Oracle® Applications InterConnect

Installation Guide

Release 4.1 for Windows NT/2000 and UNIX

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Oracle Applications InterConnect Installation Guide, Release 4.1 for Windows NT/2000 and UNIX

Part No. A90327-01

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- Did you find any errors?
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If you find any errors or have any other suggestions for improvement, please indicate the chapter, section, and page number (if available). You can send comments to us in the following ways:

- Electronic mail - iasdocs_us@oracle.com
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    500 Oracle Parkway, M/S 2op4
    Redwood Shores, CA 94065 USA

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

If you have problems with the software, please contact your local Oracle Support Services.

Preface

This document describes how to install Oracle Applications InterConnect.

This preface discusses the following topics:

- Prerequisites
- Intended Audience
- How This Document is Organized
- Conventions

Prerequisites

This document assumes that:

- You have a basic understanding of Oracle Database installation, terms, and administration.

- 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 for Oracle Applications InterConnect.

- Chapter 2, "Installation"

  This chapter describes installing Oracle Applications InterConnect.

  Chapter 3, "Usage"

  This chapter usage of Oracle Applications InterConnect components.

Conventions

This section describes the conventions used in the text and code examples of this documentation set. It describes:

- Conventions in Text

- Conventions in Code Examples

Conventions in Text

We use various conventions in text to help you more quickly identify special terms. The following table describes those conventions and provides examples of their use.

Convention	Meaning	Example
Bold	Bold typeface indicates terms that are defined in the text or terms that appear in a glossary, or both.	When you specify this clause, you create an **index-organized table**.
Italics	Italic typeface indicates book titles or emphasis.	*Oracle8i Concepts* Ensure that the recovery catalog and target database do *not* reside on the same disk.
`UPPERCASE monospace (fixed-width font)`	Uppercase monospace typeface indicates elements supplied by the system. Such elements include parameters, privileges, datatypes, RMAN keywords, SQL keywords, SQL*Plus or utility commands, packages and methods, as well as system-supplied column names, database objects and structures, usernames, and roles.	You can specify this clause only for a `NUMBER` column. You can back up the database by using the `BACKUP` command. Query the `TABLE_NAME` column in the `USER_TABLES` data dictionary view. Use the `DBMS_STATS.GENERATE_STATS` procedure.
`lowercase monospace (fixed-width font)`	Lowercase monospace typeface indicates executables, filenames, directory names, and sample user-supplied elements. Such elements include computer and database names, net service names, and connect identifiers, as well as user-supplied database objects and structures, column names, packages and classes, usernames and roles, program units, and parameter values. **Note:** Some programmatic elements use a mixture of UPPERCASE and lowercase. Enter these elements as shown.	Enter `sqlplus` to open SQL*Plus. The password is specified in the `orapwd` file. Back up the datafiles and control files in the `/disk1/oracle/dbs` directory. The `department_id`, `department_name`, and `location_id` columns are in the `hr.departments` table. Set the `QUERY_REWRITE_ENABLED` initialization parameter to `true`. Connect as `oe` user. The `JRepUtil` class implements these methods.
`lowercase monospace (fixed-width font) italic`	Lowercase monospace italic font represents placeholders or variables.	You can specify the `parallel_clause`. Run U`old_release`.SQL where `old_release` refers to the release you installed prior to upgrading.

Conventions in Code Examples

Code examples illustrate SQL, PL/SQL, SQL*Plus, or other command-line statements. They are displayed in a monospace (fixed-width) font and separated from normal text as shown in this example:

```
SELECT username FROM dba_users WHERE username = 'MIGRATE';
```

The following table describes typographic conventions used in code examples and provides examples of their use.

Convention	Meaning	Example
[ ]	Brackets enclose one or more optional items. Do not enter the brackets.	`DECIMAL (digits [ , precision ])`
{ }	Braces enclose two or more items, one of which is required. Do not enter the braces.	`{ENABLE	DISABLE}`
|	A vertical bar represents a choice of two or more options within brackets or braces. Enter one of the options. Do not enter the vertical bar.	`{ENABLE	DISABLE}` `[COMPRESS	NOCOMPRESS]`
...	Horizontal ellipsis points indicate either:	
	■ That we have omitted parts of the code that are not directly related to the example	`CREATE TABLE ... AS subquery;`
	■ That you can repeat a portion of the code	`SELECT col1, col2, ... , coln FROM employees;`
. . .	Vertical ellipsis points indicate that we have omitted several lines of code not directly related to the example.	
Other notation	You must enter symbols other than brackets, braces, vertical bars, and ellipsis points as shown.	`  acctbal NUMBER(11,2);` `  acct    CONSTANT NUMBER(4) := 3;`
Italics	Italicized text indicates placeholders or variables for which you must supply particular values.	`CONNECT SYSTEM/system_password` `DB_NAME = database_name`

UPPERCASE	Uppercase typeface indicates elements supplied by the system. We show these terms in uppercase in order to distinguish them from terms you define. Unless terms appear in brackets, enter them in the order and with the spelling shown. However, because these terms are not case sensitive, you can enter them in lowercase.	`SELECT last_name, employee_id FROM employees;`
		`SELECT * FROM USER_TABLES;`
		`DROP TABLE hr.employees;`

Convention	Meaning	Example

lowercase	Lowercase typeface indicates programmatic elements that you supply. For example, lowercase indicates names of tables, columns, or files.
	
	Note: Some programmatic elements use a mixture of UPPERCASE and lowercase. Enter these elements as shown.
		`SELECT last_name, employee_id FROM employees;`
		
		`sqlplus hr/hr`
		
		`CREATE USER mjones IDENTIFIED BY ty3MU9;`

1

System Requirements

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

- Overview
- Components
- Dependent Products
- Recommended Topology
- Hardware Requirements
- Software Requirements

Overview

Oracle Applications InterConnect is a hub and spoke, end-to-end integration solution. This section describes:

- Components
- Dependent Products
- Recommended Topology
- Hardware Requirements
- Software Requirements

Components

Oracle Applications InterConnect consists of the following components:

- Adapters
- iStudio
- Repository
- Workflow Communication Infrastructure
- Management Infrastructure (Client and Server)
- SDK (for writing custom Oracle Applications InterConnect Adapters and Browsers)

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

Adapters

Adapters are software modules that plug into applications to make them Oracle Applications InterConnect enabled. Each adapter is a runtime component that manages the information flow between an application and Oracle Applications InterConnect.

Oracle Applications InterConnect consists of the following adapters:

- AQ Adapter (for use with applications that use AQ and optionally XML messages).
- Database Adapter (for use with PL/SQL database applications)

- HTTP Adapter (for use with Web-based applications)

- SAP Adapter (for use with SAP applications)

*i*Studio

You can use *i*Studio 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 *i*Studio to specify data transformations. It supports publish/subscribe, request/reply, and point-to-point messaging.

Repository

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

Workflow Communication Infrastructure

The Workflow Communication Infrastructure allows Oracle Workflow to be used seamlessly with Oracle Applications InterConnect.

Management Infrastructure (Client and Server)

The Oracle Applications InterConnect Management Infrastructure Client and Server provide management capabilities for Oracle Applications InterConnect components through the Enterprise Manager Console and Oracle Management Server (part of Oracle Enterprise Manager.)

SDK

You can use the optional SDK component to create new adapters and *i*Studio browsers instead of using the ones that come bundled with Oracle Applications InterConnect.

Dependent Products

Oracle Applications InterConnect has the following dependent products:

- Oracle Database Enterprise Edition (8.1.6, 8.1.7 or 9i)

- Oracle Client 8.1.7 - Administrator

- Oracle Workflow Server 2.6 (if you want to use Oracle Workflow with Oracle Applications InterConnect)

- Oracle Workflow Client 2.6 (if you want to use Oracle Workflow with Oracle Applications InterConnect)

- Oracle Management Server and Enterprise Manager Console (if you want to manage Oracle Applications InterConnect components through the Enterprise Manager Console)

- Oracle9*i* Application Server(Apache) HTTP Server (if using the HTTP Adapter)

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:

- Oracle9*i* Application Server, back end Database,OAI Repository, and Oracle Workflow Server on one box known as the OAI Hub machine.

- Put the adapters on the same machines as the applications they connect to, provided they are hosted on a platform that supports OAI. These machines are known as OAI Spoke machines.

- 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).

- Assign one machine for iStudio and Oracle Workflow Client (or use the hub or one of the spoke machines). The platform must be Windows NT only.

- Assign one machine for the Enterprise Manager Console (or use the hub or one of the spoke machines.)

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.

Table 1–1   Hardware Requirements for the Hub Computer

Hardware	Windows NT/2000	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, or the ability to access a CD-ROM device over the network	A CD-ROM drive to install, 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/2000	UNIX
Memory	128 MB	128 MB
Service Pack	4.0 Service Pack 3 or later	n/a
Disk Space	500 MB	500 MB

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

Table 1–3   Hardware Requirements for the iStudio and Workflow Client Computer

Hardware	Windows NT/2000	UNIX
Memory	128 MB	n/a
Service Pack	4.0 Service Pack 3 or later	n/a
Disk Space	500 MB	n/a

Refer to the Oracle Enterprise Manager install guide for Hardware requirements for the Enterprise Manager Console.

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, the spoke computer, and for *i*Studio.

Table 1–4   Operating System Requirements

Operating System	Platform	Version
Windows NT	Any	a version that supports at least 400 MHz
UNIX	IBM AIX-Based Systems	version 4.3.2/4.3.3
UNIX	Compaq Tru64 UNIX	version 4.0 (4.0D or higher)
UNIX	HP 9000 Series HP-UX	version 11.0
UNIX	Redhat LINUX	version 6.0
UNIX	Sun SPARC Solaris	version 2.6

JRE Requirements for UNIX

Oracle Applications InterConnect runs on JRE 1.1.8. You do not need to install JRE or JDK 1.1.8 prior to installing Oracle Applications InterConnect. The Oracle Applications InterConnect 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
2.6	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*
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`.

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Installation

This chapter provides information about installing Oracle Applications InterConnect.

Overview

The Installation topics include:

- Hub Database Installation
- Oracle9i Application Server Installation (Optional)
- Oracle Workflow Installation (Optional)
- Oracle Enterprise Manager Installation(Optional)
- Oracle Applications InterConnect Component Installations
- Repository Installation
- iStudio Installation
- Creating or Installing Integration Metadata
- Adapter Installations
- Workflow Communication Infrastructure Installation (Optional)
- Management Infrastructure (Server) Installation(Optional)
- Management Infrastructure (Client) Installation(Optional)
- SDK Installation(Optional)

To install Oracle Applications InterConnect and its dependent components, install the listed products in the order shown.

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

Hub Database Installation

The database must be Oracle 8*i* (Release 2 - 8.1.6 or Release 3 - 8.1.7) or Oracle 9*i* Enterprise Edition. This database will be known as the Oracle Applications InterConnect hub database. It is recommended that you install the database on the hub machine.

Refer to the appropriate Oracle Database install guide for details.

Oracle9*i* Application Server Installation

If you will be using Oracle9*i* Application Server, Release 1 (v1.0.2.2) you should install it now. The Oracle9*i* Application Server installation will create a new Oracle Home. The backend database refers to the database created in the Hub Database Installation. It is recommended that you install Oracle9*i* Application Server on the Oracle Applications InterConnect hub machine. It must be in a separate Oracle Home from the database created in the Hub Database Installation.

Refer to the Oracle9*i* Application Server install guide for details.

Oracle Workflow Installation

This section describes the following:

- Installing Oracle Workflow
- Performing the Workflow Post-Installation Steps

Installing Oracle Workflow

If you will be using Oracle Workflow with Oracle Applications InterConnect, you should install Oracle Workflow 2.6 now.

It is recommended that you install Workflow on the Oracle Applications InterConnect hub machine in the Oracle9*i* Application Server Oracle Home created in the Oracle9i Application Server Installation on page 2-2. If you are not installing Oracle9*i* Application Server, then it is recommended that you install Oracle Workflow in the Oracle Database Enterprise Edition Oracle Home created in the Hub Database Installation on page 2-2. Workflow's database should be the hub database created in the Hub Database Installation on page 2-2.

In order to use Oracle Workflow with Oracle Applications InterConnect, refer to the Oracle Workflow Server Install Notes and make sure you have successfully completed Steps 1, 2, 3, 5, 6 and 7.

You must install Oracle Workflow Client (Workflow Builder) in the same Oracle Home that will contain *i*Studio.

Follow the Oracle Workflow Client and Server install guides for details.

Performing the Workflow Post-Installation Steps

After installing Oracle Workflow Server from the CD, follow these steps.

1. Navigate your web browser to your Oracle Workflow home page. Under Global Workflow Preferences, change System Status to Enabled.

2. Under Check Setup, Listeners for local inbound agents - schedule listeners for Agents WF_IN and WF_ERROR. Setting the listener to run every 10 seconds is recommended. If you would like faster response times, schedule additional listeners rather than lowering the interval between runs. Refer to "Scheduling Listeners for Local Inbound Agents" in the Oracle Workflow Documentation for details.

3. Under Event Subscriptions, add 3 new subscriptions for the following events:

    - oracle.apps.wf.event.agent.create

    - oracle.apps.wf.event.event.create

    - oracle.apps.wf.event.subscription.create

    For each subscription, specify these values:

Field	Value
System	*your_workflow_system*
Source Type	**External**
Event Filter	*the event you are creating the subscription for (one of the three listed above)*
Status	**Enabled**
Rule Data	**Key**
Rule Function	wf_event_functions_pkg.receive
Description	**Oracle Applications InterConnect Subscription**

    Refer to "To Define an Event Subscription" in the Oracle Workflow Documentation for details.

Oracle Enterprise Manager Installation

If you wish to use Oracle Enterprise Manager to manage the Oracle Applications InterConnect components, Oracle Management Server 2.2 and Oracle Enterprise Manager Console 2.2 must be installed.

If you have installed Oracle9*i* Application Server, Oracle Management Server will be installed in the Oracle Home created in the Oracle9i Application Server Installation on page 2-2, so you can skip this step. Otherwise, if your hub database is Oracle 8.1.7 then you will have the proper OMS installed in the Oracle Home created in the Hub Database Installation on page 2-2 (if you performed a typical install.) Otherwise, use the Oracle 8.1.7 Enterprise Edition CD to install Oracle Management Server 2.2 in another Oracle Home.

Use the Oracle 8.1.7 Client (Administrator) install to install Enterprise Manager Console 2.2 in whichever Oracle Home you would like if it is not already installed.

Refer to the Enterprise Manager install guide for details.

Oracle Applications InterConnect Component Installations

This section describes the following:

- [Installing Multiple Oracle Applications InterConnect Component on One Computer](#)
- [Installing Oracle Applications InterConnect Components](#)

Installing Multiple Oracle Applications InterConnect Component on One Computer

The installer does not allow you to install more than one of the same Oracle Applications InterConnect Component per Oracle Home (it will deinstall the first instance and then install the second one.) For example, it will not allow you to install more than one repository in one Oracle Home. However, you can have multiple Oracle Homes on a computer and install the component in each Oracle Home. You can create an Oracle Home by installing the Oracle 8.1.7 Client (Administrator) in different locations. When you install a component the second time, choose a different Oracle Home than the one where you first installed it.

Installing Oracle Applications InterConnect Components

Perform the following steps to install Oracle Applications InterConnect 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.

(Each component below will describe which Oracle home to choose.)

5. Select Next.

The Available Product Components window appears.

6. Choose the Oracle Applications InterConnect components that you will be installing.

7. Select Next.

The Welcome to the Oracle Applications InterConnect Installation window appears.

8. Select Next.

The OAI Hub (Database Configuration) window appears if this is the first time you are performing an Oracle Applications InterConnect installation in this Oracle Home. If it does not appear, you can skip the rest of this section. Specific questions will be asked for the different Oracle Applications InterConnect components. Refer to the appropriate sections below for details.

9. Enter the following:

Field	Value
Host Name	The host name of the machine where the hub database created in the Hub Database Installation on page 2-2
Listener Port Number	The hub database's TNS listener port.
SID	The hub database's SID.

10. Select Next.

The OAI Hub (Database User Configuration) window appears.

11. Enter the following:

Field	Value
User Name	The hub database user name. If you are installing the repository now, the user name you provide here will be hub database user that is created during the repository post-installation steps to create the hub schema. You should remember the user name that you provide as it will be asked again when you install Oracle Applications InterConnect components on separate machines or in separate Oracle Homes.
Password	.The password for the hub database user described above.
Confirm Password	Enter the password again.

12. Select Next.

The OAI Hub (Repository Configuration) window appears.

13. Enter the following:

Field	Value
Repository Name	The name of your repository. If you are installing the repository now, this is the name that your new repository will have. It can be any name you wish less than 10 characters and without white space. It is used to identify your repository. You should remember the repository name as you will need to identify your repository when you install Oracle Applications InterConnect components on separate machines or in separate Oracle Homes. If you have already installed your repository, enter its name now.

14. Select Next.

Specific questions will be asked for the different Oracle Applications InterConnect components. Refer to the appropriate sections below for details.

Repository Installation

This section describes the following:

- Overview of the Repository Architecture
- Installing the Repository
- Performing the Repository Post-Installation Steps

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 (hub) 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 or hub database).

The Oracle Applications InterConnect components communicate to the Java layer and not directly to the database.

The database instance used for the repository is the backend hub database installed in the Hub Database Installation on page 2-2. The repository post-installation steps create the hub user and its schema is contained within that user in the database.

The repository is used to store integration information as metadata. The *i*Studio 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.

Installing the Repository

It is recommended that you install the repository on the Oracle Applications InterConnect hub machine in the Oracle9*i* Application Server Oracle Home created in the Oracle9i Application Server Installation on page 2-2. If you are not installing Oracle9*i* Application Server, then it is recommended that you install the repository in the Oracle Database Enterprise Edition Oracle Home created in the Hub Database Installation on page 2-2 if the database is Oracle 8.1.7. If not, or you would like to install the repository in a different Oracle Home or on a different machine, the Oracle Home must contain an Oracle 8.1.7 Client (Administrator) installation.

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

Perform the following steps to install the repository:

1. In the Available Product Components window, make sure OAI Repository 4.1.0 is selected.

2. Select Next.

   Refer to the Overview on page 2-1 for details about questions common to all Oracle Applications InterConnect components. Specifically, if this is the first Oracle Applications InterConnect installation in this Oracle Home, you will be asked for information about your Oracle Applications InterConnect hub.

   For the repository installation, the OAI Repository (Repository Configuration) window appears.

3. Enter the following:

Field	Value
Tablespace	The tablespace the repository (hub) schema will use. You can use the default (USERS) or enter a different tablespace.
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.The password for the hub database user described above.

4. Select Next

   Answer questions about any other components that you selected for installation. When finished, the Summary window will appear.

5. Select Install.

   The install will proceed to install the repository on your machine.

   On Windows NT, the repository is installed at

   `$ORACLE_HOME\oai\4.1\repository\`*`your_repository_name`*`.`

   On UNIX, the repository is installed at

   `$ORACLE_HOME/oai/4.1/repository/`*`your_repository_name`*`.`

6. Proceed to the next section to perform the repository post-installation steps.

Performing the Repository 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 repository's directory. Execute the following to create the hub schema:

1. Go to the directory in which the repository is installed.

2. execute:

   `hubschema -create system/[`*`password`*`] [`*`tnsname`*`]`

Field	Value
password	your system user's password.
tnsname	tnsname for the hub database.

*i*Studio Installation

This section describes the following:

- iStudio Overview
- Installing iStudio
- Performing the iStudio Post-Installation Steps

*i*Studio Overview

*i*Studio is the visual tool used to model integrations. *i*Studio stores the information about your integration as metadata in the repository created in the Oracle Workflow Installation on page 2-3. Refer to the user guide for Oracle Applications InterConnect User Guide for *i*Studio details.

Installing *i*Studio

*i*Studio can be installed on any Windows NT machine. The Oracle Home that you install *i*Studio on must contain an Oracle 8.1.7 Client (Administrator) installation.

Perform the following steps to install *i*Studio:

1. In the Available Product Components window, make sure Oracle Applications InterConnect *i*Studio 4.1.0 is selected.

2. Select Next.

   Refer to the Overview on page 2-1 for details about questions common to all Oracle Applications InterConnect components. Specifically, if this is the first Oracle Applications InterConnect installation in this Oracle Home, you will be asked for information about your Oracle Applications InterConnect hub.

3. Select Next

   Answer questions about any other components that you selected for installation. When finished, the Summary window will appear.

4. Select Install.

   The install will proceed to install *i*Studio on your machine.

   *i*Studio is installed at:

   ```
   $ORACLE_HOME\oai\4.1\istudio.
   ```

5. Proceed to the next section to perform the *i*Studio post-installation steps.

Performing the *i*Studio Post-Installation Steps

Follow these steps if you will be using *i*Studio with SAP. These steps may be skipped if you will not be using *i*Studio to connect to an SAP system.

Oracle Applications InterConnect relies on SAP's RFC library in order to communicate with SAP. This library is not included with the *i*Studio installation. You must install SAP's RFC library from the most recent SAP client CD. This installs a library called librfc and all of its dependencies.

After installing SAP's RFC library, copy the library (librfc) into the following directory to make sure it is in *i*Studio's path:

On Windows NT:

```
$ORACLE_HOME\ojrfc\4.1\bin
```

Creating or Installing Integration Metadata

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

1. Use pre-packaged metadata.

    or

    Use *i*Studio 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 *i*Studio. (For information about using *i*Studio to create metadata, see the Oracle Applications InterConnect 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.

Adapter Installations

This section describes the following:

- [Overview of Adapters](#)
- [Using the Application Parameter](#)
- [Installing the AQ Adapter](#)
- [Installing the Database Adapter](#)
- [Performing the Database Adapter Post-Installation Steps](#)
- [Installing the HTTP Adapter](#)
- [Performing the HTTP Adapter Post-Installation Steps](#)
- [Installing the SAP Adapter](#)
- [Performing the SAP Adapter Post-Installation Steps](#)

Overview of Adapters

Adapters are components that are attached to applications to Oracle Applications InterConnect 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 AQ Adapter picks up messages (and puts messages in) AQs and can understand the XML format.

The following adapters are packaged with Oracle Applications InterConnect:

- AQ Adapter: An adapter that picks up messages from an AQ or puts messages in an AQ. Used by Oracle iProcurement to integrate to third-party applications but does not have any iProcurement specific features. Used when applications send or receive messages using Oracle AQs. Works with Oracle 8.1.5 and later. The messages can be RAW type XML messages or Oracle Object type messages which may or may not contain fields with XML data in them.

- Database Adapter: An Oracle database adapter for a non-AQ based integration. Works with Oracle 7.3.4 and later.

- HTTP Adapter: An AQ adapter that has additions for communicating with remote web applications using XML.

■ SAP Adapter: An adapter that uses RFC to connect to SAP. You can make BAPI or ABAP/4 function module invocations into SAP and send both inbound and outbound IDocs.

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 an 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 *i*Studio under the Applications folder.

If you are using pre-packaged metadata, after importing the pre-packaged metadata into the repository, start up *i*Studio to find the corresponding application (under the Applications folder in *i*Studio) 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).

Installing the AQ Adapter

It is recommended that you install the AQ Adapter on the same machine that contains the Oracle Database which your AQ application is using (a spoke database). This is not the Oracle Applications InterConnect hub database (though it can be if your application wishes to use the Oracle Applications InterConnect hub database for its AQs). It is recommended that you install the AQ Adapter in the same Oracle Home that contains the spoke database if the spoke database is Oracle 8.1.7. If not, or you would like to install the AQ Adapter in a different Oracle Home or on a different machine, the Oracle Home must contain an Oracle 8.1.7 Client (Administrator) installation.

Perform the following steps to install the AQ Adapter:

1. In the Available Product Components window, make sure OAI AQ Adapter 4.1.0 is selected.

2. Select Next.

    Refer to "Installing Oracle Applications InterConnect Components" steps 7-14 for details about questions common to all Oracle Applications InterConnect components. Specifically, if this is the first Oracle Applications InterConnect installation in this Oracle Home, you will be asked for information about your Oracle Applications InterConnect hub.

    For the AQ Adapter installation, the OAI AQ Adapter (Application Configuration) window appears.

3. Enter the following:

Field	Value
Application	The application you defined or will define in *i*Studio. This can not have white space or be blank. (See Using the Application Parameter on page 2-15).
Partition	Leave blank.

4. Select next.

    The OAI AQ Adapter (Database Configuration) window appears.

5. Enter the following:

Field	Value
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 this window is the AQ database on the application side (the spoke database) from which the adapter will put or get messages.

This is not the information for the hub database.

6. Select Next.

The OAI AQ Adapter (Database User Configuration) window appears.

7. Enter the following:

Field	Value
User Name	The name the adapter uses to connect to the database (same database as in 5 above).
Password	The password for the user name.
Confirm Password	Enter the password again.
Consumer Name	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. The application that writes to the AQ uses a consumer name to indicate that Oracle Applications InterConnect should pick up a message. Alternatively, the AQ may have a subscriber configured that the AQ Adapter corresponds to. Use one of the following methods to determine the consumer name you should use:

> ■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 iProcurement to SAP integration, the consumer name can be found in the iProcurement to SAP 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; alternatively, if the AQ has a subscriber configured, you can use the database's AQ APIs to figure out the name.

8. Select Next

Answer questions about any other components that you selected for installation. When finished, the Summary window will appear.

9. Select Install.

   The install will proceed to install the AQ Adapter on your machine.

   On Windows NT, the AQ Adapter is installed in:

   `$ORACLE_HOME\oai\4.1\adapters\ [Application][Partition]`

   On UNIX, the AQ Adapter is installed in:

   `$ORACLE_HOME/oai/4.1/adapters/[Application][Partition]`

Installing the Database Adapter

It is recommended that you install the Database Adapter on the same machine that contains the Oracle Database which your application is using (a spoke database). This is not the Oracle Applications InterConnect hub database (though it can be if your application wishes to use the Oracle Applications InterConnect hub database). It is recommended that you install the Database Adapter in the same Oracle Home that contains the spoke database if the spoke database is Oracle 8.1.7. If not, or you would like to install the Database Adapter in a different Oracle Home or on a different machine, the Oracle Home must contain an Oracle 8.1.7 Client (Administrator) installation.

Perform the following steps to install the Database Adapter:

1. In the Available Product Components window, make sure OAI Database Adapter 4.1.0 is selected.

2. Select Next.

   Refer to the Overview on page 2-1 for details about questions common to all Oracle Applications InterConnect components. Specifically, if this is the first Oracle Applications InterConnect installation in this Oracle Home, you will be asked for information about your Oracle Applications InterConnect hub.

   For the Database Adapter installation, the OAI Database Adapter (Application Configuration) window appears.

3. Enter the following:

Field	Value
Application	The application you defined or will define in *i*Studio. This can not have white space or be blank. (See Using the Application Parameter on page 2-15).
Partition	Leave blank.

4. Select next.

   The OAI Database Adapter (Database Configuration) window appears

5. Enter the following:

Field	Value
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 this database is the database application side (the spoke database). This is not the information for the hub database.

6. Select Next.

   The OAI Database Adapter (Database User Configuration) window appears.

7. Enter the following:

Field	Value
User Name	The name the adapter uses to connect to the database (same database as in 5 above). This is the user name where the PL/SQL code generated by *i*Studio will be installed.
Password	The password for the user name.
Confirm Password	Enter the password again.

8. Select Next

   Answer questions about any other components that you selected for installation. When finished, the Summary window will appear.

9. Select Install.

   The install will proceed to install the Database Adapter on your machine.

   On Windows NT, the Database Adapter is installed in

   `$ORACLE_HOME\oai\4.1\adapters\[Application][Partition]`

   On UNIX, the Database Adapter is installed in

   `$ORACLE_HOME/oai/4.1/adapters/[Application][Partition]`

10. Proceed to the next section to perform the Database Adapter post-installation steps.

Performing the 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'sdirectory. Note, the default sys password is change_on_install unless you have changed it. Execute the following to create the schema used by the Database Adapter:

1. Go to the directory in which the Database Adapter is installed.

2. execute:

   `oaischema -create sys/[password] [tnsname]`

   or

   `oaischema -create -pre8i sys/[password] [tnsname]`

   if using a spoke Oracle database version earlier than Oracle 8i)

Field	Value
Password	your system user's password.
tnsname	tnsname for the spoke database.

Installing the HTTP Adapter

The HTTP Adapter is the AQ Adapter with additions for communicating with remote Web applications using XML messages. Installing the HTTP Adapter is the same as installing the AQ Adapter with post-installation steps. Refer to "Installing the AQ Adapter" for details. Select Oracle Applications InterConnect HTTP Adapter 4.1.0 instead of Oracle Applications InterConnect AQ Adapter 4.1.0 on the Available Product Components Window. When the install is finished, proceed to the next section to perform the HTTP Adapter post-installation steps.

On Windows NT, the HTTP Adapter is installed in $ORACLE_HOME\oai\4.1\adapters*[Application][Partition]*

On UNIX, the HTTP Adapter is installed in $ORACLE_HOME/oai/4.1/adapters/*[Application][Partition]*

Performing the HTTP Adapter Post-Installation Steps

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

Installing the SAP Adapter

It is recommended that you install the SAP Adapter on the same machine that contains SAP. You must install the SAP Adapter in an Oracle Home that contains an Oracle 8.1.7 Client (Administrator) installation.

Perform the following steps to install the SAP Adapter:

1. In the Available Product Components window, make sure OAI SAP Adapter 4.1.0 is selected.

2. Select Next.

   Refer to the Overview on page 2-1 for details about questions common to all Oracle Applications InterConnect components. Specifically, if this is the first Oracle Applications InterConnect installation in this Oracle Home, you will be asked for information about your Oracle Applications InterConnect hub.

   For the SAP Adapter installation, the OAI SAP Adapter (Application Configuration) window appears.

3. Enter the following:

Field	Value
Application	The application you defined or will define in *i*Studio. This can not have white space or be blank. (See Using the Application Parameter on page 2-15).
Partition	Leave blank.

4. Select next.

   The OAI SAP Adapter (SAP Configuration) window appears.

5. 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.

6. Select next.

   The OAI SAP Adapter (SAP User Configuration) window appears.

7. 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.
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 User 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 Password field.
Confirm Password	Enter the password again.

8. Select next.

   The OAI SAP Adapter (Integration Methods) window appears.

9. 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 the integration methods:

- ABAP Function Modules: ABAP/4 Function Modules. Choose this if the function modules are not exposed as BAPIs.

- 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. 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.)

- 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.

10. Select Next.

Depending upon what you select, the windows listed in Steps 11 to 15 appear.

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

11. 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 SAP Setup for the SAP Adapter on page on page 3-7 for details on how to configure a valid RFC destination in SAP.)

12. Select Next.

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

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

14. Select Next.

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

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

16. Select Next.

Answer questions about any other components that you selected for installation. When finished, the Summary window will appear.

17. Select Install.

The install will proceed to install the SAP Adapter on your machine.

On Windows NT, the SAP Adapter is installed in:

`$ORACLE_HOME\oai\4.1\adapters\[Application][Partition]`

On UNIX, the SAP Adapter is installed in:

`$ORACLE_HOME/oai/4.1/adapters/[Application][Partition]`

18. Proceed to the next section to perform the SAP Adapter post-installation steps.

Performing the SAP Adapter Post-Installation Steps

Oracle Applications InterConnect relies on SAP's RFC library in order to communicate with SAP. This library is not included with the SAP Adapter installation. You must install SAP's RFC library from the most recent SAP client CD. This installs a library called librfc and all of its dependencies.

After installing SAP's RFC library, copy the library (librfc) into the following directory to make sure it is in the SAP Adapter's path (library path on Unix):

On Windows NT:

`$ORACLE_HOME\ojrfc\4.1\bin`

On Unix:

`$ORACLE_HOME/ojrfc/4.1/lib`

Workflow Communication Infrastructure Installation

This section describes the following:

- Installing the Workflow Communication Infrastructure

Installing the Workflow Communication Infrastructure

If you will be using Oracle Workflow with Oracle Applications InterConnect, you must install the Oracle Applications InterConnect Workflow Communication Infrastructure.

It is recommended that you install the Workflow Communication Infrastructure on the Oracle Applications InterConnect hub machine in the Oracle9*i* Application Server Oracle Home created in the Oracle9i Application Server Installation on page 2-2. If you are not installing Oracle9*i* Application Server, then it is recommended that you install the Workflow Communication Infrastructure in the Oracle Database Enterprise Edition Oracle Home created in the Hub Database Installation on page 2-2 if the database is Oracle 8.1.7. If not, or you would like to install the Workflow Communication Infrastructure in a different Oracle Home or on a different machine, the Oracle Home must contain an Oracle 8.1.7 Client (Administrator) installation.

Perform the following steps to install the Workflow Communication Infrastructure:

1. In the Available Product Components window, make sure OAI Workflow Communication Infrastructure 4.1.0 is selected.

2. Select Next.

   Refer to the Overview on page 2-1 for details about questions common to all Oracle Applications InterConnect components. Specifically, if this is the first Oracle Applications InterConnect installation in this Oracle Home, you will be asked for information about your Oracle Applications InterConnect hub.

   For the Workflow Communication Infrastructure installation, the OAI Workflow Communication Infrastructure (Database Configuration) window appears.

3. Enter the following:

Host Name: d

Field	Value
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 Database Configuration window is the Workflow database (refer to Oracle Workflow Installation on page 2-3)

4. Select Next.

The OAI Workflow Communication Infrastructure (Database User Configuration) window appears.

5. Enter the following:

Field	Value
User Name	The Workflow user name (default is owf_mgr).
Password	The password for the user name.
Confirm Password	Enter the password again.

6. Select Next

Answer questions about any other components that you selected for installation. When finished, the Summary window will appear.

7. Select Install.

The install will proceed to install the Workflow Communication Infrastructure on your machine.

On Windows NT, the Workflow Communication Infrastructure is installed in:

`$ORACLE_HOME\oai\4.1\workflow`

On UNIX, the Workflow Communication Infrastructure is installed in:

`$ORACLE_HOME/oai/4.1/workflow`

Management Infrastructure (Server) Installation

This section describes the following:

- Installing the Management Infrastructure (Server)
- Performing the Management Infrastructure (Server) Post-Installation Steps

Installing the Management Infrastructure (Server)

If you will be using Enterprise Manager to manage,Oracle Applications InterConnect components, you must install the Oracle Applications InterConnect Management Infrastructure (Server).

The Management Infrastructure (Server) must be installed in the same Oracle Home as the Oracle Management Server 2.2 (refer to Oracle Enterprise Manager Installation on page 2-5)

Perform the following steps to install the Management Infrastructure (Server):

1. Make sure that the Oracle Management Server is stopped.

2. In the Available Product Components window, make sure OAI Management Infrastructure (Server) 4.1.0 is selected.

3. Select Next.

   Refer to the Overview on page 2-1 for details about questions common to all Oracle Applications InterConnect components. Specifically, if this is the first Oracle Applications InterConnect installation in this Oracle Home, you will be asked for information about your Oracle Applications InterConnect hub.

4. Answer questions about any other components that you selected for installation. When finished, the Summary window will appear.

5. Select Install.

   The install will proceed to install the Management Infrastructure (Server) on your machine.

6. Proceed to the next section to perform Management Infrastructure (Server) post-installation steps.

Performing the Management Infrastructure (Server) Post-Installation Steps

After the installation is complete, the installer gives you a set of post-installation steps. These steps are also copied to:

On Windows NT:

`$ORACLE_HOME\oai\4.1\console\post-installation_server.txt`

On Unix:

`$ORACLE_HOME/oai/4.1/console/post-installation_server.txt`

Execute the following to finish the install:

1. cd to:

    On Windows NT:

    `$ORACLE_HOME\oai\4.1\console\`

    Unix:

    `$ORACLE_HOME/oai/4.1/console/`

2. execute:

    `post_install_server [oms_repo_user]/[password]@tnsname`

Field	Value
dms_repo_user	your Oracle Management Server database user name.
Password	password for the Oracle Management Server database user.
tnsname	tnsname for the hub database.

Management Infrastructure (Client) Installation

This section describes the following:

- Installing the Management Infrastructure (Client)
- Performing the Management Infrastructure (Client) Post-Installation Steps

Installing the Management Infrastructure (Client)

If you will be Enterprise Manager, you must install the Oracle Applications InterConnect Management Infrastructure (Client).

The Management Infrastructure (Client) must be installed in the same Oracle Home as the Oracle Enterprise Manager Console 2.2 (refer to the Oracle Enterprise Manager Installation on page 2-5)

Perform the following steps to install the Management Infrastructure (Client):

1. In the Available Product Components window, make sure OAI Management Infrastructure (Client) 4.1.0 is selected.

2. Select Next.

   Refer to the Overview on page 2-1 for details about questions common to all Oracle Applications InterConnect components. Specifically, if this is the first Oracle Applications InterConnect installation in this Oracle Home, you will be asked for information about your Oracle Applications InterConnect hub.

3. Answer questions about any other components that you selected for installation. When finished, the Summary window will appear.

4. Select Install.

   The install will proceed to install the Management Infrastructure (Client) on your machine.

5. Proceed to the next section to perform the Management Infrastructure (Client) post-installation steps.

Performing the Management Infrastructure (Client) Post-Installation Steps

After the installation is complete, the installer gives you a set of post-installation steps. These steps are also copied to:

On Windows NT:

`$ORACLE_HOME\oai\4.1\console\post-installation_client.txt`

On Unix:

`$ORACLE_HOME/oai/4.1/console/post-installation_client.txt`

Execute the following to finish the install:

Windows NT directions

1. edit the `$ORACLE_HOME\bin\oemapp.bat` file

2. after the line that starts "`SET XMLCLASSES=`" add the following line:

   ```
   SET
   OAIXMLCLASSES=$ORACLE_HOME\lib\xmlparserv2.jar;$ORACLE_HOME\lib\xmlc
   omp.jar;$ORACLE_HOME\oai\4.1\lib\oai.jar
   ```

3. on the line that starts "`SET CLASSPATHADD=`" add the following:

   ```
   ;%OAIXMLCLASSES%
   ```

Unix directions

1. edit the `$ORACLE_HOME/bin/oemapp` file

2. after the line that starts "`XMLCLASSES=`" add the following line:
   ```
   OAIXMLCLASSES=$ORACLE_HOME/lib/xmlparserv2.jar:$ORACLE_HOM
   E/lib/xmlcomp.jar;$ORACLE_HOME/oai/4.1/lib/oai.jar
   ```

3. on the line that starts "`CLASSPATHADD=`" add the following:

   ```
   :$OAIXMLCLASSES
   ```

SDK Installation

This section describes the following:

- Installing the SDK

Installing the SDK

If you will be writing your own custom Oracle Applications InterConnect Adapter, you must install the SDK. It must be installed in any Oracle Home which contains an Oracle 8.1.7 Client (Administrator) installation. The machine must have JDK 1.1.8 installed.

Perform the following steps to install the SDK:

1. In the Available Product Components window, make sure OAI SDK 4.1.0 is selected.

2. Select Next.

   Refer to the Overview on page 2-1 for details about questions common to all Oracle Applications InterConnect components. Specifically, if this is the first Oracle Applications InterConnect installation in this Oracle Home, you will be asked for information about your Oracle Applications InterConnect hub.

3. Answer questions about any other components that you selected for installation. When finished, the Summary window will appear.

4. Select Install.

   The install will proceed to install the SDK on your machine.

   In Windows NT, the SDK is installed in:

   `$ORACLE_HOME\oai\4.1\sdk`

   On UNIX, the SDK is installed in:

   `$ORACLE_HOME/oai/4.1/sdk`

3

Usage

This chapter describes using the Oracle Applications InterConnect components:

- Using the Repository
- Using iStudio
- Using the Adapters
- Using the Workflow Communication Infrastructure
- Using the Management Infrastructure
- Using the SDK
- Configuration Security

Using the Repository

This section describes the following:

- Starting the Repository on Windows NT
- Starting the Repository on UNIX
- Making Sure the Repository is Started Properly
- Stopping the Repository on Windows NT
- Stopping the Repository on UNIX
- Modifying the Repository Configuration
- Troubleshooting the Repository

In the following sections, the "repository directory" refers to:

On Windows NT:

`$ORACLE_HOME\oai\4.1\repository\`*`your_repository_name.`*

On UNIX:

`$ORACLE_HOME/oai/4.1/repository/`*`your_repository_name.`*

In the following sections, the "hub directory" refers to:

On Windows NT:

$ORACLE_HOME\oai\4.1\hub

On UNIX:

$ORACLE_HOME/oai/4.1/hub

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 TNS listener.
2. Select Start.
3. Select Settings.
4. Select Control Panel.
5. Double-click on the Services icon.
6. Select Oracle OAI Repository 4.1 - *`your_repository_name.`*
7. Select Start.

Starting the Repository on UNIX

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

1. Start the hub database and TNS Listener.
2. Go to the repository directory.
3. Run start.

Making Sure the Repository is Started Properly

To tell if the repository is started properly, view the reposlog.txt file in your repository directory after starting the repository. If you do not see any Exceptions in this file, the repository has been started properly. If you do see Exceptions, refer to the Repository Installation on page 2-9.

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 4.1 - *your_repository_name*.

6. Select Stop.

Stopping the Repository on UNIX

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

1. Go to the repository directory.

2. Run stop.

Modifying the Repository Configuration

All repository configuration may be modified manually except for the repository name.

To change the repository name, you must do a reinstall (Repository Installation on page 2-9.) Before reinstalling, either deinstall Oracle Applications InterConnect from this Oracle Home, or delete the hub.ini file in the hub directory.

To change the repository's hub database configuration, edit the hub.ini file located in the hub directory. Note: this change will effect all Oracle Applications InterConnect components installed in this Oracle Home.

To change any other configuration information, edit the repository.ini file in the repository's directory. Configurable parameters are documented in this file.

Troubleshooting the Repository

If you see Exceptions in the reposlog.txt file after starting your repository, then this means that there has been an error.

Inspect the Exceptions that you see in the repository log file. The most common cause of start-up problems with the repository is that it is unable to talk to the Oracle Applications InterConnect hub database. You will notice a SQLException in the repository log file. The following are common reasons that the repository is unable to connect to the hub database:

■ Repository was not configured properly when installed. This could be wrong hub database configuration information (host name, etc.) See "Modifying the Repository Configuration" on page 3-3 to fix the problem and restart the Repository.

■ TNS Listener or database have not been started.

■ Repository Post-Installation steps have not been followed. Refer to "Performing the Repository Post-Installation Steps" on page 2-11. These steps must be completed successfully before you start the repository.

Using *i*Studio

This section describes the following:

- Starting iStudio on Windows NT

- Stopping iStudio on Windows NT

- Modifying the iStudio configuration

- Troubleshooting iStudio

Starting *i*Studio on Windows NT

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

1. Make sure the repository is started (see "Starting the Repository on Windows NT" on page 3-2).

2. Select Start.

3. Select Programs.

4. Select OAI 4.1.

5. Select *i*Studio.

6. Follow the User Guide for details of creating a project to connect to a repository

Stopping *i*Studio on Windows NT

Perform the following step to stop *i*Studio on a Windows NT system:

- Select Exit.

Modifying the *i*Studio configuration

- To change the repository that *i*Studio connects to, open a project (or create one) that points to the other repository

Troubleshooting *i*Studio

If you are unable to connect to the repository when creating or opening a project, please make sure the repository is started properly (see "Making Sure the Repository is Started Properly" on page 3-3).

Using the Adapters

This section describes the following:

- SAP Setup for the SAP Adapter

- Starting Adapters on Windows NT

- Starting Adapters on UNIX

- Making Sure Adapters are Started Properly

- Stopping Adapters on Windows NT

- Stopping Adapters on UNIX

- Modifying an Adapter's Configuration

- Troubleshooting Adapters

In the following sections, the "adapter directory" refers to:

On Windows NT:

`$ORACLE_HOME\oai\4.1\adapters\`*`your_adapter_name`*`.`

On UNIX:

`$ORACLE_HOME/oai/4.1/adapters/`*`your_adapter_name`*`.`

In the following sections, the "hub directory" refers to:

On Windows NT:

$ORACLE_HOME\oai\4.1\hub

On UNIX:

$ORACLE_HOME/oai/4.1/hub

SAP Setup for the SAP Adapter

If you will be using the SAP Adapter to send or receive IDocs to or from SAP, then you must follow these steps:

1. Create 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 RFC destination during the SAP Adapter install (or what you will specify forsap_bridge_idoc_destination in the adapter.ini file.)

2. Generate IDoc Repository files for the SAP Adapter:

   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 *i*Studio. 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 export all the IDocs to one file and give it a name similar to ALL.40B.45B.

   If you purchased Oracle Applications InterConnect 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.

- Copy the files into your SAP Adapter's directory.

- Edit the sap_bridge_idoc_repository_files 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:

sap_bridge_idoc_reposition_files=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 cannot be opened (file-name). Please make sure you have the correct IDoc repository file, save log files and contact the integration team.

Starting Adapters on Windows NT

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

1. Make sure the repository is started properly.

2. Select Start.

3. Select Settings.

4. Select Control Panel.

5. Double-click on the Services icon.

6. Select Oracle OAI Adapter 4.1 - *your_adapter_name*.

7. Select Start.

Starting Adapters on UNIX

Perform the following steps to start an Adapter on a UNIX system:

1. Make sure the repository is started properly.

2. Go to the adapter directory.

3. Run start.

Making Sure Adapters are Started Properly

To tell if an adapter is started properly, view the adapter's oailog.txt file. In the adapter's directory, there should be a directory called logs. In there, a new directory is generated every time an adapter is started. Go into the most recently created directory and view the oailog.txt file. If you do not see any Exceptions in this file, the adapter has been started properly. If you do see Exceptions, refer to the "Troubleshooting Adapters" on page 3-10.

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 Adapter 4.1 - *your_adapter_name*.

6. Select Stop.

Stopping Adapters on UNIX

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

1. Go to the adapter directory.

2. Run stop.

Modifying an Adapter's Configuration

All adapter configuration may be modified manually except for the adapter's application parameter.

- To change the adapter's application parameter, you must do a reinstall (see "Adapter Installations" on page 2-14).

- To change the adapter's hub database configuration, edit the hub.ini file located in the hub directory. Here you can change the hub database connection information and the name of the repository that all components in this Oracle Home will talk to. Note: this change will effect all Oracle Applications InterConnect components installed in this Oracle Home.

- To change any other configuration information, edit the adapter.ini file in the adapter's directory. Each configuration parameter is documented in the adapter.ini file.

Troubleshooting Adapters

If you see Exceptions in the oailog.txt file after starting an adapter, then this means that there has been an error.

Inspect the Exceptions that you see in the adapter log file. The most common causes of start-up problems with the adapter is that it is unable to talk to the Oracle Applications InterConnect hub database or repository. The following are common reasons that the adapter is unable to connect to the hub database:

- Adapter was not configured properly when installed. This could be wrong hub database configuration information (host name, etc.) See "Modifying an Adapter's Configuration" on page 3-9 to fix the problem and restart the Adapter.

- TNS Listener or database have not been started.

- Repository Post-Installation steps have not been followed. Refer to "Performing the Repository Post-Installation Steps" on page 2-11. These steps must be completed successfully before you start the repository or any adapter.

The following are common reasons that the adapter is unable to connect to the repository:

- Repository has not been started. Refer to "Using the Repository" on page 3-1 for details.

- Adapter was not configured properly when installed. The repository name must be correct. See "Modifying an Adapter's Configuration" on page 3-9 to fix the problem and restart the Adapter.

Using the Workflow Communication Infrastructure

This section describes the following:

- Starting the Workflow Communication Infrastructure on Windows NT
- Starting the Workflow Communication Infrastructure on UNIX
- Making Sure the Workflow Communication Infrastructure is Started Properly
- Stopping the Workflow Communication Infrastructure on Windows NT
- Stopping the Workflow Communication Infrastructure on UNIX
- Modifying the Workflow Communication Infrastructure's Configuration
- Troubleshooting Workflow Communication Infrastructure

In the following sections, the "Workflow Communication Infrastructure directory" refers to:

On Windows NT:

`$ORACLE_HOME\oai\4.1\workflow.`

On UNIX:

`$ORACLE_HOME/oai/4.1/workflow.`

In the following sections, the "hub directory" refers to:

On Windows NT:

`$ORACLE_HOME\oai\4.1\hub`

On UNIX:

`$ORACLE_HOME/oai/4.1/hub`

Starting the Workflow Communication Infrastructure on Windows NT

Perform the following steps to start the Workflow Communication Infrastructure on a Windows NT system:

1. Make sure the repository is started properly.

2. Select Start.

3. Select Settings.

4. Select Control Panel.

5. Double-click on the Services icon.

6. Select Oracle OAI Workflow Communication Infrastructure 4.1.

7. Select Start.

Starting the Workflow Communication Infrastructure on UNIX

Perform the following steps to start the Workflow Communication Infrastructure on a UNIX system:

1. Make sure the repository is started properly.

2. Go to the Workflow Communication Infrastructure directory.

3. Run start.

Making Sure the Workflow Communication Infrastructure is Started Properly

To tell if the Workflow Communication Infrastructure is started properly, view its oailog.txt file. In the Workflow Communication Infrastructure directory, there should be a directory called logs. In there, a new directory is generated every time the Workflow Communication Infrastructure is started. Go into the most recently created directory and view the oailog.txt file. If you do not see any Exceptions in this file, then it has been started properly. If you do see Exceptions, refer to the "Troubleshooting Workflow Communication Infrastructure" on page 3-14.

Stopping the Workflow Communication Infrastructure on Windows NT

Perform the following steps to stop the Workflow Communication Infrastructure 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 Workflow Communication Infrastructure 4.1.

6. Select Stop.

Stopping the Workflow Communication Infrastructure on UNIX

Perform the following steps to stop the Workflow Communication Infrastructure on a UNIX system:

1. Go to the Workflow Communication Infrastructure directory.

2. Run stop.

Modifying the Workflow Communication Infrastructure's Configuration

- To change the Workflow Communication Infrastructure's hub database configuration, edit the hub.ini file located in the hub directory. Here you can change the hub database connection information and the name of the repository that all components in this Oracle Home will talk to.

  Note: this change will effect all Oracle Applications InterConnect components installed in this Oracle Home.

- To change any other configuration information, edit the adapter.ini file in the Workflow Communication Infrastructure's directory. Each configuration parameter is documented in the adapter.ini file.

Troubleshooting Workflow Communication Infrastructure

If you see Exceptions in the oailog.txt file after starting an the Workflow Communication Infrastructure, then this means that there has been an error.

Inspect the Exceptions that you see in the log file. The most common cause of start-up problems with the Workflow Communication Infrastructure is that it is unable to talk to the Oracle Applications InterConnect hub database or repository. The following are common reasons that the Workflow Communication Infrastructure is unable to connect to the hub database:

- The Workflow Communication Infrastructure was not configured properly when installed. This could be wrong hub database configuration information (host name, etc.) See "Modifying the Workflow Communication Infrastructure's Configuration" on page 3-13 to fix the problem and restart the Workflow Communication Infrastructure.

- TNS Listener or database have not been started.

- Repository Post-Installation steps have not been followed. Refer to "Making Sure the Repository is Started Properly" on page 3-3. These steps must be completed successfully before you start the repository or the Workflow Communication Infrastructure.

The following are common reasons that the Workflow Communication Infrastructure is unable to connect to the repository:

- Repository has not been started. Refer to "Using the Repository" on page 3-1 for details.

- The Workflow Communication Infrastructure was not configured properly when installed. The repository name must be correct. See "Modifying the Workflow Communication Infrastructure's Configuration" on page 3-13 to fix the problem and restart the Workflow Communication Infrastructure.

Using the Management Infrastructure

This section describes the following:

- Starting the Management Infrastructure
- Making sure the Management Infrastructure is Started Properly
- Stopping the Management Infrastructure
- Modifying the Management Infrastructure Configuration
- Troubleshooting the Management Infrastructure

In the following sections, the "hub directory" refers to:

On Windows NT:

`$ORACLE_HOME\oai\4.1\hub`

On UNIX:

`$ORACLE_HOME/oai/4.1/hub`

Starting the Management Infrastructure

The Management Infrastructure (Server) is an extension to Oracle Management Server. After starting the hub database and TNS listener, simply start the Oracle Management Server guide in order to use the Management Infrastructure (Server). Also, make sure the Oracle 8.1.7 Intelligent Agent in the same Oracle Home as the Oracle Management Server has been started.

The Management Infrastructure (Client) is an extension to the Enterprise Manager Console. Simply start the Enterprise Manager Console (refer to the Enterprise Manager user guide) in order to use the Management Infrastructure (Client).

Making sure the Management Infrastructure is Started Properly

View the log files to make sure the Management Infrastructure is started properly.

Review all logs:

On Windows NT:

`$ORACLE_HOME\sysman\log`

On UNIX:

`$ORACLE_HOME/sysman/log`

Stopping the Management Infrastructure

The Management Infrastructure (Server) is an extension to Oracle Management Server. Simply stop the Oracle Management Server in order to stop the Management Infrastructure (Server).

The Management Infrastructure (Client) is an extension to the Enterprise Manager Console. Simply exit the Enterprise Manager Console (refer to the Enterprise Manager user guide) in order to stop using the Management Infrastructure (Client).

Modifying the Management Infrastructure Configuration

To change the Management Infrastructure's hub database configuration, edit the hub.ini file located in the hub directory. Here you can change the hub database connection information. Note: this change will effect all Oracle Applications InterConnect components installed in this Oracle Home.

Troubleshooting the Management Infrastructure

If you are unable to use the Enterprise Manager Console to manage the Oracle Applications InterConnect components, check the following:

Make sure you have run the Management Infrastructure (Server) and Management Infrastructure (Client) installs and Post-Installation steps successfully. The Management Infrastructure (Server) must be installed in the same Oracle Home as the Oracle Management Server that you are connecting to. The Management Infrastructure (Client) must be installed in the same Oracle Home as the Oracle Enterprise Manager Console that you are using.

Make sure the Management Infrastructure (Server) is started properly (see "Making sure the Management Infrastructure is Started Properly" on page 3-16).

Check all log files (see "Making sure the Management Infrastructure is Started Properly" on page 3-16).

Using the SDK

Navigate your browser to the SDK documentation for details on using the SDK.

The *i*Studio SDK documentation (for creating custom Browsers) for Windows NT is located at:

```
$ORACLE_HOME\oai\4.1\sdk\istudio\doc\BrowserDoc.html
```

The Adapter SDK documentation (for creating custom Adapters) for Windows NT is located at:

```
$ORACLE_HOME\oai\4.1\sdk\adapter\doc\index.html
```

for UNIX it is located at:

```
$ORACLE_HOME/oai/4.1/sdk/adapter/doc/index.html
```

Configuration Security

All configuration information is stored in .ini files. It is recommended that you rely on your Operating System's security to protect these configuration files so that only privileged users can view or modify the appropriate configuration information.

If you would like to provide additional security, you can encrypt any parameter in the .ini files. To do so:

On Windows NT:

- run `$ORACLE_HOME\oai\4.1\bin\encrypt`

On UNIX:

- run `$ORACLE_HOME/oai/4.1/bin/encrypt`

This program will ask you for the value that you want to encrypt. You can then copy the encrypted value into the .ini file and prepend the parameter name with encrypted_. For example, if you want to encrypt the "password=manager" parameter in a .ini file, run the encrypt program and type in "manager". Then in the .ini file, change the line to:

"encrypted_password=*[whatever the encrypt program returns]*".

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