

Oracle® Applications InterConnect

Installation Guide

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Oracle Applications InterConnect Installation Guide, Release 4.0.0 for Windows NT and UNIX

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**Oracle Applications InterConnect Installation Guide, Release 4.0.0 for Windows NT and UNIX
Part No. A87478-01**

Oracle Corporation welcomes your comments and suggestions on the quality and usefulness of this publication. Your input is an important part of the information used for revision.

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If you would like a reply, please provide your name, address, and telephone number.

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Preface

This document describes how to install Oracle Applications InterConnect.

This preface discusses the following topics:

- Prerequisites
- Intended Audience
- How This Document is Organized
- Documentation and Code Conventions

Prerequisites

This document assumes that:

- You have a basic understanding of HTTP server and network concepts.
- You have reviewed the Oracle Support Services welcome letter.

Intended Audience

This document is intended for anyone who will install Oracle Applications InterConnect.

How This Document is Organized

This document is organized as follows:

- Chapter 1, "System Requirements"
This chapter describes the system requirements of Oracle Applications InterConnect.
- Chapter 2, "Installation"
This chapter describes installing Oracle Applications InterConnect.
- Chapter 3, "Starting and Stopping OAI Components"
This chapter describes starting and stopping Oracle Applications InterConnect components.

Documentation and Code Conventions

This document uses the following conventions:

Convention	Example	Meaning
All uppercase plain	PROCESSES	Indicates Structured Query Language (SQL) reserved words, keywords, and initialization parameters.
Monospace	<code>/usr/local/bin</code> <code>aca.bat</code>	Indicates directories and file names.

Convention	Example	Meaning
Italic	<i>aq_server</i> <i>initsid.ora</i> <i>http://hostname.domain</i> <i>Oracle iAS Appliance Administrator's Guide</i>	Indicates variables, including the variable portion of a file name. Italic is also used to indicate a Web site and the title of a document.
Forward slash (/) before a directory name	/usr/local/bin	Indicates a subdirectory on a UNIX platform.
Backslash (\) before a directory name	C:\WINNT\system32	Indicates a subdirectory on a Windows platform.
\$ORACLE_HOME	\$ORACLE_HOME/sysman/admin	Represents the top-level directory structure in which your Oracle software is installed on a UNIX platform.
ORACLE_HOME	ORACLE_HOME\sysman\admin	Represents the hard-drive letter and top-level directory structure in which your Oracle software is installed on a Windows platform.
HOME_NAME	OracleHOME_NAMEManagementServer	Represents the name of an Oracle home.

System Requirements

This chapter describes the following system requirements for installing Oracle Applications InterConnect:

- Overview
- Recommended Topology
- Hardware Requirements
- Software Requirements

Overview

Oracle Applications InterConnect (OAI) is a hub 'n' spoke end-to-end integration solution. This section describes:

- Components
- Dependent Products

Components

The following components can be found on the OAI (4.0.0) CD:

OAI consists of the following components:

- Adapters (for Java Applications)
- iStudio (for Java Applications)
- Repository (for Java Applications)
- Management Infrastructure (for use with Oracle Enterprise Manager)
- SDK (for writing custom OAI Adapters and Browsers)

The installation steps of the components that are platform-specific are clearly marked.

Adapters

Adapters are software modules that plug into applications to make them OAI enabled. Each adapter is a runtime component that manages the information flow between an application and OAI. You can modify an adapter to use with an application.

OAI consists of the following adapters:

- CRM 11i Adapter (for use with CRM 11i applications)
- Database Adapter (for use with PL/SQL database applications)
- HTTP Adapter (for use with Web-based applications)
- SAP Adapter (for use with SAP applications)
- XML AQ Adapter (for use with applications that use AQ and XML messages)

iStudio

You can use *iStudio* to specify and configure an integration. It is a wizard-based tool that enables you to model hierarchical data that represent business objects you are integrating between applications. You can use *iStudio* to specify data transformations. It supports publish/subscribe, request/reply, and point-to-point messaging.

Repository

The repository stores metadata generated by *iStudio*, including all the integration information.

Management Infrastructure

The OAI Management Infrastructure is an extension of the Oracle Management Server (part of Oracle Enterprise Manger.)

SDK

You can use the optional SDK component to create new adapters and *iStudio* browsers instead of using the ones that come bundled with OAI.

Dependent Products

OAI has the following dependent products:

- Oracle Internet Directory (OID) 2.0.6 - for use with Oracle8i 2 (8.1.6)
or
OID 2.1.1 - for use with Oracle8i 3 (8.1.7)
- an Oracle database - 8.1.6 or 8.1.7
- Oracle Message Broker (OMB) 2.0.0.1 - for use with Oracle8i Release 2 (8.1.6)
or
OMB 2.0.1.0 - for use with Oracle8i Release 3 (8.1.7)

For OAI 4.0.0 releases on HP, IBM, and Compaq: only OID 2.1.1, Oracle database 8.1.7, and OMB 2.0.1.0 are supported.

Recommended Topology

There is no restriction on where each of the components reside. For example, all the components can reside on one machine or each component can reside on its own dedicated machine.

Oracle Corporation recommends the following topology:

- Put OID, OMB, and the database on the hub machine. The platform can be either Windows NT or UNIX.
- Put the adapters on the same machines as the applications they connect to, provided they are hosted on a platform that supports OAI.

If the adapters are not on the same machines as the applications, assign one spoke machine per application. (You can have one spoke machine for all applications if it meets your throughput needs). The platform can be Windows NT or UNIX except for the SAP adapter, which is Windows NT only.

- Assign one machine for iStudio (or you can use any machine assigned to OID, OMB, the database, or the adapters). The platform must be Windows NT only.

Hardware Requirements

Do not run an install on a UNIX computer using Exceed on a remote machine. This can cause problems during install.

Table 1-1 lists the hardware requirements for the hub computer (for OMB, OID, the repository, and the database).

Table 1-1 *Hardware Requirements for the Hub Computer*

Hardware	Windows NT	UNIX
Memory	500 MB	500 MB
Service Pack	4.0 Service Pack 3 or later	n/a
Disk Space	10 GB	10 GB
CD-ROM Device	A CD-ROM drive to install OAI, or the ability to access a CD_ROM device over the network	A CD-ROM drive to install OAI, or the ability to access a CD_ROM device over the network

Table 1-2 lists the hardware requirements for the spoke computer (for adapters).

Table 1–2 Hardware Requirements for the Spoke Computer

Hardware	Windows NT	UNIX
Memory	128 MB	128 MB
Service Pack	4.0 Service Pack 3 or later	n/a
Disk Space	500 MB	500 MB

The SAP Adapter can only run on a Windows NT computer.

Table 1–3 lists the hardware requirements for the *iStudio* computer.

Table 1–3 Hardware Requirements for the *iStudio* Computer

Hardware	Windows NT	UNIX
Memory	128 MB	n/a
Service Pack	4.0 Service Pack 3 or later	n/a
Disk Space	500 MB	n/a

Software Requirements

This section describes:

- Operating System Requirements
- JRE Requirements for UNIX

Operating System Requirements

Table 1–4 lists the software requirements for the hub computer (for OMB, OID, the repository, and the database), the spoke computer (for adapters), and for *iStudio*.

Table 1–4 Operating System Requirements

Operating System	Platform	Version
Windows NT	Any	a version that supports at least 400 MHz
UNIX	AIX-Based Systems	version 4.3.2

Operating System	Platform	Version
UNIX	Compaq Tru64 UNIX	version 4.0D
UNIX	HP 9000 Series HP-UX	version 11.0
UNIX	Sun SPARC Solaris	version 2.6

JRE Requirements for UNIX

OAI runs on JRE 1.1.8. You do not need to install JRE or JDK 1.1.8 prior to installing OAI. The OAI installation bundles JRE 1.1.8 with it and installs it. The following is information on the Solaris patch required for the Java programs. (This information is also available on the JDK 1.1.8_10 for UNIX/SPARC README file.)

Solaris Patches

Table 1–5 describes the required patches for Solaris 2.5.1, Solaris 2.6, or Solaris 7. You can download the patches from <http://www.sun.com/solaris/java> or obtain them from your service provider. The two-digit number following the dash in each patch number is the revision of the patch. The table lists minimum revisions that this release was tested with; later revisions are acceptable.

Table 1–5 Solaris Patches

Solaris Version	Patch ID	Patch Number	Description
2.5.1	5.5.1	103566-43	Required on X11/Open Windows
2.5.1	5.5.1	103640-28	Required on Kernel
2.5.1	5.5.1	103627-10	Recommended for Linker
2.6	5.6	106040-11	Required for X Input & Output Method
2.6	5.6	105181-15	Recommended for Kernel Update (socket close/hang)
2.6	5.6	105284-25	Recommended for Motif Runtime Library
2.6	5.6	105490-07	Recommended for Dynamic Linker Patch (0.5)
2.6	5.6	106409-01	Recommended for Chinese TrueType Fonts Patch*

Solaris Version	Patch ID	Patch Number	Description
2.6	5.6	105633-30	Recommended for OpenWindows 3.6: Xsun Patch*
2.6	5.6	105568-13	Recommended for Libthread
2.6	5.6	105210-19	Recommended for LibC
2.6	5.6	105669-07	Recommended for CDE 1.2: libDTSvc (dtmail)
7	5.7	107636-01	Required for X Input & Output Method
7	5.7	106980-05	Recommended for Libthread
7	5.7	107607-01	Recommended for motif fontlist fontset libxm
7	5.7	107078-10	Recommended for OpenWindows 3.6.1 Xsun Patch*

* - recommended for locations that use traditional Chinese characters. You can also install the latest patch cluster for your version of Solaris, which includes additional recommended and security patches. Solaris patch clusters are available for downloading on the Web; follow the links starting at <http://sunsolve.sun.com>.

Installing Solaris Patches

Use the `showrev -p` command to list the patches installed on your system. If the recommended patches are not already installed, perform the following steps:

1. Extract the patch tar file that matches your version of Solaris:

For Solaris 2.5.1, enter:

```
$ tar xvf 1.1.8_10_patches_sparc_5.5.1.tar
```

For Solaris 2.6, enter:

```
$ tar xvf 1.1.8_10_patches_sparc_5.6.tar
```

For Solaris 7, enter:

```
$ tar xvf 1.1.8_10_patches_sparc_5.7.tar
```

This creates patch archives with names like `patch_id.tar.Z`.

2. Uncompress and extract each of the patch archives that you want to install by entering:

```
$ zcat patch_id.tar.Z | tar -xvf
```

A directory with a name like *patch_id* is created for each patch. General instructions for patch installation are included in the `Install.info` file in the top-level directory of each patch. Special installation instructions or post-installation requirements (such as a system reboot) appear in the `README` file included with each patch. The `README` file also lists IDs fixed and files changed by the patch.

3. Log in to the system console as `root`.
4. Oracle Corporation recommends that you place the system in single-user mode by entering:

```
# shutdown
```

5. Read the `Install.info` and `README` files for each patch.

On Solaris 2.5.1, enter the following for each patch:

```
# cd path/patch_id  
# ./installpatch .
```

where *path* is the path to the directory where the path was extracted.

6. On Solaris 2.6 or Solaris 7, enter the following:

```
# patchadd -M path patch_id patch_id ...
```

where *path* is the path to the directory where the path was extracted.

7. Shutdown and reboot by entering:

```
# shutdown -i6
```

Installation

This chapter describes the following steps to install Oracle Applications InterConnect:

- Overview of OAI
- Installing OID
- Installing OMB
- Using the Repository
- Using iStudio
- Creating or Installing Integration Metadata
- Creating JMS Queues and Topics under OMB
- Overview of Adapters
- Using the CRM 11i Adapter
- Using the Database Adapter
- Using the HTTP Adapter
- Using the SAP Adapter
- Using the XML AQ Adapter
- Modifying Adapters
- Installing the Management Infrastructure
- Installing the SDK (Optional)

Overview of OAI

To install Oracle Applications Interconnect (OAI) and its dependent components, install the products in the following order:

1. Oracle Internet Directory (OID) 2.0.6 or 2.1.1. (Installing OID also automatically installs database 8.1.6 or 8.1.7.)
2. Oracle Message Broker (OMB) 2.0.0.1 or 2.0.1.0
3. Repository
4. iStudio
5. Adapters
6. OAI Management Infrastructure

Important: Be sure to install the products in the order listed. Do not attempt to install two products at the same time.

Installing OID

Perform one of the following steps to install OID:

- Install OID 2.0.6 if you will be using Oracle8i, release 8.1.6.
or
- Install OID 2.1.1 if you will be using Oracle8i, release 8.1.7.

For information about installing OID 2.0.6, see the Oracle8i Release 2 (8.1.6) Installation Guide for you UNIX platform. For information about installing OID 2.1.1, see the Oracle8i Release 3 (8.1.7) Installation Guide for you UNIX platform.

Installing OID installs the database for you. Even though the installation allows you to use an already installed database instance, do not install OID on top of a pre-installed database.

Performing an OID Post-Installation

1. Bring up the `oidadmin` tool (located in `$ORACLE_HOME/bin`).
The login window appears.
2. Enter the following:

Field	Value
Username	cn=orcladmin
Password	welcome
Server	Computer name where OID is installed
Port	Port that OID uses. Use the default. Do not change the value.
SSL Enabled	Do not select

3. Select `login`.
The Login window appears.
4. Expand `Access Control Manager`.
Select `Default ACP`.
The Details window appears.
5. Select the entry under the `Structural Access Item list`.
Select `edit`.
A dialog window appears.
6. Select the `Access Rights` tab.
Select `Grant permission for all items`.
Select `OK`.
7. Repeat the Steps 5 and 6 for the `Content Access Item list`.
8. Select `Apply`.
9. Exit the `oidadmin` tool.

How OAI Utilizes OID

All OAI components (Repository, Adapters, iStudio, and Management Infrastructure) and OMB communicate to each other using CORBA. OID provides the location service for the components to find each other. The components use OID for storing and accessing CORBA object references.

Both the repository and OMB store their CORBA object references (IOR) in OID in a predefined place (configured through OAI and OMB installations). The adapters

look up OID in the same predefined place to access both OMB and repository connection information. The *iStudio* product looks up OID to access repository connection information.

Installing OMB

Perform one of the following sections to install OMB:

- Installing OMB 2.0.0.1 (if you will be using Oracle8i, release 8.1.6)
or
- Installing OMB 2.0.1.0 (if you will be using Oracle8i, release 8.1.7)

Installing OMB 2.0.0.1

Perform the following steps to install OMB 2.0.0.1:

1. Make sure that the following conditions exist:
 - The database is stopped.
 - The TNS listener is stopped.
 - The OID Monitor process is stopped.
 - The OID LDAP process is stopped.
2. Select OMB 2.0.0.1.1a (using JDK 1.1.8).
3. Follow the instructions in *Oracle Message Broker 2.0.0.1 Installation Guide*.

Installing OMB 2.0.1.0

Perform the following steps to install OMB 2.0.1.0:

1. Make sure that the following conditions exist:
 - The database is stopped.
 - The TNS listener is stopped.
 - The OID Monitor process is stopped.
 - The OID LDAP process is stopped.
2. Locate OMB in the install program.

3. Go to the Available Products window of the Oracle Universal Installer program.
4. Select Oracle 8i Management and Integration 8.1.7.
5. Select the Custom installation type.
Do not select Oracle Integration Server even though it lists OMB as one of its components.
A product hierarchy (starting with Oracle 8i Management and Integration) appears.
6. Deselect all elements immediately under this node except for Oracle integration Server 8.1.7.
Deselect Oracle Workflow and Oracle Partitioning before you deselect Oracle8i Server. Otherwise, you will not be able to deselect Oracle8i Server.
7. Expand the Oracle Integration Server 8.1.7 subtree.
8. Deselect everything in this subtree.
9. Select Oracle Message Broker 2.0.1.0.1a.
The Advanced Security feature is selected automatically when OMB is selected.
10. Follow the instructions in *Oracle Message Broker 2.0.1.0 Installation Guide*.

Installing OMB for OAI

If you are installing OMB specifically for OAI, perform the following steps:

1. Bring up the Suffix window.
2. Enter the following values:

Field	Value
Directory Suffix	For OID, leave blank (the default). For Netscape LDAP server, enter o= <i>domain.com</i> (the default).
Country Code	Enter a two- to eight-letter acronym for the country where you are installing OMB. Do not use spaces between letters.

Field	Value
Organization	Enter a two- to eight-letter acronym for the organization on which you are installing OMB. Do not use spaces between letters.
Organizational Unit Name	Enter a two- to eight-letter acronym for the organizational unit (subdivision of the organization) on which you are installing OMB. Do not use spaces between letters.

3. Write down the values of the `Directory Suffix`, `Country Code`, `Organization`, and `Organizational Unit Name`. You will need them later in the OAI installation.
4. Select `Next`.
5. Bring up the LDAP Information window.
6. Enter the following values:

Field	Value
Ldap Port	The port number on which OID is running. If you did not modify the port on OID, use the default value.
Ldap Server	The computer name on which OID is installed. (This is not the DHCP name. The default is the host name determined by the installer. If the default is a DHCP name, change it to the computer name.)

7. Write down the values of the `Ldap Port` and `Ldap Server`. You will need them later in the OAI installation.
8. Select `Next`.
9. If the Authentication Methods window appears, select `Next`.
The Summary window appears.
10. Select `Next`.

Performing Post-Installation Steps for OMB on OAI

Perform the following post-installation steps:

1. Make sure that OID and the TNS listener are started.

For more information about the TNS listener, see the *OMB Installation Guide*.

2. If you installed OMB for OAI, specify the following values during post-installation:

Step	Value
Directory Configuration	<p>Enter the following on the command line for the Update the directory schema using the LDAP Schema command step:</p> <pre>-h <i>oid_hostname</i> -p <i>oid_port</i> -noauth</pre>
Directory Configuration	<p>Enter the following on the command line for the Modify the directory for OMB suffix with the InitDir command step:</p> <pre>-h <i>oid_hostname</i> -p <i>oid_port</i> -noauth -c <i>country_code</i> -o <i>organization</i> -ou <i>organizational_unit</i></pre>
Oracle Advanced Queueing Configuration	<p>Use the following values in the Configure database parameters step:</p> <pre>AQ_TM_PROCESSES = 1 OPEN_CURSORS = 100 PROCESSES = 100 SESSIONS = 120 TRANSACTIONS = 120</pre>

Do not perform any other optional steps—MQSeries, TIBCO, Async Component Invocation, or AQLite.

3. Run the `ombenv` script.
This file is supplied by OMB. For information about `ombenv`, see the *OMB Installation Guide*.
4. Start `ombadmin` tool.
For information about `ombadmin`, see the *OMB Administration Guide*.
The login window appears.
Do not modify any fields in the login window.
5. Select `connect`.
The main window appears.
6. Go to the `tools` menu.

Select `OMB Instance Configuration Wizard`.

The `Welcome` window appears.

7. Select `Next`.

The `Create a new or select an existing OMB instance` window appears.

8. Select `create a new OMB instance`.

9. Select `Next`.

The `Create a new OMB instance` window appears.

10. Enter the following:

Field	Value
<code>OMB Instance Name</code>	Enter a lowercase, four- to eight-letter OMB instance name. Do not use spaces between letters.

11. Write down the value of the `OMB Instance Name`. You will need it later in the OAI installation.

12. Select `Next`.

The `Create Message Broker` window appears.

13. Enter the following:

Field	Value
<code>Maximum Memory</code>	100

14. Select `Next`.

The `Select Servers and Drivers to Add` window appears.

15. Select `AQ Server`, `AQ Driver`, `Connection Factory for AQ`.

16. Select `Next`.

The `Create an Oracle AQ Server` window appears.

17. Enter the following:

Field	Value
AQ Server Name	aq_server
AQ Queue Service Name	The TNS service name for the AQ database. (If the database is the OID database and OMB is installed in the same \$ORACLE_HOME as OID, the default service name is OIDDDB1.)
AQ User Name	aq
AQ Password	aq

The Create an Oracle AQ Driver 1 of 2 window appears.

18. Select *Next*.

Do not modify the entries.

The Create an Oracle AQ Driver 2 of 2 window appears.

19. Enter the following:

Field	Value
Use JDBC	false

Do not modify any other entries.

20. Select *Next*.

The Create an Oracle ASQ Connection Factory window appears.

21. Enter *aqCF*.

22. Select *finish*.

Starting OMB

Perform one of the following steps to start OMB.

- Enter the following on UNIX:

```
MsgBroker -start -omb cn=msg_broker,cn=omb_instance_name,cn=omb -heap 100
-noauth &
```

- Enter the following on Windows NT:

```
MsgBroker -start -omb "cn=msg_broker,cn=omb_instance_name,cn=omb" -heap 100  
-noauth
```

How OAI Utilizes OMB

OMB is the store and forward unit for messages. It acts as the messaging hub in the OAI hub 'n' spoke architecture. OAI adapters use the Java Message Service (JMS), provided by OMB, for sending and receiving messages. For more information, see the *OMB User Guide*.

Installing OAI Components

Perform the following steps to install OAI components:

1. Insert the CD-ROM in your CD-ROM drive.
2. Double-click on `setup.exe` on Windows NT

or

Run `Installer` on UNIX.

The Welcome window appears.

3. Select `Next`.

The File Locations window appears.

4. Enter the following:

Field	Value
Source	The default value appears. Do not change it.
Destination	Select an existing Oracle home name and directory path. (If you do not have an existing Oracle home on the computer, install Oracle 8.1.6 client or Oracle 8.1.7 client.)

5. Select `Next`.

Using the Repository

This section describes the following:

- Overview of the Repository Architecture
- Installing the Repository

- Performing a Repository Post-Installation

Overview of the Repository Architecture

The repository architecture consists of the following components:

- A Java API layer sitting outside the database as a standalone Java application (referred to in the install program and in this document as the repository).
- A database with the repository schema that the Java API layer communicates with using JDBC to store and retrieve metadata (referred to in the install program and in this document as the repository database).

The OAI components communicate to the Java layer and not directly to the database.

The database instance used for the repository is typically the same one used by OMB and OID. You do not need a separate physical database or another instance for the repository. The repository post-installation steps create the user and all its schema is contained within the user in the database.

The repository is used to store integration information as metadata. The iStudio product connects to the repository at design time and pushes the modeled mapping information into the repository. At runtime, the adapters access the repository and use the metadata as runtime instructions for performing transformations and other functions.

The following sections describe:

- Installing Multiple Repositories on One Computer
- Using the Same Database for Multiple Repositories
- Making Sure a Repository is Installed and Started Properly
- Correcting a Repository that did not Start Properly

Installing Multiple Repositories on One Computer

The installer does not allow you to install more than one repository per Oracle Home (it will deinstall the first repository and then install the second one.) However, you can have multiple Oracle Homes on a computer and have one repository per Oracle Home. (You can create an Oracle Home by installing the Oracle 8i client in different locations.) When you install the repository the second time, choose a different Oracle Home than the one where you first installed the repository.

Using the Same Database for Multiple Repositories

To use the same database for multiple repositories, make sure you use different user names when the installation asks for the repository user name.

Making Sure a Repository is Installed and Started Properly

To tell if the repository is installed or started properly, start the repository and view the `reposlog.txt` file in your repository directory. If you do not see any Exceptions in this file, the repository has been started properly.

Correcting a Repository that did not Start Properly

Inspect the Exceptions you see in the repository log file. The most common cause of startup problems with the repository is that it is unable to talk to OID. When the OAI repository is started, it writes its location identifying information in OID so that iStudio (and the other OAI components) can find it. The following are common reasons that the repository is unable to connect to OID:

OID is not installed or started properly. Make sure OID is started and that there are no errors starting OID. See the OID documentation for problems starting OID. If you want to use the OAI design time without OID, you can ignore the OID/LDAP Exceptions you see in the repository log file. If you see no other Exceptions, the repository has been started properly. Restart the repository after fixing problems with OID.

Repository was not configured properly when installed. This indicates a wrong OID host, port, or organization information. The OID host should be the computer where OID is installed. If you are using the default port, the port should be 389. The organizational information should be the same information that you used when you installed OMB. If you are unsure what the organizational information is, use `oidadmin` to view what is under Entry Management. To fix organizational information, reinstall the repository so that it points to the correct OID.

OMB post installation steps were not completed successfully. The OMB post-installation steps manually create base entries in OID. Run the OMB `InitDir` post-installation command by entering:

```
InitDir -c country -o organization -ou organizational unit
```

For information about the `InitDir` command, see the *OMB Installation Guide*.

Use the `oidadmin` tool provided by OID command. The following message appears under Entry Management (bottom up):

```
ou=organizational_unit,o=organization,c=country
```

After starting the repository successfully, the following message appears:

```
cn=IORS,cn=Repository,cn=OAI,cn=Products,cn=OracleContext,ou=organizational  
unit,o=organization,c=country
```

Repository does not have proper permissions in OID. A message similar to the following appears in the repository log file:

```
javax.naming.NoPermissionException: [LDAP: Insufficient Access Rights]
```

This indicates that you have not run the OAI post-installation steps for OID (see "Performing an OID Post-Installation", on page 2-2). Run these steps and then restart the repository.

An SQL Exception is in the repository log file. A SQL Exception indicates that the repository is unable to communicate to its database schema properly. Perform the following steps:

1. Verify that the database and database listener are started properly. The database and listener should be started before the repository is started. See the database documentation for instructions for starting the database and listener and for problems starting the database. To verify that it is running properly, try connecting to your database using SQL*Plus. For example, enter:

```
sqlplus system/manager@database_TNS_service_name
```

After you start the database and listener properly, the repository automatically reconnects to the database so you do not need to restart the repository.

2. Verify that the database user was created properly. The user is created as part of the repository post-installation steps. To verify this, read the user name and password entries in the repository's initialization file (the `.ini` repository in your repository directory) then try connecting to your database with this connection information using SQL*Plus. For example, enter:

```
sqlplus username/password@database_TNS_service_name
```

If the database user was not created properly, an error message similar to the following appears:

```
ORA-01017: invalid username/password; logon denied
```

3. Run the repository post-installation steps.

The repository automatically reconnects to the database so you do not need to restart the repository.

4. Check to see if there is a problem with the communication between the repository and its database (for example, network problems). After these problems are resolved, the repository automatically reconnects to the database so you do not need to restart the repository.

Installing the Repository

Perform the following steps to install the repository:

1. Bring up the Available Products window.
2. Select `OAI Repository 4.0.0`.
3. Select `Next`.

The Welcome to the Repository Installation window appears.

4. Select `Next`.

The LDAP Server Location window appears.

5. Enter the following:

Field	Value
<code>Host Name</code>	The computer on which OID is installed. If you follow the recommended topology, the host name is the hub computer.
<code>Port Number</code>	The value you wrote down when you installed OMB. (See Step 6 of "Installing OMB for OAI" on page 2-6. The default value is 389.

The LDAP Server Suffix Information window appears.

6. Enter the following:

Field	Value
<code>Country</code>	The value you wrote down when you installed OMB. (See Step 2 of "Installing OMB for OAI" on page 2-5.
<code>Organization</code>	The value you wrote down when you installed OMB. (See Step 2 of "Installing OMB for OAI" on page 2-5.

Field	Value
Organizational Unit	The value you wrote down when you installed OMB. (See Step 2 of "Installing OMB for OAI" on page 2-5.

The repository component uses `Country`, `Organization`, and `Organizational Unit` to locate the OID instance in the hub to find the repository's CORBA identification information (IOR) from OID. With this information, `iStudio` and the adapters can connect to the repository.

7. Select `Next`.

The Repository Configuration window appears.

8. Enter the following:

Field	Value
Name	The repository name, which is not more than 10 characters, does not have white space, and is not the same as any other repository name on the computer. The install program creates a directory of the repository information on the file system of the computer. The repository is the Java API layer, not the database. See "Using <code>iStudio</code> ", on page 2-17 for more information.
Host Name	The name of the computer on which you are running the installer.
Metadata Owner	A two- to four-letter acronym of the company name on which the metadata is installed. This entry is used for strict metadata versioning. Metadata built by one owner cannot be modified by another. For more information about metadata versioning, see the user guide.

9. Write down the values of the `Name` and `Host Name`. You will need them for installing adapters.

The Repository Database Configuration window appears.

10. Enter the following information about the database that connects to the repository Java program:

Field	Value
Host Name	The computer name on which the database is installed.

Field	Value
Listener Port Number	The default (1521) unless you explicitly changed the database port number when you installed the database.
SID	The system identifier (SID) for the database. If the database is the one that was installed during the OID installation, the SID is OIddb1 by default.

The Database User Configuration window appears.

11. Enter the following:

Field	Value
Repository User Name	The default name or a name that does not conflict with existing user names in the database. This user name will be created in the database during the repository post-installation steps to store the repository schema.
Repository Password	The password for the repository user name.
Confirm Password	Enter the password again.
Tablespace	The tablespace the repository schema will use. You can use the default (USERS) or enter a different tablespace.

12. Select Next.

The Summary window appears.

13. Select Next.

On Windows NT, the repository is installed at
`$ORACLE_HOME\oai\4.0\repository\your_repository_name.`

On UNIX, the repository is installed at
`$ORACLE_HOME/oai/4.0/repository/your_repository_name.`

Performing a Repository Post-Installation

After the installation is complete, the installer gives you a set of post-installation steps. These steps are also copied to `post_installation.txt` in the repository's directory. Execute the following steps to create the repository's schema:

1. Go to the directory in which the repository is installed.
2. Locate the `repo1.sql` and `repo2.sql` scripts.

3. Use SQL*Plus to connect to the database to which the repository will connect.
4. Connect as the system user. (The default password is `manager`. You changed this after installing the database.)
5. Enter `@repo1.sql` on the SQL*Plus command line to run the `repo1.sql` script.
6. Connect to the database as the repository database user that you specified while installing the repository.
7. Enter `@repo2.sql` on the SQL*Plus command line to run the `repo2.sql` script.
8. Exit SQL*Plus.

Using iStudio

This section describes the following:

- Installing iStudio
- Connecting iStudio to the Repository

Installing iStudio

Perform the following steps to install iStudio:

1. Bring up the Available Products window.
2. Select OAI iStudio 4.0.0
3. Select `Next`.

The Welcome to the iStudio Installation window appears.

4. Select `Next`.

The LDAP Server Location window appears.

5. Enter the following:

Field	Value
Host Name	The computer on which OID is installed. If you follow the recommended topology, the host name is the hub computer.

Field	Value
Port Number	The value you wrote down when you installed OMB. (See Step 6 of "Installing OMB for OAI" on page 2-6. The default value is 389.

The LDAP Server Suffix Information window appears.

6. Enter the following:

Field	Value
Country	The value you wrote down when you installed OMB. (See Step 2 of "Installing OMB for OAI" on page 2-5.
Organization	The value you wrote down when you installed OMB. (See Step 2 of "Installing OMB for OAI" on page 2-5.
Organizational Unit	The value you wrote down when you installed OMB. (See Step 2 of "Installing OMB for OAI" on page 2-5.

The iStudio component uses Country, Organization, and Organizational Unit to locate the OID instance in the hub to find the repository's CORBA identification information (IOR) from OID. With this information, iStudio can connect to the repository.

7. Select Next.

The Summary window appears.

8. Select Next.

The iStudio component is installed at `$ORACLE_HOME\oai\4.0\istudio`.

Connecting iStudio to the Repository

This section describes the following:

- Connecting iStudio to the Repository for a Project
- Connecting iStudio to the Repository Without a Working OID

Connecting iStudio to the Repository for a Project

If you are not able to connect to the repository when you open or create a project, perform the following steps:

1. Verify that the repository was started properly before opening or creating your project.
2. Make sure that you provided the same LDAP parameters (`host`, `port`, `country`, `organization`, `organizational unit`) when you installed *iStudio* as you did when you installed the repository. If you did not, reinstall either the repository or *iStudio* to make them match.
3. Verify that you are trying to connect to the repository with the correct repository name and repository host. These should be the same values you entered when you installed the repository. (You can view the `RepoName` and `RepoHostName` parameters in the `repository.ini` file in your repository's directory.)
4. Inspect the error you see in *iStudio* (either a pop-up dialog box with the error or an error on the *iStudio* console). It may indicate what is not working; for example, the network is down. If it is a SQL Exception, this indicates that the repository is having trouble communicating to its database.

Connecting *iStudio* to the Repository Without a Working OID

If you need to bring up *iStudio* (and do not need to use the OAI runtime), after *iStudio* fails to find the repository entry in OID (or fails to connect to OID), it asks if you want to read the repository's IOR (its location identifying information) from a file. Open the IOR file (FTP the file from the repository computer if *iStudio* and the repository are on different computers). The *iStudio* product connects to the repository bypassing OID. However, if you do not install OID or fix the problems with OID, the adapters will not be able to connect to the repository and the OAI runtime will not work.

Creating or Installing Integration Metadata

All integration logic is captured in metadata modeled through *iStudio*. Perform the following steps to create or install integration metadata:

1. Use pre-packaged metadata.

or

Use *iStudio* to create metadata from scratch.

Oracle has pre-packaged metadata packs for certain applications. These metadata packs come with their own installation instructions. For example, if you are integrating Oracle Internet Procurement with SAP, see the *Implementation Guide for Oracle Internet Procurement InterConnect for SAP R/3*.

If there is no pre-packaged metadata for your application, create the metadata using *iStudio*. (For information about using *iStudio* to create metadata, see the *iStudio User Guide*.)

2. Write down the values of the application names you see on the left side of the main navigation window under `Applications`. You will need the names when you install the adapters.
3. Provide information (if it has not been provided already) on which queues and topics the applications will receive messages from the hub.

The `single consumer queue` field lists queues. The `multi consumer queue` field lists topics.

4. Write down the values of the queues and topics. You will need the names when you install the adapters.

Creating JMS Queues and Topics under OMB

Perform the following steps to create JMS queues and topics under OMB:

1. Run the `ombenv` script.

This file is supplied by OMB. For information about `ombenv`, see the *OMB Installation Guide*.

2. Start the `ombadmin` tool.

For more information, see the *OMB Administration Guide*.

3. Go to the `Tool` menu.
4. Select the `Queue or Topic` wizard.

The `single consumer queue` field lists queues. The `multi consumer queue` field lists topics.

5. For each queue or topic, go through the wizard and create it.

Queue Wizard

Perform the following steps to create the queue wizard:

1. Bring up the `Welcome` window.
2. Select `Next`.

The `Use an Existing OMB Instance` window appears.

3. Select the instance of OMB you are using. This is the same OMB instance you created using the ombadmin tool.
4. Select Next.
The Use an Existing Server window appears.
5. Select aq_server.
6. Select Next.
The Create an Oracle AQ Queue window appears.
7. Enter the following:

Field	Value
Queue Name	The queue name that matches the single consumer queue name specified in the iStudio Message Capability Matrix. (See Step 3 of "Creating or Installing Integration Metadata" on page 2-20.)
Provider Queue Name	Leave blank
AQ ADT	Select raw
AQ Schema	Enter aq

8. Select Next.
The Successful Queue Creation window appears.
9. Select finish if you are done with all queues
or
Select Next to create another queue.

Topic Wizard

Perform the following steps to create the queue wizard:

1. Bring up the Welcome window.
2. Select Next.
The Use an Existing OMB Instance window appears.
3. Select the instance of OMB you are using. This is the same OMB instance you created using the ombadmin tool.

4. Select `Next`.

The `Use an Existing Server` window appears.

5. Select `aq_server`.

6. Select `Next`.

The `Create an Oracle AQ Queue Topic 1 of 2` window appears.

7. Enter the following:

Field	Value
Topic Name	The topic name that matches the single consumer queue name specified in the <i>iStudio Message Capability Matrix</i> . (See Step 3 of "Creating or Installing Integration Metadata" on page 2-20.)
Provider Topic Name	Leave blank
AQ ADT	Select <code>raw</code>
AQ Schema	Enter <code>aq</code>

8. Select `Next`.

The `Create an Oracle AQ Topic 2 of 2` window appears.

9. Select `not assigned`.

10. Select `Next`.

The `Successful Topic Creation` window appears.

11. Select `finish` if you are done with all topics

or

Select `Next` to create another topic.

Overview of Adapters

This section describes the following:

- Description of Adapters
- Using Protocols
- Using the Application Parameter

Description of Adapters

The following adapters are packaged with OAI:

Adapter	Description
CRM 11i Adapter	An XML AQ adapter for Oracle CRM 11i applications (Oracle 8.1.6 or later).
Database Adapter	An Oracle database adapter for a non-AQ based integration.
HTTP Adapter	An XML AQ adapter that has additions for communicating with remote web applications.
SAP Adapter	An adaptor that uses RFC to connect to SAP. You can make BAPI invocations into SAP and send both inbound and outbound IDocs.
XML AQ Adapter	An adapter that picks up XML messages from an AQ or put XML messages in an AQ. Used by Oracle iProcurement to integrate to third-party applications. Used by applications to send or receive XML messages using Oracle AQs. Does not have iProcurement features. Works with Oracle 8.1.5 and later.

Using Protocols

Adapters are components that are attached to applications to OAI enable them. The adapters differ from each other because of how they communicate with an application. For example, the SAP Adapter utilizes the SAP Remote Function Call (RFC) proprietary protocol to talk to SAP, but The XML AQ Adapter picks (and puts) XML messages in AQs.

Using the Application Parameter

Adapters do not have integration logic. The adapter has a generic transformation engine that processes metadata from the repository as runtime instructions to do transformations. The application defines for a adapter what its capabilities are. For example, it can define what messages it can publish, what messages it can subscribe to, and what are the transformations to perform. The application parameter allows the adapter to become smart in the context of the application to which it is connected. It allows the adapter to retrieve from the repository only that metadata that is relevant to the application. The application parameter must match the corresponding application that will be defined in iStudio under the Applications folder.

If you are using pre-packaged metadata, after importing the pre-packaged metadata into the repository, start up *iStudio* to find the corresponding application (under the `Applications` folder in *iStudio*) to use as the application for the adapter you are installing (unless the pack you are using provides directions for what the application should be.)

Using the CRM 11*i* Adapter

This section describes the following:

- Installing the CRM 11i Adapter
- Modifying the CRM 11i Adapter

Installing the CRM 11*i* Adapter

Perform the following steps to install the CRM 11*i* Adapter:

1. Bring up the Available Products window.
2. Select `OAI CRM 11i Adapter 4.0.0`.
3. Select `Next`.

The Welcome to the CRM 11*i* Adapter Installation window appears.

4. Select `Next`.

The Adapter Information window appears.

5. Enter the following:

Field	Value
Application	The application you defined in <i>iStudio</i> . (See "Editing the adapter.ini Parameter" on page 2-23).
Partition	Leave blank

6. Select `Next`.

The LDAP Server Location window appears.

7. Enter the following:

Field	Value
Host Name	The computer on which OID is installed. If you follow the recommended topology, the host name is the hub computer.
Port Number	The value you wrote down when you installed OMB. (See Step 6 of "Installing OMB for OAI" on page 2-6. The default value is 389.)

The LDAP Server Suffix Information window appears.

8. Enter the following:

Field	Value
Country	The value you wrote down when you installed OMB. (See Step 2 of "Installing OMB for OAI" on page 2-5.)
Organization	The value you wrote down when you installed OMB. (See Step 2 of "Installing OMB for OAI" on page 2-5.)
Organizational Unit	The value you wrote down when you installed OMB. (See Step 2 of "Installing OMB for OAI" on page 2-5.)

The adapter uses Country, Organization, and Organizational Unit to locate the OID instance in the hub to find the repository and OMB CORBA identification information (IOR) from OID. With this information, the adapter can connect to the repository and to OMB.

The Adapter Repository Configuration window appears.

9. Enter the following:

Field	Value
Repository Name	The value you wrote down when you installed the repository. (See Step 8 of "Installing the Repository" on page 2-5.)
Repository Host	The value you wrote down when you installed the repository. (See Step 8 of "Installing the Repository" on page 2-5.)

10. Select Next.

The Adapter OMB Configuration window appears.

11. Enter the following:

Field	Value
OMB Instance Name	The value you wrote down previously. (See Step 10 of "Performing Post-Installation Steps for OMB on OAI" on page 2-8.)
OMB Version	Select 2.0.0.1 if you are using OMB 2.0.0.1 (with Oracle 8.1.6). Select 2.0.1.0 if you are using OMB 2.0.1.0 (with Oracle 8.1.7).

12. Select Next.

The AQ Database Configuration window appears.

13. Enter the following:

Field	Value
Database	Select Oracle 8.1.5 if your application database is Oracle 8.1.5. Select Oracle 8.1.6 or higher if your application database is Oracle 8.1.6 or Oracle 8.1.7.
Host Name	The computer name on which the database is installed
Listener Port Number	The database TNS listener port
SID	The SID for the application database

The information on the AQ Database Configuration window is the AQ database on the application side from which the adapter will put or get XML messages. This is not the information for the hub database.

The AQ Database User Configuration window appears.

14. Enter the following:

Field	Value
User Name	The name the adapter uses to connect to the database
Password	The password for the user name

Field	Value
Confirm Password	Enter the password again
Consumer Name	<p>If the AQs that the adapter will connect to on the application database side are single consumer queues, leave this field blank. However, if any of the AQs are multi-consumer queues, specify a consumer name.</p> <p>The application that writes to the AQ uses a consumer name to indicate that OAI should pick up a message. Use one of the following methods to determine the consumer name you should use:</p> <ul style="list-style-type: none"> ■ If the code that will write the message to the AQ is already written, look at the code or the documentation that comes with it to determine the consumer name. For example, for <i>iProcurement to SAP</i> integration, the consumer name can be found in the <i>iProcurement to SAP</i> documentation. ■ If the code that will write the message to the AQ is not written, enter a string as the consumer name. When the code is built, ensure that the consumer names match.

The Summary window appears.

15. Select Next.

On Windows NT, the CRM 11i Adapter is installed on

`$ORACLE_HOME\oai\4.0\adapters\Application Partition..`

On UNIX, the CRM 11i Adapter is installed on

`$ORACLE_HOME/oai/4.0/adapters/Application Partition..`

Modifying the CRM 11i Adapter

This section describes the following:

- Installing Multiple CRM 11i Adapters on One Computer
- Editing CRM 11i Adapter Configuration Settings

Installing Multiple CRM 11i Adapters on One Computer

The installer does not allow you to install more than one CRM 11i Adapter per Oracle Home. (It will deinstall the first CRM 11i Adapter and then install the second one.) However, you can have multiple Oracle Homes on a computer and have one

CRM 11*i* Adapter per Oracle Home. (You can create an Oracle Home by installing the Oracle8*i* client in different locations.) When you install the CRM 11*i* Adapter the second time, choose a different Oracle Home than the one where you first installed the CRM 11*i* Adapter.

Editing CRM 11*i* Adapter Configuration Settings

You can edit the following parameters in `adapter.ini` in your CRM 11*i* Adapter's directory.

Field	Value
AQ_HOST	the host name
AQ_USERNAME	the user name to connect to the database
AQ_PASSWORD	the password
AQ_INSTANCE	the database SID
AQ_PORT	the database TNS Listener port
AQ_CONSUMER_NAME	the consumer name
AQ_OWNER	the owner. (Change this field if your AQs are installed under a different user than AQ_USER.)

The AQ_HOST, AQ_USERNAME, AQ_PASSWORD, AQ_INSTANCE, AQ_PORT, and AQ_CONSUMER_NAME are not part of the installation.

Restart the adapter after editing the parameters.

Using the Database Adapter

This section describes the following:

- Installing the Database Adapter
- Performing Database Adapter Post-Installation Steps
- Modifying the Database Adapter

Installing the Database Adapter

You can install the database adapter on Oracle 7.3.x, Oracle 8.0.x, or Oracle8*i* databases. All other OAI components require Oracle8*i*.

Perform the following steps to install the database adapter:

1. Bring up the Available Products window.
2. Select OAI Database Adapter 4.0.0.
3. Select Next.

The Welcome to the Database Adapter Installation window appears.

4. Select Next.

The Adapter Information window appears.

5. Enter the following:

Field	Value
Application	The application you defined in <i>iStudio</i> . (See "Editing the adapter.ini Parameter" on page 2-23).
Partition	Leave blank

6. Select Next.

The LDAP Server Location window appears.

7. Enter the following:

Field	Value
Host Name	The computer on which OID is installed. If you follow the recommended topology, the host name is the hub computer.
Port Number	The value you wrote down when you installed OMB. (See Step 6 of "Installing OMB for OAI" on page 2-6. The default value is 389.

The LDAP Server Suffix Information window appears.

8. Enter the following:

Field	Value
Country	The value you wrote down when you installed OMB. (See Step 2 of "Installing OMB for OAI" on page 2-5.

Field	Value
Organization	The value you wrote down when you installed OMB. (See Step 2 of "Installing OMB for OAI" on page 2-5.
Organizational Unit	The value you wrote down when you installed OMB. (See Step 2 of "Installing OMB for OAI" on page 2-5.

The adapter uses `Country`, `Organization`, and `Organizational Unit` to locate the OID instance in the hub to find the repository and OMB CORBA identification information (IOR) from OID. With this information, the adapter can connect to the repository and to OMB.

The Adapter Repository Configuration window appears.

9. Enter the following:

Field	Value
Repository Name	The value you wrote down when you installed the repository. (See Step 8 of "Installing the Repository" on page 2-5.)
Repository Host	The value you wrote down when you installed the repository. (See Step 8 of "Installing the Repository" on page 2-5.)

10. Select Next.

The Adapter OMB Configuration window appears.

11. Enter the following:

Field	Value
OMB Instance Name	The value you wrote down previously. (See Step 10 of "Performing Post-Installation Steps for OMB on OAI" on page 2-8.)
OMB Version	Select 2.0.0.1 if you are using OMB 2.0.0.1 (with Oracle 8.1.6). Select 2.0.1.0 if you are using OMB 2.0.1.0 (with Oracle 8.1.7).

12. Select Next.

The Database Configuration window appears.

13. Enter the following:

Field	Value
Host Name	The computer name on which the database is installed.
Listener Port Number	The default TNS listener port.
SID	The SID for the application database.

The Host Name, Listener Port Number, and SID you enter are for the application database that the adapter will connect to, not the hub database.

14. Select Next.

The Database User Configuration window appears.

15. Enter the following:

Field	Value
User Name	the user name for the application database where the PL/SQL code generated by iStudio will be installed
Password	the password for the user name
Confirm Password	enter the password for the user name again

The Host Name and Password are used to determine where the stored procedures generated through iStudio will be installed for application inbound messages. At runtime, the database adapter will use this information to call the user-specified stored procedures. The user can be an existing user. You can, but are not required to, create a separate OAI user.

16. Select Next.

The Summary window appears.

17. Select Next.

On Windows NT, the database adapter is installed at
`§ORACLE_HOME\oai\4.0\adapters\Application Partition.`

On UNIX, the database adapter is installed at
`§ORACLE_HOME/oai/4.0/adapters/Application Partition.`

Performing Database Adapter Post-Installation Steps

After the installation is complete, the installer gives you a set of post-installation steps. These steps are also copied to `post_installation.txt` in the database adapter's directory. Execute the following steps to create the database adapter's bridge tables:

1. Go to the directory in which the database adapter is installed.
2. Locate the `agent1.sql` and `agent2.sql` scripts.
3. Use SQL*Plus to connect to the application database to which the adapter will connect.
4. Connect as the `sys` (not `system`) user and `change_on_install` password (this is the default password unless after installing the database, this was changed).
5. Enter `@agent1.sql` on the SQL*Plus command line to run the `agent1.sql` script.
6. Use the `oai` user name and the `oai` password to connect to the database.
7. Enter `@agent2.sql` on the SQL*Plus command line to run the `agent2.sql` script.
8. Exit SQL*Plus.

Modifying the Database Adapter

This section describes the following:

- Installing Multiple Database Adapters on One Computer
- Editing Database Adapter Configuration Settings

Installing Multiple Database Adapters on One Computer

The installer does not allow you to install more than one Database Adapter per Oracle Home. (It deinstalls the first Database Adapter and then installs the second one.) However, you can have multiple Oracle Homes on a computer and have one Database Adapter per Oracle Home. (You can create an Oracle Home by installing the Oracle8i client in different locations.) When you install the Database Adapter the second time, choose a different Oracle Home than the one where you first installed the Database Adapter.

Editing Database Adapter Configuration Settings

You can edit the following parameters in `adapter.ini` in your Database Adapter's directory.

Field	Value
<code>Schemal_Host</code>	the host name
<code>Schemal_Instance</code>	the SID
<code>Schemal_Port</code>	the TNL listener port
<code>Schemal_Writer_UserName</code>	the user name
<code>Schemal_Writer_Password</code>	the password

Using the HTTP Adapter

The HTTP Adapter is an XML AQ Adapter with additions for communicating with remote Web applications.

This section describes the following:

- Installing the HTTP Adapter
- Performing HTTP Adapter Post-Installation Steps
- Modifying the HTTP Adapter

Installing the HTTP Adapter

Perform the following steps to install the HTTP Adapter:

1. Bring up the Available Products window.
2. Select OAI HTTP Adapter 4.0.0.
3. Select `Next`.

The Welcome to the HTTP Adapter Installation window appears.

4. Select `Next`.

The Adapter Information window appears.

5. Enter the following:

Field	Value
Application	The application you defined in <i>iStudio</i> . (See "Editing the adapter.ini Parameter" on page 2-23).
Partition	Leave blank

6. Select Next.

The LDAP Server Location window appears.

7. Enter the following:

Field	Value
Host Name	The computer on which OID is installed. If you follow the recommended topology, the host name is the hub computer.
Port Number	The value you wrote down when you installed OMB. (See Step 6 of "Installing OMB for OAI" on page 2-6. The default value is 389.

The LDAP Server Suffix Information window appears.

8. Enter the following:

Field	Value
Country	The value you wrote down when you installed OMB. (See Step 2 of "Installing OMB for OAI" on page 2-5.
Organization	The value you wrote down when you installed OMB. (See Step 2 of "Installing OMB for OAI" on page 2-5.
Organizational Unit	The value you wrote down when you installed OMB. (See Step 2 of "Installing OMB for OAI" on page 2-5.

The adapter uses `Country`, `Organization`, and `Organizational Unit` to locate the OID instance in the hub to find the repository and OMB CORBA identification information (IOR) from OID. With this information, the adapter can connect to the repository and to OMB.

The Adapter Repository Configuration window appears.

9. Enter the following:

Field	Value
Repository Name	The value you wrote down when you installed the repository. (See Step 8 of "Installing the Repository" on page 2-5.)
Repository Host	The value you wrote down when you installed the repository. (See Step 8 of "Installing the Repository" on page 2-5.)

10. Select Next.

The Adapter OMB Configuration window appears.

11. Enter the following:

Field	Value
OMB Instance Name	The value you wrote down previously. (See Step 10 of "Performing Post-Installation Steps for OMB on OAI" on page 2-8.)
OMB Version	Select 2.0.0.1 if you are using OMB 2.0.0.1 (with Oracle 8.1.6). Select 2.0.1.0 if you are using OMB 2.0.1.0 (with Oracle 8.1.7).

12. Select Next.

The AQ Database Configuration window appears.

13. Enter the following:

Field	Value
Database	Select Oracle 8.1.5 if your application database is Oracle 8.1.5. Select Oracle 8.1.6 or higher if your application database is Oracle 8.1.6 or Oracle 8.1.7.
Host Name	The computer name on which the database is installed
Listener Port Number	The database TNS listener port
SID	The SID for the application database

The information on the AQ Database Configuration window is the AQ database on the application side from which the adapter will put or get XML messages. This is not the information for the hub database.

The AQ Database User Configuration window appears.

14. Enter the following:

Field	Value
User Name	The name the adapter uses to connect to the database
Password	The password for the user name
Confirm Password	Enter the password again
Consumer Name	<p>If the AQs that the adapter will connect to on the application database side are single consumer queues, leave this field blank. However, if any of the AQs are multi-consumer queues, specify a consumer name.</p> <p>The application that writes to the AQ uses a consumer name to indicate that OAI should pick up a message. Use one of the following methods to determine the consumer name you should use:</p> <ul style="list-style-type: none">▪ If the code that will write the message to the AQ is already written, look at the code or the documentation that comes with it to determine the consumer name. For example, for <i>iProcurement to SAP</i> integration, the consumer name can be found in the <i>iProcurement to SAP</i> documentation.▪ If the code that will write the message to the AQ is not written, enter a string as the consumer name. When the code is built, ensure that the consumer names match.

The Summary window appears.

15. Select Next.

On Windows NT, the HTTP Adapter is installed at
`$ORACLE_HOME\oai\4.0\adapters\Application Partition.`

On UNIX, the HTTP Adapter is installed at
`$ORACLE_HOME/oai/4.0/adapters/Application Partition.`

Performing HTTP Adapter Post-Installation Steps

The installer gives you a set of post-installation steps in the `README.txt` file in your HTTP Adapter's directory. After you installation is complete, execute these steps to enable your Web/Application Server for use with the HTTP Adapter.

Modifying the HTTP Adapter

This section describes the following:

- Installing Multiple HTTP Adapters on One Computer
- Editing HTTP Adapter Configuration Settings

Installing Multiple HTTP Adapters on One Computer

The installer does not allow you to install more than one HTTP Adapter per Oracle Home. (It will deinstall the first HTTP Adapter and then install the second one.) However, you can have multiple Oracle Homes on a computer and have one HTTP Adapter per Oracle Home. (You can create an Oracle Home by installing the Oracle8i client in different locations.) When you install the HTTP Adapter the second time, choose a different Oracle Home than the one where you first installed the HTTP Adapter.

Editing HTTP Adapter Configuration Settings

You can edit the following parameters in `adapter.ini` in your HTTP Adapter's directory.

Field	Value
<code>AQ_HOST</code>	the host name
<code>AQ_USERNAME</code>	the user name to connect to the database
<code>AQ_PASSWORD</code>	the password
<code>AQ_INSTANCE</code>	the database SID
<code>AQ_PORT</code>	the database TNS Listener port
<code>AQ_CONSUMER_NAME</code>	the consumer name
<code>AQ_OWNER</code>	the owner. (Change this field if your AQs are installed under a different user than <code>AQ_USER</code> .)

The `AQ_HOST`, `AQ_USERNAME`, `AQ_PASSWORD`, `AQ_INSTANCE`, `AQ_PORT`, and `AQ_CONSUMER_NAME` are not part of the installation.

Restart the adapter after editing the parameters.

Using the SAP Adapter

This section describes the following:

- Installing the SAP Adapter
- Performing Post-Installation Steps for the SAP Adapter
- Modifying the SAP Adapter

Installing the SAP Adapter

Perform the following steps to install the SAP Adapter:

1. Bring up the Available Products window.
2. Select `OAI SAP Adapter 4.0.0`.
3. Select `Next`.

The Welcome to the SAP Adapter Installation window appears.

4. Select `Next`.

The Adapter Information window appears.

5. Enter the following:

Field	Value
Application	The application you defined in <i>iStudio</i> . (See "Editing the <code>adapter.ini</code> Parameter" on page 2-23).
Partition	Leave blank

6. Select `Next`.

The LDAP Server Location window appears.

7. Enter the following:

Field	Value
Host Name	The computer on which OID is installed. If you follow the recommended topology, the host name is the hub computer.
Port Number	The value you wrote down when you installed OMB. (See Step 6 of "Installing OMB for OAI" on page 2-6. The default value is 389.)

The LDAP Server Suffix Information window appears.

8. Enter the following:

Field	Value
Country	The value you wrote down when you installed OMB. (See Step 2 of "Installing OMB for OAI" on page 2-15.)
Organization	The value you wrote down when you installed OMB. (See Step 2 of "Installing OMB for OAI" on page 2-15.)
Organizational Unit	The value you wrote down when you installed OMB. (See Step 2 of "Installing OMB for OAI" on page 2-15.)

The adapter uses Country, Organization, and Organizational Unit to locate the OID instance in the hub to find the repository and OMB CORBA identification information (IOR) from OID. With this information, the adapter can connect to the repository and to OMB.

The Adapter Repository Configuration window appears.

9. Enter the following:

Field	Value
Repository Name	The value you wrote down when you installed the repository. (See Step 8 of "Installing the Repository" on page 2-5.)
Repository Host	The value you wrote down when you installed the repository. (See Step 8 of "Installing the Repository" on page 2-5.)

10. Select Next.

The Adapter OMB Configuration window appears.

11. Enter the following:

Field	Value
OMB Instance Name	The value you wrote down previously. (See Step 10 of "Performing Post-Installation Steps for OMB on OAI" on page 2-8.)
OMB Version	Select 2.0.0.1 if you are using OMB 2.0.0.1 (with Oracle 8.1.6). Select 2.0.1.0 if you are using OMB 2.0.1.0 (with Oracle 8.1.7).

12. Select Next.

The SAP Configuration window appears.

13. Enter the following:

Field	Value
Application Server	The computer name (host name) where SAP is installed. If you are able to connect to SAP using the SAP front end, it is the same as the Application Server field that SAP asks for as part of the connection information.
System Number	The SAP system number. If you are able to connect to SAP using the SAP front end, it is the same as the System Number field that SAP asks for as part of the connection information.

14. Select Next.

The SAP User Configuration window appears.

15. Enter the following:

Field	Value
Client Number	Enter the SAP client number. If you are able to connect to SAP using the SAP front end, it is the same as the Client Number field that SAP asks for as part of the connection information.

Field	Value
User	The user you use to connect to SAP. If you are able to connect to SAP using the SAP front end, it is the same as the <code>User</code> field.
Password	The password you use to connect to SAP. If you are able to connect to SAP using the SAP front end, it is the same as the <code>Password</code> field.
Confirm Password	Enter the password again.

16. Select Next.

The Integration Methods window appears.

17. Select one or more of the Integration Methods that you will use for integrating with SAP. If you are unsure which to select, select all. For iProcurement to SAP, select the following:

BAPIS
 IDocs outbound from SAP
 IDocs inbound into SAP

Following is a description of these integration methods:

Integration Method	Description
BAPIS	BAPIS are SAP Business APIs. They are synchronous calls and the values which the BAPIS return can be sent as a reply if needed. Select this option if there is a message that the SAP Adapter will receive that will result in the SAP Adapter calling a BAPI.
IDocs outbound from SAP	IDocs are intermediate documents sent to and from SAP. They are processed asynchronously. IDocs only work with the Publish/Subscribe model. Select this option if there is a message that the SAP Adapter will publish when it receives an IDoc from SAP. (SAP will be sending IDocs).
IDocs inbound into SAP	Select this option if there is a message that the SAP Adapter will receive that should result in the SAP Adapter giving an IDoc to SAP. (SAP will be receiving IDocs.)

Integration Method	Description
IBPs	IBPs are custom Java methods that you can write to perform complicated business logic using SAP BAPIs. Select this option if there is a message that the SAP Adapter will receive that will result in the SAP Adapter calling an IBP.

18. Select Next.

Depending upon what you select, the windows listed in Steps 19 to 23 appear.

If the SAP Adapter will be sending or receiving IDocs, the RFC Destination Configuration window appears.

19. Enter the program ID of a valid RFC destination in SAP that SAP will use either to send IDocs to the SAP Adapter or to receive IDocs from the SAP Adapter.

See "Creating a Valid RFC Destination" on page 2-44 for details on how to configure a valid RFC destination in SAP.

20. Select Next.

If the SAP Adapter will be sending IDocs into SAP, the Sender Partner Configuration window appears.

21. Configure the information about the partner which is sending the IDocs into SAP.

22. Select Next.

If the SAP Adapter will be sending IDocs into SAP, the Recipient Partner Configuration window appears.

23. Configure the information about the partner in SAP which is receiving the IDocs.

24. Select Next.

The Summary window appears.

25. Select Next.

On Windows NT, the SAP Adapter is installed on
\$ORACLE_HOME\oai\4.0\adapters*Application Partition*.

On UNIX, the SAP adapter is installed on
\$ORACLE_HOME/oai/4.0/adapters/*Application Partition*.

Performing Post-Installation Steps for the SAP Adapter

Perform the following steps to complete installing the SAP Adapter:

1. After installing the SAP Adapter, copy the `librfc32.dll` file to the `$ORACLE_HOME\ojrfc\4.0\bin` directory.

The `librfc32.dll` file is distributed with the SAP system to which the adapter will connect. OAI does not provide the `librfc32.dll` file.

2. Export one or more files from SAP that contain information about the IDoc structures for the IDocs which the SAP Adapter will be using. These files must have the same information that you used to import the IDocs in *iStudio*. The file must be named `any_name.segment_release_version.SAP_version`.

Normally, the segment release version and the SAP version are the same. For example, for SAP version 4.0B, the file would have a name like `ALL.40B.40B`. If you are using SAP 4.5B, but you want to use the 4.0B version of the IDocs, export the IDocs (setting the segment release version to 40B) to files and give the files a name similar to `idoc_name.40B.45B`. You can also you can export all the IDocs to one file and give it a name similar to `ALL.40B.45B`.

If you purchased OAI as part of a pack, check to see if the pack comes with the IDoc files and for more details on how to use the files.

3. Copy the files into your SAP Adapter's directory.
4. Edit the `IDocRepositoryFiles` entry in the `adapter.ini` file located in your SAP Adapter's directory. Provide the names of the IDoc files. If there are more than one, separate them with commas. For example, enter:

```
IDocRepositoryFiles=MATMAS03.40B.45B,DEBMAS03.40B.45B.
```

If you do not perform this step correctly, you may encounter the following error when you run the SAP Adapter:

```
** Error: The IDoc repository could not be initialized from the repository
file (file_name) because of an error: io error: syntax file file_namee
cannot be opened (file_name). Please make sure you have the correct IDoc
repository file, save log files and contact the integration team.
```

Modifying the SAP Adapter

This section describes the following:

- Installing Multiple SAP Adapters on One Computer
- Creating a Valid RFC Destination

- Editing SAP Adapter Configuration Settings

Installing Multiple SAP Adapters on One Computer

The installer does not allow you to install more than one SAP Adapter per Oracle Home. (It will deinstall the first SAP Adapter and then install the second one.) However, you can have multiple Oracle Homes on a computer and have one SAP Adapter per Oracle Home. (You can create an Oracle Home by installing the Oracle8i client in different locations.) When you install the SAP Adapter the second time, choose a different Oracle Home than the one where you first installed the SAP Adapter.

Creating a Valid RFC Destination

Log on to SAP as the same user that you specified during the SAP Adapter install using the SAP front end. Call SAP transaction SM59 or go to Tools>Administration>Administration>Network>RFC destinations.

Press F8 or select Create. Enter a name for your RFC destination, specify T for connection, enter a description, check the Current User option, and select save or press Control+s.

On the next window, select Registration as the Activation. Then enter a program ID. SAP recommends entering an ID like:

host_name.program_or_organization_identifier.

Remember what you enter for program ID because this is what you will specify for RFV destination during the SAP Adapter install (or what you will specify for IDocDestination in the adapter.ini file.)

Editing SAP Adapter Configuration Settings

You can edit the following parameters in adapter.ini in your SAP Adapter's directory.

Field	Value
Host	host name
Instance	system number
ClientNumber	client number
User	user
Password	password

Field	Value
<code>NumberOfIBPMessageReceivers</code>	0 if the adapter will not call IBPs 1 if the adapter will call IBPs
<code>NumberOfBAPIMessageReceivers</code>	0 if the adapter will not call BAPIs 1 if the adapter will call BAPIs
<code>NumberOfIDocReceivers</code>	0 if the adapter will not receive IDocs from SAP 1 if the adapter will receive IDocs from SAP (IDocs outbound from SAP)
<code>NumberOfIDocMessageReceivers</code>	0 if the adapter will not give IDocs to SAP 1 if the adapter will give IDocs to SAP (IDocs inbound to SAP)
<code>IDocDestination</code>	program ID of the RFC destination
<code>SenderPartner</code>	sender partner configuration
<code>RecipientPartner</code>	recipient partner configuration
<code>Language</code>	Change this parameter to use a different language with SAP. If you are able to connect to SAP using the SAP front end, it is the same as the Language field. (This parameter is not part of the installation.)
<code>CacheBusinessObjects</code>	If you want the SAP Adapter to read information about Business Objects from SAP when it is starting up (rather than waiting until the first time it reads the information about the Business Object) specify a comma-separated list of Business Objects. (This parameter is not part of the installation.)
<code>IDocRepositoryFiles</code>	Comma-separated list of files exported from SAP that contain the information about the IDocs. (This parameter is not part of the installation.)

Using the XML AQ Adapter

This section describes the following:

- Installing the XML AQ Adapter
- Modifying the XML AQ Adapter

Installing the XML AQ Adapter

Perform the following steps to install the XML AQ Adapter:

1. Bring up the Available Products window.
2. Select OAI XML AQ Adapter 4.0.0.
3. Select Next.

The Welcome to the XML AQ Adapter Installation window appears.

4. Select Next.

The Adapter Information window appears.

5. Enter the following:

Field	Value
Application	The application you defined in <i>iStudio</i> . (See "Editing the adapter.ini Parameter" on page 2-23).
Partition	Leave blank

6. Select Next.

The LDAP Server Location window appears.

7. Enter the following:

Field	Value
Host Name	The computer on which OID is installed. If you follow the recommended topology, the host name is the hub computer.
Port Number	The value you wrote down when you installed OMB. (See Step 6 of "Installing OMB for OAI" on page 2-6. The default value is 389.

The LDAP Server Suffix Information window appears.

8. Enter the following:

Field	Value
Country	The value you wrote down when you installed OMB. (See Step 2 of "Installing OMB for OAI" on page 2-5.)
Organization	The value you wrote down when you installed OMB. (See Step 2 of "Installing OMB for OAI" on page 2-5.)
Organizational Unit	The value you wrote down when you installed OMB. (See Step 2 of "Installing OMB for OAI" on page 2-5.)

The adapter uses `Country`, `Organization`, and `Organizational Unit` to locate the OID instance in the hub to find the repository and OMB CORBA identification information (IOR) from OID. With this information, the adapter can connect to the repository and to OMB.

The Adapter Repository Configuration window appears.

9. Enter the following:

Field	Value
Repository Name	The value you wrote down when you installed the repository. (See Step 8 of "Installing the Repository" on page 2-5.)
Repository Host	The value you wrote down when you installed the repository. (See Step 8 of "Installing the Repository" on page 2-5.)

10. Select Next.

The Adapter OMB Configuration window appears.

11. Enter the following:

Field	Value
OMB Instance Name	The value you wrote down previously. (See Step 10 of "Performing Post-Installation Steps for OMB on OAI" on page 2-8.)
OMB Version	Select 2.0.0.1 if you are using OMB 2.0.0.1 (with Oracle 8.1.6). Select 2.0.1.0 if you are using OMB 2.0.1.0 (with Oracle 8.1.7).

12. Select Next.

The AQ Database Configuration window appears.

13. Enter the following:

Field	Value
Database	Select Oracle 8.1.5 if your application database is Oracle 8.1.5. Select Oracle 8.1.6 or higher if your application database is Oracle 8.1.6 or Oracle 8.1.7.
Host Name	The computer name on which the database is installed
Listener Port Number	The database TNS listener port
SID	The SID for the application database

The information on the AQ Database Configuration window is the AQ database on the application side from which the adapter will put or get XML messages. This is not the information for the hub database.

The AQ Database User Configuration window appears.

14. Enter the following:

Field	Value
User Name	The name the adapter uses to connect to the database
Password	The password for the user name
Confirm Password	Enter the password again

Field	Value
Consumer Name	<p>If the AQs that the adapter will connect to on the application database side are single consumer queues, leave this field blank. However, if any of the AQs are multi-consumer queues, specify a consumer name.</p> <p>The application that writes to the AQ uses a consumer name to indicate that OAI should pick up a message. Use one of the following methods to determine the consumer name you should use:</p> <ul style="list-style-type: none"> ■ If the code that will write the message to the AQ is already written, look at the code or the documentation that comes with it to determine the consumer name. For example, for <i>iProcurement to SAP</i> integration, the consumer name can be found in the <i>iProcurement to SAP</i> documentation. ■ If the code that will write the message to the AQ is not written, enter a string as the consumer name. When the code is built, ensure that the consumer names match.

The Summary window appears.

15. Select **Next**.

On Windows NT, the XML AQ Adapter is installed at
`$ORACLE_HOME\oai\4.0\adapters\Application Partition`.

On UNIX, the XML AQ Adapter is installed at
`$ORACLE_HOME/oai/4.0/adapters/Application Partition`.

Modifying the XML AQ Adapter

This section describes the following:

- Installing Multiple XML AQ Adapters on One Computer
- Editing XML AQ Adapter Configuration Settings

Installing Multiple XML AQ Adapters on One Computer

The installer does not allow you to install more than one XML AQ Adapter per Oracle Home. (It will deinstall the first XML AQ Adapter and then install the second one.) However, you can have multiple Oracle Homes on a computer and have one XML AQ Adapter per Oracle Home. (You can create an Oracle Home by

installing the Oracle8i client in different locations.) When you install the XML AQ Adapter the second time, choose a different Oracle Home than the one where you first installed the XML AQ Adapter.

Editing XML AQ Adapter Configuration Settings

You can edit the following parameters in `adapter.ini` in your XML AQ Adapter's directory.

Field	Value
<code>AQ_HOST</code>	the host name
<code>AQ_USERNAME</code>	the user name to connect to the database
<code>AQ_PASSWORD</code>	the password
<code>AQ_INSTANCE</code>	the database SID
<code>AQ_PORT</code>	the database TNS Listener port
<code>AQ_CONSUMER_NAME</code>	the consumer name
<code>AQ_OWNER</code>	the owner. (Change this field if your AQs are installed under a different user than <code>AQ_USER</code> .)

The `AQ_HOST`, `AQ_USERNAME`, `AQ_PASSWORD`, `AQ_INSTANCE`, `AQ_PORT`, and `AQ_CONSUMER_NAME` are not part of the installation.

Restart the adapter after editing the parameters.

Modifying Adapters

This section describes the following:

- Editing the `adapter.ini` Parameter
- Editing the `agent.ini` Parameters
- Editing the `repository.ini` Parameter
- Making Sure an Adapter is Installed and Started Properly
- Correcting a Adapter that did Not Start Properly

Editing the adapter.ini Parameter

After the initial configuration, you can enter the following values to edit `adapter.ini` parameters located in your adapter's directory:

Field	Value
Application	the application
Partition	the partition
LogLevel	Enter 1 to see error messages. Enter 2 to see the status and error messages. Enter 3 to see traces, the status, and error messages.

Editing the agent.ini Parameters

After the initial configuration, you can enter the following values to edit `agent.ini` parameters located in your adapter's directory:

Field	Value
ConnectionFactoryDN	Change the OMB instance to change the name of the OMB instance that you are using. (Search for the old instance name and replace it with the new instance name.)
TopicBaseDN	Change the OMB instance to change the name of the OMB instance that you are using. (Search for the old instance name and replace it with the new instance name.)
QueueVaseDN	Change the OMB instance to change the name of the OMB instance that you are using. (Search for the old instance name and replace it with the new instance name.)

The other parameters in `agent.ini` are not part of the installation and are described in the `agent.ini` documentation.

Editing the repository.ini Parameter

After the initial configuration, you can enter the following values to edit `repository.ini` parameters located in your adapter's directory:

Field	Value
RepoName	The value you wrote down when you installed the repository. (See Step 8 of "Installing the Repository" on page 2-5.)
RepoHostName	The value you wrote down when you installed the repository. (See Step 8 of "Installing the Repository" on page 2-5.)

Making Sure an Adapter is Installed and Started Properly

To tell if an adapter is installed or started properly, start the adapter and view the adapter's log files. The adapter log files are located in the adapter's directory. Look at the following log files:

AgentLog.txt
Application Partition Log.txt
service.log

If you do not see any Exceptions in these files, the adapter started properly.

Correcting a Adapter that did Not Start Properly

Inspect the Exceptions you see in the adapter log file. The most common cause of startup problems are the following:

Adapter is Unable to Connect to OID

Make sure OID is started and that you ran the OMB post-installation steps properly. Also, see the repository documentation.

Adapter is Unable to Connect to the Repository

Make sure the repository is started properly. (See the repository documentation.) The adapter will connect to the repository after it is started properly. You do not need to restart the adapter.

Adapter is Unable to Connect to OMB

Make sure the OMB is started properly. (See the OMB documentation.)

Installing the Management Infrastructure

The OAI Management Infrastructure is an extension of the Oracle Management Server component of the Oracle Enterprise Manager. You must install the OAI Management Infrastructure in an Oracle Home that contains Oracle Management Server version 2.1 or later. After you install the Management Infrastructure, use the Enterprise Manager Console to manage OAI components. Use the console to start, stop, monitor, and troubleshoot the OAI at runtime.

Perform the following steps to install the Management Infrastructure.

1. Make sure the Oracle Management Server is stopped.
2. Bring up the Available Products window.
3. Select `OAI Management Infrastructure 4.0.0`.
4. Select `Next`.

The Welcome to the Management Infrastructure Installation window appears.

5. Select `Next`.

The LDAP Server Location window appears.

6. Enter the following:

Field	Value
Host Name	The computer on which OID is installed. If you follow the recommended topology, the host name is the hub computer.
Port Number	The value you wrote down when you installed OMB. (See Step 6 of "Installing OMB for OAI" on page 2-6. The default value is 389.)

The LDAP Server Suffix Information window appears.

7. Enter the following:

Field	Value
Country	The value you wrote down when you installed OMB. (See Step 2 of "Installing OMB for OAI" on page 2-5.)
Organization	The value you wrote down when you installed OMB. (See Step 2 of "Installing OMB for OAI" on page 2-5.)

Field	Value
Organizational Unit	The value you wrote down when you installed OMB. (See Step 2 of "Installing OMB for OAI" on page 2-5.

The Management Infrastructure uses Country, Organization, and Organizational Unit to locate the OID instance in the hub to find the OAI CORBA identification information (IOR) from OID. With this information, the Management Infrastructure can connect to the OAI components and manage them.

The Summary window appears.

8. Select **Next**.

Performing Management Infrastructure Post-Installation Steps

Perform the following Management Infrastructure post-installation steps:

1. Start the Oracle Management Server.
2. Use the Enterprise Manager Console to connect to the Management Server.
3. Manage the OAI components.

Installing the SDK (Optional)

To create new adapters and iStudio browsers instead of using the ones that come bundled with OAI, install SDK and follow the documentation provided with it. Perform the following steps:

1. Bring up the Available Products window appears.
2. Select **OAI SDK 4.0.0**.
3. Select **Next**.

The Summary window appears.

4. Select **Next**.

On Windows NT, the SDK is installed at `$ORACLE_HOME\oai\4.0\sdk`.

On UNIX, the SDK is installed at `$ORACLE_HOME/oai/4.0/sdk`.

5. Follow the documentation in one of the following locations:

- **The *i*Studio documentation for SDK on Windows is at**
NT\$ORACLE_HOME\oai\4.0\sdk\istudio\doc\Browser Doc.html.
- **The Windows NT documentation for Adapter SDK is at**
\$ORACLE_HOME\oai\4.0\sdk\adapter\doc\index.html.
- **The UNIX documentation for Adapter SDK is at**
\$ORACLE_HOME/oai/4.0/sdk/adapter/doc/index.html.

Starting and Stopping OAI Components

This chapter describes the following topics:

- Starting the Repository on Windows NT
- Stopping the Repository on Windows NT
- Starting the Repository on UNIX
- Stopping the Repository on UNIX
- Starting iStudio on Windows NT
- Stopping iStudio on Windows NT
- Starting Adapters on Windows NT
- Stopping Adapters on Windows NT
- Starting Adapters on UNIX
- Stopping Adapters on UNIX

Starting the Repository on Windows NT

Perform the following steps to start the Repository on a Windows NT system:

1. Start the hub database and OID.
2. Select Start.
3. Select Settings.
4. Select Control Panel.
5. Double-click on the Services icon.
6. Select Oracle OAI Repository 4.0 - *Repository_Name*.
7. Select Start.

Stopping the Repository on Windows NT

Perform the following steps to stop the Repository on a Windows NT system:

1. Select Start.
2. Select Settings.
3. Select Control Panel.
4. Double-click on the Services icon.
5. Select Oracle OAI Repository 4.0 - *Repository_Name*.
6. Select Stop.

Starting the Repository on UNIX

Perform the following steps to start the Repository on a UNIX system:

1. Start the hub database and OID.
2. Go to `$ORACLE_HOME/oai/4.0/repository/Repository_Name`.
3. Run `start`.

Stopping the Repository on UNIX

Perform the following steps to stop the Repository on a UNIX system:

1. Go to `$ORACLE_HOME/oai/4.0/repository/Repository_Name`.

2. Run `stop`.

Starting *iStudio* on Windows NT

Perform the following steps to start *iStudio* on a Windows NT system:

1. Start the hub database and OID.
2. Start the Repository.
3. Select `Start`.
4. Select `Programs`.
5. Select `Oracle Applications InterConnect 4.0`.
6. Select `iStudio`.

Stopping *iStudio* on Windows NT

Perform the following step to start *iStudio* on a Windows NT system:

- Select `Exit`.

Starting Adapters on Windows NT

Perform the following steps to start Adapters on a Windows NT system:

1. Start the hub database and OID.
2. Start OMB.
3. Start the Repository.
4. Select `Start`.
5. Select `Settings`.
6. Select `Control Panel`.
7. Double-click on the `Services` icon.
8. Select `Oracle OAI Repository 4.0 - Application Partition`.
9. Select `Start`.

Stopping Adapters on Windows NT

Perform the following steps to stop Adapters on a Windows NT system:

1. Select *Start*.
2. Select *Settings*.
3. Select *Control Panel*.
4. Double-click on the *Services* icon.
5. Select *Oracle OAI Repository 4.0 - Application Partition*.
6. Select *Stop*.

Starting Adapters on UNIX

Perform the following steps to start Adapters on a UNIX system:

1. Start the hub database and OID.
2. Start OMB.
3. Start the Repository.
4. Go to `$ORACLE_HOME/oai/4.0/adapters/Application Partition`.
5. Run `start`.

Stopping Adapters on UNIX

Perform the following steps to stop Adapters on a UNIX system:

1. Go to `$ORACLE_HOME/oai/4.0/adapters/Application Partition`.
2. Run `stop`.

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