Oracle® Application Server

Quick Upgrade Guide

10*g* (10.1.4.0.1) for UNIX

B31186-01

July 2006

This guide describes how to upgrade your Oracle Application Server Identity Management 10*g* Release 2 (10.1.2.0.2) components to Oracle Identity Management 10*g* (10.1.4.0.1).

For more information, refer to the following sections:

1 Who Can Use the Quick Upgrade Guide?

This guide provides instructions for upgrading your OracleAS Identity Management 10*g* Release 2 (10.1.2.0.2) components to Oracle Identity Management 10*g* (10.1.4.0.1).

Specifically, you can use this guide if your Oracle Application Server environment meets all of the following requirements:

- You are upgrading from OracleAS Identity Management 10*g* Release 2 (10.1.2.0.2) to Oracle Application Server 10*g* (10.1.4.0.1).

- You are using a **colocated Infrastructure** where the OracleAS Identity Management and OracleAS Metadata Repository are installed in the same Oracle home.

- You installed your 10*g* Release 2 (10.1.2.0.2) OracleAS Infrastructure using Oracle Universal Installer and the **Identity Management and Metadata Repository** installation type.

If your Oracle Application Server environment does not meet the requirements listed in this section, or if you are not sure if your Oracle Application Server environment meets these requirements, refer to the *Oracle Application Server Upgrade and Compatibility Guide* for complete instructions on upgrading your Oracle Application Server installations.

ORACLE®

Note that users with more complex Oracle Application Server environments might find this guide useful as an overview of the tools and procedures for upgrading to Oracle Identity Management 10*g* (10.1.4.0.1).

2 Overview of the Quick Upgrade Procedure

Table 1 provides a tabular overview of the Quick Upgrade Procedure.

Table 1   Overview of the Quick Upgrade Procedure

Step	Step Description	Upgrade Tool	More Information
1	Back up the colocated Infrastructure Oracle home.	N/A	"Task 1: Back Up Your Oracle Application Server Environment".
2	Upgrade the OracleAS Metadata Repository database and upgrade the OracleAS Identity Management schemas	Oracle Universal Installer	"Task 2: Upgrade the OracleAS Metadata Repository Database and OracleAS Identity Management"
3	Upgrade and verify the OracleAS Metadata Repository Component Schemas	Metadata Repository Upgrade Assistant	"Task 3: Upgrade the Component Schemas in the OracleAS Metadata Repository"
4	Optionally, decommission and deinstall the source Oracle homes	Oracle Universal Installer	"Task 4: Decommission the 10g Release 2 (10.1.2.0.2) Oracle Home"

3 Task 1: Back Up Your Oracle Application Server Environment

Your first step in upgrading your Oracle Application Server 10*g* Release 2 (10.1.2.0.2) environment is to back up your existing Oracle homes.

The following procedure describes how to perform a cold backup of your middle tier and OracleAS Infrastructure Oracle homes.

> **See Also:**   "Backup Strategies Before Upgrade" in the *Oracle Application Server Upgrade and Compatibility Guide* for complete information about backup requirements before upgrade
>
> "Backup and Recovery" in the 10*g* (9.0.4) *Oracle Application Server Administrator's Guide*

To back up your Oracle Application Server 10*g* Release 2 (10.1.2.0.2) environment before upgrade:

1. Stop and then back up each middle tier Oracle home:

    a. Stop all processes in the Oracle home:

        ORACLE_HOME/opmn/bin/opmnctl stopall

    b. Stop the Application Server Control:

        ORACLE_HOME/bin/emctl stop iasconsole

c. As the root user, copy the entire Oracle home directory to another disk on your network.

Oracle recommends that you perform the copy operation as the root user to ensure that all required files are copied and backed up.

2. Stop and then back up the OracleAS Infrastructure Oracle home:

a. Stop all processes in the Oracle home:

```
ORACLE_HOME/opmn/bin/opmnctl stopall
```

b. Stop the Application Server Control:

```
ORACLE_HOME/bin/emctl stop iasconsole
```

c. Stop the OracleAS Metadata Repository database instance:

```
ORACLE_HOME/bin/sqlplus /nolog
SQL> connect SYS as SYSDBA
SQL> shutdown
SQL> quit
```

d. Stop the Net listener:

```
ORACLE_HOME/bin/lsnrctl stop
```

e. As the root user, copy the entire Oracle home directory to a backup disk.

Oracle recommends that you perform the copy operation as the root user to ensure that all required files are copied and backed up.

Note that this includes the database data files, which, by default, are installed in the Infrastructure Oracle home when you install a colocated Infrastructure.

3. Start the OracleAS Infrastructure Oracle home:

a. Start the Net listener:

```
ORACLE_HOME/bin/lsnrctl start
```

b. Start the OracleAS Metadata Repository database instance:

```
ORACLE_HOME/bin/sqlplus /nolog
SQL> connect SYS as SYSDBA
SQL> startup
SQL> quit
```

c. Start all processes in the OracleAS Infrastructure Oracle home:

```
ORACLE_HOME/opmn/bin/opmnctl startall
```

d. Start the Application Server Control:

```
ORACLE_HOME/bin/emctl start iasconsole
```

4. Start the middle tier Oracle homes:

a. Start the processes in each middle tier Oracle home:

```
ORACLE_HOME/opmn/bin/opmnctl startall
```

b. Start the Application Server Control in each Oracle home:

```
ORACLE_HOME/bin/emctl start iasconsole
```

4 Task 2: Upgrade the OracleAS Metadata Repository Database and OracleAS Identity Management

The following sections describe how to upgrade the OracleAS Identity Management in a colocated Infrastructure. When performed in this configuration, this procedure also automatically upgrades the database that hosts the OracleAS Metadata Repository.

For more information, refer to the following sections:

- Performing the OracleAS Identity Management Upgrade
- Troubleshooting the OracleAS Identity Management Upgrade
- Configuring Oracle Enterprise Manager 10g Database Control

4.1 Performing the OracleAS Identity Management Upgrade

To upgrade OracleAS Identity Management in a colocated Infrastructure Oracle home:

1. Stop any Oracle Application Server middle-tier instances that are using the services of the OracleAS Identity Management installation.

2. Log in to the computer on which the 10*g* Release 2 (10.1.2.0.2) OracleAS Infrastructure instance is installed as the same operating system user that performed the 10*g* Release 2 (10.1.2.0.2) installation.

    > **Note:** You must be logged in as a member of the `dba` operating system group.

3. Make sure that the OracleAS Metadata Repository database and database listener are up and running.

4. Make sure the Oracle Internet Directory server is up and running:

    Enter the Application Server Control URL in your browser and navigate to the Application Server Home page for the OracleAS Infrastructure installation. Check the status of the **Internet Directory** component in the System Components table.

    > **See Also:**   "Displaying the Application Server Control Console" in the *Oracle Application Server Administrator's Guide*

5. Set the required environment variables, as defined in the section "Environment Variables" in the "Requirements" chapter of the *Oracle Application Server Installation Guide*.

    In particular, be sure to set following variables so they do not reference any Oracle home directories:

    - PATH
    - CLASSPATH
    - LD_LIBRARY_PATH

- SHLIB_PATH

In addition, be sure the following environment variables are *not* set:

- TNS_ADMIN
- ORACLE_HOME
- ORACLE_SID

6. Mount the CD-ROM and start the installer.

   See Also: *Oracle Application Server Installation Guide* for detailed instructions about starting Oracle Universal Installer on your platform

7. Refer to Table 2 for information on the options you should select on each screen.

8. After the End of Installation screen appears, exit Oracle Universal Installer.

9. Verify that Oracle Internet Directory and OracleAS Single Sign-On are functioning and accessible in the new 10*g* (10.1.4.0.1) Oracle home:

   a. Use your Web browser to navigate to the admistrative Home page for the OracleAS Single Sign-On server and verify that the server is running:

      ```
      http://host:port/pls/orasso
      ```

      In this example, *host* is the computer where theOracleAS Single Sign-On server is located, *port* is the port number of the server, and orasso is the database access descriptor for the single sign-on schema.

      See Also: "Accessing the Single Sign-On Server" in the *Oracle Application Server Single Sign-On Administrator's Guide*

   b. Navigate to the Application Server Control Console URL for the OracleAS Infrastructure Oracle home:

      ```
      http://hostname.domain:port/
      ```

      For example:

      ```
      http://host1.acme.com:18100/
      ```

      Note that unlike the middle-tier upgrade, after you upgrade the OracleAS Infrastructure, you must use the 10*g* (10.1.4.0.1) Application Server Control Console port to access the Application Server Control Console. That port can be found in the following file located in the 10*g* (10.1.4.0.1) destination Oracle home:

      ```
      DESTINATION_ORACLE_HOME/install/setupinfo.txt
      ```

   c. On the Farm page, click the name of the OracleAS Infrastructure instance that you just upgraded.

   d. On the Application Server Home page, verify that the components of the OracleAS Infrastructure are up and running.

      In particular, verify that the OID and Single Sign-On components in the System Components table are up and running.

> **e.** Verify the version of the instance in the General section of the Application Server Home page.

10. Depending up on which OracleAS Infrastructure components you are using, there may be additional post-upgrade tasks you should consider.

Review the component-specific instructions that apply to your environment in the chapter, "Component-Specific Post-Upgrade Procedures," in the *Oracle Application Server Upgrade and Compatibility Guide* for your platform.

Table 2   Summary of the Oracle Universal Installer Screens During the OracleAS Identity Management Upgrade in a Colocated infrastructure

Screen	Description and Recommended Options to Select
Welcome	Welcomes you to Oracle Universal Installer and the Oracle Identity Management 10*g* (10.1.4.0.1) installation procedure.
Specify File Locations	Enter a name and path for the new Oracle home.
	This new Oracle home will be the destination Oracle home for your Oracle Identity Management 10*g* (10.1.4.0.1) upgrade.
Select a Product to Install	Select **Oracle Application Server Infrastructure 10g**.
	If multiple languages are used in the OracleAS Infrastructure you are upgrading, then click **Product Languages**.
Language Selection	The screen appears only if you clicked **Product Languages** on the Select a Product to Install screen.
	If multiple languages are used in the OracleAS Infrastructure you are upgrading, select those languages.
	If you are not sure which languages were installed, but want languages other than English, click the double arrow button (>>) to select all languages.
Select Installation Type	Select **Identity Management and Metadata Repository**.
Product-Specific Prerequisite Checks	This screen lists the software and hardware prerequisites that are checked automatically for you by Oracle Universal Installer.
	If any of the prerequisites are not met, then you can choose to stop the installation and update your system as suggested by the information on this screen. Otherwise, if the screen warns you about a specific prerequisite, you can select the appropriate check box to acknowledge the prerequisite, and then continue with the installation.
Upgrade Existing Infrastructure	This screen appears when Oracle Universal Installer detects an existing Oracle Application Server installation of the same type as the one you selected on the Select Installation Type screen.
	Select the option to upgrade an existing OracleAS Infrastructure, and then select the Oracle home you want to upgrade from the drop-down list. (If there is only one Infrastructure of the selected type on the computer, then the drop-down list is inactive.)

Table 2   (Cont.) Summary of the Oracle Universal Installer Screens During the OracleAS Identity Management Upgrade in a Colocated infrastructure

Screen	Description and Recommended Options to Select
Specify Oracle Internet Directory Login	In the **Username** field, enter the superuser distinguished name (DN) for the Oracle Internet Directory you are about to upgrade. The superuser DN `cn=orcladmin` is the default for this field; change this value only if the Oracle Internet Directory superuser DN is not `cn=orcladmin`. In the **Password** field, enter the password for the superuser DN.
Specify Infrastructure Database Connection Information	Enter `SYS` in the **Username** field and the `SYS` user's password in the **Password** field.
Warning dialog box	This dialog box warns you that all the clients of the OracleAS Metadata Repository database must now be stopped. Oracle Universal Installer will automatically stop any clients within the source Oracle home.[1] However, you must manually stop any database clients and OracleAS Metadata Repository clients that reside in another Oracle home. Clients of the OracleAS Metadata Repository include: ■ OracleAS Identity Management components that use this OracleAS Metadata Repository. ■ Middle tier instances that use this OracleAS Metadata Repository Within each middle tier that uses this OracleAS Metadata Repository, you must be sure to stop all components, including Oracle HTTP Server and OracleAS Web Cache. For more information, see the chapter "Starting and Stopping" in the *Oracle Application Server Administrator's Guide*.
Database Listener Warning Dialog Box	If a database listener is running on the host, a warning dialog box displays. Review the dialog box determine whether or not you need to stop the listener manually.
Specify Instance Name and ias_admin Password	Enter a name for the new Oracle Identity Management 10*g* (10.1.4.0.1) instance and a password for the `ias_admin` Administrator account. You use the `ias_admin` password to log on to Application Server Control Console to manage the upgraded Oracle Application Server. In general, the minimum length of the `ias_admin` password is five alphanumeric characters. At least one of the characters must be a number and the password cannot start with a number. For more information, see the section "The ias_admin User and Restrictions on its Password" in the *Oracle Application Server Installation Guide*.

*Table 2   (Cont.) Summary of the Oracle Universal Installer Screens During the
OracleAS Identity Management Upgrade in a Colocated infrastructure*

Screen	Description and Recommended Options to Select
Summary	Use this screen to confirm the choices you've made. Click **Install** to begin upgrading to the new 10*g* (10.1.4.0.1) Oracle home. A dialog box appears when the copying is complete. This dialog box prompts you to run a configuration script as the root user. Follow the instructions in the dialog box and click **OK** when the script is finished.
The Configuration Assistants	After the initial software is installed, a set of configuration assistants automatically set up the components in the new 10*g* (10.1.4.0.1) Oracle home. Use this screen to follow the progress of each assistant and to identify any problems during this phase of the installation. **Notes:** ■ The Database Upgrade Assistant (DBUA) can take a significant amount of time to upgrade the database. For more information how long it takes to upgrade your database, see "Planning for System Downtime" in the *Oracle Application Server Upgrade and Compatibility Guide*. ■ While Database Upgrade Assistant is running, do not use the **Stop** button to interrupt the execution of Database Upgrade Assistant. If you press **Stop**, the underlying processes for Database Upgrade Assistant will continue to run. Also, Oracle Universal Installer will wait until those processes complete before returning control to the user.
End of Installation	When the installation and upgrade is complete, this screen provides important details about the 10*g* (10.1.4.0.1) Oracle home, such as the URL for the Application Server Control Console and the location of the `setupinfo.txt` file. After you review the information on this screen, you can exit Oracle Universal Installer and proceed to the post-upgrade tasks.

[1] You can access a log of the automated shutdown procedure executed by Oracle Universal Installer in the `shutdownprocesses.log` file, which is located in the `cfgtoollogs` directory in the destination Oracle home.

4.2 Troubleshooting the OracleAS Identity Management Upgrade

If you encounter an error during the OracleAS Identity Management upgrade, consider the following troubleshooting steps:

■ Refer to the "OracleAS Identity Management Upgrade Problems and Solutions" in the *Oracle Application Server Upgrade and Compatibility Guide* for common troubleshooting tips.

■ If you entered incorrect information on one of the installation screens, return to that screen by clicking **Back** until you see the screen.

■ If an error occurrs while the installer is copying or linking files:

   a. Note the error and review the installation log files.

b. Remove the failed installation by following the steps in Appendix E, "Deinstallation and Reinstallation" of the *Oracle Application Server Installation Guide*.

   c. Correct the issue that caused the error.

   d. Restart the upgrade procedure.

■ If a configuration assistant fails, check the log file for that configuration assistant. For a list of the configuration assistants and the location of their log files, see the section "Description of Oracle Application Server Configuration Assistants" in the *Oracle Application Server Installation Guide*. If you do not see log files from some configuration assistants in the following directory, then exit the installer:

```
DESTINATION_ORACLE_HOME/cfgtoollogs
```

When you exit the installer, Oracle Universal Installer copies the log files to `cfgtoollogs` directory.

■ For all other issues, refer to Oracle Universal Installer log files:

```
oraInventory_location/logs/installActionstimestamp.log
oraInventory_location/logs/oraInstalltimestamp.err
oraInventory_location/logs/oraInstalltimestamp.out
DESTINATION_ORACLE_HOME/install/make.log
```

You can find *oraInventory_location* by viewing the contents of the following configuration file:

```
On Solaris systems: /var/opt/oracle/oraInst.loc
On Linux systems: /etc/oraInst.loc
```

4.3 Configuring Oracle Enterprise Manager 10*g* Database Control

The Oracle Enterprise Manager 10*g* Database Control provides a Web-based console you can use to manage Oracle Database 10*g*. When your OracleAS Metadata Repository is installed in an Oracle Database 10*g* instance, you can use the Database Control to manage your OracleAS Metadata Repository database.

> **See Also:** "Managing the OracleAS Metadata Repository Database with Database Control" in the chapter "Introduction to Administration Tools" in the *Oracle Application Server Administrator's Guide*

However, after you use Oracle Universal Installer to upgrade your OracleAS Metadata Repository database to Oracle Database 10*g*, the Database Control is not configured automatically. Instead, if you want to use the Database Control to manage your upgraded OracleAS Metadata Repository database, you must configure the Database Control manually using the Enterprise Manager Configuration Assistant (EMCA).

> **See Also:** "Configuring the Database Control with EMCA" in *Oracle Enterprise Manager Advanced Configuration*

5 Task 3: Upgrade the Component Schemas in the OracleAS Metadata Repository

The following sections describe how to use MRUA to upgrade your component schemas:

- Stopping Any Middle Tier Instances That Use the OracleAS Metadata Repository
- Verifying That the Oracle Internet Directory and Database Processes Are Running
- Checking for Invalid Database Objects
- Running the Metadata Repository Upgrade Assistant (MRUA)
- Using a SQL Query to Verify the Success of the OracleAS Metadata Repository Upgrade

5.1 Stopping Any Middle Tier Instances That Use the OracleAS Metadata Repository

Before you use MRUA, you must stop all processes associated with each middle tier that uses the OracleAS Metadata Repository.

To stop all the Oracle Application Server instances that use the OracleAS Metadata Repository:

1. Display the Farm page in the Application Server Control Console; the Farm page lists all the Oracle Application Server instances that are currently using the services of the OracleAS Infrastructure.

   > **See Also:** "Introduction to Administration Tools" in the *Oracle Application Server Administrator's Guide* for more information about the Application Server Control Console Farm page

2. Click the name of each instance listed on the Farm page, and click **Stop All** on the Application Server Control Console Home page for each instance.

5.2 Verifying That the Oracle Internet Directory and Database Processes Are Running

Before you use MRUA, you must be sure that the following processes are up and running:

- The database that hosts the OracleAS Metadata Repository
- The database listener for the OracleAS Metadata Repository database
- The Oracle Internet Directory instance where the OracleAS Metadata Repository database is registered

Log in to the Application Server Control Console to verify that the necessary processes are running and that the required components are configured properly. For example, you can use the Application Server Control Console to verify that the Farm page displays correctly; if the Farm page displays correctly, then the Oracle Internet Directory is up and running.

> **See Also:** ""Introduction to Administration Tools" in the *Oracle Application Server Administrator's Guide* for more information about using the Application Server Control Console

5.3 Checking for Invalid Database Objects

Before you run MRUA, use the following procedure to make sure that none of the database objects that are required by Oracle Application Server are invalid:

1. Connect to the OracleAS Metadata Repository database.

   For example:

   ```
   1014_INFRASTRUCTURE_ORACLE_HOME/bin/sqlplus "connect / as sysdba"
   ```

2. When prompted, enter the SYS password.

3. Issue the following SQL command:

   ```
   SELECT owner, object_type, object_name
      FROM all_objects
      WHERE status='INVALID';
   ```

The query should not return any database objects that have an Oracle Application Server component schema (such as PORTAL, WIRELESS, and so on) in the 'owner' column.

If you find any invalid objects, run the `utlrp.sql` script from the SQL*Plus command line to recompile the invalid objects:

```
@?/rdbms/admin/utlrp.sql
```

Be sure to run the `utlrp.sql` script that resides in the destination, 10*g* (10.1.4.0.1) Oracle home.

5.4 Running the Metadata Repository Upgrade Assistant (MRUA)

After you have stopped the middle tiers and verified that the Oracle Internet Directory and database processes are running, you can use MRUA to upgrade and verify the component schemas in the OracleAS Metadata Repository.

> **Note:** Be sure to log in to the computer where the OracleAS Metadata Repository is running as the same user who installed the 10*g* Release 2 (10.1.2.0.2) OracleAS Metadata Repository. MRUA must be run on the computer that hosts the OracleAS Metadata Repository that you are about to upgrade.

To run MRUA:

1. Mount the Metadata Repository Upgrade Assistant and Utilities CD–ROM.

   The MRUA and Utilities CD–ROM is part of the Oracle Application Server CD–ROM Pack that you receive when you order the Oracle Application Server software.

2. Start MRUA by entering the following command, with the following required arguments, which are described in Table 3:

   ```
   MRUA_CD_ROOT_DIRECTORY/mrua/mrua.sh
   ```

```
-oracle_home 101401_infrastructure_oracle_home
-oid_host Oracle_Internet_Directory_host
-oid_ssl_port Oracle_Internet_Directory_SSL_port
```

Table 3   Summary of the Required MRUA Command Line Arguments

Argument	Description
-oracle_home	The destination 10*g* (10.1.4.0.1) OracleAS Metadata Repository home directory.
-oid_host	The name of the computer that hosts the Oracle Internet Directory where the OracleAS Metadata Repository is registered.
-oid_ssl_port	The secure port for the Oracle Internet Directory. For the purposes of upgrading the OracleAS Metadata Repository, you must use a secure connection to the Oracle Internet Directory.

> **Note:**   The value of the -oid_host argument and -oid_ssl_port arguments must match the value of the corresponding properties defined in following configuration file in the Identity Management Oracle home:
>
> *1014_INFRASTRUCTURE_ORACLE_HOME*/config/ias.properties
>
> For example:
>
> ```
> OIDhost=sys42.acme.com
> OIDsslport=636
> ```

3. When you are prompted, enter the password for the database SYS user account.

    MRUA needs the SYS password so it can access and modify the component schemas in the database.

4. When you are prompted, enter the Oracle Internet Directory cn=orcladmin administrator password.

    MRUA needs the Oracle Internet Directory password to connect to the Oracle Internet Directory in which the OracleAS Metadata Repository is registered.

    After you provide the required passwords, MRUA checks to be sure the Oracle Internet Directory is running and does one of the following:

    ■   If Oracle Internet Directory is down or unavailable, MRUA displays an error message and exits.

    ■   If Oracle Internet Directory is up and running, MRUA connects to the directory service and obtains additional information required to upgrade the component schemas.

    ■   MRUA starts the upgrade process. As each step in the upgrade is executed, information messages appear on the screen to show the progress of the upgrade.

    Example 1 shows an example of a typical MRUA upgrade session.

5. Review the output of the MRUA command; if MRUA reports any errors, see the appendix, "Error Messages Generated By the Metadata Repository Upgrade Assistant" in the *Oracle Application Server Upgrade and Compatibility Guide*.

Example 1   Sample Output from an MRUA Session

```
mrua.sh -oracle_home /dua1/oracle10g -oid_host dserv1.acme.com -oid_ssl_port
3130

Executing mrua.pl
Running on UNIX

OracleAS Metadata Repository Upgrade Assistant 10.1.4.0.1

Enter the password for SYS:
Enter the password for cn=orcladmin:

Upgrading the OracleAS Metadata Repository to release 10.1.4.0.1

Calling upgrade plugin for MRUA
Component upgraded successfully MRUA

Calling upgrade plugin for UDDI
Component upgraded successfully UDDI

Calling upgrade plugin for WCS
Component upgraded successfully WCS

Calling upgrade plugin for WIRELESS
Component upgraded successfully WIRELESS

Calling upgrade plugin for PORTAL
Component upgraded successfully PORTAL

Calling upgrade plugin for DISCOVERER
Component upgraded successfully DISCOVERER

Calling upgrade plugin for B2B
Component upgraded successfully B2B

Calling upgrade plugin for BAM
Component upgraded successfully BAM

Calling upgrade plugin for MRC
Component upgraded successfully MRC

SUCCESS: All OracleAS plug-ins report successful upgrade

Finished mrua.pl
```

5.5 Example Execution Times for the Metadata Repository Upgrade Assistant

The time required to run MRUA will vary, depending upon your hardware and the amount of data in your OracleAS Metadata Repository. However, testing of MRUA has shown the following typical execution times on the following hardware and software platforms:

- 1 hour, 40 minutes on a Sun UltraSPARC 60, dual CPU, running Solaris 2.9
- 45 minutes on a 2.4GHz Pentium 4, running Windows 2000 Service Pack 4

5.6 Using a SQL Query to Verify the Success of the OracleAS Metadata Repository Upgrade

Besides the MRUA log files, you can optionally query the database to verify the success of the OracleAS Metadata Repository upgrade. Specifically, you can use a SQL command to view the status of each component schema that MRUA upgrades.

> **Note:** The OracleAS Metadata Repository contains schemas for all the Oracle Application Server components. However, only a subset of those component schemas must be upgraded by MRUA. Other schemas, such as the OracleAS Identity Management schemas, are upgraded during the Oracle Application Server installation. Still others, do not require any upgrade from previous versions.

To see the current status of each component schema in the repository that is upgraded by MRUA:

1. Connect to the OracleAS Metadata Repository database.

    For example:

    ```
    1014_INFRASTRUCTURE_ORACLE_HOME/bin/sqlplus "connect / as sysdba"
    ```

2. When prompted, enter the SYS password.

3. Enter the following SQL command to verify the status of the component schemas:

    ```
    SELECT comp_id,version,status FROM APP_REGISTRY;
    ```

    Example 2 shows an example of the output displayed from the component schema SQL query.

Example 2   Sample Output of the Component Schema SQL Query

```
SQL> SELECT comp_id, version, status FROM app_registry;

COMP_ID                       VERSION                       STATUS
----------------------------- ----------------------------- -----------
WIRELESS                      10.1.2.0.2                    VALID
PORTAL                        10.1.2.0.2                    VALID
SSO                           10.1.4.0.1                    VALID
WCS                           10.1.2.0.2                    VALID
DISCOVERER                    10.1.2.0.2                    VALID
OID                           10.1.4.0.1                    VALID
MRUA                          10.1.4.0.1                    VALID
B2B                           10.1.2.0.2                    VALID
UDDI                          10.1.2.0.2                    VALID
BAM                           10.1.2.0.2                    VALID
MRC                           10.1.2.0.2                    VALID

11 rows selected.
```

5.7 Reviewing the MRUA Log Files

When you run MRUA, the utility generates a set of log files that you can use to troubleshoot, verify, or analyze the OracleAS Metadata Repository upgrade process. For more information, see the following sections:

- Guidelines for Using the MRUA Log Files
- Locating the MRUA Log Files

5.7.1 Guidelines for Using the MRUA Log Files

If the MRUA output indicates that one or more of the component upgrades failed, review the MRUA log files, or any component log files referenced from the MRUA log files.

Refer to "Upgrade and Compatibility Error Messages" in the *Oracle Application Server Upgrade and Compatibility Guide* for information about specific component error messages you might find in the log files.

If, by reviewing the log files and the error message descriptions in the *Oracle Application Server Upgrade and Compatibility Guide*, you are able to identify a solution to the upgrade failure, you can implement your solution and then re-run MRUA. When you re-run MRUA, any components that were upgraded successfully during the previous run will not be affected. However, MRUA will attempt to upgrade any components that were not upgraded successfully during a previous run of the utility.

Contact Oracle Support for any errors that are not documented or that cannot be resolved by following documented actions. Note that some errors that occur will require the repository to be restored from backup, the problem to be resolved, and another upgrade to be run.

5.7.2 Locating the MRUA Log Files

The log files are located in the following directory in the Oracle home of the OracleAS Metadata Repository you are upgrading:

```
1014_INFRASTRUCTURE_ORACLE_HOME/upgrade/logs
```

MRUA generates three log files that are of particular interest when you are troubleshooting upgrade issues. The name of the log file includes the exact time the MRUA session was run. This makes it easy to identify a log file for a particular MRUA session.

For example, the three log files generated when you run MRUA at 12:36 PM on September 16, 2005 would appear as follows in the logs directory:

```
mrua2006-06-16_12-36-36PM.log
mrua2006-06-16_12-36-36PM.err
mrua2006-06-16_12-36-36PM.out
```

Table 4 shows the three log file types and the content you can expect to find in each one.

Table 4 Summary of the Log Files Generated by MRUA

MRUA Log File	Description
`mrua<timestamp>.log`	The log file is a good place to start if you are troubleshooting a particular problem with the OracleAS Metadata Repository upgrade. This file contains a high-level summary of all the actions performed by MRUA; as a result, it can help you isolate a specific component that was not upgraded successfully.
`mrua<timestamp>.err`	The error file contains any errors or stack traces generated during the upgrade process. These errors should contain information that help you diagnose and address specific upgrade errors.
`mrua<timestamp>.out`	The output file is the largest of the three MRUA log files and it contains the most comprehensive data about the MRUA session. Use this log file to determine exactly when a particular problem occurred and to see the output generated by the MRUA subcomponents.

6 Task 4: Decommission the 10*g* Release 2 (10.1.2.0.2) Oracle Home

The following sections describe the tasks you must follow in order to decommission and remove the 10*g* Release 2 (10.1.2.0.2) Oracle home. Be sure to review these sections carefully before deinstalling the 10*g* Release 2 (10.1.2.0.2) software:

- Removing the 10g Release 2 (10.1.2.0.2) Instances from the OracleAS Farm

- Preserving Application Files and Log Files

- Relocating the Database Datafiles, Control Files, and Log Files

- Deinstalling a 10g Release 2 (10.1.2.0.2) Oracle Home

6.1 Removing the 10*g* Release 2 (10.1.2.0.2) Instances from the OracleAS Farm

After you upgrade to Oracle Identity Management 10*g* (10.1.4.0.1), the OracleAS Identity Management 10*g* Release 2 (10.1.2.0.2) remains in the list of instances on the Application Server Control Console Farm page.

To remove the source instance from the farm and from the Farm page, use the following command in the source Oracle home:

```
SOURCE_ORACLE_HOME/dcm/bin/dcmctl leavefarm
```

> **See Also:** *Distributed Configuration Management Administrator's Guide* for more information about the `dcmctl leavefarm` command
>
> "Introduction to Administration Tools" in the *Oracle Application Server Administrator's Guide* for more information about the Farm page in the Application Server Control Console

6.2 Removing the Source OracleAS Identity Management Instance from the partner application list

After you upgrade to Oracle Identity Management 10*g* (10.1.4.0.1), the source OracleAS Identity Management instance that you upgraded remains in the list of OracleAS Single Sign-On partner applications.

From the command line, set the ORACLE_HOME environment variable and then run the following command to remove the instance from the list of partner applications:

```
DESTINATION_ORACLE_HOME/bin/ssoreg.bat
  -oracle_home_path path_to_oracle_home
  -site_name name_of_sso_site
  -config_mod_osso TRUE
  -mod_osso_url partner_app_URL
  -update_mode DELETE
  -config_file path_to_osso_config_file
```

Note that the `-config_file` argument is necessary only when SSL is enabled.

> **See Also:**   "Configuring and Administering Partner Applications" in the *Oracle Application Server Single Sign-On Administrator's Guide* for specific information on the syntax and available arguments to the `ssoreg.sh` utility

6.3 Preserving Application Files and Log Files

If there are application files or log files in the source Oracle home that are being referenced or used by the destination Oracle home, you should move them to another location before you decommission the source Oracle home, and, in the destination Oracle home, change any references to the files to the new location.

6.4 Relocating the Database Datafiles, Control Files, and Log Files

After you used Oracle Universal Installer to upgrade a OracleAS Metadata Repository seed database, the datafiles for the OracleAS Metadata Repository database remain in the source Oracle home.

As a result, Oracle recommends that you relocate these files as a safeguard against inadvertently deleting them (for example, by deleting or deinstalling the entire source Oracle home directory tree). In addition, there may be performance benefits to moving the database files outside of the source Oracle home.

> **See Also:**   "Renaming and Relocating Datafiles", "Creating Additional Copies, Renaming, and Relocating Control Files", and "Relocating and Renaming Redo Log Members" in the *Oracle Database Administrator's Guide*

6.5 Deinstalling a 10*g* Release 2 (10.1.2.0.2) Oracle Home

When you are certain that the upgrade was successful, you have all of the necessary backups, you have moved the database data files, control files, log files to a new location, and you have no plans to revert to the source Oracle home, you may elect to remove the files from the source Oracle home. Use the Oracle Universal Installer to deinstall the instance.

> **See Also:** *Oracle Application Server Installation Guide* in the 10*g* Release 2 (10.1.2.0.2) documentation library for instructions on deinstalling the instance.

7 Documentation Accessibility

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

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

Accessibility of Code Examples in Documentation

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

Accessibility of Links to External Web Sites in Documentation

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

TTY Access to Oracle Support Services

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

choose to purchase any products or services from a third party, the relationship is directly between you and the third party. Oracle is not responsible for: (a) the quality of third-party products or services; or (b) fulfilling any of the terms of the agreement with the third party, including delivery of products or services and warranty obligations related to purchased products or services. Oracle is not responsible for any loss or damage of any sort that you may incur from dealing with any third party.