

Oracle® Identity Manager

Connector Guide for Oracle e-Business Employee
Reconciliation

Release 9.0.2

B32163-01

September 2006

Copyright © 2006, Oracle. All rights reserved.

Primary Authors: Debapriya Datta, Shiladitya Guha

Contributing Authors: Don Gosselin, Lyju Vadassery

The Programs (which include both the software and documentation) contain proprietary information; they are provided under a license agreement containing restrictions on use and disclosure and are also protected by copyright, patent, and other intellectual and industrial property laws. Reverse engineering, disassembly, or decompilation of the Programs, except to the extent required to obtain interoperability with other independently created software or as specified by law, is prohibited.

The information contained in this document is subject to change without notice. If you find any problems in the documentation, please report them to us in writing. This document is not warranted to be error-free. Except as may be expressly permitted in your license agreement for these Programs, no part of these Programs may be reproduced or transmitted in any form or by any means, electronic or mechanical, for any purpose.

If the Programs are delivered to the United States Government or anyone licensing or using the Programs on behalf of the United States Government, the following notice is applicable:

U.S. GOVERNMENT RIGHTS Programs, software, databases, and related documentation and technical data delivered to U.S. Government customers are "commercial computer software" or "commercial technical data" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, use, duplication, disclosure, modification, and adaptation of the Programs, including documentation and technical data, shall be subject to the licensing restrictions set forth in the applicable Oracle license agreement, and, to the extent applicable, the additional rights set forth in FAR 52.227-19, Commercial Computer Software--Restricted Rights (June 1987). Oracle USA, Inc., 500 Oracle Parkway, Redwood City, CA 94065.

The Programs are not intended for use in any nuclear, aviation, mass transit, medical, or other inherently dangerous applications. It shall be the licensee's responsibility to take all appropriate fail-safe, backup, redundancy and other measures to ensure the safe use of such applications if the Programs are used for such purposes, and we disclaim liability for any damages caused by such use of the Programs.

Oracle, JD Edwards, PeopleSoft, and Siebel are registered trademarks of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.

The Programs may provide links to Web sites and access to content, products, and services from third parties. Oracle is not responsible for the availability of, or any content provided on, third-party Web sites. You bear all risks associated with the use of such content. If you choose to purchase any products or services from a third party, the relationship is directly between you and the third party. Oracle is not responsible for: (a) the quality of third-party products or services; or (b) fulfilling any of the terms of the agreement with the third party, including delivery of products or services and warranty obligations related to purchased products or services. Oracle is not responsible for any loss or damage of any sort that you may incur from dealing with any third party.

Contents

Preface	v
Audience	v
Documentation Accessibility	v
Related Documents	vi
Documentation Updates	vii
Conventions	vii
 What's New in the Oracle Identity Manager Connector for Oracle e-Business Employee Reconciliation?	ix
Software Updates	ix
Documentation-Specific Updates.....	x
 1 About the Connector	
Supported Functionality	1-1
Multilanguage Support.....	1-2
Reconciliation Module	1-2
Lookup Fields Reconciliation	1-2
Employee Reconciliation.....	1-2
Files and Directories That Comprise the Connector	1-2
Determining the Release Number of the Connector.....	1-3
 2 Deploying the Connector	
Step 1: Verifying Deployment Requirements.....	2-1
Step 2: Configuring the Target System.....	2-1
Step 3: Copying the Connector Files and External Code.....	2-1
Step 4: Configuring the Oracle Identity Manager Server.....	2-2
Changing to the Required Input Locale.....	2-2
Clearing Content Related to Connector Resource Bundles from the Server Cache	2-3
Step 5: Importing the Connector XML File	2-3
Defining IT Resources	2-4
Step 6: Configuring Reconciliation.....	2-5
Configuring Trusted Source Reconciliation.....	2-5
Creating the Reconciliation Scheduled Tasks	2-5
Specifying Values for the Scheduled Task Attributes	2-6
Lookup Fields Reconciliation Scheduled Task.....	2-6

Employee Reconciliation Scheduled Task.....	2-6
Configuring the Connector for Multiple Installations of the Target System	2-7

3 Testing and Troubleshooting

Connector Test Cases	3-1
Troubleshooting.....	3-2

4 Known Issues

A Attribute Mappings Between Oracle Identity Manager and Oracle e-Business Employee Reconciliation

Index

Preface

Oracle Identity Manager Connector Guide for Oracle e-Business Employee Reconciliation provides information about integrating Oracle Identity Manager with Oracle e-Business Employee Reconciliation.

Note: Some parts of the product and documentation still refer to the original Thor company name and Xellerate product name and will be rebranded in future releases.

Audience

This guide is intended for users who want to deploy the Oracle Identity Manager connector for Oracle e-Business Employee Reconciliation.

Documentation Accessibility

Our goal is to make Oracle products, services, and supporting documentation accessible, with good usability, to the disabled community. To that end, our documentation includes features that make information available to users of assistive technology. This documentation is available in HTML format, and contains markup to facilitate access by the disabled community. Accessibility standards will continue to evolve over time, and Oracle is actively engaged with other market-leading technology vendors to address technical obstacles so that our documentation can be accessible to all of our customers. For more information, visit the Oracle Accessibility Program Web site at

<http://www.oracle.com/accessibility/>

Accessibility of Code Examples in Documentation

Screen readers may not always correctly read the code examples in this document. The conventions for writing code require that closing braces should appear on an otherwise empty line; however, some screen readers may not always read a line of text that consists solely of a bracket or brace.

Accessibility of Links to External Web Sites in Documentation

This documentation may contain links to Web sites of other companies or organizations that Oracle does not own or control. Oracle neither evaluates nor makes any representations regarding the accessibility of these Web sites.

TTY Access to Oracle Support Services

Oracle provides dedicated Text Telephone (TTY) access to Oracle Support Services within the United States of America 24 hours a day, seven days a week. For TTY support, call 800.446.2398.

Related Documents

For more information, refer to the following documents in the Oracle Identity Manager documentation set:

- *Oracle Identity Manager Release Notes*
- *Oracle Identity Manager Installation and Upgrade Guide for JBoss*
- *Oracle Identity Manager Installation and Upgrade Guide for WebLogic*
- *Oracle Identity Manager Installation and Upgrade Guide for WebSphere*
- *Oracle Identity Manager Administrative and User Console Guide*
- *Oracle Identity Manager Administrative and User Console Customization Guide*
- *Oracle Identity Manager Design Console Guide*
- *Oracle Identity Manager Tools Reference Guide*
- *Oracle Identity Manager Audit Report Developer Guide*
- *Oracle Identity Manager Best Practices Guide*
- *Oracle Identity Manager Connector Guide for BMC Remedy User Management*
- *Oracle Identity Manager Connector Guide for CA-ACF2 Advanced*
- *Oracle Identity Manager Connector Guide for CA-Top Secret Advanced*
- *Oracle Identity Manager Connector Guide for Database Application Tables*
- *Oracle Identity Manager Connector Guide for Database User Management*
- *Oracle Identity Manager Connector Guide for IBM RACF*
- *Oracle Identity Manager Connector Guide for IBM RACF Advanced*
- *Oracle Identity Manager Connector Guide for IBM Lotus Notes and Domino*
- *Oracle Identity Manager Connector Guide for Microsoft Active Directory*
- *Oracle Identity Manager Password Synchronization Module for Microsoft Active Directory Installation and Configuration Guide*
- *Oracle Identity Manager Connector Guide for Microsoft Exchange 2000 and 2003*
- *Oracle Identity Manager Connector Guide for Microsoft Exchange 5.5*
- *Oracle Identity Manager Connector Guide for Microsoft Windows 2000*
- *Oracle Identity Manager Connector Guide for Microsoft Windows NT 4.0*
- *Oracle Identity Manager Connector Guide for Novell eDirectory*
- *Oracle Identity Manager Connector Guide for Novell GroupWise*
- *Oracle Identity Manager Connector Guide for Oracle e-Business Employee Reconciliation*
- *Oracle Identity Manager Connector Guide for Oracle e-Business User Management*
- *Oracle Identity Manager Connector Guide for Oracle Internet Directory*
- *Oracle Identity Manager Connector Guide for PeopleSoft Employee Reconciliation*

- *Oracle Identity Manager Connector Guide for PeopleSoft User Management*
- *Oracle Identity Manager Connector Guide for Siebel Enterprise Applications*
- *Oracle Identity Manager Connector Guide for RSA Authentication Manager*
- *Oracle Identity Manager Connector Guide for RSA ClearTrust*
- *Oracle Identity Manager Connector Guide for SAP CUA*
- *Oracle Identity Manager Connector Guide for SAP Employee Reconciliation*
- *Oracle Identity Manager Connector Guide for SAP Enterprise Portal*
- *Oracle Identity Manager Connector Guide for SAP User Management*
- *Oracle Identity Manager Connector Guide for Sun Java System Directory*
- *Oracle Identity Manager Connector Guide for UNIX SSH*
- *Oracle Identity Manager Connector Guide for UNIX Telnet*

Documentation Updates

Oracle is committed to delivering the best and most recent information available. For information about updates to the Oracle Identity Manager 9.0.2 connector documentation set, visit Oracle Technology Network at

<http://www.oracle.com/technology/documentation/index.html>

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
<i>italic</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
<code>monospace</code>	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

What's New in the Oracle Identity Manager Connector for Oracle e-Business Employee Reconciliation?

This chapter provides an overview of the updates made to the connector and documentation for Oracle e-Business Employee Reconciliation in release 9.0.2 of the Oracle Identity Manager connector pack.

The updates discussed in this chapter are divided into the following categories:

- [Software Updates](#)

These include updates made to the connector software.

- [Documentation-Specific Updates](#)

These include major changes made to the connector documentation. These changes are not related to software updates.

See Also: *Oracle Identity Manager Release Notes*

Software Updates

This section discusses the following software updates implemented in this release of the connector.

Incorporation of Multilanguage Support

In addition to English, this release of the connector supports the French and Japanese languages. The following are documentation updates pertaining to the incorporation of this feature:

- The installation media directory includes resource bundle files for the languages supported by the connector. These resource bundle files are described in the "[Files and Directories That Comprise the Connector](#)" section on page 1-2.
- The "[Step 3: Copying the Connector Files and External Code](#)" section on page 2-1 specifies the destination directory into which you must copy the resource bundle files during the deployment procedure.
- The "[Step 4: Configuring the Oracle Identity Manager Server](#)" section on page 2-2 describes the procedure to change to the required input locale and to clear content related to connector resource bundles from the server cache.
- [Chapter 4, "Known Issues"](#) discusses a new issue related to the use of non-English locales.

Determining the Release Number of the Connector

Instructions to determine the release number of the connector are given in the ["Determining the Release Number of the Connector"](#) section on page 1-3.

Changes in the Known Issues List

The following item has been removed from the Known Issues list in [Chapter 4](#):

The connector does not incorporate the Lock User and Unlock User functions.

Documentation-Specific Updates

The following documentation-specific updates have been made in this release of the guide:

- Oracle Identity Manager uses an Oracle e-Business Employee Reconciliation user account to connect to and exchange data with Oracle e-Business Employee Reconciliation. The ["Step 1: Verifying Deployment Requirements"](#) section on page 2-1 provides information about the minimum rights that must be assigned to this user account.
- In the ["Step 1: Verifying Deployment Requirements"](#) section on page 2-1, the supported target system has been changed to Oracle e-Business Suite 11.5.10.
- Instructions to copy the connector JAR files to all the nodes of a clustered environment have been added in the following sections:
 - [Step 3: Copying the Connector Files and External Code](#) on page 2-1
 - [Step 4: Configuring the Oracle Identity Manager Server](#) on page 2-2
- Instructions and pointers to information about configuring trusted source reconciliation have been moved to the ["Configuring Trusted Source Reconciliation"](#) on page 2-5.
- Instructions to use Oracle Identity Manager for linking multiple installations of Oracle e-Business Employee Reconciliation are given in the ["Configuring the Connector for Multiple Installations of the Target System"](#) section on page 2-7.
- [Appendix A](#) provides information about attribute mappings between Oracle Identity Manager and Oracle e-Business Employee Reconciliation.

About the Connector

Oracle Identity Manager automates access rights management, security, and provisioning of IT resources. Oracle Identity Manager connectors are used to integrate Oracle Identity Manager with third-party applications. The connector for Oracle e-Business Employee Reconciliation is used to integrate Oracle Identity Manager with Oracle e-Business Employee Reconciliation.

Note: Oracle Identity Manager connectors were referred to as *resource adapters* prior to the acquisition of Thor Technologies by Oracle.

This chapter contains the following sections:

- [Supported Functionality](#)
- [Multilanguage Support](#)
- [Reconciliation Module](#)
- [Files and Directories That Comprise the Connector](#)
- [Determining the Release Number of the Connector](#)

Supported Functionality

The following table lists the functions that are available with this connector.

Function	Type	Description
Reconcile New User	Reconciliation	Creates an Oracle Identity Manager user in trusted mode
Reconcile Delete User	Reconciliation	Deletes an Oracle Identity Manager user account, in both trusted and nontrusted mode
Reconcile Updated User	Reconciliation	Updates an Oracle Identity Manager user record during reconciliation, in both trusted and nontrusted mode

See Also: [Appendix A](#) for information about attribute mappings between Oracle Identity Manager and Oracle e-Business Employee Reconciliation.

Multilanguage Support

In addition to English, this release of the connector supports the following languages:

- French
- Japanese

Reconciliation Module

This section discusses the elements that the reconciliation module extracts from the target system to construct reconciliation event records.

Reconciliation can be divided into the following types:

- [Lookup Fields Reconciliation](#)
- [Employee Reconciliation](#)

Lookup Fields Reconciliation

Lookup fields reconciliation involves reconciling the Person ID lookup field.

Employee Reconciliation

Employee reconciliation involves reconciling the following fields:

- First Name
- email
- PersonId
- Middle Name
- Last Name
- Dept
- SSN
- Title
- Location
- Manager
- City
- PostalCode
- Country
- Telno
- EmployeeNumber
- ManagerId

Files and Directories That Comprise the Connector

The files and directories that comprise this connector are compressed in the following ZIP file on the installation media:

```
EnterPrise Application\Oracle e-Business\Oracle e-Business Employee Reconciliation  
Rev 2.2.0.zip
```

These files and directories are listed in the following table.

File in the Installation Media Directory	Description
xml\oracleHRRResAdp.xml	<p>This XML file contains definitions for the following components of the connector:</p> <ul style="list-style-type: none"> ■ IT resource type ■ Custom process form ■ Resource object ■ Reconciliation process ■ Lookup definitions
lib\ScheduleTask\xlReconOraHREmp.jar	This JAR file contains the class files that are required for reconciliation.
Files in the resources directory	Each of these files contains locale-specific information that is used by the connector.
docs\B32163_01.pdf	This guide, which provides instructions to deploy the connector.

The ["Step 3: Copying the Connector Files and External Code"](#) section on page 2-1 provides instructions to copy these files into the required directories.

Determining the Release Number of the Connector

To determine the release number of the connector:

1. Extract the contents of the xlReconOraHREmp.jar file. This file is in the lib\ScheduleTask directory inside the installation media directory.
2. Open the manifest.mf file in a text editor, which is one of the files bundled inside the xlReconOraHREmp.jar file.

In the manifest.mf file, the release number of the connector is displayed as the value of the Version property.

Deploying the Connector

Deploying the connector involves the following steps:

- [Step 1: Verifying Deployment Requirements](#)
- [Step 2: Configuring the Target System](#)
- [Step 3: Copying the Connector Files and External Code](#)
- [Step 4: Configuring the Oracle Identity Manager Server](#)
- [Step 5: Importing the Connector XML File](#)
- [Step 6: Configuring Reconciliation](#)

If you want to configure the connector for multiple installations of Oracle e-Business Employee Reconciliation, then perform the following procedure:

- [Configuring the Connector for Multiple Installations of the Target System](#)

Step 1: Verifying Deployment Requirements

The following table lists the deployment requirements for the connector.

Item	Requirement
Oracle Identity Manager	Oracle Identity Manager release 8.5.3 or later
Target system	Oracle e-Business Suite 11.5.10
External code	JDBC class library (<code>classes12.jar</code>)
Target system user account	APPS user with full privileges You provide the credentials of this user account while performing the procedure in the "Defining IT Resources" section on page 2-4.

Step 2: Configuring the Target System

For this connector, you do not need to perform any configuration steps on the target system.

Step 3: Copying the Connector Files and External Code

The connector files to be copied and the directories to which you must copy them are given in the following table.

Note: The directory paths given in the first column of this table correspond to the location of the connector files in the following ZIP file on the installation media:

Enterprise Applications\Oracle e-Business\Oracle e-Business
Employee Reconciliation Rev 2.2.0.zip

Refer to the ["Files and Directories That Comprise the Connector"](#) section on page 1-2 for more information about these files.

File in the Installation Media Directory	Destination Directory
xml\oracleHRResAdp.xml	OIM_home\xlclient
lib\ScheduleTask\xlReconOraHREmp.jar	OIM_home\xellerate\ScheduleTask
Files in the resources directory	OIM_home\xellerate\connectorResources
docs\B32163_01.pdf	OIM_home\xellerate\docs\OracleeBizEmp

Copy the JDBC class library (classes12.jar) from the *oracle_home\ora92\jdbc\lib\classes12.jar* directory to the *OIM_home\xellerate\ThirdParty* directory. Here, *oracle_home* is the directory in which Oracle9i Database is installed. For example, C:\Oracle.

Note: While installing Oracle Identity Manager in a clustered environment, you copy the contents of the installation directory to each node of the cluster. Similarly, you must copy the *connectorResources* directory and the JAR files to the corresponding directories on each node of the cluster.

Step 4: Configuring the Oracle Identity Manager Server

Configuring the Oracle Identity Manager server involves the following procedures:

Note: In a clustered environment, you must perform this step on each node of the cluster. Then, restart each node.

- [Changing to the Required Input Locale](#)
- [Clearing Content Related to Connector Resource Bundles from the Server Cache](#)

Changing to the Required Input Locale

Changing to the required input locale involves installing the required fonts and setting the required input locale.

To set the required input locale:

Note: Depending on the operating system used, you may need to perform this procedure differently.

1. Open Control Panel.

2. Double-click **Regional Options**.
3. On the Input Locales tab of the Regional Options dialog box, add the input locale that you want to use and then switch to the input locale.

Clearing Content Related to Connector Resource Bundles from the Server Cache

Whenever you add a new resource bundle file in the `OIM_home\xellerate\connectorResources` directory or make a change in an existing resource bundle file, you must clear content related to connector resource bundles from the server cache.

To clear content related to connector resource bundles from the server cache:

1. In a command window, change to the `OIM_home\xellerate\bin` directory.
2. Enter one of the following commands:

Note: You must perform Step 1 before you perform this step. If you run the command as follows, then an exception is thrown:

```
OIM_home\xellerate\bin\batch_file_name
```

- On Microsoft Windows:

```
PurgeCache.bat ConnectorResourceBundle
```

- On UNIX:

```
PurgeCache.sh ConnectorResourceBundle
```

In this command, `ConnectorResourceBundle` is one of the content categories that you can remove from the server cache. Refer to the following file for information about the other content categories:

```
OIM_home\xellerate\config\xlConfig.xml
```

Note: You can ignore the exception that is thrown when you perform Step 2.

Step 5: Importing the Connector XML File

To import the connector XML file:

1. Open the Oracle Identity Manager Administrative and User Console.
2. Click the **Deployment Management** link on the left navigation bar.
3. Click the **Import** link under Deployment Management. A dialog box for locating files is displayed.
4. Locate and open the `oracleHRResAdp.xml` file, which is in the `OIM_home\xlclient` directory. Details of this XML file are shown on the File Preview page.
5. Click **Add File**. The Substitution page is displayed.
6. Click **Next**. The Confirmation page is displayed.

7. Click **Next**. The Provide IT Resource Instance Data page for the Oracle HR IT resource is displayed.
8. Specify values for the parameters of the Oracle HR IT resource. Refer to the table given in the ["Defining IT Resources"](#) section on page 2-4 for information about the values to be specified.
9. Click **Next**. The Provide IT Resource Instance Data page for a new instance of the Oracle HR IT resource type is displayed.
10. Click **Skip** to specify that you do not want to define another IT resource. The Confirmation page is displayed.

See Also: If you want to define another IT resource, then refer to *Oracle Identity Manager Tools Reference Guide* for instructions.

11. Click **View Selections**.

The contents of the XML file are displayed on the Import page. You may see a cross-shaped icon along with some nodes. Remove these nodes by right-clicking each node and then selecting **Remove**.

12. Click **Import**. The connector file is imported into Oracle Identity Manager.

After you import the connector XML file, proceed to the ["Step 6: Configuring Reconciliation"](#) section on page 2-5.

Defining IT Resources

You must specify values for the following Oracle HR IT resource parameter.

Parameter	Description
Admin	User ID to connect to the Oracle e-Business Employee Reconciliation database The default value is Apps .
AdminCredentials	Password of the administrator
Host	Host name or IP address of the Oracle e-Business Employee Reconciliation database
IsDebug	Debug feature The value can be YES or NO . The default value is NO .
OracleHREmp.Orga nization Name	Default value for the Oracle Identity Manager Organization name This value is used to create the Xellerate User in trusted mode. The default value is Xellerate Users .
Port	TCP/IP port at which the Oracle e-Business Employee Reconciliation server is listening The default value is 1521.
SID	SID for the Oracle e-Business Employee Reconciliation database
TimeStamp	Timestamp for the last reconciliation

After you specify values for the IT resource parameter, proceed to Step 9 of the procedure to import connector XML files.

Note: You must use the existing standard APPS User for connecting to the Oracle e-Business Employee Reconciliation database because only this user has the rights required to update the database.

Step 6: Configuring Reconciliation

Configuring reconciliation involves the following steps:

- [Configuring Trusted Source Reconciliation](#)
- [Creating the Reconciliation Scheduled Tasks](#)

Configuring Trusted Source Reconciliation

See Also: *Oracle Identity Manager Connector Framework Guide* for conceptual information about reconciliation configurations

You do not need to perform any procedure to configure trusted source reconciliation. This target system is configured as a trusted source when you import the connector XML file.

Creating the Reconciliation Scheduled Tasks

To create the scheduled tasks for lookup fields and user reconciliations:

1. Open the Oracle Identity Manager Design Console.
2. Expand the **Xellerate Administration** folder.
3. Select **Task Scheduler**.
4. Click **Find**. The details of the predefined scheduled tasks are displayed on two different tabs.
5. For the first scheduled task, enter a number in the **Max Retries** field. This number represents the number of times Oracle Identity Manager must attempt to complete the task before assigning the `ERROR` status to the task.
6. Ensure that the **Disabled** and **Stop Execution** check boxes are not selected.
7. In the Start region, double-click the **Start Time** field. From the date-time editor that is displayed, select the date and time at which you want the task to run.
8. In the Interval region, set the following schedule parameters:
 - To set the task to run on a recurring basis, select the **Daily**, **Weekly**, **Recurring Intervals**, **Monthly**, or **Yearly** option.
If you select the **Recurring Intervals** option, then you must also specify the time interval at which you want the task to run on a recurring basis.
 - To set the task to run only once, select the **Once** option.
9. Provide values for the attributes of the scheduled task. Refer to the "[Specifying Values for the Scheduled Task Attributes](#)" section on page 2-6 for information about the values to be specified.

See Also: *Oracle Identity Manager Design Console Guide* for information about adding and removing task attributes

10. Click **Save**. The scheduled task is created. The `INACTIVE` status is displayed in the **Status** field, because the task is not currently running. The task is run at the date and time that you set in Step 7.

11. Repeat Steps 5 through 10 to create the second scheduled task.

After you create the scheduled tasks, proceed to the ["Configuring the Connector for Multiple Installations of the Target System"](#) section on page 2-7.

Specifying Values for the Scheduled Task Attributes

This section provides information about the values to be specified for the following scheduled tasks:

- [Lookup Fields Reconciliation Scheduled Task](#)
- [Employee Reconciliation Scheduled Task](#)

Lookup Fields Reconciliation Scheduled Task

You must specify values for the following attributes of the lookup fields reconciliation scheduled task.

Note: Attribute values are predefined in the connector XML file that you import. Specify values only for those attributes that you want to change.

Attribute	Description	Default/Sample Value
Server	Name of the IT resource instance that the connector uses to reconcile data	Oracle HR
LookupField Name	Name of the lookup field to be reconciled	OracleHR.Employees

After you specify values for these task attributes, proceed to Step 10 of the procedure to create scheduled tasks.

Employee Reconciliation Scheduled Task

You must specify values for the following attributes of the employee reconciliation scheduled task.

Note: Attribute values are predefined in the connector XML file that you import. Specify values only for those attributes that you want to change.

Attribute	Description	Default/Sample Value
Target System Recon - Resource Object name	Name of the resource object	Oracle HR Employee
Server	IT resource instance that the connector uses to reconcile data	Oracle HR

Attribute	Description	Default/Sample Value
IsTrusted	Specifies whether or not reconciliation must be performed in trusted mode	YES or NO

After you specify values for these task attributes, proceed to Step 10 of the procedure to create scheduled tasks.

Configuring the Connector for Multiple Installations of the Target System

Note: Perform this procedure only if you want to configure the connector for multiple installations of Oracle e-Business Employee Reconciliation. Refer to *Oracle Identity Manager Design Console Guide* for detailed instructions on performing each step of this procedure.

To configure the connector for multiple installations of the target system:

1. Create and configure one resource object for each target system installation.

The Resource Objects form is in the Resource Management folder. The `Oracle HR Employee` resource object is created when you import the connector XML file. You can use this resource object as the template for creating the remaining resource objects.

2. Create and configure one IT resource for each resource object.

The IT Resources form is in the Resource Management folder. The `Oracle HR IT` resource is created when you import the connector XML file. You can use this IT resource as the template for creating the remaining IT resources, of the same resource type.

3. Design one process form for each resource object.

The Form Designer form is in the Development Tools folder. The `UD_ORAHR_EM` process form is created when you import the connector XML file.

You can use this process form as a template for creating the remaining process forms.

4. Create and configure one process definition for each resource object.

The Process Definition form is in the Process Management folder. The `Oracle HR Employee` process definition is created when you import the connector XML file. You can use this process definition as the template for creating the remaining process definitions.

While creating process definitions for each target system installation, the following steps that you must perform are specific to the creation of each process definition:

- From the **Object Name** lookup field, select the resource object that you create in Step 1.
 - From the **Table Name** lookup field, select the process form that you create in Step 3.
5. Configure reconciliation for each target system installation. Refer to the ["Step 6: Configuring Reconciliation"](#) section on page 2-5 for instructions. Note that only the values of the following attributes are to be changed for each reconciliation scheduled task:

- Target System Recon - Resource Object name
- Server
- IsTrusted

Set the `IsTrusted` attribute to `YES` for the Oracle e-Business Employee Reconciliation installation that you want to designate as a trusted source. You can designate either a single or multiple installations of Oracle e-Business Employee Reconciliation as the trusted source. For the remaining Oracle e-Business Employee Reconciliation installations, set this attribute to `NO`.

6. If required, modify the fields to be reconciled for the Xellerate User resource object.

Testing and Troubleshooting

After you deploy the connector, you must test it to ensure that it functions as expected. This chapter discusses the following topics related to connector testing:

- [Connector Test Cases](#)
- [Troubleshooting](#)

Connector Test Cases

There are two types of tests that you can perform for reconciliation testing:

- A test from the trusted source/target resource to Oracle Identity Manager (a T-X test).
- A test from the nontrusted source/target resource to Oracle Identity Manager (an N-X test).

The following table describes sample test cases based on these test types.

Test Case	Type	Test Type	Description/Comments
If an Xellerate User is not found, then create the Xellerate User and provision a resource object for the user.	Functional	T-X	The user should be reconciled successfully.
If the Xellerate User is found, then update the user and the corresponding resource objects.	Functional	T-X	The user should be updated successfully.
Check if resource objects have been provisioned an Xellerate User. If resource objects are found, then do not delete the user. If resource objects are not found, then delete the user.	Functional	T-X	If there are no resource objects, then the user should be deleted successfully from Oracle Identity Manager. If resource objects are found, then the user should not be deleted from Oracle Identity Manager.
If the Xellerate User exists, then update the user and the corresponding resource object.	Functional	N-X	The Xellerate User should be updated successfully.
If the Xellerate User is not found, then do not perform any action.	Functional	N-X	No action is performed.

Troubleshooting

This section provides solutions to a commonly encountered problem associated with the connector.

Problem:

Oracle Identity Manager cannot establish a connection with the Oracle e-Business Employee Reconciliation server.

Solution:

- Ensure that the Oracle e-Business Employee Reconciliation server is running.
- Ensure that the Oracle Identity Manager server is running.
- Examine the Oracle Identity Manager record (in the IT Resources form). Ensure that the IP address, administrator ID, and administrator password are correct.

Known Issues

The following are known issues associated with this release of the connector:

- The reconciliation module does not reconcile data containing characters that are considered as special characters by Oracle Identity Manager. This includes characters like the at sign (@) and the dash (-).
- While reconciling a date field from Oracle e-Business Employee Reconciliation to Oracle Identity Manager, the Oracle Identity Manager API does not accept a blank or null value for the date. However, Oracle e-Business Employee Reconciliation accepts a null value for the date. Therefore, the value provided in the case of null date is 0000/00/00.
- SSL functionality is not available in this release.
- Some Asian languages use multibyte character sets. If the character limit for the fields in the target system is specified in bytes, then the number of Asian-language characters that you can enter in a particular field may be less than the number of English-language characters that you can enter in the same field. The following example illustrates this limitation:

Suppose you can enter 50 characters of English in the User Last Name field of the target system. If you were using the Japanese locale and if the character limit for the target system fields were specified in bytes, then you would not be able to enter more than 25 characters in the same field.

Attribute Mappings Between Oracle Identity Manager and Oracle e-Business Employee Reconciliation

The following table discusses attribute mappings between Oracle Identity Manager and Oracle e-Business Employee Reconciliation.

Oracle Identity Manager Attribute	Oracle e-Business Employee Reconciliation Attribute	Description
First Name	PER_ALL_PEOPLE_F.FIRST_NAME	First name
Email	PER_ALL_PEOPLE_F.EMAIL_ADDRESSES	E-mail address
Person ID	PER_ALL_PEOPLE_F.PERSON_ID	Identification ID
Middle Name	PER_ALL_PEOPLE_F.MIDDLE_NAMES	Middle name
Last Name	PER_ALL_PEOPLE_F.LAST_NAME	Last name
Department	HR_ALL_ORGANIZATION_UNITS.ORGANIZATION_ID	Organization
SSN	PER_ALL_PEOPLE_F.NATIONAL_IDENTITY	Social security number
Title	PER_ALL_PEOPLE_F.TITLE	Title
Location	HR_LOCATIONS_ALL.LOCATION_CODE	Location
Manager	PER_ALL_PEOPLE_F.FULL_NAME	Supervisor's name
City	PER_ADDRESSES.TOWN_OR_CITY	City
Postal Code	PER_ADDRESSES.POSTAL_CODE	Postal code
Country	PER_ADDRESSES.COUNTRY	Country name
Telephone Number	PER_ADDRESSES.TELEPHONE_NUMBER_1	Telephone number
Employee number	PER_ALL_PEOPLE_F.EMPLOYEE_NUMBER	Assignment number
Manager ID	PER_ALL_PEOPLE_F.PERSON_ID	Identification ID for supervisor

Index

A

- additional files, 2-1, 2-2
- Administrative and User Console, 2-3
- attributes
 - employee reconciliation scheduled task, 2-6
 - lookup fields reconciliation scheduled task, 2-6
- attributes mappings, A-1

C

- changing input locale, 2-2
- clearing server cache, 2-3
- configuring
 - connector for multiple installations of the target system, 2-7
 - Oracle Identity Manager server, 2-2
 - reconciliation, 2-5
 - target system, 2-1
- connector files and directories
 - copying, 2-1
 - description, 1-2
 - destination directories, 2-1
 - installation media file, 1-2, 2-2
- connector testing, 3-1
- connector version number, determining, 1-3
- connector XML files
 - See XML files
- creating scheduled tasks, 2-5

D

- defining
 - IT resources, 2-4
 - scheduled tasks, 2-5
- deployment requirements, 2-1
- Design Console, 2-5
- determining version number of connector, 1-3

E

- employee reconciliation, 1-2
- employee reconciliation scheduled task, 2-6
- errors, 3-2
- external code files, 2-1, 2-2

F

- files
 - additional, 2-1, 2-2
 - external code, 2-1, 2-2
 - See also XML files
- files and directories of the connector
 - See connector files and directories
- functionality supported, 1-1
- functions available, 1-1

G

- globalization features, 1-2

I

- importing connector XML files, 2-3
- input locale, changing, 2-2
- issues, 4-1
- IT resources
 - defining, 2-4
 - Oracle HR, 2-4, 2-6
 - parameters, 2-4
 - types, Oracle HR, 2-4

L

- limitations, 4-1
- lookup fields reconciliation, 1-2
- lookup fields reconciliation scheduled task, 2-6

M

- mapping between attributes of target system and Oracle Identity Manager, A-1
- multilanguage support, 1-2

O

- Oracle Identity Manager Administrative and User Console, 2-3
- Oracle Identity Manager Design Console, 2-5
- Oracle Identity Manager server, configuring, 2-2

P

parameters of IT resources, 2-4
problems, 3-2
process tasks, 1-1

R

reconciliation
 configuring, 2-5
 employee, 1-2
 functions, 1-1
 lookup fields, 1-2
 module, 1-2
requirements for deploying, 2-1

S

scheduled tasks
 attributes, 2-6
 defining, 2-5
 employee reconciliation, 2-6
 lookup fields reconciliation, 2-6
server cache, clearing, 2-3
supported
 functionality, 1-1
 releases of Oracle Identity Manager, 2-1
 target systems, 2-1
supported languages, 1-2

T

target system, multiple installations, 2-7
target systems
 configuration, 2-1
 supported, 2-1
test cases, 3-1
testing the connector, 3-1
troubleshooting, 3-2
trusted source reconciliation, 2-5
trusted source reconciliation, configuring, 2-5

U

user attribute mappings, A-1

V

version number of connector, determining, 1-3

X

XML files
 copying, 2-2
 description, 1-3
 importing, 2-3