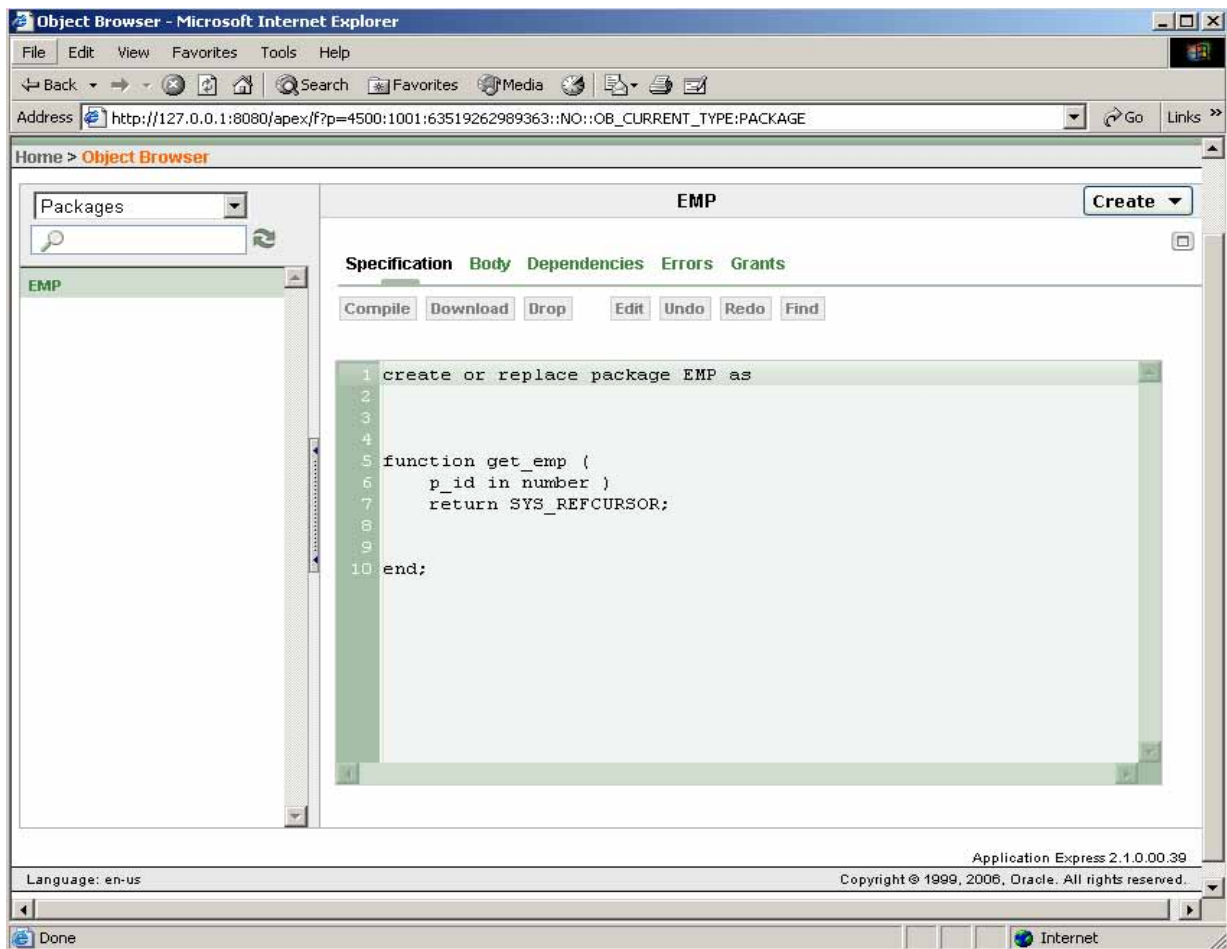
1) Define a Stored Procedure

Suppose we want to create a stored procedure to select employees in the hr schema.

This can be done in two steps.

a) Create the package specification

```
create or replace package EMP as
    function get_emp (
        p_id in number )
        return SYS_REFCURSOR;
end;
```



b) Define the function body

```
create or replace package body "EMP" is
function GET_EMP( P_ID IN NUMBER
)
return SYS_REFCURSOR
as records SYS_REFCURSOR;
begin
open records for
SELECT *
FROM hr.employees
WHERE hr.employees.department_id = P_ID ;
return records; /* insert function code */
end GET_EMP;

end EMP;
```

The screenshot shows the Oracle Database Express Edition interface. The browser address bar displays the URL: `http://127.0.0.1:8080/apex/f?p=4500:1001:63519262989363::NO::OB_CURRENT_TYPE:PACKAGE`. The page title is "ORACLE Database Express Edition". The user is logged in as "HR". The navigation bar shows "Home > Object Browser". The main content area displays the "EMP" package body definition, with tabs for "Specification", "Body", "Dependencies", "Errors", and "Grants". The "Body" tab is selected, and the code is displayed in a text area. The code is as follows:

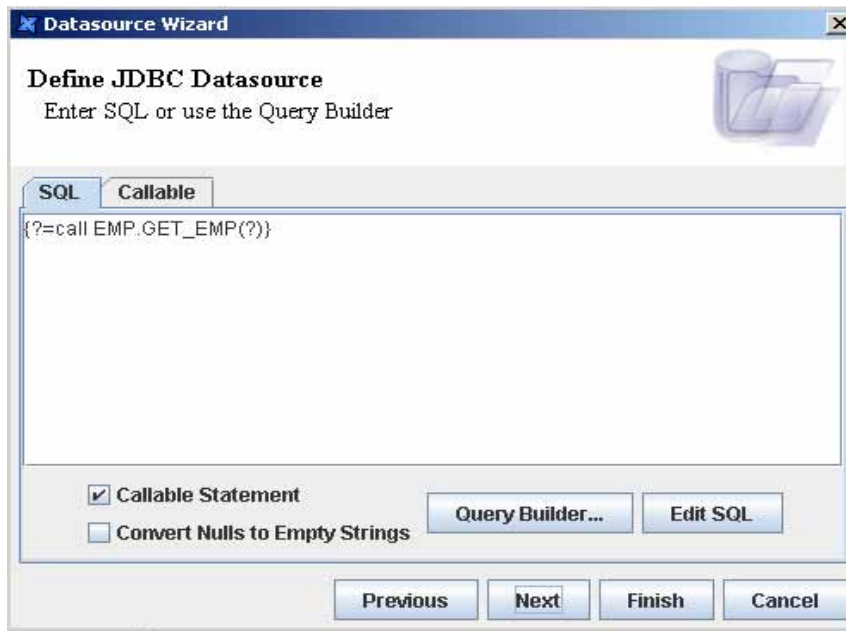
```
1 create or replace package body "EMP" is
2 function GET_EMP( P_ID IN NUMBER
3 )
4 return SYS_REFCURSOR
5 as records SYS_REFCURSOR;
6 begin
7 open records for
8 SELECT *
9 FROM hr.employees
10 WHERE hr.employees.department_id = P_ID ;
11 return records; /* insert function code */
12 end GET_EMP;
13
14 end EMP;
```

The footer of the page shows "Application Express 2.1.0.00.39" and "Copyright © 1999, 2006, Oracle. All rights reserved."

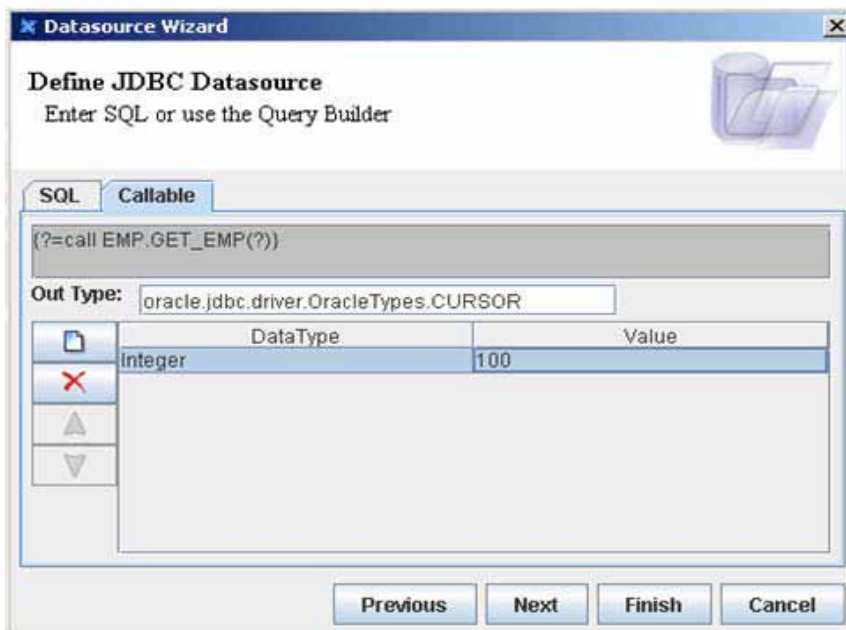
- 2) Test your stored procedure. Once the correct ResultSet is returned you can create your data source.
- 3) In Datasource Wizard dialog, enter the stored procedure as follows:

call procedure-name([[parameter],[parameter]]...), with ? representing parameters
 For example:
 {?=call EMP.GET_EMP(?)}

- 4) Enable Callable Statement option



- 5) At Callable tab enter the parameters



In this case there is only one *in* parameter of type Integer.

We can use dynamic parameters to allow more flexible behaviors, e.g. a data source lookup.

```
#{Department#lookup(/Oracle10G/Department.ds,DEPARTMENT_ID)#100}
```

6) Now you can test the data source.

The image shows a data table with 11 columns and 6 rows of data. Below the table is a 'Dynamic Parameters' dialog box with a dropdown menu for 'Department' set to '100' and a list of values from 100 to 170. The dialog also has 'Previous', 'Next', 'Finish', and 'Cancel' buttons.

EMPLOYEE_ID (Double)	FIRST_NAME (String)	LAST_NAME (String)	EMAIL (String)	PHONE_NUMBER (String)	HIRE_DATE (Date)	JOB_ID (String)	SALARY (Double)	COMMISSION_PCT (Double)	MANAGER_ID (Double)	DEPARTMENT_ID (Double)
108.0	Nancy	Greenberg	NGREENBE	515.124.4569	1994-08-17	FI_MGR	12000.0		101.0	100.0
109.0	Daniel	Faviet	DFAVIET	515.124.4169	1994-08-16	FI_ACCOUNT	9000.0		108.0	100.0
110.0	John	Chen	JCHEN	515.124.4269	1997-09-28	FI_ACCOUNT	8200.0		108.0	100.0
111.0	Ismael	Sciarra	ISCIARRA	515.124.4369	1997-09-30	FI_ACCOUNT	7700.0		108.0	100.0
112.0	Jose Manuel	Urman	JMURMAN	515.124.4469	1998-03-07	FI_ACCOUNT	7800.0		108.0	100.0
113.0	Luis	Popp	LPOPP	515.124.4567	1999-12-07	FI_ACCOUNT	6900.0		108.0	100.0

Dynamic Parameters

Enter dynamic parameter values

Department: 100

- 100
- 110
- 120
- 130
- 140
- 150
- 160
- 170

Previous Next Finish Cancel

Summary

Elixir Repertoire offers a wide array of functionalities for maximum business impact, while leveraging Java Standard & Enterprise Edition for cross-platform compatibility. Satisfied customers worldwide rely on Elixir Repertoire to improve operations efficiency as well as increase corporate profitability.

For additional information, please contact the Elixir at sales@elixirtech.com.

About Elixir Technology Pte Ltd

Elixir Technology provides a Unified Business Intelligence Platform for end-to-end information life cycle coverage from Extraction-Transformation-Loading (ETL), Data Aggregation, Cube, Reporting, Dashboard and Activation. Our flagship product, Elixir Report, has garnered over 600 customers across 50 countries in various verticals such as government, financial services, telecommunications, healthcare, retail, and technology. Going beyond enterprise reporting needs, our Integrated Business Intelligence Suite, Elixir Repertoire, is designed to further empower our customers toward becoming intelligent enterprises, where critical information is readily available to drive decisions and actions. Elixir Technology is headquartered in Singapore, with an R&D arm in UK. Through a network of partners, Elixir's products are represented in many parts of the world across major continents including Asia, America, and Europe. For more information, please visit www.elixirtech.com.



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