Oracle9*i* Application Server

Installation Guide

Release 2 (9.0.3) for AIX-Based Systems, HP 9000 Series HP-UX, HP Tru64 UNIX, and Linux Intel

November 2002

Part No. B10225-04

ORACLE

Oracle9*i* Application Server Installation Guide, Release 2 (9.0.3) for AIX-Based Systems, HP 9000 Series HP-UX, HP Tru64 UNIX, and Linux Intel

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Contributors: Kurt Heiss, Priya Darshane, Sanjay Singh, Francisco Abedrabbo, Santosh Poonen, Marilyn Hollinger, Pavana Jain, Beth Roeser, Larry Aydlett, Tony Quan, Valarie Moore, Lypp-Tek-Khoo-Ellis.

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Preface

This guide describes the installation process for Oracle9*i* Application Server Release 2 (9.0.3) (Oracle9*i*AS 9.0.3).

This preface contains these topics:

Audience

This installation guide is intended for database administrators and others responsible for installing Oracle products. You should be familiar with client/server relationships and database concepts.

Organization

This document contains:

Chapter 1, "Installation Concepts"

This chapter provides installation and configuring concepts for Oracle9*i*AS 9.0.3.

Chapter 2, "Getting Started"

This chapter provides information about hardware and software requirements, online documentation requirements, and preinstallation tasks for installation of Oracle9*i*AS 9.0.3.

Chapter 3, "Installation"

This chapter guides you through the installation and postinstallation steps for Oracle9*i*AS 9.0.3.

Chapter 4, "Silent and Non-Interactive Installation"

This chapter guides you through Silent and Non-Interactive installation steps for Oracle9*i*AS 9.0.3.

Chapter 5, "Deinstallation and Reinstallation"

This chapter guides you through the deinstallation and reinstallation steps for Oracle9*i*AS 9.0.3.

Appendix A, "Default Port Numbers and Port Ranges"

This appendix lists the port numbers used by Oracle9*i*AS 9.0.3 components.

Appendix B, "Troubleshooting"

This appendix lists some methods for troubleshooting your Oracle9i Application Server Release 2 (9.0.3) (Oracle9iAS 9.0.3) installation.

Sections Relating to AIX-Based Systems

The following sections of this guide are specific to AIX-based systems:

- "Hardware Requirements" on page 2-3
- Table 2–4, "Software Requirements for AIX 4.3.3" on page 2-5
- Table 2–5, "Software Requirements for AIX 5L" on page 2-5
- "Ulimit and Swap File Settings" on page 2-11
- "TMP and TMPDIR" on page 2-17
- "Preinstallation Tasks for AIX" on page 2-21
- Table 2–11, "File Location for Each Platform" on page 2-24
- "Mounting CD-ROMs for AIX" on page 2-25
- Step 9 of the procedure "Installation" on page 3-2
- "Create the Response File" on page 4-5

Sections Relating to HP 9000 Series HP-UX

The following sections of this guide are specific to HP 9000 Series HP-UX systems:

- "Hardware Requirements" on page 2-3
- Table 2–6, "Software Requirements for HP 9000 Series HP-UX" on page 2-7
- "Ulimit and Swap File Settings" on page 2-11
- "TMP and TMPDIR" on page 2-17
- "Preinstallation Tasks for HP 9000 Series HP-UX" on page 2-19
- Table 2–11, "File Location for Each Platform" on page 2-24
- "Mounting CD-ROMs for HP" on page 2-26
- "Entering Incorrect Enterprise Manager Password on HP-UX" on page 2-37
- Step 9 of the procedure "Installation" on page 3-2
- "Create the Response File" on page 4-5

Sections Relating to HP Tru64 UNIX

The following sections of this guide are specific to HP Tru64 UNIX systems:

- "Hardware Requirements" on page 2-3
- Table 2–7, "Software Requirements for HP Tru64 UNIX" on page 2-8
- "Ulimit and Swap File Settings" on page 2-11
- "TMP and TMPDIR" on page 2-17
- "Preinstallation Tasks for HP Tru64 UNIX" on page 2-20
- Table 2–11, "File Location for Each Platform" on page 2-24
- "Mounting CD-ROMs for Tru64" on page 2-30
- Step 9 of the procedure "Installation" on page 3-2
- "Host Metrics on HP Tru64 UNIX" on page 3-30
- "Create the Response File" on page 4-5

Sections Relating to Linux Intel

The following sections of this guide are specific to Linux Intel systems:

- "Hardware Requirements" on page 2-3
- Table 2–8, "Software Requirements for Linux Intel" on page 2-9
- "Ulimit and Swap File Settings" on page 2-11
- "TMP and TMPDIR" on page 2-17
- "Preinstallation Tasks for Linux" on page 2-20
- Table 2–11, "File Location for Each Platform" on page 2-24
- "Mounting CD-ROMs for Linux" on page 2-28
- "JDK Issue on Linux" on page 3-30
- "Correcting Errors Created by Using newgrp Command on Linux Intel" on page 3-38

Related Documentation

For more information, see these Oracle resources:

- Oracle9*i*AS Platform Specific Documentation on Oracle9*i*AS Disk 1
- Oracle9*i*AS Installation Frequently Asked Questions at:

  `http://otn.oracle.com/products/ias/l`

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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**.

Convention	Meaning	Example
Italics	Italic typeface indicates book titles or emphasis.	*Oracle9i 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 ■ That you can repeat a portion of the code	`CREATE TABLE ... AS subquery;` `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;`

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1

Installation Concepts

This chapter describes the installation concepts for Oracle9*i* Application Server Release 2 (9.0.3) (Oracle9*i*AS 9.0.3). Oracle recommends reading this chapter before proceeding with your installation to gain a better understanding of the concepts and intent of the installation. The topics include:

- Oracle9iAS 9.0.3 Installation Overview
- Using an Oracle9iAS Infrastructure 9.0.2
- Deployment Topologies
- Additional Products

See also: *Oracle9i Application Server Concepts Guide*

Note: Oracle9*i*AS 9.0.3 provides only the J2EE and Web Cache install type of Oracle9*i*AS Release 2

1.1 Oracle9*i*AS 9.0.3 Installation Overview

The Oracle9*i*AS 9.0.3 installation creates a scalable, secure, and integrated middle-tier platform that enables you to deliver Web content, host Web applications, and connect to back-office applications. Oracle9*i*AS 9.0.3 provides a container that enables you to develop and deploy Java2 Enterprise Edition (J2EE) 1.3 compatible applications, develop and deploy Web services. You can also accelerate Web site performance with Oracle9*i*AS Web Cache.

Oracle9*i*AS 9.0.3 is the first release of Oracle9*i*AS that is compatible with J2EE 1.3. You can use this release to build and deploy applications that take advantage of the latest J2EE 1.3 features.

Oracle9*i*AS 9.0.3 includes the following Oracle9*i*AS components:

- **Oracle9*i*AS Web Cache**: Oracle9*i*AS Web Cache is a server accelerator caching service that improves the performance, scalability, and availability of frequently used e-business Web sites that run on either Oracle9*i*AS or other application servers. By storing frequently accessed pages in virtual memory, Oracle9*i*AS Web Cache eliminates the need to repeatedly process requests for those pages on the Web server, and it caches both static and dynamically-generated HTTP content from one or more Web applications.
- **Oracle HTTP Server**: Oracle HTTP Server (OHS), which is built on Apache Web server technology, offers scalability, stability, speed, and extensibility to your Web applications. Oracle HTTP Server supports Java Servlets, JavaServer Pages (JSPs), Perl, PL/SQL, and CGI applications.
- **Oracle9*i*AS Containers for J2EE**: Oracle9*i*AS Containers for J2EE (OC4J) provides a complete set of J2EE containers written entirely in Java that execute on the Java Virtual Machine (JVM) of the standard Java Development Kit (JDK). OC4J provides a complete J2EE environment that includes a JSP translator and runtime, a servlet engine, an Enterprise JavaBeans (EJB) container, and the rest of the J2EE services such as Java Database Connectivity (JDBC).
- **Oracle Enterprise Manager Web site**: The Oracle Enterprise Manager Web site provides Web-based management tools. Using this Web site and its Oracle9*i*AS Home Pages, you can monitor and configure the components of your Oracle9*i*AS installations. You can deploy applications, manage security, and create and manage application server clusters.

Oracle9*i*AS 9.0.3 is compatible with Oracle9*i*AS Infrastructure 9.0.2 for clustering, management, and security. It can also coexist with Oracle9*i*AS 9.0.2 middle-tiers installed on the same or a different machine.

Note: Oracle9*i*AS 9.0.3 cannot be used to run any of the Oracle9*i*AS 9.0.2 mid-tier install types. For example, you cannot run Oracle9*i*AS Portal, Oracle9*i*AS Forms Services, or Oracle9*i*AS Discoverer on top of Oracle9*i*AS 9.0.3.

See Also: Section 1.4.2, "Oracle9iAS Portal Developer Kit for J2EE and Web Services" for information about building J2EE portlets with your installation of Oracle9*i*AS 9.0.3.

During the installation of Oracle9*i*AS 9.0.3, all components delivered in the J2EE and Web Cache install type are installed on your computer. However, you can selectively enable the Oracle9*i*AS 9.0.3 components you wish to use. You can configure Oracle9*i*AS 9.0.3 components during the install session, or you can use the Oracle Enterprise Manager Web site to complete the Oracle9*i*AS 9.0.3 component configuration later, after the initial installation.

See Also:

- Chapter 2, "Getting Started"
- Chapter 3, "Installation"

1.2 Using an Oracle9*i*AS Infrastructure 9.0.2

During the Oracle9*i*AS 9.0.3 installation, you are asked if you want to use single sign-on or clustering. If you want to use either single sign-on or cluster management, then you must use Oracle9*i*AS Infrastructure 9.0.2. Oracle9*i*AS 9.0.3 is compatible with Oracle9*i*AS Infrastructure 9.0.2. This section features the following topics:

- Oracle9iAS Infrastructure 9.0.2
- Farm
- Clustering

1.2.1 Oracle9*i*AS Infrastructure 9.0.2

The Oracle9*i*AS Infrastructure 9.0.2 is a type of application server installation that provides centralized security, management services, and data repositories for middle-tier application server installations. Typically, there is one infrastructure in an application server enterprise, and all middle-tier application servers are configured to use it.

An infrastructure is custom-tuned and configured to support middle-tier application server installations. Many of the services provided by an infrastructure are configured automatically during installation and used programmatically by middle-tier application servers.

Oracle9*i*AS Infrastructure 9.0.2 includes software for the following:

- Management, security, and directory services
- Metadata repository to store product metadata

You can install Oracle9*i*AS 9.0.3 on the same or a different host from Oracle9*i*AS Infrastructure 9.0.2:

- If you are installing Oracle9*i*AS 9.0.3 on the same or a different host as Oracle9*i*AS Infrastructure 9.0.2, then you can associate Oracle9*i*AS 9.0.3 with the infrastructure during, or after the Oracle9*i*AS 9.0.3 installation.
- If you are installing Oracle9*i*AS 9.0.3 on a host that has an Oracle9*i*AS 9.0.3 or Oracle9*i*AS 9.0.2 instance that is associated with an Oracle9*i*AS Infrastructure 9.0.2, then the new Oracle9*i*AS 9.0.3 install associates with the same infrastructure.

Note: Oracle recommends installing Oracle9*i*AS Infrastructure 9.0.2 on a separate computer for optimal performance.

See Also:

- *Oracle9i Application Server 9.0.2 Installation Guide*
- *Oracle9i Application Server Administrator's Guide*
- *Oracle9iAS Single Sign-On Administrator's Guide*
- *Oracle9i Application Server Security Guide*

1.2.2 Farm

A farm is a set of application server instances associated with the same infrastructure. The application server instances that belong to a farm can be installed anywhere on the network. A farm can consist of a heterogeneous collection of Oracle9*i*AS 9.0.3 and Oracle9*i*AS 9.0.2 instances or clusters. It is only within the constraint of a farm that you can create a cluster. All application server instances in a cluster must be either Oracle9*i*AS 9.0.3 or Oracle9*i*AS 9.0.2. You cannot create a cluster that consists of J2EE and Web Cache 9.0.3 instances andJ2EE and Web Cache 9.0.2 instances.

See Also: *Oracle9i Application Server Administrator's Guide*

1.2.3 Clustering

A cluster is a set of application server instances configured to act in concert to deliver greater scalability and availability than a single instance can provide. While a single application server instance can only leverage the operating resources of a single host, a cluster can span multiple hosts, distributing application execution over a greater number of CPUs. While a single application server instance is vulnerable to the failure of its host and operating system, a cluster continues to function despite the loss of an operating system or host, hiding any such failure from clients.

Clusters leverage the combined power and reliability of multiple application server instances while maintaining the simplicity of a single application server instance. For example, browser clients of applications running in a cluster interact with the application as if it were running on a single server. The client has no knowledge of whether the application is running on a single application server or in an application server cluster. From a management perspective, an application server administrator can perform operations on a cluster as if the administrator was interacting with a single server. An administrator can deploy an application to an individual server; the application is propagated automatically to all application server instances in the cluster.

All Oracle9*i*AS 9.0.3 components in a managed cluster share the same infrastructure management, security, and directory service as well as the same metadata repository to store product metadata.

You can also create non-managed application server clusters by not associating the cluster with an infrastructure. A non-managed application server cluster does not require a metadata repository and therefore has no database dependency. Non-managed clusters provide scalability and availability, but *not* manageability. In a non-managed cluster, it is the administrator's responsibility to synchronize the configuration of the application server instances.

See Also: *Oracle9i Application Server Administrator's Guide*

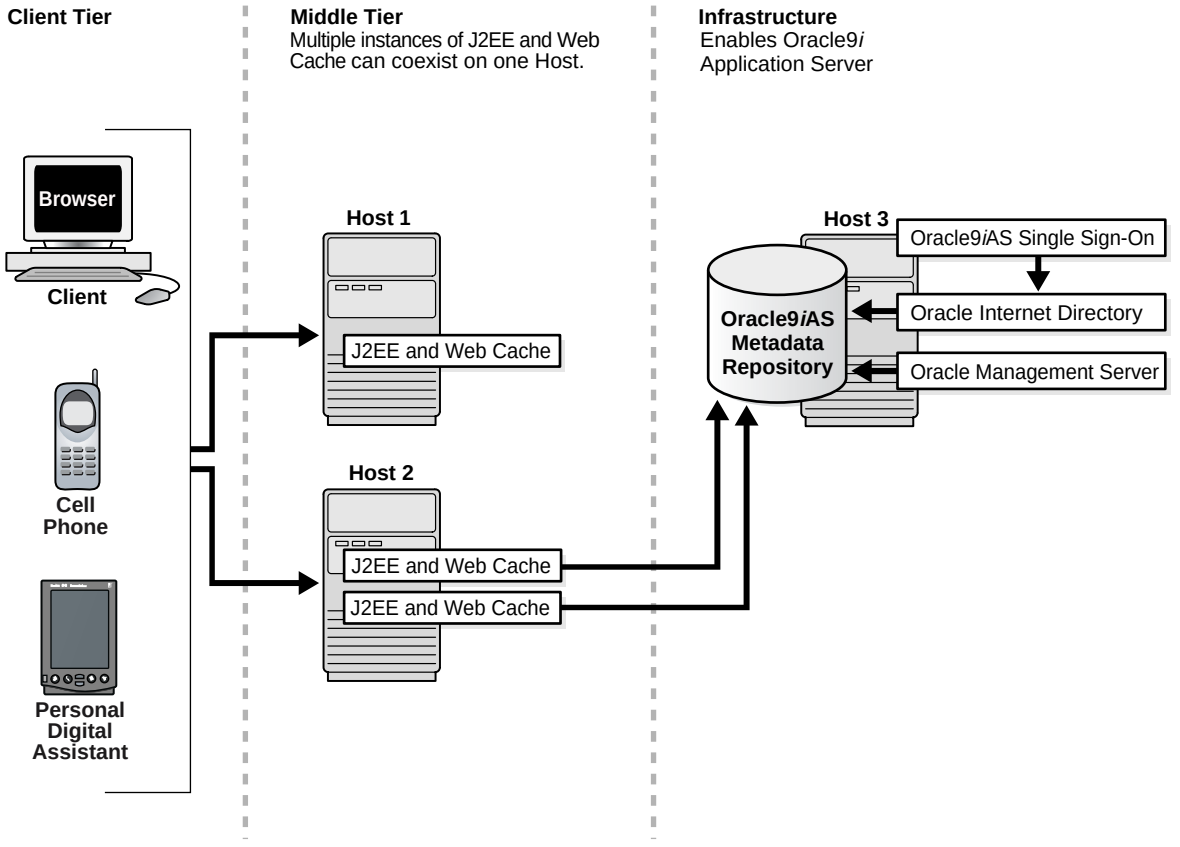
All application server instances in a single cluster must be homogeneous: the instances must be from either Oracle9*i*AS 9.0.3 or Oracle9*i*AS 9.0.2. You cannot create a cluster that consists of J2EE and Web Cache 9.0.3 instances with J2EE and Web Cache 9.0.2 instances. The J2EE and Web Cache instances in an application server cluster can be on different hosts, however, all J2EE and Web Cache instances in a single cluster must reside on hosts that use the same operating system type (for example, Linux). This is because the configuration information that is shared between instances in a cluster contains operating system-specific information, such as file path names.

Figure 1–1 shows an overview of the architecture of Oracle9*i*AS 9.0.3 and Oracle9*i*AS Infrastructure 9.0.2. The figure shows a stand-alone instance of J2EE and Web Cache on Host 1 and the two instances of a J2EE and Web Cache cluster on Host 2 using an Oracle9*i*AS Infrastructure 9.0.2. The J2EE and Web Cache instances on Host 1 and Host 2 can be either Oracle9*i*AS 9.0.3 or Oracle9*i*AS 9.0.2. If you are creating a cluster, then the two instances of J2EE and Web Cache on Host 2 must both be of the same version: either Oracle9*i*AS 9.0.3 or Oracle9*i*AS 9.0.2.

Clustering, using Oracle9*i*AS 9.0.3 and Oracle9*i*AS 9.0.2 instances, has the following properties:

- A cluster can contain only J2EE and Web Cache instances.
- A cluster manages only Oracle HTTP Server (OHS) and OC4J within a J2EE and Web Cache instance.
- All members of a cluster must be part of the same farm and share the same infrastructure.
- All application server instances in a cluster must be either Oracle9*i*AS 9.0.3 or Oracle9*i*AS 9.0.2. You cannot create a cluster that consists of J2EE and Web Cache 9.0.3 instances with J2EE and Web Cache 9.0.2 instances.
- Application server instances in a single cluster must reside on hosts that use the same operating system type (for example, Linux).

Figure 1–1 Oracle9iAS 9.0.3 and Oracle9iAS Infrastructure 9.0.2 Architecture



See Also:

- *Oracle9i Application Server 9.0.2 Installation Guide*
- *Oracle9i Application Server Administrator's Guide*
- *Oracle9iAS Single Sign-On Administrator's Guide*
- *Oracle9iAS Containers for J2EE User's Guide*

1.3 Deployment Topologies

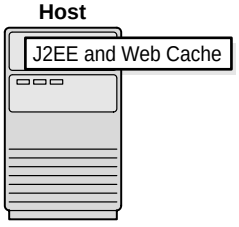
The following sections describe possible installations of Oracle9*i*AS 9.0.3:

- Oracle9iAS 9.0.3 Installation
- Oracle9iAS 9.0.3 with Oracle9iAS Infrastructure 9.0.2
- Multiple Instances of Oracle9iAS 9.0.3 with Oracle9iAS Infrastructure 9.0.2

1.3.1 Oracle9*i*AS 9.0.3 Installation

Figure 1–2 shows an installation of Oracle9*i*AS 9.0.3 J2EE and Web Cache on a host. This topology supports a Web server that supports the deployment of J2EE 1.3 compliant applications and cache Web pages. It also supports single server management. The topology shown *does not* support centralized management, single sign-on, or application server clustering functionality. In order to use single sign-on or managed cluster functionality you must install an Oracle9*i*AS Infrastructure 9.0.2.

Figure 1–2 Oracle9iAS 9.0.3 Installation



See Also: Figure 1–3, "Oracle9iAS 9.0.3 with Oracle9iAS Infrastructure 9.0.2"

1.3.2 Oracle9*i*AS 9.0.3 with Oracle9*i*AS Infrastructure 9.0.2

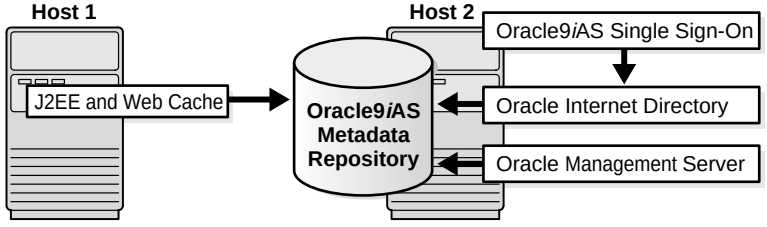
You can install Oracle9*i*AS 9.0.3 on the same or a different host from Oracle9*i*AS Infrastructure 9.0.2. Oracle recommends installing Oracle9*i*AS Infrastructure 9.0.2 on a separate computer for optimal performance.

- If you are installing Oracle9*i*AS 9.0.3 on the same or a different host as Oracle9*i*AS Infrastructure 9.0.2, then you can associate Oracle9*i*AS 9.0.3 with the infrastructure during, or after the Oracle9*i*AS 9.0.3 installation.
- If you are installing Oracle9*i*AS 9.0.3 on a host that has an Oracle9*i*AS 9.0.3 or Oracle9*i*AS 9.0.2 instance that is associated with an Oracle9*i*AS Infrastructure 9.0.2, then the new Oracle9*i*AS 9.0.3 install associates with the same infrastructure.

Figure 1–3 shows an installation of Oracle9*i*AS 9.0.3 using Oracle9*i*AS Infrastructure 9.0.2. The installation of Oracle9*i*AS 9.0.3 is on a different host from the Oracle9*i*AS Infrastructure 9.0.2 installation.The Oracle9*i*AS Infrastructure 9.0.2 installation enables deployment of applications that use enterprise-wide single sign-on capabilities, as well as management of application server instance clusters.

See Also: *Oracle9i Application Server 9.0.2 Installation Guide*

Figure 1–3 Oracle9iAS 9.0.3 with Oracle9iAS Infrastructure 9.0.2

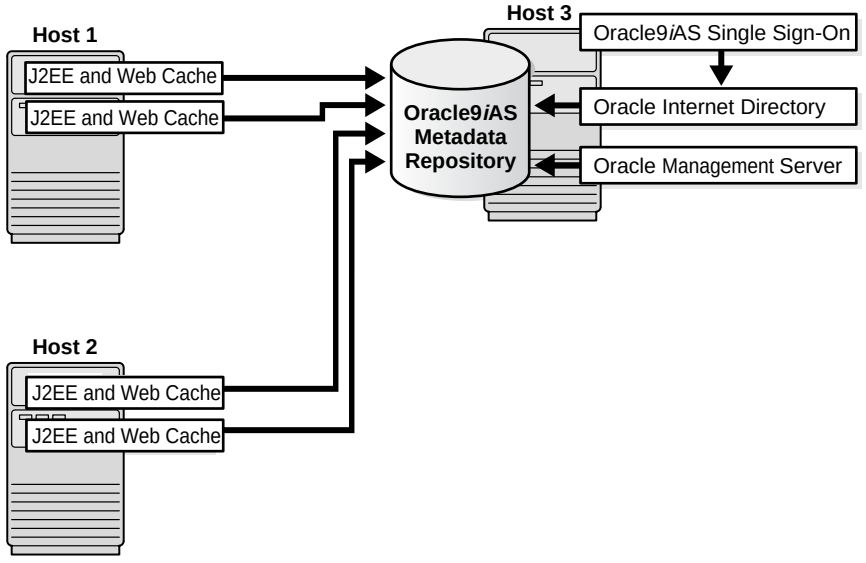


1.3.3 Multiple Instances of Oracle9*i*AS 9.0.3 with Oracle9*i*AS Infrastructure 9.0.2

You can install single or multiple instances of Oracle9*i*AS 9.0.3 on the same host.

Figure 1–4 shows instances of J2EE and Web Cache installed on Host 1 and Host 2, using the installation of Oracle9*i*AS Infrastructure 9.0.2 on Host 3.

Figure 1–4 Multiple Instances of Oracle9iAS 9.0.3 with Oracle9iAS Infrastructure 9.0.2



The two instances of J2EE and Web Cache on Host 1 and Host 2 can be either Oracle9*i*AS 9.0.3 or Oracle9*i*AS 9.0.2.

If you want to create an application server cluster, then the two instances of J2EE and Web Cache on Host 1 and Host 2 must all be the same version; either Oracle9*i*AS 9.0.3 or Oracle9*i*AS 9.0.2. You cannot create a cluster that consists of J2EE and Web Cache 9.0.3 instances and J2EE and Web Cache 9.0.2 instances. The J2EE and Web Cache instances in an application server cluster can be on different hosts, however, all J2EE and Web Cache instances in a single cluster must reside on hosts that use the same operating system type (for example, Linux).

You can create a farm using application server instances. A farm is a group of multiple application server instances that associate with the same metadata repository. The farm can consist of a collection of Oracle9*i*AS 9.0.3 or Oracle9*i*AS 9.0.2 instances.

See Also: *Oracle9i Application Server Administrator's Guide*

1.4 Additional Products

The following sections describe additional Oracle9*i*AS products that can be used with your installation of Oracle9*i*AS 9.0.3:

- Oracle9iAS TopLink
- Oracle9iAS Portal Developer Kit for J2EE and Web Services

1.4.1 Oracle9*i*AS TopLink

Oracle9*i*AS TopLink enables you to map a Java object model to a relational database and non-relational data sources. This bridges the gap between objects and the relations that exist among them and relational databases. Objects are a very flexible way of storing data and relationships between data, so representing objects in a relational database can be complicated. Oracle9*i*AS TopLink is supported by Oracle9*i*AS 9.0.3 and Oracle9*i*AS 9.0.2. Oracle9*i*AS TopLink is available in the Oracle9*i*AS CD pack. Refer to the Oracle9*i*AS TopLink CD for more information about using Oracle9*i*AS TopLink.

1.4.2 Oracle9*i*AS Portal Developer Kit for J2EE and Web Services

The Oracle9*i*AS Portal Developer Kit for J2EE and Web Services (9.0.2.0.2) can be used to develop portlets based upon J2EE 1.3 applications running in Oracle9*i*AS 9.0.3. You can also develop portlets from available Web Services. These portlets can be registered with an Oracle9*i*AS Portal 9.0.2 environment. The Oracle9*i*AS Portal Developer Kit for J2EE and Web Services is available for download from

`http://portalstudio.oracle.com`.

2

Getting Started

This chapter describes how to start installing Oracle9*i* Application Server Release 2 (9.0.3) (Oracle9*i*AS 9.0.3). The topics include:

- Preinstallation Summary
- Hardware Requirements
- Operating System Requirements
- Certified Software
- Preinstallation Tasks
- Oracle Universal Installer
- Installation

2.1 Preinstallation Summary

Review and verify that you have completed the items listed on the following preinstallation summary before you begin your installation of Oracle9*i*AS 9.0.3.

Table 2–1 Oracle9iAS 9.0.3 Preinstallation Summary

Pre-Install Task	Details
Hardware Requirements	■ Table 2–2, "Oracle9iAS Hardware Requirements" ■ Table 2–3, "Oracle9iAS 9.0.3 Requirements and Recommendation"
Operating System Requirements	■ Table 2.3, "Operating System Requirements"
Certified Software	■ `http://metalink.oracle.com`
Preinstallation Tasks	■ Section 2.5.1, "Release Notes" ■ Section 2.5.3, "Creating UNIX Accounts and Groups" ■ Section 2.5.4, "Setting Environment Variables" ■ Section 2.5.5, "Host Name File Configuration" ■ Section 2.5.6, "Port Allocation"

2.2 Hardware Requirements

Table 2–2 shows the hardware requirements for installing Oracle9*i*AS 9.0.3. Table 2–3 shows the minimal installation requirements and recommendations for production environments. While considering hardware configurations, note that optimal sizing for an Oracle9*i*AS 9.0.3 installation depends on:

- the profile of your Oracle9*i*AS 9.0.3 installation (which Oracle9*i*AS 9.0.3 components are configured and used)
- the size of your applications
- the nature of your applications, whether they are largely transactional in nature or primarily read-only
- user load, number of concurrent users
- pattern of usage, peak usage or low usage
- throughput and response time goals

Increasing the amount of hardware resources can improve the performance of your Oracle9*i*AS 9.0.3 installation and increase the number of supported concurrent users.

See Also: *Oracle9i Application Server Performance Guide*

Table 2–2 Oracle9iAS Hardware Requirements

Item	Minimum Requirement
AIX CPU[1]	All AIX compatible processors (64-bit)
HP 9000 Series HP-UX CPU	HP 9000 Series HP-UX processor for HP-UX 11.0 (64-bit)
Linux CPU	Pentium II 233 MHZ or better (32-bit)
Tru64 CPU	Alpha Processor (64-bit)
Memory	512 MB
Disk space[2] for AIX	1 GB
Disk space for HP-UX	800 MB
Disk space for Linux	800 MB
Disk space for Tru64	1 GB
TMP or swap space	256MB
Monitor[3]	256 color viewing capability

1 Oracle recommends a multiple CPU computer.

2 The disk space must be available on a single disk. Oracle9*i*AS 9.0.3 does not support spanning the installation over multiple disks.

3 For Java versions later than Java 1.1.x, Oracle Universal Installer will not appear on 16 color monitors.

Table 2–3 Oracle9iAS 9.0.3 Requirements and Recommendation

Information	Minimum Installation Requirement	Production Environment Recommendations
Memory	256 MB[1]	512 MB or greater
TMP or Swap Space	256 MB	1 GB or greater

1 Memory for Oracle9*i*AS Web Cache should be based on the following formula: (average HTTP object size) * (maximum number of objects you want to cache). Thus, if you want to cache 1,000,000 objects and the average size of the objects is 2 KB, then set the maximum cache size to at least 2GB.

2.2.1 Network Requirements

Oracle9*i*AS 9.0.3 does not support the following network configurations and scenarios:

- Changing the domain after installation.
- Using Network File System (NFS) to access and share files.

2.3 Operating System Requirements

- Table 2–4 and Table 2–5 list the software requirements for AIX-based systems.
- Table 2–6 lists the software requirements for HP 9000 Series HP-UX.
- Table 2–7 lists the software requirements for HP Tru64.
- Table 2–8 lists the software requirements for Linux Intel.

For the latest information, refer to Oracle*MetaLink*:

`http://metalink.oracle.com`

If your system does not meet the requirements in this section, download the operating system patches for AIX-Based Systems, HP 9000 Series HP-UX, HP Tru64 UNIX, and Linux Intel from the vendor web sites.

Note: The current JDK 1.3.1 production version is required. For Linux, this JDK is included on the Oracle9*i*AS CD-ROM

Table 2–4 Software Requirements for AIX 4.3.3

Item	Requirement
Operating System	IBM AIX 4.3.3 (64-bit only)
Software	JDK 1.3.1 JDK 131(20020821) This efix is required for any JDK 1.3.1 version earlier than JDK 1.3.1 SR-3. It can be downloaded from: `ftp://service.software.ibm.com/aix/efixes/iy34722` Refer to the README file included with this efix for more information.
Operating System patches for AIX 4.3.3	ML10
Window Manager	Use any supported IBM AIX window manager that supports Motif, such as `dtwm`, `twm`, and `olwm`.
Required Executables	The following executables must be present: `make`, `ar`, `ld`, and `nm`.

Table 2–5 Software Requirements for AIX 5L

Item	Requirement
Operating System	IBM AIX 5L
Software	JDK 1.3.1 JDK 131(20020821) This efix is required for any JDK 1.3.1 version earlier than JDK 1.3.1 SR-3. It can be downloaded from: `ftp://service.software.ibm.com/aix/efixes/iy34722` Refer to the README file included with this efix for more information.
Operating System patches for AIX 5L	AIX 5L release 5.1 ML01+ (IY22854), IY26778, IY28766, IY28949, IY29965, IY30150
Window Manager	Use any supported IBM AIX window manager that supports Motif, such as `dtwm`, `twm`, and `olwm`.
Required Executables	The following executables must be present: `make`, `ar`, `ld`, and `nm`.

Table 2–6 Software Requirements for HP 9000 Series HP-UX

Item	Requirement
Operating System	HP-UX 11.0 or 11i (64-bit) See patch requirements below.
Software	JDK 1.3.1
Operating System Patches	You must install any prerequisite patches for JDK. These patches are available from the HP website. NOTE: Several of the patches listed below have dependency patches that must be installed as well. When you navigate to the download web page for an individual patch, click the *dependency* link and make sure you install the dependency patches if required.
HP-UX 11.0 Patches	Dec 2000 Patch Bundle PHSS_23377 PHCO_23770 PHKL_23226 PHCO_23092 PHCO_23792 PHCO_23963 PHCO_24148 PHKL_18543 PHKL_23226 PHKL_23409 PHKL_24826 PHKL_24943 PHKL_24971 PHNE_21731 PHNE_23456 PHNE_23833 PHSS_23440 PHSS_17535 PHSS_23546 PHSS_23800 PHKL_25188 PHSS_23823
HP-UX 11i Patches	December 2001 Quality Pack (Gold Patch Set) plus PHCO_25452 PHKL_24569 PHKL_25389 PHKL_25729 PHKL_25842 PHKL_27092

Table 2–6 Software Requirements for HP 9000 Series HP-UX (Cont.)

Item	Requirement
Clusterware	MC / ServiceGuard
	11.09 OPS Edition
	PHCO_23919
Required Executables	The following executables must be present in the `/usr/ccs/bin` directory: `make`, `ar`, `ld`, `nm`, and `cc`.

Table 2–7 Software Requirements for HP Tru64 UNIX

Item	Requirement
Operating System	HP Tru64 UNIX 5.1 or 5.1a
Software	JDK 1.3.1
Operating System Patches for HP Tru64 UNIX 5.1	5.1 patchkit 5 or higher
	T64V51B19-C0125200-14321-E-20020529.tar (C1252.00 PatchId) -- directIO pwrite / pread inconsistent data fix
	T64V51B19-C0125001-14319-E-20020516.tar (C1250.01 PatchId) -- DECthreads V3.18-138A fix
	T64V51B19-C0138000-15000-20020801.tar
Operating System Patches for HP Tru64 UNIX 5.1a	5.1a patchkit 2 or higher
	T64V51AB2-C0031400-14465-E-20020531.tar (C314.00 PatchId) -- DECthreads V3.18-138A
	T64V51AB2-C0030800-14434-E-20020529.tar (C308.00 PatchId) -- directIO pwrite / pread inconsistent data fix
Clusterware	TruClusters 5.1a (CFS aware)
Operating System Packages	The OSFLIBA, OSFPGMR, and OSFCMPLRS subsets. These subsets are part of the HP Tru64 UNIX operating system distribution.
Window Manager	X Windows must be installed on the system from where the Installer is run. Use any HP-supported X Windows server with support for Motif, such as `dtwm`, `twm`, and `mwm`. Character mode installations are not supported for Oracle9*i*AS Release 3 (9.0.3)
	The X environments, Basic X-environments (OSF11), and X Servers (OSFSER) are required to run graphical products.
Required Executables	The following executables must be present in the `/usr/ccs/bin` directory: `make`, `ar`, `ld`, and `nm`.

Table 2–8 Software Requirements for Linux Intel

Item	Requirement
Operating System	SuSE SLES7 or Red Hat Advanced Server 2.1 Distribution
Software	JDK 1.3.1 XFree86 Development 3.3.3.1 or later Open Motif 2.1.30 For SuSE SLES7 the following is also required: ■ kernel 2.4.7 ■ glibc 2.2.2-55 ■ ksh. Oracle Corporation recommends installing the pdksh-5.2.14-206 package. For Red Hat Advanced Server 2.1 the following is also required: ■ kernel 2.4.9 ■ glibc 2.2.4-25 ■ binutils-2.11.90.0.8-13 patch. This patch can be downloaded from `http://metalink.oracle.com`, search for Patch number 2389349. ■ Include the `/usr/bin` directory as the first entry of the PATH environment variable ■ ksh. Oracle Corporation recommends installing the pdksh-5.2.14-13 package.
Required Executables	The following executables must be present: `make`, `ar`, `ld`, and `nm`.

2.4 Certified Software

Installing and operating Oracle9*i*AS 9.0.3 requires a Web browser. A complete list of certified software for Oracle9*i*AS 9.0.3 is located at the Oracle*MetaLink* site:

`http://metalink.oracle.com`

2.5 Preinstallation Tasks

Review and complete the following preinstallation tasks before installing Oracle9*i*AS 9.0.3:

- Release Notes
- Ulimit and Swap File Settings
- Creating UNIX Accounts and Groups
- Setting Environment Variables
- Host Name File Configuration
- Port Allocation
- Preinstallation Tasks for HP 9000 Series HP-UX
- Preinstallation Tasks for HP Tru64 UNIX
- Preinstallation Tasks for Linux
- Preinstallation Tasks for AIX

2.5.1 Release Notes

Oracle recommends reading the *Oracle9i Application Server 9.0.3 Release Notes* prior to installing Oracle9*i*AS 9.0.3. *Oracle9i Application Server 9.0.3 Release Notes* are available with Oracle platform-specific documentation and are available at the OTN Web site at:

`http://otn.oracle.com/products/ias/content.html`

2.5.2 Ulimit and Swap File Settings

Oracle Corporation recommends setting the following ulimit parameters before installation:

Parameter	Recommended Value
time	unlimited
file	unlimited
data	2097152
stack	32768
memory	2045680
coredump	unlimited
nofiles	4096
vmemory	4194304

On Linux, Oracle Corporation recommends setting the swap file size to 3 times the size of RAM before installation.

2.5.3 Creating UNIX Accounts and Groups

The following UNIX account and groups are required for the installation process:

- UNIX Group Name for the Oracle Universal Installer Inventory
- UNIX Account to Own Oracle Software

2.5.3.1 UNIX Group Name for the Oracle Universal Installer Inventory

Use the `admintool` or `groupadd` utility to create a group name. For example, `oinstall`. The `oinstall` group will own Oracle Universal Installer's `oraInventory` directory. The `oracle` user account that runs the installation must have the `oinstall` group as its primary group.

For more information on these utilities, refer to your operating system documentation.

2.5.3.2 UNIX Account to Own Oracle Software

The `oracle` account is the UNIX account that owns Oracle software for the system. You must run Oracle Universal Installer from this account.

Create an `oracle` account with the properties listed in Table 2–9.

Table 2–9 Oracle Account Properties

Variable	Property
Login Name	Select any name to access the account. This document refers to the name as the `oracle` account.
Group Identifier	The `oinstall` group.
Home Directory	Select a home directory consistent with other user home directories.
Login Shell	The default shell can be either the C, Bourne, or Korn shell.

Note: Use the `oracle` account only for installing and maintaining Oracle software. Never use it for purposes unrelated to the Oracle Universal Installer. Do not allow the `root` account to own the Oracle software.

2.5.4 Setting Environment Variables

Verify the requirements for the following environment variables before starting Oracle Universal Installer:

- ORACLE_HOME
- DISPLAY
- TMP and TMPDIR
- TNS_ADMIN

> **Note:** Make sure you have write access to the `/tmp`, `$TMP`, `$TMPDIR` and `/var/tmp` directories on your system before you start the installation of Oracle9*i*AS 9.0.3.

2.5.4.1 ORACLE_HOME

Oracle home is the directory in which Oracle software is installed.

Oracle homes are identified by name. The Oracle home name identifies the programs associated with a specific Oracle home and the installed Oracle services associated with the home.

Your Oracle home name must not contain spaces and must not be longer than 127 characters.

> **Note:** The Oracle9*i*AS 9.0.3 instance must be installed in its own Oracle home. For example, you cannot install Oracle9*i*AS 9.0.3 into any Oracle9*i*AS 9.0.2 Oracle home. The Oracle9*i*AS 9.0.3 instance can be installed on the same or a different host from Oracle9*i*AS Infrastructure 9.0.2.

Do not install Oracle9*i*AS 9.0.3 into any existing Oracle home directories. For example:

- Oracle9*i*AS 9.0.2 home directory
- Oracle9*i*AS Infrastructure 9.0.2 home directory
- Oracle9*i*AS Developer Kits 9.0.2 home directory
- Oracle9*i* Server home directory
- Oracle8*i* Server home directory

- Oracle9*i* Developer Suite directory

> **Note:** Oracle9*i*AS 9.0.3 cannot be used to run any of the Oracle9*i*AS 9.0.2 mid-tier install types. For example, you cannot run Oracle9*i*AS Portal, Oracle9*i*AS Forms Services, or Oracle9*i*AS Discoverer on top of Oracle9*i*AS 9.0.3.

The Oracle9*i*AS 9.0.3 installation requires an instance name and an administrative password (for the `ias_admin` user) during initial installation on a host. The `ias_admin` user's password enables Oracle9*i*AS 9.0.3 instance management through Oracle Enterprise Manager. If Oracle9*i*AS 9.0.3 or another Oracle9*i*AS product has already been installed on the host, then a unique instance name and the existing `ias_admin` user's password must be provided before continuing with the installation. An Oracle9*i*AS 9.0.3 installation in a *different* Oracle home on the same host requires a unique instance name and the existing `ias_admin` user's password before continuing with the installation.

See Also:

- Section 2.2, "Hardware Requirements"
- Chapter 1, "Installation Concepts"
- *Oracle9i Application Server Administrator's Guide*

There are limits to the length of the values of the CLASSPATH variable with JDK. If the Oracle home path is long and there are many wrapper.classpath entries in the `jserv.conf` file, it might cause problems with the `jserv` process. The workaround is to shorten the Oracle home path.

Make sure the ORACLE_HOME environment variable points to an absolute path directory. That is, make sure there are no symbolic links in the path.

Oracle Management Server (OMS) has known issues with failures in starting services if the value of ORACLE_HOME exceeds a certain length.

2.5.4.2 DISPLAY

Set the DISPLAY environment variable to refer to the X Server that will display the installer. The format of the DISPLAY environment variable is:

hostname:*display_number*.*screen_number*

For example:

*hostname:*0.0

Oracle9*i*AS 9.0.3 requires a running X server to properly create graphics for the installer, Web applications, and management tools. The frame buffer X server installed with your operating system requires that you remain logged in and have the frame buffer running at all times. If you do not wish to do this, then you must use a virtual frame buffer, such as X Virtual Frame Buffer (XVFB) or Virtual Network Computing (VNC).

The installer configures this instance to use the same X server from the installation process for applications and management tools. This X server must either always be running or you must reconfigure Oracle9*i*AS 9.0.3 to use another X server that is always running after the installation completes.

Note: Oracle Applications users must read article 181244.1 at:

http://metalink.oracle.com

This article contains applications-specific X server requirements and configuration information.

See Also:

- Your operating system documentation for more information on the DISPLAY environment variable.
- Oracle Technology Network (http://otn.oracle.com) for further information about obtaining and installing XVFB or other virtual frame buffer solutions. Search OTN for "frame buffer".

2.5.4.2.1 Installing From a Remote Workstation

Setting the DISPLAY environment variable enables you to run the Oracle Universal Installer remotely from another workstation. On the system where you launch the Oracle Universal Installer, set DISPLAY to the system name or IP address of your local workstation.

> **Note:** You can use a PC X emulator to run the install if it supports a PseudoColor color model or PseudoColor visual. Set the PC X emulator to use a PseudoColor visual, and then start the installer. Refer to the X emulator documentation for instructions on how to change the color model or visual settings.

If you get an Xlib error similar to "Failed to connect to server," "Connection refused by server," or "Can't open display" when starting the installer, then run the commands on your local workstations as listed in the table below.

Shell Types	On server where the installer is running	In session on your workstation
C shell	`prompt> setenv DISPLAY` *`host`*`:0.0`[1]	`prompt> xhost +`*`host`*
Bourne or Korn shell	`prompt> DISPLAY=`*`host:0.0`*`;export DISPLAY`	`prompt> xhost +`*`host`*

[1] Host is the hostname or IP address of the workstation on which you want to display the installer.

2.5.4.3 TMP and TMPDIR

During installation, Oracle Universal Installer uses a temporary directory for swap space. This directory must meet the requirements listed in Section 2.2, "Hardware Requirements" before installing Oracle9*i*AS 9.0.3. The installation may fail if you do not have sufficient space. The installer checks for the TMP and TMPDIR environment variable to locate the temporary directory. If the TMP environment variable is not set, then the installer uses the `/tmp` directory. If the TMPDIR environment variable is not set, then the installer uses the `/var/tmp` directory. Set the TMP and TMPDIR environment variable using the following commands.

C shell	Bourne/Korn shell
`prompt> setenv TMP` *`full_path`*	`prompt> TMP=`*`full_path`*`; export TMP`
`prompt> setenv TMPDIR` *`full_path`*	`prompt> TMPDIR=`*`full_path`*`; export TMPDIR`

Note: If you try to install the Migration Assistant without setting the TMP and TMPDIR environment variable, a message appears saying that the installer cannot create the `/oraInstall` directory.

Before running the installer, set the TMP and TMPDIR environment variables to point to the `/tmp` directory or to any directory with at least 25MB free disk space

2.5.4.4 TNS_ADMIN

`$TNS_ADMIN` is the directory where Net configuration files are stored.

If TNS_ADMIN is set on your system, that directory setting conflicts with the directory where the Oracle9*i*AS 9.0.3 Net configuration files are created. Conflicts occur if the configuration files are in a common directory outside of the Oracle home for any other installed Oracle products. For example, your system may use `/var/opt/oracle/tnsnames.ora` for database aliases.

To prevent conflicts between the Net configuration files for different Oracle products, copy the configuration files from either TNS_ADMIN or the common directory to *`ORACLE_HOME`*`/network/admin` for the other products and unset TNS_ADMIN using the following command.

C shell	Bourne/Korn shell
`prompt> unsetenv TNS_ADMIN`	`prompt> unset TNS_ADMIN`

2.5.5 Host Name File Configuration

Oracle Universal Installer requires that the fully qualified host name information appear in the configuration files for your computer. A fully qualified host name includes both the name of the system and its domain.

Verify that `/etc/hosts.*` has the following format:

```
IP_ADDRESS FULLY_QUALIFIED_HOSTNAME SHORT_HOSTNAME ALIASES
```

The following example shows a properly configured `/etc/hosts.*` file:

```
148.87.9.44 oasdocs.us.oracle.com oasdocs oracleinstall
```

Make sure the following entry exists in the `/etc/hosts` file:

```
127.0.0.1               loopback localhost
```

After you have properly configured the hostname information, reboot your computer before starting Oracle9*i*AS 9.0.3 installation.

Note: Oracle does not support changing the host name and IP address after installing Oracle9*i*AS 9.0.3.

2.5.5.1 Host Domain Name

Oracle Universal Installer requires specific conventions for the host domain name. If the host domain name does not conform to the following requirements, the Oracle9*i*AS 9.0.3 installation will fail:

- No blank spaces or underscores are permitted as part of the domain name.
- Domain names can be upper or lower case.
- The first character of the host domain name must be a letter of the alphabet.
- The last character of the host domain name must not be a minus sign or period.
- A host which serves as an Internet gateway should have "GATEWAY" or "GW" as part of the domain name.

2.5.6 Port Allocation

Following installation, Oracle Universal Installer creates a file showing the port numbers assigned during installation of Oracle9*i*AS 9.0.3 components. The installation process automatically detects any port conflicts and selects an alternative port in the range allocated for that component. Appendix A, "Default Port Numbers and Port Ranges" lists the default port ranges. The `portlist.ini` file is located at:

```
ORACLE_HOME/install/portlist.ini
```

This file lists component entries as *`port_name = port_value`*. For example:

```
Oracle HTTP Server port = 7777
Oracle HTTP Server SSL port = 4443
Oracle HTTP Server listen port = 7778
Oracle HTTP Server SSL listen port = 4444
Oracle HTTP Server Jserv port = 8007
Enterprise Manager Servlet port = 1810
```

You can also view the port numbers by using a browser to navigate to the Oracle9*i*AS Welcome page and selecting the **Ports** tab.

See Also:

- Section 3.2.3, "About the Oracle Enterprise Manager Web Site"
- *Oracle9i Application Server Administrator's Guide*.

2.5.7 Preinstallation Tasks for HP 9000 Series HP-UX

If you are installing on HP 9000 Series HP-UX, you must manually create some symbolic links before performing the installation. This is due to a known HP-UX problem, Doc. ID. KBRC00003627. To create the required links:

1. Log in as `root`.
2. Change to the `/usr/lib` directory:

   ```
   # cd /usr/lib
   ```

3. Create the required links:

   ```
   # ln -s /usr/lib/libX11.3 libX11.sl
   # ln -s /usr/lib/libXIE.2 libXIE.sl
   # ln -s /usr/lib/libXext.3 libXext.sl
   # ln -s /usr/lib/libXhp11.3 libXhp11.sl
   ```

```
# ln -s /usr/lib/libXi.3 libXi.sl
# ln -s /usr/lib/libXm.4 libXm.sl
# ln -s /usr/lib/libXp.2 libXp.sl
# ln -s /usr/lib/libXt.3 libXt.sl
# ln -s /usr/lib/libXtst.2 libXtst.sl
```

2.5.8 Preinstallation Tasks for HP Tru64 UNIX

On HP Tru64 systems, the group ID of a directory is the same as that of the parent directory (if the parent is not root) and is not controlled by the active group of the current user.

Oracle Corporation recommends that you set the active group of the `oracle` user to be the same as the group ID of the `$ORACLE_HOME` directory. If you do not set the active group as recommended above, the Web Cache Configuration Assistant might fail.

Make sure the `/etc/sysconfigtab` file contains the following lines:

```
vm: new_wire_method = 0
vfs: fifo_do_adaptive defaults = 0
```

2.5.9 Preinstallation Tasks for Linux

2.5.9.1 Preinstallation Tasks for Red Hat Linux

If you are installing Oracle9*i*AS on Red Hat Linux, create a link from the `/sbin/fuser` file to `/bin/fuser`. This is required to successfully detect whether Oracle Enterprise Manager is running during second and subsequent installations on the same machine.

2.5.9.2 Avoiding Port Number Conflicts

On Linux, port number 389 is reserved in the `/etc/services` file. If you want Oracle9*i*AS to install using the default port number for Oracle Internet Directory, delete the entries in the `/etc/services` file.

Note: You must *remove* all lines containing the port number 389 from the `/etc/services` file if you want to use that port number. Attempting to *comment out* lines containing 389 does not free the port.

2.5.9.3 Using newgrp Command on Linux Intel

Avoid using the `newgrp` command on Linux Intel before installation to change the primary group. If you use `newgrp` before installation, the Web Cache Configuration Assistant might fail to start Web Cache after installation is complete. Using `newgrp` before installation creates a mismatch between the group identifier in the `webcache.xml` file (the primary group id) and the group identifier of the installed files (the changed group id).

If you must use the `newgrp` command, complete the task described in "Correcting Errors Created by Using newgrp Command on Linux Intel" on page 3-38 after installation.

2.5.10 Preinstallation Tasks for AIX

If you install Oracle9*i*AS 9.0.3 using Oracle9*i*AS 9.0.2.0.1 Infrastructure running on AIX 4.3.3, you will encounter problems while adding Oracle9*i*AS 9.0.3 J2EE instances to clusters. To fix this issue, install the patch located in the following patch directory on the Oracle9*i*AS 9.0.3 CD-ROM.

CD_Mount_Point`/patch/2640377`

To install the patch, follow the instructions in the README file located in the patch directory.

2.6 Oracle Universal Installer

This section describes how Oracle9*i*AS 9.0.3 uses Oracle Universal Installer for installation. It includes the following topics:

2.6.1 About Oracle Universal Installer

Oracle9*i*AS 9.0.3 uses Oracle Universal Installer to guide you through each step of the installation process.

The Oracle Universal Installer provides the following features:

- Describes installation options for Oracle9*i*AS 9.0.3
- Detects pre-set environment variables and configuration settings
- Sets environment variables and configuration during installation
- Offers configuration options for a customized installation of Oracle9*i*AS 9.0.3
- Deinstalls Oracle9*i*AS 9.0.3

Note: Oracle Universal Installer fails to appear if the display uses less than 256 colors. Oracle Universal Installer uses JRE 1.3.1, which supports display drivers with 256 colors or more.

2.6.2 Oracle Universal Installer Prerequisite Checks

The Oracle Universal Installer automatically checks your computer prior to installation to verify that your system meets operational requirements. Table 2–10 lists the prerequisite checks that are performed.

Table 2–10 Oracle Universal Installer Automatic Prerequisite Checks

Prerequisite Checks	See Also
Check for enough disk space for Oracle home installation	Table 2.2, "Hardware Requirements"
Check for TMP and TMPDIR variable and sufficient swap space	Table 2.2, "Hardware Requirements"
Check that the install host has enough RAM	Table 2–3, "Oracle9iAS 9.0.3 Requirements and Recommendation"
Check the `/etc/hosts` file.	Section 2.5.5, "Host Name File Configuration"
Prohibit installation of Oracle9*i*AS 9.0.3 into an existing Oracle home	Section 2.5.4.1, "ORACLE_HOME"
Check operating system version	Section 2.3, "Operating System Requirements"
Ensure that the value of ORACLE_HOME does not contain spaces or is longer than 127 characters	Section 2.5.4.1, "ORACLE_HOME"
Verify the monitor has 256 color viewing capability	Section 2.2, "Hardware Requirements"
Verify operational requirements of the CPU	Table 2.2, "Hardware Requirements"
Port detection and resolution	Section 2.5.6, "Port Allocation"

2.6.3 Oracle Universal Installer oraInventory Directory

The Oracle Universal Installer creates the `oraInventory` directory the first time it is run on a computer. The `oraInventory` directory keeps an inventory of products that the Oracle Universal Installer installs on your computer, as well as other installation information. If you have previously installed Oracle products, then you may already have an `oraInventory` directory.

When a UNIX group name is created and specified, it grants the specified group the permission to write to the `oraInventory` directory. If another group attempts to run the installer, then they must have permission to write to the `oraInventory` directory. If they do not have permission, then the installation fails.

The location of `oraInventory` is defined in the `oraInst.loc` file.

Table 2–11 lists the location of the `oraInst.loc` files for each platform:

Table 2–11 File Location for Each Platform

Platform	Location
AIX-Based Systems	`/etc`
HP 9000 Series HP-UX	`/var/opt/oracle`
Linux Intel	`/etc`
HP Tru64 UNIX	`/var/opt/oracle`

The latest log file is:

/your_base_directory/oraInventory/logs/installAction*todays_date_time*.log

The *your_base_directory* identifier is the location for your installation files and *todays_date_time* is the date and time of installation. Log file names of previous installation sessions take the form `installActionsdatetime.log`.

A complete listing of log files is included in the *Oracle9i Application Server Administrator's Guide*

Do not delete or manually alter the `oraInventory` directory or its contents. Doing so can prevent the installer from locating products that you have installed on your system.

2.6.4 Mounting the Installation CD-ROM

This section describes how to mount the Installation CD-ROM for various operating systems:

- Mounting CD-ROMs for AIX
- Mounting CD-ROMs for HP
- Mounting CD-ROMs for Linux
- Mounting CD-ROMs for Tru64

Mounting CD-ROMs for AIX

Mount Disk 1 to begin the installation. Mount the subsequent disk or disks when prompted to do so. Follow these steps to mount the Oracle9*i*AS 9.0.3 CD-ROM manually:

1. Place the Oracle9*i*AS 9.0.3 CD-ROM Disk 1 in the CD-ROM drive.
2. Log in as the `root` user and create a CD-ROM mount point directory, if one does not already exist, by using the following commands:

   ```
   $ su root
   # mkdir cdrom_mount_point_directory
   ```

3. Determine the CD-ROM device name by entering the following command:

   ```
   # lsdev  -Cc cdrom
   ```

   The output should be similar to the following:

   ```
   cd0 Available 10-60-00-4, 0 SCSI Multimedia CD-ROM Drive
   ```

4. Mount the CD-ROM drive on the mount point directory by entering the following commands:

   ```
   # mount options device_name cdrom_mount_point_directory
   ```

5. Exit the `root` account:

   ```
   # exit
   ```

   Example 2–1 shows how to mount the CD-ROM manually.

Example 2–1 Mounting the AIX CD-ROM Manually

```
$ su root
# mkdir /cdrom
# mount -rv cdrfs /dev/cd0 /cdrom
# exit
```

In the preceding output, `/dev/cd0` is the CD-ROM device and `/cdrom` is the mount point.

Caution: Do not run the Installer while the CD-ROM directory is the current directory or you will be unable to unmount the current CD-ROM when prompted to do so.

Mounting CD-ROMs for HP

Mount Disk 1 to begin the installation. Mount the subsequent disk or disks when prompted to do so. Follow these steps to mount the Oracle9*i*AS 9.0.3 CD-ROM manually:

1. Place the Oracle9*i*AS 9.0.3 CD-ROM Disk 1 in the CD-ROM drive.
2. Log in as the `root` user and create a CD-ROM mount point directory, if one does not already exist, by using the following commands:

   ```
   $ su root
   # mkdir cdrom_mount_point_directory
   ```

3. Determine the CD-ROM device name by entering the following command:

   ```
   $ ioscan -fun -C disk
   ```

   The output should be similar to the following:

   ```
   disk     10  10/12/5.2.0   sdisk       CLAIMED   DEVICE    TOSHIBA CD-ROM
   XM-5701TA /dev/dsk/c4t2d0   /dev/rdsk/c4t2d0
   ```

4. If there is not already an entry in the `/etc/pfs_fstab` file for your CD-ROM device, you must add one. As the `root` user, use a system editor to add a line, in the following format, to the `/etc/pfs_fstab` file:

   ```
   device_file mount_point filesystem_type translation_method
   ```

   In the preceding format, the first entry is the CD-ROM device, the second entry is the mount point, and the third entry indicates that the CD-ROM to be mounted is in ISO9660 format with Rockridge extensions.

The *device_file* in this example is `/dev/dsk/c4t2d0`. For a CD-ROM device with the path `/dev/dsk/c4t2d0`, you would enter the following:

```
/dev/dsk/c4t2d0 /SD_CDROM pfs-rrip xlat=unix 1 0
```

5. Log in as the `root` user with the following command:

```
$ su root
```

6. Enter the following commands:

```
# nohup /usr/sbin/pfs_mountd &
# nohup /usr/sbin/pfsd &
```

7. Place Oracle9*i*AS 9.0.3 CD-ROM Disk 1 in the CD-ROM drive and mount the CD-ROM by entering the following command:

```
# /usr/sbin/pfs_mount /SD_CDROM
```

8. Log out of the root account.

```
# exit
```

If you run the Installer while the current working directory is the CD-ROM directory, follow these steps to mount the next CD-ROM:

1. Change to your system's root directory and log in as the `root` user:

```
$ cd /
$ su root
```

2. To unmount the CD-ROM, enter the following command:

```
# /usr/sbin/pfs_umount /SD_CDROM
```

3. Remove the CD-ROM from the CD-ROM drive.
4. Insert the required CD-ROM into the CD-ROM drive and mount it with the following command:

```
# /usr/sbin/pfs_mount /SD_CDROM
```

5. Enter the correct mount point in the Installation dialog box.
6. Click OK to continue.

Mounting CD-ROMs for Linux

Mount Disk 1 to begin the installation. Mount the subsequent disk or disks when prompted to do so.

Mounting CD-ROMs for Linux with Auto Mounting Software If you are using auto mounting software, the CD-ROM is mounted automatically to the directory specified in your auto mount configuration when you insert it into the CD-ROM drive.

To check whether you have auto mounting software, enter the following command:

```
$ ps -aux | grep automount
```

If you have auto mounting software, the output must be similar to the following:

```
root 628 0.0 0.2 1148 588 ? S 17:32 0:00 /usr/sbin/automount /misc file /etc/auto.misc
```

In the preceding output, the `/etc/auto.misc` section defines the directory under the `/misc` file where the CD-ROM will be mounted.

- If the auto mounting software is running and configured properly, the CD-ROM is mounted automatically.
- If no lines are returned, the auto mounting software is not running, and you will have to mount the CD-ROM manually. Proceed to "Mounting CD-ROMs for Linux Manually".

Follow these steps to mount subsequent CD-ROMs:

1. Remove the CD-ROM from the CD-ROM drive by using the following commands:

   ```
   $ cd /
   $ eject
   ```

2. Insert the next CD-ROM into the CD-ROM drive and enter the correct mount point in the Installation dialog box of the Oracle Universal Installer.
3. Click OK to continue.

Mounting CD-ROMs for Linux Manually To mount the Oracle9*i*AS 9.0.3 CD-ROM manually, use the following steps:

1. Place Oracle9*i*AS 9.0.3 CD-ROM Disk 1 in the CD-ROM drive.
2. Log in as the `root` user and, if necessary, create a CD-ROM mount point directory by using the following commands:

```
$ su root
# mkdir cdrom_mount_point_directory
```

3. Mount the CD-ROM drive on the mount point directory by using the following commands:

```
# mount options device_name cdrom_mount_point_directory
```

4. Exit the `root` account.

```
# exit
```

If you are unsure of the correct device name, consult your system administrator. Typically, the device name is `/dev/cdrom`.

Example 2–2 shows how to mount the CD-ROM manually.

Example 2–2 Mounting the Linux CD-ROM Manually

```
$ su root
# mkdir /cdrom
# mount -t iso9660 /dev/cdrom /cdrom
# exit
```

If you run the Installer while the current working directory is the CD-ROM directory, follow these steps to mount the next CD-ROM:

1. Change directory to the root directory of your system and log in as the `root` user by using the following commands:

```
$ cd /
$ su root
```

2. Unmount the CD-ROM by entering the following command:

```
# umount cdrom_mount_point_directory
```

3. Remove the CD-ROM from the CD-ROM drive.
4. Insert and mount the next CD-ROM. Use the same mount command as you used for the first CD-ROM.
5. Enter the correct mount point in the Installation dialog box of the Oracle Universal Installer.
6. Click OK to continue.

Mounting CD-ROMs for Tru64

Follow these steps to mount the Oracle9*i*AS 9.0.3 CD-ROM manually:

1. Place Oracle9*i*AS 9.0.3 CD-ROM Disk 1 in the CD-ROM drive.
2. Log in as the `root` user and create a CD-ROM mount point directory, if one does not already exist, by using the following commands:

   ```
   $ su root
   # mkdir cdrom_mount_point_directory
   ```

3. Determine the CD-ROM device name by entering the following command:

   ```
   $ ls /dev/disk/cdrom*c
   ```

   The command should return a line similar to the following:

   ```
   /dev/disk/cdrom0c
   ```

4. Mount the CD-ROM drive on the mount point directory, by using the following commands:

   ```
   # mount options device_name cdrom_mount_point_directory
   ```

5. Exit the `root` account.

   ```
   # exit
   ```

   Example 2–3 shows how to mount the CD-ROM manually.

Example 2–3 Mounting the Tru64 CD-ROM Manually

```
$ su root
# mkdir /cdrom
# mount -t cdfs -r -o nodefperm,noversion,rrip /dev/disk/cdrom0c /cdrom
# exit
```

If you run the Installer while the current working directory is the CD-ROM directory, follow these steps to mount the next CD-ROM:

1. Change directory to the root directory of your system and log in as the `root` user by using the following commands:

   ```
   $ cd /
   $ su root
   ```

2. Unmount the CD-ROM by using the following command:

   ```
   # umount cdrom_mount_point_directory
   ```

3. Remove the CD-ROM from the CD-ROM drive.
4. Insert and mount the next CD-ROM. Use the same mount command as you used for the first CD-ROM.
5. Enter the correct mount point in the Installation dialog box of the Oracle Universal Installer.
6. Click OK to continue.

2.6.5 Starting Oracle Universal Installer

Follow these steps to start Oracle Universal Installer and install Oracle9*i*AS 9.0.3:

1. Insert the CD labelled Disk 1 into the CD-ROM drive.
2. Mount the installation CD-ROM. For information on mounting the installation CD-ROM for your platform, see "Mounting the Installation CD-ROM" on page 2-25. Run Oracle Universal Installer from the CD-ROM.

   Note: Be sure you are **not** logged in as the root user when you start the Oracle Universal Installer. If you are, then only the root user will have permissions to manage Oracle9*i*AS 9.0.3.

3. Log in as the `oracle` user.
4. Start the installer by entering:

   ```
   prompt> mount_point/9ias_903disk1/runInstaller
   ```

   This launches Oracle Universal Installer through which you can install Oracle9*i*AS 9.0.3.

   Note: Do not start the installation inside the *`mount_point`* directory. If you do, then you may not be able to eject the installation disk.

2.7 Installation

The following sections provide the sequence of the installation screens that you will encounter during the installation process, installation considerations, and additional installation information for Oracle9*i*AS 9.0.3. This section contains the following topics:

- Installation Sequence
- Installation Considerations
- Additional Oracle9iAS 9.0.3 Installations

2.7.1 Installation Sequence

Oracle recommends reviewing the installation sequence for a better understanding of the Oracle9*i*AS 9.0.3 installation process.

Note: Before performing an installation on a host that already has an Oracle9*i*AS instance, you must stop the Oracle Enterprise Manager Web site. The primary Oracle9*i*AS installation contains the active Oracle Enterprise Manager Web site. Run the following command in your primary installation ORACLE_HOME:

```
prompt> ORACLE_HOME/bin/emctl stop
```

Following Oracle9*i*AS 9.0.3 installation, restart the Oracle Enterprise Manager Web site using the following command:

```
prompt> ORACLE_HOME/bin/emctl start
```

The following screens appear during installation of Oracle9*i*AS 9.0.3:

1. **Welcome screen:** Review information about the Oracle Universal Installer.
2. **Inventory Location screen**: Verify the location of the base directory for installation files (first time installation).
3. **File Locations screen**: Verify the source path, destination name, and destination path for your Oracle9*i*AS 9.0.3 installation.
4. **Component Configuration and Startup screen:** Select the components to configure during the installation process.
5. **Oracle9*i*AS Infrastructure Use screen:** Allows you to select whether or not you will use Oracle9*i*AS Single Sign-On or cluster management (with Oracle9*i*AS Infrastructure 9.0.2) with your installation of Oracle9*i*AS 9.0.3 (Oracle9*i*AS Single Sign-On installs with Oracle9*i*AS Infrastructure 9.0.2).
6. **Oracle Internet Directory screen** (optional): Enter the username and password for your registration of Oracle9*i*AS 9.0.3 configuration information into Oracle Internet Directory. (Oracle Internet Directory installs with Oracle9*i*AS Infrastructure 9.0.2.) The username you enter must be a member of the IASAdmins group (for example, `orcladmin`).

   If you are associating Oracle9*i*AS 9.0.3 with an Infrastructure, you must provide the username and password for the Oracle Internet Directory associated with that Infrastructure.
7. One of the following screens appears based on whether Oracle9*i*AS 9.0.3 has been installed on your computer:

   - **Create Instance Name and ias_admin Password screen:** This screen appears if this is a first time installation of Oracle9*i*AS 9.0.3 on this host. Enter the following instance information:
     - **Instance Name:** Identifies the installation instance of Oracle9*i*AS 9.0.3 on this host.
     - **ias_admin Password:** The `ias_admin` user's password used to administer any Oracle9*i*AS 9.0.3 instance on this host. This password is required for installation of additional Oracle9*i*AS 9.0.3 instances or other Oracle9*i* Application Server products.
   - **Create Instance Name screen:** This screen appears if the Oracle Universal Installer has detected a previous installation of Oracle9*i*AS 9.0.3 or other Oracle9*i* Application Server products on this host but in a different Oracle home. Enter an instance name to identify this instance of Oracle9*i*AS 9.0.3.

Enter the `ias_admin` user's password created from the previous installation.

8. **Metadata Repository screen** (optional): Select the Oracle9*i*AS Metadata Repository you would like to use for this Oracle9*i*AS 9.0.3 installation. This screen appears if the Oracle Universal Installer detects multiple installations of Oracle9*i*AS Metadata Repository 9.0.2 (Oracle9*i*AS Metadata Repository is installed with Oracle9*i*AS Infrastructure 9.0.2).
9. **Choose JDK Home Directory screen**: If you are installing Oracle9*i*AS 9.0.3 on AIX-Based Systems, HP 9000 Series HP-UX, or HP Tru64 UNIX, you are prompted for the JDK home directory.
10. **Installation Summary screen**: Review the summary of your Oracle9*i*AS 9.0.3 installation and begin the installation process.
11. **Install screen:** Appears while the product is installing. The screen shows installation operations. No user interaction is required.
12. **Oracle9*i*AS Configuration Tools screen:** Review the status of Oracle9*i*AS configuration tools for components you have selected. No user interaction is required.
13. **End of Installation screen:** Appears at the end of the installation process. It notifies you whether the installation was successful or unsuccessful and provides information about accessing the Oracle9*i*AS 9.0.3 instance from a Web browser.

Note: After the installer finishes, you must perform the tasks in Section 3.2, "Postinstallation" to complete your Oracle9*i*AS 9.0.3 installation.

2.7.2 Installation Considerations

Please review the following installation considerations for Oracle9*i*AS 9.0.3:

- Oracle9*i*AS 9.0.3 cannot be used to run any of the Oracle9*i*AS 9.0.2 mid-tier install types. For example, you cannot run Oracle9*i*AS Portal, Oracle9*i*AS Forms Services, or Oracle9*i*AS Discoverer on top of Oracle9*i*AS 9.0.3.
- Oracle9*i*AS 9.0.3 cannot be installed in an existing Oracle home. For example, you cannot install Oracle9*i*AS 9.0.3 into an Oracle9*i*AS 9.0.2 Oracle home.
- You cannot create a cluster that consists of J2EE and Web Cache 9.0.3 instances and J2EE and Web Cache 9.0.2 instances.
- The J2EE and Web Cache instances in an application server cluster can be on different hosts, however, all J2EE and Web Cache instances in a single cluster must reside on hosts that use the same operating system type (for example, Linux). This is because the configuration information that is shared between instances in a cluster contains operating system-specific information, such as file path names.
- If you are installing Oracle9*i*AS Infrastructure 9.0.2 on the same host as Oracle9*i*AS 9.0.3, then you must install the Oracle9*i*AS Infrastructure 9.0.2 first. You can associate Oracle9*i*AS 9.0.3 with the Oracle9*i*AS Infrastructure 9.0.2 during, or after the Oracle9*i*AS 9.0.3 installation.
- If you are installing Oracle9*i*AS Infrastructure 9.0.2 on a different host from Oracle9*i*AS 9.0.3, then you can install the infrastructure before, or after the Oracle9*i*AS 9.0.3 installation. You can associate Oracle9*i*AS 9.0.3 with the infrastructure during, or after the Oracle9*i*AS 9.0.3 installation.
- If you associate your Oracle9*i*AS 9.0.3 instance with an Oracle9*i*AS Infrastructure 9.0.2, you can not remove and reassociate the Oracle9*i*AS 9.0.3 instance with the infrastructure.

> **See Also:** *Oracle9i Application Server Administrator's Guide* for more information on clustering and associating an instance with an infrastructure.

2.7.2.1 Installing the Oracle9*i* Application Server 9.0.2.1 patch

If you want to use Oracle9*i*AS 9.0.3 on the same host or farm as Oracle9*i*AS 9.0.2, then you must install the Oracle9*i* Application Server 9.0.2.1 patch. You must apply the 9.0.2.1 patch to all Oracle9*i*AS 9.0.2 instances, either before or after your installation of Oracle9iAS 9.0.3.

You can download the patch from:

`http://metalink.oracle.com`

Select the Patches link. On the patch download form, select Oracle9*i* Application Server in the Product Family field and then submit the form.

2.7.2.2 Entering Incorrect Enterprise Manager Password on HP-UX

During installation, you are prompted for the iAS instance name, and password. If you enter the incorrect password on HP-UX and an active Enterprise Manager (EMD) home location is already present in the `/etc/emtab` file, the Oracle Universal Installer will hang and will not respond.

To continue the installation, you need to exit or kill the installer process and start the installer again.

2.7.3 Additional Oracle9*i*AS 9.0.3 Installations

Oracle recommends reviewing the following before performing additional Oracle9*i*AS 9.0.3 installations on the same host:

- Review the preinstallation tasks covered previously in this chapter.
- You must perform all of the installations as the same operating system user.
- Do not delete or modify the `/var/opt/oracle` directory for subsequent Oracle9*i*AS 9.0.3 installations.
- Specify a different Oracle home than the first Oracle9*i*AS 9.0.3 installation.
- Use the same oraInventory directory for subsequent Oracle9*i*AS 9.0.3 installations.
- Stop Oracle Enterprise Manager Web site before subsequent Oracle9*i*AS 9.0.3 installations. For more information refer to the *Oracle9i Application Server Administrator's Guide*.
- If you install more than one instance of Oracle9*i*AS 9.0.3, and each instance does not use Oracle9*i*AS Single Sign-On, then you must verify that each instance name is unique.
- Once an Oracle9*i*AS 9.0.3 installation is associated with an Oracle9*i*AS Infrastructure 9.0.2, all subsequent Oracle9*i*AS 9.0.3 installations on the same host will automatically be associated with that Oracle9*i*AS Infrastructure 9.0.2.
- If you perform multiple Oracle9*i*AS 9.0.3 installations, on different hosts, using the same Oracle9*i*AS Infrastructure 9.0.2, Oracle recommends performing only one installation at a time. Simultaneous Oracle9*i*AS 9.0.3 installations and configurations pointing to a common Oracle9*i*AS Infrastructure 9.0.2 can result in a failure during OC4J deployment with some resource dead lock errors.
- After completion of your Oracle9*i*AS 9.0.3 installation, exit Oracle Universal Installer before installing another instance of Oracle9*i*AS 9.0.3. If the same installation session is used to install another instance of Oracle9*i*AS 9.0.3, then applications may fail in the second instance with `URL not found` errors.

- You can perform multiple Oracle9*i*AS 9.0.3 installs on the same host as different users. For more information refer to Section 3.2.7, "Multi-User Installations".

  See Also:

  - Section 2.5.4.1, "ORACLE_HOME"
  - Section 2.6.3, "Oracle Universal Installer oraInventory Directory"

3

Installation

This chapter describes how to install Oracle9*i* Application Server Release 2 (9.0.3) (Oracle9*i*AS 9.0.3). The topics include:

- Installation
- Postinstallation

3.1 Installation

The following instructions guide you through the installation steps for Oracle9*i*AS 9.0.3.

During the Oracle9*i*AS 9.0.3 installation, you will be asked if you want to use single sign-on or clustering. If you want to use either single sign-on or enable cluster management, then you need to install Oracle9*i*AS Infrastructure 9.0.2. Oracle9*i*AS 9.0.3 is compatible with Oracle9*i*AS Infrastructure 9.0.2.

When you are installing Oracle9*i*AS 9.0.3 and will be using an existing Oracle9*i*AS Infrastructure 9.0.2, ensure that the following components are running on the infrastructure host:

- Oracle9*i*AS Metadata Repository
- Oracle Internet Directory
- Oracle9*i*AS Single Sign-On
- Oracle HTTP Server
- Oracle9*i*AS Containers for J2EE

Note: Make sure you have write access to the `/tmp`, `$TMP`, `$TMPDIR`, and `/var/tmp` directories on your system before you start the installation of Oracle9*i*AS 9.0.3.

Note: If you want to use Oracle9*i*AS 9.0.3 on the same host or farm as Oracle9*i*AS 9.0.2, then you must install the Oracle9*i* Application Server 9.0.2.1 patch. See Section 2.7.2.1, "Installing the Oracle9i Application Server 9.0.2.1 patch" for more information.

See Also:

- Chapter 1, "Installation Concepts"
- *Oracle9i Application Server 9.0.2 Installation Guide*
- *Oracle9i Application Server Administrator's Guide*

Table 3–1 lists required information for Oracle9*i*AS 9.0.3 installation. Enter your values for the listed information in the **Your Information** column before beginning.

Table 3–1 Installation Information

Information	Example Values	Your Information
Oracle base directory[1] (Section 2.6.3, "Oracle Universal Installer oraInventory Directory")	`/private/oraInventory`	
Oracle home location (Section 2.5.4.1, "ORACLE_HOME")	`/private/ora9ias`	
Instance Name (Section 2.5.4.1, "ORACLE_HOME")	`instance1`	
`ias_admin` Password (Section 2.5.4.1, "ORACLE_HOME")	`welcome1`	
Oracle9*i*AS Single Sign-On Server Host Name[2] (*Oracle9i Application Server 9.0.2 Installation Guide*)	`iasdocs.us.oracle.com`	
Oracle9*i*AS Single Sign-On Port Number[2] (*Oracle9i Application Server 9.0.2 Installation Guide*)	`7777`	
Oracle Internet Directory Username[2](*Oracle9i Application Server 9.0.2 Installation Guide*)	`orcladmin`	
Oracle Internet Directory Password[2](*Oracle9i Application Server 9.0.2 Installation Guide*)	`welcome1`[3]	
Oracle9*i*AS Metadata Repository[4] (*Oracle9i Application Server 9.0.2 Installation Guide*)	`iasdocs.us.oracle.com`	
JDK Home Directory (required only for AIX-Based Systems, HP Tru64 UNIX and HP 9000 Series HP-UX)	`/jdkhome`	

[1] Required for first time installation of Oracle9*i*AS 9.0.3.

[2] Required for using single sign-on functionality or enabling application server cluster management. See the *Oracle9i Application Server Administrator's Guide* for more information about clustering.

[3] The default password for `orcladmin` user is the same as the password for the `ias_admin` user.
[4] Required for multiple metadata repository availability.

Note: Before performing an installation on a host that already has an Oracle9*i*AS instance, you must stop the Oracle Enterprise Manager Web site. The primary Oracle9*i*AS installation contains the active Oracle Enterprise Manager Web site. Run the following command in your primary installation *ORACLE_HOME*:

```
prompt> ORACLE_HOME/bin/emctl stop
```

Following Oracle9*i*AS 9.0.3 installation, restart the Oracle Enterprise Manager Web site using the following command:

```
prompt> ORACLE_HOME/bin/emctl start
```

For information on starting the Oracle Universal Installer, see Section 2.6.5, "Starting Oracle Universal Installer".

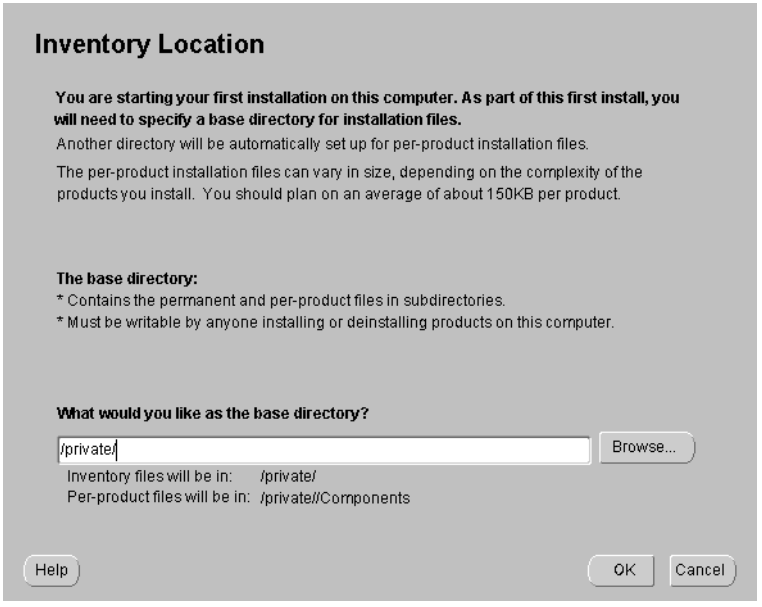
1. Review the Oracle Universal Installer Welcome screen and click **Next**.

   The Welcome screen provides information about the Oracle Universal Installer. The following function buttons appear on the installation screens:

   - **Deinstall Products:** Deinstall individual components or the entire product. This button appears only on the Welcome screen.
   - **About Oracle Universal Installer**: View the version number of the installer in use.
   - **Exit:** Quit the installation process and exit the installer.
   - **Help**: Access detailed information about the functionality of each screen.
   - **Installed Products**: View currently installed products or deinstall the entire product or components.
   - **Previous:** Return to the previous screen.
   - **Next**: Proceed to the next screen.

2. Verify the location of the base directory for installation files and click **OK**.

Figure 3–1 Inventory Location Screen



The Inventory Location screen appears during the *first installation* on a host to set a location for installation files. Product components use a different directory. The installation files can vary in size depending on the complexity of the product. For file storage considerations, assume a file size of 150 KB per product.

- **Browse**: Navigate through the available directory to select a location for the base directory for your installation.

The base directory has the following attributes:

- Contains the permanent and per-product component files in subdirectories
- Must be writable by anyone in the same user group installing or deinstalling products on the install computer

Enter where you would like the base directory to be stored. For example:

```
/private
```

The storage location for product component files is the `Components` directory. For example:

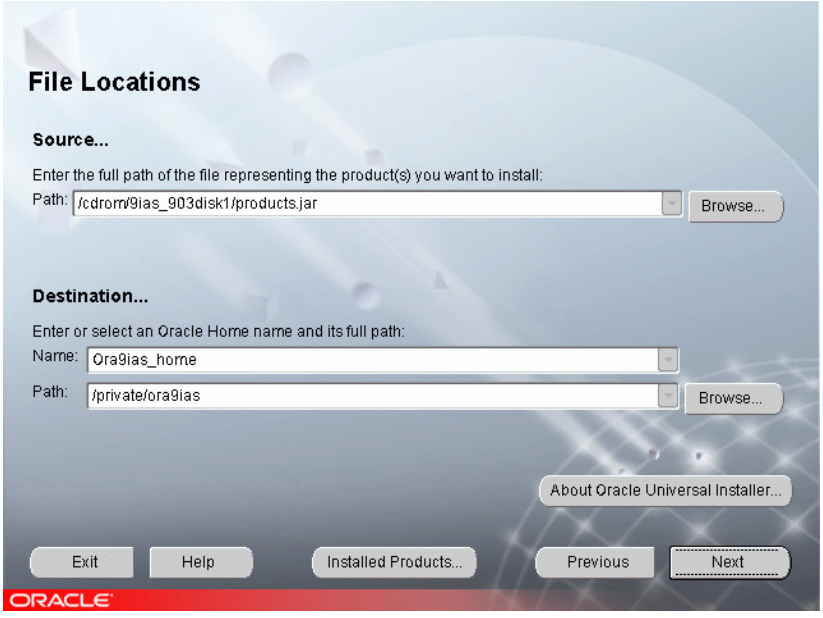
```
/private/oraInventory/Components
```

- You need root privileges to execute certain actions before the installation can continue. You need to run a shell script with root privileges that is stored in the `orainstRoot.sh` file. (You may need to execute the shell script by typing "./" before `orainstRoot.sh`.) The Root.sh installation screen shows the location of the `orainstRoot.sh` file. The script creates pointers to the components as the installer installs them in the system, so that they can be identified later in the installation procedure. It produces the `oraInst.loc` file, which provides a pointer to the `oraInventory` directory. Table 2–11 lists the location of the `oraInst.loc` files for each platform.

After you execute the shell script, continue with the installation process.

3. Verify the source path, destination name, and destination path for your Oracle9*i*AS 9.0.3 installation and click **Next**.

Figure 3–2 File Locations Screen



The File Locations screen allows you to enter the full path for the source and destination locations for your installation.

- **Source**: This is the full path to the `products.jar` file from which the product is installed. The installer detects and uses the default values of the `products.jar` file of the installation program. Do not change the path.
- **Name**: Enter an Oracle home name or select a name from the drop-down list. You may use the default Oracle home name of **Ora9ias_home** and path name **ora9ias** provided or select your own name and path. If you do not have a home created on your computer, one is created for you during the installation.

  Oracle homes are identified by name. The Oracle home name identifies the programs associated with a specific Oracle home and the installed Oracle services associated with the home.

The Oracle home name must consist of 1 to 16 characters and can only include alphanumeric characters and underscores; spaces are not allowed.

- **Destination**: This is the full path to the Oracle home where the product will be installed. The installer defaults to the Oracle home set in the preinstallation chapter.

Note: The Oracle9*i*AS 9.0.3 instance must be installed in its own Oracle home. For example, you cannot install Oracle9*i*AS 9.0.3 into any Oracle9*i*AS 9.0.2 Oracle home. The Oracle9*i*AS 9.0.3 instance can be installed on the same or a different host from Oracle9*i*AS Infrastructure 9.0.2.

See Also: Section 2.5.4.1, "ORACLE_HOME"

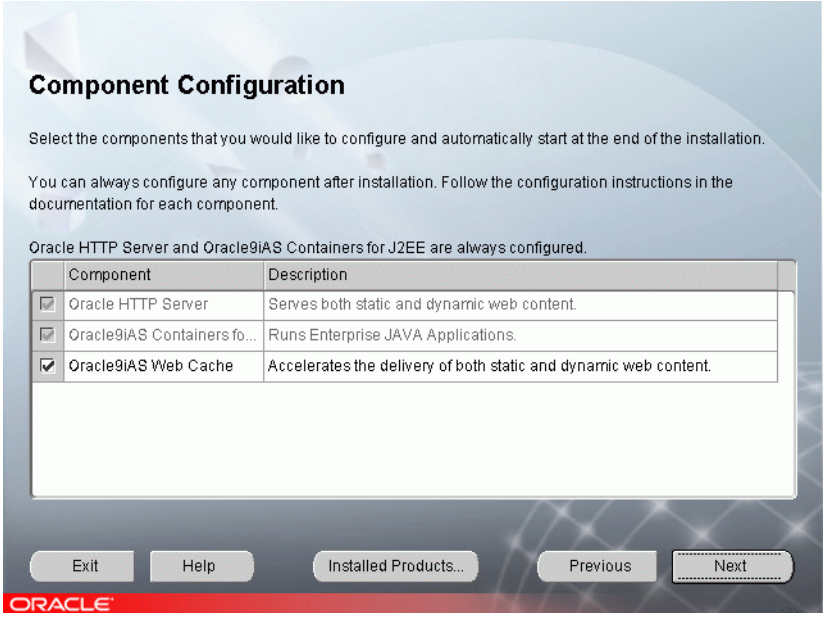
- **Browse**: Navigate through the file system to find source and destination locations.

Do not install Oracle9*i*AS 9.0.3 into any existing Oracle directories. For example:

- Oracle9*i* Application Server 9.0.2 home directory
- Oracle9*i*AS Infrastructure 9.0.2 home directory
- Oracle9*i*AS Developer Kits 9.0.2 home directory
- Oracle9*i* Database home directory
- Oracle8*i* Database home directory
- Oracle9*i* Developer Suite directory

4. Select the Oracle9*i*AS 9.0.3 components to configure during the installation process and click **Next**.

Figure 3–3 Component Configuration and Startup Screen



If you de-select a component here, then the installer installs it, but does not configure or start it. After installation, the installer starts the selected Oracle9*i*AS 9.0.3 components. If you decide to use the Oracle9*i*AS 9.0.3 component at a later time, launch the Oracle Enterprise Manager Web site and click **Configure Component** on the Instance Home Page.

See Also: Section 1.1, "Oracle9iAS 9.0.3 Installation Overview"

5. One of the following screens will appear based on whether you will use Oracle9*i*AS Infrastructure 9.0.2, or if an Oracle9*i*AS Infrastructure 9.0.2 is on the install host:

   - **Oracle9iAS Infrastructure Use**: The Oracle9*i*AS Infrastructure Use screen appears to allow you to associate with an existing installation of Oracle9*i*AS Infrastructure 9.0.2.
   - **Infrastructure Summary:** The Infrastructure Summary screen appears if you have an installation of Oracle9*i*AS 9.0.3 that is already associated with an Oracle9*i*AS Infrastructure 9.0.2.

   Note: To associate an instance of Oracle9*i*AS 9.0.3 with an Infrastructure, make sure the required Infrastructure components are running. See Section 3.1, "Installation" for details.

   ---

a. Oracle9*i*AS Infrastructure Use

The Oracle9*i*AS Infrastructure Use screen appears to enable single sign-on or clustering functionality on the Oracle9*i*AS 9.0.3 installation host. Oracle9*i*AS Infrastructure 9.0.2 enables management of the application server cluster. Select whether to use an existing Oracle9*i*AS Infrastructure 9.0.2 and click **Next**.

Figure 3–4 Oracle9iAS Infrastructure Use Screen

Oracle9*i*AS Single Sign-On is installed as part of the Oracle9*i*AS Infrastructure 9.0.2 installation. The single sign-on host name refers to the existing Oracle9*i*AS Infrastructure 9.0.2.

The Oracle9*i*AS Infrastructure Use screen allows you to select whether or not you use Oracle9*i*AS Infrastructure 9.0.2 with this installation of Oracle9*i*AS 9.0.3. This screen offers two options:

– **No:** Install Oracle9*i*AS 9.0.3 without Oracle9*i*AS Infrastructure 9.0.2 functionality.

– **Yes:** Use an existing Oracle9*i*AS Single Sign-On with Oracle9*i*AS Infrastructure 9.0.2 that enables an authenticated user to access multiple

accounts and Oracle9*i*AS 9.0.3 applications, and enable cluster management.

In order to use Oracle9*i*AS Single Sign-On you must have the following information:

– **Host Name**: The name of the host where your instance of Oracle9*i*AS Single Sign-On and Oracle9*i*AS Infrastructure 9.0.2 is located.

– **Port Number**: The port number of the host for your instance of Oracle9*i*AS Single Sign-On.

Oracle9*i*AS Single Sign-On is installed as part of the Oracle9*i*AS Infrastructure 9.0.2 installation.

If you want to use Oracle9*i*AS Infrastructure 9.0.2 on IBM AIX 5L:

– Please check `http://metalink.oracle.com` for product availability dates of Oracle9iAS 9.0.2 for IBM AIX 5L.

– If Oracle9*i*AS 9.0.2 for IBM AIX 5L is not available, choose an Oracle9*i*AS Infrastructure 9.0.2 running on a different operating system, for example, an IBM AIX 4.3.3 system.

See Also:

- Chapter 1, "Installation Concepts"
- *Oracle9i Application Server 9.0.2 Installation Guide*

Note:

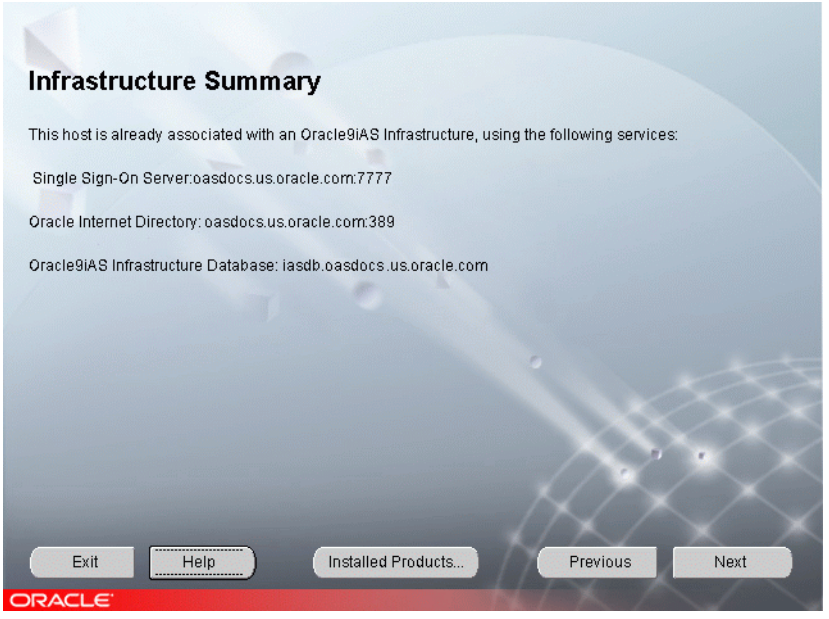
- You cannot create a cluster that consists of J2EE and Web Cache 9.0.3 instances and J2EE and Web Cache 9.0.2 instances.
- The J2EE and Web Cache instances in an application server cluster can be on different hosts, however, all J2EE and Web Cache instances in a single cluster must reside on hosts that use the same operating system type (for example, Linux). This is because the configuration information that is shared between instances in a cluster contains operating system-specific information, such as file path names.

---

b. Infrastructure Summary

Review the Infrastructure Summary screen and click **Next**.

Figure 3–5 Infrastructure Summary Screen



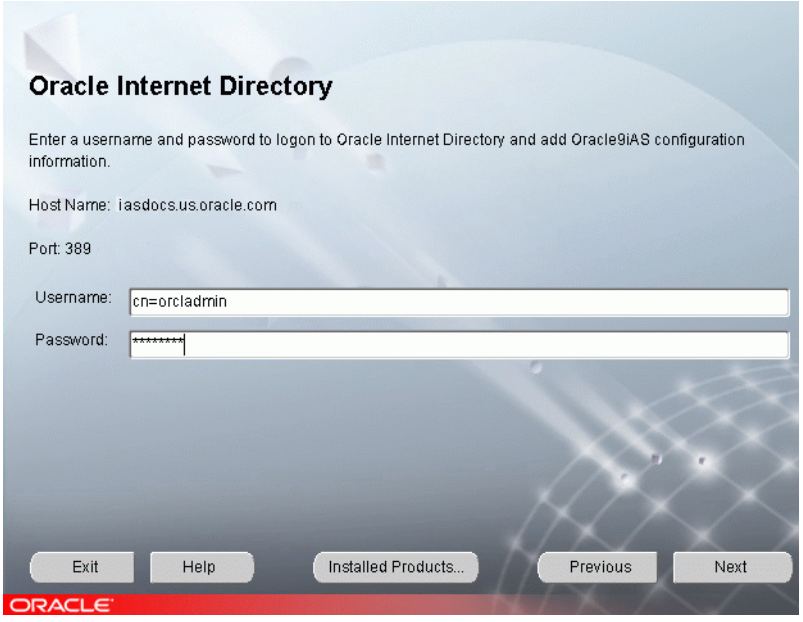
If you have an installation of Oracle9*i*AS 9.0.3 on the install host that is already associated with an Oracle9*i*AS Infrastructure 9.0.2, the Infrastructure Summary screen appears. Review and note the information provided on the screen.

The Infrastructure Summary screen provides you with the following information about the associated Oracle9*i*AS Infrastructure 9.0.2:

- The Oracle9*i*AS Single Sign-On domain and port number
- The Oracle Internet Directory domain and port number
- The Oracle9*i*AS Infrastructure 9.0.2 Database (Metadata Repository) name

6. Enter a username and password to log onto Oracle Internet Directory and click **Next**.

Figure 3–6 Oracle Internet Directory Screen



In order to associate an instance of Oracle9*i*AS 9.0.3 with an Infrastructure, the instance must be registered in the Oracle Internet Directory associated with the Infrastructure.

Oracle Internet Directory enables retrieval of shared information about users and network resources. Oracle Internet Directory implements the Lightweight Directory Access Protocol (LDAP), version 3.

You will need the following information to add information about an Oracle9*i*AS 9.0.3 instance into Oracle Internet Directory:

- **Username:** The name used to log into Oracle Internet Directory.
- **Password:** The password for the user.

The username and password are defined in Oracle Internet Directory as one of the following:

- **orcladmin** (root user)
- a user who is member of the IASAdmins group in Oracle Internet Directory

For additional Oracle9*i*AS 9.0.3 installations using Oracle Internet Directory, you must use a username that is a member of the IASAdmins group. By default, `orcladmin` (the Oracle Internet Directory administrator) is also a member of the IASAdmins group. If the Oracle Internet Directory administrator does not wish to give out the `orcladmin` password, the administrator creates a user and password. The administrator then adds this user to the IASAdmins group.

You are prompted to enter username and password during subsequent Oracle9*i*AS 9.0.3 installs that use Oracle Internet Directory. The username and password you enter enables the registration of Oracle9*i*AS 9.0.3 configuration information into Oracle Internet Directory.

The default user is `orcladmin`. The default password for the `orcladmin` user is the same as the password for the `ias_admin` user on the host where Oracle Internet Directory is configured. The Oracle Internet Directory administrator may add other users and assign a different password for this group.

See Also:

- *Oracle9i Application Server Administrator's Guide*
- *Oracle9i Application Server 9.0.2 Installation Guide*

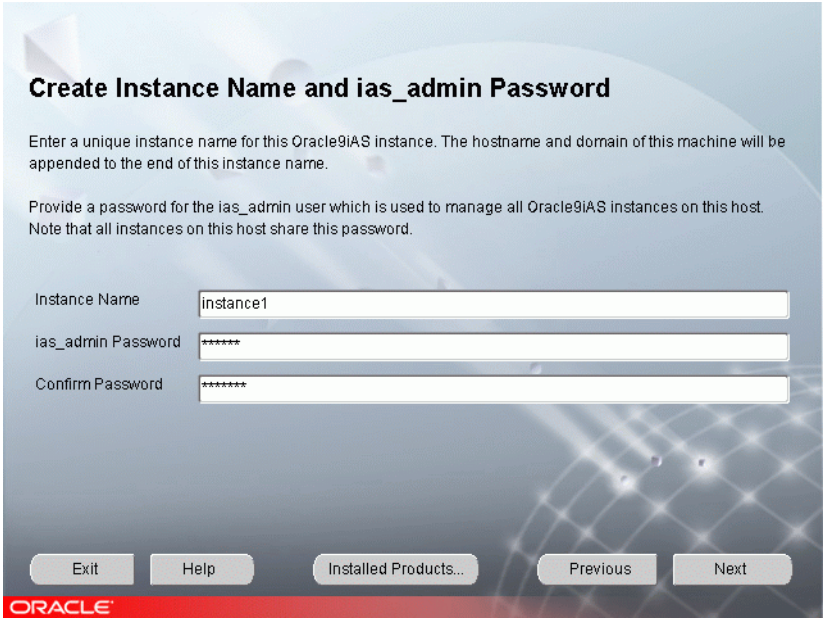
7. One of the following screens appears based on whether an instance of Oracle9*i*AS 9.0.3 or Oracle9*i*AS 9.0.2 has been installed on this host:

   - **Create Instance Name and ias_admin Password**: This screen appears if this is a first time installation of Oracle9*i*AS 9.0.3 on this host.
   - **Create Instance Name**: This screen appears if the Oracle Universal Installer has detected a previous installation of Oracle9*i*AS 9.0.3 or Oracle9*i*AS 9.0.2 on this host but in a different Oracle home.

a. Create Instance Name and ias_admin Password

Enter a unique Oracle9*i*AS 9.0.3 instance name and `ias_admin` password and click **Next**.

Figure 3–7 Create Instance Name and ias_admin Password Screen



This screen appears if this is a first time installation of Oracle9*i*AS 9.0.3 on this host.

Instance Name: Enter an instance name for this installation of Oracle9*i*AS 9.0.3. The instance name must contain alphanumeric and underscore characters only.

The instance name identifies this instance of Oracle9*i*AS 9.0.3 on this host. Instance names are unique for each host.

ias_admin Password: Enter a password for the ias_admin user for this instance of Oracle9*i*AS 9.0.3, and then re-enter the password for confirmation. The ias_admin user's password must consist of at least five alphanumeric characters. Additionally, at least one of the characters must be a number.

The ias_admin user's password enables you to:

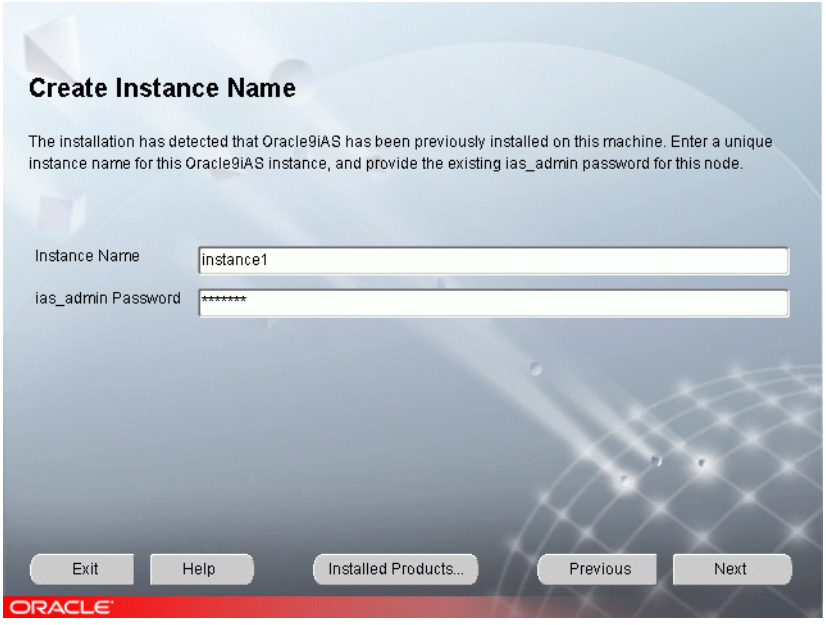
- Manage all instances of Oracle9*i*AS 9.0.3 across the install host
- Run management tools
- Facilitate future installations
- Access the Oracle Enterprise Manager Home Page

If you forget your ias_admin user's password following installation, refer to the *Oracle9i Application Server Administrator's Guide* for the steps you can follow to reset the password.

b. Create Instance Name

Enter a unique Oracle9*i*AS 9.0.3 instance name and the ias_admin password and click **Next**.

Figure 3–8 Create Instance Name Screen



If the Oracle Universal Installer has detected a previous installation of Oracle9*i*AS 9.0.3 or another Oracle9*i* Application Server product on this host but in a different Oracle home, this screen appears.

Instance Name: Enter the instance name for this installation of Oracle9*i*AS 9.0.3. Because instance names identify instances of Oracle9*i*AS on a host, the instance name must be unique on each host.

Instance names can only contain alphanumeric and underscore characters.

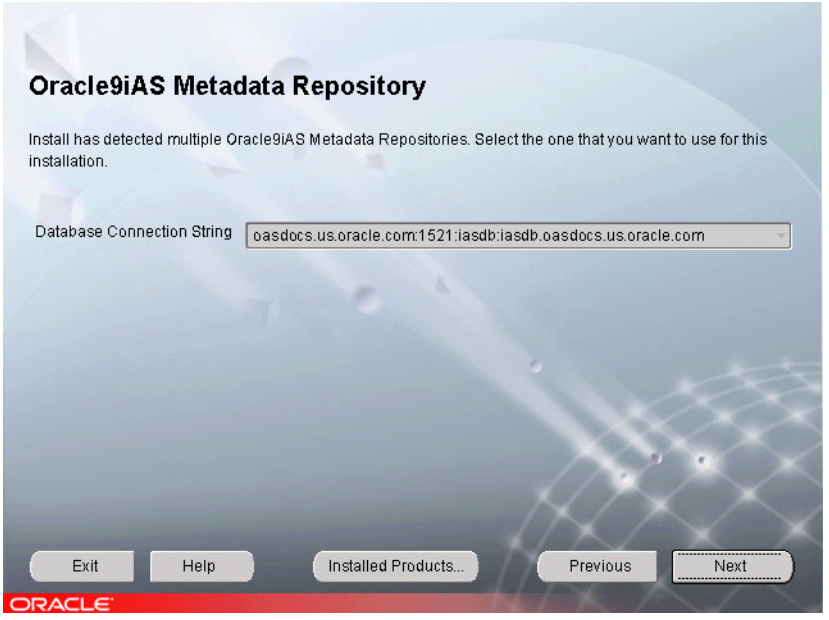
ias_admin Password: Enter the existing password for the ias_admin user for this host.

If you forget your ias_admin user's password following installation, refer to the *Oracle9i Application Server Administrator's Guide* for the steps you can follow to reset the password.

8. The Oracle9*i*AS Metadata Repository screen appears if the Oracle Universal Installer detects the availability of multiple installations of Oracle9*i*AS Metadata Repository with which you can associate your Oracle9*i*AS 9.0.3 installation. Oracle9*i*AS Metadata Repository is installed as part of the Oracle9*i*AS Infrastructure 9.0.2 installation.

   Select the Oracle9*i*AS Metadata Repository you would like to use for this Oracle9*i*AS 9.0.3 installation and click **Next**.

Figure 3–9 Oracle9iAS Metadata Repository Screen



Oracle Universal Installer has detected multiple Oracle9*i*AS Metadata Repositories registered in your Oracle Internet Directory. Select the Oracle9*i*AS Metadata Repository that you want to use with this installation of Oracle9*i*AS 9.0.3.

If you want to implement application server instance clustering, you must select the same metadata repository used by other Oracle9*i*AS 9.0.3 instances in your network.

If you do not want to use Oracle9*i*AS 9.0.3 instance clustering, select any listed metadata repository. Your selection will be the default location for Oracle9*i*AS 9.0.3 component metadata.

If you want an Oracle9*i*AS 9.0.3 component within this installation to use a different database, use the Oracle Enterprise Manager Home Page after completing the installation to change database connectivity.

See Also:

- Chapter 1, "Installation Concepts"
- Section 3.2.3, "About the Oracle Enterprise Manager Web Site"
- *Oracle9i Application Server 9.0.2 Installation Guide*

9. If you are installing Oracle9*i*AS 9.0.3 on AIX-Based Systems, HP 9000 Series HP-UX, or HP Tru64 UNIX the Choose JDK Home Directory screen appears, prompting you for the JDK home directory. Enter the full path of the JDK home directory. Refer to "Operating System Requirements" on page 2-5 for a list of JDK requirements.

   JDK is a prerequisite for the Oracle HTTP Server component. The Choose JDK Home Directory screen prompts for the JDK_HOME path during the Oracle9*i*AS 9.0.3 installation.

Figure 3–10 Choose JDK Home Directory Screen

10. Review the Summary screen and click **Install** to begin the installation process.

The Summary screen allows you to review all the settings before the installation begins. These settings include source, destination, installation type, product language, install file sizes, and a list of components.

- To make changes to any of these settings, click **Previous** to return to the respective screens.

Note: Insufficient disk space is indicated in red under **Space Requirements**.

When you click **Install**, the installation process begins.

The Oracle Universal Installer displays the following message when copying JDK extensions on AIX, HP-UX and HP Tru64 UNIX Systems:

```
Unable to write to file <ORACLE_HOME>/jdk/jre/lib/ext/US_export_policy.jar
```

This message is displayed because the JDK extensions are already installed in the JDK home directory specified during the installation and the owner of the JDK home directory does not have write permissions for files in the *JDKHOME*/jre/lib/ext directory.

Oracle Corporation recommends that you use either of the following workarounds:

- Make a fresh installation of JDK 131 without JDK extensions, and reinstall Oracle9*i*AS 9.0.2.
- To retain the JDK extensions, allocate write permissions to all files in the *JDKHOME*/jre/lib/ext directory to the owner of these files, and reinstall Oracle9*i*AS 9.0.2.

11. Monitor the installation process.

The Install screen appears while the product is installing. The Install screen shows installation operations, including executing actions such as file copy and linking, and executing decision points and calculations. It displays the full path of the installation log.

- **Cancel**: Discontinues the installation process. You can then choose to stop the installation of an individual component or the entire product.

For more information about the installation log, refer to Section 2.6.3, "Oracle Universal Installer oraInventory Directory".

Running root.sh

During installation of Oracle9*i*AS 9.0.3, the installer prompts you to run the `root.sh` script.

Use the following steps to run the `root.sh` script.

a. Log on as the root user.

b. Run the `root.sh` script in the Oracle home directory.

```
prompt> cd ORACLE_HOME
prompt> ./root.sh
```

You may need to execute the shell script by typing `./` before `root.sh`.

c. Exit root user.

After you see the `Finished running generic part of the root.sh script` and `Now product-specific root actions will be performed` messages, wait for the prompt, then exit the `root` account to return to the Install screen.

The `root.sh` script detects:

- Settings of *`ORACLE_OWNER`*, *`ORACLE_HOME`*, and *`ORACLE_SID`* environment variables.
- Full path of local `bin` directory. You can accept the default or change to a different local `bin` directory.

12. Review the status of Oracle9*i*AS 9.0.3 configuration tools.

    The Components Configuration and Startup screen appears and displays Oracle9*i*AS 9.0.3 components that will be configured and started. The screen lists the configuration tools for all installed components.

    Depending on the configurations selected you will see some component configuration screens, but no input is required.

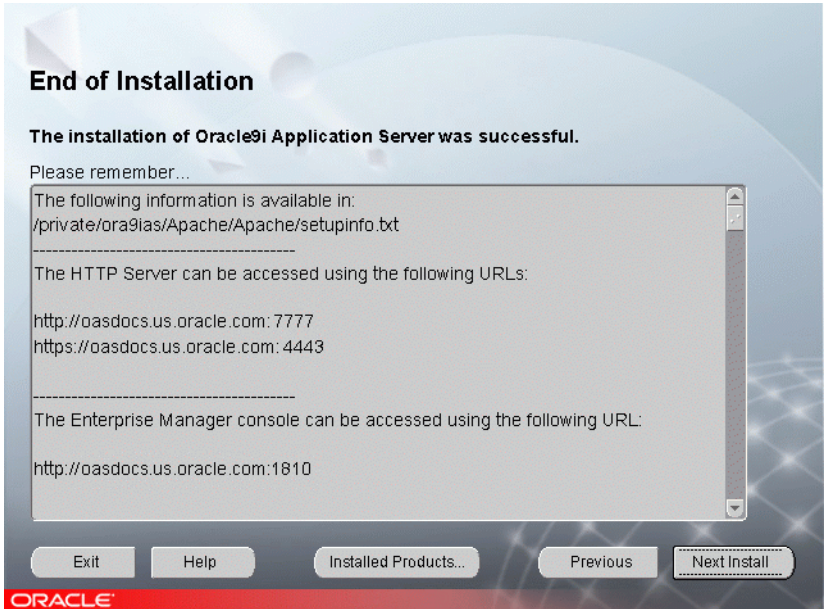
    Monitor the progress of each configuration tool by scrolling down the tools list to review the configuration status of each tool. The status changes as each component is configured.

    The installer performs the following functions in this screen:

    - Executes a configuration tool for each component selected previously in the Component Configuration and Startup screen.
    - Allows you to view data for failed executions in the display window. You can either fix the error and click **Retry** to execute the configuration tool again, or ignore the error and click **Next** to proceed to the next screen.
    - The installer automatically creates log files to show the status of Oracle9*i*AS Configuration Tools. You can determine why a specific Oracle9*i*AS Configuration Tool failed by reviewing these files. Refer to Appendix B, "Troubleshooting" for a list of configuration tool log files.
    - **Retry**: Re-executes the configuration script if the configuration of a component fails.
    - **Stop**: Quits the configuration of a selected component.
    - **Exit**: Quit the configuration tool and continue with the installation.

13. Review the End of Installation screen. Click **Exit** to quit the installer or click **Next Install** to install additional Oracle9*i*AS 9.0.3 instances.

Figure 3–11 End of Installation Screen



The End of Installation screen appears at the end of the installation process. It notifies you whether the installation was successful or unsuccessful and provides information about accessing the Oracle9*i*AS 9.0.3 instance.

The End of Installation screen displays the URL and port number for accessing the Oracle HTTP Server page and the Oracle Enterprise Manager Web site. The default Oracle HTTP Server page is the Oracle9*i*AS Welcome page. The Oracle9*i*AS Welcome page provides links to demonstrations and information about new features.

See Also:

- Section 3.2.3, "About the Oracle Enterprise Manager Web Site"
- *Oracle9i Application Server Administrator's Guide*

You can view the Install Log for the completed installation at:

`/your_base_directory/oraInventory/logs/installAction`*`date_time`*`.log`

`your_base_directory` is the location for your installation files.

`date_time` is the date and time of installation.

A complete listing of log files is included in the *Oracle9i Application Server Administrator's Guide.*

You have successfully installed Oracle9*i*AS 9.0.3. Proceed to Section 3.2, "Postinstallation" to complete the installation process.

3.2 Postinstallation

The following instructions guide you through the postinstallation tasks for Oracle9*i*AS 9.0.3.

The postinstallation section contains the following topics:

- Restrictions
- Installing the Oracle9i Application Server 9.0.2.1 Patch
- About the Oracle Enterprise Manager Web Site
- Associating an Instance with an Infrastructure (Joining a Farm)
- Component Dependent Configuration
- Configuring Additional Components
- Multi-User Installations
- Postinstallation Configuration Tasks
- Starting and Stopping Components
- Component Port Numbers
- Changing the X Server Display
- Oracle9iAS 9.0.3 Demonstration Software
- Oracle9iAS TopLink
- Oracle9iAS Portal Developer Kit for J2EE and Web Services
- Additional Oracle9iAS 9.0.3 Installations
- Additional Documentation

3.2.1 Restrictions

The following restrictions are associated with this release:

- JDK Issue on Linux
- Oracle9iAS Does Not Support Changing Host Name and IP Address After Installation
- Host Metrics on HP Tru64 UNIX
- Incorrect Label Displayed When Starting Web Cache

3.2.1.1 JDK Issue on Linux

You might see the following error message in the Oracle9*i*AS Containers for J2EE (OC4J) log file while running Java Messaging Service application:

```
#
# HotSpot Virtual Machine Error, Internal Error
# Please report this error at
# http://java.sun.com/cgi-bin/bugreport.cgi
#
# Error ID: 43113F32554E54494D45110E43505002D3
#
# Problematic Thread: prio=1 tid=0x6c40f320 nid=0x6f6d runnable
#
```

This is a result of a known bug in JDK1.3.1_02 on Linux.

3.2.1.2 Oracle9*i*AS Does Not Support Changing Host Name and IP Address After Installation

Oracle9*i*AS does not support changing host name and IP address after installation.

3.2.1.3 Host Metrics on HP Tru64 UNIX

On HP Tru64 UNIX, the Enterprise Manager Daemon doesn't support some host metrics, for example:

- Process
- I-node
- File table statistics
- Switch/Swap Activity

3.2.1.4 Incorrect Label Displayed When Starting Web Cache

An incorrect message appears when you start Web Cache using the following command:

```
$ webcachectl start
```

The message that appears contains the string `SOLARIS`. Please ignore this, and note that the `webcached` binary is not a Solaris binary.

3.2.2 Installing the Oracle9*i* Application Server 9.0.2.1 Patch

If you want to use Oracle9*i*AS 9.0.3 on the same host or farm as Oracle9*i*AS 9.0.2, then you must install the Oracle9*i* Application Server 9.0.2.1 patch to all Oracle9*i*AS 9.0.2 instances on that host or farm. You can do this either before or after your installation of Oracle9iAS 9.0.3. You can download the patch from:

```
http://metalink.oracle.com
```

Select the Patches link. On the patch download form, select Oracle9*i* Application Server in the Product Family field and then submit the form.

3.2.3 About the Oracle Enterprise Manager Web Site

The Oracle Enterprise Manager Web site is available after Oracle9*i*AS 9.0.3 installation and component configuration. The Oracle Enterprise Manager Web site is comprised of Oracle Enterprise Manager Home Pages. Each Oracle Enterprise Manager Home Page is used to manage an installed Oracle9*i*AS 9.0.3 component or instance.

Oracle strongly recommends that you use the Secure Socket Layer (SSL) protocol and HTTPS for all connections to the Oracle Enterprise Manager Web site. Refer to the *Oracle9i Application Server Administrator's Guide* for setup information.

3.2.4 Associating an Instance with an Infrastructure (Joining a Farm)

If you have an Oracle9*i*AS 9.0.3 instance that is not associated with an infrastructure and you would like to use Oracle9*i*AS Single Sign-On or clustering, you can associate the instance with an existing infrastructure using the Oracle Enterprise Manager Web site. Refer to the *Oracle9i Application Server Administrator's Guide* for more information.

3.2.5 Component Dependent Configuration

Interdependencies between Oracle9*i*AS 9.0.3 components and component configuration dependencies can be found in the *Oracle9i Application Server Administrator's Guide*.

3.2.6 Configuring Additional Components

You can configure additional Oracle9*i*AS 9.0.3 components following installation. Configuration of additional Oracle9*i*AS 9.0.3 components is described in the *Oracle9i Application Server Administrator's Guide*.

3.2.7 Multi-User Installations

You can perform multiple Oracle9*i*AS 9.0.3 installs on the same host but as different users. However, the users must be members of the same group. If you have installed one or more installations of Oracle9*i*AS 9.0.3, you must complete the following steps before enabling multi-user installations.

Note: There is a limitation to having different users install Oracle9*i*AS 9.0.3 on the same host: if you have multiple instances of Oracle9*i*AS 9.0.3 on the same host and they were installed by different users, you can use Oracle Enterprise Manager to manage only the instance that was installed by the first user. You cannot use Oracle Enterprise Manager to manage instances installed by other users.

---

1. Determine the location of the active Enterprise Manager. Check the `ACTIVE_EMD_HOME` entry in the `/etc/emtab` file.
2. Stop the Oracle Enterprise Manager Web site using the following command:

   ```
   prompt> ORACLE_HOME/bin/emctl stop
   ```

   ORACLE_HOME is the Oracle home for the active Enterprise Manager, as determined in the previous step.
3. Give additional users write privileges to the `lockdir` directory located in *ORACLE_HOME*`/install/.`
4. Start the Oracle9*i*AS 9.0.3 installations.

5. After successful additional users installations, restart the Oracle Enterprise Manager Web site using the following command:

```
prompt> ORACLE_HOME/bin/emctl start
```

Note: Oracle Enterprise Manager manages the Oracle9*i* Application Server instances installed under the same operating system user identification as the active Enterprise Manager. The active Enterprise Manager home is listed in the `/etc/emtab` file.

3.2.8 Postinstallation Configuration Tasks

This section includes postinstallation configuration tasks for the following:

- Oracle9iAS Java Authentication and Authorization Service
- Enabling Oracle9iAS Web Cache and mod_osso
- Configuring JVM for JAAS LoginModule Support

3.2.8.1 Oracle9*i*AS Java Authentication and Authorization Service

You must configure Oracle9*i*AS Java Authentication and Authorization Service (JAAS) components before using applications that use JAAS. JAAS configuration tasks are described in the *Oracle9i Application Server Security Guide.*

3.2.8.2 Enabling Oracle9*i*AS Web Cache and mod_osso

This section applies only if your Oracle9*i*AS 9.0.3 instance is associated with an Infrastructure.

When the Oracle Universal Installer initially registers mod_osso with Oracle9*i*AS Single Sign-On, it passes the registration URLs containing the port number of Oracle HTTP Server, instead of the port number of Oracle9*i*AS Web Cache. Because Oracle Universal Installer passes the incorrect port number, it bypasses Oracle9*i*AS Web Cache.

In order for mod_osso to work correctly, you must manually re-register mod_osso using URLs that have the Oracle9*i*AS Web Cache port.

For more information refer to the *Oracle9i Application Server Administrator's Guide.*

3.2.8.3 Configuring JVM for JAAS LoginModule Support

Make sure the following lines exist in the `$JAVA_HOME/jre/lib/security/java.security` configuration file:

```
auth.policy.provider=oracle.security.jazn.spi.PolicyProvider
login.configuration.provider=oracle.security.jazn.spi.LoginConfigProvider
```

These lines make sure that Oracle9iAS JAAS is used as the provider for JAAS Login Configuration as well as Policy. Updated Information About Sharing Cached Objects in an OC4J Servlet

In order to take advantage of the java cache's distributed functionality or to share a cached object between servlet, some minor modification to an application's deployment may be necessary. Any user defined objects that are shared between

servlets or distributed between JVM's must be loaded by the system class loader. By default objects loaded by a servlet are loaded by the context class loader. These objects are only visible to the servlets within the context that loaded them. The object definition is not available to other servlets or to the cache in another JVM. If the object is loaded by the system class loader, the object definition is available to other servlets and to the cache on other JVM's.

With Jserv, this is accomplished by including the cached object in the classpath definition available when Jserv process is started.

With OC4J, the system classpath is derived from the manifest of the `oc4j.jar` file and any associated .jars, including `cache.jar`. The classpath in the environment is ignored. To include a cached object in the classpath for OC4J, the .class file should be copied to *`ORACLE_HOME`*`/javacache/sharedobjects/classes` or added to the jar file *`ORACLE_HOME`*`/javacache/cachedobjects/share.jar`. Both the classes directory and the share.jar file have been included in the manifest for `cache.jar`.

3.2.9 Starting and Stopping Components

Oracle9*i*AS 9.0.3 components can be started and stopped using the Oracle Enterprise Manager Web site. For information on manually starting and stopping Oracle9*i*AS 9.0.3 components, refer to *Oracle9i Application Server Administrator's Guide*.

3.2.10 Component Port Numbers

Following installation, the Oracle Universal Installer creates a file showing the port assignments during installation of Oracle9*i*AS 9.0.3 components. The installation process automatically detects any port conflicts and chooses an alternative port in the range allocated for that component. The `portlist.ini` file is located at:

```
$ORACLE_HOME/install/portslist.ini
```

This file lists component entries as *`port_name = port_value`*. For example:

```
Oracle HTTP Server port = 7777
Oracle HTTP Server SSL port = 4443
Oracle HTTP Server listen port = 7778
Oracle HTTP Server SSL listen port = 4444
Oracle HTTP Server Jserv port = 8007
Enterprise Manager Servlet port = 1810
```

You can also view the port numbers by pointing your browser to the Oracle9*i*AS Welcome page and selecting the **Ports** tab.

Note: The Oracle Universal Installer uses the port numbers for select components during installation of Oracle9*i*AS 9.0.3. If you want to add additional Oracle9*i*AS 9.0.3 instances, make sure the installed instances (with the exception of Enterprise Manager) are running before starting the installation of those additional instances.

See Also:

- Section 3.2.3, "About the Oracle Enterprise Manager Web Site"
- Appendix A, "Default Port Numbers and Port Ranges"
- Section 2.5, "Preinstallation Tasks"
- *Oracle9i Application Server Administrator's Guide*.

3.2.11 Changing the X Server Display

To change the X server display following installation you must edit the `opmn.xml` file installed on your computer.

The `opmn.xml` file is located at:

ORACLE_HOME`/opmn/conf/opmn.xml`

The format of the `opmn.xml` file is:

```
<prop name="DISPLAY" value= "hostname:display_number.screen_number"/>
```

`hostname:display_number.screen_number` is the X server you want to use.

After you modify the `opmn.xml` file, restart all of your OC4J instances.

See Also: Section 2.5.4.2, "DISPLAY"

3.2.12 Oracle9*i*AS 9.0.3 Demonstration Software

Oracle9*i*AS 9.0.3 provides demonstration applications for Oracle9*i*AS 9.0.3 components.

In order to run a demonstration for an Oracle9*i*AS 9.0.3 component, you must have an Oracle9*i*AS 9.0.3 installation that contains the component, the component must be configured, and the required component instances must be running.

For more information and to run the demonstration software, go to the Welcome Page and click **Demonstrations.**

See Also: *Oracle9i Application Server Administrator's Guide*

3.2.13 Oracle9*i*AS TopLink

Oracle9*i*AS TopLink enables you to map a Java object model to a relational database and non-relational data sources. This bridges the gap between objects and the relations that exist among them and relational databases. Objects are a very flexible way of storing data and relationships between data, so representing objects in a relational database can be complicated. Oracle9*i*AS TopLink is supported by Oracle9*i*AS 9.0.3 and Oracle9*i*AS 9.0.2. Oracle9*i*AS TopLink is available in the Oracle9*i*AS CD pack. Refer to the Oracle9*i*AS TopLink CD for more information for more information on using Oracle9*i*AS TopLink.

3.2.14 Oracle9*i*AS Portal Developer Kit for J2EE and Web Services

The Oracle9*i*AS Portal Developer Kit for J2EE and Web Services (9.0.2.0.2) can be used to develop portlets based upon J2EE 1.3 applications running in Oracle9*i*AS 9.0.3. You can also develop portlets from available Web Services. These portlets can be registered with an Oracle9*i*AS Portal 9.0.2 environment. The Oracle9*i*AS Portal Developer Kit for J2EE and Web Services is available for download from

`http://portalstudio.oracle.com`.

Additional Oracle9*i*AS 9.0.3 Installations

For information on installing additional Oracle9*i*AS 9.0.3 installations, refer to Section 2.7.3, "Additional Oracle9iAS 9.0.3 Installations".

3.2.15 Additional Documentation

For further information on postinstallation and configuration tasks, refer to the *Oracle9i Application Server Administrator's Guide* and component-specific documentation.

3.2.16 Correcting Errors Created by Using newgrp Command on Linux Intel

If you used the `newgrp` command before installation, modify the `webcache.xml` file (line number 258) to use the correct group id after installation and run the following commands to start Web Cache:

```
$ cd $ORACLE_HOME/webcache/bin
$ webcachectl start
```

You can ignore the Web Cache configuration assistant failure warning at the end of installation.

4

Silent and Non-Interactive Installation

This chapter describes how to perform a silent and non-interactive installation of Oracle9*i* Application Server Release 2 (9.0.3) (Oracle9*i*AS 9.0.3). The topics include:

4.1 Introduction

Oracle9*i*AS 9.0.3 features two methods of non-interactive installation:

- Silent Installation
- Non-Interactive Installation

4.1.1 Silent Installation

Silent installation of Oracle9*i*AS 9.0.3 is accomplished by supplying the Oracle Universal Installer with a response file and specifying the `-silent` flag on the command line. The response file is a text file.

The installer uses the variables and parameter values contained in the response file to provide answers to all of the installer prompts. You include responses for all of the installer prompts in the response file. Silent installation displays *no graphical* output.

If this is the first silent installation of Oracle9*i*AS 9.0.3, you must create a response file before starting. File creation is described in Section 4.3, "Preinstallation". File parameters are described in Section 4.7, "Response File Parameter Definitions".

Following installation of Oracle9*i*AS 9.0.3, you need to run the `root.sh` script. The `root.sh` script detects settings of environmental variables and allows you to enter the full path of the local bin directory.

Use silent installation of Oracle9*i*AS 9.0.3 when you require similar installations on more than one computer. Additionally, use silent install when performing the Oracle9*i*AS 9.0.3 installation from a remote location using the command line. Silent installation eliminates the need to monitor the Oracle9*i*AS 9.0.3 installation because there is no graphical output and no input by the user.

Note: The installer fails if you attempt a silent session without appropriately configuring a response file.

4.1.2 Non-Interactive Installation

Non-interactive installation of Oracle9*i*AS 9.0.3 is also accomplished by supplying the Oracle Universal Installer with a response file but without specifying the `-silent` flag on the command line. The response file is a text file. The installer uses the variables and parameter values contained in the response file to provide answers to some or all of the installer user prompts. There is graphical output and if you have not provided responses to all of the installer prompts, you may need to enter information during the installation.

If this is a first non-interactive installation of Oracle9*i*AS 9.0.3, you must create a response file before starting. File creation is described in Section 4.3, "Preinstallation". File parameters are described in Section 4.7, "Response File Parameter Definitions".

Following installation of Oracle9*i*AS 9.0.3, you need to run the `root.sh` script. The `root.sh` script detects settings of environmental variables and allows you to enter the full path of the local bin directory.

Use non-interactive installation of Oracle9*i*AS 9.0.3 when there are specific screens you want to observe during installation. Additionally, you can use non-interactive installation when performing the Oracle9*i*AS 9.0.3 installation from a remote location using the command line.

> **See Also:** Section 2.5.4.2, "DISPLAY" for more information about remote installation.

4.2 Requirements

For a complete list of Oracle9*i*AS 9.0.3 installation requirements, refer to Chapter 2, "Getting Started".

4.3 Preinstallation

If the oraInst.loc file does not exist on your computer, you must create the file before starting the silent and non-interactive installation of Oracle9*i*AS 9.0.3.

See Table 2–11 for the location of the `orainst.loc` file for your system. The file is used by the Oracle Universal Installer during installation.

As the root user, create the `oraInst.loc` file in the directory specified in Table 2–11. The `oracle` group is the group performing the installation.

Enter the following line of text in the `orainst.loc` file:

```
inventory_loc=/full_path/oui_inventory
```

The `oraInst.loc` file specifies `inventory_loc` location for inventory files. If the `oraInst.loc` file is not located in your Oracle home, make sure the file has read and write permission for the `oracle` group.

See Also: Chapter 2, "Getting Started"

4.4 Create the Response File

Before silent or non-interactive installation you must provide information specific to your installation.

You must create a response file using any text editor or use the templates available in the `stage/Response` directory on Disk1 of your Oracle9*i*AS 9.0.3 product CD-ROM. The response file you use must match the examples shown. Each type of Oracle9*i*AS 9.0.3 installation uses the response parameters listed below:

```
[SESSION]
UNIX_GROUP_NAME="your_unix_group_name"
FROM_LOCATION="/mount_point/stage/products.jar"
FROM_LOCATION_CD_LABEL="Oracle9i Application Server 9.0.3.0.0"
ORACLE_HOME="ORACLE_HOME"
ORACLE_HOME_NAME="ORACLE_HOME_NAME"
SHOW_SPLASH_SCREEN=true
SHOW_WELCOME_PAGE=false
SHOW_COMPONENT_LOCATIONS_PAGE=false
SHOW_CUSTOM_TREE_PAGE=false
SHOW_SUMMARY_PAGE=false
SHOW_INSTALL_PROGRESS_PAGE=true
SHOW_REQUIRED_CONFIG_TOOL_PAGE=false
SHOW_OPTIONAL_CONFIG_TOOL_PAGE=false
SHOW_RELEASE_NOTES=false
SHOW_ROOTSH_CONFIRMATION=false
SHOW_END_SESSION_PAGE=false
SHOW_EXIT_CONFIRMATION=false
NEXT_SESSION=false
NEXT_SESSION_ON_FAIL=false
SHOW_DEINSTALL_CONFIRMATION=false
SHOW_DEINSTALL_PROGRESS=true
```

For AIX, HP-UX and HP TRU64 UNIX systems, the following parameter also exists:

```
JDKHome="<Location Of JDK 1.3.1.X On Your System>"
```

Note: Oracle recommends specifying either "`true`" or "`false`" for Boolean parameters.

See Also: Section 4.7, "Response File Parameter Definitions"

4.4.1 Oracle9*i*AS 9.0.3 Without Oracle9*i*AS Single Sign-On

The following text shows the parameter definitions for installation of Oracle9*i*AS 9.0.3 without Oracle9*i*AS Single Sign-On:

```
[oracle.iappserver.iapptop_9.0.3.0.0]
   szl_InstanceInformation={"iASInstanceName", "iASInstancePassword",
   "iASInstancePassword"}
   b_configureCalypso=true
   SSOselectStatus="N"
   SSOport="sso_port"
   SSOhost="sso_hostname.domain"
   SHOW_IAS_COMPONENT_CONFIG_PAGE=false
   nValidationOID=0
   nValidationInstanceInfo=0
   nValidationCoreSSO=0
```

See Also: Section 4.7, "Response File Parameter Definitions"

4.4.2 Oracle9*i*AS 9.0.3 With Oracle9*i*AS Single Sign-On

The following text shows the parameter definitions for installation of Oracle9*i*AS 9.0.3 with Oracle9*i*AS Single Sign-On:

```
[oracle.iappserver.iapptop_9.0.3.0.0]
   OIDport="oid_port"
   OIDhost="oid_hostname.domain"
   szl_OIDUserOutput={"cn=orcladmin", "oid_password"}
   szl_InstanceInformation={"iASInstanceName",
   "iASInfrastructureInstancePassword", "iASInfrastructureInstancePassword"}
   b_configureCalypso=true
   SSOselectStatus="Y"
   SSOport="sso_port"
   SSOhost="sso_hostname.domain"
   SHOW_IAS_COMPONENT_CONFIG_PAGE=false
   nValidationOID=0
   nValidationInstanceInfo=0
   nValidationCoreSSO=0
```

See Also: Section 4.7, "Response File Parameter Definitions"

Note: The Oracle9*i*AS Infrastructure 9.0.2 *ORACLE_HOME*`/install/ portlist.ini` and *ORACLE_HOME*`/config/ias.properties` files show port assignments.

4.5 Start the Installation

To make the installer use the response file at install time, open a command prompt window and specify the location of the response file that you wish to use as a parameter when starting the installer.

To perform a non-interactive installation session:

```
prompt> setenv DISPLAY ias_hostname:0.0
prompt> ./runInstaller -responseFile path/responsefile
```

To perform a completely silent installation session, use the `-silent` parameter:

```
prompt> setenv DISPLAY ias_hostname:0.0
prompt> ./runInstaller -silent -responseFile path/responsefile
```

See Also: Section 2.6.5, "Starting Oracle Universal Installer"

4.6 Postinstallation

The success or failure of the non-interactive and silent installations is logged in the `installActions.log` file. Additionally, the silent installation creates the `silentInstall.log` file. The log files are created in the `oraInventory` directory during installation.

The `silentInstall.log` file contains the following line if your installation was successful:

```
The installation of Oracle9iAS Installation_Type was successful.
```

The `installActions.log` file contains specific information for each Oracle9*i*AS 9.0.3 installation. The following sections show information specific to each type of Oracle9*i*AS 9.0.3 installation:

- Oracle9iAS 9.0.3 without Oracle9iAS Single Sign-On
- Oracle9iAS 9.0.3 with Oracle9iAS Single Sign-On

> **See Also:** Section 2.6.3, "Oracle Universal Installer oraInventory Directory"

4.6.1 Oracle9*i*AS 9.0.3 without Oracle9*i*AS Single Sign-On

The `installActions.log` file contains the following information for successful Oracle9*i*AS 9.0.3 without Oracle9*i*AS Single Sign-On installation:

```
Configuration tool Java Security Configuration Assistant succeeded
Configuration tool HTTP Server Configuration Assistant succeeded
Configuration tool OC4J Configuration Assistant succeeded
Configuration tool BC4J Configuration Assistant succeeded
Configuration tool Clickstream Collector Agent Configuration Assistant succeeded
Configuration tool Oracle9iAS Web Cache Configuration Assistant succeeded
Configuration tool Oracle9iAS Instance Configuration Assistant succeeded
Configuration tool OC4J Instance Configuration Assistant succeeded
Configuration tool OPMN Configuration Assistant succeeded
Configuration tool Enterprise Manager Web Site Configuration Assistant succeeded
Configuration tool DCM Repository Backup Assistant succeeded
```

Note: Enterprise Manager Web Site Configuration Assistant and Distributed Configuration Management (DCM) Repository Backup Assistant success messages appear during installation of Oracle9*i*AS 9.0.3.

4.6.2 Oracle9*i*AS 9.0.3 with Oracle9*i*AS Single Sign-On

The `installActions.log` file contains the following information for successful Oracle9*i*AS 9.0.3 with Oracle9*i*AS Single Sign-On installation:

```
Configuration tool Infrastructure Use Configuration Assistant succeeded
Configuration tool Java Security Configuration Assistant succeeded
Configuration tool HTTP Server Configuration Assistant succeeded
Configuration tool OC4J Configuration Assistant succeeded
Configuration tool BC4J Configuration Assistant succeeded
Configuration tool Clickstream Collector Agent Configuration Assistant succeeded
Configuration tool Oracle9iAS Web Cache Configuration Assistant succeeded
Configuration tool Oracle9iAS Instance Configuration Assistant succeeded
Configuration tool OC4J Instance Configuration Assistant succeeded
Configuration tool OPMN Configuration Assistant succeeded
Configuration tool Enterprise Manager Web Site Configuration Assistant succeeded
Configuration tool DCM Repository Backup Assistant succeeded
```

Note: Enterprise Manager Web Site Configuration Assistant and DCM Repository Backup Assistant success messages appear during installation of Oracle9*i*AS 9.0.3.

4.7 Response File Parameter Definitions

The section describes the parameters used for silent and non-interactive installation.

UNIX_GROUP_NAME: The name of the UNIX group performing the installation.

FROM_LOCATION: The location of the Oracle9*i*AS 9.0.3 installation CD-ROM.

FROM_LOCATION_CD_LABEL: The label of the Oracle9*i*AS 9.0.3 installation CD-ROM.

ORACLE_HOME: The installation location of your Oracle home.

ORACLE_HOME_NAME: The name of your Oracle home for your Oracle9*i*AS 9.0.3 installation. The ORACLE_HOME_NAME must be unique for each Oracle9*i*AS 9.0.3 installation.

> **See Also:** Section 2.5.4.1, "ORACLE_HOME"

SHOW Screens: For a silent installation leave these parameters at <Value Unspecified>. For a non-interactive installation, choose which screens will be seen (true) and not seen (false).

szl_OIDUserOutput: Set this parameter if you are pointing your Oracle9*i*AS 9.0.3 installation to an existing Oracle Internet Directory 9.0.2.

Add the following values for Oracle9*i*AS 9.0.3 installation:

- **cn=orcladmin:** Assumes orcladmin is the Oracle Internet Directory 9.0.2 user, in your existing Oracle Internet Directory 9.0.2 instance.
- **oid_password:** The password for the orcladmin, in the Oracle Internet Directory 9.0.2 instance.

OIDport: The port used by your existing Oracle Internet Directory 9.0.2 instance. Refer to the *ORACLE_HOME*/install/portlist.ini file in the Oracle9*i*AS Infrastructure 9.0.2 Oracle home to find the actual port number. This value must match the value specified in the oid_port in szl_OIDUserOutput parameter.

OIDhost: The host name and domain for your existing Oracle Internet Directory 9.0.2 instance. This value must match the value specified in the oid_hostname.domain in szl_OIDUserOutput parameter.

SSOport: The port used by your existing Oracle9*i*AS Single Sign-On instance. Refer to the install/portlist.ini file in the Oracle9*i*AS Infrastructure 9.0.2 Oracle home to find the actual port number. This value must match the value specified for sso_port in the szl_SSOUserOutput parameter.

`SSOhost:` The host name and domain of your existing Oracle9*i*AS Single Sign-On instance. This value must match the value specified for sso_hostname.domain in the `szl_SSOUserOutput` parameter.

`szl_InstanceInformation`: Specify the following values:

- Instance Name for this Oracle9*i*AS 9.0.3 installation instance.
- Instance Password for this Oracle9*i*AS 9.0.3 installation instance.
  - If this is the first Oracle9*i*AS 9.0.3 on your computer you must specify a password.
  - If you are installing Oracle9*i*AS 9.0.3, and an existing Oracle9*i*AS 9.0.3 or Oracle9*i*AS 9.0.2 installation is on your computer, then you must use the same password created for the previous installation.

  See Also:

  - Section 2.5.4.1, "ORACLE_HOME"
  - *Oracle9i Application Server 9.0.2 Installation Guide*

`szl_RepositoryUserInput:` Set this parameter if you have more than one Oracle9*i*AS Infrastructure 9.0.2 database registered in Oracle Internet Directory 9.0.2. In that case, specify the following values:

- **`inf_hostname:`** The host name of your Oracle9*i*AS Infrastructure 9.0.2 Installation.
- **`inf_dbport:`** The port of your Oracle9*i*AS Infrastructure 9.0.2 Database.
- **`inf_SID:`** The SID of your Oracle9*i*AS Infrastructure 9.0.2 Database.
- **`inf_GlobalDBName:`** The Global Database Name of your Oracle9*i*AS Infrastructure 9.0.2 Database.

`SSOselectStatus:` Set this parameter for Oracle9*i*AS 9.0.3 installation. Specify one of the following values:

- "Y": if you are configuring the installation with Oracle9*i*AS Single Sign-On
- "N": if you are not configuring with Oracle9*i*AS Single Sign-On

`b_configureCalypso`: Use this boolean parameter to specify whether (true, by default) or not (false) you want to launch the Oracle9*i*AS Web Cache Configuration Assistant at the end of the installation.

Mandatory Settings: The following parameter values, where required, must be specified exactly as shown:

```
SHOW_IAS_COMPONENT_CONFIG_PAGE=false
nValidationInstanceInfo=0
nValidationOID=0
nValidationCoreSSO=0
```

5

Deinstallation and Reinstallation

This chapter describes the deinstallation and reinstallation process for Oracle9*i* Application Server Release 2 (9.0.3) (Oracle9*i*AS 9.0.3). The topics include:

- Deinstallation
- Reinstallation

5.1 Deinstallation

This section guides you through the deinstallation process of Oracle9*i*AS 9.0.3. This section includes the following topics:

- Deinstalling an Oracle9iAS 9.0.3 Instance
- Deinstalling by Manually Removing All Oracle Products

In order to successfully deinstall Oracle9*i*AS 9.0.3 from your host, Oracle recommends deinstalling all secondary (or subsequent) Oracle9*i*AS 9.0.3 installations before you deinstall the primary (or first) installation.

Your primary installation contains the active Oracle Enterprise Manager Web site (Oracle9*i*AS Administration Service). If you deinstall the primary installation and there are other installations of Oracle9*i*AS 9.0.3 on your host, the Oracle Universal Installer requests that you designate one of the remaining Oracle9*i*AS 9.0.3 installations to be the primary installation. The new primary installation will maintain the configuration information for the remaining Oracle9*i*AS 9.0.3 installations on the host.

You must stop all Oracle services and applications before starting the deinstallation process. Refer to the *Oracle9i Application Server Administrator's Guide* for instructions on starting and stopping the Oracle Enterprise Manager Web site.

Note: Oracle Universal Installer does not permit custom deinstallation of select components of Oracle9*i*AS 9.0.3 instances. Confirm deinstall objectives before launching deinstallation.

Note: Use the version of Oracle Universal Installer that comes with this release to deinstall any Oracle products installed on your system.

5.1.1 Deinstalling an Oracle9*i*AS 9.0.3 Instance

1. Start the Oracle Universal Installer. Once Oracle Universal Installer is launched, the Welcome screen appears.

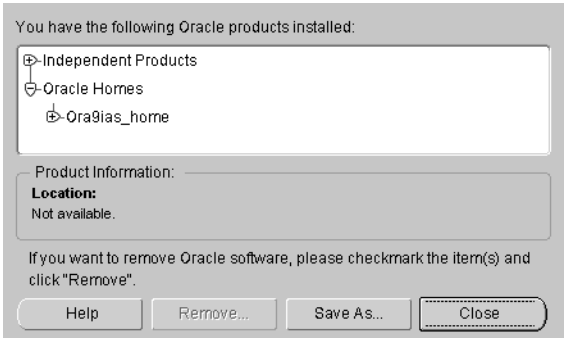
   Click **Deinstall Products**.

   See Also: Section 2.6.5, "Starting Oracle Universal Installer"

2. Review the installations on the Inventory screen and check the one you wish to deinstall. Click **Remove**.

   Note: The "+" sign before a product name indicates that there are more components and files installed within that particular product. Click on it to view dependent components. If you choose to remove a product or component, then all of its dependent components are also deinstalled. Confirm deinstall objectives before launching deinstallation.

Figure 5–1 Inventory Screen



The Inventory screen appears when you click **Deinstall Products** on the Welcome screen, or **Installed Products** on any screen.

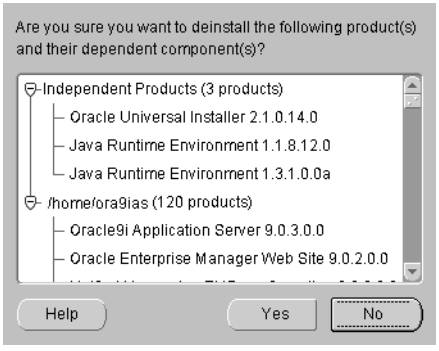
The Inventory screen displays installed components installed in an Oracle home.

The Inventory screen contains the following:

- **Product Information**: View the full location path of the selected component.
- **Help**: Access detailed information about the functionality of the Inventory screen.
- **Remove**: Deinstall all checked components from Oracle home.
- **Save As:** Save the inventory to a text file. A file browser dialog pops up when you click **Save As**. Enter a file name to save the complete inventory list.
- **Close:** Quit the Inventory screen and return to Oracle Universal Installer.

3. Verify the components selected for deinstallation, and click **Yes**.

Figure 5–2 Confirmation Screen



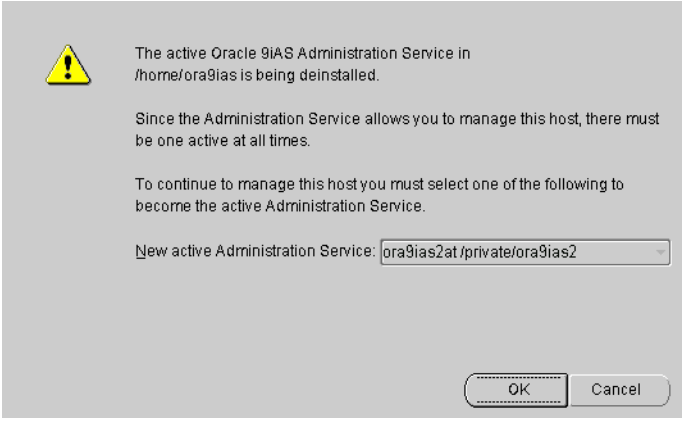
The Confirmation screen lists all the components selected for deinstallation in the Inventory screen. Scroll down the screen to verify selected components.

The following buttons appear on the Confirmation screen:

- **Help**: Access detailed information about the functionality of the Confirmation screen.
- **Yes:** Start deinstallation of listed components.
- **No:** Return to the Inventory screen. Listed components are not removed.

4. The following Oracle9*i*AS Administration Service screen appears if you are deinstalling the primary Oracle9*i*AS installation on the host. Confirm deinstallation objectives and click OK to continue.

Figure 5–3 Oracle9iAS Administration Service Screen



This screen presents one of the following messages:

```
The active Oracle9iAS Administration Service in your Oracle home is
being deinstalled. There are no other Administration Services available.
```

This message appears when there is only one Oracle9*i*AS installation on the host and you are about to deinstall it.

```
The active Oracle9iAS Administration Service in your Oracle home is
being deinstalled. Since the Administration Service allows you to manage
this host, there must be one active at all times. To continue to manage
this host you must select one of the following to become the active
Administration Service.
```

A drop down list allows you to choose a new active Administration Service.

This message appears when there are multiple Oracle9*i*AS installations on the host and you are about to deinstall the primary installation. You can select one of the remaining Oracle9*i*AS installations which will then become the primary installation and the new location for the Oracle9*i*AS Administration Service.

5. Monitor the deinstallation process.

   The Remove Progress Bar screen appears when you click **Remove**. The installer detects all components chosen for deinstallation from the Inventory screen and removes them from Oracle home.

   - **Cancel:** To discontinue the deinstallation process.

   Note: If you deinstall a product or component, then all of its dependent components will also be deinstalled.

6. Following deinstallation of Oracle9*i*AS 9.0.3 using Oracle Universal Installer, restart your computer to stop any remaining processes associated with the deinstallation.
7. Perform the following manual tasks to remove all remaining references to the instance from your computer:
   a. Back up any files you want to save from the Oracle home directory for this instance.
   b. Delete the Oracle home directory for this instance.
   c. As the root user, open `/etc/oratab` in a text editor. Remove all lines that include the Oracle home directory.
8. If your Oracle9*i*AS 9.0.3 was associated with an Oracle9*i*AS Infrastructure on another host, then you must manually remove entries from the Oracle Internet Directory. Refer to the *Oracle9i Application Server Administrator's Guide* for further instructions.

5.1.2 Deinstalling by Manually Removing All Oracle Products

The following steps remove all Oracle products from your computer.

> **Caution:** These instructions remove all Oracle components, services, and registry entries from your computer. Exercise extreme care when removing registry entries. Removing incorrect entries can cause a system failure. Oracle recommends following these steps after trying all other options.

1. If your Oracle9*i*AS 9.0.3 installation is associated with an Oracle9*i*AS Infrastructure that is on another host, then remove it from the DCM repository by running the following command:

   ```
   prompt> ORACLE_HOME/dcm/bin/dcmctl destroyInstance -i myInstance
   ```

2. Stop all Oracle9*i*AS 9.0.3 processes.
3. Log in as the root user.
4. Delete the `oracle` directory located under `/var/opt` directory. Delete the following files if they exist:
   - `/etc/oratab`
   - `/etc/oraInst.loc`
   - `/etc/emtab`
5. Delete the `oraInventory` directory.
6. Delete all directories and files located in your *`ORACLE_HOME`* directory.
7. Delete any Oracle files located in the `/tmp` and `/var/tmp` directories.
8. Reboot the system.
9. If your Oracle9*i*AS 9.0.3 was associated with an Oracle9*i*AS Infrastructure on another host, then you must manually remove entries from the Oracle Internet Directory. Refer to the *Oracle9i Application Server Administrator's Guide* for further instructions.

5.2 Reinstallation

Oracle Universal Installer does not allow reinstallation of Oracle9*i*AS 9.0.3 over an installed version. To reinstall Oracle9*i*AS 9.0.3 over the same version, deinstall and then install the product.

If you deinstall an Oracle9*i*AS 9.0.3 instance that uses an Oracle9*i*AS Infrastructure 9.0.2, you cannot reuse the same Oracle9*i*AS 9.0.3 instance name of that deinstalled instance when installing subsequent Oracle9*i*AS 9.0.3 instances. In order to reuse the Oracle9*i*AS 9.0.3 instance name, you must manually delete the entry for the deinstalled Oracle9*i*AS 9.0.3 instance in Oracle Internet Directory.

See Also:

- Section 5.1, "Deinstallation"
- *Oracle9i Application Server Administrator's Guide*

A

Default Port Numbers and Port Ranges

This appendix describes the port number allocation for Oracle9*i* Application Server Release 2 (9.0.3) (Oracle9*i*AS 9.0.3). This release automatically assigns port numbers to a component when the component is configured. It chooses the port number from a pre-allocated set of default port numbers and port ranges.

Oracle9*i*AS 9.0.3 uses the following method to assign port numbers:

1. Determine if the default port number is already in use by
   - any Oracle product.
   - any running product.
2. If the default port number is not in use, assign it to the component.
3. If the default port number is already in use, attempt to assign a number from the port range, starting with the lowest number, until a free port number is found.

This appendix contains the following tables:

A.1 Oracle9*i*AS 9.0.3 Port Usage Sorted by Component

Table A–1 lists Oracle9*i*AS 9.0.3 ports sorted by component names.

Table A–1 Oracle9iAS 9.0.3 Port Usage Sorted by Component

Component	Default Port Number	Port Number Range
OPMN		
Oracle Notification Service Requested Port	6003	6003-6099
Oracle Notification Service Local Port	6100	6100-6199
Oracle Notification Service Remote Port	6200	6200-6299
Oracle9*i*AS Containers for J2EE (OC4J)		
OC4J AJP	3001	3001-3100
OC4J RMI	3101	3101-3200
OC4J JMS	3201	3201-3300
OC4J HTTP Listener	3301	3301-3400
Oracle HTTP Server		
Oracle HTTP Server- non-SSL	7777	7777-7877
Oracle HTTP Server- SSL	4443	4443-4543
Oracle HTTP Server Listen- non-SSL	7777	7777-7877
Oracle HTTP Server- non-SSL- Oracle9*i*AS Web Cache is installed and configured	7778	7777-7877
Oracle HTTP Server- SSL	4443	4443-4543
Oracle HTTP Server- SSL- Oracle9*i*AS Web Cache is installed and configured	4444	4443-4543
Oracle HTTP Server JServ Servlet Engine	8007	8007-8107
Oracle HTTP Server- Java Object Cache	7000	7000-7010
Oracle9*i*AS Web Cache		
Oracle9*i*AS Web Cache HTTP Listen- non-SSL	7777	7777-7877

Table A–1 Oracle9iAS 9.0.3 Port Usage Sorted by Component (Cont.)

Component	Default Port Number	Port Number Range
Oracle9*i*AS Web Cache HTTP Listen-SSL	4443	4443-4543
Oracle9*i*AS Web Cache Administration	4000	4000-4030
Oracle9*i*AS Web Cache Invalidation	4001	4000-4030
Oracle9*i*AS Web Cache Statistics	4002	4000-4030
Oracle Enterprise Manager		
Oracle Enterprise Manager Application Server Administration Service	1810, 1811	1812-1820
Oracle Enterprise Manager Intelligent Agent	1748, 1754, 1808, 1809	Fixed

A.2 Oracle9*i*AS 9.0.3 Port Usage Sorted by Port Number

Table A–2 lists Oracle9*i*AS 9.0.3 ports sorted by number in ascending order.

Table A–2 Oracle9iAS 9.0.3 Port Usage Sorted By Port Number

Port Number	Component
1748	Oracle Enterprise Manager Intelligent Agent
1754	Oracle Enterprise Manager Intelligent Agent
1808	Oracle Enterprise Manager Intelligent Agent
1809	Oracle Enterprise Manager Intelligent Agent
1810 - 1820	Oracle Enterprise Manager Application Server Service
3001 - 3100	Oracle9*i*AS Containers for J2EE - AJP
3101 - 3200	Oracle9*i*AS Containers for J2EE - RMI
3201 - 3300	Oracle9*i*AS Containers for J2EE - JMS
3301 - 3400	Oracle9*i*AS Containers for J2EE HTTP Listener
4000 - 4030	Oracle9*i*AS Web Cache Administration Port
4001	Oracle9*i*AS Web Cache Invalidation Port
4002	Oracle9*i*AS Web Cache Statistics
4443 - 4543	Oracle HTTP Server- SSL, Oracle HTTP Server Listen- SSL, Oracle9*i*AS Web Cache Listen- SSL
6003	OPMN- Oracle Notification Service Request Port
6100	OPMN- Oracle Notification Service Local Port
6200	OPMN- Oracle Notification Service Remote Port
7000 - 7010	Oracle HTTP Server Java Object Cache
7777 - 7877	Oracle HTTP Server- non-SSL, Oracle HTTP Server Listen- non-SSL, Oracle9*i*AS Web Cache Listen- non-SSL
8007 - 8107	Oracle HTTP Server JServ Servlet Engine

B

Troubleshooting

This appendix describes some methods for troubleshooting your Oracle9*i* Application Server Release 2 (9.0.3) (Oracle9*i*AS 9.0.3) installation. It includes the following topics:

- Troubleshooting the Installation
- Troubleshooting Oracle9iAS Configuration Assistants
- Descriptions of Oracle9iAS Configuration Assistants

B.1 Troubleshooting the Installation

Oracle recommends reviewing the following for troubleshooting your Oracle9*i*AS 9.0.3 installation:

- Verify Hardware and Preinstallation Requirements
- What to Do If An Installation Error Occurs

B.1.1 Verify Hardware and Preinstallation Requirements

Note the following information before performing any of the troubleshooting steps in this appendix:

- Do the host specifications meet the requirements specified in Chapter 2, "Getting Started"?

  Review the following sections, which specifically describe requirements and preinstallation tasks:

  - Section 2.1, "Preinstallation Summary"
  - Section 2.2, "Hardware Requirements"
  - Section 2.3, "Operating System Requirements"
  - Section 2.5, "Preinstallation Tasks"
  - Section 2.6.2, "Oracle Universal Installer Prerequisite Checks"
- If your installation is using an Oracle9*i*AS Infrastructure, then was the infrastructure running during this installation?

B.1.1.1 Release Notes

Oracle recommends reading the *Oracle9i Application Server 9.0.3 Release Notes* prior to installing Oracle9*i*AS 9.0.3. *Oracle9i Application Server 9.0.3 Release Notes* are available with the platform-specific documentation. The latest version of the Release Notes are available on OTN at

`http://otn.oracle.com/products/ias/content.html`

B.1.1.2 Verify TMP, TMPDIR and Swap Space

Use the following command to display free swap space:

```
prompt> swap -s
```

Your host must meet the minimum swap space requirement described in Section 2.2, "Hardware Requirements". If you do not have enough swap space, then perform the following tasks:

1. Login as the system root user.
2. Create an empty swap file using the following command:

   ```
   prompt> mkfile sizeM swap_file_name
   ```

   The minimum size of this file must be greater than the difference between the currently available swap space and required swap space. For example, if you have 100 MB of free swap space and the installation requires 256 MB, then this swap file must be at least 156 MB.
3. Add the file to the swap space using the following command:

   ```
   prompt> swap -a swap_file_name
   ```

4. Verify that the new swap space meets the requirements by running the following command:

   ```
   prompt> swap -s
   ```

B.1.2 What to Do If An Installation Error Occurs

If you encounter an error during installation of Oracle9*i*AS 9.0.3:

- When an error occurs, do not exit Oracle Universal Installer. This makes it easier to find the log files.
- If you entered incorrect information on one of the install screens during the interview phase, then you can return to previous installation screens by clicking **Previous** until you reach the screen you would like to edit.
- If you encounter an error while the installer is copying or linking files, then you must perform the following tasks:

  1. Note the error and review the installation logs at for causes:
     * *oraInventory_location*/logs/installActions*timestamp*.log
     * *oraInventory_location*/logs/oraInstall*timestamp*.err
     * *oraInventory_location*/logs/oraInstall*timestamp*.out
  2. Remove the failed installation by following the steps in Chapter 5, "Deinstallation and Reinstallation".
  3. Correct the issue that caused the error.
  4. Start the Oracle9*i*AS 9.0.3 installation again.

B.2 Troubleshooting Oracle9*i*AS Configuration Assistants

To troubleshoot an installation error that occurs when the Oracle9*i*AS Configuration Assistants are running:

- Review the log files listed in Section B.1.2, "What to Do If An Installation Error Occurs" and the component log files in Section B.3, "Descriptions of Oracle9iAS Configuration Assistants". Try to fix the issue that caused the error.
- If you see a 'Fatal Error. Reinstall' message, then try to find the cause of the problem by analyzing the log files. Refer to Section B.2.3, "Fatal Errors" for further instructions.

B.2.1 Configuration Assistant Failure

Oracle9*i*AS Configuration Assistant failures are noted at the bottom of the Installation Screen. The Oracle9*i*AS Configuration Assistant interface, if applicable, displays additional information. The Oracle9*i*AS Configuration Assistant execution status will be identified by the result code called <exit-code>.The result codes are:

Status	Result Code
Configuration Assistant Succeeded	0
Configuration Assistant Failed	1
Configuration Assistant Cancelled	-1

This result code is written to the following log file:

oraInventory`/logs/installActions`*timestamp*`.log`

B.2.2 Failure During Component Configuration and Startup

During installation, configuration assistants launch when the Configuration Tools screen appears. If a configuration assistant fails at this point, then try the following procedure to correct the problem.

1. Review the installation log files for this instance.
2. Review the log files for the configuration assistant.
3. Correct the problem that caused the failure.

4. Refer to the section describing the configuration assistant in Section B.3, "Descriptions of Oracle9iAS Configuration Assistants".

   a. If the failing configuration assistant has any dependencies, then run the dependencies again. You must do this, even if the dependency completed successfully.

   b. Run the failing configuration assistant again. If you are using the installer, then select the configuration assistant and click the **Retry** button. If you are running the configuration assistant from a command prompt, then run it using the command in the "Command Line" section of the description.

   Note: If a configuration assistant has an "Initial Tasks" section, then you must perform these tasks before running the assistant.

B.2.3 Fatal Errors

Some configuration assistant failures are "fatal errors." You will not be able to recover from a fatal error by correcting the problem and continuing. You must remove the current installation and then restart the process of installing Oracle9*i*AS 9.0.3. The following tasks describe the recovery procedure:

1. Deinstall the failed installation using the procedure in Section 5.1.1, "Deinstalling an Oracle9iAS 9.0.3 Instance".
2. Correct the issue that caused the fatal error.
3. Reinstall Oracle9*i*AS.
4. If the fatal error reoccurs, then you must remove all Oracle installations from your host using the procedure in Section 5.1.2, "Deinstalling by Manually Removing All Oracle Products".

B.3 Descriptions of Oracle9*i*AS Configuration Assistants

This section lists the Oracle9*i*AS Configuration Assistants in alphabetical order. Different installations will use different configuration assistants depending on configuration options. Refer to the

This section describes the following assistants:

- BC4J Configuration Assistant
- Clickstream Collector Agent Configuration Assistant
- DCM Repository Backup Assistant
- Enterprise Manager Web site Configuration Assistant
- HTTP Server Configuration Assistant
- Infrastructure Use Configuration Assistant
- Java Security Configuration Assistant
- OC4J Configuration Assistant
- OC4J Instance Configuration Assistant
- OPMN Configuration Assistant
- Oracle9iAS Instance Configuration Assistant
- Oracle9iAS Web Cache Configuration Assistant

B.3.1 BC4J Configuration Assistant

The BC4J Configuration Assistant integrates BC4J with the Oracle Enterprise Manager Web site.

Modifies the Following Configuration Files

ORACLE_HOME/sysman/emd/targets.xml

Writes to the Following Log Files

None.

Initial Tasks

Remove all BC4J entries from the configuration files above, if they exist.

Command Line

```
ORACLE_HOME/jdk/bin/java -classpath ORACLE_HOME/jlib/emConfigInstall.jar:\
ORACLE_HOME/jlib/repository.jar:\
ORACLE_HOME/sysman/webapps/emd/WEB-INF/lib/bc4joem.jar \
oracle.jbo.server.emd.ConfigOEM ORACLE_HOME instance_name.hostname.domain
```

Dependencies

None.

B.3.2 Clickstream Collector Agent Configuration Assistant

The Clickstream Collector Agent Configuration Assistant integrates the Oracle9*i*AS Clickstream Collector Agent with the Oracle Enterprise Manager Web site.

Modifies the Following Configuration Files

ORACLE_HOME/sysman/emd/targets.xml
ORACLE_HOME/sysman/webapps/emd/WEB-INF/config/consoleConfig.xml
ORACLE_HOME/dcm/config/sysmgmtProperties.xml

Writes to the Following Log Files

None.

Initial Tasks

Remove all Oracle9*i*AS Clickstream Collector Agent entries in the configuration files above.

Command Line

```
ORACLE_HOME/jdk/bin/java -classpath ORACLE_HOME/click/lib/click.jar:\
ORACLE_HOME/sysman/jlib/emConfigInstall.jar:\
ORACLE_HOME/jlib/emConfigInstall.jar:ORACLE_HOME/jlib/repository.jar \
oracle.click.common.OEMIntegrate ORACLE_HOME
```

Dependencies

Infrastructure Use Configuration Assistant

B.3.3 DCM Repository Backup Assistant

The DCM Repository Backup Assistant enables you to back up your DCM repository.

Modifies the Following Configuration Files

None.

Writes to the Following Log Files

ORACLE_HOME/dcm/logs/dcmctl_logs/log.xml
ORACLE_HOME/dcm/logs/emd_logs/log.xml

Initial Tasks

None.

Command Line

ORACLE_HOME/dcm/bin/dcmctl saveInstance -dir *backup_directory*

Note: If *backup_directory* does not exist, then this configuration assistant will create it. If *backup_directory* exists, then it must be empty. If it is not empty then the assistant will fail.

Dependencies

None.

B.3.4 Enterprise Manager Web site Configuration Assistant

The Enterprise Manager Web site Configuration Assistant configures Oracle9*i*AS components to deploy applications through the Oracle Enterprise Manager Web site.

Modifies the Following Configuration Files

None.

Writes to the Following Log Files

ORACLE_HOME/sysman/log/em-servlet.log
ORACLE_HOME/sysman/log/emd.log
ORACLE_HOME/sysman/log/em.log
ORACLE_HOME/sysman/log/server.log
ORACLE_HOME/sysman/log/em-application.log
ORACLE_HOME/sysman/log/em-web-access.log
ORACLE_HOME/sysman/log/rmi.log
ORACLE_HOME/dcm/logs/dcmctl_logs/log.xml
ORACLE_HOME/dcm/logs/emd_logs/log.xml

Initial Tasks

None.

Command Line

ORACLE_HOME/bin/emctl start -silent

Dependencies

None.

B.3.5 HTTP Server Configuration Assistant

The HTTP Server Configuration Assistant adds the Oracle HTTP Server target to the *ORACLE_HOME*/sysman/emd/targets.xml file.

Modifies the Following Configuration Files

ORACLE_HOME/sysman/emd/targets.xml

Writes to the Following Log Files

None.

Initial Tasks

Remove the Oracle HTTP Server target from targets.xml.

Command Line

```
ORACLE_HOME/jdk/bin/java -jar ORACLE_HOME/jlib/emConfigInstall.jar \
targets ORACLE_HOME/Apache/Apache/conf/ohstarget.xml
```

Dependencies

None.

B.3.6 Infrastructure Use Configuration Assistant

The Infrastructure Use Configuration Assistant enables Oracle9*i*AS 9.0.3 usage with Oracle9*i*AS Infrastructure 9.0.2.

Modifies the Following Configuration Files

ORACLE_HOME/Apache/Apache/conf/httpd.conf
ORACLE_HOME/dcm/config/dcm.conf
ORACLE_HOME/dcm/repository/*
ORACLE_HOME/j2ee/home/config/jazn.xml

Writes to the Following Log Files

ORACLE_HOME/config/useinfratool.log
ORACLE_HOME/dcm/logs/dcmctl_logs/log.xml
ORACLE_HOME/dcm/logs/emd_logs/log.xml

Initial Tasks

1. Open *ORACLE_HOME*/config/infratool.properties in a text editor.
2. Change the flag at the end of each line from $0 to $-1.

Command Line

```
ORACLE_HOME/jdk/bin/java -classpath .:ORACLE_HOME/sso/lib/ossoreg.jar:\
ORACLE_HOME/jlib/ojmisc.jar:ORACLE_HOME/jlib/repository.jar:\
ORACLE_HOME/j2ee/home/jazn.jar:ORACLE_HOME/j2ee/home/jaas.jar:\
ORACLE_HOME/jdk/lib/dt.jar:ORACLE_HOME/jdk/lib/tools.jar:\
ORACLE_HOME/jlib/infratool.jar \
oracle.ias.configtool.UseInfrastructure \
-f ORACLE_HOME/config/infratool.properties \
-h hostname.domain -p OID_port -u cn=orcladmin -w oidadmin_password \
-s infrastructure_hostname.domain -r midtier_OHS_port \
-o ORACLE_HOME -m instance_name.hostname.domain \
-infra infrastructureDB_service_name
```

Dependencies

None.

B.3.7 Java Security Configuration Assistant

The Java Security Configuration Assistant sets and reassigns new passwords for JAAS security.

Modifies the Following Configuration Files

ORACLE_HOME/j2ee/home/config/jazn_data.xml

Writes to the Following Log Files

None.

Initial Tasks

Set the library path environment variable to *ORACLE_HOME*/lib.

Command Line

```
ORACLE_HOME/jdk/bin/java \
-classpath ORACLE_HOME/dcm/lib/dcm.jar:ORACLE_HOME/j2ee/home/jazn.jar:\
ORACLE_HOME/j2ee/home/jaas.jar:ORACLE_HOME/j2ee/home/oc4j.jar:\
ORACLE_HOME/jlib/ojmisc.jar \
-Doracle.security.jazn.config=ORACLE_HOME/j2ee/home/jazn/install/jazn.xml \
oracle.security.jazn.util.JAZNInstallHelper -realm jazn.com \
-user admin -oldpwd welcome -newpwd new_password
```

Note: "welcome" is the default password when this assistant fails. If it completes successfully, then the assistant will store a more secure password in jazn_data.xml.

Dependencies

None.

B.3.8 OC4J Configuration Assistant

The OC4J Configuration Assistant integrates OC4J with the Oracle Enterprise Manager Web site.

Modifies the Following Configuration Files

ORACLE_HOME/sysman/emd/targets.xml

Writes to the Following Log Files

None.

Initial Tasks

None.

Command Line

```
ORACLE_HOME/jdk/bin/java -classpath \
ORACLE_HOME/install/lib/oc4jcfg.jar:ORACLE_HOME/jlib/emConfigInstall.jar:\
ORACLE_HOME/jlib/repository.jar:ORACLE_HOME/lib/xmlparserv2.jar:\
ORACLE_HOME/jdbc/lib/classes12.zip:ORACLE_HOME/jdbc/lib/nls_charset12.jar:\
ORACLE_HOME/jlib/jndi.jar:ORACLE_HOME/jlib/rt.jar:ORACLE_HOME/jdk/lib/i18n.jar:\
ORACLE_HOME/jlib/ldapjclnt9.jar:ORACLE_HOME/jlib/ojmisc.jar:\
ORACLE_HOME/j2ee/home/jazn.jar:ORACLE_HOME/j2ee/home/jaas.jar  \
oc4jConfig -oh ORACLE_HOME
```

Dependencies

None.

B.3.9 OC4J Instance Configuration Assistant

The OC4J Instance Configuration Assistant configures OC4J instances for deployed Oracle9*i*AS applications.

Modifies the Following Configuration Files

ORACLE_HOME/Apache/Apache/conf/mod_oc4j.conf
ORACLE_HOME/j2ee/OC4J_Demos/*
ORACLE_HOME/j2ee/home/application-deployments/*
ORACLE_HOME/j2ee/home/applications/*
ORACLE_HOME/j2ee/home/connectors/*
ORACLE_HOME/j2ee/home/config/*
ORACLE_HOME/j2ee/home/persistence/*
ORACLE_HOME/dcm/config/dcm.conf
ORACLE_HOME/dcm/repository/*
ORACLE_HOME/opmn/conf/opmn.xml
ORACLE_HOME/opmn/conf/ons.conf

Writes to the Following Log Files

ORACLE_HOME/j2ee/OC4J_Demos/application-deployments/*/OC4J_Demos_default_island_1/application.log
ORACLE_HOME/j2ee/OC4J_Demos/log/OC4J_Demos_default_island_1/server.log
ORACLE_HOME/j2ee/OC4J_Demos/log/OC4J_Demos_default_island_1/global-application.log
ORACLE_HOME/j2ee/OC4J_Demos/log/OC4J_Demos_default_island_1/default-web-access.log
ORACLE_HOME/j2ee/OC4J_Demos/log/OC4J_Demos_default_island_1/jms.log
ORACLE_HOME/j2ee/OC4J_Demos/log/OC4J_Demos_default_island_1/rmi.log
ORACLE_HOME/opmn/logs/OC4J_Demos*
ORACLE_HOME/j2ee/home/log/home_default_island_1/server.log
ORACLE_HOME/j2ee/home/log/home_default_island_1/global-application.log
ORACLE_HOME/j2ee/home/log/home_default_island_1/default-web-access.log
ORACLE_HOME/j2ee/home/log/home_default_island_1/jms.log
ORACLE_HOME/j2ee/home/log/home_default_island_1/rmi.log
ORACLE_HOME/j2ee/home/application-deployments/*/home_default_island_1/application.log
ORACLE_HOME/opmn/logs/home*
ORACLE_HOME/dcm/logs/dcmctl_logs/log.xml
ORACLE_HOME/dcm/logs/emd_logs/log.xml
ORACLE_HOME/j2ee/home/log/log.xml

Initial Tasks

1. If your installation uses Oracle9*i*AS Infrastructure and the OC4J Instance Configuration Assistant fails, then there is a fatal error and you cannot recover without reinstalling.

   See Also: Section B.2.3, "Fatal Errors" on page B-6

2. Shutdown opmn and all managed processes with the following command:

   ```
   prompt> ORACLE_HOME/opmn/bin/opmnctl stopall
   ```

3. Remove files from the failed deployment with the following command:

   ```
   prompt> rm -rf ORACLE_HOME/dcm/repository/*
   prompt> rm -rf ORACLE_HOME/dcm/config/dcm.conf
   prompt> rm -rf ORACLE_HOME/opmn/conf/ons.conf
   prompt> rm -rf ORACLE_HOME/j2ee/OC4J_*
   prompt> rm -rf ORACLE_HOME/j2ee/home/log/log.xml
   ```

4. If `deploy.ini` does not exist in the *`ORACLE_HOME`*`/j2ee` directory, then rename `deploy.ini.`*`number`*`.bak` to `deploy.ini`.

5. In *`ORACLE_HOME`*`/opmn/conf/opmn.xml` remove sections related to all OC4J instances except for the `home` instance. For example, the section for the OC4J.Demos instance looks like the following:

   ```
   <oc4j instanceName="OC4J_Demos" gid="OC4J_Demos">
      ....
   </oc4j>
   ```

Command Line

```
ORACLE_HOME/jdk/bin/java -mx512M \
-classpath ORACLE_HOME/j2ee/home/jaznplugin.jar:ORACLE_HOME/j2ee/home/jazn.jar:\
ORACLE_HOME/jlib/emConfigInstall.jar:ORACLE_HOME/lib/xmlparserv2.jar:\
ORACLE_HOME/lib/xschema.jar:ORACLE_HOME/dcm/lib/dcm.jar:\
ORACLE_HOME/jdbc/lib/classes12.jar:ORACLE_HOME/lib/dms.jar:\
ORACLE_HOME/j2ee/home/oc4j.jar:ORACLE_HOME/opmn/lib/ons.jar:\
ORACLE_HOME/dcm/lib/oc4j_deploy_tools.jar \
-Doracle.ias.sysmgmt.logging.logdir=ORACLE_HOME/j2ee/home/log \
oracle.j2ee.tools.deploy.Oc4jDeploy \
-oraclehome ORACLE_HOME -verbose -inifile ORACLE_HOME/j2ee/deploy.ini
```

Dependencies

None.

B.3.10 OPMN Configuration Assistant

The OPMN Configuration Assistant enables the monitoring of Oracle9*i*AS processes in the *ORACLE_HOME*/opmn/conf/opmn.xml file.

Modifies the Following Configuration Files

None.

Writes to the Following Log Files

ORACLE_HOME/Apache/Apache/logs/error_log
ORACLE_HOME/Apache/Apache/logs/ssl_engine_log
ORACLE_HOME/Apache/Apache/logs/access_log
ORACLE_HOME/Apache/Apache/logs/ssl_request_log
ORACLE_HOME/opmn/logs/HTTP Server.1og
ORACLE_HOME/j2ee/home/log/home_default_island_1/server.log
ORACLE_HOME/j2ee/home/log/home_default_island_1/global-application.log
ORACLE_HOME/j2ee/home/log/home_default_island_1/default-web-access.log
ORACLE_HOME/j2ee/home/log/home_default_island_1/jms.log
ORACLE_HOME/j2ee/home/log/home_default_island_1/rmi.log
ORACLE_HOME/j2ee/home/application-deployments/*/home_default_island_1/application.log
ORACLE_HOME/opmn/logs/home.default_island.1
ORACLE_HOME/j2ee/OC4J_Demos/application-deployments/*/OC4J_Demos_default_island_1/application.log
ORACLE_HOME/j2ee/OC4J_Demos/log/OC4J_Demos_default_island_1/server.log
ORACLE_HOME/j2ee/OC4J_Demos/log/OC4J_Demos_default_island_1/global-application.log
ORACLE_HOME/j2ee/OC4J_Demos/log/OC4J_Demos_default_island_1/default-web-access.log
ORACLE_HOME/j2ee/OC4J_Demos/log/OC4J_Demos_default_island_1/jms.log
ORACLE_HOME/j2ee/OC4J_Demos/log/OC4J_Demos_default_island_1/rmi.log
ORACLE_HOME/opmn/logs/OC4J_Demos.default_island.1
ORACLE_HOME/opmn/logs/ons.log
ORACLE_HOME/opmn/logs/ipm.log

Initial Tasks

If there are any opmn.exe processes running in the current *ORACLE_HOME*, then stop them by running the following command:

```
prompt> ORACLE_HOME/opmn/bin/opmnctl stopall
```

Command Line

ORACLE_HOME/opmn/bin/opmnctl startall

Dependencies

OC4J Instance Configuration Assistant

B.3.11 Oracle9*i*AS Instance Configuration Assistant

The Oracle9*i*AS Instance Configuration Assistant adds Oracle9*i*AS instance name into the `targets.xml` file.

Modifies the Following Configuration Files

`ORACLE_HOME/sysman/emd/targets.xml`

Writes to the Following Log Files

None.

Initial Tasks

Remove the following entry from targets.xml:

```
<Target TYPE="oracle_ias" NAME="instance_name" VERSION="1.0">
   <Property NAME="OracleHome" VALUE="ORACLE_HOME" />
   <Property NAME="host" VALUE="hostname" />
</Target>
```

Command Line

```
ORACLE_HOME/jdk/bin/java -jar ORACLE_HOME/jlib/emConfigInstall.jar \
targets ORACLE_HOME/config/targets2add.xml
```

Dependencies

None.

B.3.12 Oracle9*i*AS Web Cache Configuration Assistant

The Oracle9*i*AS Web Cache Configuration Assistant establishes caching rules, listening ports, and security passwords.

Modifies the Following Configuration Files

ORACLE_HOME/config/ias.properties

Writes to the Following Log Files

ORACLE_HOME/webcache/logs/event_log
ORACLE_HOME/webcache/logs/access_log

Initial Tasks

None.

Command Line

```
ORACLE_HOME/jdk/bin/java -classpath \
ORACLE_HOME/sysman/webapps/emd/WEB-INF/lib/webcachecfg.jar:\
ORACLE_HOME/sysman/webapps/emd/WEB-INF/lib/emd.jar:\
ORACLE_HOME/jlib/emConfigInstall.jar:ORACLE_HOME/jlib/repository.jar:\
ORACLE_HOME/lib/xmlparserv2.jar:ORACLE_HOME/jdbc/lib/classes12.zip:\
ORACLE_HOME/jdbc/lib/nls_charset12.jar:ORACLE_HOME/jlib/jndi.jar:\
ORACLE_HOME/jlib/rt.jar:ORACLE_HOME/jdk/lib/i18n.jar:\
ORACLE_HOME/jlib/ldapjclnt9.jar:ORACLE_HOME/jlib/ojmisc.jar:\
ORACLE_HOME/j2ee/home/jazn.jar:ORACLE_HOME/j2ee/home/jaas.jar  \
oracle.ias.webcache.config.WebcacheConfig -oh ORACLE_HOME
```

Dependencies

None.

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