

**Oracle® Application Server Integration
InterConnect**

Installation Guide

10g Release 2 (10.1.2)

Part No. B14070-01

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Oracle Application Server Integration InterConnect Installation Guide 10g Release 2 (10.1.2)

Part No. B14070-01

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Oracle Application Server Integration InterConnect Installation Guide, 10g Release 2 (10.1.2)

Part No. B14070-01

Oracle 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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Preface

This Preface contains these topics:

- [Audience](#)
- [Documentation Accessibility](#)
- [Structure](#)
- [Related Documents](#)
- [Conventions](#)

Audience

Oracle Application Server Integration InterConnect Installation Guide is intended for system administrators and others responsible for installing Oracle products.

Documentation Accessibility

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

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

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Structure

This document contains:

Chapter 1, "Overview"

This chapter provides an overview of Oracle Application Server Integration InterConnect (OracleAS Integration InterConnect) installation process.

Chapter 2, "Installing OracleAS Integration InterConnect"

This chapter contains instructions for installing OracleAS Integration InterConnect.

Chapter 3, "Managing OracleAS Integration InterConnect"

This chapter describes how to manage OracleAS Integration InterConnect after installation.

Related Documents

For more information, refer to these Oracle resources:

- *Oracle Application Server Integration InterConnect User's Guide*
- *Oracle Application Server Integration InterConnect Adapter Guides*

Printed documentation is available for sale in the Oracle Store at

<http://oraclestore.oracle.com/>

To download free release notes, installation documentation, white papers, or other collateral, please visit the Oracle Technology Network (OTN). You must register online before using OTN; registration is free and can be done at

<http://www.oracle.com/technology/membership/>

If you already have a user name and password for OTN, then you can go directly to the documentation section of the OTN Web site at

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

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 for Windows Operating Systems](#)

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 .
<i>Italics</i>	Italic typeface indicates book titles or emphasis.	<i>Oracle Database 10g Concepts</i> Ensure that the recovery catalog and target database do <i>not</i> reside on the same disk.
UPPERCASE monospace (fixed-width) font	Uppercase monospace typeface indicates elements supplied by the system. Such elements include parameters, privileges, data types, Recovery Manager keywords, SQL keywords, SQL*Plus or utility commands, packages and methods, as well as system-supplied column names, database objects and structures, user names, 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 executable programs, filenames, directory names, and sample user-supplied elements. <i>Note:</i> Some programmatic elements use a mixture of UPPERCASE and lowercase. Enter these elements as shown.	Enter sqlplus to start 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. Connect as oe user. The JRepUtil class implements these methods.
<i>lowercase italic monospace (fixed-width) font</i>	Lowercase italic monospace font represents placeholders or variables.	You can specify the <i>parallel_clause</i> . Run <i>old_release</i> .SQL where <i>old_release</i> 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
[]	Anything enclosed in brackets is optional.	DECIMAL (<i>digits</i> [, <i>precision</i>])
{ }	Braces are used for grouping items.	{ENABLE DISABLE}
	A vertical bar represents a choice of two options.	{ENABLE DISABLE} [COMPRESS NOCOMPRESS]
...	Ellipsis points mean repetition in syntax descriptions. In addition, ellipsis points can mean an omission in code examples or text.	CREATE TABLE ... AS <i>subquery</i> ; SELECT <i>col1</i> , <i>col2</i> , ... , <i>coln</i> FROM employees;

Convention	Meaning	Example
Other symbols	You must use symbols other than brackets ([]), braces ({}), vertical bars (), and ellipsis points (...) exactly as shown.	acctbal NUMBER(11,2); acct CONSTANT NUMBER(4) := 3;
<i>Italics</i>	Italicized text indicates placeholders or variables for which you must supply particular values.	CONNECT SYSTEM/ <i>system_password</i> DB_NAME = <i>database_name</i>
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. Because these terms are not case sensitive, you can use them in either UPPERCASE or lowercase.	SELECT last_name, employee_id FROM employees; SELECT * FROM USER_TABLES; DROP TABLE hr.employees;
lowercase	Lowercase typeface indicates user-defined programmatic elements, such as 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;

Conventions for Windows Operating Systems

The following table describes conventions for Windows operating systems and provides examples of their use.

Convention	Meaning	Example
Click Start , and then choose the <i>menu item</i>	How to start a program.	To start the Database Configuration Assistant, click Start , and choose Programs . In the Programs menu, choose Oracle - HOME_NAME and then click Configuration and Migration Tools . Choose Database Configuration Assistant .
File and directory names	File and directory names are not case sensitive. The following special characters are not allowed: left angle bracket (<), right angle bracket (>), colon (:), double quotation marks ("), slash (/), pipe (), and dash (-). The special character backslash (\) is treated as an element separator, even when it appears in quotes. If the filename begins with \\, then Windows assumes it uses the Universal Naming Convention.	c:\winnt\"\"system32 is the same as C:\WINNT\SYSTEM32
C:\>	Represents the Windows command prompt of the current hard disk drive. The escape character in a command prompt is the caret (^). Your prompt reflects the subdirectory in which you are working. Referred to as the <i>command prompt</i> in this manual.	C:\oracle\oradata>

Convention	Meaning	Example
Special characters	The backslash (\) special character is sometimes required as an escape character for the double quotation mark (") special character at the Windows command prompt. Parentheses and the single quotation mark (') do not require an escape character. Refer to your Windows operating system documentation for more information on escape and special characters.	C:\>exp HR/HR TABLES=employees QUERY=\"WHERE job_id='SA_REP' and salary<8000\"
HOME_NAME	Represents the Oracle home name. The home name can be up to 16 alphanumeric characters. The only special character allowed in the home name is the underscore.	C:\> net start OracleHOME_NAME_TNSListener
ORACLE_HOME and ORACLE_BASE	<p>In releases prior to Oracle[®] 8i release 8.1.3, when you installed Oracle components, all subdirectories were located under a top level ORACLE_HOME directory.</p> <p>This release complies with Optimal Flexible Architecture (OFA) guidelines. All subdirectories are not under a top level ORACLE_HOME directory. There is a top level directory called ORACLE_BASE that by default is C:\oracle\product\10.1.0. If you install the latest Oracle release on a computer with no other Oracle software installed, then the default setting for the first Oracle home directory is C:\oracle\product\10.1.0\db_n, where n is the latest Oracle home number. The Oracle home directory is located directly under ORACLE_BASE.</p> <p>All directory path examples in this guide follow OFA conventions.</p> <p>Refer to <i>Oracle Database Installation Guide for Windows</i> for additional information about OFA compliances and for information about installing Oracle products in non-OFA compliant directories.</p>	Change to the ORACLE_BASE\ORACLE_HOME\rdbms\admin directory.

This chapter describes how to install Oracle Application Server Integration InterConnect (OracleAS Integration InterConnect). It contains the following topics:

- [OracleAS Integration InterConnect Overview](#)
- [OracleAS Integration InterConnect Installation Types](#)
- [Dependent Products](#)
- [Deployment Topology](#)
- [OracleAS Integration InterConnect System Requirements](#)

1.1 OracleAS Integration InterConnect Overview

This section explains terminology used in this guide:

Design Time The phase of integration development where you model the integration scenario. The modelled information is stored as metadata. The following components are required for modeling your integration:

- [iStudio](#)
- [Repository](#)
- [Hub Database](#)
- [Oracle Workflow Builder](#) (required only if your scenario has business process modeling)

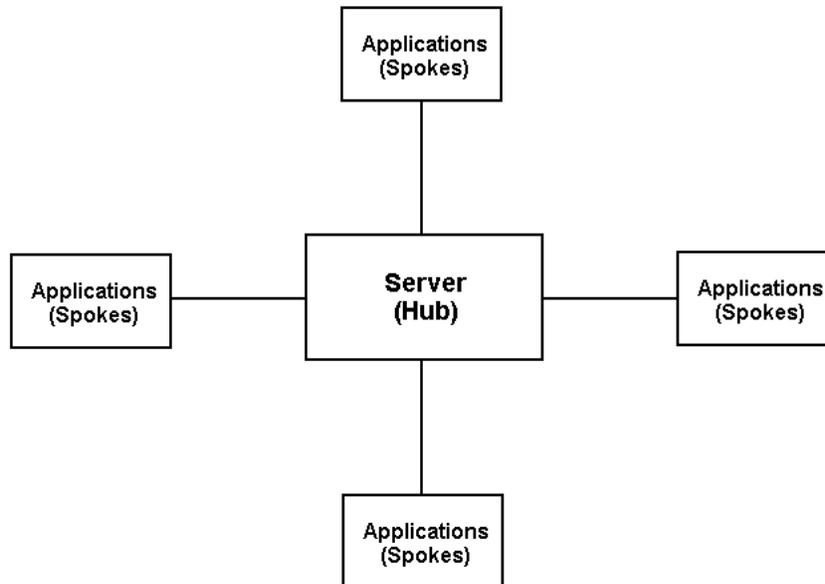
Runtime At runtime, the metadata gathered at design time is used to carry out integration. The following components are required for runtime:

- [Adapters](#)
- [Repository](#)
- [Hub Database](#)
- [Oracle Workflow](#) (required only if your scenario has business process modeling)
- [Oracle Workflow Communication](#) (required only if your scenario has business process modeling)
- [Oracle InterConnect Manager](#)

Hub and Spoke The physical architectural approach for integration used by OracleAS Integration InterConnect is called the **hub** and **spoke** arrangement. In this

approach, all applications (spokes) are connected through a central server (hub), as illustrated in [Figure 1-1](#).

Figure 1-1 Hub and Spoke Architecture



The OracleAS Integration InterConnect has the following components:

- [iStudio](#)
- [Repository](#)
- [Hub Database](#)
- [Adapters](#)
- [Oracle Workflow Builder](#)
- [Oracle Workflow Communication](#)
- [Oracle Workflow](#)
- [Oracle InterConnect Manager](#)
- [OracleAS Integration InterConnect Development Kit](#)

iStudio The tool used at design time to define the integration. iStudio is a design time integration specification tool used to help business analysts specify the integration logic at a functional level, instead of a technical coding level. iStudio exposes the integration methodology using simple wizards and reduces or eliminates the need for writing code to specify the integration logic. This reduces the total time required to complete an integration.

Repository This is a middle tier repository server, java process, that communicates with the repository schema in the hub database to store and retrieve metadata. At design time, this server is used to store metadata in the hub database. At runtime, adapters can access the metadata through the repository.

Hub Database The hub database has three uses:

- **Store Metadata:** The repository schema contains all the metadata modeled at design time through iStudio.
- **Store and Forward Messages:** At runtime, all messages enter and leave the OracleAS Integration InterConnect hub AQ queues.
- **Store Tracking and Error Information:** At runtime, all message tracking and error information is stored in the repository schema.

Adapters They are the runtime engines that carry out the integration based on the metadata modeled during design time.

Oracle Workflow Builder This component is used to model a business process at design time.

Oracle Workflow Communication This component is used to communicate between OracleAS Integration InterConnect hub and Oracle Workflow at runtime.

Oracle Workflow The collection of Workflow design time (Oracle Workflow Builder) and runtime components.

Oracle InterConnect Manager Oracle InterConnect Manager (IC Manager), this command-line tool is used for monitoring OracleAS Integration InterConnect at runtime.

OracleAS Integration InterConnect Development Kit This contains iStudio and adapter SDKs that allow you to extend OracleAS Integration InterConnect.

See Also: *Oracle Application Server Integration InterConnect User's Guide*

1.2 OracleAS Integration InterConnect Installation Types

OracleAS Integration InterConnect installation types are presented in [Table 1–1](#). You can choose the installation types on the Select Installation Type screen during installation.

Table 1–1 OracleAS Integration InterConnect Installation Types

Installation Type	Description
Hub	Installs the OracleAS Integration InterConnect Repository, Oracle Workflow Communication, and Oracle Workflow Server.
Adapter	Installs OracleAS Integration InterConnect Adapters.
Development Kit	Installs iStudio (Windows only), OracleAS Integration InterConnect Development Kit, and Oracle Workflow Builder.

1.3 Dependent Products

You can use an Oracle10g database as the hub database to run OracleAS Integration InterConnect. Alternatively, you can also use a OracleAS Infrastructure database or a Oracle Standalone 9.2.0.x database.

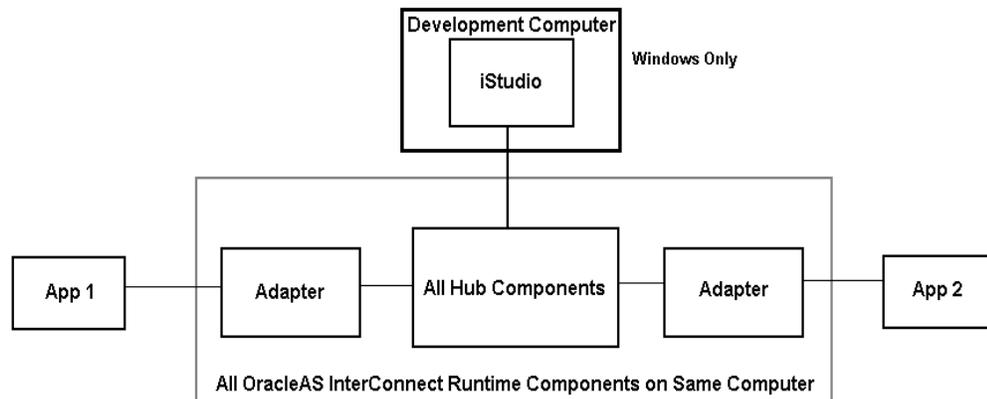
Note: The 10g DB import and export scripts are not compatible with the 9.2 DB, so if you wish to import or export the ichub schema from a 9.2 database, port the scripts to the 9.2 Oracle home. Copy the SQL scripts from the `$INTERCONNECT_HOME/repository/sql` directory to the destination directory. Please ensure the Oracle home values of the oaiimport and oaiexport scripts are changed to the new values.

1.4 Deployment Topology

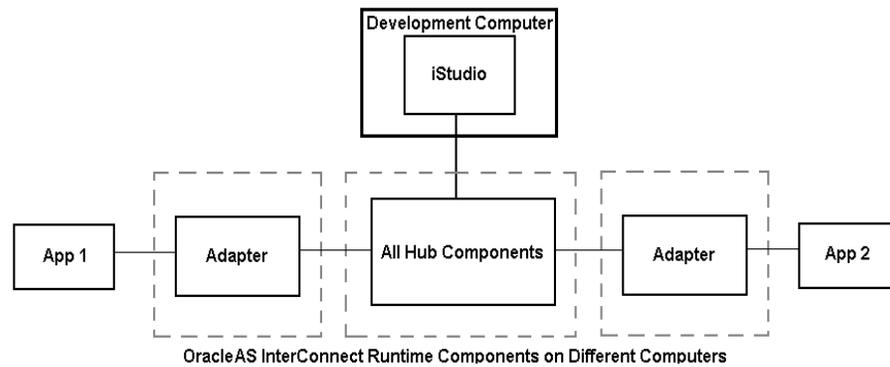
The commonly used deployment topologies are as follows:

- All OracleAS Integration InterConnect runtime components on one computer and iStudio on a separate development computer, as illustrated in [Figure 1–2](#).

Figure 1–2 OracleAS InterConnect Components on One Computer



- All hub components on one computer, all spoke components on separate computers, and iStudio on a separate development computer, as illustrated in [Figure 1–3](#). In this case, there is a dedicated computer for the hub components. Adapters either have dedicated separate computers or are co-located with the applications they are connected to.

Figure 1–3 OracleAS InterConnect Runtime Components on Different Computers

The OracleAS Integration InterConnect hub can exist on the same, or a different computer as the hub database.

1.5 OracleAS Integration InterConnect System Requirements

The following sections describe the OracleAS Integration InterConnect system requirements:

- [Hardware Requirements](#)
- [Software Requirements](#)

1.5.1 Hardware Requirements

This section contains hardware requirements for the following:

- [Hub](#)
- [Adapters](#)
- [Development Kit](#)

1.5.1.1 Hub

For hub, the computer should meet the minimum requirements listed in [Table 1–2](#).

Table 1–2 Hardware Requirements for Hub Computer

Hardware	UNIX	Windows
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.
Disk Space	1 GB	1 GB
Memory	512 MB	512 MB

Note: Do not use Hummingbird Exceed to perform the installation remotely on a UNIX computer, as that can cause problems during installation.

1.5.1.2 Adapters

For adapters, the computer should meet the minimum requirements listed in [Table 1-3](#).

Table 1-3 Hardware Requirements for Adapters

Hardware	UNIX	Windows
Disk Space	1 GB	1 GB
Memory	512 MB	512 MB

1.5.1.3 Development Kit

For Development Kit, the computer should meet the minimum requirements listed in [Table 1-4](#).

Table 1-4 Hardware Requirements for Development Kit

Hardware	UNIX (Solaris Only)	Windows
Disk Space	512 MB	500 MB
Memory	256 MB	512 MB

See Also: *Oracle Workflow Administrator's Guide*

1.5.2 Software Requirements

This section contains the software requirements for the following:

- [Operating System Requirements](#)
- [JRE Requirements](#)
- [Operating System Patches](#)

Operating System Requirements

[Table 1-5](#) lists the operating system requirements for the computer where hub and spoke will be installed.

Table 1-5 Operating System Requirements

Operating System	Version
HP Tru64	HP Tru64 UNIX (Alpha) 5.1b
HP-UX	HP-UX (PA-RISC) 11.11, 11.23
IBM AIX	AIX (POWER) version 5.2
Linux (x86)	Red Hat Enterprise Linux 2.1, 3.0 SuSE SLES8, SLES9
Sun SPARC Solaris	Sun SPARC Solaris 2.8 and 2.9
Microsoft Windows	Windows XP Professional, Windows 2000(SP3 or higher)

JRE Requirements

OracleAS Integration InterConnect runs on Java Runtime Environment (JRE) 1.4. JRE is bundled with OracleAS Integration InterConnect on Sun SPARC Solaris, Linux, and Windows. When you install OracleAS Integration InterConnect on these platforms, JRE is automatically installed for you.

Operating System Patches

The operating system patches can be found at Oracle*MetaLink*:

<http://metalink.oracle.com>

Installing OracleAS Integration InterConnect

This chapter contains instructions for installing OracleAS Integration InterConnect. It contains the following topics:

- [Preparing for Installation](#)
- [Installing OracleAS Integration InterConnect](#)

2.1 Preparing for Installation

This section describes the preinstallation steps that need to be carried out before the installation of the OracleAS Integration InterConnect. It contains the following topics:

- [Hub Preinstallation Tasks](#)
- [Development Kit Preinstallation Tasks](#)

2.1.1 Hub Preinstallation Tasks

Hub or adapters can be installed only over an existing Oracle Application Server 10.1.2 Middle Tier and not on any other oracle homes, including new oracle homes. When you install Hub, ensure that the corresponding 10.1.2 Middle Tier is already installed.

2.1.2 Development Kit Preinstallation Tasks

Consider the following before starting the installation process:

- If you are installing OracleAS Integration InterConnect on Sun SPARC Solaris, then the development kit installation option also includes the OracleAS Integration InterConnect SDK.
- If you want to use iStudio, then you must install the OracleAS Integration InterConnect Development Kit on Windows.

When you install iStudio, ensure that it is installed in a new Oracle home or an existing 10.1.2 Middle Tier.

OracleAS Integration InterConnect Development Kit enables you to create custom OracleAS Integration InterConnect adapters. It also installs all dependencies. If you have not installed the OracleAS Integration InterConnect Hub, then you need to do so before proceeding with this installation.

2.2 Installing OracleAS Integration InterConnect

This section contains instructions for installing OracleAS Integration InterConnect.

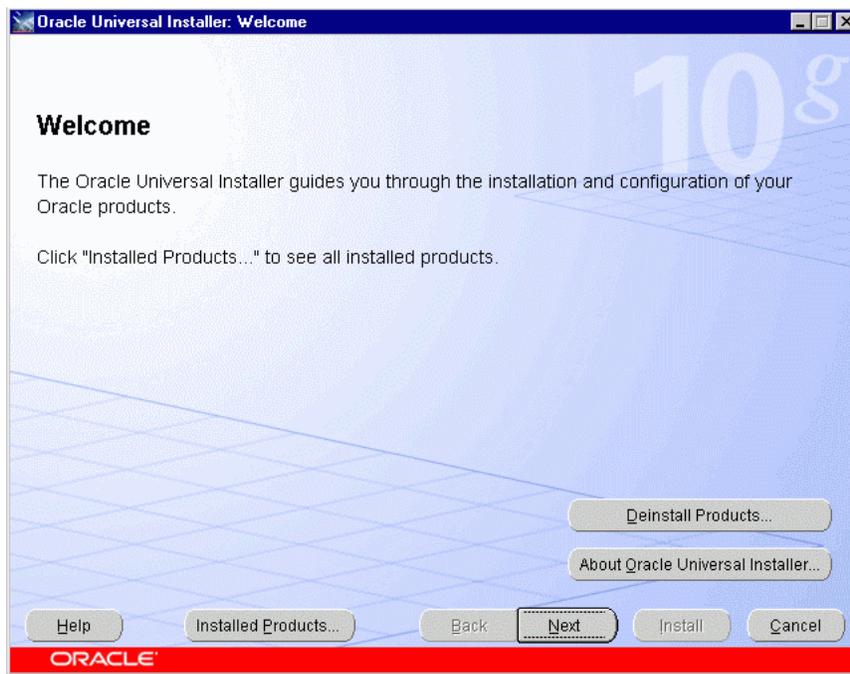
See Also: *Oracle Application Server Release Notes*

Perform the following steps to install OracleAS Integration InterConnect:

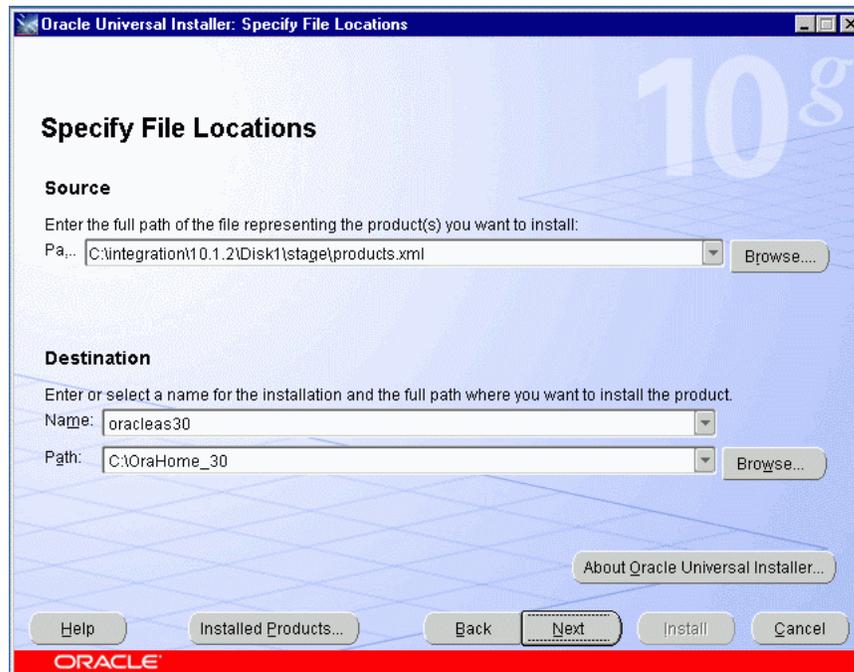
1. Insert the OracleAS Integration CD-ROM in your CD-ROM drive.
2. Start the Oracle Universal Installer (OUI):
 - UNIX: Type `runInstaller`
 - Windows: Double-click `setup.exe`

The OUI Welcome screen is displayed as shown in [Figure 2-1](#). It provides information about OUI.

Figure 2-1 Oracle Universal Installer Welcome Screen



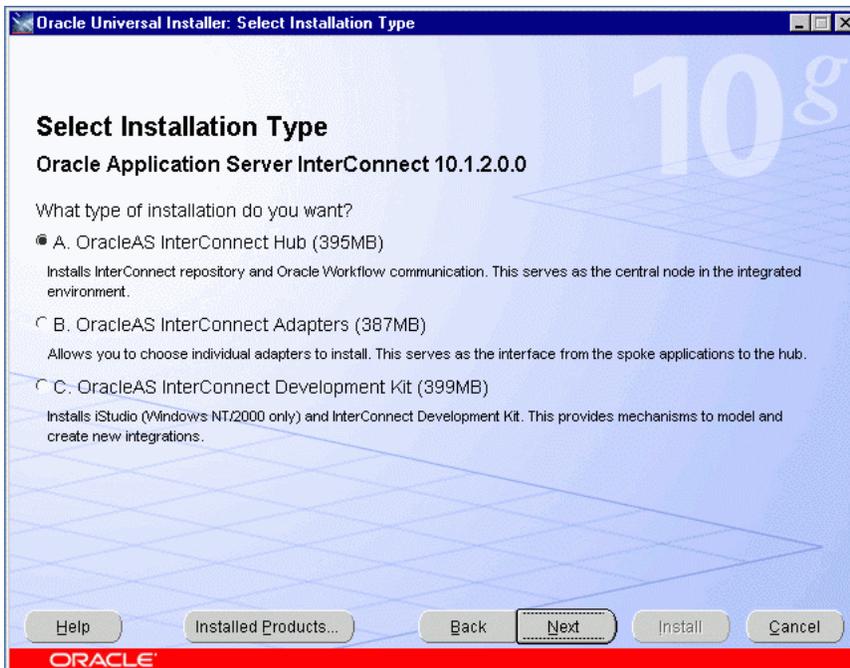
3. Click **Next**. The Specify File Locations screen is displayed as shown in [Figure 2-2](#).

Figure 2–2 Specify File Locations Screen

4. Enter the following information in the fields provided:
 - a. Source Path: The default value displays. Do not change this value.
 - b. Destination Name: Enter the desired Oracle home name, which contains the existing Oracle Application Server 10.1.2 Middle Tier.
 - c. Destination Path: Browse or enter the path to your Oracle home.
5. Click **Next**. The Select a Product to Install screen is displayed as shown in [Figure 2–3](#).

Figure 2-3 Select a Product to Install Screen

6. Select the Oracle Application Server Integration InterConnect. The Select Installation Type screen is displayed as shown in [Figure 2-4](#).

Figure 2-4 Select Installation Type Screen

7. Select the OracleAS Integration InterConnect installation type from the following list:
 - OracleAS Integration InterConnect Hub

- OracleAS Integration InterConnect Adapters
- OracleAS Integration InterConnect Development Kit

The following links direct you to installation information for each installation type.

- [Installing OracleAS Integration InterConnect Hub](#)
- [Installing OracleAS Integration InterConnect Adapters](#)
- [Installing OracleAS Integration InterConnect Development Kit](#)

2.2.1 Installing OracleAS Integration InterConnect Hub

This section contains instructions for installing OracleAS Integration InterConnect Hub. OracleAS Integration InterConnect Hub installation type installs Oracle Workflow Server and the OracleAS Integration InterConnect repository.

Hub Installation Process

During the Hub installation process, you see two dialogs, one enables you to specify the database to use as the Hub database, and the other enables you to set the password for the OracleAS Integration InterConnect schema (IC Hub schema).

If you have an existing Oracle Workflow Server setup, then you need to migrate it to Oracle Application Server Workflow Server after Hub installation.

See Also: *Oracle Application Server Upgrading to 10g Release 2*
(10.1.2)

Perform the following steps to install OracleAS Integration InterConnect Hub:

1. Select OracleAS Integration InterConnect Hub from the Select Installation Type screen, then click **Next**.
2. The Set Oracle Wallet Password screen is displayed as shown in [Figure 2–5](#). Enter and confirm the password on the screen, which will be used to administer OracleAS Integration InterConnect installation passwords.

Figure 2–5 Set Oracle Wallet Password Screen

Note: If the InterConnect Wallet does not exist in this Oracle home, then the installation will prompt you to set an InterConnect Wallet password. However, if the InterConnect Wallet already exists, then the installation prompts you to specify its password.

3. The Specify Hub Database screen is displayed in [Figure 2–6](#). Specify database connection information on this screen.

Figure 2–6 Specify Hub Database Screen

Specify Hub Database

The OracleAS InterConnect Hub requires metadata to be loaded into a database before it can be used. This database stores information that will be used by the OracleAS InterConnect Hub to coordinate communication between the various InterConnect components. The ichub schema is used for storing the metadata. Please ensure that it does not exist in the Hub database.

Enter the hostname, port, system identifier and system users password for the database you would like to use to store the OracleAS InterConnect metadata.

Host Name:

Port Number:

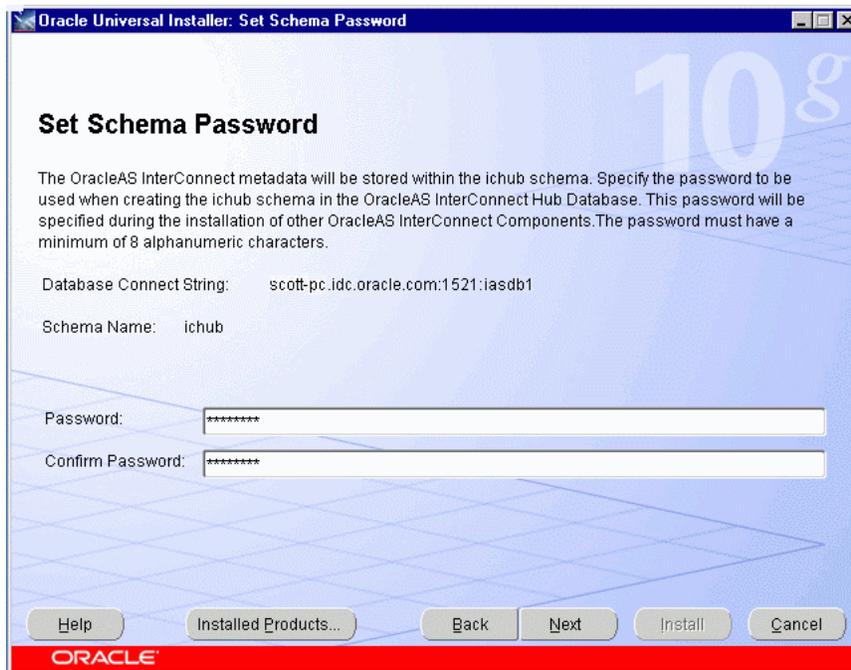
Database SID:

System Password:

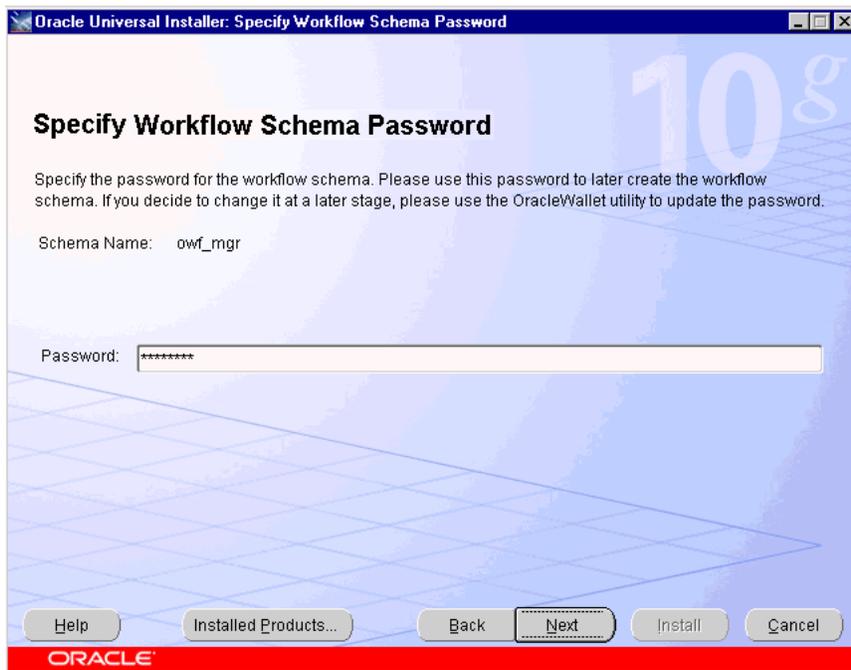
Help Installed Products... Back Next Install Cancel

ORACLE

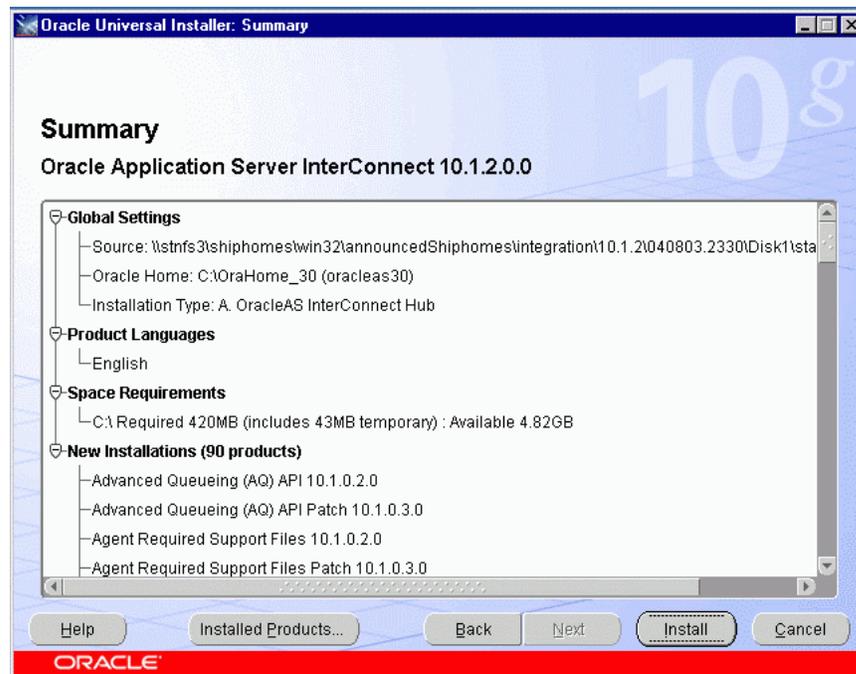
- a. Enter database connection information in the following fields:
 - Host Name: Host name for the database. The default is localhost.
 - Port Number: Port number for the database. The default is 1521.
 - Database SID: The database System Identifier (SID). The default is iasdb.
 - System Password: The system users password.
 - b. Click **Next**.
4. The Set Schema Password screen is displayed as shown in [Figure 2–7](#). Enter and confirm the password for the ichub schema on this screen. The password should be more than 8 characters.

Figure 2–7 Set Schema Password Screen

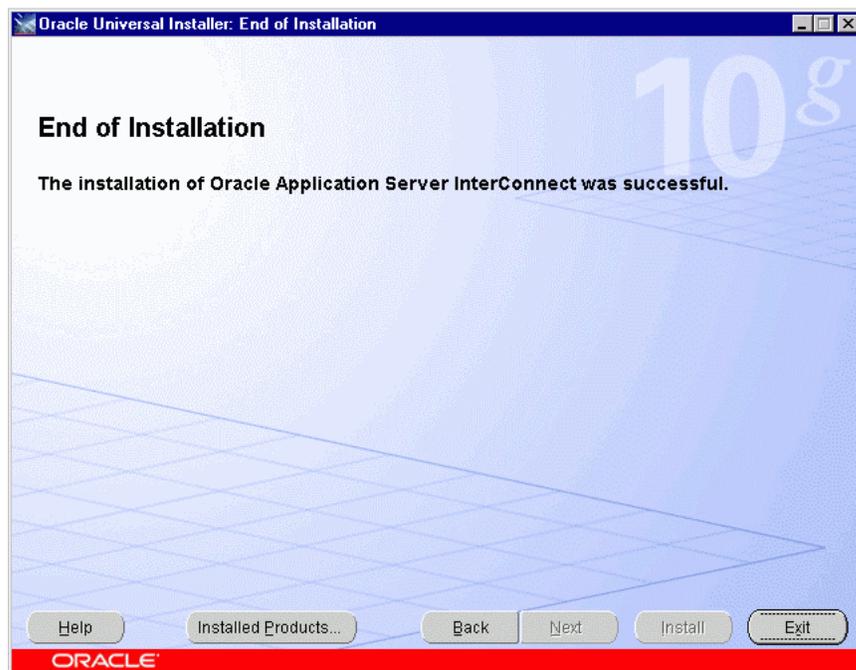
5. Click **Next**. The Specify Workflow Schema Password screen is displayed as shown in [Figure 2–8](#). Enter the password for the `owf_mgr` schema on this screen. The password should be more than 8 characters.

Figure 2–8 Specify Workflow Schema Password Screen

6. Click **Next**. The Summary screen is displayed as shown in [Figure 2–9](#). Review the selections made on previous screens and click **Install**.

Figure 2–9 Summary Screen

- The End of Installation screen is displayed as shown in [Figure 2–10](#), indicating that the installation has completed. Click **Exit** to exit the installer.

Figure 2–10 End of Installation Screen

See Also: If you have an existing workflow installation in the hub database, then upgrade the workflow schema to the 2.6.3.5 version by performing the steps documented in *Oracle Workflow Installation Notes for Oracle Content Management SDK*.

Note: To configure Oracle Workflow to use a schema in a database different from the InterConnect Hub database, edit the following parameters in the \$ORACLE_HOME/integration/interconnect/workflow/adapter.ini file to point to the Workflow database.

```

db_host=
db_name=
db_instance=

```

2.2.2 Installing OracleAS Integration InterConnect Adapters

This section contains instructions for installing OracleAS Integration InterConnect adapters. OracleAS Integration InterConnect adapters must be installed on a Oracle Application Server Middle Tier installation. To install one or more OracleAS Integration InterConnect adapters, start the Oracle Universal Installer and complete the following steps.

1. On the Select Installation Type screen:
 - a. Select **OracleAS Integration InterConnect Adapters**.
 - b. Click **Next**.

See Also: ["Installing OracleAS Integration InterConnect"](#) on page 2-1 for instructions on how to display the Specify Installation Types screen
2. The Available Product Components screen appears.
 - a. Select the adapter you want to install. You must select at least one adapter to install. The following adapters are available:
 - OracleAS Integration InterConnect Adapter for AQ
 - OracleAS Integration InterConnect Adapter for DB
 - OracleAS Integration InterConnect Adapter for Oracle Applications
 - OracleAS Integration InterConnect Adapter for FTP
 - OracleAS Integration InterConnect Adapter for HTTP
 - OracleAS Integration InterConnect Adapter for IBM WebSphere MQ
 - OracleAS Integration InterConnect Adapter for SMTP
 - OracleAS Integration InterConnect EIS Adapter Plugin
 - b. Click **Next**.
3. Refer to the adapter guides mentioned in [Table 2–1](#) for adapter-specific installation instructions.

Table 2–1 Adapter-specific Installation Information

Adapter	Installation Instructions
AQ	<i>OracleAS Integration InterConnect Adapter for AQ Installation and User's Guide</i>
DB	<i>OracleAS Integration InterConnect Adapter for DB Installation and User's Guide</i>
FTP	<i>OracleAS Integration InterConnect Adapter for FTP Installation and User's Guide</i>

Table 2–1 (Cont.) Adapter-specific Installation Information

Adapter	Installation Instructions
HTTP	<i>OracleAS Integration InterConnect Adapter for HTTP Installation and User's Guide</i>
WebSphere MQ	<i>OracleAS Integration InterConnect Adapter for WebSphere MQ Installation and User's Guide</i>
OA	<i>OracleAS Integration InterConnect Adapter for OA Installation and User's Guide</i>
SMTP	<i>OracleAS Integration InterConnect Adapter for SMTP Installation and User's Guide</i>
EIS Plugin	<i>Oracle Application Server Adapters Installation Guide</i>

2.2.3 Installing OracleAS Integration InterConnect Development Kit

This section describes how to install the OracleAS Integration InterConnect Development Kit. It contains the following topics:

- [Development Kit Installation Process](#)
- [Development Kit Postinstallation Tasks](#)

2.2.3.1 Development Kit Installation Process

Perform the following steps to install the OracleAS Integration InterConnect Development Kit:

1. On the Select a Product to Install screen, select Oracle Application Server Integration InterConnect.
2. Click Product Languages. The Language Selection dialog is displayed.
3. Select all the languages in the Available Languages list.

Note: To view data in languages such as Japanese, Korean, Traditional Chinese, and Simplified Chinese, the correct fonts have to be installed. The installation of the font is based on the language selected. For example, if you select Korean among the languages, then the Korean font is installed. Hence, to view data in Japanese, Korean, Traditional Chinese, and Simplified Chinese, select the relevant languages.

4. Click the right arrow. All the languages are displayed in the Selected Languages list. Click Ok.
5. Click Next. The Select Installation Type screen is displayed.
6. Select OracleAS Integration InterConnect Development Kit, and then click **Next**.
7. The Set Oracle Wallet Password screen is displayed, as shown in [Figure 2–5](#). Enter and confirm the password on the screen, which will be used to administer OracleAS Integration InterConnect installation.
 - Go to step 8, if installing in an OracleAS Middle Tier Oracle home that does not have an InterConnect component already installed. Ensure that the OracleAS Integration InterConnect hub has been installed.

- Go to step 9, if installing in an OracleAS Middle Tier Oracle home that has an existing InterConnect component. Ensure that it is a home directory to an OracleAS Integration InterConnect component.

Note: If the InterConnect Wallet does not exist in this Oracle home, then the installation will prompt you to set an InterConnect Wallet password. However, if the InterConnect Wallet already exists, then the installation prompts you to specify its password.

8. Click **Next**. The Specify Hub Database Connection screen is displayed, as shown in [Figure 2-6](#). Enter the hostname, port, system identifier, and InterConnect users password for the database.

Note: This screen appears only when all of the following conditions are met:

- You are installing the OracleAS Integration InterConnect Development Kit on a UNIX platform.
 - The Oracle home in which you are installing the OracleAS Integration InterConnect Development Kit does not have any OracleAS Integration InterConnect components.
-

9. Click **Next**. The Summary screen is displayed. Review the selections made on previous screens and click **Install**. The development kit is installed on your computer in the following directory:
 - UNIX: `ORACLE_HOME/integration/interconnect/sdk`
 - Windows: `ORACLE_HOME\integration\interconnect\sdk`
10. The End of Installation screen is displayed, indicating that the installation has completed. Click **Exit** to exit the installer.

2.2.3.2 Development Kit Postinstallation Tasks

On Windows, configure Oracle Net using the Oracle Net Configuration Assistant. Select the typical configuration option and follow the directions in the configuration assistant help to complete the configuration. If you are using Oracle Workflow, after installing the Oracle Workflow Client, perform the following steps:

Step 1 Set up Oracle Workflow HTML Help

If you install Oracle Workflow Builder while installing Oracle Workflow Client, then OUI copies a `.zip` file containing the HTML help, `wfdoc.zip`, to the Workflow directory in your Oracle home. For example, `ORACLE_HOME\wf\wfdoc.zip`. To view the HTML help, extract the doc directory list from the `.zip` file to your file system:

1. Use an `unzip` utility to extract the doc directory list from the `.zip` file within the Workflow directory. You need at least 7 MB of free disk space to extract the `.zip` file. Extract the files to `ORACLE_HOME/wf/`. You should get the following subdirectories:
 - `ORACLE_HOME\wf\doc\lang\wf`: Contains Oracle Workflow Guide.
 - `ORACLE_HOME\wf\doc\lang\wfcust`: Contains custom help. You can add your own customized Workflow help in this directory.

2. After extracting the doc directory list, you can remove the .zip file. This step is optional.
3. You can now view the HTML help using a Web browser.

The path for the contents page of the *Oracle Workflow Online Help* is:

```
ORACLE_HOME\wf\doc\lang\wf\toc.htm
```

The path for the contents page of your custom *Oracle Workflow Online Help* is:

```
ORACLE_HOME\wf\doc\lang\wfcust\wfcust.htm
```

4. To add custom help, replace the placeholder file in the wfcust directory, wfcust.htm, with your own help material. The HTM file that is the main entry point for your custom help must be named wfcust.htm and must contain an anchor named contents. Your custom help is accessible through the Custom Help link on the contents page of the *Oracle Workflow Online Help*. This step is optional.

Step 2 Modify Fonts in Oracle Workflow Builder

If you are installing Oracle Workflow Builder in another language, such as Japanese, then you can modify the font used by the windows in Oracle Workflow Builder to a font that is suitable for your language. Any change you make applies to all windows within the program. This step is optional.

1. Choose **Font** from the View menu in Oracle Workflow Builder to display the Fonts properties page.
2. Select the font you want to use in the labels for your icons and in the navigator list. The Sample region shows the appearance of the font you select. For example, when using Oracle Workflow Builder in Japanese, you might choose the font MS PGothic.
3. Select the font style, for example, regular, bold, italic, or bold italic. Some fonts have a limited selection of font styles.
4. Select the font size. Some fonts have a limited selection of font sizes.
5. Select the Underline or Strikeout check boxes to apply those effects.
6. Click **OK** when you are finished.
7. Close and restart Oracle Workflow Builder. The new font settings should have taken into effect.

Step 3 Review Documentation for Custom Adapters

If you need to create custom adapters and browsers, then refer to the documentation in *ORACLE_HOME/integration/interconnect/sdk/cookbook.zip*. This step is optional.

Managing OracleAS Integration InterConnect

This chapter describes how to manage OracleAS Integration InterConnect after installation. It contains the following topics:

- [Starting OracleAS Integration InterConnect](#)
- [Changing OracleAS Integration InterConnect and Oracle Workflow Schemas Passwords](#)
- [Creating Multiple Repository Schemas in the Same Database](#)
- [Creating Multiple Adapters in the Same Computer](#)

3.1 Starting OracleAS Integration InterConnect

Start OracleAS Integration InterConnect using the following steps:

1. Start the Hub database.
2. Start the Hub database listener.
3. Start InterConnect Repository.

On UNIX:

Use the `start` command:

```
cd ORACLE_HOME/integration/interconnect/repository
./start
```

On Windows:

Use the `start.bat` command or the Windows Services to start and stop the repository:

```
cd ORACLE_HOME\integration\interconnect\repository
.\start.bat
```

Note: The Windows Service Names of the OracleAS Integration InterConnect Components are:

- OracleAS Integration InterConnect Adapters:
OracleOracleHomeNameInterConnect-adapterName, for example, *myAQApp*
 - OracleAS Integration InterConnect Repository:
OracleOracleHomeNameInterConnectRepository
 - Oracle Workflow:
OracleOracleHomeNameInterConnectWorkflow
-

4. Use iStudio to design integration metadata. To start iStudio, use the following shortcut from the Start menu:

Start, Programs, *ORACLE_HOME_NAME*, Application Development

5. Start adapters.

See Also: [Table 2-1](#) on page 2-10 for a list of adapter-specific documentation

3.2 Changing OracleAS Integration InterConnect and Oracle Workflow Schemas Passwords

You might need to change the passwords of the *ichub* and *owf_mgr* schemas on a regular basis, depending on your company's security policy. The *ichub* is the schema for OracleAS Integration InterConnect, and *owf_mgr* is the schema for Oracle Workflow.

OracleAS Integration InterConnect uses Oracle Wallet Manager to maintain system passwords. When you install OracleAS Integration InterConnect, Oracle Wallet Manager is also installed and a password store is created. All passwords used by OracleAS Integration InterConnect components are stored in the password store.

You can create, update, and delete passwords using the `oraclewallet` command. When you run the command, it prompts you for the admin password.

To change the passwords of the *ichub* and *owf_mgr* schemas in the Oracle database, perform the following steps:

1. Enter the following command on the command prompt of the directory where OracleAS Integration InterConnect is installed:

```
oraclewallet -updatesecret passwordname
```

When you press Enter, it will prompt you for the admin authentication, which is required for updating the password.

2. Enter the admin password and press Enter.
3. A following confirmation message appears:

The secret *ichub* has been updated in the secret store.

3.3 Creating Multiple Repository Schemas in the Same Database

The first schema was created in the repository database during the hub installation. If you need a second schema in the repository database, you can create it using the following steps:

1. Run the InterConnect Hub installation procedure to install OracleAS Integration InterConnect Hub in a new OracleAS Middle Tier Oracle home.

When the installer prompts you for database information, enter hub information (database host, port, and SID) that is identical to the hub information in the first install.

2. After the install is complete, make a copy of the following files so that you have a copy of the original. You will be making changes to these files:
 - NEW_ORACLE_
HOME/integration/interconnect/repository/hubschema
 - NEW_ORACLE_
HOME/integration/interconnect/repository/oaiexport
 - NEW_ORACLE_
HOME/integration/interconnect/repository/oaiimport
 - NEW_ORACLE_
HOME/integration/interconnect/repository/sql/hub1.sql
 - NEW_ORACLE_
HOME/integration/interconnect/repository/sql/deinstall_schema.sql
 - NEW_ORACLE_HOME/integration/interconnect/hub/hub.ini
3. Replace all occurrences of `ichub` with the name of the new schema in the preceding files. For example, if you want the new schema to be called `ichub2`, replace `ichub` with `ichub2`.
4. Run the modified `hubschema` script to create the new hub user (`ichub2` in this example) in the hub database.
5. Update the `hub_password` key in the OracleWallet for this new Oracle home.

3.4 Creating Multiple Adapters in the Same Computer

Oracle Universal Installer does not allow you to install more than one of the same OracleAS Integration InterConnect adapter types in an Oracle home. When you install the same OracleAS Integration InterConnect adapter a second time, the first installation is deinstalled. For example, you cannot install more than one database adapter in an Oracle home.

If you need to install more than one instance of the same OracleAS Integration InterConnect adapter on the same computer, then you have the following two options:

- Create multiple Oracle homes on the computer. When you install an adapter the second time, choose a different Oracle home than the first adapter installation.
- Use the `copyAdapter` script located in `ORACLE_HOME/integration/interconnect/bin` to install multiple OracleAS Integration InterConnect adapters of the same type in the same Oracle home.

Usage: `copyAdapter app1 app2`

The `copyAdapter` script is copied to the following `bin` directory only during Hub installation:

- UNIX: `ORACLE_HOME/integration/interconnect/bin`
- Windows: `ORACLE_HOME\integration\interconnect\bin`

If you need to use this script to create multiple adapters on a spoke computer, then copy the script to the `bin` directory on the spoke computer, and edit the script to reflect the new Oracle home.

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