
OIT Instructions for Installation and Configuration of Oracle 9iAS for SUN SPARC Solaris

Overview

Installation of Oracle 9iAS for Sun SPARC Solaris

Installation of Patch 10 for Oracle 9iAS for Solaris

Installation of Security Patch 2424256

Preparation of the Environment for Banner

Configuration of Oracle 9iAS

Migration of OAS 4.0.8.2 SSL to 9iAS SSL

**Office of Information and
Instructional Technology**

July 2002

Overview for Installation and Configuration of Oracle 9iAS for Solaris

Purpose

This document is a guide to the installation and configuration of Oracle 9iAS for SUN SPARC Solaris. It includes the following sections:

- Overview
 - Installation of Oracle 9iAS Enterprise Edition for Sun SPARC Solaris
 - Installation of patch 10 for Oracle 9iAS for Solaris
 - Installation of security patch 2424256
 - Preparation of the environment for Banner
 - Configuration of Oracle 9iAS based upon FAQs from SCT
 - Migration of OAS 4.0.8.2 SSL to 9iAS SSL
-

Audience

Application Server Administrators

Summary of Major Steps

Following are the major steps that you need to complete to install and configure Oracle 9iAS.

1. Install Oracle 9iAS
 2. Apply Patch 10
 3. Apply security patch 2424256
 4. Prepare Environment for Banner
 5. Configure 9iAS
 6. Migrate OAS4.0.8.2 SSL to 9iAS SSL
-

Additional Resources: Technical Stack

Upgrade and Support Roadmap for Banner and the Georgia Enhancements for SCT Releases from April 2002–April 2003 will be available on the EAS website at the following URL:
<http://www.usg.edu/oijt/eas/sfa/5doc/index.html>.

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Oracle9i Application Server

Installation Guide

Release 1 (v1.0.2.2.2) for Sun SPARC Solaris



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This product includes software developed by Ralf S. Engelschall (rse@engelschall.com) for use in the mod_ssl project (<http://www.modssl.org/>).

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Send Us Your Comments

**Oracle9i Application Server Installation Guide, Release 1 (v1.0.2.2.2) for Sun SPARC Solaris
Part No. A95821-01**

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Preface

This guide describes the installation process for Oracle9i Application Server.

This preface contains these topics:

- [Audience](#)
- [Organization](#)
- [Related Documentation](#)
- [Conventions](#)
- [Documentation Accessibility](#)

Audience

This installation guide is intended for system 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, "Requirements"](#)

This chapter provides hardware and software requirements for Oracle9i Application Server, Oracle9iAS Client, and the online documentation.

[Chapter 2, "Concepts and Preinstallation"](#)

This chapter provides basic concepts, and preinstallation steps for Oracle9i Application Server.

[Chapter 3, "Core Installation"](#)

This chapter guides you through the installation and postinstallation steps for the Core Edition installation option for Oracle9i Application Server.

[Chapter 4, "Minimal Edition"](#)

This chapter guides you through the installation and postinstallation steps for the Minimal Edition installation option for Oracle9i Application Server.

[Chapter 5, "Standard Edition"](#)

This chapter guides you through the installation and postinstallation steps for the Standard Edition installation option for Oracle9i Application Server.

[Chapter 6, "Enterprise Edition"](#)

This chapter guides you through the installation and postinstallation steps for the Enterprise Edition installation option for Oracle9i Application Server.

[Chapter 7, "Non-Interactive Installation"](#)

This chapter guides you through Non-interactive installation steps for Oracle9i Application Server.

[Chapter 8, "Deinstallation and Reinstallation"](#)

This chapter guides you through the deinstallation and reinstallation steps for Oracle9i Application Server.

[Appendix A, "Configuration Tools"](#)

This appendix guides you through the steps required to run component-specific configuration assistants to configure Oracle9i Application Server.

[Appendix B, "Installing Oracle9i Application Server Administrative and Development Client CD-ROM"](#)

This appendix provides an overview, and describes the installation process for the Oracle9i Application Server Administrative and Development Client CD-ROM.

[Appendix C, "Installing Supplemental Components"](#)

This appendix introduces you to the Oracle9i Application Server supplemental components, and provides basic installation instruction.

[Appendix D, "Enabling SSL for Oracle HTTP Server"](#)

This appendix describes steps necessary to enable SSL for Oracle HTTP Server.

[Appendix E, "Installing Documentation Library"](#)

This appendix contains the contents of the Oracle9i Application Server Documentation Library CD-ROM, and provides instructions for installing and viewing the documentation.

Related Documentation

For more information, see these Oracle resources:

- Oracle9i Application Server Documentation Library CD-ROM
- Oracle9i Application Server Platform Specific Documentation on Oracle9i Application Server Disk 1

In North America, printed documentation is available for sale in the Oracle Store at

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

Customers in Europe, the Middle East, and Africa (EMEA) can purchase documentation from

<http://www.oraclebookshop.com/>

Other customers can contact their Oracle representative to purchase printed documentation.

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

<http://technet.oracle.com/membership/index.htm>

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

<http://technet.oracle.com/docs/index.htm>

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 .
<i>Italics</i>	Italic typeface indicates book titles or emphasis.	<i>Oracle9i Concepts</i> Ensure that the recovery catalog and target database do <i>not</i> reside on the same disk.
UPPERCASE monospace (fixed-width font)	Uppercase monospace typeface indicates elements supplied by the system. Such elements include parameters, privileges, 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.

Convention	Meaning	Example
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 <code>sqlplus</code> to open SQL*Plus. The password is specified in the <code>orapwd</code> file. Back up the datafiles and control files in the <code>/disk1/oracle/dbs</code> directory. The <code>department_id</code> , <code>department_name</code> , and <code>location_id</code> columns are in the <code>hr.departments</code> table. Set the <code>QUERY_REWRITE_ENABLED</code> initialization parameter to <code>true</code> . Connect as <code>oe</code> user. The <code>JRepUtil</code> class implements these methods.
lowercase monospace (fixed-width font) <i>italic</i>	Lowercase monospace italic font represents placeholders or variables.	You can specify the <i>parallel_clause</i> . Run <code>Uold_release.SQL</code> where <i>old_release</i> refers to the release you installed prior to upgrading.

Conventions in Code Examples

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

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

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

Convention	Meaning	Example
[]	Brackets enclose one or more optional items. Do not enter the brackets.	<code>DECIMAL (digits [, precision])</code>
{ }	Braces enclose two or more items, one of which is required. Do not enter the braces.	<code>{ENABLE DISABLE}</code>
	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.	<code>{ENABLE DISABLE}</code> <code>[COMPRESS NOCOMPRESS]</code>

Convention	Meaning	Example
...	Horizontal ellipsis points indicate either: <ul style="list-style-type: none"> 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 	<pre>CREATE TABLE ... AS subquery; SELECT col1, col2, ... , coln FROM employees;</pre>
.	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.	<pre>acctbal NUMBER(11,2); acct CONSTANT NUMBER(4) := 3;</pre>
<i>Italics</i>	Italicized text indicates placeholders or variables for which you must supply particular values.	<pre>CONNECT SYSTEM/system_password DB_NAME = database_name</pre>
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.	<pre>SELECT last_name, employee_id FROM employees; SELECT * FROM USER_TABLES; DROP TABLE hr.employees;</pre>
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.	<pre>SELECT last_name, employee_id FROM employees; sqlplus hr/hr CREATE USER mjones IDENTIFIED BY ty3MU9;</pre>

Documentation Accessibility

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1

Requirements

This chapter provides information about the hardware and software items required for the installation of the Oracle9i Application Server, Oracle9iAS Client, and the online documentation. The topics include:

- [Hardware Requirements](#)
- [Software Requirements](#)
- [Certified Software](#)
- [Oracle9iAS Client Requirements](#)
- [Online Documentation Requirements](#)

Hardware Requirements

The following table contains the hardware requirements for Oracle9i Application Server.

Hardware Items	Requirements
CPU	A SPARC Processor
Memory	128 MB
Disk Space	Core: 450 MB Minimal: 725 MB Standard Edition: 2.25 GB Enterprise Edition: 4.50 GB
TMP or Swap Space	800 MB

Make note of the following:

- The disk space must be available on a single disk. Oracle9i Application Server does not support spanning the installation over multiple disks.
- Origin database must have minimum free disk space for the following:
 - System Tablespace: 1 GB
 - User Tablespace: 400 MB

For Standard Edition Only: You will need an additional 430 MB disk space on your Oracle9i Application Server machine to install the Oracle Enterprise Java Engine database. The database files do not have to be installed on the same disk as the Oracle9i Application Server Oracle home.

Software Requirements

The patches can be downloaded from <http://sunsolve.sun.com>. For the latest information, refer to Oracle *MetaLink* at <http://metalink.oracle.com>.

Software Items	Version
Operating System	<p>Solaris 2.6</p> <ul style="list-style-type: none"> ■ Linker patch: 107733-08 or higher ■ /usr/lib/libthread.so.1 patch: 105568-18 or higher ■ libaio, libc, watchmalloc patch: 105210-32 or higher ■ X Input & Output Method patch: 106040-14 or higher ■ Linker patch: 105490-07 or higher ■ OpenWindows 3.6: Xsun patch: 105633-48 or higher¹ ■ Fixes the Chinese TrueType fonts: 106409-01 or higher² ■ SunOS 5.6: ssJDK1.2.1_03 fails with fatal errors in ISO8859-01 Locales: 108091-03 or higher³ ■ CDE 1.2: libDtSvc patch (recommended): 105669-10 or higher ■ Motif 1.2.7: Runtime library patch: 105284-37 or higher ■ SunOS 5.6: Kernel update patch (recommended): 105181-23 or higher <p>Solaris 2.7</p> <ul style="list-style-type: none"> ■ Libthread patch: 106980-13 or higher ■ Kernal update patch: 106541-12 or higher⁴ ■ /kernal/fs/sockfs patch: 109104-04 or higher⁴ ■ /usr/lib/fs/fsck patch: 107544-03 or higher⁴ ■ Motif Runtime library patch: 107081-22 or higher ■ X Input & Output Method patch: 107636-05 or higher ■ OpenWindows 3.6.1 Xsun patch: 108376-12 or higher¹ <p>Solaris 2.8: Additional patches not required at this time.</p>

¹ This patch is required for asian locales.

² This patch is required to display Traditional Chinese characters in Swing applications.

³ This patch (108091-03 or higher) is required for any locale which uses the ISO8859-1 or ISO8859-15 character encoding.

⁴ This patch is a pre-requisite for 106980-13.

Certified Software

Installation of the Oracle9i Application Server requires an Oracle database. A complete list of certified software, including databases, for Oracle9i Application Server can be found at Oracle*MetaLink*:

<http://metalink.oracle.com>

Oracle9iAS Client Requirements

The following table contains the requirements for the installation of Oracle9iAS Client.

See Also: [Appendix B, "Installing Oracle9i Application Server Administrative and Development Client CD-ROM"](#)

Hardware Items	Required
Operating System	Microsoft Windows NT 4.0, with Service Pack 5.0 or higher Microsoft Windows 2000 Service Pack 1. Some components might malfunction if Service Pack 1 is not available.
CPU	Pentium II 266
Memory	At least 64 MB RAM for running both the Oracle9iAS Wireless Service Designer and Web Integration Developer; at least 32 MB RAM for running the Oracle9iAS Wireless Service Designer.
Disk Space	40 MB for running both the Oracle9iAS Wireless Service Designer and Web Integration Developer; at least 20 MB for running the Oracle9iAS Wireless Service Designer.
JDK 1.2.2	The client system requires JDK 1.2.2. You can install JDK 1.2.2 for Windows NT from the client CD-ROM. Make the JDK directory the first entry in the system environment path.

Online Documentation Requirements

The following table contains the tools and disk space requirements for the installation of the Oracle9i Application Server online documentation. The documentation library can be installed on a separate machine.

See Also: [Appendix E, "Installing Documentation Library"](#)

Requirement	Items
Online Readers	Requires any one of the following: HTML <ul style="list-style-type: none">■ Netscape Navigator 3.0 or higher■ Microsoft Internet Explorer 3.0 or higher PDF <ul style="list-style-type: none">■ Acrobat Reader 3.0 or higher■ Acrobat Reader+Search 3.0 or higher■ Acrobat Exchange 3.0 or higher■ PDFViewer Web browser plug-in 1.0 or higher
Disk Space	265 MB

Concepts and Preinstallation

This chapter guides you through the basic concepts and preinstallation steps for Oracle9i Application Server. The following topics provide information about Oracle9i Application Server, environment variables settings, configuration options, and starting Oracle Universal Installer:

- [About Oracle9i Application Server](#)
- [Preinstallation Tasks](#)
- [About Oracle Universal Installer](#)

About Oracle9i Application Server

Oracle9i Application Server is a scalable, secure, middle-tier application server. It enables you to deliver Web content, host Web applications, connect to back-office applications, and access your data on wireless devices. Oracle9i Application Server has four installation options:

- **Core Edition:** ideal for Websites that require a lightweight Web server with only Java application support.
- **Minimal Edition:** suggested for Websites that require a lightweight Web server with minimal application support.
- **Standard Edition:** appropriate for smaller Websites that require minimal support for running transactional applications.
- **Enterprise Edition:** recommended for medium to large-sized Websites that handle a high volume of requests and that require robust support for running transactional applications.

Oracle9i Application Server Components

Table 2–1 lists the four installation options for Oracle9i Application Server, and the components that are installed with each option. This is followed by a brief description of each component.

See Also: *Oracle9i Application Server Overview Guide* in the Oracle9i Application Server Documentation Library for detailed information about each component.

Table 2–1 Oracle9i Application Server Components

Component	Core Edition	Minimal Edition	Standard Edition	Enterprise Edition
Oracle9iAS Containers for J2EE	x			
Oracle9iAS Database Cache				x
Oracle9iAS Discoverer				x
Oracle9iAS Forms Services				x
Oracle9iAS Portal		x	x	x
Oracle9iAS Reports Services				x
Oracle9iAS Web Cache	x			x
Oracle9iAS Wireless		x	x	x
Oracle Advanced Security			x	x
Oracle Business Components for Java (BC4J)	x	x	x	x
Oracle Database Client Developer Kit		x	x	x
Oracle Enterprise Java Engine			x	x
Oracle HTTP Server	x	x	x	x
Oracle Internet File System			x	x
Oracle LDAP Client Kit		x	x	x
Oracle Management Server				x
Oracle XML Developer's Kit		x	x	x

Oracle9iAS Containers for J2EE

Oracle9iAS Containers for J2EE (OC4J) run as a JVM that accepts HTTP and RMI connections, which access servlets, JSP Pages, and EJBs. It reads configuration information from a set of XML files that are located under its installation directory. Java applications are deployed using J2EE-compatible EAR, WAR, or EJB JAR files.

Oracle9iAS Database Cache

Oracle9iAS Database Cache improves the performance and scalability of applications that access Oracle databases by storing frequently used data on middle tier machines. With Oracle9iAS Database Cache, your applications can process several times as many requests as their original capacity.

Oracle9iAS Discoverer

Oracle9iAS Discoverer is a business intelligence tool for analyzing data. With Oracle9iAS Discoverer's award-winning user interface, users can access and analyze database data. There are two Oracle9iAS Discoverer components:

- Oracle9iAS Discoverer Plus is the Internet version of the award-winning Windows version of Discoverer. With Discoverer Plus, business professionals can get and analyze data in a company's database without having to understand complex database concepts. Using Wizard dialogs and menus, Discoverer Plus guides users through the steps to get and analyze data to support their business decisions.
- Oracle9iAS Discoverer Viewer is a tool for viewing workbooks created by Discoverer Plus users. Discoverer Viewer can also be used to integrate database output into a Web site and portal. In addition, it is easy both to customize Discoverer Viewer to conform to a particular Web site look-and-feel, and to build custom Discoverer applications for the Web. Discoverer Viewer is optimized for performance and designed to minimize network traffic.

Oracle9iAS Forms Services

Oracle9iAS Forms Services deploys Forms applications with database access to Java clients in a Web environment. Oracle9iAS Forms Services automatically optimizes class downloads, network traffic, and interactions with Oracle database. Applications are automatically load-balanced across multiple servers and, therefore, can easily scale to service any number of requests.

Oracle9iAS Portal

Oracle9iAS Portal is a complete solution for building, deploying and monitoring Web database applications and content-driven Web sites. Oracle9iAS Portal enables you to create and view database objects through an easy-to-use HTML-based interface, and provides tools for creating HTML-based interfaces. It also allows you to resolve performance problems using performance tracking facilities, and enables you to manage database security through its interface.

Oracle9iAS Reports Services

Oracle9iAS Reports Services provides an easy-to-use, scalable, and manageable solution for high-quality database publishing and reporting by creating dynamic reports for the Web and across the enterprise. It enables you to implement a multi-tiered architecture for running your reports.

Oracle9iAS Web Cache

Oracle9iAS 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 Oracle9i Application Server and Oracle database. By storing frequently accessed URLs in virtual memory, Oracle9iAS Web Cache eliminates the need to repeatedly process requests for those URLs on the Web server, and it caches both static and dynamically-generated HTTP content from one or more applications Web servers.

Oracle9iAS Wireless

Oracle9iAS Wireless is a portal service for delivering information and applications to mobile devices. Using Oracle9iAS Wireless, you can create custom portal sites that use different kinds of content, including Web pages, custom Java applications, and XML-based applications. Oracle9iAS Wireless sites make this diverse information accessible to mobile devices without you having to rewrite the content for each target device platform.

Oracle Advanced Security

Oracle Advanced Security provides a comprehensive suite of security features to protect enterprise networks and securely extend corporate networks to the Internet. It provides a single source of integration with network encryption and authentication solutions, single signon services, and security protocols. By integrating industry standards, it delivers unparalleled security to the Oracle network and beyond.

Oracle Business Components for Java (BC4J)

Oracle Business Components for Java is a 100% Java-compatible, XML-powered framework that enables productive development, portable deployment, and flexible customization of multi-tier, database applications from business components.

Oracle Database Client Developer Kit

The Oracle Database Client Developer Kit contains the following client libraries:

- Oracle Java Database Connectivity (JDBC) Drivers
- Oracle Java Messaging Service (JMS) Toolkit
- Oracle SQLJ Translator

Oracle Enterprise Java Engine

Oracle Enterprise Java Engine is an enterprise-class 100% Java-compatible server environment that supports Enterprise JavaBeans, CORBA, and database stored procedures. Oracle Enterprise Java Engine achieves high scalability through its unique architectural design, which minimizes the burden and complexity of memory management when the number of users increases.

Oracle HTTP Server

Oracle9i Application Server uses the Oracle HTTP Server, which is built on Apache Web server technology. Oracle HTTP Server offers scalability, stability, speed, and extensibility. It also supports Java Servlets, JavaServer Pages, Perl, PL/SQL, and CGI applications. This component also includes the following sub-components:

- Apache JServ
- Apache SOAP
- BC4J
- Dynamic Monitoring System (DMS)
- HiAv Infrastructure or `mod_oprocmgr`
- `mod_fastcgi`
- `mod_jserv`
- `mod_mm`
- `mod_ose`
- `mod_plsql`

- `mod_perl`, Perl Interpreter
- `mod_ssl`
- Object Cache Service for Java (OCS4J)
- OCS4J JSP Tags
- Oracle JSP

Oracle Internet File System

Oracle Internet File System is a file system and development platform that stores files in an Oracle database. It provides a mechanism for creating, storing, and managing various types of information, from Web pages to email, from spreadsheets to XML files, in a common repository for users to access and update.

Oracle LDAP Client Kit

LDAP (Lightweight Directory Access Protocol) is the emerging Internet standard for directory services. Oracle LDAP Client Kit supports client interaction with any LDAP-compliant directory server; for example, Oracle Internet Directory. The toolkit provides tools and development libraries to support client calls to directory services, encrypted connections, and enables you to manage your directory data.

Oracle Management Server

Oracle Management Server provides distributed control between the database and Oracle9i Application Server in the network. As a central engine for notifications, it processes all system management tasks and administers the distribution of these tasks across the enterprise. Ensure that you do not have multiple Oracle Management Servers installed on a single machine.

Oracle XML Developer Kit

The Oracle XML Developer Kit (XDK) contains the necessary XML components libraries and utilities to give developers the ability to easily XML-enable applications and Web sites. Oracle XDK supports development in Java, C, C++, and PL/SQL with a collection of libraries, command-line utilities, and tools.

Supplemental Components

The following is a list of the supplemental components that are available with Oracle9i Application Server, version 1.0.2.2.2:

See Also: [Appendix C, "Installing Supplemental Components"](#) for overview and installation instructions.

- [Oracle9iAS Email](#)
- [Oracle9iAS Unified Messaging](#)
- [Oracle9iAS InterConnect](#)
- [Oracle Gateways](#)
- [Oracle Internet Directory](#)
- [Oracle Workflow](#)

Preinstallation Tasks

The preinstallation tasks for Oracle9i Application Server are divided into the following parts.

- [Installation Overview](#)
- [Setting Environment Variables](#)
- [Creating UNIX Accounts and Groups](#)
- [Migration](#)
- [Port Allocation](#)
- [Completing Preinstallation for Specific Installation Options](#)

Installation Overview

This section provides an overview of the installation process. Before installing Oracle9i Application Server, review the Release Notes and Release Notes Addendum. You can find the Release Notes Addendum on OTN at:

<http://otn.oracle.com>

The Oracle9i Application Server installation process is divided into the following three phases:

- [Preinstallation](#)
- [Installation](#)
- [Postinstallation](#)

Preinstallation

During the first phase of installation, the users completes the following tasks:

- Setting environment variables such as ORACLE_HOME, ORACLE_TERM, DISPLAY, TMP, and TNS_ADMIN.
- Creating UNIX accounts and groups
- Performing component-specific preinstallation tasks on the middle tier, and origin database.
- Launching the Oracle Universal Installer to begin the installation process.

Installation

During the second phase, the Oracle Universal Installer guides the user through the installation screens. Depending on the install type, the user will require the information listed in [Table 2-2](#).

Table 2-2 *Installation Information*

Component	Core Edition	Minimal Edition	Standard Edition	Enterprise Edition
Oracle home directory	x	x	x	x
UNIX group name	x	x	x	x
OSDBA group			x	
OSOPER group			x	
Origin database hostname		x	x	x
Origin database port number		x	x	x
Origin database SID		x	x	x
Set user name for Oracle9iAS Wireless schema on the origin database		x	x	x
Set password for Oracle9iAS Wireless schema on the origin database		x	x	x
SYS password for the origin database		x	x	x
SYSTEM password for the origin database		x	x	x
SYSDBA user name for the origin database				x
SYSDBA password for the origin database				x
Oracle EJE database global name			x	
Oracle EJE database SID			x	

During installation, the user has the following configuration options:

- Select components to configure and automatically start during installation. This option makes pre-selected components ready to use after installation. The user does not have to run all the configuration assistants, populate the origin database with configuration data, nor start the individual components.
- Select components to configure at a later time. This option installs all of the files for the components, but does not configure them. After installation, the user has the option of manually launching the configuration assistants to enable the corresponding components.

If you are installing Enterprise Edition, the components are installed into two Oracle homes. The first Oracle home contains components that use the 8.1.7 database libraries. The other Oracle home contains components that use the 8.0.6 database libraries. The installer will prompt you to enter a path for both Oracle homes.

Postinstallation

During the final phase of the installation process, the user is provided with the following information:

- Running environment scripts
- Component-specific tasks
- Starting and stopping components
- Component Web sites to verify installation
- Component port numbers
- List of additional documentation, such as component-specific administration and configuration guides.

Setting Environment Variables

The following environment variables must be set before starting the installer.

Note: Be sure your `PATH`, `LD_LIBRARY_PATH`, and `CLASSPATH` does not exceed 1,024 bytes as that might generate errors such as “Word too long” during installation.

ORACLE_HOME

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

Oracle9i Application Server cannot share the same Oracle home with other Oracle products. If you have installed other Oracle products, then Oracle9i Application Server must be installed in a different Oracle home. If previously-set Oracle homes exist on the machine where you are installing Oracle9i Application Server on, then refer to ["Preventing Conflicts Between ORACLE_HOMES"](#) below.

Note: Be sure not to install Oracle9i Application Server in an Oracle home containing other Oracle products, including the database. Such an installation could overwrite shared components, causing the products to malfunction. For migration or upgrade issues, refer to the *Oracle9i Application Server Migration Guide*

Preventing Conflicts Between ORACLE_HOMES

To prevent a conflict between the software in an existing Oracle home and Oracle9i Application Server, you must remove all references to the existing Oracle home. The following steps describe removing these references.

1. Unset your existing Oracle home variable by using the following command.

C shell	Bourne/Korn shell
<code>prompt> unsetenv ORACLE_HOME</code>	<code>prompt> export ORACLE_HOME=</code>

2. Edit your `PATH`, `CLASSPATH`, and `LD_LIBRARY_PATH` environment variables so they do not use the existing Oracle home value.

Setting ORACLE_HOME

To set ORACLE_HOME environment variable, run the following command.

C shell	Bourne/Korn shell
prompt> setenv ORACLE_HOME <i>full_path</i>	prompt> export ORACLE_HOME= <i>full_path</i>

ORACLE_TERM

ORACLE_TERM specifies the terminal definition resource file to be used with the installer. If ORACLE_TERM is not set, then the installer uses the value of the UNIX environment variable TERM and searches for an equivalent ORACLE_TERM resource file.

C shell	Bourne/Korn shell
prompt> setenv ORACLE_TERM <i>term_value</i>	prompt> export ORACLE_TERM= <i>term_value</i>

[Table 2-3](#) lists common ORACLE_TERM settings on SUN SPARC Solaris 2.x.

Table 2-3 ORACLE_TERM value

Terminal	ORACLE_TERM value
ANSI terminal for SCO	ansi
AT386 console	386
AT386 xterm	386x
UNIXWARE terminal	386u
Solaris x86 xterm	386s
Data General 200	dgd2
Data General 400	dgd4
IBM High Function terminal and aixterm (monochrome)	hft
IBM High Function terminal and aixterm (color)	hftc
hpterm terminal emulator and HP 700/9x terminal	hpterm
IBM 3151 terminal	3151 (for IBM)
NCD X terminal with vt200 style keyboard	ncd220
cmdtool/shell using a type 4 keyboard	sun

Table 2–3 ORACLE_TERM value

Terminal	ORACLE_TERM value
cmdtool/shell using a type 5 keyboard	sun5
vt100 terminal	vt100
vt200 terminal	vt200
Wyse 50 or 60 terminal	wy50
Wyse 150 terminal	wy150
xterm using a type 4 keyboard	xsun
xterm using a type 5 keyboard	xsun5

DISPLAY

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

Note: A PC X emulator can be used to run the install if it supports a PseudoColor color model or PseudoColor visual. Set the PC X emulator to use a PsuedoColor 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	<code>prompt> setenv DISPLAY hostname:0.0</code>	<code>prompt> xhost +server_name</code>
Borne or Korn shell	<code>prompt> export DISPLAY=hostname:0.0</code>	<code>prompt> xhost +server_name</code>

TMP

During installation, Oracle Universal Installer uses a temporary directory for swap space. This directory must meet the "[Hardware Requirements](#)" listed on page 1-2 before installing Oracle9i Application Server. The installation may fail if you do not have sufficient space. The installer checks for the `TMP` environment variable to locate the temporary directory. If this environment variable does not exist, then the installer uses the `/tmp` directory. The following are instructions for setting the `TMP` environment variable.

C shell	Bourne/Korn shell
<code>prompt> setenv TMP full_path</code>	<code>prompt> export TMP=full_path</code>

TNS_ADMIN

`TNS_ADMIN` points to the directory where Net8 configuration files are stored.

If `TNS_ADMIN` is set on your system, you will have conflicts between that directory and the directory where the Oracle9i Application Server Net8 configuration files are created. You will also have conflicts if the configuration files are in a common directory outside of the Oracle home for your other Oracle product. For example, your system may use `/var/opt/oracle/tnsnames.ora` for database aliases.

To prevent conflicts between the Net8 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 product and unset `TNS_ADMIN` using the following command.

C shell	Bourne/Korn shell
<code>prompt> unsetenv TNS_ADMIN</code>	<code>prompt> export TNS_ADMIN=</code>

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

Use the `admintool` or `groupadd` utility to create a group named `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.

UNIX Account to Own Oracle Software

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

Create an `oracle` account with the properties listed in [Table 2-4](#).

Table 2-4 Oracle Account Properties

Variable	Property
Login Name	Choose any name to access the account. This document refers to the name as the <code>oracle</code> account.
Group Identifier	The <code>oinstall</code> group.
Home Directory	Choose a home directory consistent with other user home directories. The home directory of the <code>oracle</code> account does not have to be the same as the <code>ORACLE_HOME</code> directory.
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 use `root` as the `oracle` account.

UNIX Group Names for Privileged Groups

Two groups, the database operator group and the database administrator group, are required for installation. Oracle documentation refers to these groups as OSOPER and OSDBA, respectively. Databases use these groups for operating system authentication. This is necessary in situations where the database is shutdown and database authentication is unavailable.

The privileges of these groups are given to either a single UNIX group or two corresponding UNIX groups. There are two ways to choose which group(s) get the privileges:

- If the `oracle` account is a member of the `dba` group before starting the installer, then `dba` is given the privileges of both OSOPER and OSDBA.
- If the `oracle` account is not a member of the `dba` group, then the installer will prompt you for the group name(s) that get these privileges.

The following table lists the privileges for the OSOPER and OSDBA groups.

Group	Privileges
OSOPER	Permits the user to perform STARTUP, SHUTDOWN, ALTER DATABASE OPEN/MOUNT, ALTER DATABASE BACKUP, ARCHIVE LOG, and RECOVER, and includes the RESTRICTED SESSION privilege.
OSDBA	Contains all system privileges with ADMIN OPTION, and the OSOPER role; permits CREATE DATABASE and time-based recover.

Migration

If you are migrating from a previous version of Oracle9i Application Server, including version 1.0.2.1, review the *Oracle9i Application Server Migration Guide*.

Port Allocation

Oracle9iAS Database Cache

Oracle9i Application Server installs another database that listens on port 1521. This is so only if you install Enterprise Edition and configure Oracle9iAS Database Cache. To avoid port conflicts, change the port for the origin database listener to be, for example, 1526.

Oracle HTTP Server

Oracle HTTP Server does not have a set port number that the server listens on. By default, the server will listen for non-SSL requests on port 7777, but if that port is in use, then the installer will search for unoccupied port numbers starting from port 7778. Similarly, if port 443 is in use, then the installer will search for unoccupied port numbers starting from port 4443 for SSL requests.

A file named `setupinfo.txt` is automatically generated in `ORACLE_HOME/Apache/Apache`. This file is generated at install time, and is not updated thereafter. If the user restarts Oracle HTTP Server, the information in `setupinfo.txt` becomes inaccurate.

`setupinfo.txt` displays the port number information in the following format:

```
The HTTP Server can be accessed using the following URLs:
Non SSL Mode (executed at install time):
http://machine_name:7778
SSL mode: (executed at install time)
http://machine_name:80
https://machine_name:443
```

Completing Preinstallation for Specific Installation Options

After setting the environment variables and creating UNIX accounts and groups, complete version-specific preinstallation tasks for the Oracle9i Application Server.

The following list directs you to the installation option that you have license to:

- [Core Edition](#) on page 2-19
- [Minimal Edition](#) on page 2-19
- [Standard Edition](#) on page 2-20
- [Enterprise Edition](#) on page 2-23

Core Edition

Core Edition does not require any preinstallation tasks.

You have completed the preinstallation tasks for the Oracle9i Application Server. Proceed to "[About Oracle Universal Installer](#)" on page 2-32 to start the installer.

Minimal Edition

Minimal Edition does not require any preinstallation tasks.

Origin Database Connectivity

Oracle9i Application Server requires an active database connection. The installer uses this connection to add database objects to the origin database. The origin database is the original and primary storage for your data and is typically located on a database server tier.

You have completed the preinstallation tasks for the Oracle9i Application Server. Proceed to "[About Oracle Universal Installer](#)" on page 2-32 to start the installer.

Standard Edition

Perform preinstallation tasks for the following Standard Edition component:

- [Oracle Internet File System](#)

Oracle Internet File System

Perform the following tasks on the origin database to set database parameters for Oracle Internet File System:

Installation of Oracle Internet File System requires reconfiguration of specific database parameters on the origin database.

1. Before changing any parameters, shut down the network listener, interMedia Text servers, and the database.

See Also: *Oracle8i Installation Guide* in the Oracle Database Documentation Library

Set the following Oracle initialization parameters to the values specified. These parameters are contained in the `initSID.ora` file in the `ORACLE_HOME/admin/global_database_name/pfile` directory.

Note: This configuration file may be located in a different directory depending on how the database was installed.

- a. Set the value for `open_cursors` to at least 255.
- b. Set the value for `shared_pool_size` at least 50 MB.
- c. Set the value for `processes` to at least 200.
- d. Make sure there is at least one online non-system rollback segment.

To verify that there is at least one online non-system rollback segment, connect to Oracle as the `SYS` user with `SQL*Plus` and execute the following SQL statement:

```
SQL> SELECT segment_name, tablespace_name, status
       FROM dba_rollback_segs;
```


This will result in output that looks like the following table.

Table 2-5 *dba_rollback_segs* Output

SEGMENT_NAME	TABLESPACE_NAME	STATUS
SYSTEM	SYSTEM	ONLINE
PUBLIC_RS	SYSTEM	ONLINE
USERS_RS	USERS	ONLINE

In this example, `USERS_RS` is an online non-system rollback segment. To ensure that the rollback segment is always online after a database startup, include the following line in the `initSID.ora` file:

```
rollback_segments = (rbs_name1, . . . , rbs_nameX)
```

See Also: *Oracle8i Administrator's Guide* in the Oracle Database Documentation Library

2. Configure the Solaris environment to accommodate the database. To do this, edit the `/etc/system` file and modify the following variables:
 - Set `SEMMSL` to 10 plus the largest `init.ora` parameter, `PROCESSES` of any Oracle database on the machine.
 - Set `SEMMNS` to the sum of the `PROCESSES` parameter for each Oracle database, adding the largest one twice, then add an additional 10 for each database.

Note: After modifying the `/etc/system` file, you must restart your Solaris system, to reflect the reconfigure information.

For more information, refer to *Oracle8i Installation Guide*.

3. Restart the network listener and database.
4. Execute the following SQL statement:

```
SQL> SELECT name, value FROM v$parameter WHERE name = 'open_cursors';
```

You should see the `open_cursors` value you entered in the `initSID.ora` file in step 2.

See Also: *Oracle8i Administrator's Guide* in the Oracle Database Documentation Library

Origin Database Connectivity

Oracle9i Application Server requires an active database connection. The installer uses this connection to add database objects to the origin database. The origin database is the original and primary storage for your data and is typically located on a database server tier.

You have completed the preinstallation tasks for the Oracle9i Application Server. Proceed to "[About Oracle Universal Installer](#)" on page 2-32 to start the installer.

Enterprise Edition

Perform preinstallation tasks for the following Enterprise Edition components:

- [Oracle9iAS Web Cache](#)
- [Oracle9iAS Database Cache](#)
- [Oracle Internet File System](#)

Oracle9iAS Web Cache

For TCP/IP performance tuning tips for the computer running Oracle9iAS Web Cache, refer to *Oracle HTTP Server powered by Apache Performance Guide* available on your product CD.

Oracle9iAS Database Cache

Perform the following preinstallation tasks for Oracle9iAS Database Cache on the origin database machine:

- [Synchronize the Origin Database Name with its SID](#)
- [Allow Remote Access to the Origin Database](#)
- [Configure the Listener for External Procedures](#)

Synchronize the Origin Database Name with its SID

To use Oracle9iAS Database Cache, the name of your origin database and its System Identifier (SID) must be the same. You can see both the name and SID by executing the following commands in SQL*Plus when logged on as the `sys` user:

```
SQL> select value from v$parameter where name = 'db_name';  
SQL> select instance_name from v$instance;
```

If these values are different, then you must perform the following steps on the origin database machine to change the SID:

1. Shut down the origin database and listener.

See Also: *Oracle8i Installation Guide* and *Oracle8i Administrator's Guide* in the Oracle Database Documentation Library for information on shutting down the origin database and listener.

2. Change the value of the `ORACLE_SID` environment variable to the new value. This new value must match the origin database name.

3. Rename the `initSID.ora` and `orapwSID` files to use the new `SID`.
4. Change the `listener.ora` and `tnsnames.ora` files to use the new `SID`.
5. Restart the network listener and database.

Allow Remote Access to the Origin Database

To allow remote access by Oracle9iAS Database Cache to the origin database, perform the following steps:

1. Edit the initialization file (`initSID.ora`) of the origin database. If the file contains the `REMOTE_LOGIN_PASSWORDFILE` parameter, then make sure that the value equals `SHARED` or `EXCLUSIVE`. Oracle9iAS Database Cache can use either value. If the parameter is already set to either `SHARED` or `EXCLUSIVE`, then you do not need to change the value.
 - **EXCLUSIVE:** The password file can be used by only one database and the password file can contain user names other than `SYS` and `INTERNAL`.
 - **SHARED:** The password file can be used by more than one database. However, the only user names recognized by the password file are `SYS` and `INTERNAL`.

If the file does not contain the entry, then add it to the file, specifying either `SHARED` or `EXCLUSIVE` as the value. For example, to specify `EXCLUSIVE`, add the following entry to the file:

```
REMOTE_LOGIN_PASSWORDFILE=EXCLUSIVE
```

The `initSID.ora` file is in the `ORACLE_HOME/database` directory for of the origin database.

Check if a password file exists for the database. The file is named `pwdSID.ora`, where `SID` is the system identifier of the origin database.

2. If you change the parameter, stop and restart the origin database.
3. If the file does not exist, create the password file using the `orapwd` utility with the following commands:

```
prompt> orapwd file=orapwSID password=syspw entries=maxRemUsers
```

There are no spaces around the equal sign (`=`). The parameters have the following meanings:

- **FILE:** The full path name of the password file. The contents of this file are encrypted, and the file is not user-readable. This parameter is mandatory.

The types of file names allowed for the password file are operating system specific. Some platforms require the password file to be a specific format and located in a specific directory. Other platforms allow the use of environment variables to specify the name and location of the password file. See your operating system-specific Oracle documentation for the names and locations allowed on your platform.

- **PASSWORD:** The password of the user SYS for the origin database. This parameter sets the password for SYSOPER and SYSDBA. If you issue the ALTER USER statement to change the password after connecting to the origin database, both the password stored in the data dictionary and the password stored in the password file are updated.
- **ENTRIES:** The maximum number of users allowed for remote connections. This value must be greater than the number of Oracle9iAS Database Cache nodes that will connect to the origin database.

Configure the Listener for External Procedures

You must configure the listener for the origin database so that it listens for external procedure calls. Perform the following test to check for existing external procedure listener:

To test if you have an external procedure listener, you need to do a tns ping on EXTPROC_CONNECTION_DATA from the origin database. The command is:

```
prompt> tns ping EXTPROC_CONNECTION_DATA
```

- a. If you see the following message, then there is an existing external procedure listener on the origin database. You can skip to Step 7.


```
TNS Ping Utility for Solaris: Version 8.1.7.0.0. - Production on
13-APR-2001 09:09:19
(c) Copyright 1997 Oracle Corporation. All rights reserved.
Attempting to contact (ADDRESS= (PROTOCOL=IPC) (KEY=EXTPROC))
OK (102 msec)
```
- b. If you see the following message, then an external procedure listener does not exist on the origin database.

```
TNS Ping Utility for Solaris: Version 8.1.7.0.0. - Production on
13-APR-2001 09:09:19
(c) Copyright 1997 Oracle Corporation. All rights reserved.
```

```
TNS-03505: Failed to resolve name
```

Perform the following steps to configure an external procedure listener:

1. Edit the `tnsnames.ora` file for the origin database by adding an entry that enables you to connect to the listener process (and subsequently, the `extproc` process). For example, add the following entry to the `tnsnames.ora` file:

```
EXTPROC_CONNECTION_DATA.US.ORACLE.COM=
  (DESCRIPTION=
    (ADDRESS_LIST=
      (ADDRESS= (PROTOCOL=IPC) (KEY=EXTPROC0))
    )
    (CONNECT_DATA=
      (SID=PLSExtProc)
      (PRESENTATION= RO)
    )
  )
```

Verify the following:

- The service name must be “`EXTPROC_CONNECTION_DATA`”. (Note that the domain name can be set to any value appropriate for your network.)
- The `ADDRESS_LIST` contains an `ADDRESS` entry setting “(PROTOCOL = IPC)”.

Make a note of the `KEY` value (in this example, it is “`EXTPROC0`”). All `KEY` values defined by different services within the listener must be unique. Also make a note of the `SID` value (in his example, it is “`PLSExtProc`”). These values must match the `KEY` and `SID_NAME` value, respectively, in the corresponding entry in the `listener.ora` file.

2. Edit the `listener.ora` file for the origin database and add the following entries for the external procedure listener:

```
LISTENER=
  (DESCRIPTION_LIST=
    (DESCRIPTION=
      (ADDRESS_LIST=
        (ADDRESS= (PROTOCOL= TCP) (HOST = my_hostname) (PORT = 1521))
      )
      (ADDRESS_LIST=
        (ADDRESS= (PROTOCOL= IPC) (KEY=EXTPROC0))
      )
    )
  )
```

Verify the following:

- The ADDRESS_LIST contains an ADDRESS entry setting “(PROTOCOL = IPC)”.
- The ADDRESS_LIST containing “(PROTOCOL = IPC) “has a key value which is the same KEY value from the tnsnames.ora file. In this example, the key value is “EXTPROC0”.

Make a note of the name of the listener that will be used for external procedures. In this example, the listener name is “LISTENER”.

3. Edit the listener.ora file and verify that there is a SID for external procedure listener in the listener’s SID_LIST.

```
SID_LIST_LISTENER=
  (SID_LIST=
    (SID_DESC=
      (SID_NAME=PLSExtProc)
      (ORACLE_HOME=/dsk1/oracle/rdbms/OraHome)
      (PROGRAM=extproc)
    )
    ...
  (SID_DESC =
    (GLOBAL_DBNAME = global_DBname)
    (ORACLE_HOME = /dsk1/oracle/rdbms/OraHome)
    (SID_NAME = ias)
  )
)
```

Verify the following:

- The SID_LIST contains an entry with a SID_NAME that is the same as the SID noted in Step 1. In this example, the SID is “PLSExtProc”.
- The ORACLE_HOME value for this entry is set to the ORACLE_HOME for the origin database.
- The PROGRAM value for this entry is “extproc”.

4. Edit the `listener.ora` file and verify that there is a SID for external procedure listener in the listener's `SID_LIST`.

```
SID_LIST_LISTENER=
  (SID_LIST=
    (SID_DESC=
      (SID_NAME=PLSExtProc)
      (ORACLE_HOME=/dsk1/oracle/rdbms/OraHome)
      (PROGRAM=extproc)
    )
    ...
  (SID_DESC =
    (GLOBAL_DBNAME = global_DBname)
    (ORACLE_HOME = /dsk1/oracle/rdbms/OraHome)
    (SID_NAME = ias)
  )
)
```

Verify the following:

- The `SID_LIST` contains an entry with a `SID_NAME` that is the same as the SID noted in Step 1. In this example, the SID is “`PLSExtProc`”.
 - The `ORACLE_HOME` value for this entry is set to the `ORACLE_HOME` for the origin database.
 - The `PROGRAM` value for this entry is “`extproc`”.
5. Restart the listener if you have made any changes to the configuration files. If the listener name you noted in step 2 is anything other than “`LISTENER`”, then you will need to start and stop that specific listener. In the following example, the listener name is “`LISTENER`”.

```
prompt> lsnrctl stop listener
prompt> lsnrctl start listener
```

6. The `extproc` process spawned by the listener inherits the operating system privileges of the listener. So Oracle Corporation strongly recommends that you restrict the privileges for the separate listener process. The process should not have permission to read or write to database files. The owner of this separate process should not be the `oracle` user (which is the default owner of the server executable and database files). Start the listener from a user account that does not have permission to read or write to database files or the Oracle server address space.

7. If not already installed, place the `extproc` executable in the `bin` directory under the `ORACLE_HOME` of the origin database.
8. Minimum configuration for `sqlnet.ora`:

```
NAMES.DEFAULT_DOMAIN = your.Domain.Name
NAMES.DIRECTORY_PATH= (TNSNAMES, ONAMES, HOSTNAME)
```

Oracle Internet File System

Perform the following tasks on the origin database machine to set database parameters for Oracle Internet File System:

Installation of Oracle Internet File System requires reconfiguration of specific database parameters on the origin database.

1. Before changing any parameters, shut down the network listener, interMedia Text servers, and the database.

See Also: *Oracle8i Installation Guide* in the Oracle Database Documentation Library

Set the following Oracle initialization parameters to the values specified. These parameters are contained in the `initSID.ora` file in the `ORACLE_HOME/admin/global_database_name/pfile` directory.

Note: This configuration file may be located in a different directory depending on how the database was installed.

- a. Set the value for `open_cursors` to at least 255.
- b. Set the value for `shared_pool_size` at least 90 MB.
- c. Set the value for `processes` to at least 200.
- d. Make sure there is at least one online non-system rollback segment.

To verify that there is at least one online non-system rollback segment, connect to Oracle as the `SYS` user with `SQL*Plus` and execute the following SQL statement:

```
SQL> SELECT segment_name, tablespace_name, status
       FROM dba_rollback_segs;
```

This will result in output that looks like the following table.

Table 2–6 dba_rollback_segs Output

SEGMENT_NAME	TABLESPACE_NAME	STATUS
SYSTEM	SYSTEM	ONLINE
PUBLIC_RS	SYSTEM	ONLINE
USERS_RS	USERS	ONLINE

In this example, `USERS_RS` is an online non-system rollback segment. To ensure that the rollback segment is always online after a database startup, include the following line in the `initSID.ora` file:

```
rollback_segments = (rbs_name1, .... , rbs_namex)
```

See Also: *Oracle8i Administrator's Guide* in the Oracle Database Documentation Library.

2. Configure the Solaris environment to accommodate the database. To do this, edit the `/etc/system` file and modify the following variables:
 - Set `SEMMSL` to 10 plus the largest `init.ora` parameter, `PROCESSES` of any Oracle database on the machine.
 - Set `SEMMNS` to the sum of the `PROCESSES` parameter for each Oracle database, adding the largest one twice, then add an additional 10 for each database.

Note: After modifying the `/etc/system` file, you must restart your Solaris system, to reflect the reconfigured information.

For more information, refer to *Oracle8i Installation Guide*.

3. Restart the network listener and database.

4. Execute the following SQL statement:

```
SQL> SELECT name, value FROM v$parameter WHERE name = 'open_cursors';
```

You should see the `open_cursors` value you entered in the `initSID.ora` file in step 2.

See Also: *Oracle8i Administrator's Guide* in the Oracle Database Documentation Library

Origin Database Connectivity

Oracle9i Application Server requires an active database connection. The installer uses this connection to add database objects to the origin database. The origin database is the original and primary storage for your data and is typically located on a database server tier.

You have completed the preinstallation tasks for the Oracle9i Application Server. Proceed to "[About Oracle Universal Installer](#)" on page 2-32 to start the installer.

About Oracle Universal Installer

Oracle9i Application Server uses Oracle Universal Installer to configure environment variables and to install components. The installer guides you through each step of the installation process, so you can choose configuration options for a customized product.

The installer includes features that perform the following tasks:

- Explore and provide installation options for products
- Detect pre-set environment variables and configuration settings
- Set environment variables and configuration during installation
- Deinstall products

oraInventory Directory

The installer creates the `oraInventory` directory the first time it is run on your machine. The `oraInventory` directory keeps an inventory of products that the installer installs on your machine 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 specified, it grants that 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 will fail.
- Be sure the user running the installer has permission to write to the `oraInventory` directory and all its files so that you are allowed to run the installer.
- The location of `oraInventory` is defined in `/var/opt/oracle/oraInst.loc`.
- The latest log file is `oraInventory_location/logs/installActions.log`. Log file names of previous installation sessions take the form `installActionsdatetime.log`.
- 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.



Starting Oracle Universal Installer

Follow these steps to launch Oracle Universal Installer, which installs Oracle9i Application Server:

1. Stop all Oracle processes and services (for example, the Oracle database).
2. Mount the installation CD-ROM.

The Oracle Product Installation CD-ROM is in RockRidge format. If you are using the Solaris Volume Management software (installed by default in Sun SPARC Solaris), then the CD-ROM is mounted automatically to `cdrom/9ias_10222_disk1` when you insert it in the disk drive. To begin installation, insert the CD labelled Disk 1.

If you are not using the Solaris Volume Management software, then you must mount the CD-ROM manually. To manually mount or unmount the CD-ROM, you must have root privileges. Be sure to unmount the CD-ROM before removing it from the drive.

To manually mount Disk 1 CD-ROM, perform the following tasks:

- a. Insert the Oracle9i Application Server CD-ROM into the CD-ROM drive.
- b. Log in as the root user.
- c. Create the CD-ROM mount point directory.

```
prompt> mkdir mount_point
```

- d. Mount the CD-ROM drive on the mount point directory and exit the root account:

```
prompt> mount options device_name mount_point
prompt> exit
```

The following example mounts the CD-ROM manually on `/cdrom`, without using the Solaris Volume Management software. Execute the following commands as root user.

```
prompt> mkdir /cdrom
prompt> mount -r -F hsfs device_name /cdrom
prompt> exit
```

3. 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 Oracle9i Application Server.


- a. Log in as the `oracle` user.
- b. Start the installer by entering:

```
prompt> mount_point/9ias_10222_disk1/runInstaller
```

Note: Do not use `mount_point` as your working directory when you start the installer. If you do, then you will not be able to eject Disk 1 during the installation process to insert Disk 2.

This launches Oracle Universal Installer through which you can install Oracle9i Application Server.

The list below navigates you to installation instructions for the Oracle9i Application Server edition you are licensed to:

- For instructions for Core Edition installation, refer to [Chapter 3, "Core Installation"](#)
- For instructions for Minimal Edition installation, refer to [Chapter 4, "Minimal Edition"](#).
- For instructions for Standard Edition installation, refer to [Chapter 5, "Standard Edition"](#).
- For instructions for Enterprise Edition installation, refer to [Chapter 6, "Enterprise Edition"](#). 
- For instructions for Non-interactive installation, refer to [Chapter 7, "Non-Interactive Installation"](#).

Core Installation

This chapter guides you through the installation steps for the Core Edition of Oracle9i Application Server. The following topics provide detailed installation steps, and basic postinstallation tasks:

- [Installation](#)
- [Postinstallation](#)

Installation

The following instructions guide you through Oracle9iAS Core Edition install.

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

Figure 3–1 Welcome Screen



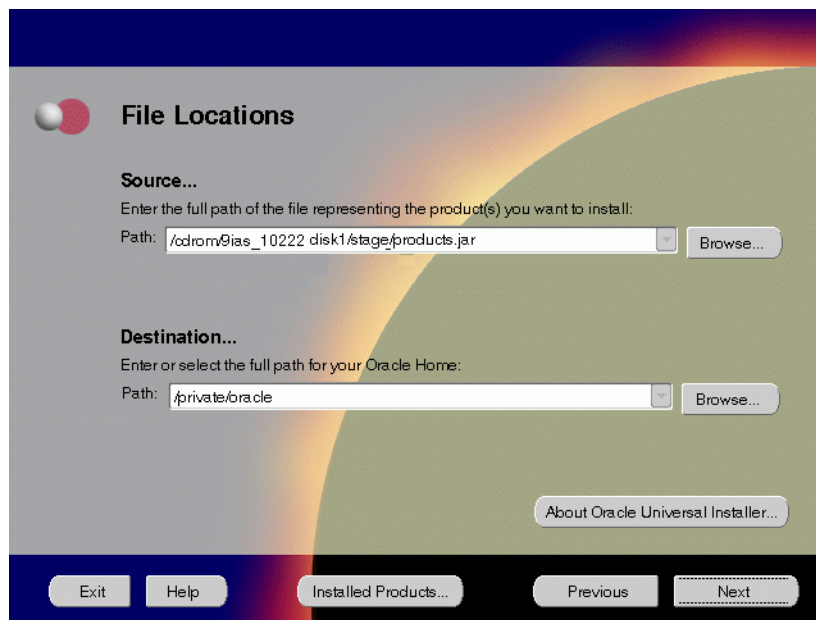
The Welcome screen provides information about the Oracle Universal Installer.

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 to deinstall the entire product or components.
- **Previous:** Return to the previous screen.
- **Next:** Move to the next screen.

2. Verify the source and destination paths and click **Next**. If you have not previously installed Oracle products on your machine, the “OraInventory Location screen” appears after you click **Next**. Enter the complete location path for `oraInventory` directory and click **OK**.

Figure 3–2 File Locations Screen



The File Locations screen allows you to enter the full path for the source and destination locations of Oracle9i Application Server.

- **Source:** This is the full path to the `products.jar` file from which the product will be installed. The installer detects and uses the default values of the `products.jar` file of the installation program. Do *not* change the path.
- **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.

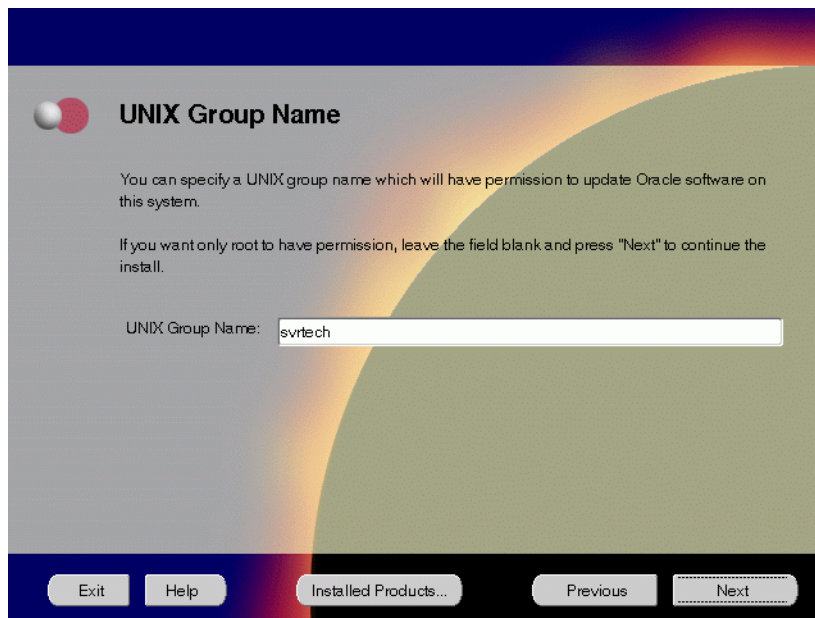
Note: Oracle home path must be a real, absolute path. It cannot contain symbolic links, environment variables, or spaces.

For more information regarding Oracle home, refer to "[ORACLE_HOME](#)" on page 2-12.

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

3. This screen appears only the first time you run Oracle Universal Installer on your machine. Take note of the default value if it appears. Enter a UNIX group name and click **Next**.

Figure 3–3 UNIX Group Name Screen



The UNIX Group Name screen grants permission for the `oraInventory` directory to the group specified. For more information, refer to ["UNIX Group Name for the Oracle Universal Installer Inventory"](#) on page 2-16.

UNIX Group Name:

- Enter a UNIX group name for those who have permission to configure all the functionality of Oracle9i Application Server. Verify your group name by entering this command from the UNIX prompt the installer was launched from:

```
prompt> id
```

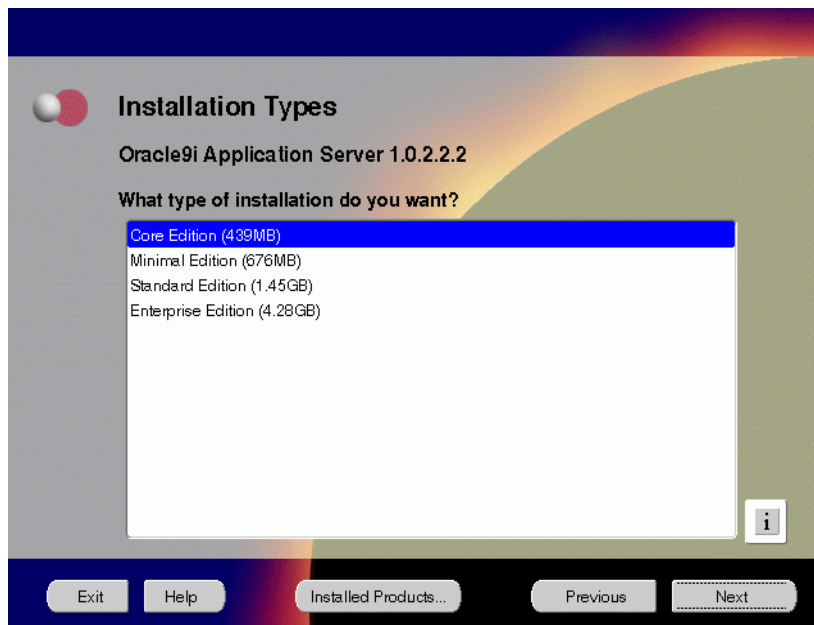
- Run the `oraInstRoot.sh` script from your Oracle home to grant permissions to the root user only. You must have root privileges to run this script. The script creates pointers to the components as the installer installs them in the system so that they can be identified later in the installation

procedure. It produces the `/var/opt/oracle/oraInst.loc` file, which provides a pointer to the `oraInventory` directory.

After you have run the script, click **Retry** to continue.

4. Select Core Edition and click **Next**.

Figure 3–4 *Installation Types Screen*

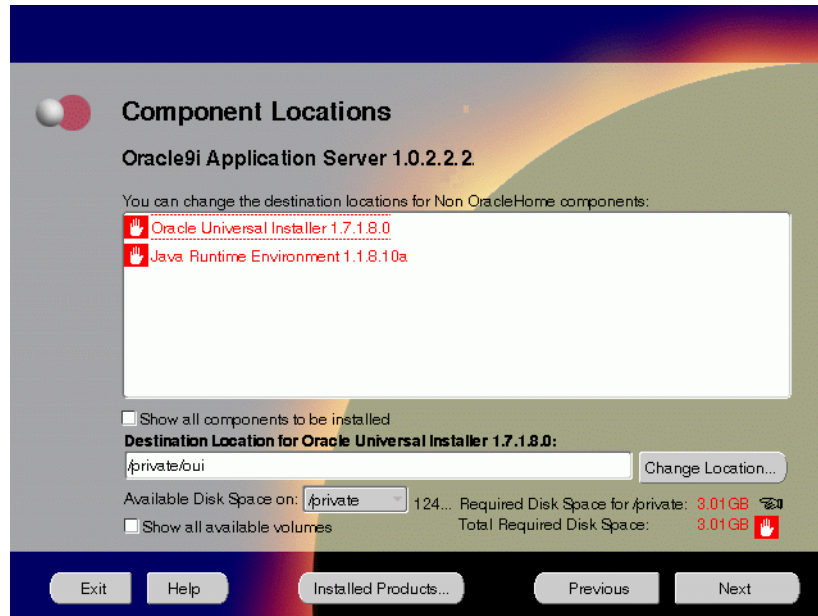


The Installation Types screen allows you to select the Oracle9i Application Server installation option that you are licensed to use.

- **Core Edition:** Oracle9iAS Containers for J2EE, Oracle9iAS Web Cache, and Oracle HTTP Server
- **Minimal Edition:** Installs Oracle9iAS Portal, Oracle9iAS Wireless, Oracle Enterprise Manager Client, and Oracle HTTP Server.
- **Standard Edition:** Installs Oracle9iAS Portal, Oracle9iAS Wireless, Oracle Enterprise Java Engine, Oracle Enterprise Manager Client, Oracle HTTP Server, and Oracle Internet File System.
- **Enterprise Edition:** Installs Oracle9iAS Database Cache, Oracle9iAS Discoverer, Oracle9iAS Forms Services, Oracle9iAS Portal, Oracle9iAS Reports Services, Oracle9iAS Web Cache, Oracle9iAS Wireless, Oracle Enterprise Java Engine, Oracle Enterprise Manager Client, Oracle HTTP Server, Oracle Internet File System, and Oracle Management Server.

5. This screen appears only if Oracle Universal Installer has detected insufficient disk space in the Oracle home directory. If needed, verify and change the locations of the components displayed on the screen, and click **Next**.

Figure 3–5 *Component Locations Screen*



The Component Locations screen allows you to select alternative locations for some components.

Note: Insufficient disk space is indicated in red with a hand icon next to it.

- **Show all components to be installed:** To view the complete list of components chosen for installation. Select check box to display component list.

Click individual components to view and change destination location path. The installer enables you to change the destination location of the components displayed on the screen.

- **Destination Location:** To view the full path of the selected component.
- **Change Location:** To browse for alternate locations for the selected component.
- **Available Disk Space:** To view available disk space in the current directory. The installer also provides information about the total disk space required for the installation of additional components.
- **Required Disk Space for *directory_name*:** To view the total disk space required for installation in the selected directory.
- **Total Required Disk Space:** To view the total disk space required for the product to be installed.
- **Show all available volumes:** To browse through file system for available disk space. Select check box to display the file system.

- This screen appears if the installer detects insufficient TMP space. Remove unneeded files from the swap directory to provide sufficient space for installation and click **Next**. If your swap space is smaller than 500 MB, click **Exit** and correct the problem.

Figure 3–6 *Insufficient Swap Space for Install Screen*



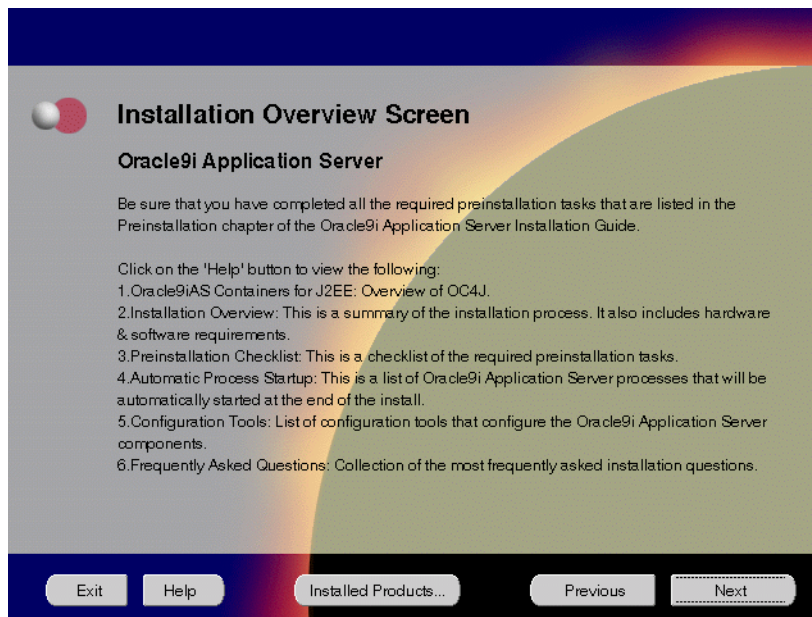
The Insufficient Swap Space for Install screen indicated inadequate space in the swap directory. You have two options:

- If you have more than 500 MB swap space, then remove unneeded files from your swap space to create room for installation and click **Next** to proceed.
- If you have less than 500 MB swap space, then **Exit** the installer and set TMP environment variable to point to a writable directory with sufficient space.

For detailed information on TMP directory, refer "[TMP](#)" on page 2-15.

7. Click the **Help** button to verify that all the preinstallation tasks have been performed, and then click **Next**.

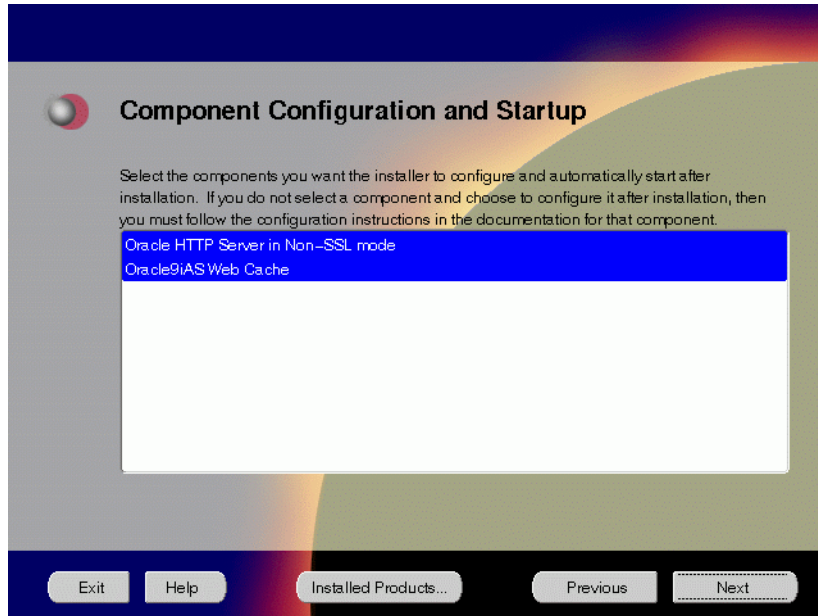
Figure 3–7 *Installation Overview Screen*



The Installation Overview screen gives you an overview of the installation process. Click on the **Help** button for information on the installation process, preinstallation checklist, automatic process startup, configuration tools, and frequently asked questions.

8. Select the components you wish to configure during the installation process and click **Next**. These components will automatically start up after installation. If you wish to configure the components later, do not select them.

Figure 3–8 Component Configuration and Startup Screen



The Component Configuration and Startup screen allows you to select the components that you want the installer to configure and start after installation. This screen offers two configuration options:

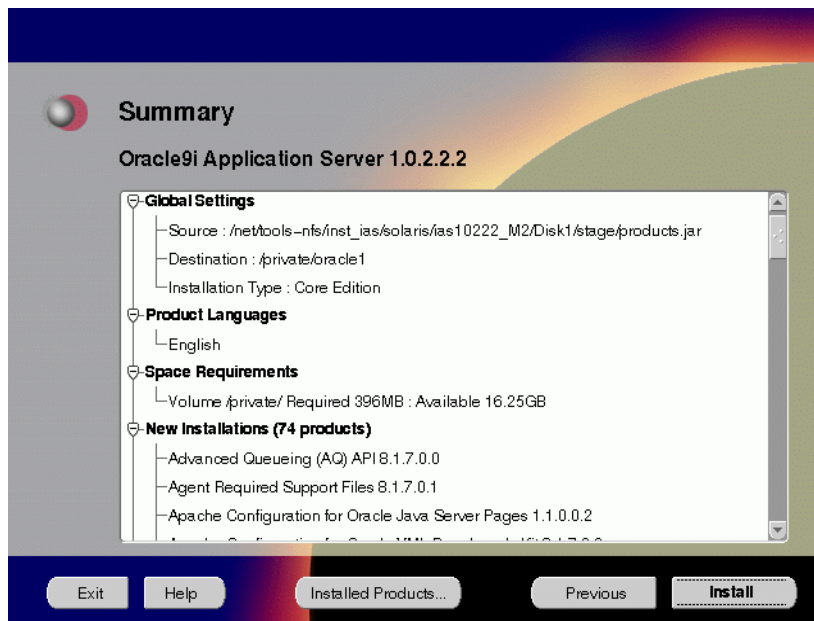
- If you select a component here, then the installer prompts you for any or all configuration information required by that component. After installation, the installer starts that component.
- If you de-select a component here, then the installer installs it, but does not configure or start it. later on, if you decide to use that component, then manually launch the configuration assistant to configure that component.

See Also: [Appendix A, "Configuration Tools"](#)

You can select or de-select multiple components by holding down the Control key while clicking on the component name.

9. Review the summary and click **Install** to begin the installation process.

Figure 3–9 Summary Screen



The Summary screen allows you to review all the settings before the actual installation process. These settings include source, destination, installation type, product language, space requirements, and a list of components.

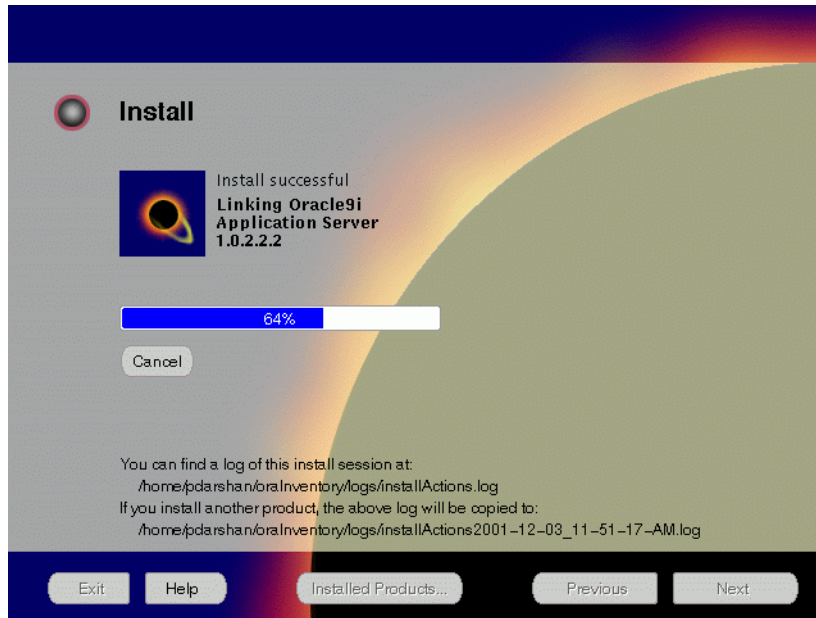
- To make changes to any of these settings, click **Previous** to return to the respective screens.

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

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

10. Monitor the installation process and after the installer finishes, click **Next**.

Figure 3–10 *Install Screen*



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

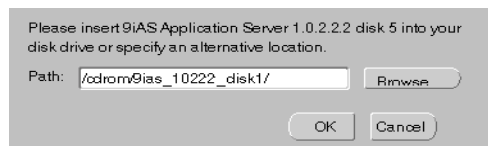
- **Cancel:** To discontinue the installation process. You can then choose to stop the installation of an individual component or the entire product.

For more information about installation log, refer to "[oraInventory Directory](#)" on page 2-32.

Changing Disks

During installation, the installer prompts you to switch between Disks 1 through 5. Use these steps to change disks and continue the installation process.

Figure 3–11 Changing Disks Dialog



- a. Eject and unmount the current disk.

If you are using Solaris Volume Management software and Disk1 was automatically mounted, then this can be done with the following command:

```
prompt> eject cdrom
```

If you are not using Solaris Volume Management software, then you must manually eject and unmount the disk. For further instructions, refer to your operating system documentation

- b. Insert the next disk into the CD-ROM drive and mount it.

If you are using the Solaris Volume Management software, then the next disk will be automatically mounted.

If you are not using Solaris Volume Management software, then you must manually mount the disk. For further instructions, refer to "[Starting Oracle Universal Installer](#)" on page 2-33.

- c. Click the **Browse** button on the changing disks dialog, and navigate to `/cdrom/9ias_10222_diskx`. This directory may be different depending on where the original disk was mounted.
- d. Click OK to continue the installation process.

Running `root.sh`

After installation is completed, the installer prompts you to run `root.sh` script. Use these steps to run the `root.sh` script.

- a. Log on as the root user.
- b. Go to the Oracle home directory.

```
prompt> cd ORACLE_HOME
```

- c. Run the `root.sh` script.

```
prompt> ./root.sh
```

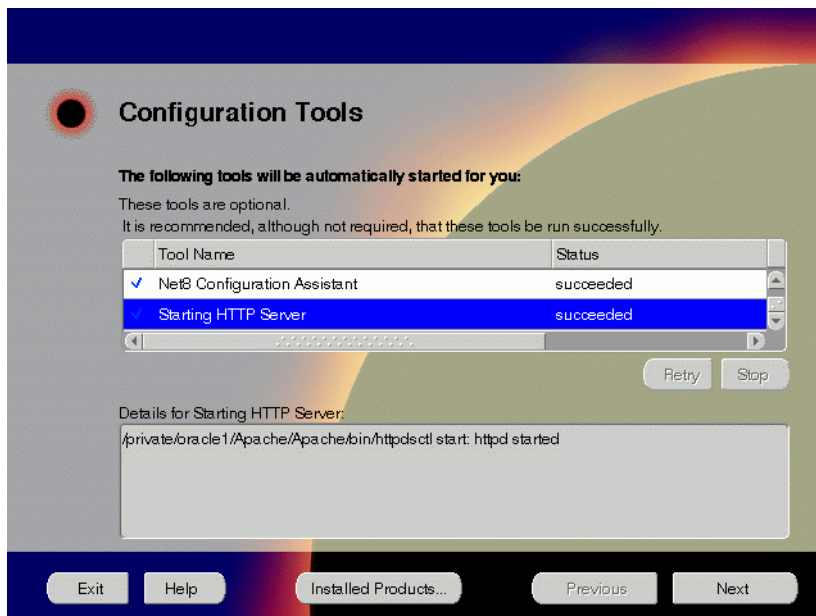
Once you see “Finished running generic part of the `root.sh` script” and “Now product-specific root actions will be performed,” exit root user and return to the Install screen.

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.

11. Verify the list of configuration tools and click **Next**. This screen appears only if you select components to configure and start in the Components Configuration and Startup screen.

Figure 3–12 Configuration Tools Screen



The Configuration Tools screen lists the configuration tools for all installed components.

Scroll down the 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.
- Displays all the configuration settings in the display window below as it executes a configuration tool for each component.
- Enables you to view configuration settings after all configuration tools are executed. Click on each component to review all the changes made.

- 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.
- **Retry**: To re-execute the configuration script if the configuration of a component fails.
- **Stop**: To quit the configuration process.

Configuration Tools

This installation option launches the following configuration tools:

Oracle9iAS Web Cache Configuration Assistant - This launches the service to start Oracle9iAS Web Cache.

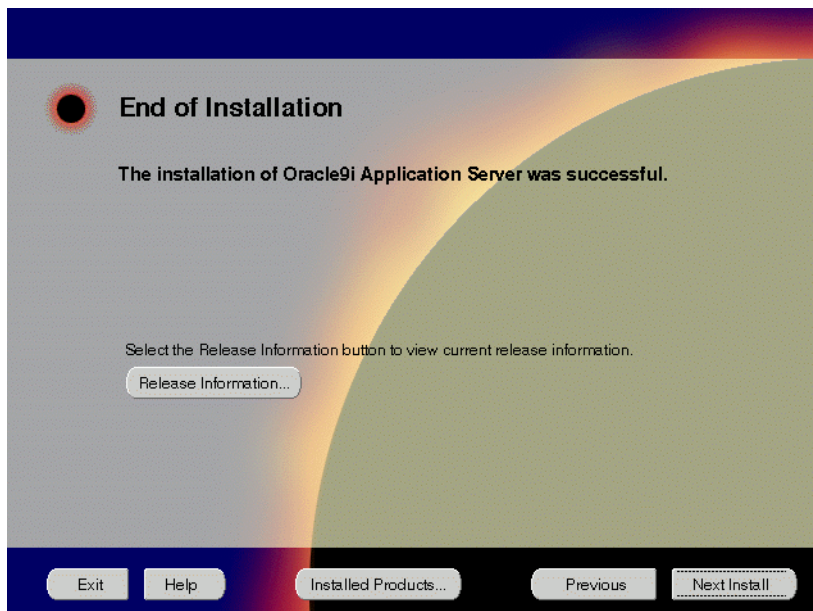
Net8 Configuration Assistant - This configuration assistant enables you to connect and configure the Oracle client/server network environment.

See Also: *Net8 Administrator's Guide* in the Oracle Database Documentation Library for information on running Net8 Configuration Assistant.

Starting HTTP Server - This starts Oracle HTTP Server.

12. Ensure that the installation was successful. Click **Exit** to quit the installer.

Figure 3–13 *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.

- **Release Information:** To view the latest release information.

If the installer detects that specific port numbers such as 7777, are occupied, it will display the alternate port numbers on the end of Installation screen. For Oracle HTTP Server port number information, refer to "[Port Allocation](#)" on page 2-17.

You have successfully installed the Core Edition of Oracle9i Application Server. Proceed to "[Postinstallation](#)" on page 3-20 to complete the installation process.

Postinstallation

The following instructions guide you through the basic postinstallation tasks for Oracle9i Application Server. Before performing these tasks, install, if needed, Oracle9i Application Server Client from the Oracle9i Application Server Administrative and Development Client CD included in the Oracle9i Application Server CD pack.

See Also: [Appendix B, "Installing Oracle9i Application Server Administrative and Development Client CD-ROM"](#)

The postinstallation contains the following sections:

- [Configuring Oracle9iAS Containers for J2EE](#)
- [Starting and Stopping Components](#)
- [Component Web Sites](#)
- [Component Port Numbers](#)
- [Additional Documentation](#)

Configuring Oracle9iAS Containers for J2EE

For Oracle9iAS Containers for J2EE (OC4J) installation and configuration information, refer to *Oracle9iAS Containers for J2EE Quick Reference Card* located in the Oracle9i Application Server Documentation Library.

Starting and Stopping Components

[Table 3–1](#) lists the commands needed to individually start and stop Oracle HTTP Server.

Table 3–1 Starting and Stopping Components

Component	Function	Command
Oracle9iAS Web Cache	Start	<code>ORACLE_HOME/webcache/bin/webcachectl start</code>
Oracle HTTP Server	Start	<code>ORACLE_HOME/Apache/Apache/bin/apachectl start</code>
	Stop	<code>ORACLE_HOME/Apache/Apache/bin/apachectl stop</code>
Oracle HTTP Server SSL-enabled	Start	<code>ORACLE_HOME/Apache/Apache/bin/apachectl startssl</code> (Log in as root user)
	Stop	<code>ORACLE_HOME/Apache/Apache/bin/apachectl stop</code> (Log in as root user)

Component Web Sites

[Table 3–2](#) lists Web sites for Oracle9i Application Server components.

Table 3–2 Component Web sites

Component	Web Site
Oracle9iAS Web Cache	<code>http://hostname.domain:4000</code> (Log on as administrator/administrator)
Oracle HTTP Server Oracle HTTP Server (SSL-enabled)	<code>http://hostname.domain:listener_port</code> <code>https://hostname.domain:listener_port</code>

Component Port Numbers

[Table 3-3](#) lists the default port numbers on which requests are received for each component.

Table 3-3 Port Numbers

Components	Port Number
Oracle9iAS Web Cache	1100
Oracle9iAS Web Cache Administration Port	4000
Oracle9iAS Web Cache Invalidation Port	4001
Oracle9iAS Web Cache Statistics Port	4002
Oracle HTTP Server	For information on port numbers, refer to " Port Allocation " on page 2-17.
Oracle HTTP Server (SSL-enabled)	
Oracle HTTP Server Jserv Servlet Engine	

Additional Documentation

For further information on postinstallation and configuration tasks, refer to component-specific documentation. For information on viewing and installing the documentation, refer to [Appendix E, "Installing Documentation Library"](#).

Minimal Edition

This chapter guides you through the installation steps for the Minimal Edition of Oracle9i Application Server. The following topics provide detailed installation steps, and basic postinstallation tasks:

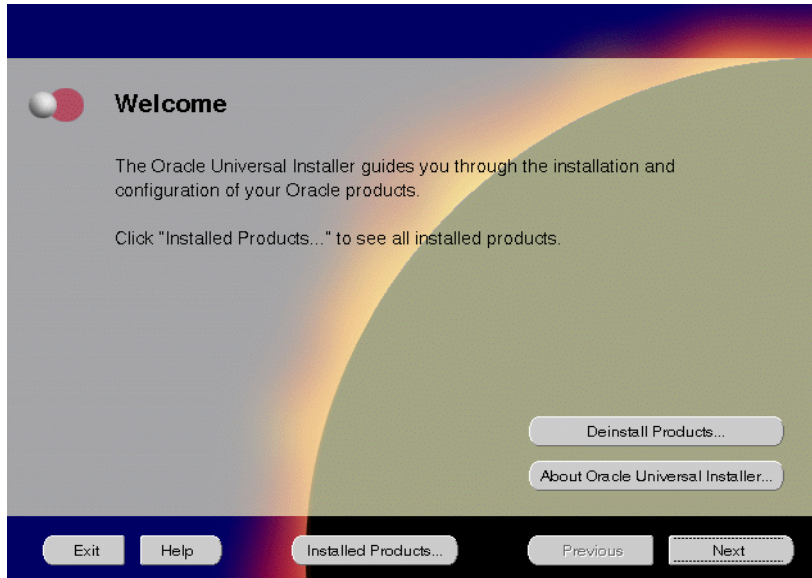
- [Installation](#)
- [Postinstallation](#)

Installation

The following instructions guide you through Oracle9iAS Minimal Edition install.

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

Figure 4–1 Welcome Screen



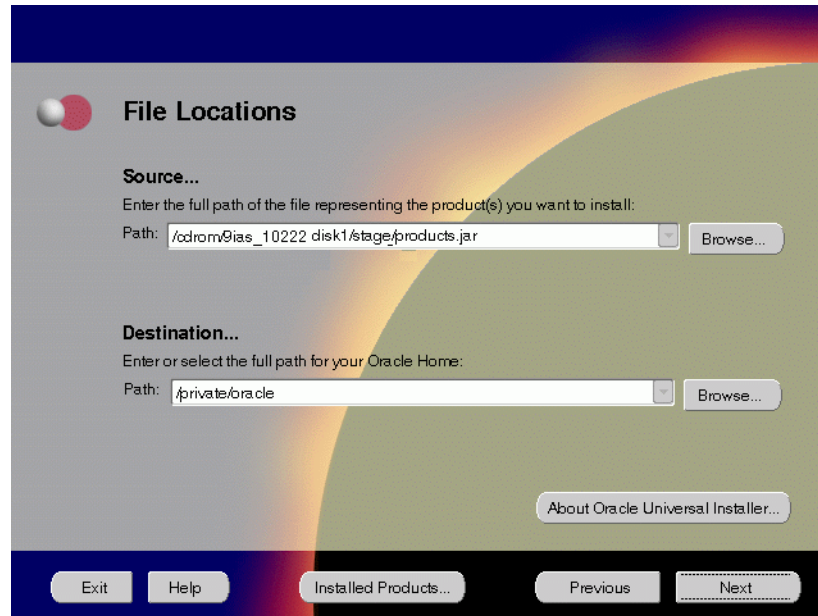
The Welcome screen provides information about the Oracle Universal Installer.

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 to deinstall the entire product or components.
- **Previous:** Return to the previous screen.
- **Next:** Move to the next screen.

2. Verify the source and destination paths and click **Next**. If you have not previously installed Oracle products on your machine, the “OraInventory Location screen” appears after you click **Next**. Enter the complete location path for `oraInventory` directory and click **OK**.

Figure 4–2 File Locations Screen



The File Locations screen allows you to enter the full path for the source and destination locations of Oracle9i Application Server.

- **Source:** This is the full path to the `products.jar` file from which the product will be installed. The installer detects and uses the default values of the `products.jar` file of the installation program. Do *not* change the path.
- **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.

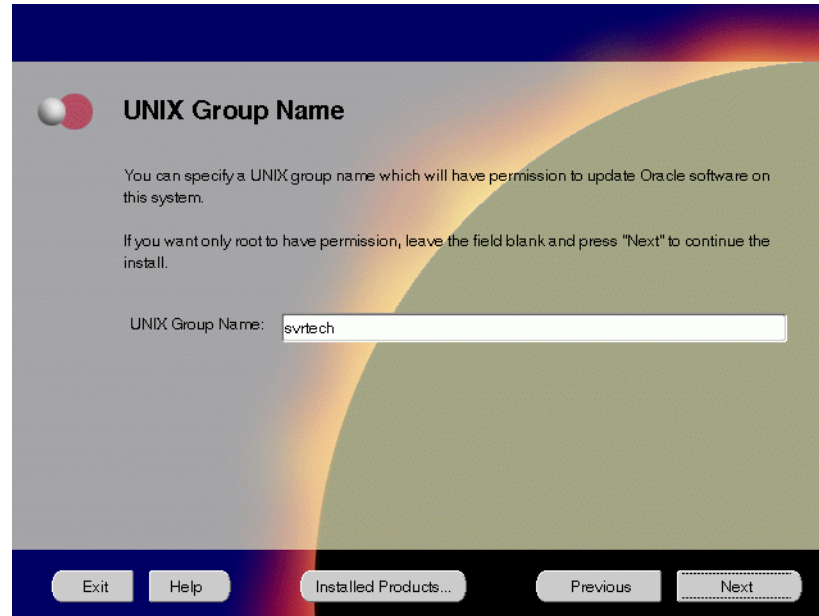
Note: Oracle home path must be a real, absolute path. It cannot contain symbolic links, environment variables, or spaces.

For more information regarding Oracle home, refer to "[ORACLE_HOME](#)" on page 2-12.

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

3. This screen appears only the first time you run Oracle Universal Installer on your machine. Take note of the default value if it appears. Enter a UNIX group name and click **Next**.

Figure 4–3 UNIX Group Name Screen



The UNIX Group Name screen grants permission for the `oraInventory` directory to the group specified. For more information, refer to "[UNIX Group Name for the Oracle Universal Installer Inventory](#)" on page 2-16.

UNIX Group Name:

- Enter a UNIX group name for those who have permission to configure all the functionality of Oracle9i Application Server. Verify your group name by entering this command from the UNIX prompt the installer was launched from:

```
prompt> id
```

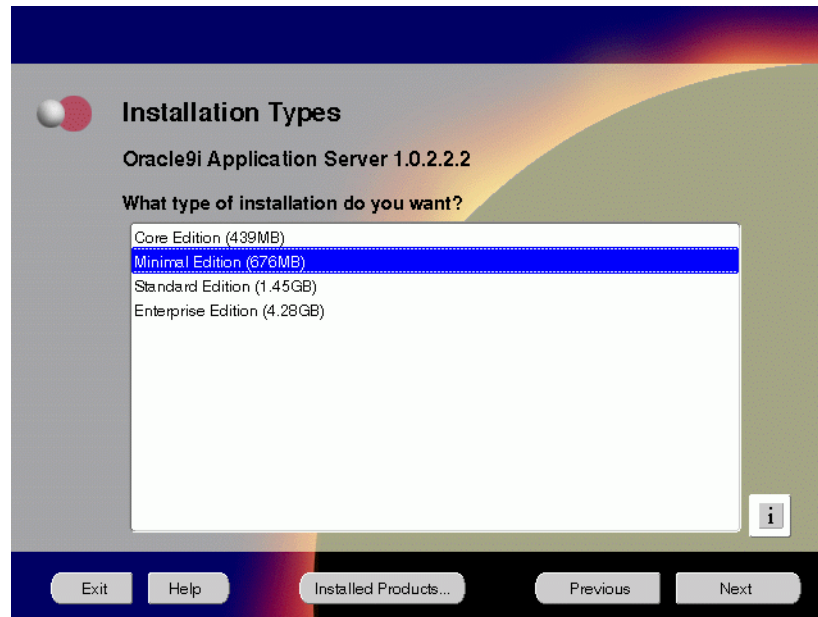
- Run the `oraInstRoot.sh` script from your Oracle home to grant permissions to the root user only. You must have root privileges to run this script. The script creates pointers to the components as the installer installs them in the system so that they can be identified later in the installation

procedure. It produces the `/var/opt/oracle/oraInst.loc` file, which provides a pointer to the `oraInventory` directory.

After you have run the script, click **Retry** to continue.

4. Select Minimal Edition and click **Next**.

Figure 4–4 *Installation Types Screen*

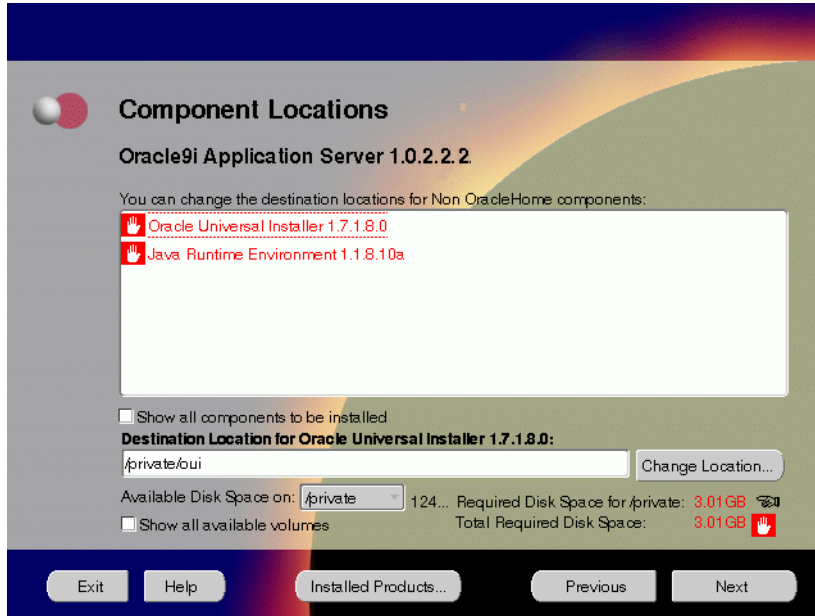


The Installation Types screen allows you to select the Oracle9i Application Server installation option that you are licensed to use.

- **Core Edition:** Oracle9iAS Containers for J2EE, Oracle9iAS Web Cache, and Oracle HTTP Server
- **Minimal Edition:** Installs Oracle9iAS Portal, Oracle9iAS Wireless, Oracle Enterprise Manager Client, and Oracle HTTP Server.
- **Standard Edition:** Installs Oracle9iAS Portal, Oracle9iAS Wireless, Oracle Enterprise Java Engine, Oracle Enterprise Manager Client, Oracle HTTP Server, and Oracle Internet File System.
- **Enterprise Edition:** Installs Oracle9iAS Database Cache, Oracle9iAS Discoverer, Oracle9iAS Forms Services, Oracle9iAS Portal, Oracle9iAS Reports Services, Oracle9iAS Web Cache, Oracle9iAS Wireless, Oracle Enterprise Java Engine, Oracle Enterprise Manager Client, Oracle HTTP Server, Oracle Internet File System, and Oracle Management Server.

- This screen appears only if Oracle Universal Installer has detected insufficient disk space in the Oracle home directory. If needed, verify and change the locations of the components displayed on the screen, and click **Next**.

Figure 4–5 *Component Locations Screen*



The Component Locations screen allows you to select alternative locations for some components.

Note: Insufficient disk space is indicated in red with a hand icon next to it.

- **Show all components to be installed:** To view the complete list of components chosen for installation. Select check box to display component list.

Click individual components to view and change destination location path. The installer enables you to change the destination location of the components displayed on the screen.

- **Destination Location:** To view the full path of the selected component.
- **Change Location:** To browse for alternate locations for the selected component.
- **Available Disk Space:** To view available disk space in the current directory. The installer also provides information about the total disk space required for the installation of additional components.
- **Required Disk Space for *directory_name*:** To view the total disk space required for installation in the selected directory.
- **Total Required Disk Space:** To view the total disk space required for the product to be installed.
- **Show all available volumes:** To browse through file system for available disk space. Select check box to display the file system.

- This screen appears if the installer detects insufficient TMP space. Remove unneeded files from the swap directory to provide sufficient space for installation and click **Next**. If your swap space is smaller than 500 MB, click **Exit** and correct the problem.

Figure 4–6 *Insufficient Swap Space for Install Screen*



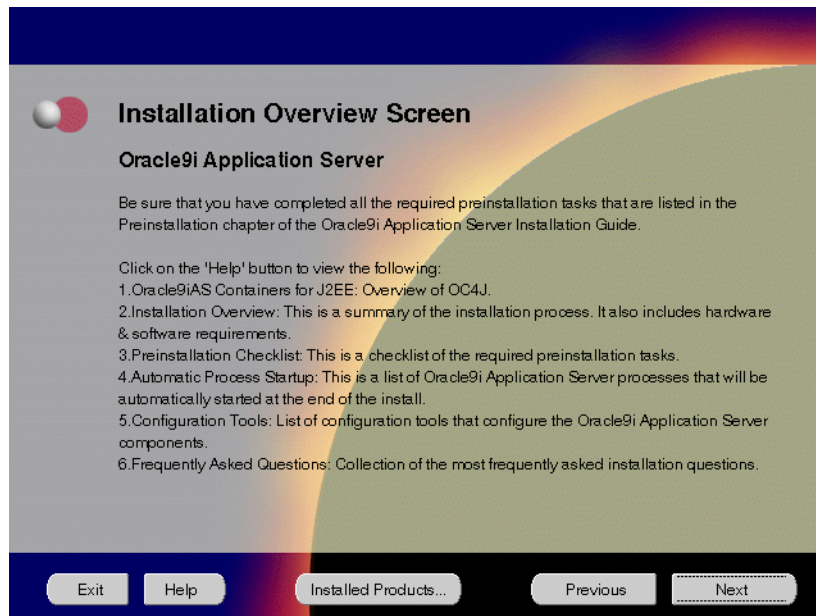
The Insufficient Swap Space for Install screen indicated inadequate space in the swap directory. You have two options:

- If you have more than 500 MB swap space, then remove unneeded files from your swap space to create room for installation and click **Next** to proceed.
- If you have less than 500 MB swap space, then **Exit** the installer and set TMP environment variable to point to a writable directory with sufficient space.

For detailed information on TMP directory, refer "[TMP](#)" on page 2-15.

7. Click the **Help** button to verify that all the preinstallation tasks have been performed, and then click **Next**.

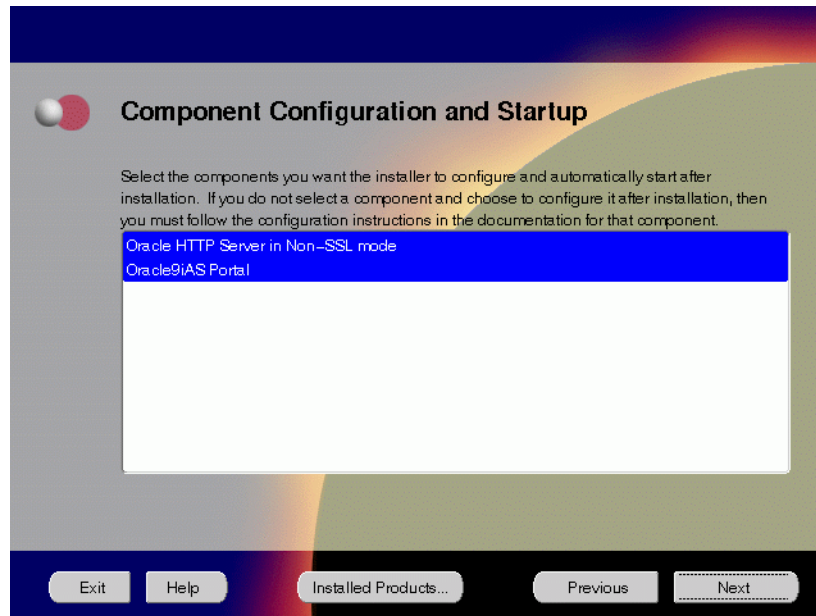
Figure 4–7 *Installation Overview Screen*



The Installation Overview screen gives you an overview of the installation process. Click on the **Help** button for information on the installation process, preinstallation checklist, automatic process startup, configuration tools, and frequently asked questions.

8. Select the components you wish to configure during the installation process and click **Next**. These components will automatically start up after installation. If you wish to configure the components later, do not select them.

Figure 4–8 Component Configuration and Startup Screen



The Component Configuration and Startup screen allows you to select the components that you want the installer to configure and start after installation. This screen offers two configuration options:

- If you select a component here, then the installer prompts you for any or all configuration information required by that component. After installation, the installer starts that component.
- If you de-select a component here, then the installer installs it, but does not configure or start it. later on, if you decide to use that component, then manually launch the configuration assistant to configure that component.

See Also: [Appendix A, "Configuration Tools"](#)

You can select or de-select multiple components by holding down the Control key while clicking on the component name.

9. Enter or accept the default Portal DAD and Schema names. Also, enter the database connection information. Click **Next**.

Figure 4–9 Apache Listener Configuration for Oracle9iAS Portal (DAD and Schema name) Screen

Apache Listener Configuration for Oracle9iAS Portal

Database Access Descriptor (DAD) for Oracle9iAS Portal

Enter a name for the DAD that will be used to access Oracle9iAS Portal and enter the name of the database schema where Oracle9iAS Portal will be installed. If you are installing the Oracle HTTP Server powered by Apache in an Oracle Home other than the one in which Oracle9iAS Portal is installed, you must also specify a TNS connect string to the database where Oracle9iAS Portal is installed.

Portal DAD Name:

Portal Schema Name:

Connect String:

Note: Connect String should be in <machine name>:<port><sid> format.

Exit Help Installed Products... Previous Next

The Apache Listener Configuration for Oracle9iAS Portal screen allows you to enter the name of the Database Access Descriptor (DAD) that will be used to access Oracle9iAS Portal, and the name of the database schema where Oracle9iAS Portal will be installed. It also enables you to enter the database connection information if Oracle9iAS Portal and Oracle HTTP Server are installed in different Oracle homes. The information you enter here is used to create the PL/SQL Gateway settings which you can access upon installation from the following location:

`http://machine_name:port/pls/admin_/gateway.htm`

- **Portal DAD Name:** Enter the name of the DAD for each instance you installed in the database. A Database Access Descriptor (DAD) is a set of values that specify how the Apache Listener connects to your Oracle database server to fulfill an HTTP request. Based on this DAD name, the installation automatically sets other DAD-related and default settings such

as the name and location of the document table. The default DAD name is `portal30`.

- **Portal Schema Name:** Enter the name of the database schema that will contain Oracle Portal. A schema is a collection of components and database objects under the control of a given database user. Each Oracle Portal application maps to an Oracle database schema. The default schema name is `portal30`.
- **Connect String:** Enter the origin database connection information in the form `host:port:sid`.

10. Enter or accept the default Login Server DAD and Schema names. Click **Next**.

Figure 4–10 *Apache Listener Configuration for Oracle9iAS Portal (Login Server) Screen*

Apache Listener Configuration for Oracle9iAS Portal
Database Access Descriptor (DAD) for the Login Server

Enter a name for the DAD that will be used to access the Login Server and enter the name of the database schema where the Login Server will be installed.

Login Server DAD Name:

Login Server Schema Name:

You can create additional DADs to access other Oracle9iAS Portal installations by entering this URL in your browser: `http://<machine_name>:<port>/pls/admin/_gateway.htm`

Exit Help Installed Products... Previous **Next**

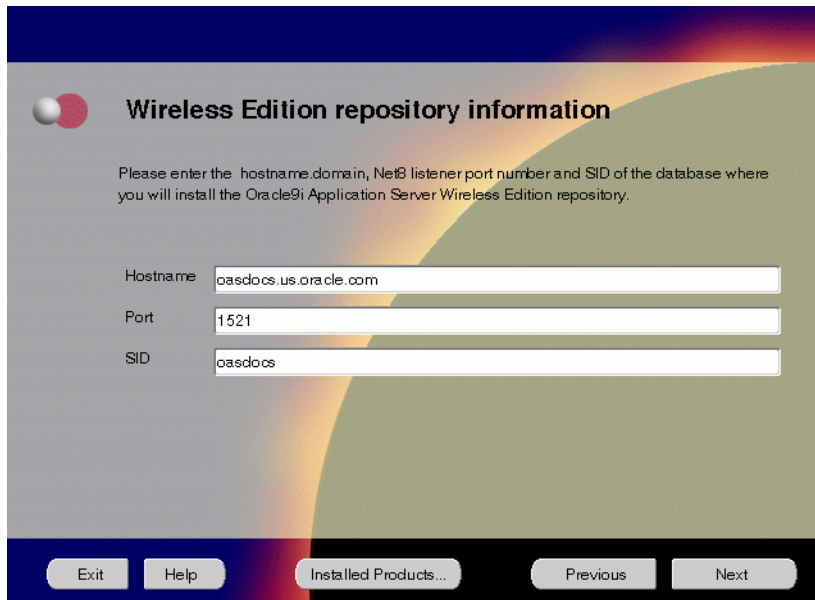
The Apache Listener Configuration for Oracle9iAS Portal screen allows you to enter the Login Server DAD and Schema Name, with a `_sso` extension for easy recognition. The Login Server provides an enterprise-wide Single Sign-On (SSO) mechanism that enables an Oracle Portal user to log in securely to Oracle Portal and any partner and external applications using a single user name and password.

- **Login Server DAD Name:** Enter the name of the DAD for each instance you installed in the database. The default DAD name is `portal30_sso`.
- **Login Server Schema Name:** Enter the name of the database schema that will contain Oracle Portal. The default schema name is `portal30_sso`.

11. Enter the hostname, port number, and `SID` of the origin database where you will install the Oracle9iAS Wireless, and click **Next**. If you are upgrading from Oracle9i Application Server, version 1.0.2.1, then an “Upgrade Installation Detected” screen will appear. Review the content on the screen and click **Next** or **Exit** accordingly. If you click **Next**, then the installation will continue and the following screen will appear.

Note: Do not enter Oracle9iAS Database Cache hostname, port number, and `SID` in this screen.

Figure 4–11 *Wireless Edition Repository Information Screen*



Wireless Edition repository information

Please enter the `hostname.domain`, Net8 listener port number and `SID` of the database where you will install the Oracle9i Application Server Wireless Edition repository.

Hostname:

Port:

SID:

Exit Help Installed Products... Previous Next

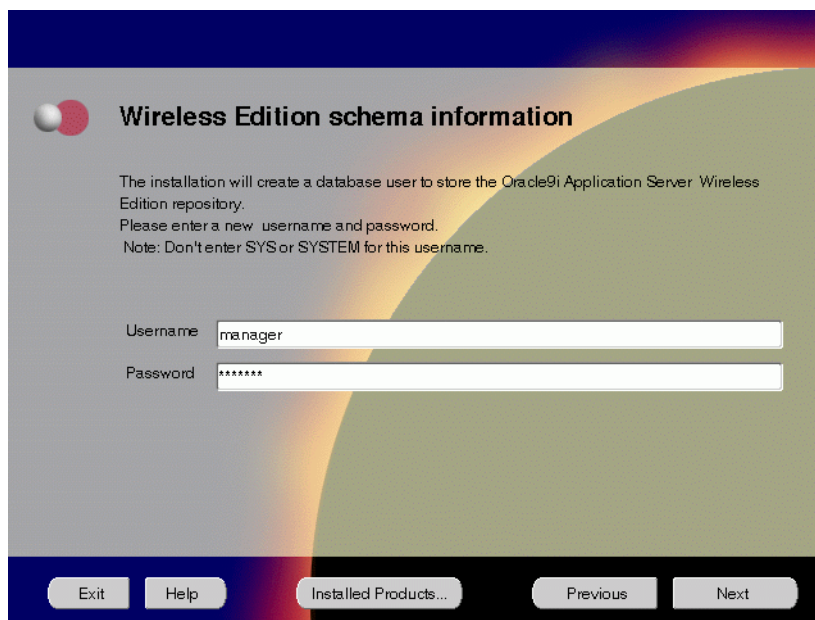
The Wireless Edition Repository Information screen allows you to enter the hostname, Net8 Listener port number, and `SID` of the database where you will install the Oracle9iAS Wireless repository.

- **Hostname:** Enter the `hostname.domain` of the database where you will install the Oracle9iAS Wireless.
- **Port:** Enter the Net8 Listener port number.
- **SID:** Enter the System Identifier (`SID`) of the database where you will install the Oracle9iAS Wireless repository.

12. Enter the new username and password for the database user to store the Oracle9iAS Wireless repository, and click **Next**. If you are upgrading from Oracle9i Application Server, version 1.0.2.1, then the “Oracle9iAS Wireless Schema Information Screen” will be slightly different. Enter the existing Oracle9iAS Wireless username and password, and click **Next**.

Note: Do not use an existing database user, (that is, SYS, SYSTEM, or any other existing database user) as the username.

Figure 4–12 *Wireless Edition Schema Information Screen*



Wireless Edition schema information

The installation will create a database user to store the Oracle9i Application Server Wireless Edition repository.
Please enter a new username and password.
Note: Don't enter SYS or SYSTEM for this username.

Username:

Password:

Exit Help Installed Products... Previous Next

The Wireless Edition Schema Information screen allows you to create a database user to store the Oracle9iAS Wireless repository.

- **Username:** Enter a new user name for the database user to store the Oracle9iAS Wireless repository.
- **Password:** Enter a password for the database user.

13. Enter and confirm the `SYSTEM` password of the database, and click **Next**. If you are upgrading from Oracle9i Application Server, version 1.0.2.1, then a “Wireless Edition Administrator Password Information” screen appears. Enter and confirm the “Administrator” password, and click **Next**.

Note: Do not enter the database schema owner password.

Figure 4–13 System Password for Wireless Edition Screen

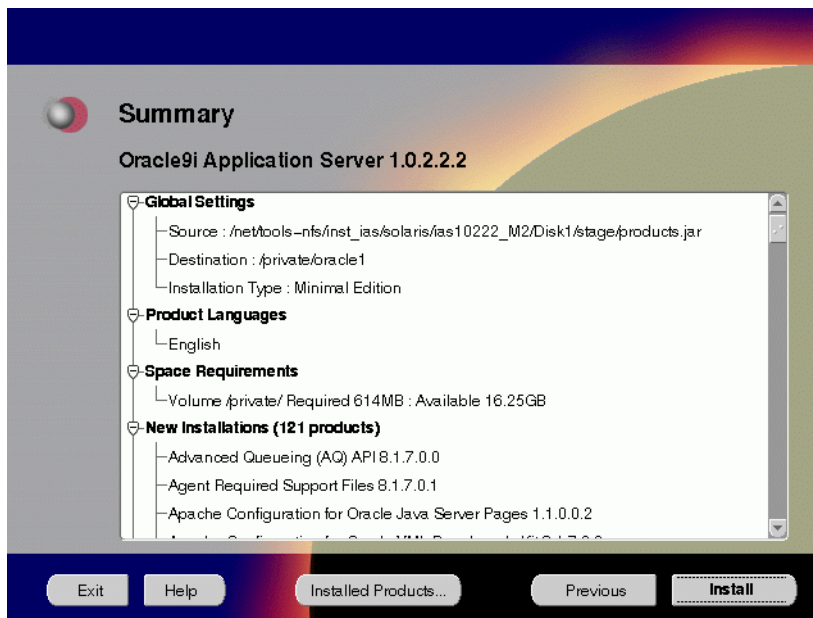


The System Password for Wireless Edition screen allows you to enter and confirm the `SYSTEM` password of the database where you are loading the Oracle9iAS Wireless repository.

- **Enter Password:** Enter the `SYSTEM` password of the database where you will install the Oracle9iAS Wireless.
- **Confirm Password:** Re-enter the `SYSTEM` password as entered above for verification.

14. Review the summary and click **Install** to begin the installation process.

Figure 4–14 Summary Screen



The Summary screen allows you to review all the settings before the actual installation process. These settings include source, destination, installation type, product language, space requirements, and a list of components.

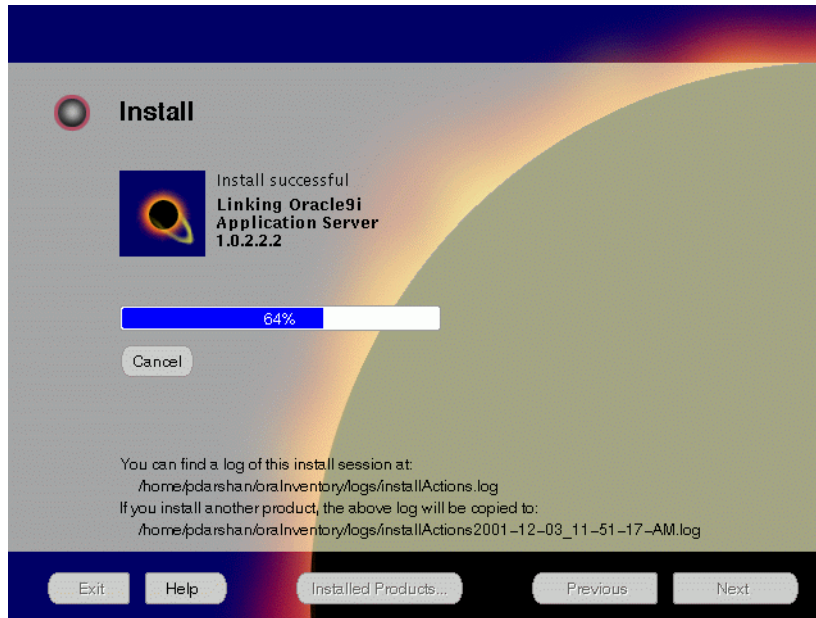
- To make changes to any of these settings, click **Previous** to return to the respective screens.

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

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

15. Monitor the installation process and after the installer finishes, click **Next**.

Figure 4–15 *Install Screen*



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

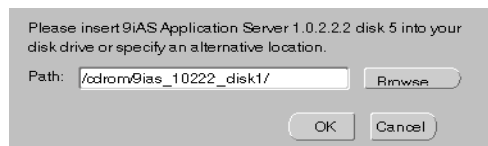
- **Cancel:** To discontinue the installation process. You can then choose to stop the installation of an individual component or the entire product.

For more information about installation log, refer to "[oraInventory Directory](#)" on page 2-32.

Changing Disks

During installation, the installer prompts you to switch between Disks 1 through 5. Use these steps to change disks and continue the installation process.

Figure 4–16 Changing Disks Dialog



- a. Eject and unmount the current disk.

If you are using Solaris Volume Management software and Disk1 was automatically mounted, then this can be done with the following command:

```
prompt> eject cdrom
```

If you are not using Solaris Volume Management software, then you must manually eject and unmount the disk. For further instructions, refer to your operating system documentation

- b. Insert the next disk into the CD-ROM drive and mount it.

If you are using the Solaris Volume Management software, then the next disk will be automatically mounted.

If you are not using Solaris Volume Management software, then you must manually mount the disk. For further instructions, refer to "[Starting Oracle Universal Installer](#)" on page 2-33.

- c. Click the **Browse** button on the changing disks dialog, and navigate to `/cdrom/9ias_10222_diskx`. This directory may be different depending on where the original disk was mounted.
- d. Click OK to continue the installation process.

Running `root.sh`

After installation is completed, the installer prompts you to run `root.sh` script. Use these steps to run the `root.sh` script.

- a. Log on as the root user.
- b. Go to the Oracle home directory.

```
prompt> cd ORACLE_HOME
```

- c. Run the `root.sh` script.

```
prompt> ./root.sh
```

Once you see “Finished running generic part of the `root.sh` script” and “Now product-specific root actions will be performed,” exit root user and return to the Install screen.

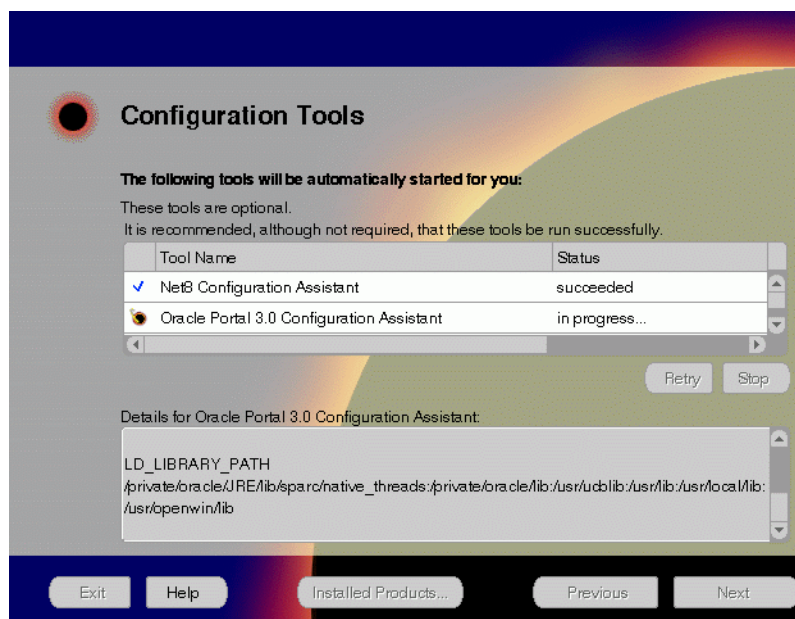
The `root.sh` script detects:

- 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.

16. Start the origin database if it has been shut down during installation. Verify the list of configuration tools and click **Next**. This screen appears only if you select components to configure and start in the Components Configuration and Startup screen.

Note: The installer has completed copying and linking the necessary files. Be sure to start the database if it had been shut down for the installation process. The configuration tools such as Oracle9iAS Portal Configuration Assistant need to connect to an active database for configuration purposes.

Figure 4–17 Configuration Tools Screen



The Configuration Tools screen lists the configuration tools for all installed components.

Scroll down the 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.
- Displays all the configuration settings in the display window below as it executes a configuration tool for each component.
- Enables you to view configuration settings after all configuration tools are executed. Click on each component to review all the changes made.
- 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.
- **Retry**: To re-execute the configuration script if the configuration of a component fails.
- **Stop**: To quit the configuration process.

Configuration Tools

This installation option launches the following configuration tools:

Net8 Configuration Assistant - This configuration assistant enables you to connect and configure the Oracle client/server network environment.

See Also: *Net8 Administration's Guide* in the Oracle Database Documentation Library for information on running Net8 Configuration Assistant.

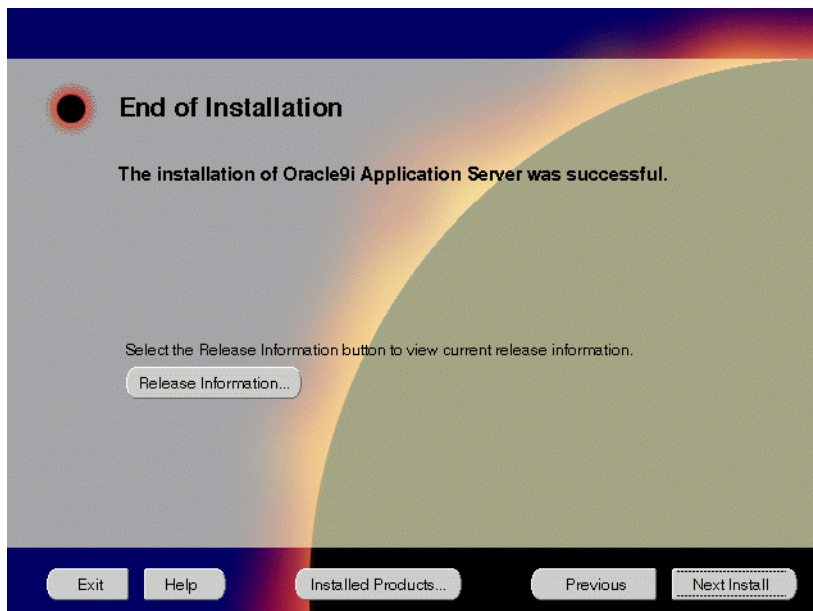
Oracle9iAS Portal Configuration Assistant - This configuration assistant loads necessary database objects for Oracle9iAS Portal to run.

See Also: "[Oracle9iAS Portal Configuration Assistant](#)" on page A-8 for instructions on running Oracle9iAS Portal Configuration Assistant.

Starting HTTP Server - This starts Oracle HTTP Server.

17. Ensure that the installation was successful. Click **Exit** to quit the installer.

Figure 4–18 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.

- **Release Information:** To view the latest release information.

If the installer detects that specific port numbers such as 7777, are occupied, it will display the alternate port numbers on the end of Installation screen. For Oracle HTTP Server port number information, refer to "[Port Allocation](#)" on page 2-17.

You have successfully installed the Minimal Edition of Oracle9i Application Server. Proceed to "[Postinstallation](#)" on page 4-26 to complete the installation process.

Postinstallation

The following instructions guide you through the basic postinstallation tasks for Oracle9i Application Server. Before performing these tasks, install, if needed, Oracle9i Application Server Client from the Oracle9i Application Server Administrative and Development Client CD included in the Oracle9i Application Server CD pack.

See Also: [Appendix B, "Installing Oracle9i Application Server Administrative and Development Client CD-ROM"](#)

The postinstallation contains the following sections:

- [Starting and Stopping Components](#)
- [Component Web Sites](#)
- [Component Port Numbers](#)
- [Additional Documentation](#)

Starting and Stopping Components

[Table 4-1](#) lists the commands needed to individually start and stop Oracle HTTP Server.

Table 4-1 Starting and Stopping Components

Component	Function	Command
Oracle9iAS Wireless Web Integration Server	Start	<code>ORACLE_HOME/panama/WebIntegration/Server/bin/server.sh</code>
	Stop	Go to <code>http://hostname.domainname:5555</code> and click on shutdown.
Oracle HTTP Server	Start	<code>ORACLE_HOME/Apache/Apache/bin/apachectl start</code>
	Stop	<code>ORACLE_HOME/Apache/Apache/bin/apachectl stop</code>
Oracle HTTP Server SSL-enabled	Start	<code>ORACLE_HOME/Apache/Apache/bin/apachectl startssl</code> (Log in as root user)
	Stop	<code>ORACLE_HOME/Apache/Apache/bin/apachectl stop</code> (Log in as root user)

Component Web Sites

[Table 4–2](#) lists Web sites for Oracle9i Application Server components.

Table 4–2 Component Web sites

Component	Web Site
Oracle9iAS Portal	<code>http://hostname.domain:listener_port/pls/portal30</code>
Oracle9iAS Wireless Web Integration Server	<code>http://hostname.domain:5555</code> (Log on as Administrator/manage)
Oracle HTTP Server Oracle HTTP Server (SSL-enabled)	<code>http://hostname.domain:listener_port</code> <code>https://hostname.domain:listener_port</code>

Component Port Numbers

[Table 4–3](#) lists the default port numbers on which requests are received for each component.

Table 4–3 Port Numbers

Components	Port Number
Oracle9iAS Portal	Oracle9iAS Portal uses the same port number as Oracle HTTP Server
Oracle9iAS Wireless	Oracle9iAS Wireless uses the same port as Oracle HTTP Server
Oracle9iAS Wireless Web Integration Server	5555
Oracle HTTP Server Oracle HTTP Server (SSL-enabled) Oracle HTTP Server Jserv Servlet Engine	For information on port numbers, refer to " Port Allocation " on page 2-17. 8007

Additional Documentation

For further information on postinstallation and configuration tasks, refer to component-specific documentation. For information on viewing and installing the documentation, refer to [Appendix E, "Installing Documentation Library"](#).

Standard Edition

This chapter guides you through the installation steps for the Standard Edition of Oracle9i Application Server. The following topics provide detailed installation steps, and basic postinstallation tasks:

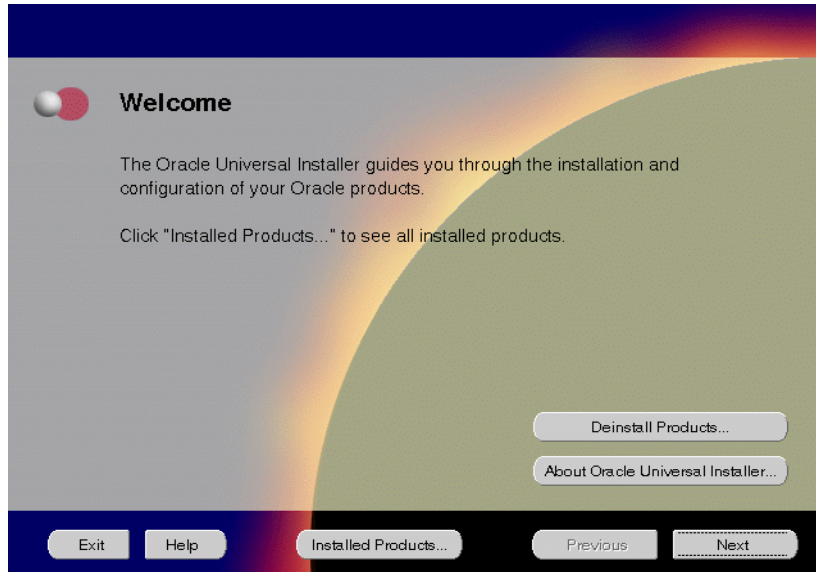
- [Installation](#)
- [Postinstallation](#)

Installation

The following instructions guide you through Oracle9iAS Standard Edition install.

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

Figure 5–1 Welcome Screen



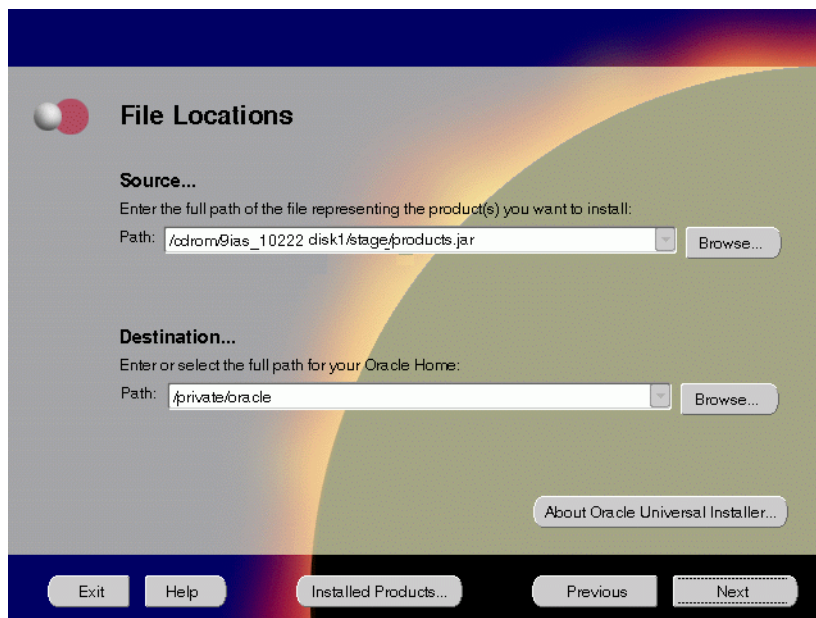
The Welcome screen provides information about the Oracle Universal Installer.

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 to deinstall the entire product or components.
- **Previous:** Return to the previous screen.
- **Next:** Move to the next screen.

2. Verify the source and destination paths and click **Next**. If you have not previously installed Oracle products on your machine, the “OraInventory Location screen” appears after you click **Next**. Enter the complete location path for `oraInventory` directory and click **OK**.

Figure 5–2 File Locations Screen



The File Locations screen allows you to enter the full path for the source and destination locations of Oracle9i Application Server.

- **Source:** This is the full path to the `products.jar` file from which the product will be installed. The installer detects and uses the default values of the `products.jar` file of the installation program. Do not change the path.
- **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.

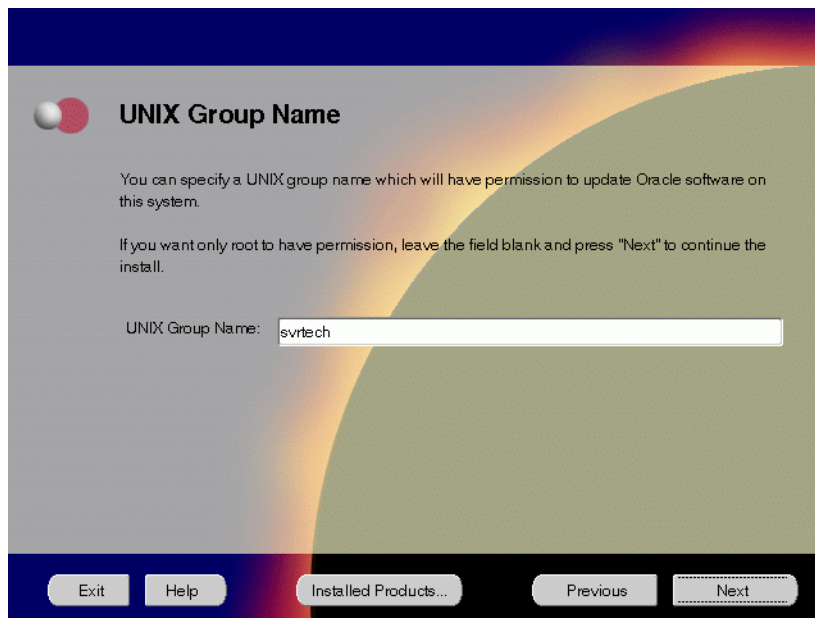
Note: Oracle home path must be a real, absolute path. It cannot contain symbolic links, environment variables, or spaces.

For more information regarding Oracle home, refer to "[ORACLE_HOME](#)" on page 2-12.

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

3. This screen appears only the first time you run Oracle Universal Installer on your machine. Take note of the default value if it appears. Enter a UNIX group name and click **Next**.

Figure 5-3 UNIX Group Name Screen



The UNIX Group Name screen grants permission for the `oraInventory` directory to the group specified. For more information, refer to “UNIX Group Name for the Oracle Universal Installer Inventory” on page 2-9.

UNIX Group Name:

- Enter a UNIX group name for those who have permission to configure all the functionality of Oracle9i Application Server. Verify your group name by entering this command from the UNIX prompt the installer was launched from:

```
prompt> id
```

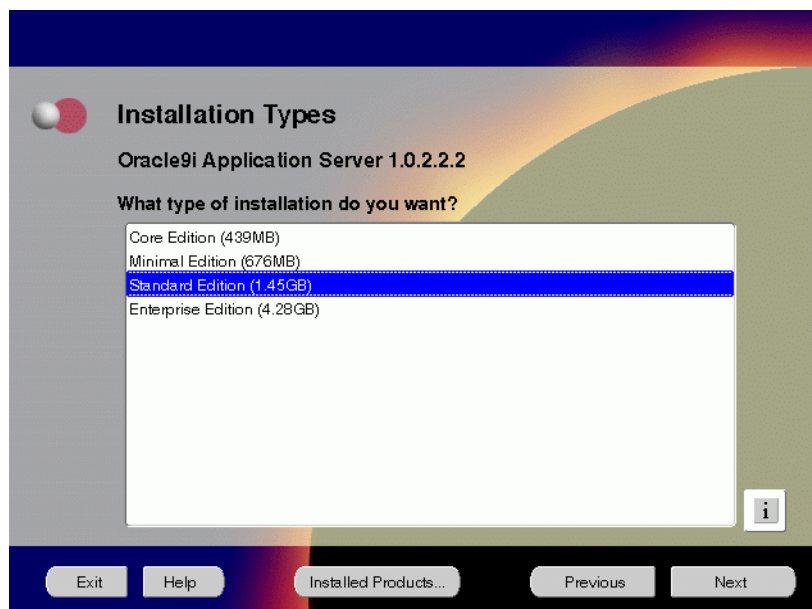
- Run the `oraInstRoot.sh` script from your Oracle home to grant permissions to the root user only. You must have root privileges to run this script. The script creates pointers to the components as the installer installs them in the system so that they can be identified later in the installation

procedure. It produces the `/var/opt/oracle/oraInst.loc` file, which provides a pointer to the `oraInventory` directory.

After you have run the script, click **Retry** to continue.

4. Select Standard Edition and click **Next**.

Figure 5–4 *Installation Types Screen*

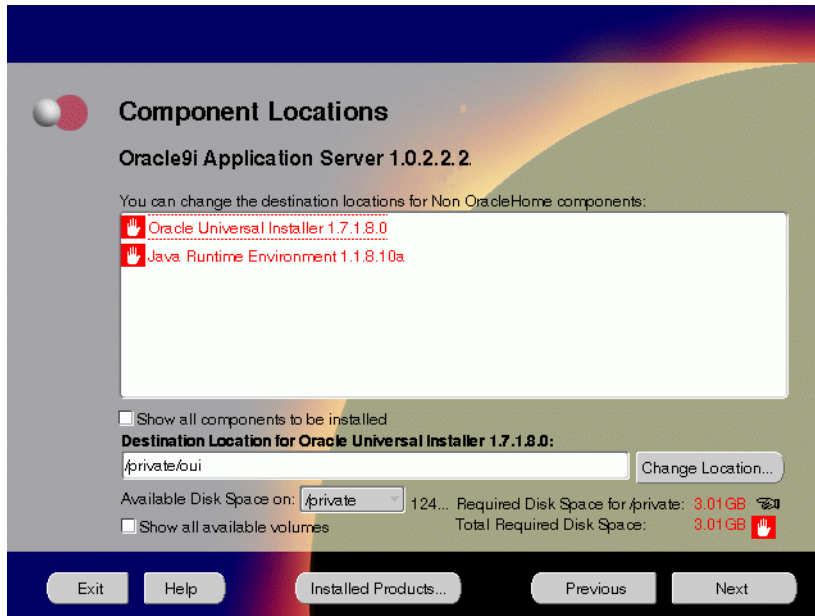


The Installation Types screen allows you to select the Oracle9i Application Server installation option that you are licensed to use.

- **Core Edition:** Oracle9iAS Containers for J2EE, Oracle9iAS Web Cache, and Oracle HTTP Server
- **Minimal Edition:** Installs Oracle9iAS Portal, Oracle9iAS Wireless, Oracle Enterprise Manager Client, and Oracle HTTP Server.
- **Standard Edition:** Installs Oracle9iAS Portal, Oracle9iAS Wireless, Oracle Enterprise Java Engine, Oracle Enterprise Manager Client, Oracle HTTP Server, and Oracle Internet File System.
- **Enterprise Edition:** Installs Oracle9iAS Database Cache, Oracle9iAS Discoverer, Oracle9iAS Forms Services, Oracle9iAS Portal, Oracle9iAS Reports Services, Oracle9iAS Web Cache, Oracle9iAS Wireless, Oracle Enterprise Java Engine, Oracle Enterprise Manager Client, Oracle HTTP Server, Oracle Internet File System, and Oracle Management Server.

5. This screen appears only if Oracle Universal Installer has detected insufficient disk space in the Oracle home directory. If needed, verify and change the locations of the components displayed on the screen, and click **Next**.

Figure 5–5 *Component Locations Screen*



The Component Locations screen allows you to select alternative locations for some components.

Note: Insufficient disk space is indicated in red with a hand icon next to it.

- **Show all components to be installed:** To view the complete list of components chosen for installation. Select check box to display component list.

Show all components to be installed: To view the complete list of components chosen for installation. Select check box to display component list. Click individual components to view and change destination location path. The installer enables you to change the destination location of the components displayed on the screen.

- **Destination Location:** To view the full path of the selected component.
- **Change Location:** To browse for alternate locations for the selected component.
- **Available Disk Space:** To view available disk space in the current directory. The installer also provides information about the total disk space required for the installation of additional components.
- **Required Disk Space for *directory_name*:** To view the total disk space required for installation in the selected directory.
- **Total Required Disk Space:** To view the total disk space required for the product to be installed.
- **Show all available volumes:** To browse through file system for available disk space. Select check box to display the file system.

- This screen appears if the installer detects insufficient TMP space. Remove unneeded files from the swap directory to provide sufficient space for installation and click **Next**. If your swap space is smaller than 500 MB, click **Exit** and correct the problem.

Figure 5–6 *Insufficient Swap Space for Install Screen*



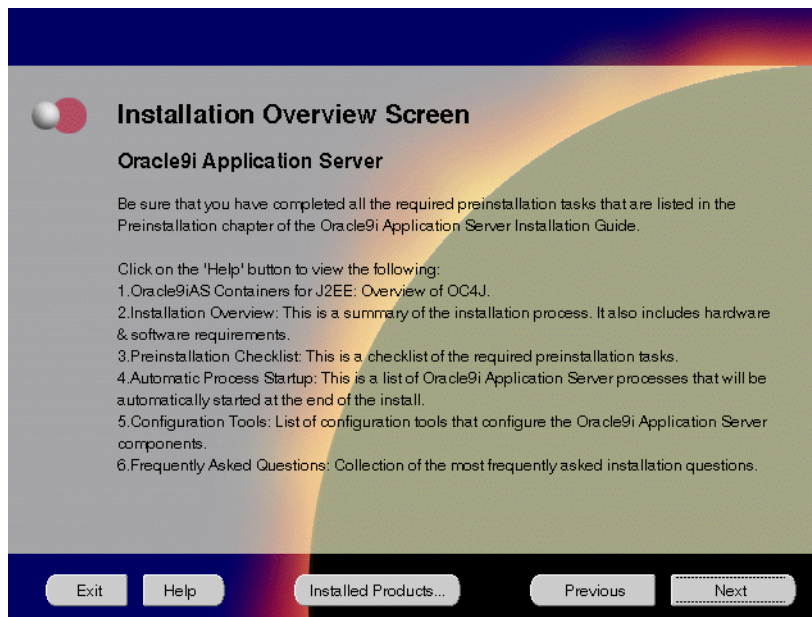
The Insufficient Swap Space for Install screen indicated inadequate space in the swap directory. You have two options:

- If you have more than 500 MB swap space, then remove unneeded files from your swap space to create room for installation and click **Next** to proceed.
- If you have less than 500 MB swap space, then **Exit** the installer and set TMP environment variable to point to a writable directory with sufficient space.

For detailed information on TMP directory, refer "[TMP](#)" on page 2-15.

7. Click the **Help** button to verify that all the preinstallation tasks have been performed, and then click **Next**.

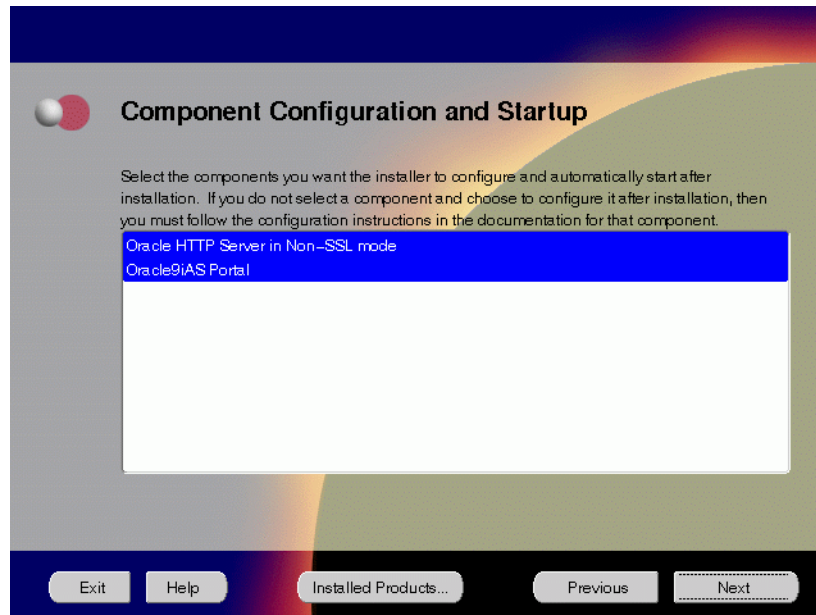
Figure 5–7 *Installation Overview Screen*



The Installation Overview screen gives you an overview of the installation process. Click on the **Help** button for information on the installation process, preinstallation checklist, automatic process startup, configuration tools, and frequently asked questions.

8. Select the components you wish to configure during the installation process and click **Next**. These components will automatically start up after installation. If you wish to configure the components later, do not select them.

Figure 5–8 Component Configuration and Startup Screen



The Component Configuration and Startup screen allows you to select the components that you want the installer to configure and start after installation. This screen offers two configuration options:

- If you select a component here, then the installer prompts you for any or all configuration information required by that component. After installation, the installer starts that component.
- If you de-select a component here, then the installer installs it, but does not configure or start it. later on, if you decide to use that component, then manually launch the configuration assistant to configure that component.

See Also: [Appendix A, "Configuration Tools"](#)

You can select or de-select multiple components by holding down the Control key while clicking on the component name.

9. This screen appears only if the `oracle` account is not a member of the `dba` group. Enter the database administrator and operator group name and click **Next**.

Figure 5–9 Privileged Operating System Groups Screen

Privileged Operating System Groups

SYSDBA and SYSOPER privileges are required to create a database using operating system (OS) authentication. These are granted through membership in the UNIX groups OSDBA and OSOPER, respectively, and the `dba` group is usually used for this purpose. You are not a member of this group, so enter the names of the UNIX groups of which you are a member, to be used for OSDBA and OSOPER.

Database Administrator (OSDBA) Group

Database Operator (OSOPER) Group

Exit Help Installed Products... Previous Next

The Privileged Operating System Groups screen allows you to enter the database administrator and operator group name. For more information regarding privileged group names, refer to "[UNIX Group Names for Privileged Groups](#)" on page 2-17. The installer detects and defaults to the user's OS group.

- **Database Administrator (OSDBA) Group:** The UNIX group that has database administrator privileges.
- **Database Operator (OSOPER) Group:** The UNIX group that has database operator privileges.

10. Enter or accept the default Portal DAD and Schema names. Also, enter the database connection information. Click **Next**.

Figure 5–10 *Apache Listener Configuration for Oracle9iAS Portal (DAD and Schema name) Screen*

Apache Listener Configuration for Oracle9iAS Portal

Database Access Descriptor (DAD) for Oracle9iAS Portal

Enter a name for the DAD that will be used to access Oracle9iAS Portal and enter the name of the database schema where Oracle9iAS Portal will be installed. If you are installing the Oracle HTTP Server powered by Apache in an Oracle Home other than the one in which Oracle9iAS Portal is installed, you must also specify a TNS connect string to the database where Oracle9iAS Portal is installed.

Portal DAD Name:

Portal Schema Name:

Connect String:

Note: Connect String should be in <machine name><port><sid> format.

Exit Help Installed Products... Previous Next

The Apache Listener Configuration for Oracle9iAS Portal screen allows you to enter the name of the Database Access Descriptor (DAD) that will be used to access Oracle9iAS Portal, and the name of the database schema where Oracle9iAS Portal will be installed. It also enables you to enter the database connection information if Oracle9iAS Portal and Oracle HTTP Server are installed in different Oracle homes. The information you enter here is used to create the PL/SQL Gateway settings which you can access upon installation from the following location:

`http://machine_name:port/pls/admin_/gateway.htm`

- **Portal DAD Name:** Enter the name of the DAD for each instance you installed in the database. A Database Access Descriptor (DAD) is a set of values that specify how the Apache Listener connects to your Oracle database server to fulfill an HTTP request. Based on this DAD name, the installation automatically sets other DAD-related and default settings such

as the name and location of the document table. The default DAD name is `portal30`.

- **Portal Schema Name:** Enter the name of the database schema that will contain Oracle Portal. A schema is a collection of components and database objects under the control of a given database user. Each Oracle Portal application maps to an Oracle database schema. The default schema name is `portal30`.
- **Connect String:** Enter the origin database connection information in the form `host:port:sid`.

11. Enter or accept the default Login Server DAD and Schema names. Click **Next**.

Figure 5–11 *Apache Listener Configuration for Oracle9iAS Portal (Login Server) Screen*

Apache Listener Configuration for Oracle9iAS Portal
Database Access Descriptor (DAD) for the Login Server

Enter a name for the DAD that will be used to access the Login Server and enter the name of the database schema where the Login Server will be installed.

Login Server DAD Name:

Login Server Schema Name:

You can create additional DADs to access other Oracle9iAS Portal installations by entering this URL in your browser: `http://<machine_name>:<port>/pls/admin/_gateway.htm`

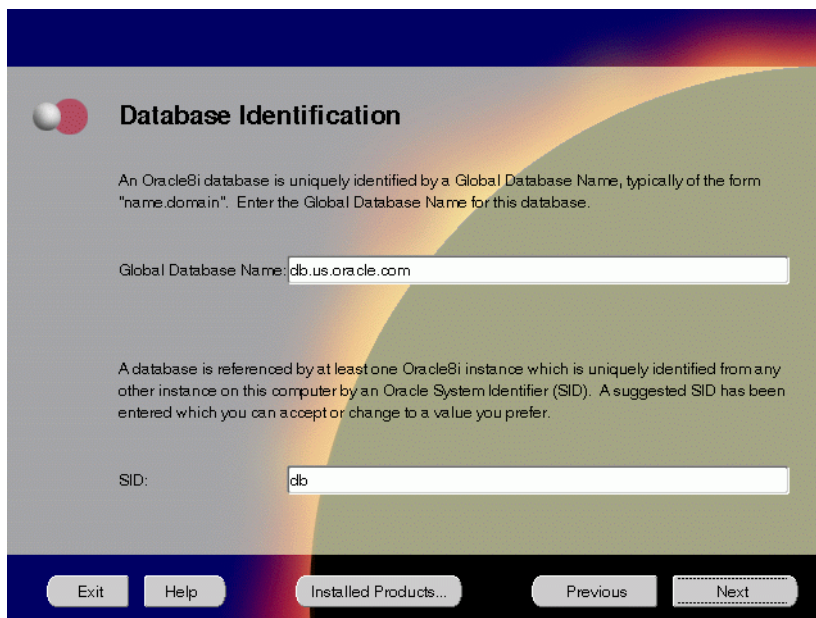
Exit Help Installed Products... Previous Next

The Apache Listener Configuration for Oracle9iAS Portal screen allows you to enter the Login Server DAD and Schema Name, with a `_sso` extension for easy recognition. The Login Server provides an enterprise-wide Single Sign-On (SSO) mechanism that enables an Oracle Portal user to log in securely to Oracle Portal and any partner and external applications using a single user name and password.

- **Login Server DAD Name:** Enter the name of the DAD for each instance you installed in the database. The default DAD name is `portal30_sso`.
- **Login Server Schema Name:** Enter the name of the database schema that will contain Oracle Portal. The default schema name is `portal30_sso`.

12. Enter the Global Database Name and System Identifier (SID) of the mid tier database and click **Next**.

Figure 5–12 Database Identification Screen



Database Identification

An Oracle8i database is uniquely identified by a Global Database Name, typically of the form "name.domain". Enter the Global Database Name for this database.

Global Database Name:

A database is referenced by at least one Oracle8i instance which is uniquely identified from any other instance on this computer by an Oracle System Identifier (SID). A suggested SID has been entered which you can accept or change to a value you prefer.

SID:

Exit Help Installed Products... Previous **Next**

The Database Identification screen allows you to enter the Global Database name and SID of the database that is created to run Oracle Enterprise Java Engine applications.

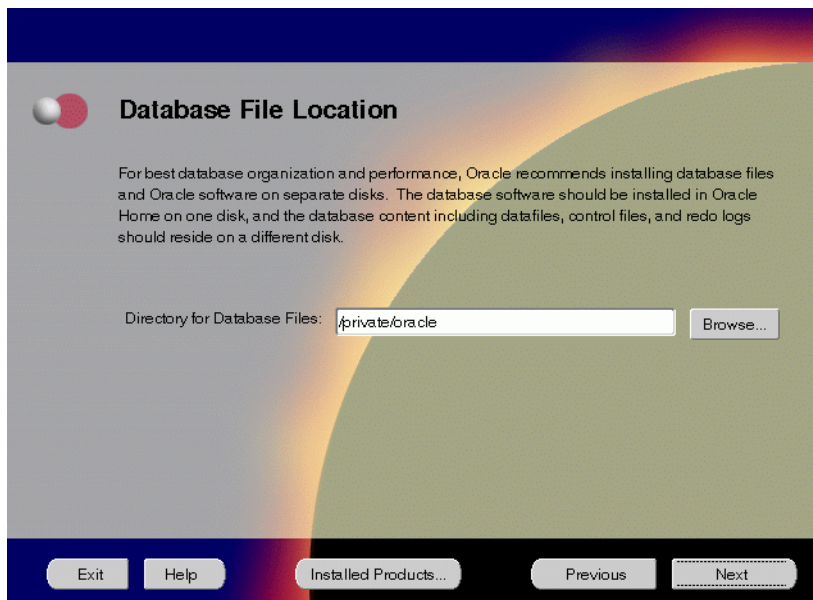
Note: This database is licensed only to run Oracle Enterprise Java Engine applications in the mid tier and should not be used for any other purposes. It will be installed in the same Oracle home as Oracle9i Application Server.

- **Global Database Name:** This is the full database name that distinguishes it from any other database in your network domain. For example: `db.us.oracle.com`, where `db` is the name of the database and `us.oracle.com` is the network domain in which the database is located.

- **SID (System Identifier):** This is the database instance name that distinguishes it from any other database on your system. For any database, there is at least one instance associated with the database. The `SID` field defaults to the database name portion of the Global Database Name. (For example: `db`). You can accept or change the default value.

13. Enter the location for the database files and click **Next**.

Figure 5–13 Database File Location Screen



The Database File Location screen allows you to enter the directory name for the database files. Oracle recommends installing the database software and the database content, including files, on separate disks.

Note: This database is licensed only to run Oracle Enterprise Java Engine applications in the mid tier and should not be used for any other purposes. It will be installed in the same Oracle home as Oracle9i Application Server.

- **Directory of Database Files:** This is the directory that contains your data, control, and log files. For example, if you enter `/dbmount`, then the database file locations will be:

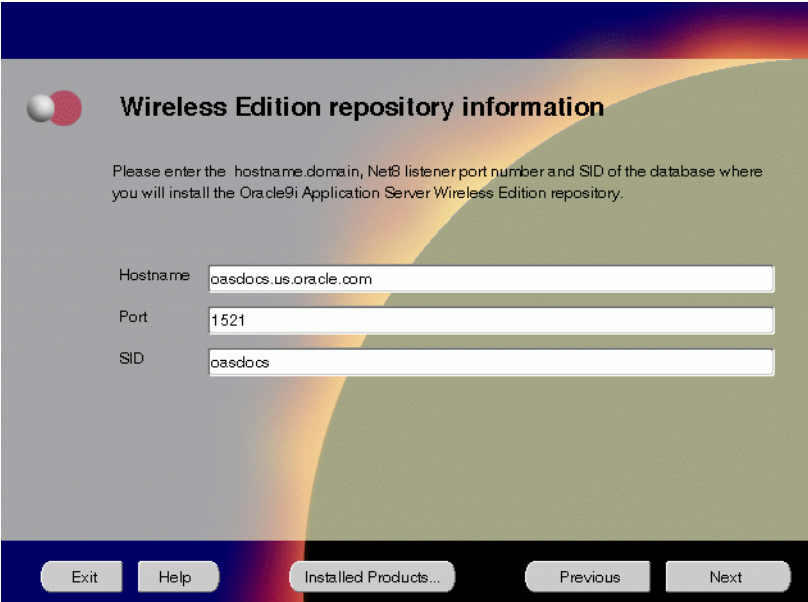
File Type	Path Name
Data Files	<code>/dbmount/oradata/SID/*.dbf</code>
Control Files	<code>/dbmount/oradata/SID/*.ctl</code>
Log Files	<code>/dbmount/oradata/SID/*.log</code>

- **Browse:** To navigate the directory structure.

14. Enter the hostname, port number, and SID of the origin database where you will install the Oracle9iAS Wireless, and click **Next**. If you are upgrading from Oracle9i Application Server, version 1.0.2.1, then an “Upgrade Installation Detected” screen will appear. Review the content on the screen and click **Next** or **Exit** accordingly. If you click **Next**, then the installation will continue and the following screen will appear.

Note: Do not enter Oracle9iAS Database Cache hostname, port number, and SID in this screen.

Figure 5–14 *Wireless Edition Repository Information Screen*



Wireless Edition repository information

Please enter the hostname domain, Net8 listener port number and SID of the database where you will install the Oracle9i Application Server Wireless Edition repository.

Hostname: oasdocs.us.oracle.com

Port: 1521

SID: oasdocs

Exit Help Installed Products... Previous Next

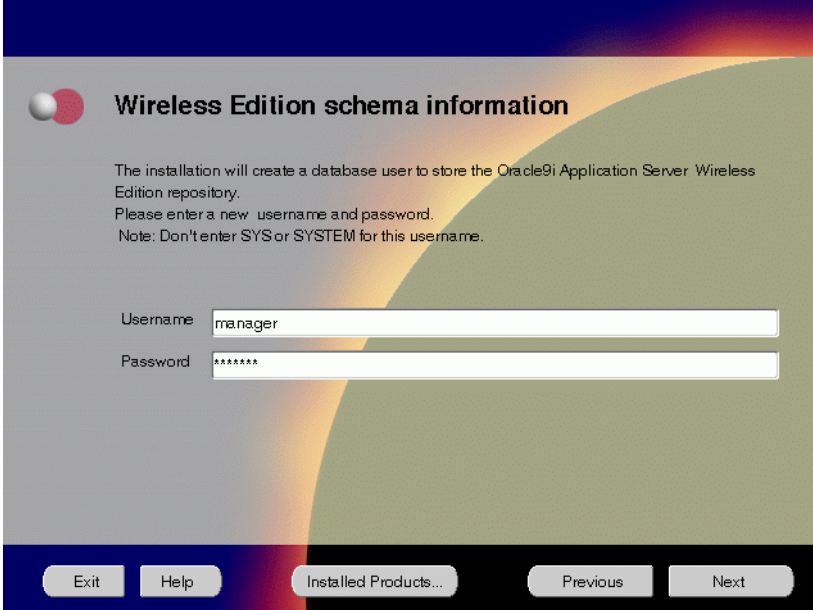
The Wireless Edition Repository Information screen allows you to enter the hostname, Net8 Listener port number, and SID of the database where you will install the Oracle9iAS Wireless repository.

- **Hostname:** Enter the `hostname.domain` of the database where you will install the Oracle9iAS Wireless.
- **Port:** Enter the Net8 Listener port number.
- **SID:** Enter the System Identifier (SID) of the database where you will install the Oracle9iAS Wireless repository.

15. Enter the new username and password for the database user to store the Oracle9iAS Wireless repository, and click **Next**. If you are upgrading from Oracle9i Application Server, version 1.0.2.1, then the “Oracle9iAS Wireless Schema Information Screen” will be slightly different. Enter the existing Oracle9iAS Wireless username and password, and click **Next**.

Note: Do not use an existing database user, (that is, SYS, SYSTEM, or any other existing database user) as the username.

Figure 5–15 Wireless Edition Schema Information Screen



Wireless Edition schema information

The installation will create a database user to store the Oracle9i Application Server Wireless Edition repository.
Please enter a new username and password.
Note: Don't enter SYS or SYSTEM for this username.

Username

Password

Exit Help Installed Products... Previous Next


The Wireless Edition Schema Information screen allows you to create a database user to store the Oracle9iAS Wireless repository.

- **Username:** Enter a new user name for the database user to store the Oracle9iAS Wireless repository.
- **Password:** Enter a password for the database user.

16. Enter and confirm the `SYSTEM` password of the database, and click **Next**. If you are upgrading from Oracle9i Application Server, version 1.0.2.1, then a “Wireless Edition Administrator Password Information” screen appears. Enter and confirm the “Administrator” password, and click **Next**.

Note: Do not enter the database schema owner password.

Figure 5–16 System Password for Wireless Edition Screen



Please enter SYSTEM Password for Wireless Edition

Please enter SYSTEM Password of the database where you are loading the Oracle9i Application Server Wireless Edition repository

Enter Password:

Confirm Password:

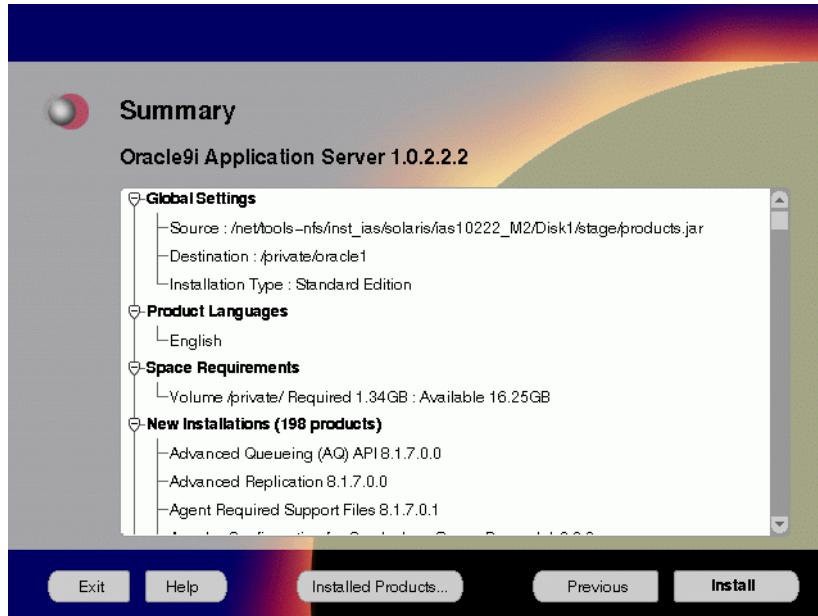
Exit Help Installed Products... Previous Next

The System Password for Wireless Edition screen allows you to enter and confirm the `SYSTEM` password of the database where you are loading the Oracle9iAS Wireless repository.

- **Enter Password:** Enter the `SYSTEM` password of the database where you will install the Oracle9iAS Wireless.
- **Confirm Password:** Re-enter the `SYSTEM` password as entered above for verification.

17. Review the summary and click **Install** to begin the installation process.

Figure 5–17 Summary Screen



The Summary screen allows you to review all the settings before the actual installation process. These settings include source, destination, installation type, product language, space requirements, and a list of components.

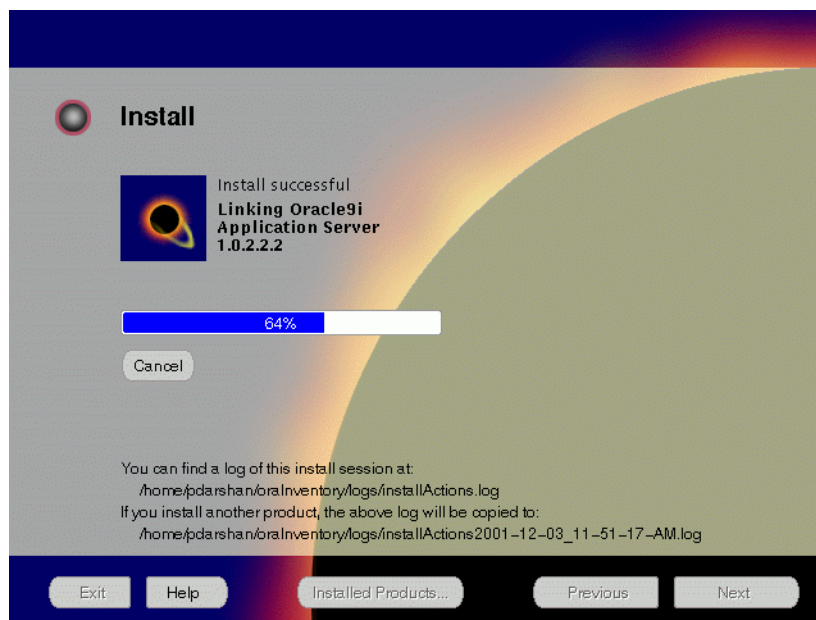
- To make changes to any of these settings, click **Previous** to return to the respective screens.

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

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

18. Monitor the installation process and after the installer finishes, click **Next**.

Figure 5–18 *Install Screen*



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

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

For more information about installation log, refer to "[oraInventory Directory](#)" on page 2-32.

Changing Disks

During installation, the installer prompts you to switch between Disks 1 through 5. Use these steps to change disks and continue the installation process.

Figure 5–19 Changing Disks Dialog



- a. Eject and unmount the current disk.

If you are using Solaris Volume Management software and Disk1 was automatically mounted, then this can be done with the following command:

```
prompt> eject cdrom
```

If you are not using Solaris Volume Management software, then you must manually eject and unmount the disk. For further instructions, refer to your operating system documentation

- b. Insert the next disk into the CD-ROM drive and mount it.

If you are using the Solaris Volume Management software, then the next disk will be automatically mounted.

If you are not using Solaris Volume Management software, then you must manually mount the disk. For further instructions, refer to "[Starting Oracle Universal Installer](#)" on page 2-33.

- c. Click the **Browse** button on the changing disks dialog, and navigate to `/cdrom/9ias_10222_diskx`. This directory may be different depending on where the original disk was mounted.
- d. Click OK to continue the installation process.

Running `root.sh`

After installation is completed, the installer prompts you to run `root.sh` script. Use these steps to run the `root.sh` script.

- a. Log on as the root user.
- b. Go to the Oracle home directory.

```
prompt> cd $ORACLE_HOME
```

- c. Run the `root.sh` script.

```
prompt> ./root.sh
```

- d. Exit root user.

Once you see “Finished running generic part of the `root.sh` script” and “Now product-specific root actions will be performed,” exit root user and return to the Install screen.

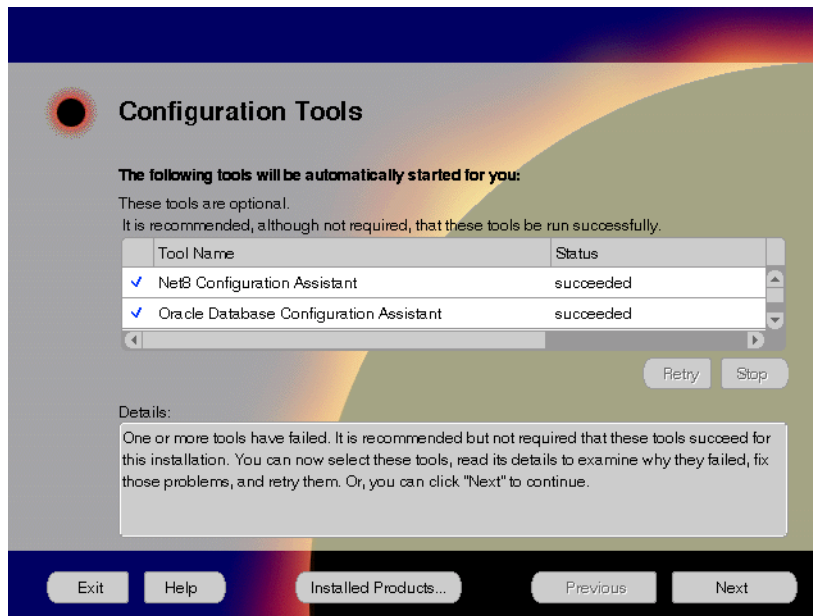
The `root.sh` script detects:

- 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.

19. Start the origin database if it has been shut down during installation. Verify the list of configuration tools and click **Next**. This screen appears only if you select components to configure and start in the Components Configuration and Startup screen.

Note: The installer has completed copying and linking the necessary files. Be sure to start the database if it had been shut down for the installation process. The configuration tools such as Oracle9iAS Portal Configuration Assistant need to connect to an active database for configuration purposes.

Figure 5–20 Configuration Tools Screen



The Configuration Tools screen lists the configuration tools for all installed components.

Scroll down the 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.
- Displays all the configuration settings in the display window below as it executes a configuration tool for each component.
- Enables you to view configuration settings after all configuration tools are executed. Click on each component to review all the changes made.
- 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.
- **Retry**: To re-execute the configuration script if the configuration of a component fails.
- **Stop**: To quit the configuration process.

Configuration Tools

This installation option launches the following configuration tools:

Net8 Configuration Assistant - This configuration assistant enables you to connect and configure the Oracle client/server network environment.

See Also: *Net8 Administration's Guide* in the Oracle Database Documentation Library for information on running Net8 Configuration Assistant.

Oracle Database Configuration Assistant - This configuration assistant configures the database for Oracle Enterprise Java Engine.

See Also: "[Oracle Database Configuration Assistant](#)" on page A-17 for instructions on running Oracle Database Configuration Assistant.

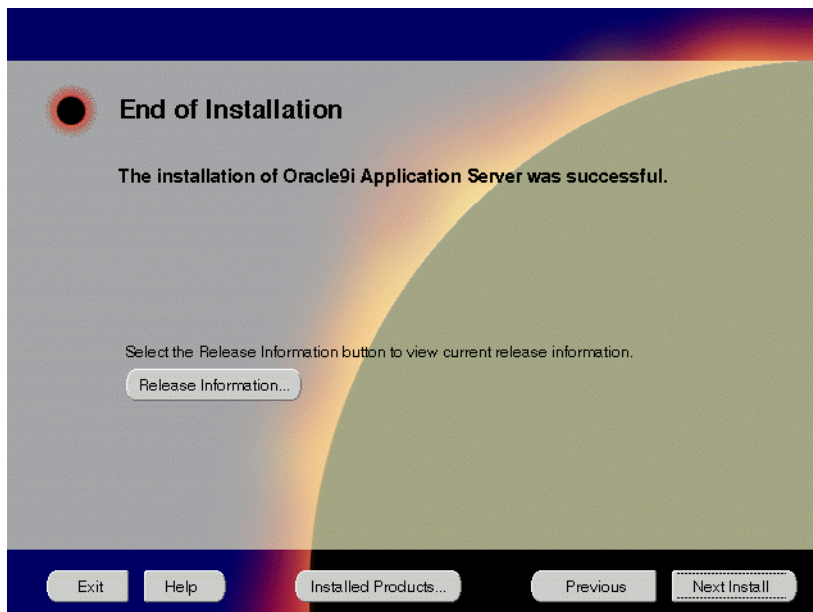
Oracle9iAS Portal Configuration Assistant - This configuration assistant loads necessary database objects for Oracle9iAS Portal to run.

See Also: "[Oracle9iAS Portal Configuration Assistant](#)" on page A-8 for instructions on running Oracle9iAS Portal Configuration Assistant.

Starting HTTP Server - This starts Oracle HTTP Server.

20. Ensure that the installation was successful. Click **Exit** to quit the installer.

Figure 5-21 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.

- **Release Information:** To view the latest release information.

If the installer detects that specific port numbers such as 7777, are occupied, it will display the alternate port numbers on the end of Installation screen. For Oracle HTTP Server port number information, refer to "[Port Allocation](#)" on page 2-17.

You have successfully installed the Standard Edition installation option of Oracle9i Application Server. Proceed to "[Postinstallation](#)" on page 5-32 to complete the installation process.

Postinstallation

The following instructions guide you through the basic postinstallation tasks for Oracle9i Application Server. Before performing these tasks, install, if needed, Oracle9i Application Server Client from the Oracle9i Application Server Administrative and Development Client CD included in the Oracle9i Application Server CD pack.

See Also: [Appendix B, "Installing Oracle9i Application Server Administrative and Development Client CD-ROM"](#)

The postinstallation contains the following sections:

- [Environment Scripts](#)
- [Component-specific Tasks](#)
- [Starting and Stopping Components](#)
- [Component Web Sites](#)
- [Component Port Numbers](#)
- [Additional Documentation](#)

Environment Scripts

[Table 5-1](#) lists the environment script for Standard Edition installation option:

Table 5-1 Environment Scripts

Component	Environment Scripts
Oracle Internet File System	<code>ORACLE_HOME/ifs1.1/bin/infenv.sh</code> <code>ORACLE_HOME/ifs1.1/bin/ifsconfig</code>

Component-specific Tasks

Oracle Internet File System

You must run the Oracle Internet File System Configuration Assistant manually to configure Oracle Internet File System.

See Also: ["Oracle Internet File System Configuration Assistant"](#) for instructions on running Oracle Internet File System Configuration Assistant.

Starting and Stopping Components

[Table 5–2](#) lists the commands needed to individually start and stop the components.

Table 5–2 Starting and Stopping Components

Component	Function	Command
Oracle9iAS Wireless Web Integration Server	Start	<code>ORACLE_HOME/panama/WebIntegration/Server/bin/server.sh</code>
	Stop	Go to <code>http://hostname.domainname:5555</code> and click on shutdown.
Oracle HTTP Server	Start	<code>ORACLE_HOME/Apache/Apache/bin/apachectl start</code>
	Stop	<code>ORACLE_HOME/Apache/Apache/bin/apachectl stop</code>
Oracle HTTP Server SSL-enabled	Start	<code>ORACLE_HOME/Apache/Apache/bin/apachectl startssl</code> (Log in as root user.)
	Stop	<code>ORACLE_HOME/Apache/Apache/bin/apachectl stop</code> (Log in as root user.)
Oracle Internet File System	Start	<code>ORACLE_HOME/ifs1.1/bin/ifsstart</code>
	Stop	<code>ORACLE_HOME/ifs1.1/bin/ifsstop</code>

Component Web Sites

[Table 5-3](#) lists Web sites for Oracle9i Application Server components.

Table 5-3 Component Web sites

Component	Web Site
Oracle9iAS Portal	<code>http://hostname.domain:listener_port/pls/portal30</code>
Oracle9iAS Wireless Web Integration Server	<code>http://hostname.domain:5555</code> (Log on as Administrator/manager)
Oracle HTTP Server Oracle HTTP Server (SSL-enabled)	<code>http://hostname.domain:listener_port</code> <code>https://hostname.domain:listener_port</code>
Oracle Internet File System	<code>http://hostname.domain:listener_port/ifs/files</code> (Log on as system/manager)

Component Port Numbers

[Table 5-4](#) lists the default port numbers on which requests are received for each component.

Table 5-4 Port Numbers

Components	Port Number
Oracle9iAS Portal	Oracle9iAS Portal uses the same port number as Oracle HTTP Server
Oracle9iAS Wireless Oracle9iAS Wireless Web Integration Server	Oracle9iAS Wireless uses the same port as Oracle HTTP Server 5555
Oracle HTTP Server Oracle HTTP Server (SSL-enabled) Oracle HTTP Server Jserv Servlet Engine	For information on port numbers, refer to " Port Allocation " on page 2-17. 8007
Oracle Internet File System	Oracle Internet File System uses the same port number as Oracle HTTP Server FTP: 21 SMB: 139 SMTP: 2500 IMAP: 143 CUP: 4180
Oracle Enterprise Java Engine TNS Listener	TCP/IP: 1521 IIOP: 2481

Additional Documentation

For further information on postinstallation and configuration tasks, refer to component-specific documentation. For information on viewing and installing the documentation, refer to [Appendix E, "Installing Documentation Library"](#).

Enterprise Edition

This chapter guides you through the installation steps for the Enterprise Edition of Oracle9i Application Server. The following topics provide detailed installation steps, and basic postinstallation tasks:

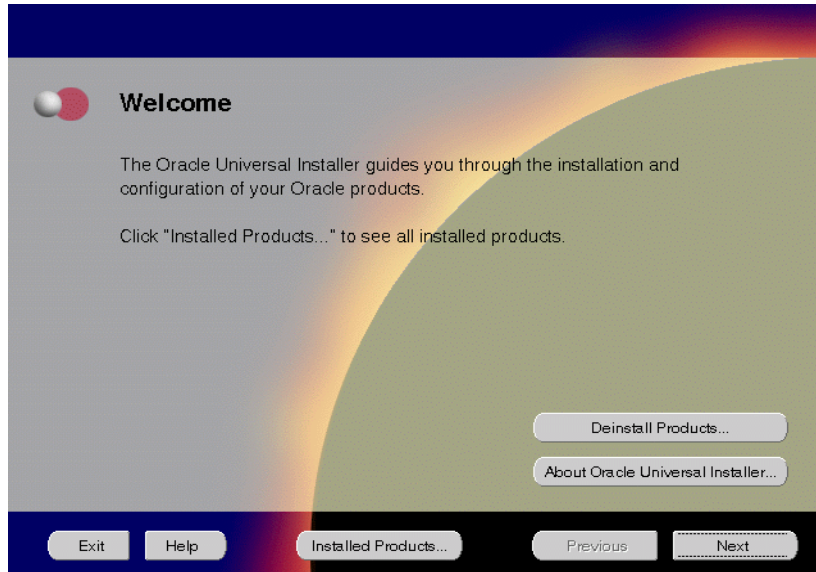
- [Installation](#)
- [Postinstallation](#)

Installation

The following instructions guide you through Oracle9iAS Enterprise Edition install.

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

Figure 6–1 Welcome Screen



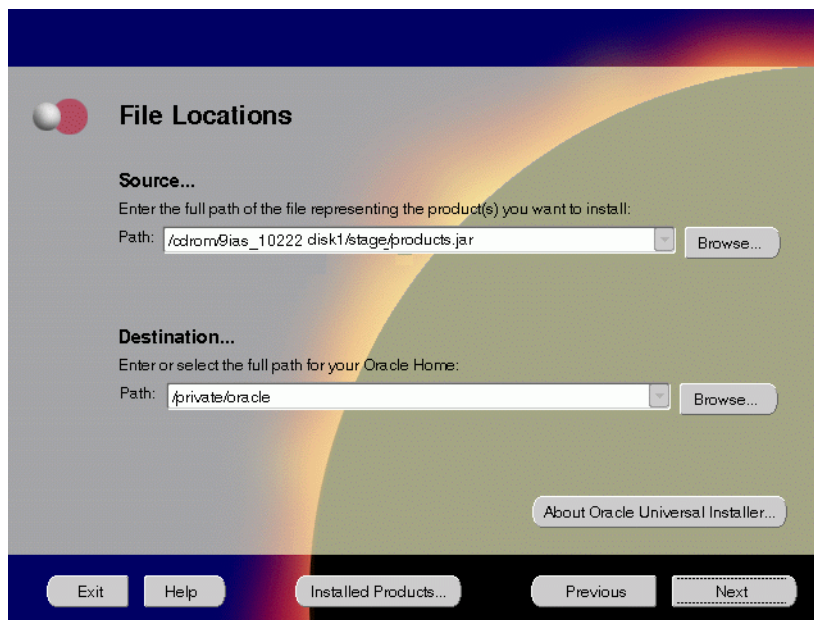
The Welcome screen provides information about the Oracle Universal Installer.

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 to deinstall the entire product or components.
- **Previous:** Return to the previous screen.
- **Next:** Move to the next screen.

2. Verify the source and destination paths and click **Next**. If you have not previously installed Oracle products on your machine, the “OraInventory Location screen” appears after you click **Next**. Enter the complete location path for `oraInventory` directory and click **OK**.

Figure 6–2 File Locations Screen



The File Locations screen allows you to enter the full path for the source and destination locations of Oracle9i Application Server.

- **Source:** This is the full path to the `products.jar` file from which the product will be installed. The installer detects and uses the default values of the `products.jar` file of the installation program. Do not change the path.
- **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: Oracle home path must be a real, absolute path. It cannot contain symbolic links, environment variables, or spaces.



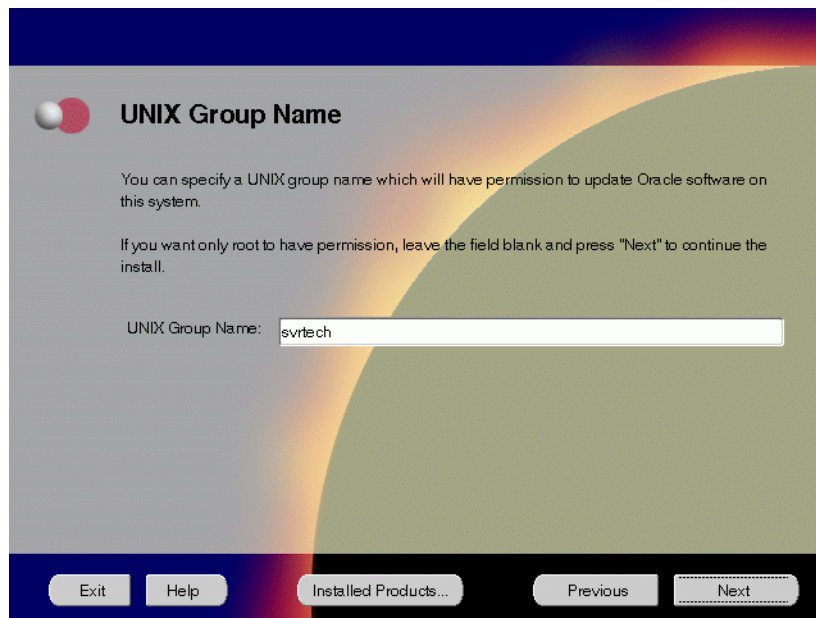
For more information regarding Oracle home, refer to "[ORACLE_HOME](#)" on page 2-12.

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



3. This screen appears only the first time you run Oracle Universal Installer on your machine. Take note of the default value if it appears. Enter a UNIX group name and click **Next**.

Figure 6-3 UNIX Group Name Screen



The UNIX Group Name screen grants permission for the `oraInventory` directory to the group specified. For more information, refer to "[UNIX Group Name for the Oracle Universal Installer Inventory](#)" on page 2-16.

UNIX Group Name:

- Enter a UNIX group name for those who have permission to configure all the functionality of Oracle9i Application Server. Verify your group name by entering this command from the UNIX prompt the installer was launched from:

```
prompt> id
```

- Run the `oraInstRoot.sh` script from your Oracle home to grant permissions to the root user only. You must have root privileges to run this script. 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

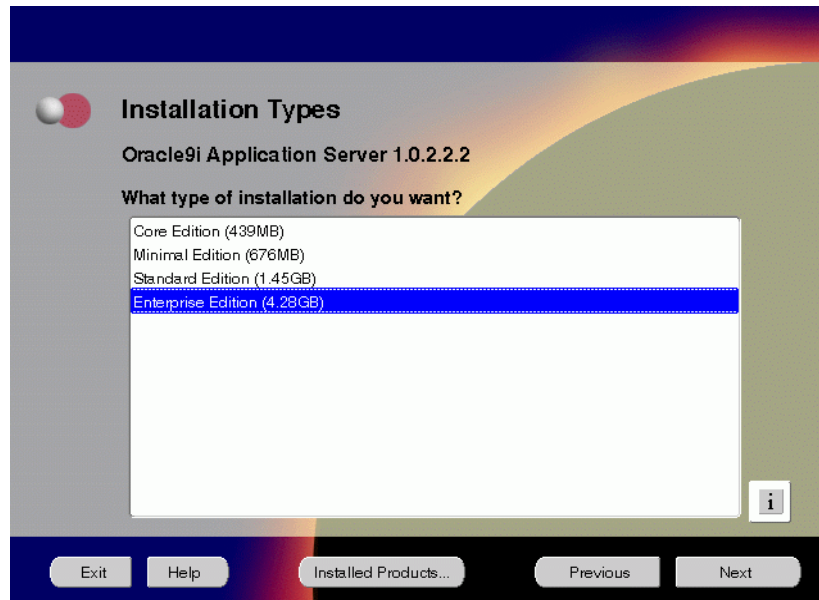


procedure. It produces the `/var/opt/oracle/oraInst.loc` file, which provides a pointer to the `oraInventory` directory.

After you have run the script, click **Retry** to continue.

4. Select Enterprise Edition and click **Next**.

Figure 6–4 *Installation Types Screen*



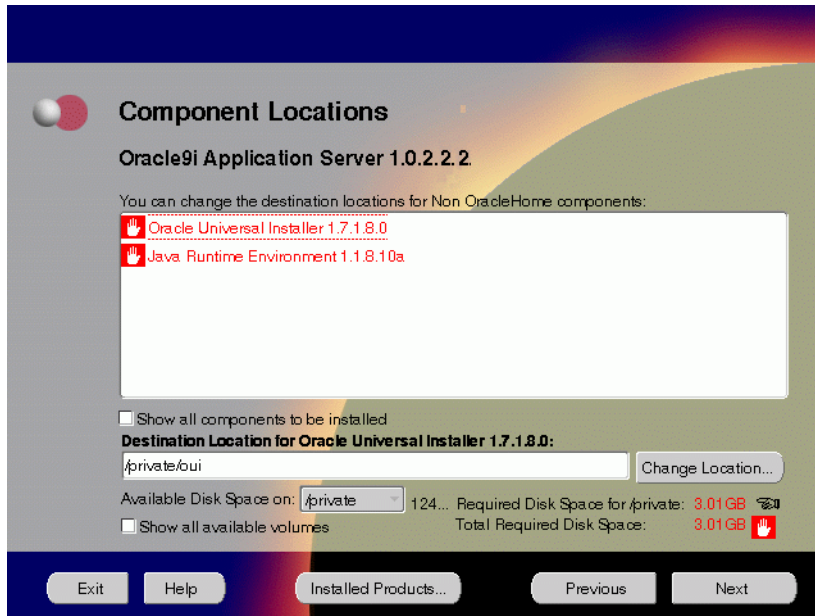
The Installation Types screen allows you to select the Oracle9i Application Server installation option that you are licensed to use.

- **Core Edition:** Oracle9iAS Containers for J2EE, Oracle9iAS Web Cache, and Oracle HTTP Server
- **Minimal Edition:** Installs Oracle9iAS Portal, Oracle9iAS Wireless, Oracle Enterprise Manager Client, and Oracle HTTP Server.
- **Standard Edition:** Installs Oracle9iAS Portal, Oracle9iAS Wireless, Oracle Enterprise Java Engine, Oracle Enterprise Manager Client, Oracle HTTP Server, and Oracle Internet File System.
- **Enterprise Edition:** Installs Oracle9iAS Database Cache, Oracle9iAS Discoverer, Oracle9iAS Forms Services, Oracle9iAS Portal, Oracle9iAS Reports Services, Oracle9iAS Web Cache, Oracle9iAS Wireless, Oracle Enterprise Java Engine, Oracle Enterprise Manager Client, Oracle HTTP Server, Oracle Internet File System, and Oracle Management Server.



5. This screen appears only if Oracle Universal Installer has detected insufficient disk space in the Oracle home directory. If needed, verify and change the locations of the components displayed on the screen, and click **Next**.

Figure 6–5 *Component Locations Screen*



The Component Locations screen allows you to select alternative locations for some components.

Note: Insufficient disk space is indicated in red with a hand icon next to it.

Show all components to be installed: To view the complete list of components chosen for installation. Select check box to display component list.

Click individual components to view and change destination location path. The installer enables you to change the destination location of the components displayed on the screen.

- **Destination Location:** To view the full path of the selected component.
- **Change Location:** To browse for alternate locations for the selected component.
- **Available Disk Space:** To view available disk space in the current directory. The installer also provides information about the total disk space required for the installation of additional components.
- **Required Disk Space for *directory_name*:** To view the total disk space required for installation in the selected directory.
- **Total Required Disk Space:** To view the total disk space required for the product to be installed.
- **Show all available volumes:** To browse through file system for available disk space. Select check box to display the file system.

- This screen appears if the installer detects insufficient TMP space. Remove unneeded files from the swap directory to provide sufficient space for installation and click **Next**. **If your swap space is smaller than 500 MB, click **Exit** and correct the problem.**

Figure 6–6 *Insufficient Space in TMP Screen*



The Insufficient Space in TMP screen indicated inadequate space in the swap directory. You have two options:

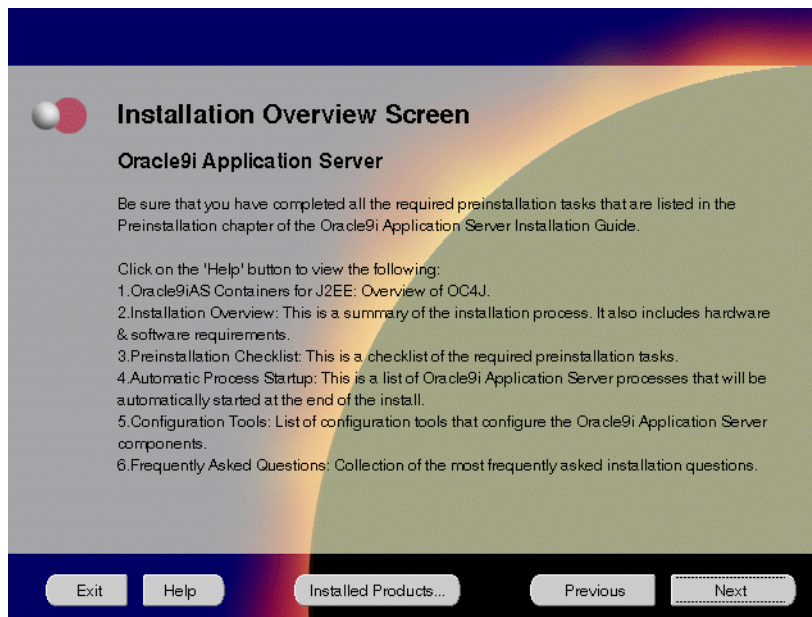
- If you have more than 500 MB swap space, then remove unneeded files from your swap space to create room for installation and click **Next** to proceed.
- If you have less than 500 MB swap space, then **Exit** the installer and set TMP environment variable to point to a writable directory with sufficient space.

For detailed information on TMP directory, refer to "[TMP](#)" on page 2-15.



7. Click the **Help** button to verify that all the preinstallation tasks have been performed, and then click **Next**.

Figure 6–7 *Installation Overview Screen*

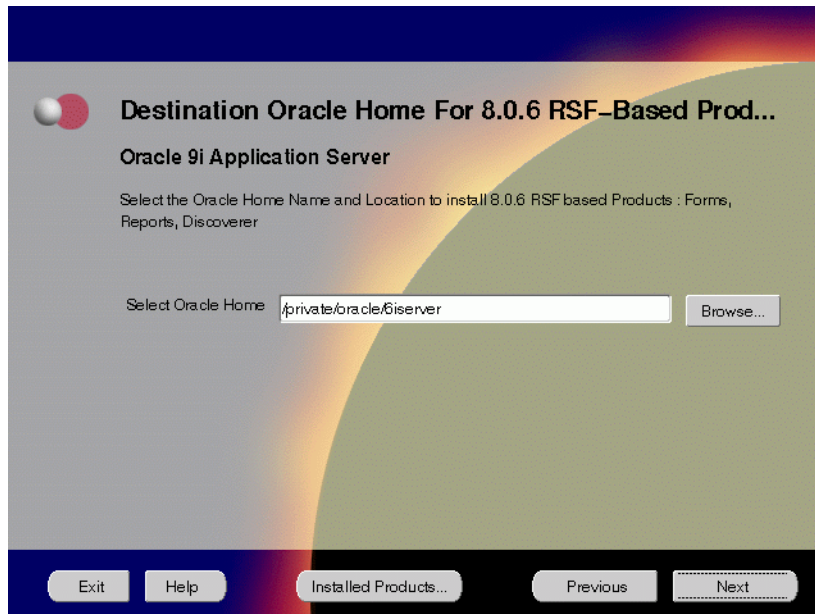


The Installation Overview screen gives you an overview of the installation process. Click on the **Help** button for information on the installation process, preinstallation checklist, automatic process startup, configuration tools, and frequently asked questions.



8. Enter the location of the 8.0.6 RSF based products Oracle Home, and click **Next**.

Figure 6–8 Destination Oracle Home for 8.0.6 RSF-Based Products



The Destination Oracle Home for 8.0.6 RSF-based Products screen enables you to enter the location to install the 8.0.6 RSF based products.

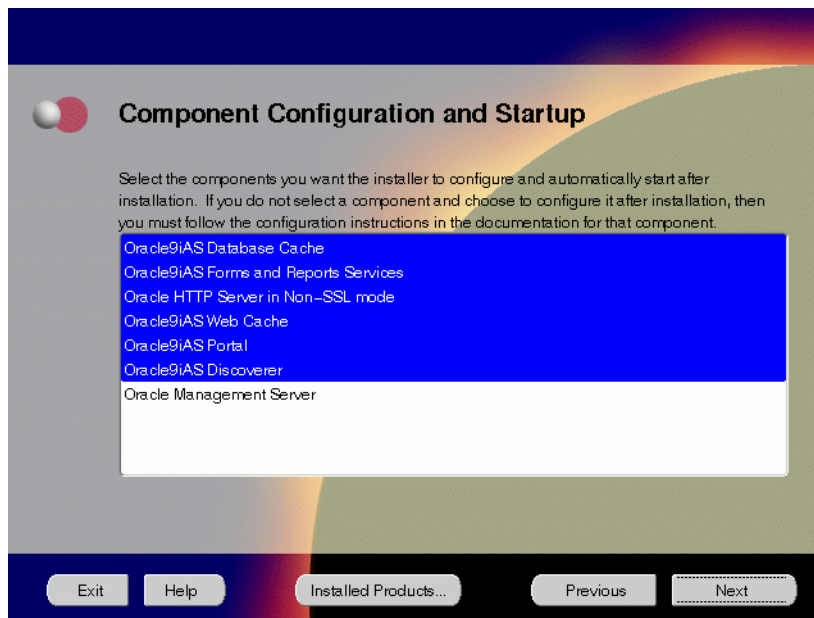
- **Select Oracle Home:** Enter the location of the Oracle Home where you want to install the 8.0.6 RSF-based products.
- **Browse:** To navigate through the file system to find source and destination locations.

Note: Do not to install Oracle9i Application Server in an Oracle home containing other Oracle products, including the database. Such an installation could overwrite shared components, causing the products to malfunction. Also, do not use a 8.1.x Oracle home. For migration and upgrade issues, refer to the *Oracle9i Application Server Migration Guide*.



9. Select the components you wish to configure during the installation process and click **Next**. These components will automatically start up after installation. If you wish to configure the components later, do not select them.

Figure 6–9 Component Configuration and Startup Screen



The Component Configuration and Startup screen allows you to select the components that you want the installer to configure and start after installation. This screen offers two configuration options:

- If you select a component here, then the installer prompts you for any or all configuration information required by that component. After installation, the installer starts that component.
- If you de-select a component here, then the installer installs it, but does not configure or start it. later on, if you decide to use that component, then manually launch the configuration assistant to configure that component.

See Also: [Appendix A, "Configuration Tools"](#)

You can select or de-select multiple components by holding down the Control key while clicking on the component name.



10. This screen will appear only if you selected Oracle9iAS Database Cache in the Component Configuration and Startup screen. Enter the host name, port number, and service name of the origin database and click Next.

Figure 6–10 Origin Database Connection Information

Origin Database Connection Information

Enter the following values for the origin database to which Oracle Database Cache will connect. The database service name is usually the global database name, which has the format: <ORACLE_SID>.<domain>

Host Name: oasdocs

Port Number: 1521

Service Name: oasdocs.us.oracle.com

Exit Help Installed Products... Previous Next

The Origin Database Connection Information screen enables you to identify the origin database for the middle-tier cache.

- **Host Name:** The name of the machine where the origin database is located.
- **Port Number:** The port number of the listener for the origin database. The default port number is 1521. For port allocation information, refer to ["Oracle9iAS Database Cache"](#) on page 2-17.
- **Service Name:** The database service name is the global database name. The global database name uniquely distinguishes the database from other databases in your network domain. The installation procedure uses this name to create an entry in the `tnsnames.ora` file on the local cache node.

For example, if `oasdocs` is the database name and `us.oracle.com` is the network domain in which the database is located, then the service name is `oasdocs.us.oracle.com`.

11. Enter or accept the default Portal DAD and Schema names. Also, enter the database connection information. Click **Next**.



Figure 6–11 Apache Listener Configuration for Oracle9iAS Portal (DAD and Schema name) Screen

Apache Listener Configuration for Oracle9iAS Portal

Database Access Descriptor (DAD) for Oracle9iAS Portal

Enter a name for the DAD that will be used to access Oracle9iAS Portal and enter the name of the database schema where Oracle9iAS Portal will be installed. If you are installing the Oracle HTTP Server powered by Apache in an Oracle Home other than the one in which Oracle9iAS Portal is installed, you must also specify a TNS connect string to the database where Oracle9iAS Portal is installed.

Portal DAD Name:

Portal Schema Name:

Connect String:

Note: Connect String should be in <machine name>:<port><sid> format.

Exit Help Installed Products... Previous **Next**

The Apache Listener Configuration for Oracle9iAS Portal screen allows you to enter the name of the Database Access Descriptor (DAD) that will be used to access Oracle9iAS Portal, and the name of the database schema where Oracle9iAS Portal will be installed. It also enables you to enter the database connection information if Oracle9iAS Portal and Oracle HTTP Server are installed in different Oracle homes. The information you enter here is used to create the PL/SQL Gateway settings which you can access upon installation from the following location:

`http://machine_name:port/pls/admin_/gateway.htm`

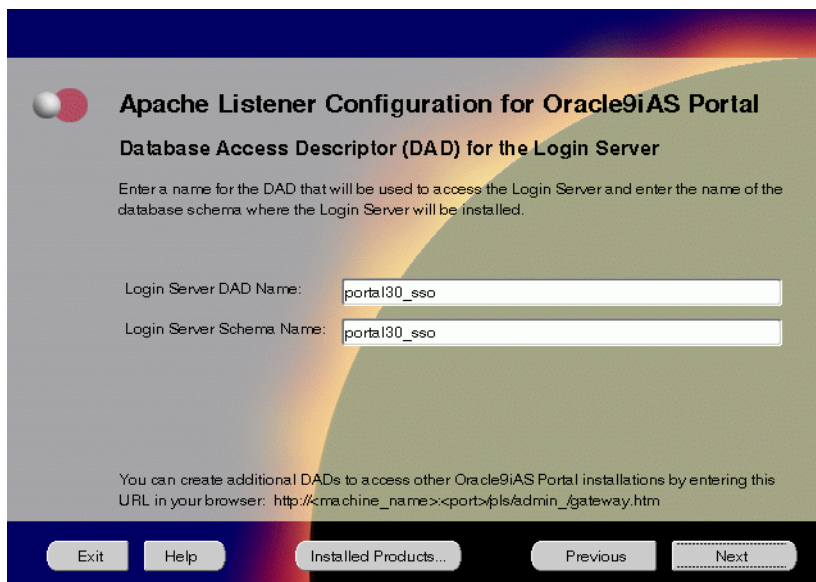
- Portal DAD Name:** Enter the name of the DAD for each instance you installed in the database. A Database Access Descriptor (DAD) is a set of values that specify how the Apache Listener connects to your Oracle database server to fulfill an HTTP request. Based on this DAD name, the installation automatically sets other DAD-related and default settings such

as the name and location of the document table. The default DAD name is `portal30`.

- **Portal Schema Name:** Enter the name of the database schema that will contain Oracle Portal. A schema is a collection of components and database objects under the control of a given database user. Each Oracle Portal application maps to an Oracle database schema. The default schema name is `portal30`.
- **Connect String:** Enter the origin database connection information in the form `host:port:sid`.

12. This screen will appear only if you selected Oracle9iAS Portal in the Component Configuration and Startup screen. Enter or accept the default Login Server DAD and Schema names. Click **Next**. 

Figure 6–12 Apache Listener Configuration for Oracle9iAS Portal (Login Server) Screen



Apache Listener Configuration for Oracle9iAS Portal

Database Access Descriptor (DAD) for the Login Server

Enter a name for the DAD that will be used to access the Login Server and enter the name of the database schema where the Login Server will be installed.

Login Server DAD Name:

Login Server Schema Name:

You can create additional DADs to access other Oracle9iAS Portal installations by entering this URL in your browser: `http://<machine_name>:<port>/pls/admin/_gateway.htm`

Exit Help Installed Products... Previous **Next**

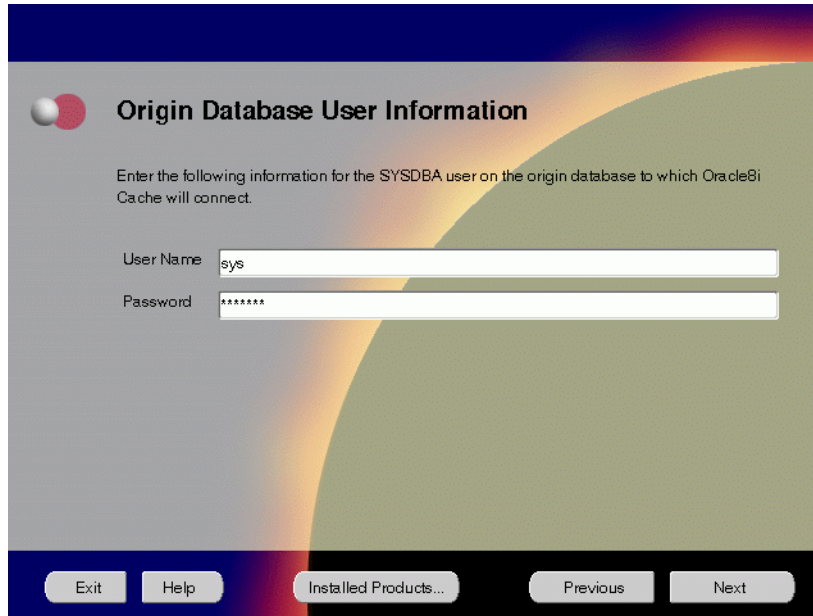
The Apache Listener Configuration for Oracle9iAS Portal screen allows you to enter the Login Server DAD and Schema Name, with a `_sso` extension for easy recognition. The Login Server provides an enterprise-wide Single Sign-On (SSO) mechanism that enables an Oracle Portal user to log in securely to Oracle Portal and any partner and external applications using a single user name and password.

- **Login Server DAD Name:** Enter the name of the DAD for each instance you installed in the database. The default DAD name is `portal30_sso`.
- **Login Server Schema Name:** Enter the name of the database schema that will contain Oracle Portal. The default schema name is `portal30_sso`.

13. This screen will appear only if you have selected Oracle9iAS Database Cache in the Component Configuration and Startup screen. Enter the `SYSDBA` name and password and click **Next**.



Figure 6–13 *Origin Database User Information Screen*

The screenshot shows a software installation window titled "Origin Database User Information". The window has a dark blue header bar. Below the title, there is a red circular progress indicator. The main content area is light gray with a large green curved graphic on the right side. The text reads: "Enter the following information for the SYSDBA user on the origin database to which Oracle8i Cache will connect." Below this, there are two input fields: "User Name" with the text "sys" and "Password" with "*****". At the bottom, there is a dark blue footer bar containing five buttons: "Exit", "Help", "Installed Products...", "Previous", and "Next".

The Origin Database User Information screen allows you to enter the `SYSDBA` information created for the origin database.

- **User Name:** The `SYSDBA` user name for the origin database that the installer detects and defaults. You can change the name or accept the default.
- **Password:** The password for the `SYSDBA` user.

14. Enter the hostname, port number, and SID of the origin database where you will install the Oracle9iAS Wireless, and click **Next**. If you are upgrading from Oracle9i Application Server, version 1.0.2.1, then an “Upgrade Installation Detected” screen will appear. Review the content on the screen and click **Next** or **Exit** accordingly. If you click **Next**, then the installation will continue and the following screen will appear.



Note: Do not enter Oracle9iAS Database Cache hostname, port number, and SID in this screen.

Figure 6–14 *Wireless Edition Repository Information Screen*

Wireless Edition repository information

Please enter the hostname domain, Net8 listener port number and SID of the database where you will install the Oracle9i Application Server Wireless Edition repository.

Hostname:


Port:

SID:

Exit Help Installed Products... Previous Next

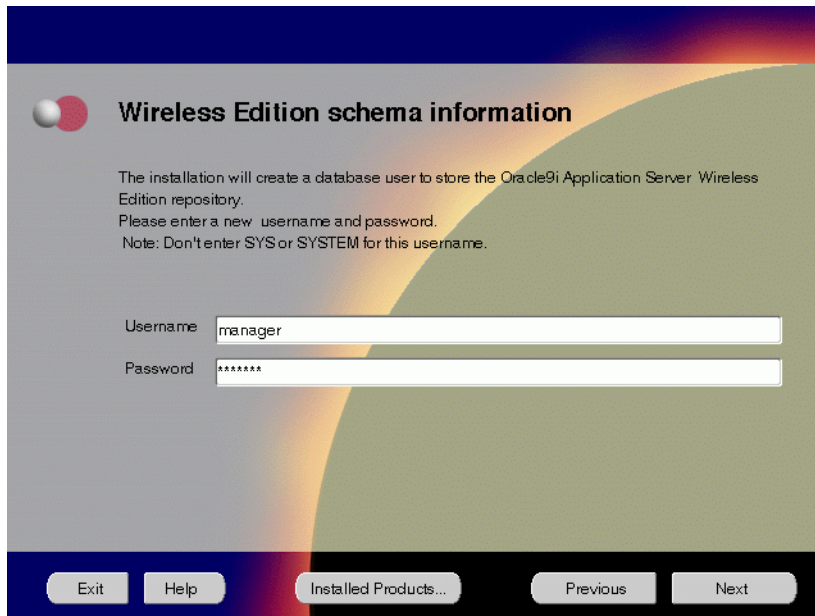
The Wireless Edition Repository Information screen allows you to enter the hostname, Net8 Listener port number, and SID of the database where you will install the Oracle9iAS Wireless repository.

- **Hostname:** Enter the `hostname.domain` of the database where you will install the Oracle9iAS Wireless.
- **Port:** Enter the Net8 Listener port number.
- **SID:** Enter the System Identifier (SID) of the database where you will install the Oracle9iAS Wireless repository.

15. Enter the new username and password for the database user to store the Oracle9iAS Wireless repository, and click **Next**. If you are upgrading from Oracle9i Application Server, version 1.0.2.1, then the “Oracle9iAS Wireless Schema Information Screen” will be slightly different. Enter the existing Oracle9iAS Wireless username and password, and click **Next**. 

Note: Do not use an existing database user, (that is, SYS, SYSTEM, or any other existing database user) as the username.

Figure 6–15 *Wireless Edition Schema Information Screen*



Wireless Edition schema information

The installation will create a database user to store the Oracle9i Application Server Wireless Edition repository.
Please enter a new username and password.
Note: Don't enter SYS or SYSTEM for this username.


Username

Password

Exit Help Installed Products... Previous Next

The Wireless Edition Schema Information screen allows you to create a database user to store the Oracle9iAS Wireless repository.

- **Username:** Enter a new user name for the database user to store the Oracle9iAS Wireless repository.
- **Password:** Enter a password for the database user.

16. Enter and confirm the `SYSTEM` password of the database, and click **Next**. If you are upgrading from Oracle9i Application Server, version 1.0.2.1, then a “Wireless Edition Administrator Password Information” screen appears. Enter and confirm the “Administrator” password, and click **Next**. 

Note: Do not enter the database schema owner password.

Figure 6–16 System Password for Wireless Edition Screen

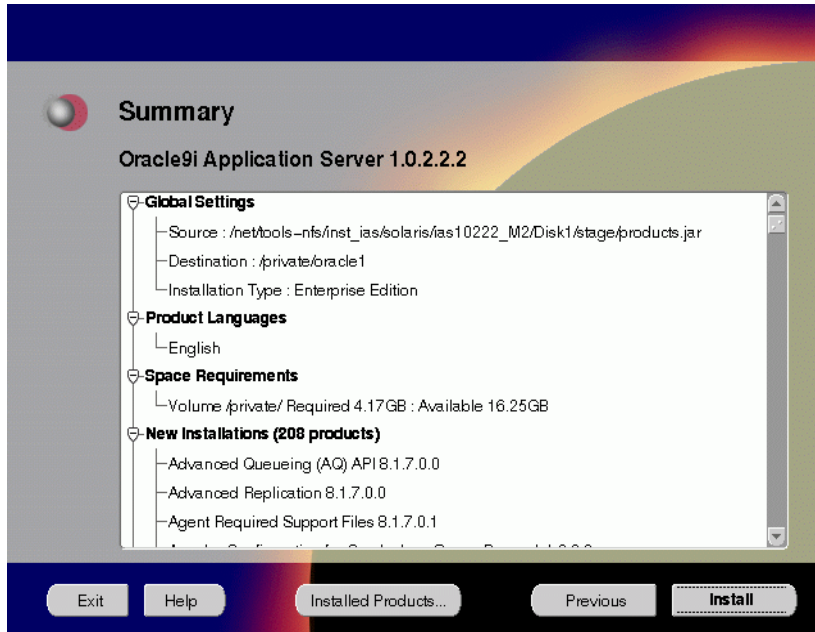


The System Password screen allows you to enter and confirm the `SYSTEM` password of the database where you are loading the Oracle9iAS Wireless repository.

- **Enter Password:** Enter the `SYSTEM` password of the database where you will install the Oracle9iAS Wireless.
- **Confirm Password:** Re-enter the `SYSTEM` password as entered above for verification.

17. Review the summary and click **Install** to begin the installation process.

Figure 6–17 Summary Screen



The Summary screen allows you to review all the settings before the actual installation process. These settings include source, destination, installation type, product language, space requirements, and a list of components.

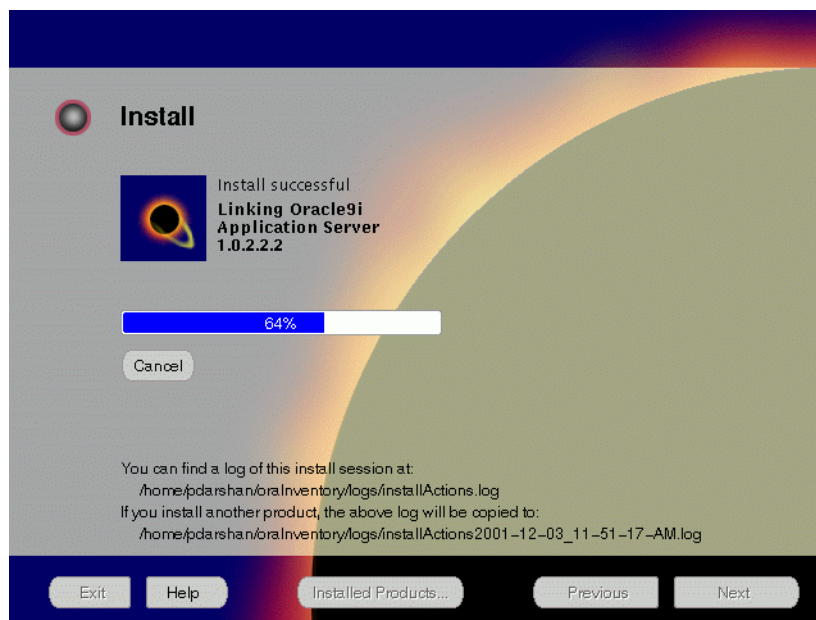
- To make changes to any of these settings, click **Previous** to return to the respective screens.

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

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

18. Monitor the installation process and after the installer finishes, click **Next**.

Figure 6–18 *Install Screen*



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

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

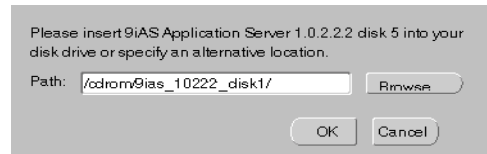
For more information about installation log, refer to "[oraInventory Directory](#)" on page 2-32.

During the installation process, Oracle Installer appears to install 8.0.6 RSF-based products such as Oracle9iAS Forms Services, Oracle9iAS Reports Services, and Oracle9iAS Discoverer. No user input is required.

Changing Disks

During installation, the installer prompts you to switch between Disks 1 through 5. Use these steps to change disks and continue the installation process.

Figure 6–19 *Changing Disks Dialog*



- a. Eject and unmount the current disk.

If you are using Solaris Volume Management software and Disk1 was automatically mounted, then this can be done with the following command:

```
prompt> eject cdrom
```

If you are not using Solaris Volume Management software, then you must manually eject and unmount the disk. For further instructions, refer to your operating system documentation

- b. Insert the next disk into the CD-ROM drive and mount it.

If you are using the Solaris Volume Management software, then the next disk will be automatically mounted.

If you are not using Solaris Volume Management software, then you must manually mount the disk. For further instructions, refer to "[Starting Oracle Universal Installer](#)" on page 2-33.

- c. Click the **Browse** button on the changing disks dialog, and navigate to /cdrom/9ias_10222_diskx. This directory may be different depending on where the original disk was mounted.
- d. Click OK to continue the installation process.

Running `root.sh`



After installation is completed, the installer prompts you to run `root.sh` script. Use these steps to run the `root.sh` script.

- a. Log on as the root user.
- b. Go to the Oracle home directory.

```
prompt> cd $ORACLE_HOME
```

- c. Run the `root.sh` script.


```
prompt> ./root.sh
```

- d. Exit root user.

Once you see “Finished running generic part of the `root.sh` script” and “Now product-specific root actions will be performed,” exit root user and return to the Install screen.

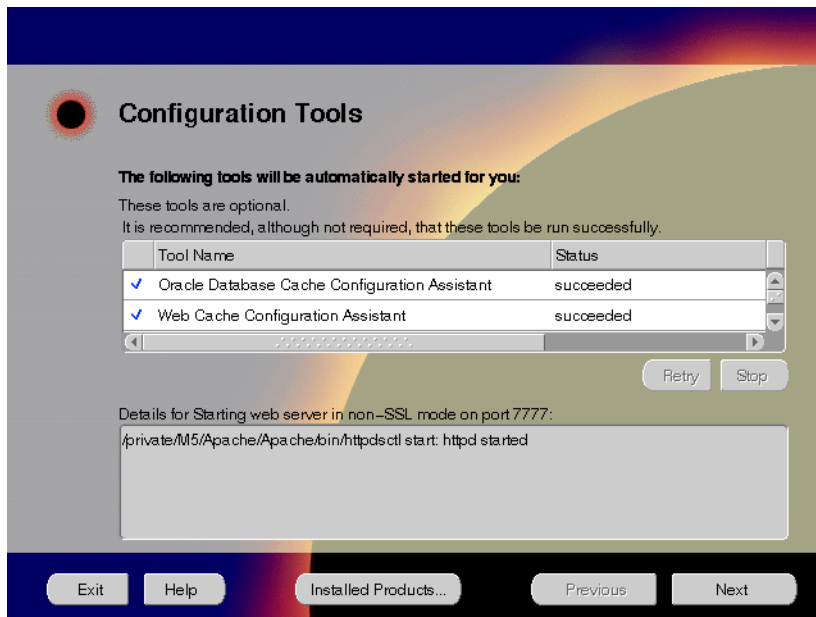
The `root.sh` script detects:

- 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.

19. Start the origin database if it has been shut down during installation. Verify the list of configuration tools and click **Next**. This screen appears only if you select components to configure and start in the Components Configuration and Startup screen. 

Note: The installer has completed copying and linking the necessary files. Be sure to start the database if it had been shut down for the installation process. The configuration tools such as Oracle9iAS Portal Configuration Assistant need to connect to an active database for configuration purposes.

Figure 6–20 Configuration Tools Screen



The Configuration Tools screen lists the configuration tools for all installed components.

Scroll down the 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.
- Displays all the configuration settings in the display window below as it executes a configuration tool for each component.
- Enables you to view configuration settings after all configuration tools are executed. Click on each component to review all the changes made.
- 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.
- **Retry**: To re-execute the configuration script if the configuration of a component fails.
- **Stop**: To quit the configuration process.

Configuration Tools

Depending on the components you select in the Configuration and Startup screen, the following configuration tools launch:

Oracle9iAS Database Cache Configuration Assistant - This configuration assistant enables you to configure your middle-tier caches.

See Also: "[Oracle9iAS Database Cache Configuration Assistant](#)" on page A-3 for instructions on running Oracle9iAS Database Cache Configuration Assistant.

Oracle9iAS Web Cache Configuration Assistant - This launches the service to start Oracle9iAS Web Cache.

Starting HTTP Server - This starts Oracle HTTP Server.

Starting Forms Server - This starts the Oracle9iAS Forms Services.

Starting Reports Server - This starts the Oracle9iAS Reports Services.

Oracle9iAS Portal Configuration Assistant - This configuration assistant loads necessary database objects for Oracle9iAS Portal to run.

See Also: "[Oracle9iAS Portal Configuration Assistant](#)" on page A-8 for instructions on running Oracle9iAS Portal Configuration Assistant.

Starting Discoverer 4i Viewer Server - This starts the Oracle9iAS Discoverer Services.

20. Ensure that the installation was successful. Click **Exit** to quit the installer.

Figure 6-21 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.

- **Release Information:** To view the latest release information.

If the installer detects that specific port numbers such as 7777, are occupied, it will display the alternate port numbers on the end of Installation screen. For Oracle HTTP Server port number information, refer to "[Port Allocation](#)" on page 2-17.

You have successfully installed the Enterprise Edition installation option of Oracle9i Application Server. Proceed to "[Postinstallation](#)" on page 6-30 to complete the installation process.

Postinstallation

The following instructions guide you through the basic postinstallation tasks for Oracle9i Application Server. Before performing these tasks, install, if needed, Oracle9i Application Server Client from the Oracle9i Application Server Administrative and Development Client CD included in the Oracle9i Application Server CD pack.

See Also: [Appendix B, "Installing Oracle9i Application Server Administrative and Development Client CD-ROM"](#)

The postinstallation contains the following sections:

- [Environment Scripts](#)
- [Component-specific Tasks](#)
- [Starting and Stopping Components](#)
- [Component Web Sites](#)
- [Component Port Numbers](#)
- [Additional Documentation](#)

Environment Scripts

[Table 6-1](#) and [Table 6-2](#) list the environment script for Enterprise Edition installation option:

Table 6-1 Environment Scripts for C Shell Users

Component	C Shell
Oracle9iAS Database Cache	<code>ORACLE_HOME/8ienv.csh</code>
Oracle9iAS Discoverer	<code>ORACLE_HOME/6iserver/discwb4/discwb.csh</code>
Oracle9iAS Forms Services	<code>ORACLE_HOME/6iserver/forms60.csh</code>
Oracle9iAS Reports Services	<code>ORACLE_HOME/6iserver/reports60.csh</code>
Oracle9iAS Web Cache	<code>ORACLE_HOME/8ienv.csh</code>
Oracle Internet File System	Using the Bourne or Korn shell, run the following scripts: <code>ORACLE_HOME/ifs1.1/bin/infenv.sh</code> <code>ORACLE_HOME/ifs1.1/bin/ifsconfig</code>

Table 6–1 Environment Scripts for C Shell Users

Component	C Shell
Oracle Management Server	<code>ORACLE_HOME/8ienv.csh</code>

Table 6–2 Environment Scripts for Bourne or Korn Shell Users

Component	Bourne/Korn Shell
Oracle9iAS Database Cache	<code>ORACLE_HOME/8ienv.sh</code>
Oracle9iAS Discoverer	<code>ORACLE_HOME/6iserver/discwb4/discwb.sh</code>
Oracle9iAS Forms Services	<code>ORACLE_HOME/6iserver/forms60.sh</code>
Oracle9iAS Reports Services	<code>ORACLE_HOME/6iserver/reports60.sh</code>
Oracle9iAS Web Cache	<code>ORACLE_HOME/8ienv.sh</code>
Oracle Internet File System	<code>ORACLE_HOME/ifs1.1/bin/infenv.sh</code> <code>ORACLE_HOME/ifs1.1/bin/ifsconfig</code>
Oracle Management Server	<code>ORACLE_HOME/8ienv.sh</code>

Component-specific Tasks

This section contains postinstallation tasks for the following topics:

- [Oracle Internet File System](#)
- [Oracle Management Server](#)
- [Oracle9iAS Database Cache](#)
- [SSL Authentication Method Configuration](#)
- [Multi-threaded Server Configuration](#)



Oracle Internet File System

You must run the Oracle Internet File System Configuration Assistant manually to configure Oracle Internet File System.

See Also: "[Oracle Internet File System Configuration Assistant](#)" for instructions on running Oracle Internet File System Configuration Assistant.

Oracle Management Server

You must run the Oracle Enterprise Manager Configuration Assistant manually to configure Oracle Management Server.

See Also: ["Oracle Management Server Configuration Assistant"](#) for instructions on running Oracle Enterprise Manager Configuration Assistant.

Oracle9iAS Database Cache

Be sure to perform the following post-installation steps to Oracle9iAS Database Cache

- [Setting Up the Oracle9iAS Database Cache Environment for Your Applications](#)
- [Using the Oracle9iAS Database Cache Home](#)
- [Using a Previous Oracle8i Release 8.1.6 Oracle Home](#)
- [Relinking Applications That Use Releases Previous to Release 8.1.6](#)
- [Modify the initcache.ora File](#)

Setting Up the Oracle9iAS Database Cache Environment for Your Applications

When you install Oracle9iAS Database Cache, the installation procedure installs files that are specific to Oracle9iAS Database Cache and files that are updates to Oracle8i Server or Client release 8.1.6.1. These files contain the Oracle9iAS Database Cache functionality, as well as bug fixes to files usually installed with the Oracle8i Server or Client.

To use Oracle9iAS Database Cache, you must make sure that your applications are using the files and libraries installed for Oracle9iAS Database Cache. You can do this in the following ways:

- Run your application from the Oracle home in which you installed Oracle9iAS Database Cache. This is the supported method. See ["Using the Oracle9iAS Database Cache Home"](#) for a description of the steps you must take.
- If you have multiple Oracle homes and you need to run your application from the Oracle home for Oracle8i Server or Client release 8.1.6 or 8.1.6.1, you must copy files from the Oracle9iAS Database Cache Oracle home to the Oracle8i Server or Client Oracle home. See ["Using a Previous Oracle8i Release 8.1.6 Oracle Home"](#) on page 6-34 for a description of the steps you must take.
- If your application was compiled and linked using a release prior to Oracle8i Server or Client release 8.1.6, you must relink your application using the OCI

libraries that are installed by Oracle9iAS Database Cache. See "[Relinking Applications That Use Releases Previous to Release 8.1.6](#)" on page 6-35 for more information.

Using the Oracle9iAS Database Cache Home

To run your application from the Oracle home in which you installed Oracle9iAS Database Cache, you must take the following steps:

1. From the process in which you will run your application, set the following environment variables:
 - Set Oracle home to the Oracle home in which you have installed Oracle9iAS Database Cache.
 - Set `LD_LIBRARY_PATH` so that the Oracle9iAS Database Cache library directory (`ORACLE_HOME/lib`) precedes library directories from other Oracle homes.
 - Set `ORA_OCI_CACHE` to "1" so that all applications started from the process will use the cache. (Alternatively, you can use parameters within OCI applications to control which applications or statements use the cache. See the *Oracle9iAS Database Cache Concepts and Administration Guide* for more information.)
 - If you use the environment variable `TNS_ADMIN`, make sure that it is set to the `ORACLE_HOME/network/admin` directory in the Oracle home for Oracle9iAS Database Cache.
2. If your application was running previously on the node on which you installed Oracle9iAS Database Cache and the application connected to the origin database by using an entry in an existing `tnsnames.ora` file, you must copy that entry to the `tnsnames.ora` file used by Oracle9iAS Database Cache.

The `tnsnames.ora` file is located in the `ORACLE_HOME/network/admin` directory. Copy the entry from the file in the previously existing Oracle home to the `tnsnames.ora` file in the Oracle home in which you installed Oracle9iAS Database Cache.

Note that the Oracle9iAS Database Cache installation creates an entry for the origin database in the `tnsnames.ora` file on the local cache node. It assigns the alias `ora_ocache_origin`. Do not modify or delete the `ora_ocache_origin` entry. To assign a different alias for another purpose, edit the `tnsnames.ora` file and add another entry. The Oracle9iAS Database Cache installation also creates an entry, `ora_ocache`, for the cache. Do not modify or delete this entry.

Using a Previous Oracle8i/Release 8.1.6 Oracle Home

If you previously ran your application from the Oracle home for Oracle8i Server or Client release 8.1.6 or 8.1.6.1 and you continue to need to run your application from that Oracle home, you must take the following steps:

Note: Use this method only if you cannot use the Oracle home for Oracle9iAS Database Cache. Do not use this method if your application ran from a release later than 8.1.6.1. Instead, refer to ["Using the Oracle9iAS Database Cache Home"](#) on page 6-33 for the recommended method.

1. Copy the following library files from the Oracle home in which you installed Oracle9iAS Database Cache to the Oracle home for the Oracle8i server or client that your application uses:
 - `ORACLE_HOME/lib/libclient8.a`
 - `ORACLE_HOME/lib/libgeneric8.a` (not required for 8.1.6.1)
 - `ORACLE_HOME/lib/libwtc8.so`
 - `ORACLE_HOME/lib/libwtc8.a`
2. Set the following environment variables to the Oracle home for the Oracle8i server or client that your applications uses:
 - Set `ORACLE_HOME` to the Oracle home.
 - Set `LD_LIBRARY_PATH` to `ORACLE_HOME/lib`.
 - Set `PATH` to include `ORACLE_HOME/bin`.
3. From the Oracle home for the Oracle8i server or client that your application uses, run the executable file `genclntsh`, which is located in the `ORACLE_HOME/bin` directory.
4. Copy the SQL*Plus executable file from the Oracle home in which you installed Oracle9iAS Database Cache to the Oracle home for the Oracle8i server or client that your application uses.
5. Set the value of the environment variable `ORA_OCI_CACHE` to "1" so that all applications started from the process will use the cache. (Alternatively, you can use parameters within OCI applications to control which applications or statements use the cache.)

6. If you use the environment variable or registry parameter `TNS_ADMIN`, make sure it points to the Oracle home that your application uses.
7. Copy the entries in the `tnsnames.ora` file from the Oracle home in which you installed Oracle9iAS Database Cache to the `tnsnames.ora` file in the Oracle home for the Oracle8i server or client that your application uses.

Relinking Applications That Use Releases Previous to Release 8.1.6

If your application was compiled and linked using a release prior to Oracle8i Server or Client release 8.1.6, you must relink your application using the OCI libraries that are installed by Oracle8i Cache.

For information about relinking applications, see *Oracle Call Interface Programmers Guide* and *Oracle8i Administrator's Reference* in the database documentation.

Then, you must take the steps described in "[Using the Oracle9iAS Database Cache Home](#)" on page 6-33.

Modify the `initicache.ora` File

The Oracle9iAS Database Cache installation creates a cache using the same database character set as the origin database. However, it does not set other National Language Support (NLS) features, such as date format or currency symbols.

If the initialization file (`initSID.ora`) of your origin database specifies NLS parameters, you must copy those parameters to the initialization file (`initicache.ora`) of the cache. (NLS parameters begin with "NLS_".)

For example, if the initialization file of your origin database contains the following parameters, copy them to `initicache.ora`:

```
NLS_LANGUAGE = JAPANESE
NLS_CALENDAR = "Japanese Imperial"
NLS_DATE_FORMAT = "E YY-MM-DD"
```

The file `initicache.ora` is located in the following directory:

```
ORACLE_HOME/admin/icache/pfile
```

For information about setting up your caches and additional information about configuring your application environment, see the *Oracle9iAS Database Cache Concepts and Administration Guide*.

SSL Authentication Method Configuration

This section guides you through configuring SSL for Oracle9iAS Database Cache, Oracle Servlets Engine for Java, Distributed CORBA Applications, and Enterprise JavaBeans.

These steps guide you through the SSL configuration for the following:

Oracle9iAS Database Cache

To configure Oracle9iAS Database Cache to use SSL, remove the comment characters (#) from the following entry in the `listener.ora` file:

For secure connections over SSL, uncomment the following lines:

```
# (DESCRIPTION = # Secure TCP connections
#   (ADDRESS =
#     (PROTOCOL = TCPS) (HOST = host_name) (PORT = 2484)
#   )
# )
```

The listener will listen for all SSL requests.

Oracle Servlets Engine for Java

To configure Oracle Servlets Engine for Java to use SSL, (in addition to removing the comment characters from the appropriate line in the initialization file) you must remove the comment characters (#) from the following entry in the `tnsnames.ora` file:

```
# Support for mod_ose over TCP with SSL connections.
# instl_https =
#   (DESCRIPTION =
#     (ADDRESS =
#       (PROTOCOL=TCPS)
#       (HOST=host_name)
#       (PORT=2484)
#     )
#     (CONNECT_DATA=
#       (SERVICE_NAME=MODESE)
#       (SERVER=shared)
#       (PRESENTATION=http://admin)
#     )
#   )
```


Distributed CORBA Applications and Enterprise JavaBeans

To configure distributed CORBA application and Enterprise JavaBeans to use SSL, (in addition to removing the comment characters from the appropriate line in the initialization file) you must remove the comment characters (#) from the following entry in the `listener.ora` file:

For secure IIOP connections over SSL, uncomment the following lines:

```
# (DESCRIPTION = # Secure IIOP Connections
#   (PROTOCOL_STACK =
#     (PRESENTATION=GIOP)
#     (SESSION=RAW)
#   )
# (ADDRESS=(PROTOCOL=TCPS)(HOST=% s_host_name%)(PORT=2482))
# )
```

Multi-threaded Server Configuration

These steps guide you through configuring Oracle9iAS Database Cache as a Multi-threaded server for Oracle Servlets Engine for Java, Distributed CORBA Applications, and Enterprise JavaBeans:

Oracle Servlets Engine for Java

To configure Oracle9iAS Database Cache as a multi-threaded server (MTS) for Oracle Servlets Engine for Java, you must make one or both of the following changes to your initialization file (`instSID.ora`):

- For standard connections, remove the comment character (#) from the following line:

```
# mts_dispatcher = "(PROTOCOL=TCP)(SERV=MODESE)"
```

- To use the secure socket layer (SSL) authentication method, remove the comment character (#) from the following line:

```
# mts_dispatcher = "(PROTOCOL=TCPS)(SERV=MODESE)"
```

For information on enabling SSL for Oracle9iAS Portal, refer to *Oracle Portal 3.0.8 Configuration Guide*.

Distributed CORBA Applications and Enterprise JavaBeans

To configure Oracle9iAS Database Cache as a multi-threaded server (MTS) for distributed CORBA applications and Enterprise JavaBeans, you must make the following changes in your initialization file (*instSID.ora*):

- Remove the comment character (#) from the following line:

```
# mts_dispatcher = "(PROTOCOL=TCP)(PRE=oracle.aurora.server.SGiopServer)"
```

- To use the secure socket layer (SSL) authentication method, remove the comment character (#) from the following line:

```
# mts_dispatcher = "(PROTOCOL=TCPS)(SERV=oracle.aurora.server.SGiopServer)"
```

Starting and Stopping Components

Table 6–3 lists the commands needed to individually start and stop the components.

Table 6–3 Starting and Stopping Components

Component	Function	Command
Oracle9iAS Database Cache	Start	<code>ORACLE_HOME/bin/cachstrt</code>
	Stop	<code>ORACLE_HOME/bin/cachshut</code>
Oracle9iAS Discoverer	Start	<code>ORACLE_HOME/6iserver/discwb4/util/startall.sh</code>
	Stop	<code>ORACLE_HOME/6iserver/discwb4/util/stopall.sh</code>
Oracle9iAS Forms Services	Start	<code>ORACLE_HOME/6iserver/forms60_server start</code>
	Stop	<code>ORACLE_HOME/6iserver/forms60_server stop</code>
Oracle9iAS Reports Services	Start	<code>ORACLE_HOME/6iserver/reports60_server start</code>
	Stop	<code>ORACLE_HOME/6iserver/reports60_server stop</code>
Oracle9iAS Web Cache	Start	<code>ORACLE_HOME/webcache/bin/webcachectl start</code>
	Stop	<code>ORACLE_HOME/webcache/bin/webcachectl stop</code>
Oracle9iAS Wireless Web Integration Server	Start	<code>ORACLE_HOME/panama/WebIntegration/Server/bin/server.sh</code>
	Stop	Go to <code>http://hostname.domainname:5555</code> and click on shutdown.
Oracle HTTP Server	Start	<code>ORACLE_HOME/Apache/Apache/bin/apachectl start</code>
	Stop	<code>ORACLE_HOME/Apache/Apache/bin/apachectl stop</code>
Oracle HTTP Server SSL-enabled	Start	<code>ORACLE_HOME/Apache/Apache/bin/apachectl startssl</code> (Log in as root user.)
	Stop	<code>ORACLE_HOME/Apache/Apache/bin/apachectl stop</code> (Log in as root user.)
Oracle Internet File System	Start	<code>ORACLE_HOME/ifs1.1/bin/ifsstart</code>
	Stop	<code>ORACLE_HOME/ifs1.1/bin/ifsstop</code>
Oracle Management Server	Start	<code>ORACLE_HOME/bin/oemctrl start oms &</code>
	Stop	<code>ORACLE_HOME/bin/oemctrl stop oms &</code>

Component Web Sites

Table 6–4 lists Web sites for Oracle9i Application Server components.

Table 6–4 Component Web sites

Component	Web Site
Oracle9iAS Discoverer Viewer	<code>http://hostname.domain:listener_port/discoverer4i/viewer</code>
Oracle9iAS Discoverer Plus	<code>http://hostname.domain:listener_port/discwb4/html/english/welcome.htm</code>
Oracle9iAS Forms Services	<code>http://hostname.domain:listener_port/dev60html/runform.htm</code>
Oracle9iAS Portal	<code>http://hostname.domain:listener_port/pls/portal30</code>
Oracle9iAS Reports Services	<code>http://hostname.domain:listener_port/dev60html/runrep.htm</code>
Oracle9iAS Wireless Web Integration Server	<code>http://hostname.domain:5555</code> (Log on as Administrator/manager)
Oracle9iAS Web Cache	<code>http://hostname.domain:4000</code> (Log on as administrator/administrator)
Oracle HTTP Server Oracle HTTP Server (SSL-enabled)	<code>http://hostname.domain:listener_port</code> <code>https://hostname.domain:listener_port</code>
Oracle Internet File System	<code>http://hostname.domain:listener_port/ifs/files</code> (Log on as system/manager)
Oracle Management Server	<code>http://hostname.domain:3339</code>

Component Port Numbers

Table 6–5 lists the default port numbers on which requests are received for each component.

Table 6–5 Port Numbers

Components	Port Number
Oracle9iAS Database Cache Oracle9iAS Database Cache TNS Listener Oracle9iAS Database Cache <code>-wtcme</code> process Oracle9iAS Database Cache Data Gatherer <code>-vppdc</code> process	51719. TCP/IP: 1521, IIOP: 2481 51719, 51720 1808, 1809
Oracle9iAS Discoverer	Oracle9iAS Discoverer uses the same port number as Oracle HTTP Server
Oracle9iAS Forms Services Load Balancer Client Load Balancer Server	9001 9011 9021
Oracle9iAS Portal	Oracle9iAS Portal uses the same port number as Oracle HTTP Server
Oracle9iAS Reports Services	1950
Oracle9iAS Web Cache Oracle9iAS Web Cache Administration Port Oracle9iAS Web Cache Invalidation Port Oracle9iAS Web Cache Statistics Port	1100 4000 4001 4002
Oracle9iAS Wireless Oracle9iAS Wireless Web Integration Server	Oracle9iAS Wireless uses the same port as Oracle HTTP Server 5555
Oracle HTTP Server Oracle HTTP Server (SSL-enabled) Oracle HTTP Server Jserv Servlet Engine	For information on port numbers, refer to " Port Allocation " on page 2-17. 8007
Oracle Internet File System	Oracle Internet File System uses the same port number as Oracle HTTP Server FTP: 21 SMB: 139 SMTP: 2500 IMAP: 143 CUP: 4180
Oracle Enterprise Java Engine TNS Listener	TCP/IP: 1521 IIOP: 2481
Oracle Management Server	7771, 7772, 7773

Additional Documentation

For further information on postinstallation and configuration tasks, refer to component-specific documentation. For information on viewing and installing the documentation, refer to [Appendix E, "Installing Documentation Library"](#).

Non-Interactive Installation

This chapter guides you through the non-interactive installation of Oracle9i Application Server. The topics include:

- [Introduction](#)
- [Setting a Response File](#)
- [Specifying a Response File](#)
- [Error Handling](#)
- [Validation of Values from Response File](#)

Introduction

You can perform a non-interactive installation of Oracle9i Application Server by supplying the Oracle Universal Installer with a *response file*. The installer uses the variables and values contained in this text file to provide answers to some or all of the installer user prompts. If you include responses for all of the installer prompts in the response file, then you can run a “silent” installation that displays no graphical output.

Requirements

For a complete list of requirements, refer to [Chapter 1, "Requirements"](#).

Setting a Response File

There are multiple Oracle Universal Installer response files depending on your installation type. These files are included on the Oracle9i Application Server, Release 1 (v1.0.2.2.2) CD-ROM. You will need to edit the response file to suit your installation option. The following sections describe configuring the response files for your installation type:

To use a response file, copy the response file from the Oracle9i Application Server CD-ROM to a drive mounted on your system. For example:

```
prompt> cd mount_point/Disk1/stage/Response/  
prompt> cp oracle.iappserver.iapptop.Enterprise.rsp local_directory
```

Edit the response file you want to use with any text editor to include information specific to your system. Each file contains instructions for properly configuring the response file. [Table 7-1](#) lists the response files included on the Oracle9i Application Server CD-ROM.

Table 7-1 Response Files

Oracle9i Application Server installation option	File Name
Core Edition	oracle.ias.silent.toplevel.Core.rsp
Minimal Edition	oracle.ias.silent.toplevel.Minimal.rsp
Standard Edition	oracle.ias.silent.toplevel.Standard.rsp
Enterprise Edition	oracle.ias.silent.toplevel.Enterprise.rsp

Specifying a Response File

To make the installer use the response file at install time, follow the same steps to launch the installer, but specify the location of the response file that you wish to use as a parameter when starting the installer. To make a configuration assistant use a response file, invoke it at the command line using the same parameters.

See Also: ["Starting Oracle Universal Installer"](#) on page 2-33

```
prompt> ./runInstaller [-silent] -responseFile absolute_path_and_filename
```

To perform a completely silent installation or configuration session, use the `-silent` parameter.

Oracle Enterprise Manager Configuration Assistant

To run Oracle Enterprise Manger Configuration Assistant in non-interactive mode, you must use both the `-silent` and `-responseFile` parameters.

Oracle9iAS Database Cache Configuration Assistant

This tool's user input is specified with EE response file parameters `sl_dbaReturn` and `sl_connectStringReturn` as mentioned above with component `[oracle.icache.icacheca_1.0.2.2.0]`

The following steps invoke the Oracle9iAS Database Cache Configuration Assistant and complete the configuration silently.

Launch the following from the Oracle home:

```
prompt> ORACLE_HOME/bin/wtacca -create -typical -silent
      responsefile=ORACLE_HOME/resp/icacheresponse.rsp
      username=syspassword = <SYSDBApasswordofthesysuser>
      service=ora_icache_origin
      ntadminpw=<passwordofthentuserwithadminprivileges>
```

Note the following:

1. The response file is already available in the above location. The user need to substitute the Oracle home value.
2. Fill the parameters flanked by `<>` with the correct value.

3. The 'ntadminpw' should be mentioned at the end.

The success or failure of the installation is logged in the `installActions.log` and `silentInstall.log` file. The log files are created in the `oraInventory` directory during installation. For more information, refer to "[oraInventory Directory](#)" on page 2-32.

Note: The installer or configuration assistant will fail if you attempt a non-interactive session without appropriately configuring a response file.

Error Handling

Values for variables that are of the wrong context, format, or type are treated as if no value were specified. Variables which are outside any section are ignored.

A non-interactive installation fails if no response file is specified, or if you attempt a silent installation with an incorrect or incomplete response file. If you attempt a silent installation and the installer encounters an error, such as insufficient disk space, then the installation fails. The results of your non-interactive installation is recorded in the installation session log file. For more information, refer to "[oraInventory Directory](#)" on page 2-32.

Validation of Values from Response File

The installer or configuration assistant performs calculation and validation of the response file at runtime. Failure of the validation process ends the installation or configuration.

Deinstallation and Reinstallation

This chapter guides you through the deinstallation and reinstallation process for Oracle9i Application Server. They are described in the following topics:

- [Deinstallation](#)
- [Reinstallation](#)

Deinstallation

The following steps guide you through the deinstallation process of Oracle9i Application Server. This process is divided into three parts:

- [Deinstalling Using Oracle Installer](#) (only if you have installed Enterprise Edition)
- [Deinstalling Oracle9iAS Database Cache](#) (only if you have installed Enterprise Edition)
- [Deinstalling Oracle Management Server](#) (only if you have installed Enterprise Edition)
- [Deinstalling using Oracle Universal Installer](#)

Note: Be sure to stop all services and processes before starting the deinstallation process.

Deinstalling Using Oracle Installer

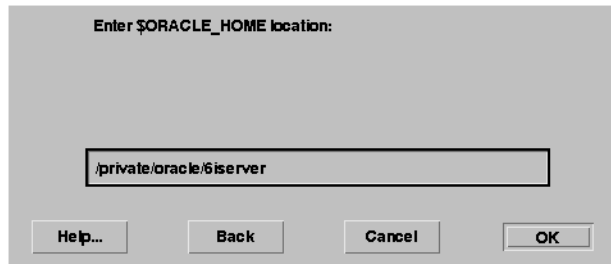
Follow the instructions below to deinstall Oracle Forms Services, Oracle Reports Services, and Oracle9iAS Discoverer. Perform these steps only if you have installed Oracle9i Application Server Enterprise Edition. If you have installed Core, Minimal or Standard Edition, proceed directly to "[Deinstalling using Oracle Universal Installer](#)" on page 8-13.

1. Launch Oracle Installer from the following command:

```
prompt> cd ORACLE_HOME/6iserver/orainst
prompt> ./orainst /m
```

2. Enter the Oracle home location and click **OK**.

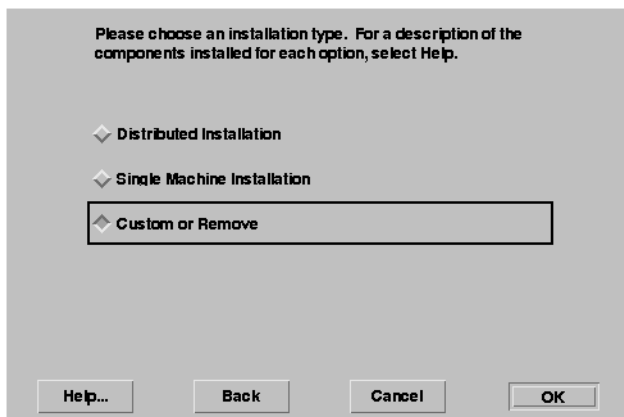
Figure 8–1 Oracle Home Location Screen



Oracle Home Location screen allows you to enter the Oracle home location. Be sure to enter `ORACLE_HOME/6iserver` in the field.

3. Select **Custom or Remove**, and click **OK**.

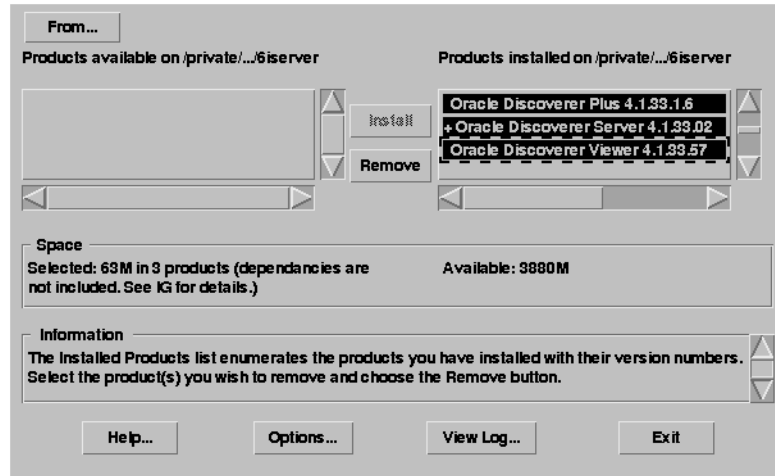
Figure 8–2 *Installation Options Screen*



Installation Options screen provides you with installation and deinstallation options.

4. Select all the components, and click **Remove**.

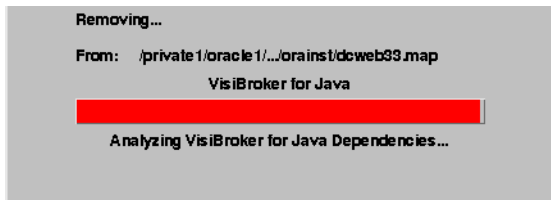
Figure 8–3 Software Asset Manager Screen



Software Asset Manager screen allows you to select the components you wish to deinstall. Scroll down the list and click on all the components to deinstall. Do **not** select Oracle UNIX Installer. When you click on **Remove**, you will get a confirmation screen asking if you wish to remove the selected components. Click **Yes**.

5. Monitor the deinstallation process.

Figure 8–4 Deinstallation Progress Bar Screen



6. Once the deinstallation process concludes, quit the installer by clicking **Exit**.

You have successfully deinstalled Oracle9iAS Forms Services, Oracle9iAS Reports Services, and Oracle9iAS Discoverer. Continue the deinstallation process:

Deinstalling Oracle9iAS Database Cache

If you have installed the Enterprise Edition of Oracle9i Application Server, then you must perform the additional steps. If you have installed Core, Minimal, or Standard edition of Oracle9i Application Server, then proceed directly to "[Deinstalling using Oracle Universal Installer](#)" on page 8-13.

1. Make sure the cache is started. If it is not, then start the cache using the Cache Manager or the `cachstrt` script which is located in `ORACLE_HOME/bin` directory.
2. Run the Configuration Assistant, specifying the `-deinstall` option:

```
prompt> wtacca -deinstall
```


Deinstalling Oracle Management Server

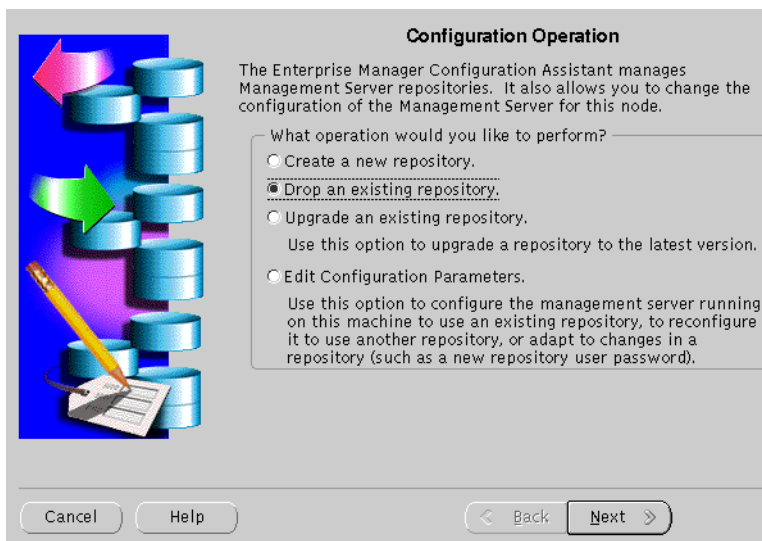
Perform the following steps to deinstall Oracle Management Server. If you have installed Core, Minimal, or Standard of Oracle9i Application Server, then proceed directly to "[Deinstalling using Oracle Universal Installer](#)" on page 8-13.

1. Launch the Oracle Management Server Configuration Assistant using the following command:

```
prompt> ORACLE_HOME/bin/emca
```

2. The Configuration Operations screen appears. Click on **Drop** an existing repository, and click **Next**.

Figure 8–5 Configuration Operation Screen



Configuration Operation Screen allows you to create, drop, or upgrade a repository. It also enables you to edit your configuration parameters.

3. Enter the username, password, and service name of your existing repository, and click **Next**.

Figure 8–6 *Select Database for Repository*



Select Database for Repository

Choose a database for the management server's repository. Note: For this operation to be successful, the database must be installed and running.

Logon to the database as a user with DBA privileges:

User name:

Password:

Service:

Tip: If your Net8 service is not configured for this Oracle home, the service may be specified using the form <host>:<port>:<sid>. For example: orange:1521:orcl

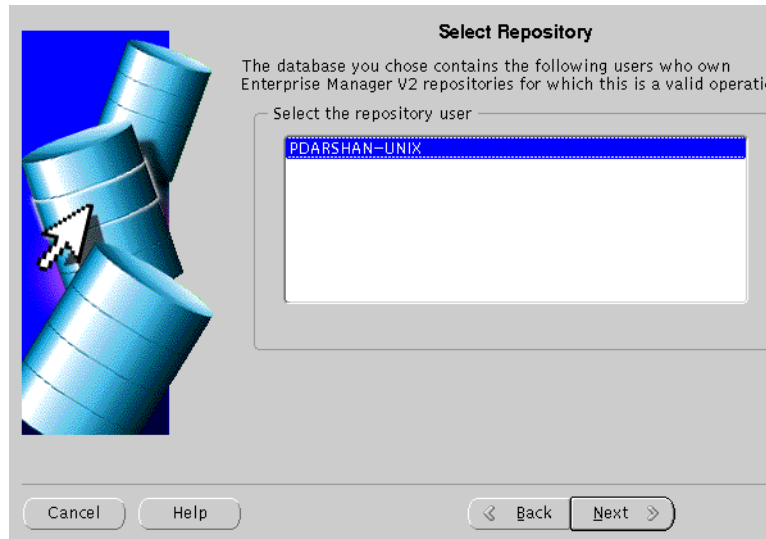
Cancel Help Back Next

Select Database for Repository screen allows you to enter database information for the management server's repository. Be sure to log in as a user with DBA privileges.

- **User name:** Enter a user name, with DBA privileges.
- **Password:** Enter the password for the username.
- **Service:** Enter the *host:port:SID* for the database.

4. Select the appropriate user who owns the repository you wish to drop, and click **Next**.

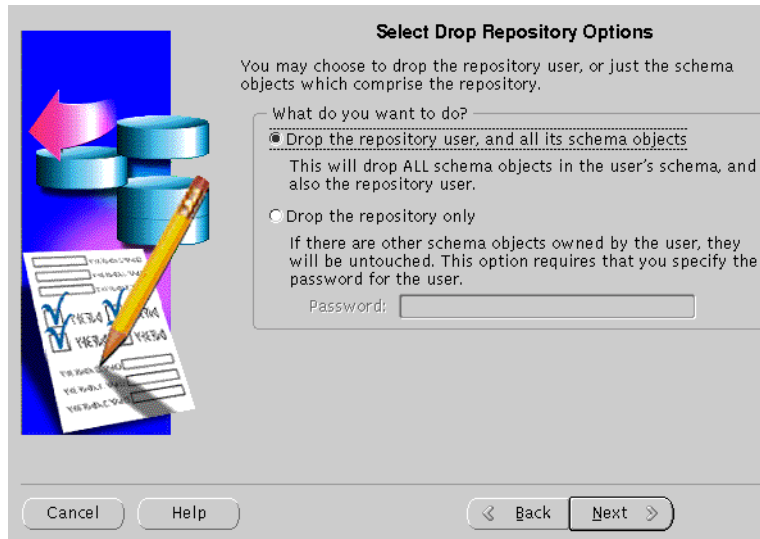
Figure 8–7 *Select Repository*



The Select Repository screen displays the users own repositories in the database you selected.

5. Choose to drop the repository user, and all its schema objects, or the repository only, and click **Next**.

Figure 8–8 *Select Drop Repository Options*



The Select Drop Repository Options gives you the following options:

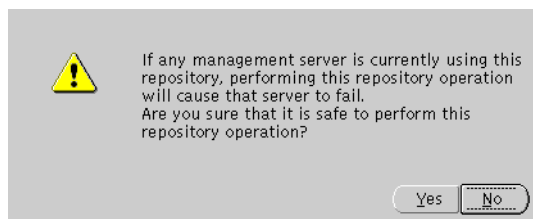
- **Drop the repository user, and all its schema objects:** You do not require a password to perform this action.
- **Drop the repository only:** You must supply the repository user password so that the configuration assistant can connect to the repository in order to invoke the drop scripts. Only the repository objects are dropped. Other schema objects in the repository remain.

6. Verify the information, and click **Finish**.

Figure 8–9 Drop Repository Summary

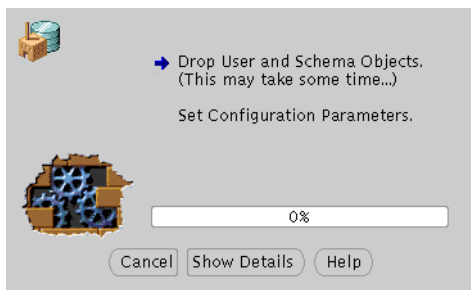


The Drop Repository Summary displays the options you have selected in the previous screens. Verify the information. If you wish to make changes, click the **Back** button. Once you click **Finish**, the following warning screen appears.



Be sure that the management server is not using the selected repository, and click **Yes**.

7. The screen indicates the progress of the deinstallation process.



Click on **Cancel** to cancel the deinstallation process, and **Show Details** to display details of the process.

You have successfully deinstalled Oracle Management Server.

Proceed to "[Deinstalling using Oracle Universal Installer](#)" on page 8-13.

Deinstalling using Oracle Universal Installer

1. Start the Oracle Universal Installer. For information on starting the installer, refer to "[Starting Oracle Universal Installer](#)" on page 2-33.

Once Oracle Universal Installer is launched, Welcome screen appears. Click on **Deinstall Products**.

Figure 8–10 Welcome Screen



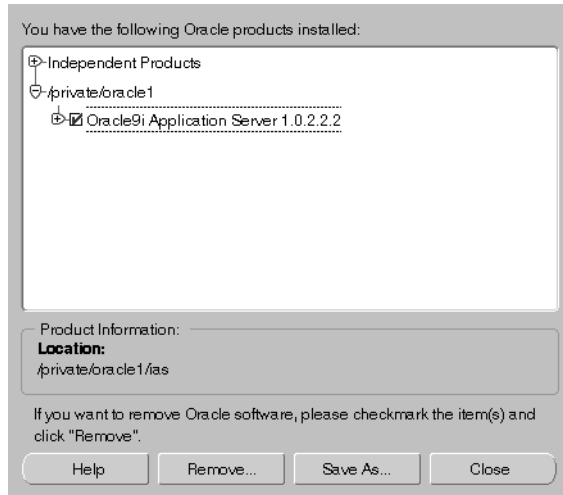
The Welcome screen provides information about Oracle Universal Installer.

The installer provides you with two ways to deinstall products:

- **Deinstall Products:** To deinstall individual components or the entire product.
- **Installed Products:** To view currently installed products and deinstall individual components or the entire product.

2. Review all installed components and check the ones you wish to deinstall. Click **Remove**.

Figure 8–11 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 all the components installed in Oracle home.

The following buttons and product information appear on the Inventory screen:

- **Help:** To access detailed information about the functionality of the Inventory screen.
- **Remove:** To deinstall all checked components from Oracle home.
- **Save As:** To save the inventory as text. A file browser dialog pops up when you click **Save As**. Accept a file name and the complete inventory list as displayed by the inventory screen will be logged into this file as text.
- **Close:** To quit the Inventory screen.
- **Location:** To view the full location path of the selected component.

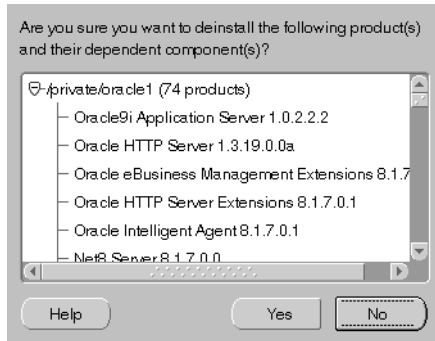
Note: The “+” sign before a product name indicates that there are more components and files installed within that particular product. Click on it to view dependent components. If you choose to remove a product or component, then all of its dependent components and files are also deinstalled.

If you wish to deinstall Oracle9i Application Server completely, check the box displayed before the product name, which is listed directly below the Oracle home name.

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

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

Figure 8–12 Confirmation Screen



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

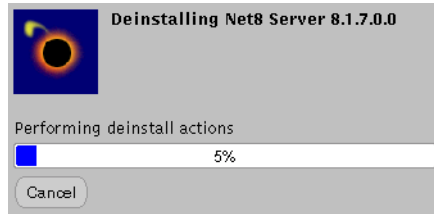
Note: Oracle Universal Installer does not deinstall all the files and directories during deinstallation. These must be deleted manually.

The following buttons appear on the Confirmation screen:

- **Help:** To access detailed information about the functionality of the Confirmation screen.
- **Yes:** To start deinstallation of listed components.
- **No:** To return to the Inventory screen. Listed components are not removed from Oracle home.

4. Monitor the deinstallation process.

Figure 8–13 Remove Progress Bar Screen



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 and files will also be deinstalled.

You have successfully deinstalled Oracle9i Application Server.

Reinstallation

Oracle Universal Installer does not allow reinstallation of Oracle9i Application Server over an already installed version. To reinstall Oracle9i Application Server over the same version, deinstall and then install the product.

See Also: ["Deinstallation"](#) on page 8-2

Configuration Tools

This appendix guides you through the steps required to run component-specific configuration assistants to configure Oracle9i Application Server. It contains instructions on manually launching, and running the following configuration assistants to configure the components you chose not to configure during installation:

- [Net8 Configuration Assistant](#)
- [Oracle9iAS Database Cache Configuration Assistant](#)
- [Oracle9iAS Portal Configuration Assistant](#)
- [Oracle Database Configuration Assistant](#)
- [Oracle Internet File System Configuration Assistant](#)
- [Oracle Management Server Configuration Assistant](#)

Net8 Configuration Assistant

For information on running the Net8 Configuration Assistant, refer to the *Net8 Administration Guide* in your database documentation library.

Oracle9iAS Database Cache Configuration Assistant

Before you can run the Oracle9iAS Database Cache Configuration Assistant, you need to configure the `ora_icache_origin` service manually.

1. Shut down the IntelligentAgent using the following command:

```
prompt> ORACLE_HOME/bin/lsnrctl dbsnmp_stop
```

2. Configure the `ora_icache` origin service manually. The `tnsnames.ora` in the `ORACLE_HOME/network/admin` directory has the following entry after installation:

```
ora_icache_origin
  (DESCRIPTION =
    (ADDRESS_LIST =
      (ADDRESS =
        (PROTOCOL = TCP)
        (HOST = ORIGINHostName)
        (PORT = originPortNumber)
      )
    )
    (CONNECT_DATA =
      (SERVICE_NAME = originServiceName)
    )
  )
```

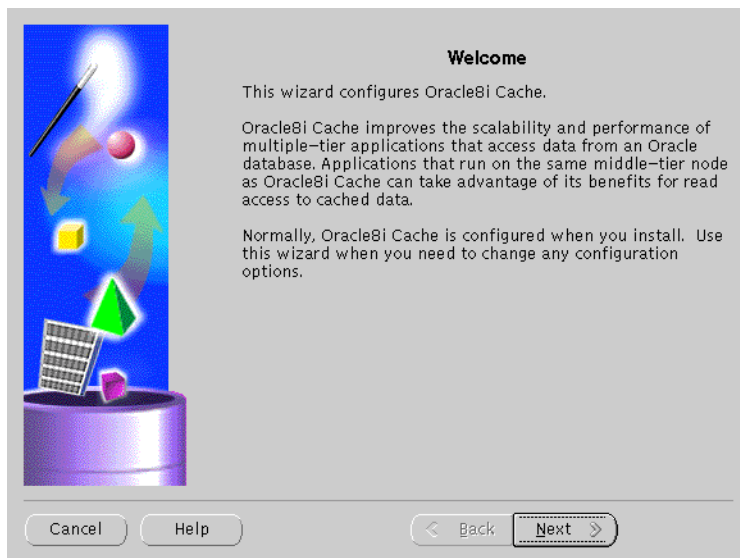
Fill in the origin host name, port and service name in `tnsnames.ora` file as per the above example before running the following command to launch the Oracle9iAS Database Cache Configuration Assistant:

```
prompt> ORACLE_HOME/bin/wtacca -create -typical
```

The following steps guide you through the Oracle9iAS Database Cache Configuration Assistant:

1. Review the Oracle9iAS Database Cache Configuration Assistant welcome screen and click **Next**.

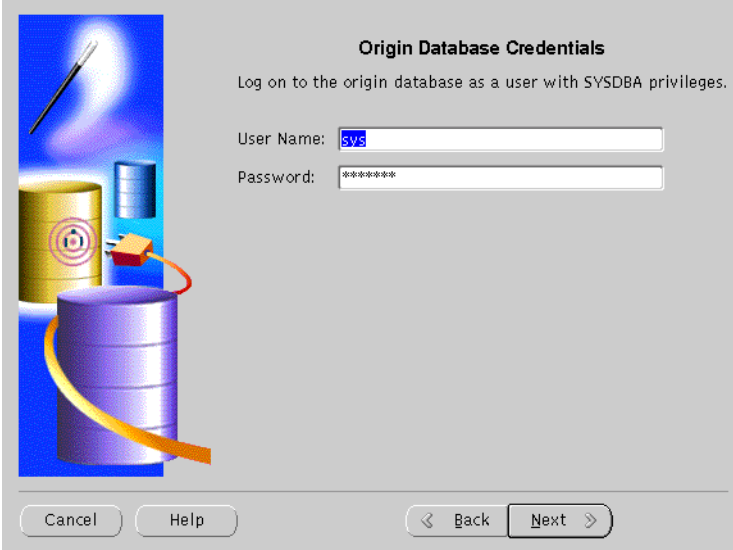
Figure A-1 Welcome Screen



The Welcome screen introduces you to the Oracle9iAS Database Cache Wizard.

2. Enter the privileged account information and click **Next**.

Figure A-2 *Origin Database Credentials Screen*

The image shows a screenshot of the 'Origin Database Credentials' screen from the Oracle9iAS Database Cache Configuration Assistant. On the left side, there is a graphic illustration of a purple database cylinder with a yellow ribbon, a yellow database cylinder, and a blue database cylinder, with a red plug and a yellow cable connecting them. The main area of the screen has a grey background. At the top, the title 'Origin Database Credentials' is centered. Below the title, the instruction 'Log on to the origin database as a user with SYSDBA privileges.' is displayed. There are two input fields: 'User Name:' with the text 'sys' entered, and 'Password:' with '*****' entered. At the bottom of the screen, there are four buttons: 'Cancel', 'Help', '< Back', and 'Next >'.

Origin Database Credentials

Log on to the origin database as a user with SYSDBA privileges.

User Name:

Password:

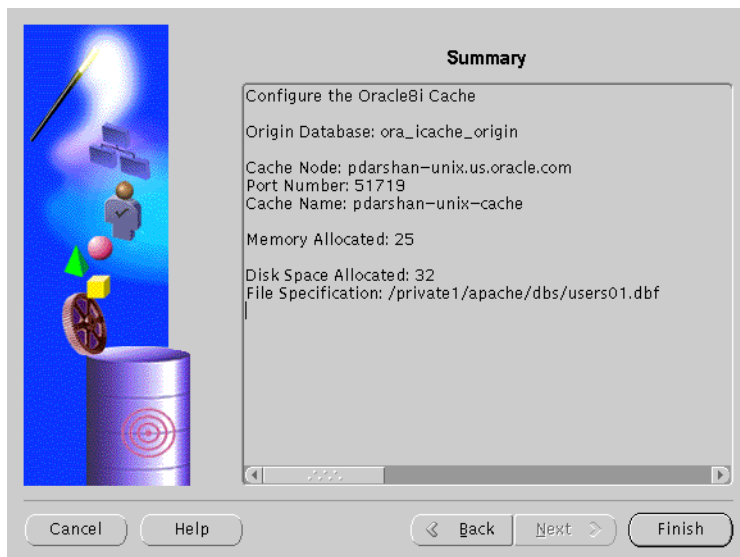
Cancel Help < Back Next >

The Origin Database Credentials screen specifies the database that is the original and primary storage for the data that you cache on the middle-tier node.

- **User Name:** The name of a user on the origin database who has the SYSDBA role. This field defaults to the information you entered in the Origin Database User Information screen during installation.
- **Password:** The password of the specified user. This field defaults to the information you entered in the Origin Database User Information screen during installation.

3. Review the summary screen and click **Finish** to configure the cache.

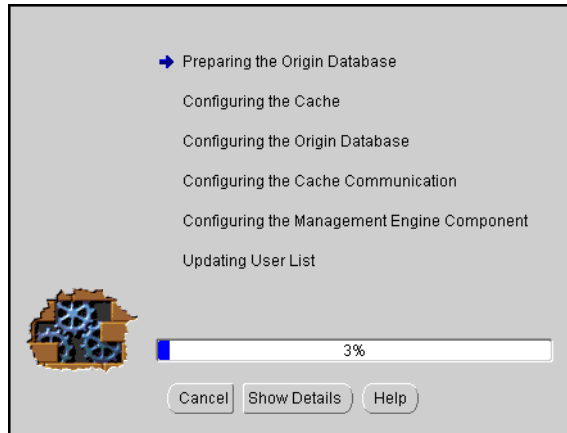
Figure A-3 Summary Screen



The Summary screen provides information about the origin database, cache node, port number, cache name, memory, disk space allocated and file specification.

4. Monitor the Configuration Assistant as it configures your cache.

Figure A-4 *Cache Configuration Assistant Progress Screen*



The Cache Configuration Assistant Progress screen informs you of the results of the configuration.

- **Show Details:** To display detailed result of the configuration.

Oracle9iAS Portal Configuration Assistant

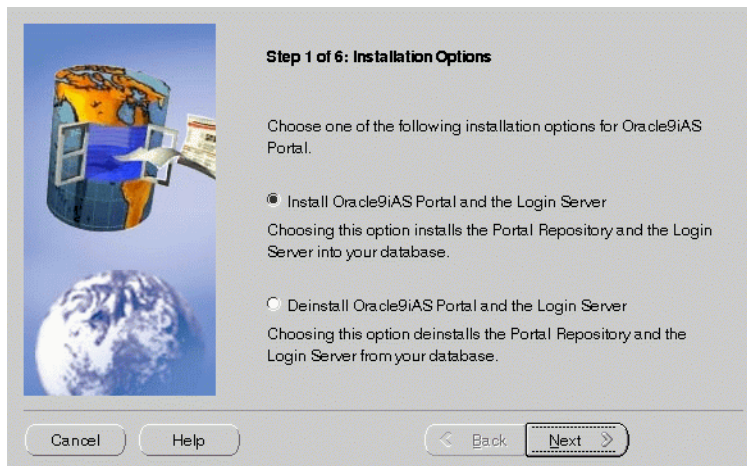
The following command launches the Oracle9iAS Portal Configuration Assistant:

```
prompt> ORACLE_HOME/assistants/opca/launch.sh
```

The following steps guide you through the Oracle9iAS Portal Configuration Assistant:

1. Choose the first installation option to install Oracle9iAS Portal and the Login Server and click **Next**.

Figure A-5 *Installation Options Screen*



The Installation Options screen allows you to install and deinstall Oracle9iAS Portal. Selecting “Install Oracle9iAS Portal and the Login Server” installs the Oracle9iAS Portal schema and the Login Server onto your database.

2. Enter the database connection information and click **Next**.

Figure A-6 Database Authentication Screen

Step 2 of 6: Identify Repository Database

To install the Oracle9iAS Portal Repository, the Configuration Assistant must connect to the database as the SYS user. Enter the SYS password and connect information for the database on which you want to install. The database must be up and running.

SYS password

Connect Information

NOTE: The format for the connect information is HOSTNAME:PORT:SID For example, myserver:1521:ordl. The TNS names alias is not allowed for the database connection.

Cancel Help < Back Next >

The Database Authentication screen allows you to specify the database connection information granting the Configuration Assistant database access to install the Oracle9iAS Portal database objects.

Note: Be sure to connect, and store objects in the origin database or any Oracle database that you have access to. Otherwise you will get an error stating that the `sys` user is locked.

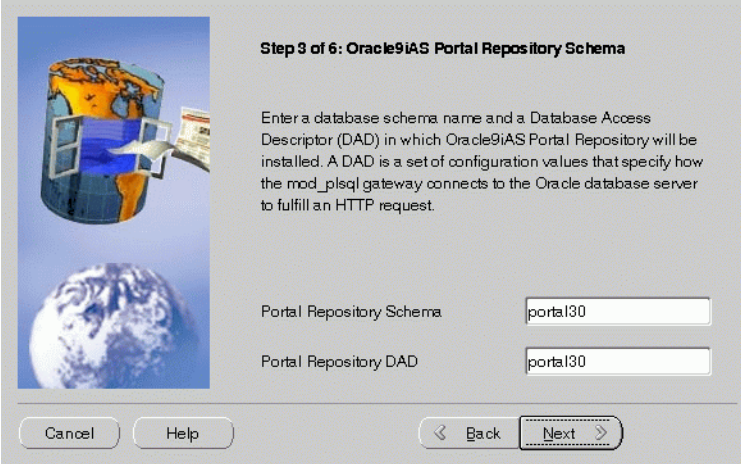
- **SYS Password:** Enter the `SYS` password for the database on which you want to install Oracle9iAS Portal database objects. When an Oracle database is created, the user `SYS`, identified by the password `CHANGE_ON_INSTALL`, is automatically created and granted the `DBA` role.
- **Connection Information:** Enter the connect information in the following format: `HOSTNAME:PORT:SID`

Example: `oasdocs.us.oracle.com:1521:oasdocs`

where `hostname` is the domain name and machine where you want to install Oracle9iAS Portal, `port` is the port number on which the Oracle database is running, and `SID` is the database name which uniquely identifies a node's instance.

3. Enter the Oracle9iAS Portal Schema and Oracle9iAS Portal DAD names, and click **Next**.

Figure A-7 Oracle9iAS Portal Schema Screen



Step 3 of 6: Oracle9iAS Portal Repository Schema

Enter a database schema name and a Database Access Descriptor (DAD) in which Oracle9iAS Portal Repository will be installed. A DAD is a set of configuration values that specify how the mod_plsql gateway connects to the Oracle database server to fulfill an HTTP request.

Portal Repository Schema:

Portal Repository DAD:

Cancel Help < Back Next >

Oracle9iAS Portal Schema screen allows you to enter the Schema and DAD name. These *must* match the Oracle9iAS Portal Schema and DAD name you entered during the installation process on the Apache Listener Configuration for Oracle9iAS Portal (DAD and Schema name) screen. The default is `portal130`.

4. Enter the SSO Schema and SSO DAD names for the Login Server, and click **Next**.

Figure A-8 Single Sign-On Schema Screen



Step 4 of 6: Login Server Repository Schema

Enter a database schema name and Database Access Descriptor (DAD) in which repository for the Login Server will be installed. The Login Server provides an enterprise-wide Single Sign On mechanism that enables an Oracle9iAS Portal user to log in securely to Oracle9iAS Portal and any partner and external applications using a single user name and password.

Login Server Repository Schema

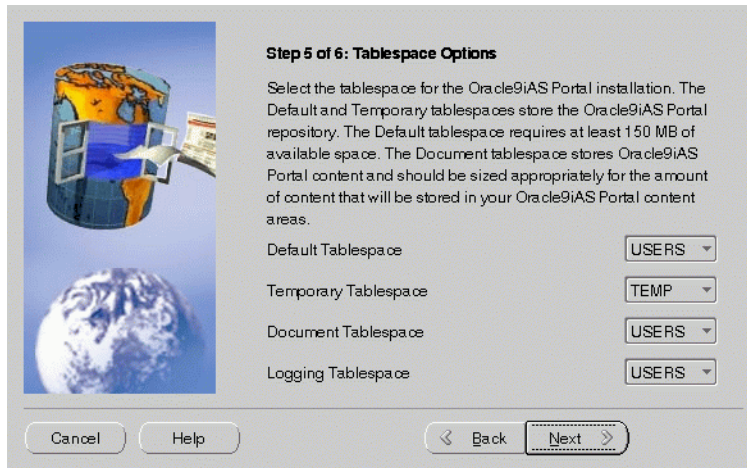
Login Server Repository DAD

Cancel Help < Back Next >

Single Sign-On Schema screen allows you to enter the SSO Schema and DAD name. These *must* match the SSO Schema and DAD name you entered during the installation process on the Apache Listener Configuration for Oracle9iAS Portal (Login Server) screen. The default is `portal30_sso`.

5. Enter the tablespace names for Oracle9iAS Portal installation. Click **Next**.

Figure A–9 Tablespace Options Screen



Tablespace Options screen allows you to enter the tablespace names for Oracle9iAS Portal. Choose from the list of tablespaces. For more information, refer to [Table A-1](#).

Table A–1 Tablespace Options

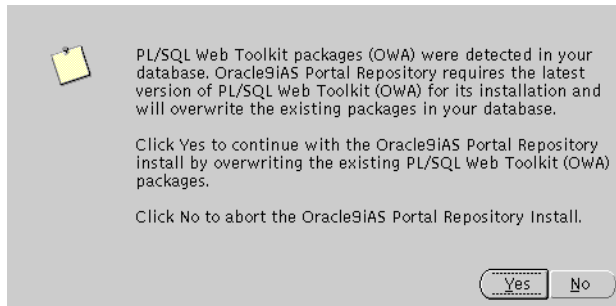
Field	Description
Default Tablespace	Used to store any database objects or components created by the Oracle9iAS Portal user. Required minimum: 150 MB
Temporary Tablespace	Improves the concurrence of multiple sort operations, reduce their overhead, or avoid Oracle space management operations altogether. Used for the creation of temporary table segments for operations performed by the Oracle9iAS Portal user such as sorting table rows.

Table A–1 Tablespace Options

Field	Description
Document Tablespaces	<p>Used to store any items uploaded onto an Oracle9iAS Portal content area. These item types can include files, images, folders, and stored procedures.</p> <p>Note: The Document Tablespace will gradually fill as users add items to Oracle9iAS Portal content area. You should choose a tablespace large enough to accommodate these additions or a tablespace that automatically extends itself. Size the document tablespaces according to the planned size of your content areas.</p>
Logging Tablespace	<p>Name of the tablespace where the logs are stored. These contain logging information such as end user requests for components and information about the time of the request, the end user who made the request, the machine and browser that was used, and when an Oracle9iAS Portal developer created or last edited the component. Additional logging information includes database storage allocated to users, objects, and tablespaces, memory allocation, object creation dates, objects created during a given time span, rollback segment attributes, session locks, redo logs, and DBMS jobs.</p>

- Determine if you want to overwrite or keep the existing PL/SQL Web Toolkit packages. Click **Yes** or **No** accordingly.

Figure A–10 *PL/SQL Web Toolkit Screen*

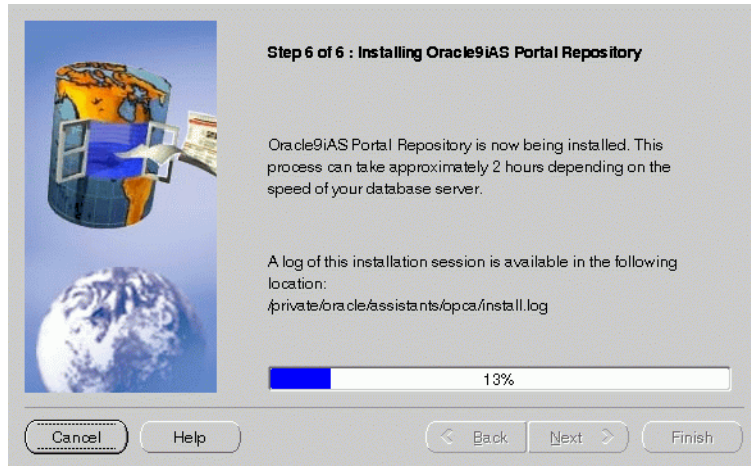


PL/SQL Web Toolkit screen appears only if the configuration assistant detects that PL/SQL Web Toolkit packages already exist on your machine. Click **Yes** to overwrite the existing packages, or click **No** to abort the Oracle9iAS Portal Repository Install.

Note: Oracle9iAS Portal requires the latest version of PL/SQL Web Toolkit packages. If you are unsure if your existing packages are compatible with PL/SQL Gateway, click **Yes** to install the correct version.

7. Monitor the progress of the configuration assistant as the database objects are installed.

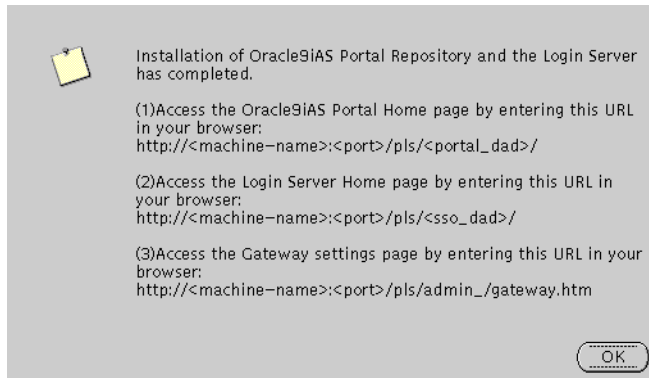
Figure A-11 *Installing Oracle9iAS Portal Screen*



Installing Oracle9iAS Portal screen displays a database objects installation progress bar. Please be patient and refrain from using your machine while this is underway. This process may take a long time to complete.

8. Make note of the information, and click **OK**.

Figure A-12 Summary Screen



Summary screen appears at the end of installation. It reveals information about accessing the Oracle9iAS Portal Home page, Login Server page and the gateway settings page. For your convenience, make note of this information before clicking **OK**.

9. An installation session log that describes the actions performed and the components installed is created. You can check the log file for ORA and PLS errors that may have occurred during installation. The log file is located in the following locations:

ORACLE_HOME/assistants/opca/install.log

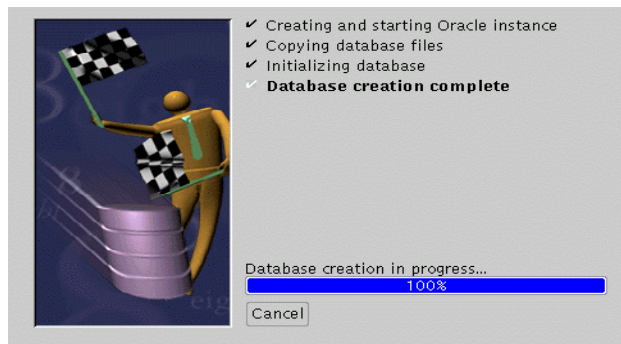
Oracle Database Configuration Assistant

The following command launches the Oracle Database Configuration Assistant:

```
prompt> ORACLE_HOME/bin/dbassist
```

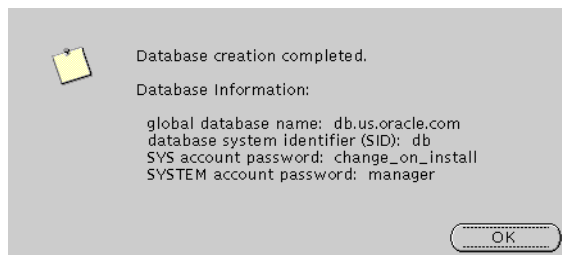
The Oracle Database Configuration Assistant creates a database that is used as a container for Oracle Enterprise Java Engine. You might see more screens if you launch the Oracle Database Configuration Assistant manually. The following screen appears as the configuration assistant creates the database:

Figure A–13 Oracle Database Configuration Assistant Screen



Oracle Database Configuration Assistant does not require any user input. Once the database creation process ends, the following screen appears.

Figure A–14 Database Information Screen



The Database Information screen displays database information such as global database name, database SID, SYS account password, and SYSTEM account password. Make a note of this information and click **OK**. You have completed the database creation process.

Oracle Internet File System Configuration Assistant

The following command launches the Oracle Internet File System Configuration Assistant:

```
prompt> ORACLE_HOME/ifs1.1/bin/ifsconfig
```

Note: Be sure that the origin database is running to store the Oracle Internet File System schema. You must have a TNS name that maps to that database instance.

The following steps guide you through the Oracle Internet File System Configuration Assistant:

1. Review the Welcome screen and click **Next**.

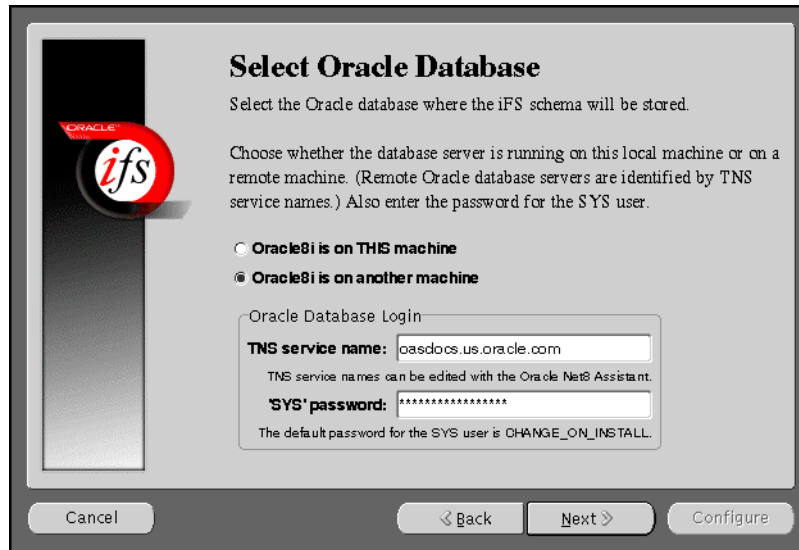
Figure A–15 Welcome Screen



The Welcome screen introduces you to the Oracle Internet File System Configuration Assistant and allows you to review the licensing agreement before you can proceed to configure Oracle Internet File System.

2. Select the database to store Oracle Internet File System, and click **Next**.

Figure A-16 Select Oracle Database Screen



Select Oracle Database screen allows you to choose where the Oracle Internet File System schema will be stored. Select whether the origin database is on the local machine or on the remote machine other than the Oracle Internet File System server machine currently being configured.

Note: Be sure to connect, and store objects in the origin database or any Oracle8i database that you have access to. Otherwise you will get an error stating that the `sys` user is locked.

If you select Oracle8i on THIS machine, then you will have to fill in the `SYS` password field.

If you select Oracle8i on another machine, then you will have to enter the TNS service name and the `SYS` password in their respective fields.

- **TNS Service Name:** This is used to identify the database server you want to use for Oracle Internet File System. The TNS Name specifies the hostname, port, protocol, and service name for the database.

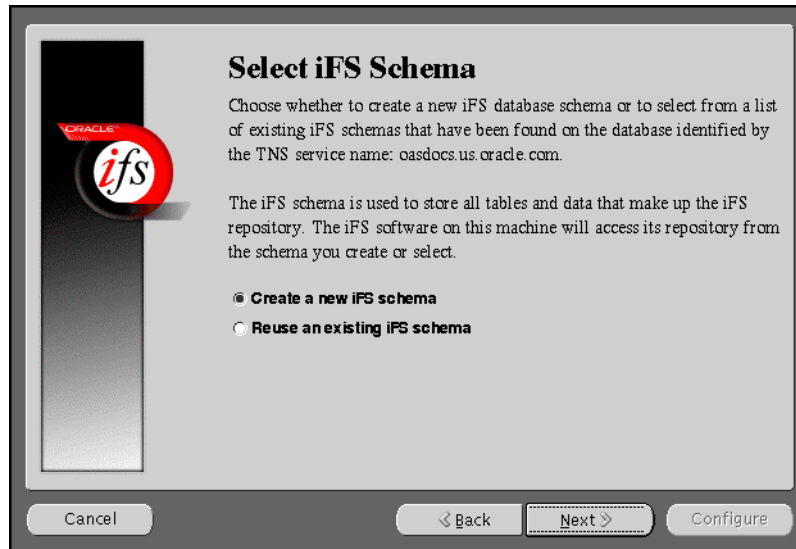
See Also: *Net8 Administration Guide* in the Oracle Database Documentation Library

- **SYS Password:** This is the password for the SYS database account.

If an error occurs, you will be required to correct the database connection information before continuing.

3. Choose to create a schema or reuse an existing one, and click **Next**.

Figure A-17 Select iFS Schema Screen



The Select *iFS* Schema screen allows you to either create a new *iFS* schema or select from a list of existing *iFS* schemas that have been found on the database identified by the TNS service name you specified.

If you are using an Oracle9i database as the backend database

- Use the “Re-use existing schema” option and not the “Create a new schema” option if you want to continue using your existing Oracle9i schema.
- Use “Create an new schema” option if you want to create a new schema.
- If you want an Oracle *iFS* schema from a 8.1.7 database, migrate the database to Oracle9i and then select “Re-se existing schema”.

If you are using an Oracle 8.1.7 database as the backend database

- Use “Re-use existing schema” and not “Create a new schema” if you want to continue your existing 8.1.7 based Oracle *iFS* schema.
- If you want to create a new schema, select “Create a new schema” option.

If you select “Create a new *iFS* schema”, then click **Next** to proceed with the instructions provided.

If you select “Reuse an existing *iFS* schema”, then click **Next**. The following screens will appear:

- a. **Select Existing *iFS* Schema screen:** This screen informs you of all the existing *iFS* schemas found on the database identified by the TNS service name you specified. Select an existing schema from the menu and enter its password, and click **Next**.
- b. **Set *iFS* Options screen:** This screen allows set various *iFS* options. Set the necessary options, and click **Next**.
- c. **Configure *iFS* Email screen:** This screen provides you with options to configure your *iFS* email. Select the necessary options, and click **Next**.
- d. **Configuring *iFS* screen:** This screen displays the various configuration tasks. Click **Cancel** to stop the configuration.
- e. ***iFS* Configuration Completed screen:** This screen appears when the configuration completes. It prompts you to run the `ifssetup` script as an admin user. The script is located in the `ORACLE_HOME/ifs1.1/bin` directory. This script will configure your system for Oracle Internet File System email, if this option was selected.
- f. Perform the following steps to configure Oracle HTTP Server:

Stop Oracle HTTP Server.

```
prompt> ./apachectl stop
```

Run the following script:

```
prompt> ORACLE_HOME/ifs1.1/bin/ifsapachesetup
```

Be sure to run this script as the user who owns the Oracle software.

See Also: ["UNIX Account to Own Oracle Software"](#) on page 2-16 for more information.

Restart Oracle HTTP Server.

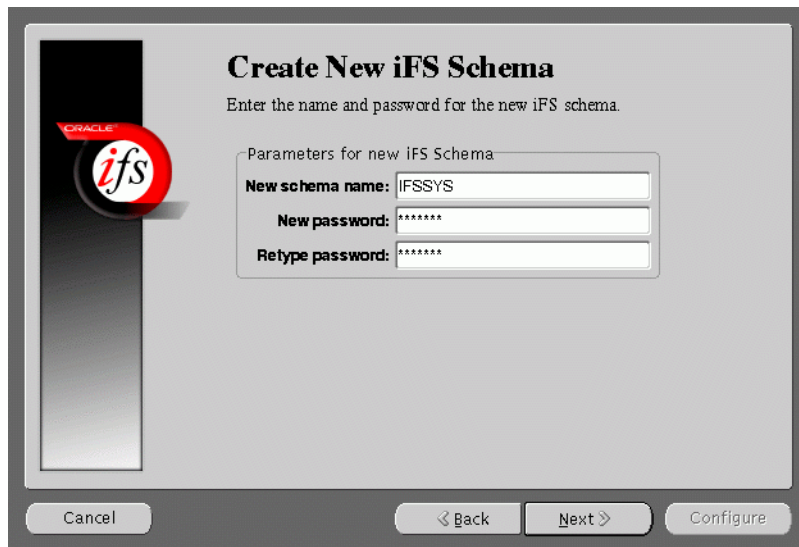
```
prompt> ./apachectl start
```

- g.** Restart the Oracle Internet File System as the root user using the `ifsstart` script.

You have completed configuring Oracle Internet File System.

4. Enter an Oracle database username and password for a new schema, and click **Next**.

Figure A-18 Create New iFS Schema Screen



Create New iFS Schema
Enter the name and password for the new iFS schema.

Parameters for new iFS Schema

New schema name: IFSSYS

New password: *****

Retype password: *****

Cancel < Back Next > Configure

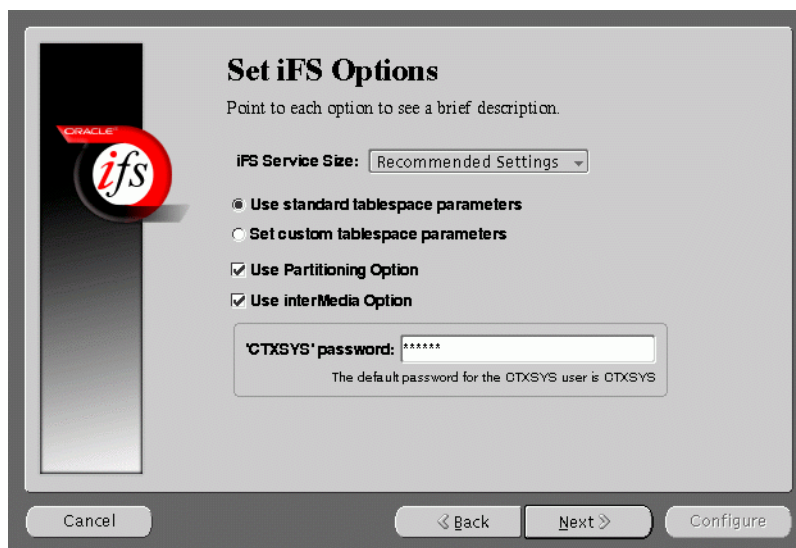
Create New iFS Schema screen allows you to specify an Oracle database username and password for the new schema.

- **New Schema Name:** Enter the Oracle database username for the new schema. The default username is `ifssys`.
- **New Password:** Enter the password for the Oracle database user for the new schema.
- **Retype Password:** Re-enter the new schema user password for confirmation.

If you choose to create a new schema with the same name as an existing schema, a warning message appears. Creating a new schema with the same name as an existing schema will drop the existing schema.

5. Set the necessary Oracle Internet File System options, and click **Next**.

Figure A–19 Set iFS Options Screen



Set iFS Options screen allows you to set certain schema options and to select a service size for your Oracle Internet File System server. There are two choices for the Oracle Internet File System server size:

- Minimum requirements
- Recommended settings

If you are creating a new Oracle Internet File System schema, then you can choose whether to use standard tablespace parameters, or to specify custom tablespace parameters.

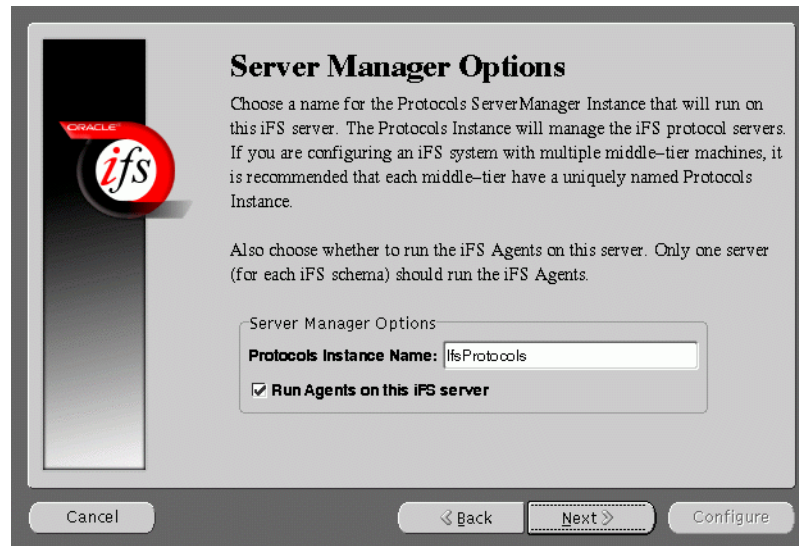
- **Standard Tablespaces:** By default, the Oracle Internet File System configuration creates six tablespaces used to store the data in the Oracle Internet File System schema. The database files for these tablespaces are placed in the same location (on the database machine) as the `SYSTEM` tablespace, which is usually found under `ORACLE_HOME/oradata/global_dbname`. Oracle recommends storing each of these tablespaces on separate disks for best performance.
 - **Primary:** Stores metadata for documents, information about users and groups, and other Oracle Internet File System data.

- **Non-Indexed Medias:** Stores the LOB data for documents that are not indexed by interMedia, such as image, audio, and video files.
- **Indexed Media:** Stores the LOB data documents that are indexed by interMedia, such as text and word processing files.
- **interMedia Index:** Stores the Oracle indexed on interMedia data.
- **interMedia Keymap:** Stores the mapping between interMedia Text information and Oracle Internet File System information.
- **interMedia Data:** Stores the interMedia data about Oracle Internet File System documents.
- **Custom Tablespaces:** Choosing the custom tablespaces option displays six additional pages where the custom tablespace information can be entered. These pages allow experienced database administrators to create customized tablespaces for Oracle Internet File System or to select existing tablespaces.
- **Partitioning Option:** Improves performance. Available only with Oracle8i Enterprise Edition.
- **interMedia Option:** If you have installed interMedia Text, then select this option to use interMedia Text for searching document contents.
- **CTXSYS:** If you choose the interMedia Text option, then enter the password for the interMedia CTXSYS account. The default password is **CTXSYS**.

If you have chosen to use interMedia Text, the Configuration Assistant will verify the interMedia configuration when you click the **Next** button. If an error occurs, then you will not be able to choose the interMedia Text option unless you rectify the error.

6. Enter the Protocol Instance Name, and click **Next**.

Figure A-20 Server Manager Options Screen

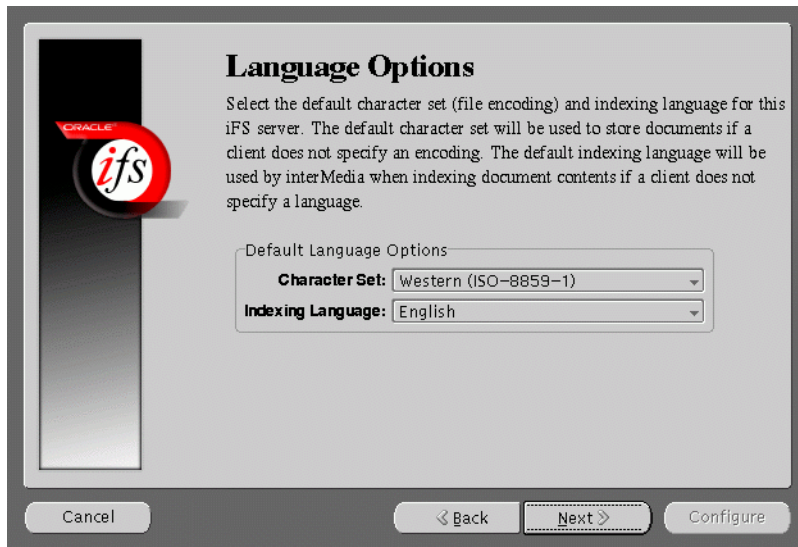


Server Manager Options screen allows you to enter a name for the Protocols Server Manager Instance that will run on this Oracle Internet File System server.

- **Protocol Instance Name:** Enter the Protocols Server Manager Instance name that will run on this Oracle Internet File System server. The Protocols Instance will manage the Oracle Internet File System protocol servers. If you are configuring an Oracle Internet File System system with multiple middle-tier machines, then it is recommended that each middle-tier have a uniquely named Protocols Instance.
- **Run Agents on This iFS Server:** Choose whether to run the Oracle Internet File System Agents on this server. Only one server for each Oracle Internet File System schema should run the Oracle Internet File System Agents.

7. Select the default character set and indexing language, and click **Next**.

Figure A-21 Language Options Screen

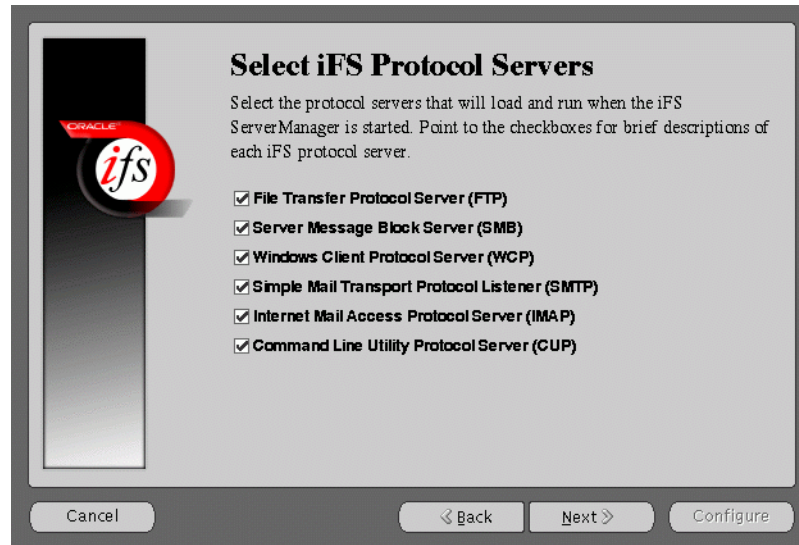


Language Options screen allows you to select the Character set and indexing language for this Oracle Internet File System server.

- **Character Set:** Select the default character set (file encoding). The default character set will be used to store documents if a client does not specify an encoding.
- **Indexing Language:** Select the default indexing language. The default indexing language will be used by interMedia when indexing document comment contents if a client does not specify a language.

8. Select the required Oracle Internet File System protocol servers, and click **Next**.

Figure A-22 *Select iFS Protocol Servers Screen*



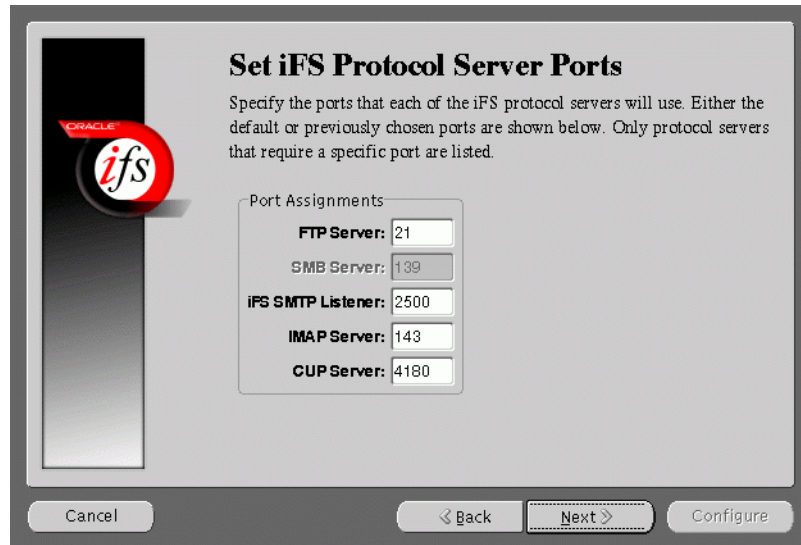
Select iFS Protocol Servers screen allows you to select the protocol servers to configure for this Oracle Internet File System server. The following protocol servers are available:

- File Transfer Protocol Server (FTP)
- Server Message Block Server (SMB)
- Windows Client Protocol Server (WCP)
- Simple Mail Transport Protocol Listener (SMTP)
- Internet Mail Access Protocol Server (IMAP)
- Command Line Utility Protocol Server (CUP)

See Also: *Oracle Internet File System Setup and Administration Guide* in the Oracle9i Application Server Documentation Library

9. Select the port numbers for the Oracle Internet File System protocol servers, and click **Next**.

Figure A-23 Set *iFS* Protocol Server Ports Screen



Set *iFS* Protocol Server Ports screen allows you to set port numbers for the protocol servers you selected in the previous screen. The following is a list of protocol servers and their default port numbers:

- **FTP Server:** Port 21
- **SMB Server:** Port 139 (not configurable)
- **iFS SMTP Listener:** Port 2500
- **IMAP Server:** Port: 143
- **CUP Server:** Port 4180

When you click the **Next** button, the port availability on your computer is tested. If a port is already in use, a warning screen appears. A common port conflict can arise because the standard Solaris installation includes a FTP server on port 21, which conflicts with the Oracle Internet File System FTP server. You must resolve such conflicts before starting the Oracle Internet File System protocol servers.

10. Enter your Oracle Internet File System Email Domain, and click **Next**.

Figure A-24 Configure iFS Email Screen



Configure iFS Email screen allows you to enter the iFS Email domain.

- **Use NIS for iFS Email:** Click on the check box to use NIS (Network Information System) for your Oracle Internet File System email package.
- **iFS Email Domain:** Enter the default email domain for the users you will create on your Oracle Internet File System server. This option is available only if you are creating a new Oracle Internet File System schema.

11. Review the screen and click **Configure** to begin the Oracle Internet File System configuration process.

Figure A-25 *Begin iFS Configuration Screen*



Begin iFS Configuration screen informs the users of the configuration process, and displays the location for the log files.

Once you have started the configuration process, a progress window appears, indicating the progress of the Oracle Internet File System configuration. If an error occurs, check the log files that are displayed on the Begin iFS Configuration screen.

12. A dialog box appears noting that the configuration was successfully completed. Run the `ifssetup` script as a root user.

The script is located in the `ORACLE_HOME/ifs1.1/bin` directory. This script will configure your system for Oracle Internet File System email, if this option was selected.

13. Perform the following steps to configure Oracle HTTP Server:

- a. Stop Oracle HTTP Server.

```
prompt> ./apachectl stop
```

- b. Run the following script:

```
prompt> ORACLE_HOME/ifs1.1/bin/ifsapachesetup
```

Be sure to run this script as the user who owns the Oracle software.

See Also: "[UNIX Account to Own Oracle Software](#)" on page 2-16 for more information.

- c. Restart Oracle HTTP Server.

```
prompt> ./apachectl start
```

- d. Start the Oracle Internet File System as root using the `ifsstart` script.

You have completed configuring Oracle Internet File System.

Oracle Management Server Configuration Assistant

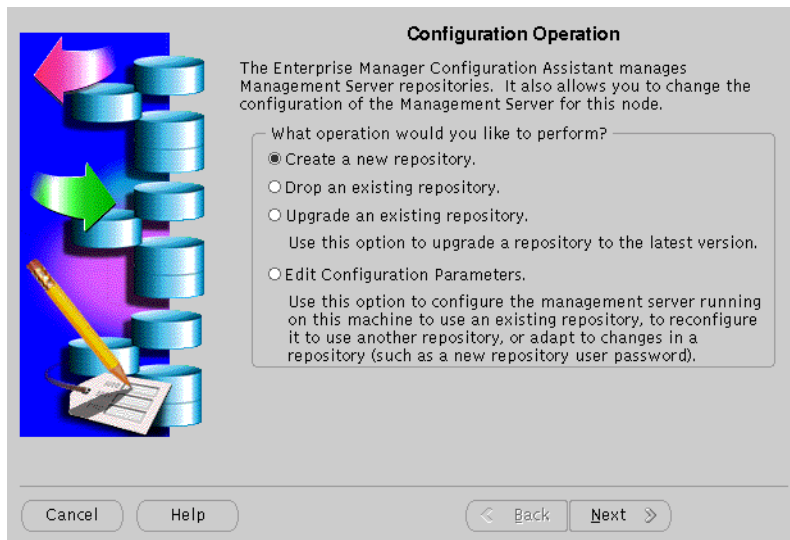
The following command launches the Oracle Enterprise Manager Configuration Assistant:

```
prompt> ORACLE_HOME/bin/emca
```

The following steps guide you through the Oracle Enterprise Manager Configuration Assistant:

1. Select “Create a new repository” and click **Next**.

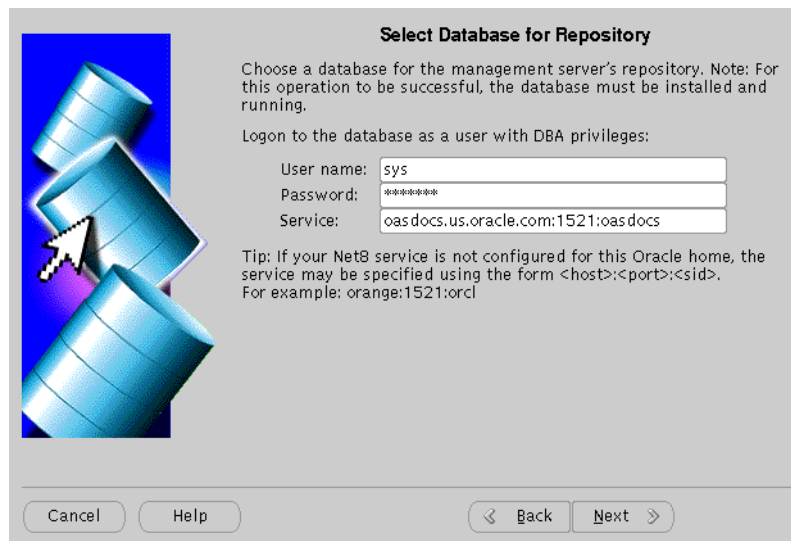
Figure A–26 Configuration Operation



Configuration Operation Screen allows you to create, drop, or upgrade a repository. It also enables you to edit your configuration parameters.

2. Enter the host name, password, and service information, and click **Next**.

Figure A-27 *Select Database for Repository Screen*



Select Database for Repository

Choose a database for the management server's repository. Note: For this operation to be successful, the database must be installed and running.

Logon to the database as a user with DBA privileges:

User name:

Password:

Service:

Tip: If your Net8 service is not configured for this Oracle home, the service may be specified using the form <host>:<port>:<sid>. For example: orange:1521:orcl

Cancel Help < Back Next >

Select Database for Repository screen allows you to enter database information for the management server's repository. Be sure to log in as a user with DBA privileges.

- **User name:** Enter a user name, with DBA privileges.
- **Password:** Enter the password for the username.
- **Service:** Enter the *host:port:SID* for the database.

3. Enter the repository login information, and click **Next**.

Figure A-28 *Repository Login Information Screen*

Repository Login Information

An Enterprise Manager repository is owned by a database user. In order to perform this operation, it is necessary to logon to the repository database as this user.

Enter repository user name and password

User name: PDARSHAN-UNIX

Password: *****

Confirm password: *****

Do not save username and password

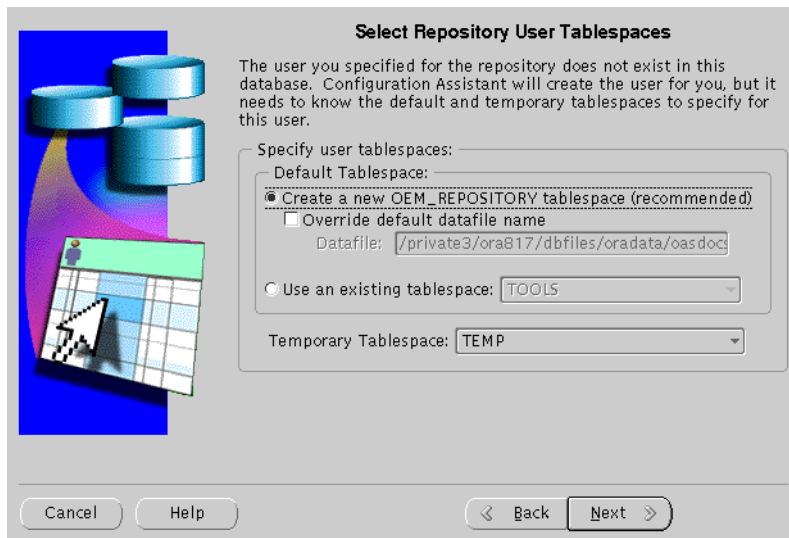
Cancel Help < Back Next >

Repository Login Information screen allows you to enter the login username and password for the database user.

- **Username:** Enter the database user name who will own the repository.
- **Password:** Enter the password for the username.
- **Confirm Password:** Re-enter the user password for verification.

4. Select to either create a new OEM_REPOSITORY tablespace, or use an existing tablespace, and click **Next**.

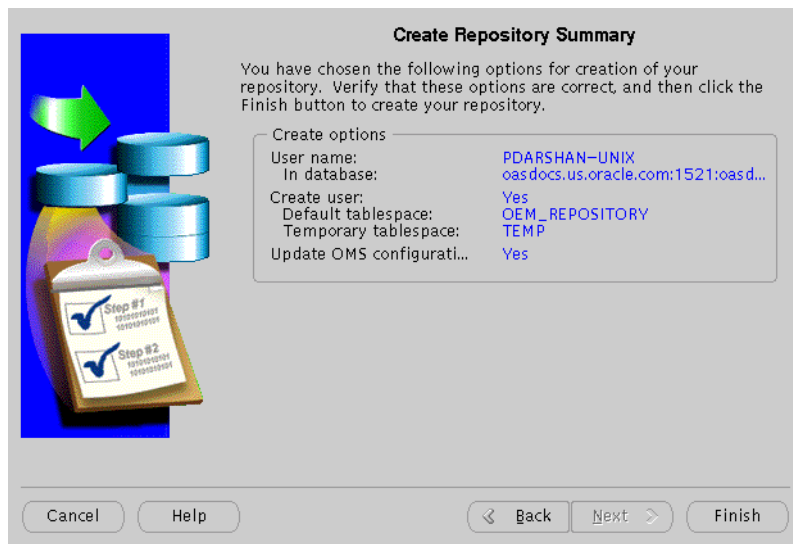
Figure A-29 Select Repository User Tablespaces Screen



Select Repository User Tablespaces screen allows you to choose between creating a new OEM_REPOSITORY tablespace, or using an existing one.

5. Review the repository summary, and click **Finish**.

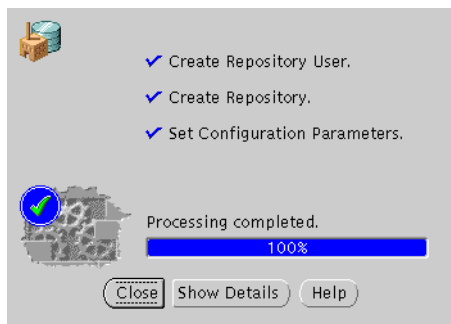
Figure A–30 Create Repository Summary



Create Repository Summary screen displays all your repository settings. Be sure to verify them for accuracy.

6. Monitor the repository creation process, and click **Close** when it finishes.

Figure A-31 Configuration Screen



Configuration screen indicates the progress the configuration assistant has made as it creates the repository. Click on **Show Details** if you get an error.

Installing Oracle9i Application Server Administrative and Development Client CD-ROM

The following topics provide an overview for the Oracle9i Application Server Administrative and Development Client CD-ROM components, and guide you through the installation process:

- [Oracle Enterprise Manager Client](#)
- [Oracle9iAS SOAP Client](#)
- [Oracle9i Application Server Wireless Edition Client](#)

Oracle Enterprise Manager Client

The Oracle Enterprise Manager Client runs only on the NT platform, and consists of the following components:

- [Oracle Enterprise Manager Console](#)
- [DBA Management Pack](#)

Oracle Enterprise Manager Console

The Oracle Enterprise Manager Console is a graphical user interface that provides menus, toolbars, launch palettes, and the framework to access Oracle tools and utilities available through other vendors. The format of the Console and the tools available are determined by the products purchased and user preferences. Console menus, toolbars, and tool palettes provide access to the Console components and database administration (DBA) applications.

DBA Management Pack

DBA Management Pack is a set of tools that help automate and simplify the common database administrator tasks. All the tools provide an intuitive graphical user interface (GUI), wizards, and a common look-and-feel which minimizes training costs, along with easy-to-use features that let administrators specify what they want to do rather than specify how to do it.

Installation

The following steps guide you through the Oracle Enterprise Manager Client installation process:

1. Insert the Oracle9i Application Server Administrative and Development Client CD-ROM and run the setup program. The Welcome screen appears. Click **Next**.
2. The File Location screen appears. Select the installation source, and then enter or select the destination Oracle home name and its path. Click **Next**.
3. The Available Products screen appears. Select Oracle Enterprise Manager Client and click **Next**.

4. The Installation Types screen appears. Select the installation type:
 - **Typical:** Installs the Oracle Enterprise Manager Console, and Database Administrative Tools.
 - **Custom:** Installs individual components. **Minimal:** Installs the minimal required components.
 - **Complete:** Installs all the components.
If you select Custom, then the Available Products screen appears. Select the products you wish to install, and click **Next**.
5. The Summary screen appears. Verify the installation selections, and click **Next**.
6. When the installation is complete, the End of Installation screen appears.

Oracle9iAS SOAP Client

The Simple Object Access Protocol (SOAP), is a lightweight, XML-based protocol for exchanging information in a decentralized, distributed environment. By combining SOAP-based requests and responses with a transport protocol, for example HTTP, the Internet becomes a medium for applications to publish database-backed *Web Services*.

SOAP requests are easy to generate, and a client can easily process the responses. This allows for one application to become a programmatic client of another application's services, with each exchanging rich, structured information. The ability to *aggregate* powerful, distributed Web Services allows SOAP to provide a powerful programming model that turns the Internet into an application development platform.

Installation

The following steps guide you through the Oracle9iAS SOAP Client installation process:

1. Insert the Oracle9i Application Server Administrative and Development Client CD-ROM and run the setup program. The Welcome screen appears. Click **Next**.
2. The File Location screen appears. Select the installation source, and then enter or select the destination Oracle home name and its path. Click **Next**.
3. The Available Products screen appears. Select Oracle SOAP Client. Click **Next**.
4. The SOAP Server Location screen appears. Enter the location to the SOAP Server, and click **Next**. This would be the URL to the Oracle HTTP Server located on the Oracle9i Application Server installation.
5. The Summary screen appears. Verify the installation selections, and click **Next**.
6. When the installation is complete, the End of Installation screen appears.

Oracle9i Application Server Wireless Edition Client

The Oracle9i Application Server Wireless Edition Client runs only on the NT platform, and consists of the following components:

- [Service Designer](#)
- [Web Integration Developer](#)

Service Designer

Service Designer is a visual interface for implementing and managing Oracle9iAS Wireless. It creates and modifies Oracle9iAS Wireless objects, including adapters, transformers, and services. Service Designer provides a tree view of the Oracle9iAS Wireless repository. The tree displays Oracle9iAS Wireless objects classes, such as adapters and transformers, as folders or branch nodes. It shows instances of those classes as objects or leaf nodes.

Web Integration Developer

Web Integration Developer is a development environment for creating and testing Web Integration services written in Web Interface Definition Language (WIDL). The Web Integration Developer also has tools that you use to:

- Publish WIDL services for Web Integration Server.
- Create source code for client applications that invoke Web Integration services.
- Create starter code for the development of an integration module.

See Also: ["Configure the Web Integration Developer"](#) on page B-6 for postinstallation configuration instructions.

Note: The Web Integration Developer includes its own Java Virtual Machine (JVM). It does not require any Java setup.

Installation

See Also: ["Oracle9iAS Client Requirements"](#) on page 1-4 for hardware requirements for installation.

The following steps guide you through the Oracle9i Application Server Wireless Edition Client installation process:

1. Insert the Oracle9i Application Server Administrative and Development Client CD-ROM and run the setup program. The Welcome screen appears. Click **Next**.
2. The File Location screen appears. Select the installation source, and then enter or select the destination Oracle home name and its path. Click **Next**.
3. The Available Products screen appears. Select Oracle9i Application Server Wireless Edition Client. Click **Next**.
4. The Installation Types screen appears. Select the installation type:
 - **Typical:** Installs the Service Designer and Web Integration Developer.
 - **Custom:** Installs individual components.If you select Custom, then the Available Products screen appears. Select the products you wish to install, and click **Next**.
5. The Summary screen appears. Verify the installation selections, and click **Next**.
6. When the installation is complete, the End of Installation screen appears.

Configure the Web Integration Developer

To configure the Web Integration Developer, follow these steps:

Run the Web Integration Developer from the Windows NT Programs menu. Select **Programs > Oracle for Windows NT > Oracle9i Application Server Wireless Edition > Web Integration Developer**.

1. From the **Edit menu**, select **Preferences**, and then **Configuration**.
2. Enter the Proxy (HTTP) and the Secure Proxy (HTTPS) settings appropriate for your environment.
3. Click **OK**.

Installing Supplemental Components

This appendix introduces you to the Oracle9i Application Server, version 1.0.2.2.2 supplemental components, and provides basic installation instruction. The topics include:

- [Overview](#)
- [Supplemental Components](#)

Overview

Oracle9i Application Server supplemental components are installed from the same CD-ROM as Oracle9i Application Server. Installation guides for each component are provided on Oracle9i Application Server Disk 1.

For instructions on launching the installer, refer to "[Starting Oracle Universal Installer](#)" on page 2-33.

When Oracle Universal Installer appears, you will see the Welcome screen. Review the screen and click **Next**. The next screen is the File Location screen. This screen allows you to enter the full path for the source and destination locations of Oracle9i Application Server. In the `Source` field, enter the full path to the `products.jar` file.

Supplemental Components

This section introduces you to each supplemental component, and provides the full path to each `products.jar` file.

Oracle9iAS Email

Oracle9iAS Email is an integrated solution for messaging and directory services. Users can send messages to anyone on the network with any IMAP4 or POP-3 compliant client. The Oracle9iAS Email database contains information about users, rooms, and equipment that you can organize by domain. Oracle9iAS Email provides tools to help you perform most administration tasks, including managing processes, directory entries, and databases. You can also use monitor tests and server process logs to monitor the system for potential problems.

Source Path

You can install Oracle9iAS Email from Oracle9i Application Server Supplemental CD-ROM Disk 2. The following is the full path to the `products.jar` file for Oracle9iAS Email. Enter this path in the `Source` field of the File Locations Screen.

```
mount_point/9ias_1022_Supplemental_Disk2/EMAILSERVER/Disk1/stage/products.jar
```

Oracle9iAS Unified Messaging

Oracle9iAS Unified Messaging is a highly scalable messaging framework that integrates messages from multiple sources into a single box. Oracle9iAS Unified Messaging not only consolidates all messages into a single interface, it also frees the business professional to focus on making decisions, rather than on keeping track of multiple telephone numbers, passwords, and access codes. It integrates messages from multiple sources into a single “inbox.”

Source Path

You can install Oracle9iAS Unified Messaging from Oracle9i Application Server Supplemental CD-ROM Disk 2. The following is the full path to the `products.jar` file for Oracle9iAS Unified Messaging. Enter this path in the `Source` field of the File Locations Screen.

```
mount_point/9ias_1022_Supplemental_Disk2/UM/Disk1/stage/products.jar
```

Oracle9iAS InterConnect

Oracle9iAS InterConnect is a comprehensive application integration framework that enables seamless integration of enterprise software. It is built on top of Oracle's robust integration platform and leverages its underlying services. It is designed to integrate heterogeneous systems, be it Oracle Applications, non-Oracle applications, or 3-party messaging oriented middleware (MOM). This integration can be deployed either within an enterprise or across enterprise boundaries through the Internet. In addition, Oracle9iAS InterConnect provides a tool (iStudio) for modeling the data in the integration scenario. iStudio eliminates the need for “hardwired” or “hardcoded” integration. Users define their integration using iStudio which minimizes the need to write any code for the integration.

Source Path

You can install Oracle9iAS InterConnect from Oracle9i Application Server Supplemental CD-ROM Disk 2. The following is the full path to the `products.jar` file for Oracle9iAS InterConnect. Enter this path in the `Source` field of the File Locations Screen.

```
mount_point/9ias_1022_Supplemental_Disk2/OAI/Disk1/stage/products.jar
```

Oracle Gateways

Oracle Gateways are agents for accessing data stored in non-Oracle systems, such that users perceive that all data resides on a local Oracle database server. Each agent is designed specifically for particular non-Oracle systems, and extends Oracle9i Application Server to that system. While installing an Oracle Gateway, you must:

- install each gateway in its own Oracle home directory.
- install the gateway on the same machine as the non-Oracle database.

Source Path

You can install the Oracle Gateways from Oracle9i Application Server Supplemental CD-ROM Disk 1. [Table C-1](#) lists the full paths to the `products.jar` file for each gateway. Enter this path in the Source field of the File Location Screen.

Table C-1 Oracle Gateway Source Path

Gateway Name	Path
Sybase	<code>mount_point/9ias_1022_Supplemental_Disk1/GW_SYBASE/Disk1/stage/products.jar</code>
Informix	<code>mount_point/9ias_1022_Supplemental_Disk1/GW_INFORMIX/Disk1/stage/products.jar</code>
Ingres	<code>mount_point/9ias_1022_Supplemental_Disk1/GW_INGRES/Disk1/stage/products.jar</code>

Oracle Internet Directory

Oracle Internet Directory is a general purpose directory service that stores information about users and network resources. It enables retrieval of information about dispersed users and network resources. It combines Lightweight Directory Access Protocol (LDAP), the open Internet standard directory access protocol, with the high performance, scalability, robustness, and availability of the Oracle9iAS.

Source Path

You can install Oracle Internet Directory from Oracle9i Application Server Supplemental CD-ROM Disk 2. The following is the full path to the `products.jar` file for Oracle Internet Directory. Enter this path in the Source field of the File Locations Screen.

`mount_point/9ias_1022_Supplemental_Disk2/OID/Disk1/stage/products.jar`

Oracle Workflow

Oracle Workflow is a business process modeling and automation tool that enables users to route information, create and change business processes, deliver electronic notifications, and integrate systems based on business events. It enables you to define and continuously improve your business processes using a drag-and-drop process designer, extend the reach of business process automation throughout the enterprise and beyond to include any e-mail or Internet user, and set up subscriptions to business events which can launch workflows or enable messages to be propagated from one system to another when business events occur.

Source Path

You can install Oracle Workflow from Oracle9i Application Server Supplemental CD-ROM Disk 2. The following is the full path to the `products.jar` file for Oracle Workflow. Enter this path in the `Source` field of the File Locations Screen.

```
mount_point/9ias_1022_Supplemental_Disk2/WF/Disk1/stage/products.jar
```

Enabling SSL for Oracle HTTP Server

This appendix describes the method of enabling SSL for Oracle HTTP Server. The following topics guide you through the necessary steps:

- [Generate the Certification Request](#)
- [Modify httpd.conf File to Enable SSL](#)

Generate the Certification Request

Perform the following steps to generate a certificate request:

1. Use the commands below to generate the certification request:

```
prompt> ORACLE_HOME/Apache/open_ssl/binopenssl md5 *>rand.dat
prompt> ORACLE_HOME/Apache/open_ssl/binopenssl genrsa -rand rand.dat -des3
1024>server.pem
prompt> ORACLE_HOME/Apache/open_ssl/binopenssl req -new -key server.pem -out
server.pem -config ./openssl.cnf
```

When you run the final command, a certificate request is generated. The following is an example of a certification request:

```
Country Name (2 letter code) [AU]: US
State or Province Name (full name)[Some-State]: California
Locality name (eg, city) []: Redwood Shores
Organization Name (eg, company) [Internet Widgits Pty Ltd]: Oracle
Organizational Unit Name (eg, section) []: EITQA
Common Name (eg, YOUR name) []:machine.us.oracle.com
Email Address []: username@oracle.com
```

Enter the following “extra” attributes to be sent with your certification request. This step is optional.

```
A challenge password []:
An optional company name []:
```

Be sure to take note of the following:

- These commands create two files: `server.pem` and `server.csr` (certificate request).
 - For Common Name, include the FULL name of the HOST and DOMAIN you are running the command on, for example: `www.mycompany.com`.
 - Remember the password you enter. This password is used every time Oracle HTTP Server is started.
2. Send the Certification Request. In the CSR area, paste the certification request from `server.csr` file.

3. When you receive the certificate, paste it into a file named `server.crt`.

Be sure that you get the Root Trial CA certificate by going to the URL mentioned in the Certificate Authority email. Export that certificate from the browser to a file named `rootcacert.crt`. If you are getting a trial certificate, only then do you need to put the trial CA certificate in the browser.

4. Copy the following in appropriate directories:

- Certificate file `server.key` into the `./Apache/Apache/conf/ssl.crt` directory.
- `server.pem` file into the `./Apache/Apache/conf/ssl.key` directory.
- Root Trial CA file `rootcacert.crt` into the `./Apache/Apache/conf/ssl.crt` directory.

Modify httpd.conf File to Enable SSL

Make the following changes to the `httpd.conf` file to enable SSL:

1. **Port changes:** Be sure your entries are similar to the ones in the example below:

```
#
# This port is used when starting without SSL
Port 7777
# This port is used when starting with SSL
<IfDefine SSL>
    Port 7777
    Port 7788
</IfDefine>

##
##SSL Support
##
##When we also provide SSL we have to listen to the standard HTTP port
##(see above) and to the HTTPS port
##
<IfDefine SSL>
    Listen 7777
    Listen 7788
</IfDefine>

##
##SSL Virtual Host Context
##

<VirtualHost_default_:7788>
```

- 2. SSL Certificate related entries:** To configure the `httpd.conf` file to your certificate, search for `SSLCertificateFile` and make this entry as below pointing to your certificate that came from the certificate authority. This is illustrated in the following example:

```
SSLCertificateFile ../Apache/Apache/conf/ssl.crt/server.crt

Entry for Server Private Key

SSLCertificateKeyFile ../Apache/Apache/conf/ssl.key/server.pem

Entry for Server Certificate Chain: (The Root Trial CA Certificate)

SSLCertificateChainFile ../Apache/Apache/conf/ssl.crt/rootcacert.crt

Entry for Certificate Authority (CA): as below

#Certificate Authority (CA):
#Set the CA certificate verification path where to find CA
#certificates for client authentication or alternatively one
#huge file containing all of this (file must be PEM encoded).
#Note: Inside SSLCACertificatePath you need hash symlinks
#to point to the certificate files. Use the provided
#Makefile to update the hash symlinks after changes.
#SSLCACertificateFile conf/ssl.crt/ca-bundle.crt
SSLCACertificateFile conf/ssl.crt
SSLCACertificateFile conf/ssl.crt/rootcacert.crt
```

- 3. Restart Oracle HTTP Server.**

For information on enabling SSL for Oracle9iAS Portal, refer to *Oracle Portal 3.0.8 Configuration Guide*.

Installing Documentation Library

The Oracle9i Application Server Documentation Library CD-ROM contains the documentation set for this product. The documentation on the CD-ROM is available in both HTML and PDF formats. The following topics describe the contents of the CD-ROM, and provides instructions for installing and viewing the documentation:

- [Documentation Library Titles](#)
- [Installing the Documentation Library](#)
- [Viewing the Documentation Library](#)

Documentation Library Titles

The Documentation Library CD-ROM contains the documentation listed in the tables on the following pages. Some of the titles that have a part number are available as printed manuals from the Oracle Store at

<http://store.oracle.com>

Table E-1 Oracle9i Application Server Core Documentation

Part Number	Title
NA	Oracle9i Application Server Quick Tour
A87353	Oracle9i Application Server Overview Guide
A83709	Migrating from Oracle Application Server

Table E-2 Run Websites and Applications

Part Number	Title
NA	Apache User's Guide
NA	Apache JServ Documentation (<i>links to http://java.apache.org/jserv</i>)
NA	Apache mod_perl Documentation (<i>links to http://perl.apache.org</i>)
NA	mod_ssl Documentation
NA	OpenSSL Documentation (<i>links to http://www.openssl.org</i>)
A90282	Oracle HTTP Server Using mod_oprocmgr with mod_jserv
NA	Oracle Business Components for Java Developing Business Components
NA	Oracle Business Components for Java Tutorial - Building BC4J
NA	Oracle Business Components for Java Reference API
A95131	Oracle9iAS Containers for J2EE Quick Reference Card
A88852	Oracle9iAS Object Caching Service for Java Developer's Guide
A83728	Oracle8i Java Developer's Guide
A81358	Oracle8i Java Stored Procedures Developer's Guide
A83720	Oracle8i Servlet Engine User's Guide
NA	OracleJSP Developer's Toolkit

Table E-2 Run Websites and Applications (Cont.)

Part Number	Title
A83725	Oracle8i Enterprise JavaBeans Developer's Guide and Reference
A88705	Deploying Enterprise JavaBeans to Oracle9i Application Server
A83722	Oracle8i CORBA Developer's Guide and Reference
A83724	Oracle8i JDBC Developer's Guide and Reference
A83723	Oracle8i SQLJ Developer's Guide and Reference
A81357	Oracle8i JPublisher User's Guide
A85456	Oracle8i Supplied Java Packages Reference
A83727	Oracle8i Java Tools Reference
A90099	Using the PL/SQL Gateway
A90101	PL/SQL Web Toolkit Reference
NA	Forms Developer Quick Tour
A86202	Deploying Forms Applications to the Web
A73074	Form Builder Reference Manual
A73073	Guidelines for Building Applications
A73075	Graphics Builder Reference Manual
A73076	Procedure Builder Reference Manual
A73152	Common Built-in Packages Reference Manual
A86030	Oracle8i Application Developer's Guide - XML
A83730	Oracle8i XML Reference Guide
A86082	Oracle Internet Directory Application Developer's Guide

Table E-3 Create Personalized Portals

Part Number	Title
NA	Oracle9iAS Portal Quick Tour
A90097	Oracle9iAS Portal Tutorial
A90096	Oracle9iAS Portal Configuration Guide

Table E-3 Create Personalized Portals

Part Number	Title
A90098	Oracle9iAS Portal Building Portals
A90343	Oracle9iAS Single Sign-On Application Developer's Guide
A88732	Oracle9iAS Single Sign-On Administrator's Guide

Table E-4 Wireless Enable Portals

Part Number	Title
A86701	Oracle9iAS Wireless Configuration Guide
A86700	Oracle9iAS Wireless Developer's Guide
A86699	Oracle9iAS Wireless Implementation Guide

Table E-5 Accelerate Performance with Caching

Part Number	Title
A90372	Oracle9iAS Web Cache Administration and Deployment Guide
NA	Oracle9iAS Database Cache Quick Tour
A88706	Oracle9iAS Database Cache Concepts and Administration Guide

Table E-6 Extract Business Intelligence

Part Number	Title
A90288	Oracle9iAS Discoverer Plus and Viewer Configuration Guide for UNIX
A90287	Oracle9iAS Discoverer Plus and Viewer Configuration Guide for Windows
NA	Reports Developer Quick Tour
A86784	Publishing Reports to the Web
A73172	Building Reports
A73174	Reports Developer Reference Manual
A73073	Guidelines for Building Applications

Table E-6 Extract Business Intelligence

Part Number	Title
A73075	Graphics Builder Reference Manual
A73076	Procedure Builder Reference Manual
A73152	Common Built-in Packages Reference Manual
A87535	Oracle9iAS Personalization: Getting Started with Oracle9iAS Personalization
A87539	Oracle9iAS Personalization Administrator's Guide
A87536	Oracle9iAS Personalization Recommendation Engine API Programmer's Guide
A90091	Oracle9iAS Personalization Recommendation Engine Batch API Programmer's Guide

Table E-7 Integrate Users, Applications, and Businesses

Part Number	Title
A87449	Oracle Workflow Guide
A90225	Oracle9iAS InterConnect User's Guide
A90297	Oracle9iAS SOAP Developer's Guide
A88729	Using Transparent Gateways with Oracle9i Application Server
A88714	Oracle Heterogeneous Services
A86653	Oracle9iAS Email Administrator's Guide
A86650	Oracle9iAS Email Developer's Guide
A90433	Oracle9iAS Email Integration with Oracle Internet Directory
A86093	Oracle9iAS Unified Messaging Developer's Guide
NA	Oracle Internet File System Quick Tour
A81197-05	Oracle Internet File System Setup and Administration Guide
A75154-04	Oracle Internet File System User's Guide
A75172-04	Oracle Internet File System Developer's Guide
NA	Oracle Internet File System Class Reference
NA	Oracle Internet File System Java Reference API

Table E-7 Integrate Users, Applications, and Businesses (Cont.)

Part Number	Title
NA	Oracle Internet File System XML Reference

Table E-8 Manage and Secure Web Infrastructure

Part Number	Title
NA	Oracle Enterprise Manager Console Quick Tour
NA	Standard Management Pack Quick Tour
A85250	Oracle Enterprise Manager Concepts Guide
A85247	Oracle Enterprise Manager Configuration Guide
A85248	Oracle Enterprise Manager Administrator's Guide
A85251	Oracle Intelligent Agent User's Guide
A85245	Oracle Enterprise Manager Messages Manual
A85249	Oracle SNMP Support Reference Guide
A86101	Oracle Internet Directory Administrator's Guide
A86082	Oracle Internet Directory Application Developer's Guide
A90387	Oracle Wallet Manager User's Guide

Installing the Documentation Library

You can install the documentation on the CD-ROM in either of two ways:

- Copying the files from the CD-ROM to your local system.
- Using the Oracle Universal Installer included with Oracle9i Application Server.

File Copy Installation

The simplest installation method is to directly copy the files from the CD-ROM to your computer. Use your operating system's commands to copy the contents of the `doc` directory on the CD-ROM to the appropriate installation directory on your system. For consistency with installations performed by the Oracle Universal Installer, Oracle recommends that you name the directory `doc`.

Oracle Universal Installer Installation

The Oracle Universal Installer also installs the documentation onto your computer from the CD-ROM. The following instructions describe the process:

1. Launch the Oracle Universal Installer from Oracle9i Application Server Disk 1. This is the same disk used to install Oracle9i Application Server.

See Also: ["Starting Oracle Universal Installer"](#) on page 2-33

Note: You cannot launch the Oracle Universal Installation from the documentation library CD-ROM.

2. At the Welcome screen, click **Next**.
3. At the File Locations screen do the following:
 - a. Eject the Oracle9i Application Server CD-ROM and replace it with the Documentation Library CD-ROM.
 - b. In the Source field,

For UNIX, enter `mount_point/stage/products.jar`.

For Windows, enter `cdrom-drive\stage\products.jar`.

This directs the installer to the installation file for the documentation library.

- c. In the Destination field, enter the path to the Oracle home you are installing the documentation to. The documentation will be installed in the `doc` directory under Oracle home.
 - d. Click **Next** to continue.
4. At the Summary screen, review the summary and click **Install** to begin the installation process.
5. After installation, the End of Installation screen will appear. Click **Exit** to quit the installer.

Viewing the Documentation Library

You can view the Oracle9i Application Server documentation library directly from the CD-ROM or from disk after installing it. For information about the tools necessary to view the documentation, refer to "[Online Documentation Requirements](#)" on page 1-5.

To view the HTML and PDF documentation from a local installation or from the CD-ROM, follow these steps:

1. Use your browser to open the top-level `index.htm` file from the `doc` directory on either the CD-ROM or Oracle home directory.
2. Click on the list of components to see the documentation relating to a particular component.

Using the Oracle Information Navigator Applet

Oracle Information Navigator is a Java-based search and navigation utility provided with Oracle online documentation. If you are using a Java-enabled browser, the navigator is launched automatically when you open `index.htm` in a browser. The navigator can be used with Oracle documentation, whether you are reading from the CD-ROM or from installed files.

For information on how to use the navigator, click the **Help** button in the top right corner of the browser window.

Bypassing the Oracle Information Navigator Applet

If you do not wish to launch the Oracle Information Navigator applet, open `products.htm` instead of `index.htm`.

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Summary of Comments on Oracle 9iAS Installation Guide Release 1 (v 1.0.2.2.2) for SUN Sparc Solaris with OIIT's Comments

Page: i

Sequence number: 1

Author: OIIT Technical Services

Date: 7/16/2002 8:42:22 AM

Type: Note

OIIT has verified the steps in this installation guide.

Chapters 1 and 2 are essential for successful installation.

Chapter 6 is the Enterprise Edition includes the Installation and Post Installation that OIIT recommends.

We have added electronic "sticky" notes for you to follow based on our test installation. For example, options that OIIT selected are noted.

A summary page of these comments that you can print appears at the end of this document.

Page: 2- 33

Sequence number: 1

Author: OIIT Technical Services

Date: 7/3/2002 10:22:25 AM

Type: Note

Oracle provides 5 CDs for installation.

Instead of running the installation directly from the CDs, OIIT copied the 5 disks to a staging area with directories named exactly as Oracle named them:

- Disk 1
- Disk 2
- Disk 3
- Disk 4
- Disk 5

You will find the installer in the Disk1 directory.

Page: 2- 34

Sequence number: 1

Author: OIIT Technical Services

Date: 7/3/2002 9:14:50 AM

Type: Note

OIIT recommends the Enterprise Edition of the 9iAS and supports the Enterprise Edition.

While Banner "Web For ..." products will run with the Core, Minimal, and Standard Installs, Banner Web Forms require the Enterprise Edition.

To install the Enterprise Edition, see Chapter 6.

Page: 6- 3

Sequence number: 1

Author: OIIT Technical Services

Date: 7/16/2002 3:10:34 PM

Type: Note

OIIT chose the default here.

Sometimes the installer might "hold on" to a path from an earlier install. Verify the entire path specified. Remember that ORACLE_HOME for 9iAS is not the same as the ORACLE_HOME for the database.

Page: 6- 5

Sequence number: 1
Author: OIIT Technical Services
Date: 7/3/2002 9:46:16 AM
Type: Note
 OIIT used "dba" as our group name.

Sequence number: 2
Author: OIIT Technical Services
Date: 7/16/2002 8:44:56 AM
Type: Note
 If you have already run the Oracle Universal Installer, the UNIX Group Name screen will not appear.

Page: 6- 7

Sequence number: 1
Author: OIIT Technical Services
Date: 7/3/2002 9:50:26 AM
Type: Note
 OIIT recommends the Enterprise Edition install.
 The Enterprise Edition is required to run Internet Native Banner (INB).

Page: 6- 10

Sequence number: 1
Author: OIIT Technical Services
Date: 7/3/2002 9:51:21 AM
Type: Note
 Choose Default by selecting "Next."

Sequence number: 2
Author: OIIT Technical Services
Date: 7/3/2002 11:26:08 AM
Type: Highlight
 If your swap space is smaller than 500 MB,

Page: 6- 11

Sequence number: 1
Author: OIIT Technical Services
Date: 7/3/2002 9:52:10 AM
Type: Note
 Choose Default by selecting "Next."

Page: 6- 12

Sequence number: 1
Author: OIIT Technical Services
Date: 7/3/2002 9:52:23 AM

Type: Note

Choose Default by selecting "Next."

Page: 6- 13

Sequence number: 1

Author: OIIT Technical Services

Date: 7/1/2002 3:30:43 PM

Type: Highlight

If you select a component here, then the installer prompts you for any or all configuration information required by that component. After installation, the installer starts that component.

Sequence number: 2

Author: OIIT Technical Services

Date: 7/1/2002 3:30:50 PM

Type: Highlight

If you de-select a component here, then the installer installs it, but does not configure or start it. Later on, if you decide to use that component, then manually launch the configuration assistant to configure that component.

Sequence number: 3

Author: OIIT Technical Services

Date: 7/1/2002 3:30:53 PM

Type: Highlight

You can select or de-select multiple components by holding down the Control key while clicking on the component name.

Sequence number: 4

Author: OIIT Technical Services

Date: 7/3/2002 10:29:54 AM

Type: Note

OIIT de-selected all possible choices here.

The product will install, but you configure it manually without the "configuration assistant". If you do use the configuration assistant, the installation is very slow.

Page: 6- 14

Sequence number: 1

Author: OIIT Technical Services

Date: 7/3/2002 10:29:40 AM

Type: Note

However, the screens show up sometimes no matter what has been selected. We accepted the defaults and continued . This was true for pages 6-16 through 6-20 of this guide.

Sequence number: 2

Author: OIIT Technical Services

Date: 7/3/2002 10:29:12 AM

Type: Highlight

This screen will appear only if you selected Oracle9iAS Database Cache in the Component Configuration and Startup screen.

Page: 6- 15

Sequence number: 1

Author: OIIT Technical Services

Date: 7/3/2002 10:01:10 AM

Type: Note

Choose Default by selecting "Next."

Page: 6- 17

Sequence number: 1
Author: OIIT Technical Services
Date: 7/3/2002 10:01:29 AM
Type: Note
Choose Default by selecting "Next."

Page: 6- 18

Sequence number: 1
Author: OIIT Technical Services
Date: 7/3/2002 10:01:44 AM
Type: Note
Choose Default by selecting "Next."

Page: 6- 19

Sequence number: 1
Author: OIIT Technical Services
Date: 7/3/2002 10:01:55 AM
Type: Note
Choose Default by selecting "Next."

Page: 6- 20

Sequence number: 1
Author: OIIT Technical Services
Date: 7/3/2002 10:02:08 AM
Type: Note
Choose Default by selecting "Next."

Page: 6- 21

Sequence number: 1
Author: OIIT Technical Services
Date: 7/3/2002 10:02:16 AM
Type: Note
Choose Default by selecting "Next."

Page: 6- 24

Sequence number: 1
Author: OIIT Technical Services
Date: 7/3/2002 10:04:02 AM
Type: Note
OIIT copied all disks to a staging area to avoid changing disks during the install.

Page: 6- 25

Sequence number: 1

Author: OIIT Technical Services

Date: 7/16/2002 4:05:00 PM

Type: Note

When running the root.sh , you may get an error message that libdcf.so does not exist. This file refers to Discoverer, and you can ignore the error.

Page: 6- 26

Sequence number: 1

Author: OIIT Technical Services

Date: 7/16/2002 3:14:54 PM

Type: Note

OIIT chose not to have configuration assistant working at all. The Configuration Tools screen shown in Figure 6-20 came up with each item marked with a red X.

The items have been installed but will not start automatically.

Page: 6- 31

Sequence number: 1

Author: OIIT Technical Services

Date: 7/16/2002 9:25:46 AM

Type: Note

See OIIT's Instructions for generating an SSL private key and SSL certificate request for a secured USG website, included in this pdf.

Instructions for Configuration of Oracle 9iAS for SUN SPARC Solaris and HP-UX 11

**Preparation of the Environment for Banner
Configuration of 9iAS**

**Office of Information and
Instructional Technology**

July 2002

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Configuration of Oracle 9iAS for SUN SPARC Solaris and HP-UX 11

Preparing the Environment for Banner

OIIT's instructions for preparation of the environment for Banner are based on SCT FAQs 1360 and 4870.

Use the same instructions for both Sun SPARC Solaris and HP-UX-11, with the exception of Preparation Step 1.

Step 1 for Sun SPARC Solaris: Establish path

Log on as ORACLE

Make additions to your \$PATH and \$LD_LIBRARY_PATH environment settings.

Where ORACLE_HOME is referenced, use the entire path for your IAS Oracle Home , not the ORACLE_HOME variable.

\$PATH: add ORACLE_HOME/bin,
ORACLE_HOME/Apache/Apache/bin,
ORACLE_HOME/ifs1.1/bin

\$LD_LIBRARY_PATH: add ORACLE_HOME/lib,
ORACLE_HOME/Apache/Apache/libexec,
ORACLE_HOME/ifs1.1/lib

Step 1 for HP-UX-11: Establish path

Make additions to your \$PATH and \$SHLIB_PATH environment settings.

Where ORACLE_HOME is referenced, use the entire path for your IAS Oracle Home , not the ORACLE_HOME variable

\$PATH: add ORACLE_HOME/bin,
ORACLE_HOME/Apache/Apache/bin,
ORACLE_HOME/ifs1.1/bin

\$SHLIB_PATH: add ORACLE_HOME/lib,
ORACLE_HOME/Apache/Apache/libexec,
ORACLE_HOME/ifs1.1/lib

Note



Following completion of the first step, all instructions for Sun SPARC Solaris and HP-UX-11 are the same.

**Step 2: Configure
sql*net and test**

Configure your sql*net files.

Verify that the Banner database you will be using is set up in your
/oracle/product/IAS1.0.2/network/admin/listener.ora file.

If you need to edit the listener.ora file shutdown your listener first.

lsnrctl stop

lsnrctl start

Test your connection setup by logging into databases using sqlplus
from the iAS ORACLE_HOME

**Step 3: Test HTTP
server**

Test the HTTP server:

/oracle/product/IAS1.0.2/Apache/Apache/bin

- To start, enter: apachectl start
 - To stop, enter: apachectl stop
-

**Step 4: Secure
gateway.htm page**



Warning: When you install IAS and create your gateway.htm page,
it is not secure. Anyone can get in and edit your DAD settings as
long as they know the URL.

Step 4 is critical to prevent unauthorized access.

To secure your gateway.htm page in IAS (Unix),

- Copy your
/oracle/product/IAS1.0.2/Apache/modplsql/cfg/plsql.conf
file.
- Edit your plsql.conf file to add the following lines,

After the <Location /pls> section of the file: add

```
<LocationMatch "/pls(.*?)admin_">
```

```
AuthType Basic
```

```
AuthName "Restricted Access"
```

```
AuthUserFile /opt/oracle/ias/Apache/modplsql/cfg/userfile
```

```
AuthGroupFile
```

```
/opt/oracle/ias/Apache/modplsql/cfg/groupfile
```

```
require group groupname
```

```
</LocationMatch>
```

- Create a userfile and groupfile using the htpasswd utility.

For example, to create a password file 'userfile' with 'bryon' as the initial ID, enter `htpasswd -c userfile bryon`.

You are prompted for the password and can add usernames to the user file.

- To modify the password file 'userfile' with the username 'scott' added to the list, enter `htpasswd userfile scott`.
- To create the groupfile, create a blank text document called 'groupfile' and add users.

For example, `groupname: bryon scott`

- Stop the HTTP server and then start the server again with the following commands:

```
apachectl stop
```

```
apachectl start
```

- Anyone accessing the gateway.htm page is prompted for a username and password.
-

Step 4: Connect



In your Web Browser, go to `http://machine.domain:NNNN` where NNNN is the port number.

7777 is the default port number for 9iAS. Do NOT use 7777. Choose your own port number.

If you are having a problem connecting, verify your connect information in `/oracle/product/IAS1.0.2/Apache/Apache/conf/httpd.conf`

Configuring 9iAS

Instructions for configuration for Sun SPARC Solaris and HP-UX-11 are the same.

Step 1: Verify UTL_RAW package

Verify that SYS.UTL_RAW package exists and is valid on the database where you run *Web For* products.

To check validity, select * from dba_objects where object_name like 'UTL_RAW%';

Step 2: Verify user

Verify that you have a user created for your database access descriptor (DAD) with connect privileges. OIIT uses DAD_USER.

If a DAD user does not exist, create one.

Step 3: De-install OAS toolkit

De-install the OAS toolkit by dropping OAS_PUBLIC and WEBSYS.

- DROP USER OAS_PUBLIC CASCADE;
- DROP USER WEBSYS CASCADE;

Step 4: Install IAS PL/SQL toolkit

Install the IAS PL/SQL toolkit into your database.

- Position yourself in
/oracle/product/IAS1.0.2/Apache/modplsql/owa
- Login to sqlplus as SYS: sqlplus sys/password@connect string
- Spool owaload.log.
- Run the command:

Start owaload.sql

This process installs the PL/SQL packages needed to run the PL/SQL gateway.

- Review owaload.log .

Step 5: Run GURALTR to validate

If not already logged onto your Banner machine, do so.

Run GURALTR several times to validate the objects that have become INVALID.

Step 6 for Voice Response: Run gurvgr in sqlplus

If your institution is using Voice Response, go to SECPATCH directory and run sqlplus baninst1/u_pick_it @gurvgr

Step 7: Edit files

Go to \$BANNER_HOME/general/plus.

Edit the gurgth.sql and gurgtw.sql files by inserting the DAD user and PL/SQL Toolkit schema. For example,

```
grant execute on &&1 to SYS;  
grant execute on &&1 to DAD_USER;
```

Run the following scripts in sqlplus as baninst1:

Script	Location
haludbpr.sql	If you are using the ALUMNI module
hgendbpr.sql	\$BANNER_HOME/genweb/dbprocs
hcomdbpr.sql	\$BANNER_HOME/scomweb/dbprocs
hpaydbpr.sql	If you are using banner PAYWEB
hfacdbpr.sql	\$BANNER_HOME/facweb/dbprocs
hstudbpr.sql	\$BANNER_HOME/stuweb/dbprocs
twtlldbpr.sql	\$BANNER_HOME/wtlweb/dbprocs Run as Web Tailor

Run GURALTR again to compile all objects.

Step 8: Set up DAD

To set up the DAD,

- Edit the /oracle/product/IAS1.0.2/Apache/modplsql/cfg/wbsvr.app file. Place a semicolon before admindad as follows.

```
    ;admindad
```
 - Go to <http://machine.domain:NNNN>
 - Click the “Mod_plsql Configuration Menu”
 - Choose “Gateway Database Access Descriptor Settings”
 - For a NEW DAD, choose “Add Default (blank configuration)”
 - Enter the DAD in the Dad Name area
 - Leave the Schema Name blank
 - Enter the name of you DAD for connecting to your Banner database
 - Enter the DAD password
 - Enter the Full Connect String for your installation
Example: INSTANCE.oiit.smartguys.usg_ons
 - Select the default for the remaining parameters.
-

NOTE: Be sure to leave the Default (HOME) Page blank. If you specify the Banner homepage at this point in the DAD configuration, the connection fails. The homepage.htm will be specified in the banner configuration file as the Directory Index when you create your Virtual Host Container.

- Click “apply,” which takes you to the edit screen. Click OK.

You should see the red success message at the top of the page.

Step 9: Verify DAD User

To verify the DAD_USER configuration,

- Use the “more” command on the wdbsvr.app file at /oracle/product/IAS1.0.2/Apache/modplsql/cfg/wdbsvr.app

- verify :

[DAD_USER]

connect_string = Your full connect string

username = DAD_USER

default_page this parameter should be left blank

enablesso = No

Step 10: Verify Banner files

If you do not have Banner on the same server as your iAS, you will need to create a directory to hold your Banner web procs. This will include the necessary htm, html, and jpg files, and the necessary directories: catalog, css, doc, facgifs, fachelp, gengifs, genhelp, stugifs, stuhelp, wtlgifs, and wtlhelp.

Note: The Banner tree is the same format that OIIT used with the OAS installation. .

Step 11: Edit homepage.htm

To edit the homepage.htm, replace

/your server name:port/test/owa/

with your site's PL/SQL agent virtual path.

The result should be

//machine.domain:NNNN/pls/DAD/twbkwbis.P_GenM
enu?name=homepage

Step 12: Copy configuration file

Make a backup copy of your httpd.conf file

**Step 13: Create
Banner Configuration
directory**

Create a directory to hold your Banner configuration file or container.

Add a ban_conf directory named

```
/oracle/product/IAS1.0.2/Apache/Apache/conf/ban_conf
```

**Step 14: Create
Container File**

In the ban_conf directory, create a file with the same name as your Banner instance with a .conf extension to hold the Virtual Host Container. The Virtual Host Container will hold the following Banner configuration information for the 9iAS to be able to serve the *Web For* products.

Note: N stands for number.

Port NNNN

Listen NNNN

NameVirtualHost machine.domain:NNNN

<VirtualHost > machine.domain:NNNN

DirectoryIndex homepage.htm

ServerAdmin email of admin person

DocumentRoot /u01/app/sct/<yourdbinstance>/webprocs

ServerName machine.domain

ErrorLog /u01/app/sct/<yourdbinstance>/weblogs/<yourdbinstance>.log

CustomLog/u01/app/sct/<yourdbinstance>/weblogs/<yourdbinstance>_cu
stom.log common

LogLevel Debug

</VirtualHost>~

Step 15: Edit file

Edit your new copy of the httpd.conf file.

Add the following at the end:

#Include the Banner configuration file

include

```
/oracle/product/IAS1.0.2/Apache/Apache/conf/ban_conf/INSTANCE.  
conf
```

using your correct directory path

```
/oracle/product/IAS1.0.2/Apache/Apache/conf/ban_conf
```

Step 16: Start 9iAS

Start the 9iAS

To start, enter: `apachectl start`

You should be able to access your *Web For* pages.

Finding Help

To access help, enter `apachectl help`

Instructions from Oracle for Installing Patch 10 for Oracle 9iAS on Solaris with Notes from OIIT Technical Services

July 2002

Note from OIIT Technical Services: Following successful installation of 9iAS for SUN SPARC Solaris, you must install Patch 10 to correct Bug 2200300, described below. These instructions are the same as those in the Readme file packaged with the patch. The complete list of bugs fixed from the Readme file is not included with these instructions.

Patch 10 to Oracle Forms / Reports Release 6i

Date of placement on ARU: 21 May 2002

Patch for Sun SPARC Solaris 2.x
Product patched is:

Forms	6.0.8.19.1
EWT	3.4.13.1
balishare	1.1.14
Reports	6.0.8.19.0
doc	6.0.8.19.4
d2pm	6.0.8.19.4 (release notes)
tk	6.0.8.19.0
ix(pasta)	6.0.8.19.1
jinit	1.1.8.19

Oracle E-Business Suite is a complete set of business applications that runs entirely on the internet. E-Business Suite Users must first see 'Upgrading Developer 6i with Oracle Applications 11i' and refer to this readme file only when that note so states. This note can be obtained via MetaLink -> Technical Libraries -> ERP Applications -> Applications Technology Stack under D2K Forms Issues, Setup & Usage.

Oracle JInitiator 1.3.1.x

Oracle JInitiator 1.3.1.x allow enterprise developers to develop and deploy Oracle9iAS Forms Services applications taking full advantage of JDK 1.3 features and functionality.

The Oracle JInitiator 1.3.1.x release is shipped with the patch, but not installed. The executable file that will install the 1.3.1.x version of JInitiator is stored in the \$ORACLE_HOME/jinit/doc/extras directory - jinit1319.exe.

For more information regarding the 1.3.1.x release please refer to the JInitiator Readme file."

Note :

- (1) Installing Patch 10 on a pre configured setup adds parameters in formsweb.cfg like working directory before the already existing working directory parameter thus causing the webform to fail as it cannot locate the form. (Bug 2200300)

(2)

The format of the patch has been changed slightly since patch 4. It is zipped using Zip 2.1. Please read the installation instruction below.

(3)

Please also note that 8.0.6.3.0 of RDBMS is installed as part of the patch since patch6. When you run `patch_install.sh`, it will automatically invoke the installer

to start up the installation of 8.0.6.3.0. if it is not already installed.

Please

make sure your `ORACLE_HOME` and `DISPLAY` ariables are set before running the `patch_install.sh` script and this script needs to be run in the directory where it is located.

(4)

The `patch_install.sh` script should detect if the 8.0.6.3.0 of `rdbms` is already installed. However, if by any reason, the script is run for the second time, a message saying "You have answered 'No' to installing patchset for RDBMS, returning

to the Asset Manager Screen." will appear on the screen. If you click "yes", the installation will terminate. This doesn't happen if you just run at the first time.

If you are going to install this patch in iAS installed area, you need to set `ORACLE_HOME` environment variable to `<iAS_HOME>/6iserver`. You also need to add `<iAS_HOME>/6iserver/lib` at the *beginning* of `LD_LIBRARY_PATH` and `<iAS_HOME>/6iserver/bin` at the *beginning* of `PATH`.

The `patch_install.sh` script will only patch products that are already installed in your `$ORACLE_HOME`.

If you ever wish to de-install this patch, do not remove the backup files or the `patch_deinstall.sh` script created by this installation script. The backup files all have the suffix `.PRE_P10`.

Note regarding Solaris patches: You need to apply following Motif patch before installing Forms / Reports 6i or applying this patch.

For Solaris 2.5.1, Motif patch 103461-07 or higher.

For Solaris 2.6, Motif patch 105284-20 or higher.

For Solaris 7, Motif patch 107081-19 or higher.

Patch Installation Instructions:

1. Set your `ORACLE_HOME`
2. Copy the files in this patch to `$ORACLE_HOME`
 3. Unzip the patch using either `winzip` on NT or `unzip` on Unix
4. `cd $ORACLE_HOME/developer6i_patch10`
5. `./patch_install.sh 2>&1 | tee patch_install_p10.log` (ksh)
`./patch_install.sh |& tee patch_install_p10.log` (csh)
6. Check `patch_install_p10.log` for errors.
7. Relink Procedure Builder, Forms, Reports and Graphics to pick up changes via installer or:

Note: Oracle Applications customers might not be required to complete these steps; they should review the Oracle Applications documentation.

Note for Reports linking : Reports has both link-time and run-time dependency with libjava.so so you need to append \$ORACLE_HOME/network/jre11/lib/sparc/native_threads in \$LD_LIBRARY_PATH before linking Reports. The same \$LD_LIBRARY_PATH should be used at run-time.

Notes from OIIT: OIIT recommends that you redirect your output to log files for all four of the following commands.

```
(cd $ORACLE_HOME/procbuilder60/lib; make -f ins_procbuilder.mk install)
(cd $ORACLE_HOME/forms60/lib; make -f ins_forms60w.mk install)
(cd $ORACLE_HOME/reports60/lib; make -f ins_reports60w.mk install)
(cd $ORACLE_HOME/graphics60/lib; make -f ins_graphics60w.mk install)
```

Patch De-installation Instructions:

1. Set your ORACLE_HOME
2. cd \$ORACLE_HOME/developer6i_patch10
3. ./patch_deinstall.sh 2>&1 | tee patch_deinstall_p10.log (ksh)
./patch_deinstall.sh |& tee patch_deinstall_p10.log (csh)
4. Check patch_deinstall_p10.log for errors.
5. Relink Procedure Builder, Forms, Reports and Graphics to pick up changes via installer or:

Note: Oracle Applications customers might not be required to complete these steps; they should review the Oracle Applications documentation.

```
(cd $ORACLE_HOME/procbuilder60/lib; make -f ins_procbuilder.mk install)
(cd $ORACLE_HOME/forms60/lib; make -f ins_forms60w.mk install)
(cd $ORACLE_HOME/reports60/lib; make -f ins_reports60w.mk install)
(cd $ORACLE_HOME/graphics60/lib; make -f ins_graphics60w.mk install)
```

Instructions from Oracle for Installing Security Patch 2424256

July 2002

Instructions for Installing Security Patch 2424256

Purpose: Patch fixes a security hole in the Apache kernel.

The same instructions apply for both Solaris and for HP-UX 11

1. Shut down the Oracle HTTP Server.
2. Back up the file \$ORACLE_HOME/Apache/Apache/bin/httpd.
3. Copy the httpd file from the patches directory to \$ORACLE_HOME/Apache/Apache/bin/directory.
4. Start Oracle HTTP Server.
apachectl start

Migrating OAS 4.0.8.2 SSL Certificates to 9iAS

**Office of Information and
Instructional Technology**

July 2002

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Migrating OAS 4.0.8.2 SSL Certificates to 9iAS

Introduction

Purpose	This document provides procedures to migrate an existing OAS 4.0.8.2 SSL private key to a 9iAS SSL private key and to configure Oracle9i Application Server (9iAS) 1.0.2.2.x with a level 3 SSL certificate. OIIT used Verisign.
Assumptions	Your OAS SSL certificates are configured and working fine. You will be using the same OAS4.0.8.2 SSL certificates with 9iAS.

Migrating OAS4.0.8.2 SSL Certificates to 9iAS

Before you begin	Verify that the OAS is down. Owsctl stop Owsctl clean Verify that Apache is down. apachectl stop
Step 1: Create directory	Create a new certs directory for storing SSL files for 9iAS. For example: /oracle/admin/certs/SID/ias_ssl
Step 2: Copy pconvert utility	Copy the pconvert utility from your IAS_HOME/Apache/Apache/bin to the new certs directory that you just created.
Step 3: Copy files	Copy the two .der files from your OAS certs directory to the new 9iAS certs directory
Step 4: Run pconvert utility	Run pconvert utility with the following syntax: pconvert -s privkey.der -d iaspriv.key Running the pconvert utility creates a .cer(certificate) file and a privkey.key(key) file. Rename the .cer file to .crt
Step 5. Make backup	Make a backup copy of the /oracle/product/IAS1.0.2.2/Apache/Apache/conf/httpd_conf file.
Step 6: Edit httpd.conf	Edit the httpd.conf file Add an include comment and line for the banner SSL conf file #Include the Banner configuration file.

**Step 7: Comment
out SSL Support**

```
include  
"/oracle/product/IAS1.0.2/Apache/Apache/conf/ban_conf/instanc  
essl.conf"
```

In the httpd.conf file, use the # comment identifier to comment out the following :

```
#<IfDefine SSL>  
  
#Port 7778 => COMMENT OUT  
#Listen 7790 => COMMENT OUT  
#Listen 443 => COMMENT OUT  
#</IfDefine>  
#<IfDefine SSL>  
#1032 AddType application/x-x509-ca-cert .crt  
#1033 AddType application/x-pkcs7-crl .crl  
#1034 </IfDefine>  
#<IfModule mod_ssl.c>  
#SSLPassPhraseDialog builtin  
#SSLSessionCache  
dbm:/oracle/product/IAS1.0.2/Apache/Apache/logs/ssl_scache  
#SSLSessionCacheTimeout 300  
#SSLMutex  
file:/oracle/product/IAS1.0.2/Apache/Apache/logs/ssl_mutex  
#SSLRandomSeed startup builtin  
#SSLRandomSeed connect builtin  
#SSLLog  
/oracle/product/IAS1.0.2/Apache/Apache/logs/ssl_engine_log  
#SSLLogLevel warn  
#<IfDefine SSL>  
#<VirtualHost _default_:443>  
#DocumentRoot  
"/oracle/product/IAS1.0.2/Apache/Apache/htdocs"  
#ServerName lazarus.rath.peachnet.edu  
#ServerAdmin you@your.address  
#ErrorLog  
/oracle/product/IAS1.0.2/Apache/Apache/logs/error_log  
#TransferLog
```

```
/oracle/product/IAS1.0.2/Apache/Apache/logs/access_log
#SSLEngine on
#SSLCertificateFile
/oracle/product/IAS1.0.2/Apache/Apache/conf/ssl.crt/server.crt
#SSLCertificateKeyFile
/oracle/product/IAS1.0.2/Apache/Apache/conf/ssl.key/server.key
#SSLOptions +StdEnvVars
#</Files>
#<Files ~ "\.(cgi|shtml)$">
#<Directory "/oracle/product/IAS1.0.2/Apache/Apache/cgi-bin">
#SSLOptions +StdEnvVars
#</Directory>
#SetEnvIf User-Agent ".*MSIE.*" nokeepalive ssl-unclean
shutdown
```

Step 8: Save file

Save the httpd.conf file

**Step 9: Edit Banner
configuration file-**

Edit the ban_conf/dbname_conf file

Add the following lines at the end of the file making sure you use
the correct .crt and .key file names

```
SSLEngine on
SSLCertificateFile
/oracle/admin/certs/<database name>ias_ssl/<database name>_cert.crt
SSLCertificateKeyFile
/oracle/admin/certs/<database name>/ias_ssl/<database name>ias_privkey.key
SSLCACertificateFile
/oracle/product/IAS1.0.2/Apache/Apache/conf/ssl.crt/ca-
bundle.crt
```

**Step 10: Start IAS
with SSL**

Start the IAS with SSL

```
apachectl startssl
```
