Oracle9i Application Server

Installation Guide

Release 1.0.2.1.0 for Windows NT/2000

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Oracle9i Application Server Installation Guide, Release 1.0.2.1.0 for Windows NT/2000

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

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Preface

This guide describes the installation process for Oracle 9 i Application Server.

This preface contains these topics:

- Audience
- Organization
- Related Documentation
- Conventions

Audience

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

Organization

This document contains:

Chapter 1, "Requirements"

This chapter provides hardware and software requirements for Oracle9*i* Application Server, Oracle9*i*AS Wireless client, and the online documentation.

Chapter 2, "Concepts and Preinstallation"

This chapter provides basic concepts, and preinstallation steps for Oracle9*i* Application Server.

Chapter 3, "Minimal Edition"

This chapter guides you through the installation and postinstallation steps for the Minimal Edition installation option for Oracle9*i* Application Server.

Chapter 4, "Standard Edition"

This chapter guides you through the installation and postinstallation steps for the Standard Edition installation option for Oracle9*i* Application Server.

Chapter 5, "Enterprise Edition"

This chapter guides you through the installation and postinstallation steps for the Enterprise Edition installation option for Oracle9*i* Application Server.

Chapter 6, "Non-Interactive Installation"

This chapter guides you through Non-interactive installation steps for Oracle9*i* Application Server.

Chapter 7, "Deinstallation and Reinstallation"

This chapter guides you through the deinstallation and reinstallation steps for Oracle9*i* Application Server.

Appendix A, "Configuration Tools"

This appendix guides you through the steps required to run component-specific configuration assistants to configure Oracle9*i* 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 Oracle9*i* Application Server Administrative and Development Client CD-ROM.

Appendix C, "Installing Supplemental Components"

This appendix introduces you to the Oracle9*i* 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 Oracle9*i* 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.
Italics	Italic typeface indicates book titles or emphasis.	Oracle9i Concepts
		Ensure that the recovery catalog and target database do <i>not</i> reside on the same disk.
UPPERCASE monospace	ospace elements supplied by the system. Such elements include parameters, privileges,	You can specify this clause only for a NUMBER column.
(fixed-width font)		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	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	Enter sqlplus to open SQL*Plus.
monospace (fixed-width		The password is specified in the orapwd file.
font)		Back up the datafiles and control files in the /disk1/oracle/dbs directory.
database objects and structures, column		The department_id, department_name, and location_id columns are in the hr.departments table.
		Set the QUERY_REWRITE_ENABLED initialization parameter to true.
	Note: Some programmatic elements use a	Connect as one user.
	Enter these elements as shown.	
		The JRepUtil class implements these methods.
lowercase	pace represents placeholders or variables. d-width	You can specify the parallel_clause.
monospace (fixed-width font) italic		Run Uold_release. SQL where old_ release refers to the release you installed prior to upgrading.

Conventions in Code Examples

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

SELECT username FROM dba_users WHERE username = 'MIGRATE';

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

Convention	Meaning	Example
[]	Brackets enclose one or more optional items. Do not enter the brackets.	DECIMAL (digits [, precision])
{}	Braces enclose two or more items, one of which is required. Do not enter the braces.	{ENABLE DISABLE}
I	A vertical bar represents a choice of two or more options within brackets or braces. Enter one of the options. Do not enter the vertical bar.	{ENABLE DISABLE} [COMPRESS NOCOMPRESS]

Convention	Meaning	Example
• • •	Horizontal ellipsis points indicate either:	
	 That we have omitted parts of the code that are not directly related to the example 	CREATE TABLE AS subquery;
	 That you can repeat a portion of the code 	SELECT col1, col2,, coln FROM employees;
· · ·	Vertical ellipsis points indicate that we have omitted several lines of code not directly related to the example.	
Other notation	You must enter symbols other than	<pre>acctbal NUMBER(11,2);</pre>
	brackets, braces, vertical bars, and ellipsis points as shown.	acct CONSTANT NUMBER(4) := 3;
Italics	Italicized text indicates placeholders or	CONNECT SYSTEM/system_password
	variables for which you must supply particular values.	DB_NAME = database_name
UPPERCASE	Uppercase typeface indicates elements supplied by the system. We show these	<pre>SELECT last_name, employee_id FROM employees;</pre>
	terms in uppercase in order to distinguish them from terms you define. Unless terms appear in brackets, enter them in the order and with the spelling shown. However, because these terms are not case sensitive, you can enter them in lowercase.	SELECT * FROM USER_TABLES;
		DROP TABLE hr.employees;
lowercase	Lowercase typeface indicates programmatic elements that you supply.	<pre>SELECT last_name, employee_id FROM employees;</pre>
	For example, lowercase indicates names of tables, columns, or files.	sqlplus hr/hr
	Note: Some programmatic elements use a mixture of UPPERCASE and lowercase. Enter these elements as shown.	CREATE USER mjones IDENTIFIED BY ty3MU9;

Requirements

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

- **Hardware Requirements**
- **Software Requirements**
- **Certified Software**
- Oracle9iAS Wireless Client Requirements
- **Online Documentation Requirements**

Hardware Requirements

The following table contains the hardware requirements for Oracle9*i* Application Server. All the space calculations are based on NTFS. FAT formatted drives will require additional space.

Hardware Items	Requirements
CPU	An Intel compatible 486 or higher processor
Memory	128 MB
Disk Space	Minimal: 575 MB
	Standard Edition: 1.60 GB
	Enterprise Edition: 3.05 GB
Total Pagefile Size or Swap Space	500 MB

Make note of the following:

- The disk space must be available on a single drive. Oracle9*i* Application Server does not support spanning the installation over multiple drives.
- Origin database must have 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 to install the Oracle Enterprise Java Engine database. The database files do not have to be installed on the same disk as the Oracle9*i* Application Server Oracle home.

For Enterprise Edition Only:

- Memory for Oracle9iAS Web Cache should be based on the following formula:
 - (average HTTP object size) * (maximum number of objects you want to cache)
 - Thus, if you want to cache 1,000,000 objects and the average size of the objects is 3 KB, then set the maximum cache size to at least 3 GB.
- You will require an additional 100 MB disk space for Oracle9iAS Discoverer installation.

■ If you have an existing 806 home that is designated as a default home on one drive, and you want to install Enterprise Edition onto another drive, then the main Oracle9*i* Application Server products can be installed to the new location, but the 806 products must be installed to the existing 806 default home location.

Software Requirements

The following table contains the software requirements for Oracle9*i* Application Server.

Software Items	Version
Operating System	 Microsoft Windows NT with Service Pack 3 (minimum) or 5 (recommended)
	■ Microsoft Windows 2000
Virtual Memory	At least 360 MB of free virtual memory. To change the amount of virtual memory, go to Windows Control Panel and open System. Under the performance tab, change the amount of virtual memory.

Path Environment Variable

If the value of the user's PATH environment variable is over 1,024 bytes, then the following error may occur when the installer starts up the Oracle HTTP Server process:



This error can be resolved by doing either one of the following:

- Shortening the length of the PATH environment variable.
- Downloading a patch from Microsoft to correct the problem in cmd.exe. The patch is described in Microsoft Knowledge Base article **Q268722**.

Certified Software

Installation of the Oracle9*i* Application Server requires an Oracle database. A complete list of certified software, including databases, for Oracle9*i* Application Server can be found on OracleMetaLink, which can be accessed from the URL below:

http://metalink.oracle.com

Oracle9iAS Wireless Client Requirements

The following table contains the requirements for the installation of Oracle9*i*AS Wireless Client. All the space calculations are based on NTFS. FAT formatted drives will require additional space.

See Also: Appendix B, "Installing Oracle9i Application Server Administrative and Development Client CD-ROM"

Hardware Items	Required
Operating System	Windows NT 4.0, with Service Pack 5.0 or higher
	Windows 2000
CPU	Pentium 266
Memory	At least 64 MB RAM for running both the Oracle9 <i>i</i> AS Wireless Service Designer and Web Integration Developer; at least 32 MB RAM for running the Oracle9 <i>i</i> AS Wireless Service Designer.
Disk Space	40 MB for running both the Oracle9 <i>i</i> AS Wireless Service Designer and Web Integration Developer; at least 20 MB for running the Oracle9 <i>i</i> AS Wireless Service.
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 Oracle9*i* Application Server online documentation. All the space calculations are based on NTFS. FAT formatted drives will require additional space.

See Also: Appendix E, "Installing Documentation Library"

Requirement	Items
Online Readers	Requires any one of the following:
	HTML
	■ Netscape Navigator 3.0 or higher
	■ Microsoft Internet Explorer 3.0 or higher
	PDF
	■ 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	250 MB



Concepts and Preinstallation

This chapter guides you through the basic concepts and preinstallation steps for Oracle9*i* 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

Oracle9*i* 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 three installation options:

- **Minimal Edition**: suitable 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 three 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	Minimal Edition	Standard Edition	Enterprise Edition
Oracle9iAS Database Cache			x
Oracle9iAS Discoverer			x
Oracle9iAS Forms Services			x
Oracle9iAS Portal	x	х	x
Oracle9iAS Reports Services			x
Oracle9iAS Web Cache			x
Oracle9iAS Wireless	х	x	X

Table 2–1 Oracle9i Application Server Components(Cont.)

Component	Minimal Edition	Standard Edition	Enterprise Edition
Oracle Advanced Security		x	x
Oracle Business Components for Java (BC4J)	х	х	X
Oracle Database Client Developer Kit	х	х	X
Oracle Enterprise Java Engine		x	x
Oracle Enterprise Manager Client	х	х	X
Oracle HTTP Server	x	x	x
Oracle Internet File System		x	x
Oracle LDAP Client Kit	x	x	x
Oracle Management Server			x
Oracle Plug-in for Microsoft IIS	x	x	x
Oracle XML Developer's Kit	x	x	x

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

Oracle9*i*AS Discoverer is a business intelligence tool for analyzing data. With Oracle9*i*AS Discoverer's award-winning user interface, users can access and analyze database data. There are two Oracle9*i*AS Discoverer products:

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-and0feel, and to build custom Discoverer applications for the Web. Discoverer Viewer is optimized for performance and designed to minimize network traffic.

Oracle9iAS Forms Services

Oracle9*i*AS Forms Services deploys Forms applications with database access to Java clients in a Web environment. Oracle9*i*AS 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

Oracle9*i*AS Web Cache is a server accelerator caching service that improves the performance, scalability, and availability of frequently used e-business Web sites that run on Oracle9*i* Application Server and Oracle8*i*. By storing frequently accessed URLs in virtual memory, Oracle9*i*AS 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 Enterprise Manager Client

Oracle Enterprise Manager Client provides an integrated solution for centrally managing your Oracle environment. Combining a graphical console, Oracle Intelligent Agents, common services, and administrative tools, Oracle Enterprise Manager Client provides a comprehensive systems management platform for managing Oracle9*i* Application Server. To use this client, you must have a previously installed Oracle Management Server on your network.

Oracle HTTP Server powered by Apache

Oracle9*i* 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
- mod Jserv
- mod ose
- mod_plsql
- mod_perl
- mod_ssl
- Oracle JSP
- Perl Interpreter

Oracle Internet File System

Oracle Internet File System is a file system and development platform that stores files in an Oracle8*i* 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 Oracle9*i* 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 Plug-in for Microsoft IIS

Oracle Plug-in for Microsoft IIS enables you to use Microsoft Internet Information Server (IIS) to directly access PL/SQL and Java Web components stored in an Oracle database. It provides functionality in a Microsoft IIS environment that is similar to the Oracle HTTP Server Modules, mod_plsql and mod_ose. Using it, you can access Web components by passing either a preconfigured virtual directory prefix (PL/SQL access), or a predefined file extension and virtual directory prefixes which are stored in the Java configuration file (Java access).

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 Oracle9*i* Application Server, Release 1.0.2.1:

See Also: Appendix C, "Installing Supplemental Components" for overview and installation instructions.

- Oracle Applications Interconnect
- Oracle Gateways (Informix, Ingres, Sybase)
- Oracle Internet Directory
- Oracle Workflow

Preinstallation Tasks

The preinstallation tasks for the Oracle 9i Application Server are divided into the following parts:

- Migration
- Port Changes
- Completing Preinstallation for Specific Installation Options

Migration

If you are migrating from a previous version of Oracle9*i* Application Server, note that Oracle only supports the following options:

- If you are migrating from an earlier release, you must first migrate to Oracle9*i* Application Server, Release 1.0.2.0 using the instructions for that release. Then migrate from Release 1.0.2.0 to 1.0.2.1 using the instructions below.
- If you are migrating from Oracle9*i* Application Server, Release 1.0.2.0, then you must perform certain migration tasks before installing Oracle9*i* Application Server, Release 1.0.2.1.

See Also: *Migrating from Oracle Internet Application Server 1.0.2.0* in the Oracle9*i* Application Server Platform-specific Documentation. Review the migration guide for any preinstallation tasks before proceeding with installation.

Port Changes

If you are installing Oracle9*i* Application Server on the same machine as the database, make the following changes to avoid port conflicts:

- Oracle9i Application Server receives requests on port 80. Be sure that an
 existing service, such as the database, is not using that port. If port 80 is already
 in use, then you should either change the port for that existing service, or
 deinstall the service if it is not in use.
- Oracle9*i* Application Server installs another database that listens on port 1521. Change the port for the origin database listener to be, for example, 1526.

Completing Preinstallation for Specific Installation Options

Perform the following preinstallation tasks before installing the Oracle9*i* Application Server:

- Log in with administrator privileges.
- Go to the **Control Panel** and set all Oracle services to manual startup. After installing Oracle9*i* Application Server, the Oracle services can be changed back to automatic start mode.
- Be sure to verify that your PATH environment variable does not exceed 1,024 bytes.

See Also: "Path Environment Variable" on page 1-3

The list below directs you to the installation option that you have licence to:

- Minimal Edition on page 2-11
- Standard Edition on page 2-12
- Enterprise Edition on page 2-15

Minimal Edition

Minimal Edition does not require any preinstallation tasks.

Proceed to "About Oracle Universal Installer" on page 2-22 to start the installer.

Standard Edition

The following are the preinstallation steps for the Standard Edition of the Oracle9i Application Server.

Oracle Internet File System

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

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

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 BASE\admin\global database name\pfile directory.

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

- Set the value for open_cursors to at least 255.
- Set the value for shared pool size at least 50MB.
- 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 seqs;
```

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

Table 2–2 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 Administration Guide* in the Oracle Database Documentation Library

- Restart the network listener and database.
- **3.** 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 Administration Guide* in the Oracle Database Documentation Library

Origin Database Connectivity

Oracle9*i* 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.

Before installing Oracle9*i* Application Server, verify that the origin database and its TNS listener are running.

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

You have completed the preinstallation tasks for the Oracle9*i* Application Server. Proceed to "About Oracle Universal Installer" on page 2-22 to start the installer.

Enterprise Edition

The following are the preinstallation steps for the Enterprise Edition of the Oracle9*i* Application Server.

Oracle9iAS Database Cache

Perform the following preinstallation tasks for Oracle9iAS Database Cache:

- Allow Remote Access to the Origin Database
- Configure the Listener for External Procedures

Allow Remote Access to the Origin Database

To allow remote access to the origin database through Oracle9*i*AS Database Cache, you must check the initSID.ora file of the origin database and create a password file for the database if it does not exist. Take 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. or a, where SID is the system identifier of the origin database.

2. If the file does not exist, create the password file using the orapwd utility with the following commands:

```
prompt> cd ORACLE_HOME\bin
prompt> ORAPWD FILE=PWDSID.ORA PASSWORD=sys_password 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.

See Also: Oracle8i Administration Guide in the Oracle Database Documentation Library for information on the orapwd utility and remote login.

Configure the Listener for External Procedures

You must configure the listener for the origin database so that it listens for external procedure calls. Follow these steps:

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:

Verify the following:

- The service name is "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 "EXTPROCO"). 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:

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 "EXTPROCO".

Make a note of the name of the listener that will be used for external procedures. In this example, the listener name is "LISTENER 01".

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".
- 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_01".

```
prompt> lsnrctl stop listener_01
prompt> lsnrctl start listener_01
```

- 5. 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.
- **6.** If not already installed, place the extproc executable in the bin directory under the ORACLE_HOME of the origin database.
- 7. Minimum configuration for sqlnet.ora:

```
NAMES.DEFAULT_DOMAIN = your.Domain.Name
SQLNET.AUTHENTICATION_SERVICES= (NTS)
NAMES.DIRECTORY PATH= (TNSNAMES, ONAMES, HOSTNAME)
```

See Also: Net8 Administrator's Guide in the Oracle Database Documentation Library for information regarding the listener.ora file and the tnsnames.ora file.

Oracle Internet File System

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

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

 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_BASE\admin\global_database_name\pfile directory.

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

- Set the value for open_cursors to at least 255.
- Set the value for shared pool size at least 50MB.
- Set the value for processes to at least 200.
- 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 2–3 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 Administration Guide in the Oracle Database Documentation Library.

- **2.** Restart the network listener and database.
- **3.** 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 Administration Guide* in the Oracle Database Documentation Library

Origin Database Connectivity

Oracle9*i* 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.

Before installing Oracle9*i* Application Server, verify that the origin database and its TNS listener are running.

You have completed the preinstallation tasks for the Oracle9*i* Application Server. Proceed to "About Oracle Universal Installer" on page 2-22 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

Starting Oracle Universal Installer

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

- Stop all Oracle processes and services (for example, the Oracle database).
- 2. Be sure that you are logged in to the Windows NT system as a member of the Administrators group.
- 3. Insert Disk1 into the CD-ROM drive to launch Oracle Universal Installer. If your machine supports the auto run feature, the installer will automatically launch on your machine.

If your machine does not support the auto run feature, perform the following steps to launch the installer:

- **a.** Locate the following directory:
 - G:\iSetup.exe, where "G" is the letter for your CD-ROM drive.
- **b.** Start the installer by launching the SETUP. EXE program.

This launches Oracle Universal Installer through which you can install Oracle9*i* Application Server.

The list below navigates you to installation instructions for the Oracle 9i Application Server edition you are licensed to:

- For instructions for Minimal Edition installation, refer to Chapter 3, "Minimal Edition".
- For instructions for Standard Edition installation, refer to Chapter 4, "Standard Edition".
- For instructions for Enterprise Edition installation, refer to Chapter 5, "Enterprise Edition".
- For instructions for Non-interactive installation, refer to Chapter 6, "Non-Interactive Installation".

Minimal Edition

This chapter guides you through the installation steps for the Minimal Edition of Oracle9*i* Application Server. The following topics provide detailed installation steps, and basic postinstallation tasks:

- Installation
- Postinstallation

Installation

The installation process is divided into two parts:

- Preparing System for Installation
- Installing Oracle9i Application Server

Preparing System for Installation

The following instructions prepare your machine for the installation of Oracle9*i* Application Server.

1. Review the Installation Overview screen and make the appropriate choice for the installer to display additional help, and click **Next**.

Figure 3–1 Installation Overview Screen



The Installation Overview screen enables you to launch and view additional installation help and information during installation. Both choices enable you to click **Help** to view information for each screen.

- Yes: This will launch a Web browser that displays additional installation information such as installation summary and frequently asked questions.
- No: This option will disable the additional help option.

Review the Welcome screen and click Next.

Figure 3-2 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.

3. Select Minimal Edition and click Next.

Figure 3–3 Installation Types Screen



The Installation Types screen allows you to select the Oracle9*i* Application Server installation option that you are licensed to use.

See Also: Table 2–1, "Oracle9i Application Server Components" on page 2-2 for a complete list of components.

- Enterprise Edition: Installs Oracle9*i*AS Database Cache, Oracle9*i*AS Discoverer, Oracle9*i*AS Forms Services, Oracle9*i*AS Portal, Oracle9*i*AS Reports Services, Oracle9*i*AS Web Cache, Oracle9*i*AS Wireless, Oracle Enterprise Java Engine, Oracle Enterprise Manager Client, Oracle HTTP Server, Oracle Internet File System, and Oracle Management Server.
- Standard Edition: Installs Oracle9iAS Portal, Oracle9iAS Wireless, Oracle Enterprise Java Engine, Oracle Enterprise Manager Client, Oracle HTTP Server, and Oracle Internet File System.
- **Minimal Edition**: Installs Oracle9*i*AS Portal, Oracle9*i*AS Wireless, Oracle Enterprise Manager Client, and Oracle HTTP Server.

4. Verify the Oracle home name and location, and click **Next**.





The Destination Oracle Home and Oracle Home Name screen allows you to enter the name and location of your Oracle home for the 8.1.7 RSF based products. You can accept or change the defaults.

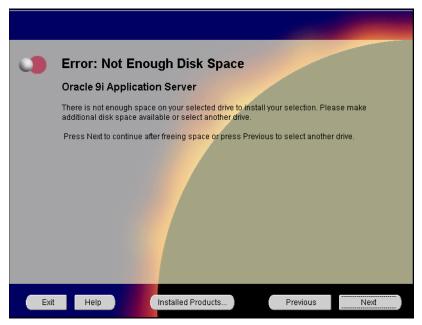
- **Oracle Home Name**: This is the name of the Oracle home, which is the root directory in which Oracle9*i* Application Server is installed.
- Oracle Home Location: This is the full path of the Oracle home directory.
 There should be no spaces in the Oracle home path.

Note: Do not to install Oracle9*i* 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.

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

5. You do not have sufficient space to install Oracle9i Application Server. Free enough disk space to meet the hardware requirements and click Next, or click Previous to select another drive. This screen will appear only if you do not have sufficient disk space.





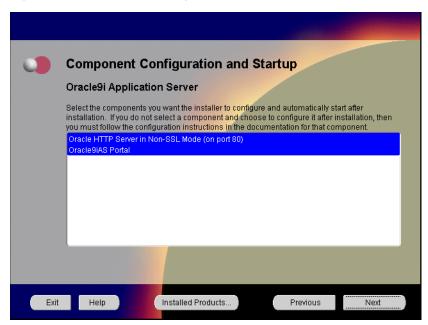
Insufficient Disk Space screen appears only if you do not have enough disk space on your selected drive to install Oracle9*i* Application Server. You can:

- Click **Next** once you have freed sufficient disk space.
- Click **Previous** to select another drive to install product.

See Also: Chapter 1, "Requirements"

Select the components for configuration and startup after installation and click Next.





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:

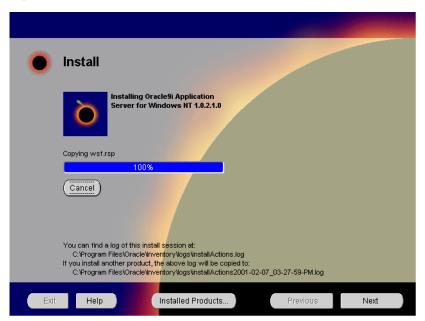
- If you select a component here, then the installer prompts you for any or all
 configuration information required by that component. After installation,
 the installer starts that component.
- If you de-select a component here, then the installer installs it, but does not configure or start it. After installation, 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.

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





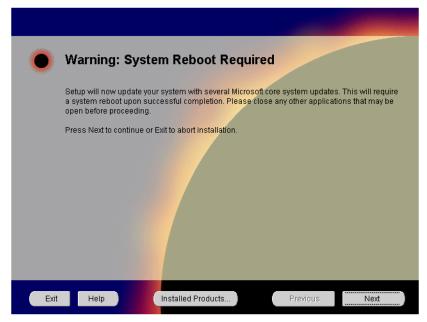
The Install screen appears while Oracle Universal Installer incorporates all the user input for Oracle9*i* Application Server. It also displays the full path of the installation log.

■ Cancel: To discontinue the installation process.

- **8.** Review the system reboot information and click **Next**. This screen will not appear under the following conditions:
 - The machine has previously installed Oracle9*i* Application Server. In this case you do not have to reinstall the system DLLs and the reboot is not necessary.
 - You are installing on Windows 2000. In this case, the machine will not reboot.

Note: Be sure to close all other open applications and processes as your machine will automatically reboot after the configuration files are copied.

Figure 3–8 System Reboot Screen



The System Reboot screen informs you that after the installer copies the necessary files required to install Oracle9*i* Application Server, your machine will reboot to allow the configuration changes to take effect. When the machine starts up again, Oracle Universal Installer appears and begins the installation process of the Oracle9*i* Application Server.

9. Monitor the installation process and after the installer finishes, your machine reboots. This screen will not appear if you are installing on Windows 2000.





The Install screen appears while Oracle Universal Installer installs required configuration files for Oracle9*i* Application Server. It also displays the full path of the installation log.

■ Cancel: To discontinue the installation process.

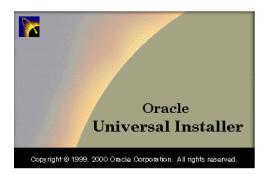
Your machine will reboot once the configuration files are copied. Do not attempt to restart the installer after reboot. It will launch automatically.

Installing Oracle9*i* Application Server

Once your machine starts up after rebooting, the Oracle Universal Installer appears and proceeds to install Oracle9*i* Application Server The reboot process will not occur if you are installing on Windows 2000.

Note: Be sure to log in with administrator privileges after your machine starts up again.

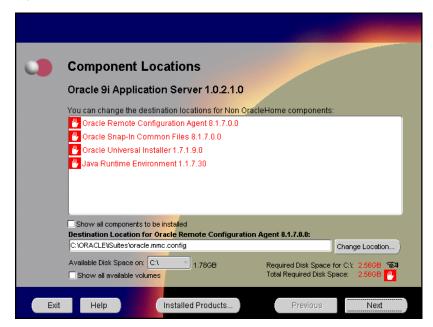
The following screen appears as Oracle Universal Installer relaunches. The installer may take up to several minutes to start, and might pause if some screensavers are activated.



1. If needed, verify and change the locations of the components displayed on the screen, and click Next.

This screen appears only if Oracle Universal Installer has detected insufficient disk space in the Oracle home directory.

Figure 3–10 Component Locations Screen



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

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.

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

2. Enter or accept the default Portal DAD and Schema names. Also, enter the TNS Connect String, if necessary. Click Next. This screen will appear only if you selected Oracle9iAS Portal in the Component Configuration and Startup screen.

Figure 3-11 Apache Listener Configuration for Oracle Portal (DAD and Schema name) Screen



The Apache Listener Configuration for Oracle Portal DAD screen allows you to enter the name of the Database Access Descriptor (DAD) that will be used to access Oracle Portal, and the name of the database schema where Oracle Portal will be installed. It also enables you to enter the TNS connect string if Oracle 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.
- TNS Connect String: Enter the TNS connect string or TNS alias that you will use to connect to the remote Oracle database after installation. It enables you to install the Portal database objects into a remote database. Since you are installing in a new Oracle home, you will need to enter a TNS connect string before it is actually created. The Net8 Assistant will appear later in the installation process to guide you in the configuration of a new TNS alias. Be sure to note the name of the TNS connect string you enter here, so that you will use the same name when the Net8 Assistant appears later.

3. Enter or accept the default Login Server DAD and Schema names. If necessary, enter the TNS Connect String. Click **Next**. This screen will appear only if you selected Oracle9*i*AS Portal in the Component Configuration and Startup screen.

Figure 3-12 Apache Listener Configuration for Oracle Portal (Login Server) Screen



The Apache Listener Configuration for Oracle 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. It also enables you to enter the TNS Connect String if Oracle Portal and Oracle HTTP Server are installed in different Oracle homes.

- **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.
- TNS Connect String: Enter the TNS connect string or TNS alias that you
 have defined for the remote Oracle database.

For more information on these fields, refer to the previous screen.

4. Enter the hostname, port number, and SID of the database where you will install the Oracle9iAS Wireless repository, and click Next. If you are upgrading from Oracle9i Application Server, Release 1.0.2.0, then an "Upgrade Installation Detected" screen will appear. Review the screen and click Next or Exit accordingly. If you click Next, then the following screen will appear.

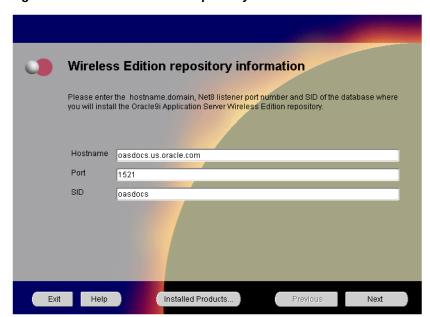


Figure 3-13 Wireless Edition Repository Information Screen

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 Oracle9*i*AS Wireless repository.

Note: Do not install Oracle9*i*AS Wireless on Oracle9*i*AS Database Cache.

- 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 Oracle9*i*AS Wireless repository.

5. 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, Release 1.0.2.0, then the "Oracle9iAS Wireless Schema Information Screen" will be slightly different. Enter the existing Oracle9iAS Wireless username and password, and click **Next**.



Figure 3–14 Wireless Edition Schema Information Screen

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.

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

6. Enter and confirm the SYSTEM password of the database, and click **Next**. If you are upgrading from Oracle9*i* Application Server, Release 1.0.2, 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.



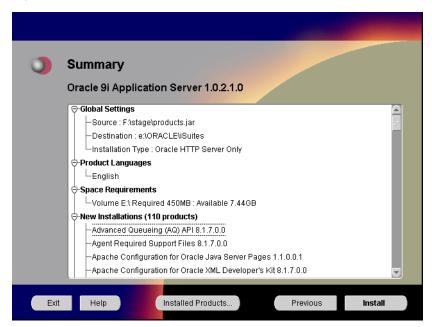


The System Password screen allows you to enter and confirm the SYSTEM password of the database where you are loading the Oracle9*i*AS Wireless repository.

- 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.

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





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.

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





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.

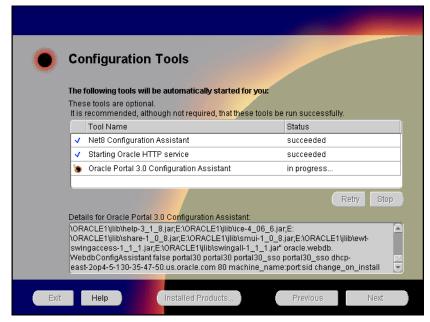
Changing Disks: During the installation process, the Disk Location dialog appears and prompts you to change disks. Insert the requested disk into your disk drive, or specify an alternative location, and click OK.



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 Oracle9*i*AS Portal Configuration Assistant need to connect to an active database for configuration purposes.

Figure 3–18 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:

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.

Starting Oracle HTTP service- This service starts the Oracle HTTP Server.

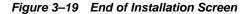
Oracle HTTP Server starts up in a DOS window. In that window, you can test the Oracle HTTP Server installation.

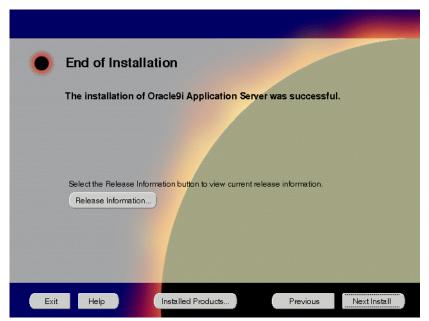
To administer the Oracle HTTP service from the Control Panel, reboot your machine after Oracle9*i* Application Server installation completes. Then, Oracle HTTP service will start automatically and you will no longer need to start it in a DOS window.

Oracle9*i***AS Portal Configuration Assistant** - This configuration assistant loads necessary database objects for Oracle9*i***AS Portal to run**.

See Also: "Oracle9iAS Portal Configuration Assistant" on page A-8 for instructions on running Oracle9*i*AS Portal Configuration Assistant.

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





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.

You have successfully installed the Minimal Edition installation option of Oracle9*i* Application Server. Proceed to "Postinstallation" on page 3-26 to complete the installation process.

Postinstallation

The following instructions guide you through the basic postinstallation tasks for Oracle9*i* Application Server. Before performing these tasks, install, if needed, Oracle9*i*AS Wireless client from the Oracle9*i* Application Server Administrative and Development Client CD included in the Oracle9*i* 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 Port Numbers
- Additional Documentation

Starting and Stopping Components

You can manually start and stop a component by doing the following:

- 1. In the Windows **Control Panel**, open **Services**.
- 2. In **Services**, select the service then click **Start** or **Stop** for desired result.

Table 3–1 lists the service names for the Oracle9*i* Application Server components.

Table 3–1 Starting and Stopping Components

Component	Service Name
Oracle9iAS Wireless Web Integration Server	Oracle Web Integration Server
Oracle HTTP Server	OracleiSuitesHTTPServer Net8/SQINET OracleiAS_6iServerClientCache80 OracleiAS_HomeTNSListener OracleiSuitesAgent OracleiSuiteTNSListener OracleiSuiteAgent

Component Web Sites

Table 3–2 lists Web sites for Oracle9*i* Application Server components.

Table 3–2 Component Web sites

Component	Web Site	
Oracle9iAS Portal	http://hostname.domain:80/pls/portal30	
Oracle9iAS Wireless Web Integration Server	http://hostname.domain:5555 (Log on as Administrator/manager.)	
Oracle HTTP Server Oracle HTTP Server (SSL-enabled)	http://hostname.domain:80 https://hostname.domain:443	

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 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	80 443 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 Oracle9*i* Application Server. The following topics provide detailed installation steps, and basic postinstallation tasks:

- Installation
- Postinstallation

Installation

The installation process is divided into two parts:

- Preparing System for Installation
- Installing Oracle9i Application Server

Preparing System for Installation

The following instructions prepare your machine for the installation of Oracle9*i* Application Server.

1. Review the Installation Overview screen and make the appropriate choice for the installer to display additional help, and click **Next**.

Figure 4–1 Installation Overview Screen



The Installation Overview screen enables you to launch and view additional installation help and information during installation. Both choices enable you to click **Help** to view information for each screen.

- Yes: This will launch a Web browser that displays additional installation information such as installation summary and frequently asked questions.
- No: This option will disable the additional help option.

2. Review the Welcome screen and click **Next**.





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

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

3. Select Standard Edition and click Next.

Figure 4-3 Installation Types Screen



The Installation Types screen allows you to select the Oracle9*i* Application Server installation option that you are licensed to use.

See Also: Table 2–1, "Oracle9i Application Server Components" on page 2-2 for a complete list of components.

- Enterprise Edition: Installs Oracle9*i*AS Database Cache, Oracle9*i*AS Discoverer, Oracle9*i*AS Forms Services, Oracle9*i*AS Portal, Oracle9*i*AS Reports Services, Oracle9*i*AS Web Cache, Oracle9*i*AS Wireless, Oracle Enterprise Java Engine, Oracle Enterprise Manager Client, Oracle HTTP Server, Oracle Internet File System, and Oracle Management Server.
- Standard Edition: Installs Oracle9iAS Portal, Oracle9iAS Wireless, Oracle Enterprise Java Engine, Oracle Enterprise Manager Client, Oracle HTTP Server, and Oracle Internet File System.
- **Minimal Edition**: Installs Oracle9*i*AS Portal, Oracle9*i*AS Wireless, Oracle Enterprise Manager Client, and Oracle HTTP Server.

Verify the Oracle home name and location, and click Next.





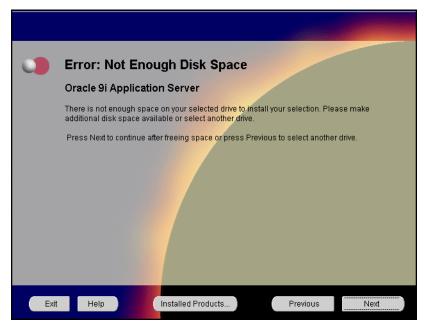
The Destination Oracle Home and Oracle Home Name screen allows you to enter the name and location of your Oracle home for the 8.1.7 RSF based products. You can accept or change the defaults.

- **Oracle Home Name**: This is the name of the Oracle home, which is the root directory in which Oracle9*i* Application Server is installed.
- **Oracle Home Location**: This is the full path of the Oracle home directory. There should be no spaces in the Oracle home path.

Note: Do not to install Oracle9*i* 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.

 Browse: To navigate through the file system to find source and destination locations. 5. You do not have sufficient space to install Oracle9i Application Server. Free enough disk space to meet the hardware requirements and click Next, or click Previous to select another drive. This screen will appear only if you do not have sufficient disk space.





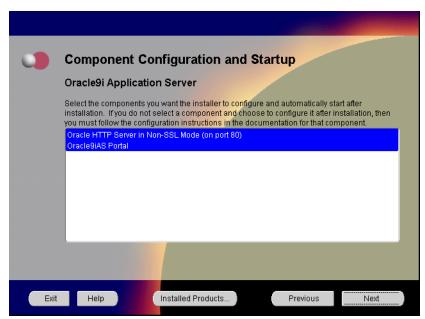
Insufficient Disk Space screen appears only if you do not have enough disk space on your selected drive to install Oracle9*i* Application Server. You can:

- Click **Next** once you have freed sufficient disk space.
- Click **Previous** to select another drive to install product.

See Also: Chapter 1, "Requirements"

Select the components for configuration and startup after installation and click Next.





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. After installation, 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.

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



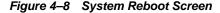


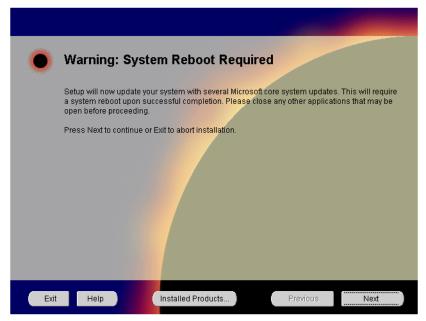
The Install screen appears while Oracle Universal Installer incorporates all the user input for Oracle9*i* Application Server. It also displays the full path of the installation log.

■ Cancel: To discontinue the installation process.

- **8.** Review the system reboot information and click **Next**. This screen will not appear under the following conditions:
 - The machine has previously installed Oracle9*i* Application Server. In this case you do not have to reinstall the system DLLs and the reboot is not necessary.
 - You are installing on Windows 2000. In this case, the machine will not reboot.

Note: Be sure to close all other open applications and processes as your machine will automatically reboot after the configuration files are copied.





The System Reboot screen informs you that after the installer copies the necessary files required to install Oracle9*i* Application Server, your machine will reboot to allow the configuration changes to take effect. When the machine starts up again, Oracle Universal Installer appears and begins the installation process of the Oracle9*i* Application Server.

9. Monitor the installation process and after the installer finishes, your machine reboots. This screen will not appear if you are installing on Windows 2000.





The Install screen appears while Oracle Universal Installer installs required configuration files for Oracle9*i* Application Server. It also displays the full path of the installation log.

• Cancel: To discontinue the installation process.

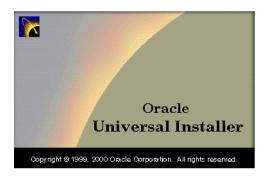
Your machine will reboot once the configuration files are copied. Do not attempt to restart the installer after reboot. It will launch automatically.

Installing Oracle9i Application Server

Once your machine starts up after rebooting, the Oracle Universal Installer appears and proceeds to install Oracle9*i* Application Server The reboot process will not occur if you are installing on Windows 2000.

Note: Be sure to log in with administrator privileges after your machine starts up again.

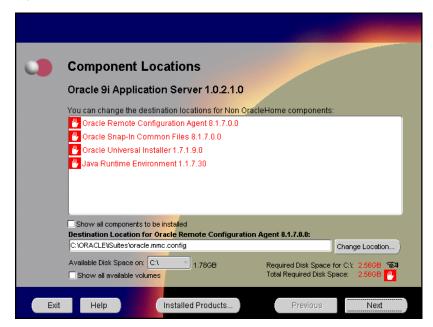
The following screen appears as Oracle Universal Installer relaunches. The installer may take up to several minutes to start, and might pause if some screensavers are activated.



1. If needed, verify and change the locations of the components displayed on the screen, and click Next.

This screen appears only if Oracle Universal Installer has detected insufficient disk space in the Oracle home directory.

Figure 4–10 Component Locations Screen



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

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.

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

2. Enter or accept the default Portal DAD and Schema names. Also, enter the TNS Connect String, if necessary. Click **Next**. This screen will appear only if you selected Oracle9*i*AS Portal in the Component Configuration and Startup screen.

Figure 4–11 Apache Listener Configuration for Oracle Portal (DAD and Schema name) Screen



The Apache Listener Configuration for Oracle Portal DAD screen allows you to enter the name of the Database Access Descriptor (DAD) that will be used to access Oracle Portal, and the name of the database schema where Oracle Portal will be installed. It also enables you to enter the TNS connect string if Oracle 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:

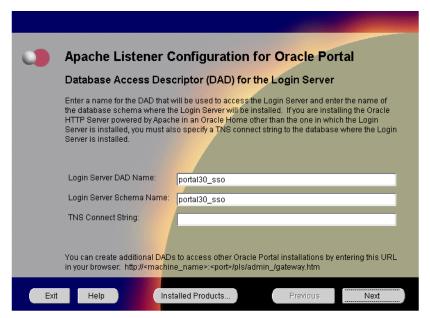
http://machine name:port/pls/admin /gateway.htm

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.
- TNS Connect String: Enter the TNS connect string or TNS alias that you will use to connect to the remote Oracle database after installation. It enables you to install the Portal database objects into a remote database. Since you are installing in a new Oracle home, you will need to enter a TNS connect string before it is actually created. The Net8 Assistant will appear later in the installation process to guide you in the configuration of a new TNS alias. Be sure to note the name of the TNS connect string you enter here, so that you will use the same name when the Net8 Assistant appears later.

3. Enter or accept the default Login Server DAD and Schema names. If necessary, enter the TNS Connect String. Click **Next**. This screen will appear only if you selected Oracle9*i*AS Portal in the Component Configuration and Startup screen.

Figure 4-12 Apache Listener Configuration for Oracle Portal (Login Server) Screen

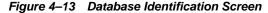


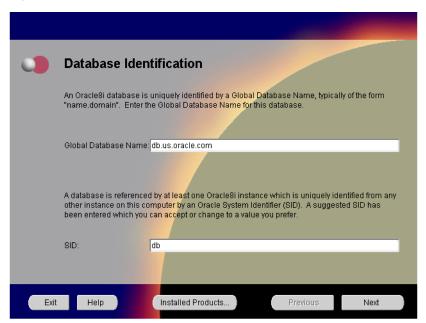
The Apache Listener Configuration for Oracle Portal screen allows you to enter the Login Server DAD and Schema Name, with a _sso extension for easy recognition. The Login Server provides an enterprise-wide Single Sign-On (SSO) mechanism that enables an Oracle Portal user to log in securely to Oracle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

- **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.
- TNS Connect String: Enter the TNS connect string or TNS alias that you
 have defined for the remote Oracle database.

For more information on these fields, refer to the previous screen.

4. Enter the Global Database Name and System Identifier (SID) and click **Next**.





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

Note: This database is licensed only to run Oracle Enterprise Java Engine applications and should not be used for other purposes. It will be installed in the same Oracle home as Oracle9*i* 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.

5. Enter the hostname, port number, and SID of the database where you will install the Oracle9iAS Wireless repository, and click Next. If you are upgrading from Oracle9i Application Server, Release 1.0.2.0, then an "Upgrade Installation Detected" screen will appear. Review the screen and click Next or Exit accordingly. If you click Next, then the following screen will appear.

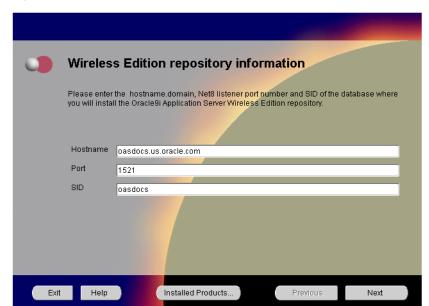


Figure 4–14 Wireless Edition Repository Information Screen

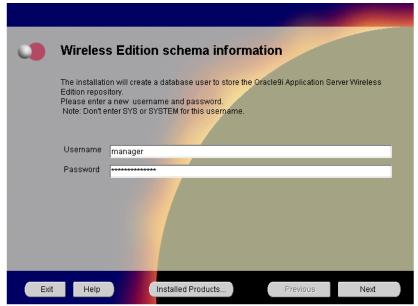
The Wireless Edition Repository Information screen allows you to enter the hostname, Net8 Listener port number, and SID of the database where you will install the Oracle9*i*AS Wireless repository.

Note: Do not install Oracle9*i*AS Wireless on Oracle9*i*AS Database Cache.

- 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 Oracle9*i*AS Wireless repository.

6. Enter the new username and password for the database user to store the Oracle9*i*AS Wireless repository, and click **Next**. If you are upgrading from Oracle9*i* Application Server, Release 1.0.2, then the "Oracle9*i*AS Wireless Schema Information Screen" will be slightly different. Enter the existing Oracle9*i*AS Wireless username and password, and click **Next**.





The Wireless Edition Schema Information screen allows you to create a database user to store the Oracle9*i*AS Wireless repository.

- **Username**: Enter a new user name for the database user to store the Oracle9*i*AS Wireless repository.
- **Password**: Enter a password for the database user.

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

7. Enter and confirm the SYSTEM password of the database, and click **Next**. If you are upgrading from Oracle9*i* Application Server, Release 1.0.2, then a "Wireless Edition Administrator Password Information" screen appears. Enter and confirm the "Administrator" password, and click **Next**. Do not enter the database schema owner password.



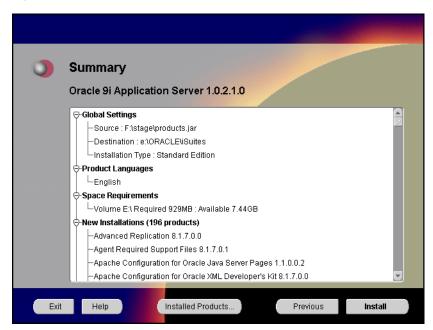


The System Password screen allows you to enter and confirm the SYSTEM password of the database where you are loading the Oracle9*i*AS Wireless repository.

- **Enter Password**: Enter the SYSTEM password of the database where you will install the Oracle9*i*AS Wireless.
- Confirm Password: Re-enter the SYSTEM password as entered above for verification.

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





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.

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

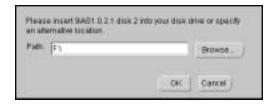




The Install screen appears while the product is installing. Installation operations include executing actions such as file copy and linking, and executing decision points and calculations. It also displays the full path of the installation log.

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

Changing Disks: During the installation process, the Disk Location dialog appears and prompts you to change disks. Insert the requested disk into your disk drive, or specify an alternative location, and click OK.



10. 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 Oracle9*i*AS Portal Configuration Assistant need to connect to an active database for configuration purposes.

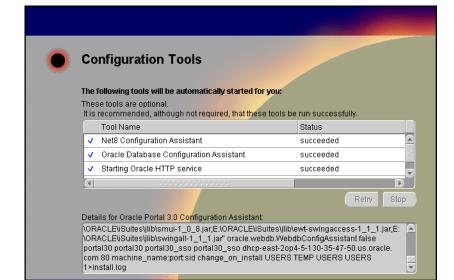


Figure 4–19 Configuration Tools Screen

Help

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. Oracle Database Configuration Assistant will not appear if you are migrating from Oracle9*i* Application Server 1.0.2.0 to 1.0.2.1.

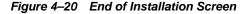
See Also: "Oracle Database Configuration Assistant" on page A-17 for instructions on running Oracle Database Configuration Assistant.

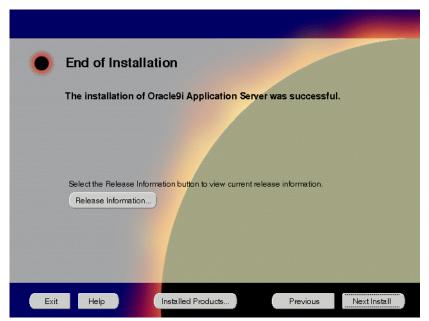
Starting Web Server in Non-SSL mode on port 7777 - This starts Oracle HTTP Server.

Oracle 9iAS Portal Configuration Assistant - This configuration assistant loads necessary database objects for Oracle 9iAS Portal to run.

See Also: "Oracle9iAS Portal Configuration Assistant" on page A-8 for instructions on running Oracle9*i*AS Portal Configuration Assistant.

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





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.

You have successfully installed the Standard Edition installation option of Oracle9*i* Application Server. Proceed to "Postinstallation" on page 4-28 to complete the installation process.

Postinstallation

The following instructions guide you through the basic postinstallation tasks for Oracle9*i* Application Server. Before performing these tasks, install, if needed, Oracle9*i*AS Wireless client from the Oracle9*i* Application Server Administrative and Development Client CD included in the Oracle9*i* Application Server CD pack.

See Also: Appendix B, "Installing Oracle9i Application Server Administrative and Development Client CD-ROM"

The postinstallation contains the following sections:

- Component-specific Tasks
- Starting and Stopping Components
- Component Web Sites
- Component Port Numbers
- Additional Documentation

Component-specific Tasks

Oracle Internet File System

You must run the Oracle Internet File System Configuration Assistant 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

You can manually start and stop a component by doing the following:

- 1. In the Windows Control Panel, open Services.
- 2. In **Services**, select the service then click **Start** or **Stop** for desired result.

Table 4–1 lists the service names for the Oracle9*i* Application Server components.

Table 4–1 Starting and Stopping Components

Component	Service Name
Oracle9iAS Wireless Web Integration Server	Oracle Web Integration Server
Oracle Database	OracleServiceDB
Oracle HTTP Server	OracleiSuitesHTTPServer Net8/SQINET OracleiAS_6iServerClientCache80 OracleiAS_HomeTNSListener OracleiSuitesAgent OracleiSuiteTNSListener OracleiSuiteAgent

Note: Use the following commands for Oracle Internet File System:

Setting Environment:ifs1.bin\ifsenv.bat and

ifs1.1\bin\ifsconfig.bat
Start: ifs1.1\bin\ifstart.bat
Start:ifs1.1\bin\ifstop.bat

Component Web Sites

Table 4–2 lists Web sites for Oracle9*i* Application Server components.

Table 4–2 Component Web sites

Component	Web Site	
Oracle9iAS Portal	http://hostname.domain:80/pls/portal30	
Oracle9iAS Wireless Web Integration Server	http://hostname.domain:5555 (Log on as Administrator/manager.)	
Oracle HTTP Server Oracle HTTP Server (SSL-enabled)	http://hostname.domain:80 https://hostname.domain:443	
Oracle Internet File System	http://hostname.domain:80/ifs/files (Log on as system/manager.)	

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 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	80 443 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 Oracle9*i* Application Server. The following topics provide detailed installation steps, and basic postinstallation tasks:

- Installation
- Postinstallation

Installation

The installation process is divided into two parts:

- Preparing System for Installation
- Installing Oracle9i Application Server

Preparing System for Installation

The following instructions prepare your machine for the installation of Oracle9*i* Application Server.

1. Review the Installation Overview screen and make the appropriate choice for the installer to display additional help, and click **Next**.

Figure 5–1 Installation Overview Screen



The Installation Overview screen enables you to launch and view additional installation help and information during installation. Both choices enable you to click **Help** to view information for each screen.

- Yes: This will launch a Web browser that displays additional installation information such as installation summary and frequently asked questions.
- No: This option will disable the additional help option.

2. Review the Welcome screen and click **Next**.





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

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

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

Figure 5–3 Installation Types Screen



The Installation Types screen allows you to select the Oracle9*i* Application Server installation option that you are licensed to use.

See Also: Table 2–1, "Oracle9i Application Server Components" on page 2-2 for a complete list of components.

- Enterprise Edition: Installs Oracle9*i*AS Database Cache, Oracle9*i*AS Discoverer, Oracle9*i*AS Forms Services, Oracle9*i*AS Portal, Oracle9*i*AS Reports Services, Oracle9*i*AS Web Cache, Oracle9*i*AS Wireless, Oracle Enterprise Java Engine, Oracle Enterprise Manager Client, Oracle HTTP Server, Oracle Internet File System, and Oracle Management Server.
- Standard Edition: Installs Oracle9iAS Portal, Oracle9iAS Wireless, Oracle Enterprise Java Engine, Oracle Enterprise Manager Client, Oracle HTTP Server, and Oracle Internet File System.
- **Minimal Edition**: Installs Oracle9*i*AS Portal, Oracle9*i*AS Wireless, Oracle Enterprise Manager Client, and Oracle HTTP Server.

Verify the Oracle home name and location for the 8.1.7 RSF based products, and click Next.





The Destination Oracle Home and Oracle Home Name screen allows you to enter the name and location of your Oracle home for the 8.1.7 RSF based products. You can accept or change the defaults.

- Oracle Home Name: This is the name of the Oracle home, which is the root directory in which Oracle9i Application Server is installed.
- **Oracle Home Location**: This is the full path of the Oracle home directory. There should be no spaces in the Oracle home path.

Note: Do not to install Oracle9*i* 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.

 Browse: To navigate through the file system to find source and destination locations. **5.** Create a new Oracle home or select an existing one for the 8.0.6 RSF based products, and click **Next**.





The Destination Oracle Home and Oracle Home Name screen allows you to either enter the name and location for the 8.0.6 RSF based products, or select an existing Oracle home if you are upgrading from a previous version of Oracle9*i* Application Server. You can accept or change the defaults.

- Create New Oracle Home
 - **Oracle Home Name**: This is the name of the Oracle home, which is the root directory in which Oracle9*i* Application Server is installed.
 - Oracle Home Location: This is the full path of the Oracle home directory.

Note: Do not to install Oracle9*i* Application Server in an Oracle home containing other Oracle products, including the database. Such an installation could cause the products to malfunction.

 Browse: To navigate through the file system to find source and destination locations. ■ Selecting Existing Oracle Home: This options displays all existing Oracle homes from pervious Oracle9*i* Application Server installations. If you are upgrading from a pervious version, then you may select an existing Oracle home to install the 8.0.6 RSF based products.

6. Review the following screen and click **Previous** to fix errors. This screen appears only if you have entered an invalid Oracle home for the 8.0.6 RSF based products.

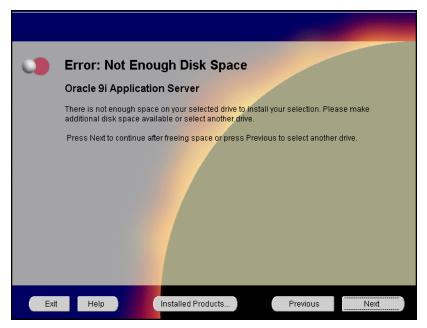
Figure 5-6 Invalid Oracle Home Entry Warning Screen



The Invalid Oracle Home Entry Warning screen alerts you of an invalid Oracle home entry made for the 8.0.6 RSF based products. It requires you to click the **Previous** button to go back to the Destination Oracle Home Name and Oracle Home Location screen and enter a valid name. After making the appropriate corrections, click **Next**.

7. You do not have sufficient space to install Oracle9i Application Server. Free enough disk space to meet the hardware requirements and click Next, or click Previous to select another drive. This screen will appear only if you do not have sufficient disk space.





Insufficient Disk Space screen appears only if you do not have enough disk space on your selected drive to install Oracle9*i* Application Server. You can:

- Click Next once you have freed sufficient disk space.
- Click **Previous** to select another drive to install product.

See Also: Chapter 1, "Requirements"

Select the components for configuration and startup after installation and click Next.





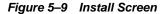
The Component Configuration and Startup screen allows you to select the components that you want the installer to configure and start after installation. This screen offers two configuration options:

- 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. After installation, 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. Monitor the installation process and after the installer finishes, click Next.





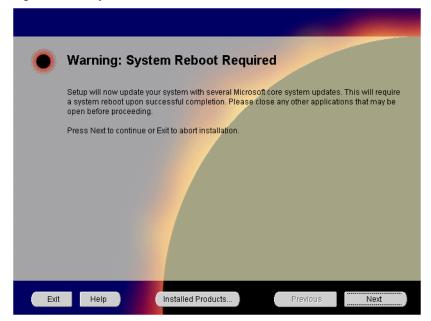
The Install screen appears while Oracle Universal Installer incorporates all the user input for Oracle9*i* Application Server. It also displays the full path of the installation log.

• **Cancel**: To discontinue the installation process.

- **10.** Review the system reboot information and click **Next**. This screen will not appear under the following conditions:
 - The machine has previously installed Oracle9*i* Application Server. In this case you do not have to reinstall the system DLLs and the reboot is not necessary.
 - You are installing on Windows 2000. In this case, the machine will not reboot.

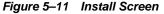
Note: Be sure to close all other open applications and processes as your machine will automatically reboot after the configuration files are copied.





The System Reboot screen informs you that after the installer copies the necessary files required to install Oracle9i Application Server, your machine will reboot to allow the configuration changes to take effect. When the machine starts up again, Oracle Universal Installer appears and begins the installation process of the Oracle9*i* Application Server.

11. Monitor the installation process and after the installer finishes, your machine reboots. This screen will not appear if you are installing on Windows 2000.





The Install screen appears while Oracle Universal Installer installs required configuration files for Oracle9*i* Application Server. It also displays the full path of the installation log.

■ Cancel: To discontinue the installation process.

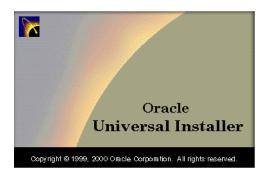
Your machine will reboot once the configuration files are copied. Do not attempt to restart the installer after reboot. It will launch automatically.

Installing Oracle9i Application Server

Once your machine starts up after rebooting, the Oracle Universal Installer appears and proceeds to install Oracle9*i* Application Server The reboot process will not occur if you are installing on Windows 2000.

Note: Be sure to log in with administrator privileges after your machine starts up again.

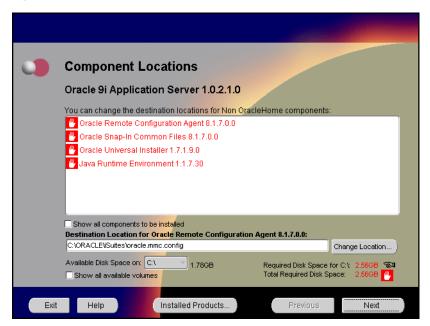
The following screen appears as Oracle Universal Installer relaunches. The installer may take up to several minutes to start, and might pause if some screensavers are activated.



 If needed, verify and change the locations of the components displayed on the screen, and click Next.

This screen appears only if Oracle Universal Installer has detected insufficient disk space in the Oracle home directory.

Figure 5–12 Component Locations Screen



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

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

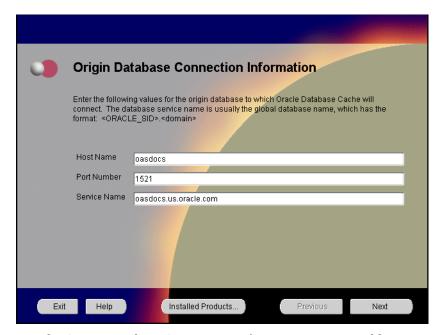
Click individual components to view and change destination location path. The installer enables you to change the destination location of the components displayed on the screen.

- **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.

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

2. Enter the host name, port number, and service name of the origin database and click **Next**. This screen will appear only if you selected Oracle9*i*AS Database Cache in the Component Configuration and Startup screen.





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.
- 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.

3. Enter or accept the default Portal DAD and Schema names. Also, enter the TNS Connect String, if necessary. Click **Next**. This screen will appear only if you selected Oracle9*i*AS Portal in the Component Configuration and Startup screen.

Figure 5–14 Apache Listener Configuration for Oracle Portal (DAD and Schema name) Screen



The Apache Listener Configuration for Oracle Portal DAD screen allows you to enter the name of the Database Access Descriptor (DAD) that will be used to access Oracle Portal, and the name of the database schema where Oracle Portal will be installed. It also enables you to enter the TNS connect string if Oracle 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:

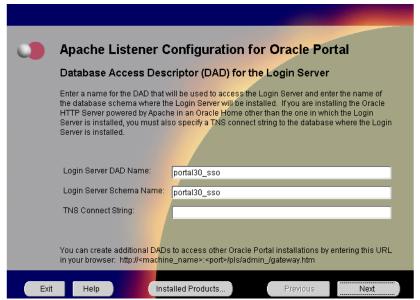
http://machine name:port/pls/admin /gateway.htm

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.
- TNS Connect String: Enter the TNS connect string or TNS alias that you will use to connect to the remote Oracle database after installation. It enables you to install the Portal database objects into a remote database. Since you are installing in a new Oracle home, you will need to enter a TNS connect string before it is actually created. The Net8 Assistant will appear later in the installation process to guide you in the configuration of a new TNS alias. Be sure to note the name of the TNS connect string you enter here, so that you will use the same name when the Net8 Assistant appears later.

4. Enter or accept the default Login Server DAD and Schema names. Also, enter the TNS Connect String, if necessary. Click **Next**. This screen will appear only if you selected Oracle9*i*AS Portal in the Component Configuration and Startup screen.

Figure 5–15 Apache Listener Configuration for Oracle Portal (Login Server) Screen



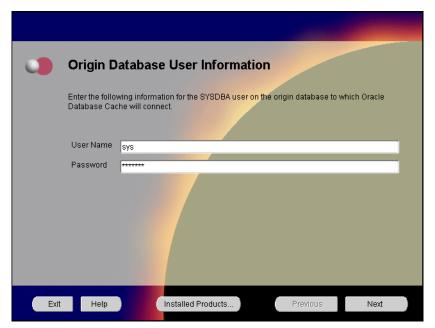
The Apache Listener Configuration for Oracle Portal screen allows you to enter the Login Server DAD and Schema Name, with a _sso extension for easy recognition. The Login Server provides an enterprise-wide Single Sign-On (SSO) mechanism that enables an Oracle Portal user to log in securely to Oracle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

- 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.
- TNS Connect String: Enter the TNS connect string or TNS alias that you
 have defined for the remote Oracle database.

For more information on these fields, refer to the previous screen.

5. Enter the SYSDBA name and password and click **Next**. This screen will appear only if you have selected Oracle9*i*AS Database Cache in the Component Configuration and Startup screen.





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.

6. Enter the hostname, port number, and SID of the database where you will install the Oracle9*i*AS Wireless repository, and click **Next**. If you are upgrading from Oracle9*i* Application Server, Release 1.0.2.0, then an "Upgrade Installation Detected" screen will appear. Review the screen and click **Next** or **Exit** accordingly. If you click **Next**, then the following screen will appear.



Figure 5–17 Wireless Edition Repository Information Screen

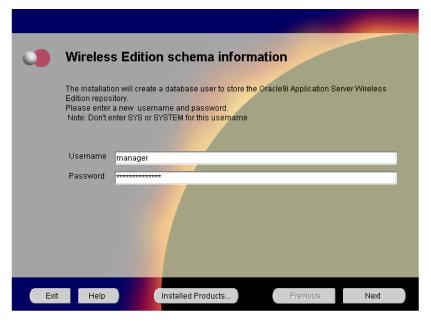
The Wireless Edition Repository Information screen allows you to enter the hostname, Net8 Listener port number, and SID of the database where you will install the Oracle9iAS Wireless repository.

Note: Do not install Oracle9*i*AS Wireless on Oracle9*i*AS Database Cache.

- 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 Oracle9*i*AS Wireless repository.

7. 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, Release 1.0.2, then the "Oracle9iAS Wireless Schema Information Screen" will be slightly different. Enter the existing Oracle9iAS Wireless username and password, and click Next.





The Wireless Edition Schema Information screen allows you to create a database user to store the Oracle9*i*AS Wireless repository.

- **Username**: Enter a new user name for the database user to store the Oracle9*i*AS Wireless repository.
- **Password**: Enter a password for the database user.

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

8. Enter and confirm the SYSTEM password of the database, and click **Next**. If you are upgrading from Oracle9*i* Application Server, Release 1.0.2, 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 5-19 System Password Screen

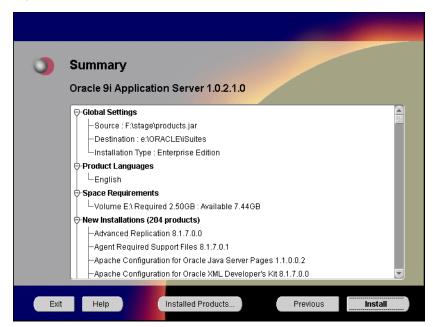


The System Password screen allows you to enter and confirm the SYSTEM password of the database where you are loading the Oracle9*i*AS Wireless repository.

- **Enter Password**: Enter the SYSTEM password of the database where you will install the Oracle9*i*AS Wireless.
- Confirm Password: Re-enter the SYSTEM password as entered above for verification.

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





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**.





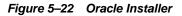
The Install screen appears while the product is installing. Installation operations include executing actions such as file copy and linking, and executing decision points and calculations. It also displays the full path of the installation log.

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

Changing Disks: During the installation process, the Disk Location dialog appears and prompts you to change disks. Insert the requested disk into your disk drive, or specify an alternative location, and click OK.



The following screen indicates that Oracle Installer is installing Oracle9*i*AS Forms Services, Oracle9*i*AS Reports Services, and Oracle9*i*AS Discoverer. No user input is required.





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.

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 Oracle9*i*AS Portal Configuration Assistant need to connect to an active database for configuration purposes.

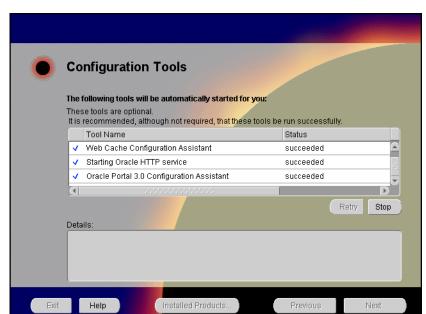


Figure 5–23 Configuration Tools Screen

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. Oracle9iAS Database Cache Configuration Assistant will not appear if you are migrating from Oracle9i Application Server 1.0.2.0 to 1.0.2.1.

See Also: "Oracle9iAS Database Cache Configuration Assistant" on page A-3 for instructions on running Oracle9*i*AS Database Cache Configuration Assistant.

Oracle9iAS Web Cache Configuration Assistant - This launches the service to start Oracle9iAS Web Cache. Oracle9iAS Web Cache service starts up automatically by default. If you choose not to use Oracle9iAS Web Cache, you will need to stop the service manually.

See Also: "Starting and Stopping Components" on page 5-42

Starting Oracle HTTP service- This starts the Oracle HTTP Server.

Oracle HTTP Server starts up in a DOS window. In that window, you can test the Oracle HTTP Server installation.

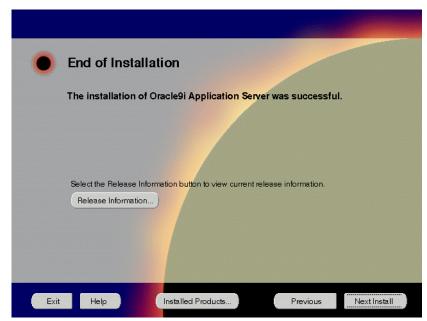
To administer the Oracle HTTP service from the Control Panel, reboot your machine after Oracle9i Application Server installation completes. Then, Oracle HTTP service will start automatically and you will no longer need to start it in a DOS window.

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.

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





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.

You have successfully installed the Enterprise Edition installation option of Oracle9*i* 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 Oracle9*i* Application Server. Before performing these tasks, install, if needed, Oracle9iAS Wireless client from the Oracle9i Application Server Administrative and Development Client CD included in the Oracle9*i* Application Server CD pack.

See Also: Appendix B, "Installing Oracle9i Application Server Administrative and Development Client CD-ROM"

The postinstallation contains the following sections:

- Component-specific Tasks
- **Starting and Stopping Components**
- **Component Web Sites**
- **Component Port Numbers**
- **Additional Documentation**

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 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 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 postinstallation steps for Oracle9*i*AS Database Cache:

- Setting Up the Oracle9iAS Database Cache Environment for Your Applications
- Modify the initicache.ora File
- Set NTFS File System and Windows NT Registry Permissions

Setting Up the Oracle9iAS Database Cache Environment for Your Applications

When you install Oracle9*i*AS Database Cache, the installation procedure installs files that are specific to Oracle9*i*AS Database Cache and files that are updates to Oracle8*i* Server or Client release 8.1.6.1. These files contain the Oracle9*i*AS Database Cache functionality, as well as bug fixes to files usually installed with the Oracle8*i* Server or Client.

To use Oracle9*i*AS Database Cache, you must make sure that your applications are using the files and libraries installed for Oracle9*i*AS 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 Also: "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 Oracle8*i* Server or Client release 8.1.6 or 8.1.6.1, you must copy files from the Oracle9*i*AS Database Cache Oracle home to the Oracle8*i* Server or Client Oracle home.

See Also: "Using a Previous Oracle8i Release 8.1.6 Oracle Home" on page 5-36 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 Also: "Relinking Applications That Use Releases Previous to Release 8.1.6" on page 5-37 for more information.

Using the Oracle9iAS Database Cache Home

To run your application from the Oracle home in which you installed Oracle9*i*AS Database Cache, you must take the following steps:

- From the process in which you will run your application, set the following environment variables:
 - 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 Also: Oracle9iAS Database Cache Concepts and Administration Guide in the Oracle9i Application Server Documentation Library.

- 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.
- Set the value of the environment variable PATH so that the Oracle9*i*AS Database Cache library directory (ORACLE_HOME\lib) precedes other Oracle library directories.
- If you use the CLASSPATH environment variable, set it to the Oracle home in which you installed Oracle9*i*AS Database Cache.
- 2. If you use the environment variable or registry parameter TNS_ADMIN, make sure that it is set to the <code>ORACLE_HOME\network\Admin</code> directory in the Oracle home for Oracle9iAS Database Cache. The registry parameter is located in the following location:

```
HKEY LOCAL MACHINE\SOFTWARE\ORACLE\HOME id
```

- 3. From the Start menu, select Oracle for Windows NT -> Oracle Home Selector. Then, select the Oracle home in which you installed Oracle9iAS Database Cache.
- 4. If your application was running previously on the node on which you installed Oracle9*i*AS Database Cache and the application connected to the origin database by using an entry in an existing the theorem ora file, you must copy that entry to the theorem ora file used by Oracle9*i*AS Database Cache.

The tnsnames.ora file is located in the <code>ORACLE_HOME\network\Admin</code> 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 icache origin. Do not modify or delete the ora icache 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_icache, for the cache. Do not modify or delete this entry.

Using a Previous Oracle8*i* 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.

See Also: "Using the Oracle9iAS Database Cache Home" on page 5-35 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\bin\oraclient8.dll
ORACLE_HOME\bin\orageneric8.dll (not required for 8.1.6.1)
ORACLE HOME\bin\orawtc8.dll
ORACLE HOME\bin\orawtc8.lib
```

- 2. From the Start menu. select Oracle for Windows NT -> Oracle Home Selector. Then, select the Oracle home for the Oracle8i server or client that your application uses.
- 3. 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.
- 4. 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.)

- 5. If you use the environment variable or registry parameter TNS_ADMIN, make sure it points to the Oracle home that your application uses.
- 6. 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 Oracle8*i* Server or Client release 8.1.6, you must relink your application using the OCI libraries that are installed by Oracle9*i*AS Database Cache.

Then, you must take the steps described in "Using the Oracle9iAS Database Cache Home" on page 5-35.

Modify the initicache.ora File

The Oracle9*i*AS 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"
```

initicache.ora is located in the $\textit{ORACLE_HOME} \setminus Admin \setminus icache \setminus pfile$ directory.

Set NTFS File System and Windows NT Registry Permissions

Oracle Corporation recommends that you configure Oracle9*i*AS Database Cache files, directories, and registry settings to allow only authorized database administrators to have full control. The following sections describe how to perform these tasks.

See your Windows NT documentation for more information about modifying NTFS file system and Windows NT registry settings.

NTFS File System Security

Oracle9iAS Database Cache uses files to store data and configuration information. To do this, the Oracle9iAS Database Cache process runs under a security account. This security account (the account under which you installed Oracle9iAS Database Cache) includes the ability to create and access these files. The security account is assigned to the service that Oracle9iAS Database Cache uses (in the Control Panel). This account requires full file system permissions to create, read, write, delete, and execute files.

To ensure that only authorized users have full file system permissions:

- 1. From Windows NT Explorer, select Oracle9iAS Database Cache executables and dynamic link libraries (in ORACLE HOME\bin), Oracle9iAS Database Cache directories, and files for the cache (in ORACLE_HOME\dbs).
- 2. Right-click and select **Properties**.
- **3.** Adjust the file and directory permissions to ensure that:
 - Only the security account has full control permissions to these files
 - User accounts that must run Oracle applications (for example, SQL*Plus, Server Manager, and Pro*C) have read privileges on the necessary executables (for example, sqlplus.exe for SQL*Plus)

Windows NT Registry Security

Oracle Corporation recommends that you remove write permissions in the NT registry from users who are not DBAs or system administrators.

To remove write permissions:

- 1. From the Windows NT Start menu, select Run. For Open, type regedt32.
- Select the key HKEY LOCAL MACHINE\SOFTWARE\ORACLE.
- **3.** From the **Security menu**, select **Permissions**.
- 4. In the Registry Key Permissions dialog box, remove write permissions from any users who are not Oracle9iAS Database Cache DBAs or system administrators. Note that the SYSTEM account must have Full Control.
- 5. Ensure that user accounts that must run Oracle applications have read privileges.
- 6. Click **OK**.
- **7.** Exit the registry.

SSL Authentication Method Configuration

This section guides you through configuring SSL for Oracle9*i*AS 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 Oracle9*i*AS 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.
# inst1 https =
  (DESCRIPTION =
#
      (ADDRESS =
#
      (PROTOCOL=TCPS)
        (HOST=host_name)
#
        (PORT=2484)
#
     )
#
     (CONNECT_DATA=
         (SERVICE NAME=MODOSE)
         (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=MODOSE)"
```

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

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

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 Oracle9*i*AS 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)(PREoracle.aurora.server.SGiopServer)"
```

Starting and Stopping Components

You can manually start and stop a component by doing the following:

- 1. In the Windows Control Panel, open Services.
- 2. In Services, select the service then click Start or Stop for desired result.

Table 5–1 lists the service names for the Oracle9*i* Application Server components.

Table 5-1 Starting and Stopping Components

Component	Service Name
Oracle9iAS Database Cache	OracleiSuiteDataGatherer OracleServiceicache OracleWTCicache
Oracle9iAS Discoverer	OracleDiscoverer4i
Oracle9iAS Forms Services	Oracle Forms Server [Forms60Server] Oracle_Load_Balancer_60_Client-Oracle_806 Oracle_Load_Balancer_60_Server-Oracle_806
Oracle9iAS Reports Services	Oracle Reports Server [Reports_machine_name]
Oracle9iAS Web Cache	OracleiSuitesWebCache OracleiSuitesWebCacheAdmin
Oracle9iAS Wireless Web Integration Server	Oracle Web Integration Server
Oracle HTTP Server	OracleiSuitesHTTPServer Net8/SQLNET OracleiAS_6iServerClientCache80 OracleiAS_HomeINSListener OracleiSuitesAgent OracleiSuiteTNSListener OracleiSuiteAgent
Oracle Management Server	OracleiSuitesManagementServer OracleiSuitesPagingServer

Note: Use the following commands for Oracle Internet File System:

Setting Environment:ifs1.bin\ifsenv.bat and

ifs1.1\bin\ifsconfig.bat
Start: ifs1.1\bin\ifstart.bat
Start:ifs1.1\bin\ifstop.bat

Component Web Sites

Table 5–2 lists Web sites for Oracle9*i* Application Server components.

Table 5–2 Component Web sites

Component	Web Site
Oracle9iAS Discoverer	http://hostname.domain:80/discoverer4i/viewer
Oracle9iAS Forms Services	http://hostname.domain:80/dev60html/runform.htm
Oracle9iAS Portal	http://hostname.domain:80/pls/portal30
Oracle9iAS Reports Services	http://hostname.domain:80/dev60html/runrep.htm
Oracle9iAS Wireless Web Integration Server	http://hostname.domain:5555 (Log on as Administrator/manager.)
Oracle9iAS Web Cache	http://hostname.domain:4000 (Log on as Administrator/Administrator.)
Oracle HTTP Server Oracle HTTP Server (SSL-enabled)	http://hostname.domain:80 https://hostname.domain:443
Oracle Internet File System	http://hostname.domain:80/ifs/files (Log on as system/manager.)
Oracle Management Server	http://hostname.domain:3339

Component Port Numbers

Table 5-3 lists the default port numbers on which requests are received for each component.

Table 5–3 Port Numbers

Components	Port Number
Oracle9iAS Database Cache Oracle9iAS Database Cache TNS Listener Oracle9iAS Database Cache -wtcme process Oracle9iAS Database Cache Data Gatherer -vppdc 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	80 443 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 Oracle9*i* 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".

In addition, install the following operating system patches:

- MDAC (Microsoft Data Access Components) 2.50.4403.12. This patch is available at http://www.microsoft.com.
- Patch 40comupd.exe. This patch is available on Oracle9i Application Server Disk 1 at Install\Win32\40comupd.exe

Setting a Response File

There are multiple Oracle Universal Installer response files depending on your installation type. These files are included on the Oracle9*i* Application Server, Release 1.0.2.1.0 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:

- Minimal and Standard Editions
- Enterprise Edition

Minimal and Standard Editions

To use a response file, copy the response file from the Oracle9*i* Application Server CD-ROM to a drive mounted on your system. For example:

```
prompt> copy cdrom_drive\Silent\install_type\response_file 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 6–1 lists the response files included on the Oracle9*i* Application Server CD-ROM.

Table 6-1 Response Files

Oracle9 <i>i</i> Application Server installation option	File Name
Minimal Edition	oracle.ias.silent.toplevel.Minimal.rsp
Standard Edition	oracle.ias.silent.toplevel.Standard.rsp

Enterprise Edition

If you are installing Oracle9*i* Application Server, Enterprise Edition, then the silent installation process requires additional steps. Since Enterprise Edition contains 8.0.6 RSF based components in addition to Oracle8*i* products, these additional steps are required to ensure that Oracle9*i* Application Server is installed properly.

Following are the additional steps required to install Oracle9*i* Application Server, Enterprise Edition:

- 1. Create the 8.1.7 Oracle home directory on your hard drive.
- 2. Make a directory named Orainst in the Oracle home directory.
- 3. Copy the contents of the \Silent\Enterprise directory on Oracle9*i* Application Server Disk 1 to the Orainst directory created in Step 2.
- **4.** Populate all .ini, .rsp, and .reg files in the Orainst directory with the appropriate values. Use the following values for the Oracle home parameters:

Parameter(s)	Value
%ORACLE_HOME% %817_ORACLE_HOME% %ORA_817_HOME%	The directory you are installing the main Oracle9 <i>i</i> Application Server components. For example: E:\Oracle\iSuites
%Default_Home_Name%	The directory you are installing the 8.0.6 RSF based components. For example: E:\Oracle\806

Note: In default.reg, you only need to change the following line:

"DEFAULT_HOME"="%Default_Home_Name%"

For example,

"DEFAULT_HOME"="E:\Oracle\iSuites"

5. Run silent.bat from the Orainst directory to begin the silent installation process.

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 2-22

prompt> Setup.exe [-silent] -responseFile absolute_path_and_filename

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

Note: Be sure to run setup. exe that is located in $cdrom_drive \in 1$ Application Server is installed, you can run setup. exe in $ORACLE_HOME \cap 1$ Orainst.

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

The success or failure of the installation is logged in the installactions.log and silentInstall.log file. The log files are created in the \Program Files\Oracle\Inventory\Logs directory during installation.

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 in \P Files \P Inventory \P .

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 Oracle9*i* 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**
- Deinstalling Oracle9iAS Database Cache (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 Oracle9*i*AS Discoverer Viewer.

- Launch Oracle Installer from Start Menu > Programs > Oracle for Windows NT > Oracle Installer.
- 2. When Oracle Installer launches, the Software Asset Manager appears. Hold down the **Control** button on your keyboard and click on each installed component. Once all components are selected, click **Remove**.

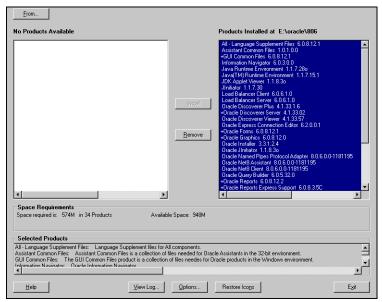


Figure 7–1 Software Asset Manager

The Software Asset Manager allows you to deinstall components. Be sure to scroll down to select all installed components. When you click **Remove**, a dialog appears asking you if you want to remove the selected components. Click **Yes**. When all the components are deinstalled, quit the installer by clicking **Exit**.

You have successfully deinstalled Oracle Forms Services, Oracle Reports Services, and Oracle9*i*AS Discoverer Viewer.

Continue the deinstallation process:

- If you installed Enterprise Edition, proceed to "Deinstalling Oracle9iAS Database Cache" on page 7-4.
- If you installed Oracle HTTP Server Only or Standard Edition, proceed to "Deinstalling using Oracle Universal Installer" on page 7-5.

Deinstalling Oracle9iAS Database Cache

If you have installed the Enterprise Edition of Oracle9*i* Application Server, then you must perform the following steps. If you have installed any other edition of Oracle9*i* Application Server, then proceed directly to "Deinstalling using Oracle Universal Installer" on page 7-5.

1. Make sure the cache is started. If it is not, then start the cache using the Cache Manager or start the following Windows NT services for Oracle8*i* Cache.

```
OracleServiceicache
OracleWTCiCache
Oracle_homeDataGatherer
Oracle homeTNSListener
```

2. Run the Configuration Assistant, specifying the -deinstall option:

```
prompt> wtacca -deinstall
```

Proceed to "Deinstalling using Oracle Universal Installer" on page 7-5.

Deinstalling using Oracle Universal Installer

 Launch the Oracle Universal Installer from Start Menu > Programs > Oracle Installation Products > Oracle Universal Installer.

Once Oracle Universal Installer is launched, Welcome screen appears. Click on **Deinstall Products**.

Figure 7–2 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.

Review all installed components and check the ones you wish to deinstall. Click Remove.

Figure 7-3 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 us 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.

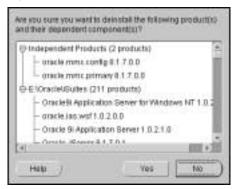
Note: The "+" sign before a product name indicates that there are more components and files installed within that particular product. Click on it to view dependent components. If you choose to remove a product or component, then all of its dependent components and files are also deinstalled.

If you wish to deinstall Oracle9*i* 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 7–4 Confirmation Screen



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

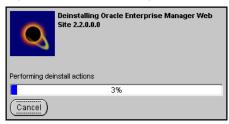
Note: Oracle Universal Installer does not deinstall all the files and directories during deinstallation. These must be deleted manually.

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 7–5 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 Oracle9*i* 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 7-2

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.

The tnsnames.ora in the ORACLE_HOME\network\admin directory has the following entry after installation:

Fill in the origin host name, port and service name in thisnames.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 Oracle9*i*AS Database Cache Configuration Assistant:

1. Review the Oracle9*i*AS Database Cache Configuration Assistant welcome screen and click **Next**.





The Welcome screen introduces you to the Oracle9iAS Database Cache Wizard.

2. Enter the privileged account information and click **Next**.

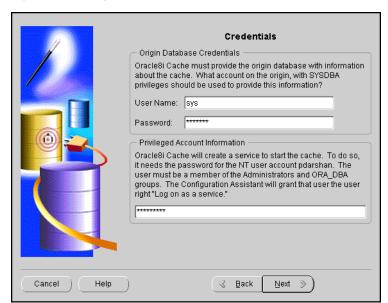


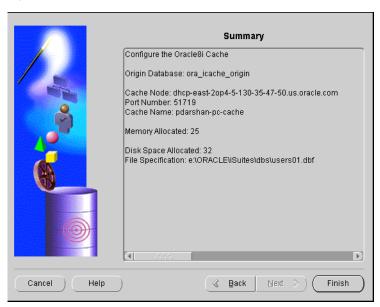
Figure A-2 Origin Database Credentials Screen

The 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.
- Privileged Account Information: The password for the Windows NT user who invoked the Configuration Assistant. If you enter a user name that is not valid or that does not have SYSDBA privileges, or if you enter an invalid password, the Configuration Assistant returns an error and allows you to enter another value.

3. Review the summary screen and click **Finish** to configure the cache.

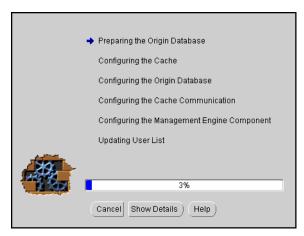




The Summary screen provides information about the origin database, cache node, port number, cache name, memory, disk space allocated and file specification.

4. Monitor the Configuration Assistant as it configures your cache.





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.bat

The following steps guide you through the Oracle9*i*AS Portal Configuration Assistant:

 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 Oracle9*i*AS Portal. Selecting "Install Oracle9*i*AS Portal and the Login Server" installs the Oracle9*i*AS Portal schema and the Login Server onto your database.

Enter the database connection information and click Next.





The Database Authentication screen allows you to specify the database connection information granting the Configuration Assistant database access to install the Oracle9*i*AS Portal database objects.

Note: Be sure to connect, and store objects in the origin database or any Oracle8*i* 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: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 Oracle8i database is running, and SID is the database name which uniquely identifies a node's instance.

3. Enter the Oracle9*i*AS Portal Schema and Oracle9*i*AS Portal DAD names, and click **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 portal30.

Enter the SSO Schema and SSO DAD names for the Login Server, and click 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 Oracle9*i*AS Portal (Login Server) screen. The default is portal30_sso.

5. Enter the tablespace names for Oracle9*i*AS Portal installation. Click **Next**.





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

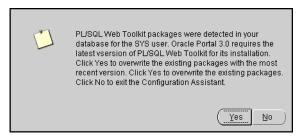
Field	Description
Default Tablespace	Used to store any database objects or components created by the Oracle9 <i>i</i> AS Portal user. Required minimum: 100 MB
Temporary Tablespace	Improves the concurrence of multiple sort operations, reduce their overhead, or avoid Oracle space management operations altogether. Used for the creation of temporary table segments for operations performed by the Oracle9 <i>i</i> AS Portal user such as sorting table rows.

Table A-1 Tablespace Options

Field	Description
Document Tablespaces	Used to store any items uploaded onto an Oracle9 <i>i</i> AS Portal content area. These item types can include files, images, folders, and stored procedures.
	Note : The Document Tablespace will gradually fill as users add items to Oracle9 <i>i</i> AS 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.
Logging Tablespace	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.

Determine if you want to overwrite or keep the existing PL/SQL Web Toolkit packages. Click **Yes** or **No** accordingly.

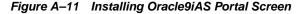
Figure A-10 PL/SQL Web Toolkit Screen



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 keep the existing PL/SQL Web Toolkit packages.

Note: Oracle9*i*AS 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.

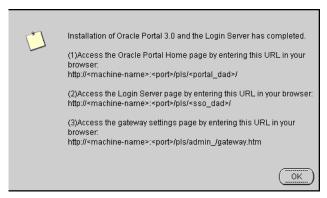




Installing Oracle9*i*AS Portal screen displays a database objects installation progress bar. Please be patient and refrain from using your machine while this is underway. This process may a take long time to complete.

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

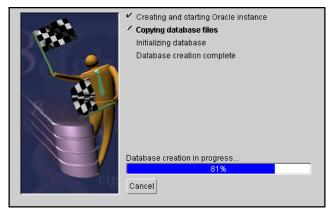
Oracle Database Configuration Assistant

The following command launches the Oracle Database Configuration Assistant:

```
prompt> ORACLE_HOME\bin\DBAssist.bat
```

The Oracle Database Configuration Assistant creates a database that is used as a container for Oracle Enterprise Java Engine. 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.bat

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:

Review the Welcome screen and click **Next**.

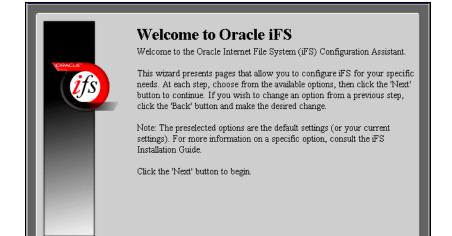


Figure A-15 Welcome Screen

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.

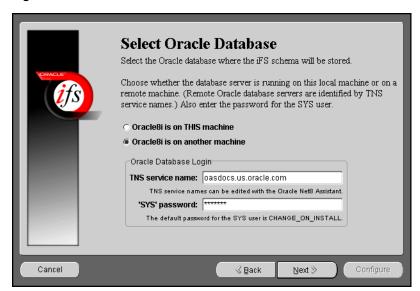
Next ≫

Configure

Cancel

2. Select the database to store Oracle Internet File System, and click **Next**.





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 Oracle8*i* 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 Oracle8*i* 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.

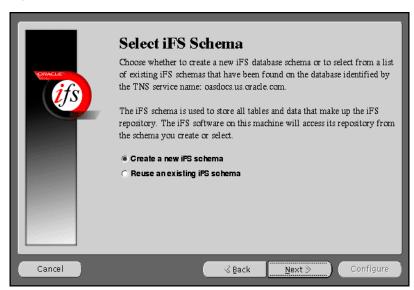
See Also: *Net8 Administration Guide* in the Oracle Database **Documentation Library**

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**.





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.

Note: If you are migrating from Oracle9*i* Application Server, Release 1.0.2.0, then you should re-use the existing schema.

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.
- Perform the following steps to configure Oracle HTTP Server:

Stop Oracle HTTP Server from **Services** in the Control Panel.

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.

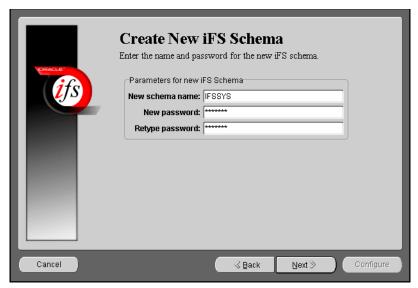
Restart Oracle HTTP Server from **Services** in the Control Panel.

Restart the Oracle Internet File System using the ifsstart script.

You have completed configuring Oracle Internet File System.

Enter an Oracle database username and password for a new schema, and click Next.





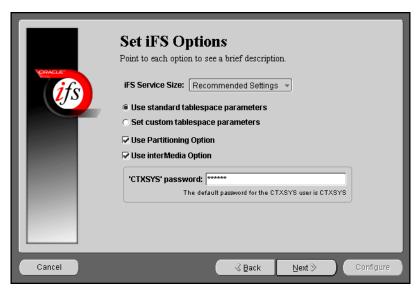
Create New *i*FS Schema screen allows you to specify an Oracle database username and password for the new schema.

- 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**.





Set *i*FS 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.

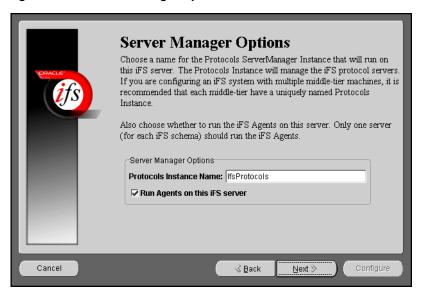
- Standard Tablespaces: By default, the Oracle Internet File System configuration creates six tablespaces used to store the data in the Oracle Internet File System schema. The database files for these tablespaces are placed in the same location (on the database machine) as the SYSTEM tablespace, which is usually found under ORACLE_HOME\oracletalglobal_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.
 - **Partioning Option**: Improves performance. Available only with Oracle8*i* 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

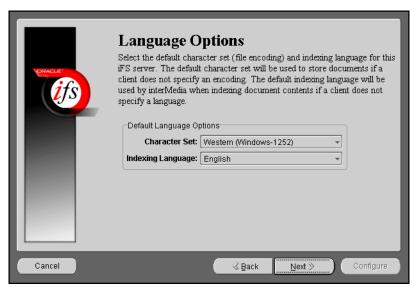


Server Manager Options screen allows you to enter a name for the Protocols Server Manager Instance that will run on this Oracle Internet File System server.

- **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**.



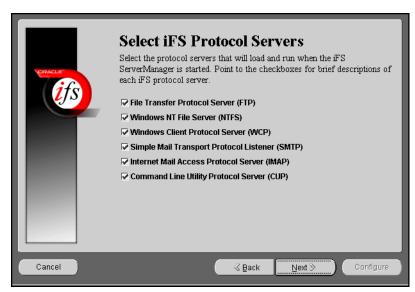


Language Options screen allows you to select the Character set and indexing language for this Oracle Internet File System server.

- 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 serves, and click Next.





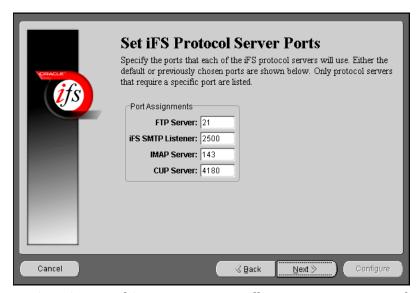
Select *i*FS Protocol Servers screen allows you to select the protocol servers to configure for this Oracle Internet File System server. The following protocol servers are available:

- 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

Select the port numbers for the Oracle Internet File System protocol servers, and click Next.





Set *i*FS 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

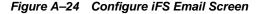
SMB Server: Port 139 (not configurable)

■ *i*FS SMTP Listener: Port 2500

IMAP Server: Port: 143CUP 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**.



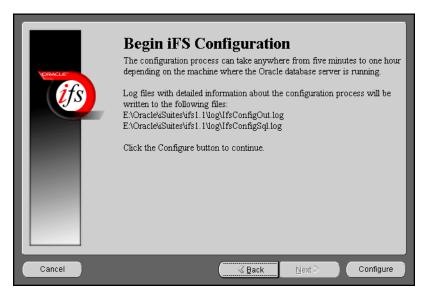


Configure iFS Email screen allows you to enter the iFS Email domain.

- **Use NIS for iFS Email**: Click on the check box to use NIS (Network Information System) for your Oracle Internet File System email package.
- *i*FS 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.





Begin *i*FS 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 an admin user.

The script is located in the <code>ORACLE_HOME\ifs1.1\bin</code> 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:
 - Stop Oracle HTTP Server from **Services** in the Control Panel.
 - **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.

- **c.** Restart Oracle HTTP Server from **Services** in the Control Panel.
- **d.** Restart the Oracle Internet File System 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.bat

The following steps guide you through the Oracle Enterprise Manager Configuration Assistant:

1. Select "Create a new repository" and click **Next**.

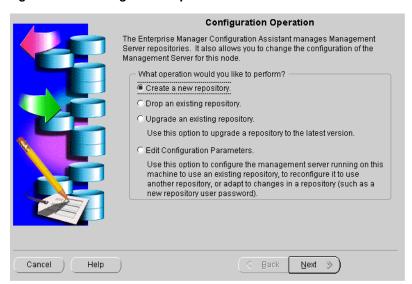
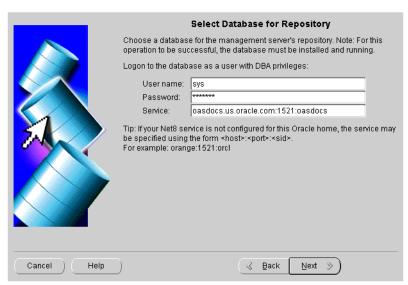


Figure A-26 Configuration Operation

Configuration Operation Screen allows you to create, drop, or upgrade a repository. It also enables you to edit your configuration parameters.

Enter the host name, password, and service information, and click **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**.



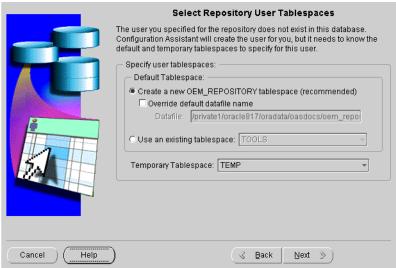


Repository Login Information screen allows you to enter the login username and password for the database user.

- **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**.





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**.

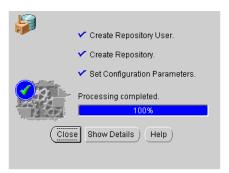




Create Repository Summary screen displays all your repository settings. Be sure to verify them for accuracy.

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 Oracle9*i* Application Server Administrative and Development Client CD-ROM components, and guide you through the installation process:

- Oracle9i Application Server Wireless Edition Client
- **Oracle Enterprise Manager Client**

Oracle9*i* Application Server Wireless Edition Client

The Oracle9*i* 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-3 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 Wireless Client Requirements" on page 1-4 for hardware requirements for installation.

The following steps guide you through the Oracle9*i* Application Server Wireless Edition Client installation process:

- 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 1.1.0 0 0. 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.

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.
- Click OK.

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 Oracle9*i* 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 2.2.0.0.0 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.

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.

Installing Supplemental Components

This appendix introduces you to the Oracle9i Application Server, Release 1.0.2.1 supplemental components, and provides basic installation instruction. The topics include:

- **Overview**
- **Supplemental Components**

Overview

Oracle9*i* Application Server supplemental components are installed from the same CD-ROM as Oracle9*i* Application Server. Installation guides for each component are provided on the Oracle9*i* Application Server Disk 1.

For instructions on launching the installer, refer to "Starting Oracle Universal Installer" on page 2-22.

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 Oracle9*i* 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.

Oracle Gateways

Oracle Gateways are agents for accessing data stored in non-Oracle systems, such that users perceives that all data resides on a local Oracle database server. Each agent is designed specifically for particular non-Oracle system (such as Sybase, Informix, and Ingres), and extends Oracle9*i* Application Server to that system. While installation an Oracle Gateways, 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 Oracle9*i* Application Server 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	cdrom_drive\GW_SYBASE\Disk1\stage\products.jar
Informix	cdrom_drive\GW_INFORMIX\Disk1\stage\products.jar
Ingres	cdrom_drive\GW_INGRES\Disk1\stage\products.jar

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 Oracle9*i* Application Server.

Source Path

You can install Oracle Internet Directory from Oracle9i Application Server 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.

cdrom_drive\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 Oracle9*i* Application Server 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.

cdrom_drive\WF\Disk1\stage\products.jar

Oracle Applications Interconnect

Oracle Applications 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, Oracle Applications 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 Oracle Applications Interconnect from Oracle9i Application Server CD-ROM Disk 2. The following is the full path to the products. jar file for Oracle Applications Interconnect. Enter this path in the Source field of the File Locations Screen.

cdrom_drive\OAI\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. Make the following changes to the openssl.cnf file to generate the certificate request:

```
#OpenSSL example configuration file
#This is mostly being used for generation of certificate requests.
#This definition stops the following lines choking if HOME isn't defined.
HOME =
RANDFILE=$ENV::HOME/.rnd
oid section=new oids
```

Use the commands below to generate the certification request:

```
...\Apache\open ssl\bin\openssl md5 *>rand.dat
...\Apache\open ssl\bin\openssl genrsa -rand rand.dat -des3 1024>key.pem
...\Apache\open_ssl\bin\openssl req -new -key key.pem -out csr.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 (eq, YOUR name) []:machine.us.oracle.com
Email Address []: username@oracle.com
```

Please enter the following "extra" attributes to be sent with your certification request:

```
A challange password []:
An optional company name []:
```

Be sure to take note of the following:

These commands create two files: key.pem and csr.pem (certificate request).

- For Common Name, include the FULL name of the HOST and DOMAIN you are running the command on.
- 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 csr.pem file.
- 3. When you receive the certificate, paste it into a file named portalcert.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.
- **4.** Copy the following in appropriate directories:
 - Certificate file portalcert.crt into the...\Apache\Apache\conf\ssl.crt directory.
 - key.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 80
# This port is used when starting with SSL
<IfDefine SSL>
Port 80
Port 443
</IfDefine>
##
##SSL Support
##When we also provide SSL we have to listen to the standard HTTP port
##(see above) abd to the HTTPS port
<IfDefine SSL>
Listen 80
Listen 443
</IfDefine>
##SSL Virtual Host Context
<VirtualHost_default_:443>
```

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:

```
Entry for Server Private Key

SSLCertificateKeyFile \conf\ssl.key\key.pem

Entry for Server Certificate Chain: (The Root Trial CA Certificate)

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 beed 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
```

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. Titles that have a part number are available as printed and bound manuals from the Oracle Store at

http://store.oracle.com

Table E-1 Oracle9i Application Server

Part Number	Title
NA	Quick Tour
A87353-01	Overview Guide
A83709-05	Migrating from Oracle Application Server

Table E-2 Communication Services

Part Number	Title
NA	Apache 1.3.12 User's Guide
NA	Apache JServ Documentation (links to http://java.apache.org/jserv)
NA	Apache mod_perl Documentation (links to http://perl.apache.org)
NA	mod_ssl Documentation (links to http://www.modssl.org)
NA	OpenSSL Documentation (links to http://www.openssl.org)
A87562-01	Using the PL/SQL Gateway
A83720-01	Oracle8i Servlet Engine User's Guide
A87355-01	Oracle Plug-in for Microsoft IIS Configuration and User's Guide

Table E-3 Content Management Services

Part Number	Title
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
NA	Oracle Internet File System XML Reference

Table E-4 Business Logic Services

Part Number	Title
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
A83728-01	Oracle8i Java Developer's Guide
A81358-01	Oracle8i Java Stored Procedures Developer's Guide
A83720-011	Oracle8i Servlet Engine User's Guide
A83726-01	Oracle JavaServer Pages Developer's Guide and Reference
A83725-01	Oracle8i Enterprise JavaBeans Developer's Guide and Reference
A88705-01	Deploying Enterprise JavaBeans to Oracle9i Application Server
A83722-01	Oracle8i CORBA Developer's Guide and Reference
A83724-01	Oracle8i JDBC Developer's Guide and Reference
A83723-01	Oracle8i SQLJ Developer's Guide and Reference
A81357-01	Oracle8i JPublisher User's Guide
A85456-01	Oracle8i Supplied Java Packages Reference
A83727-01	Oracle8i Java Tools Reference

Table E-4 Business Logic Services (Cont.)

Part Number	Title
NA	Forms Developer Quick Tour
A86202-01	Deploying Forms Applications to the Web
A73074-01	Form Builder Reference Manual
A73073-02	Guidelines for Building Applications
A73075-01	Graphics Builder Reference Manual
A73076-01	Procedure Builder Reference Manual
A73152-01	Common Built-in Packages Reference Manual

Table E-5 Presentation Services

Part Number	Title
NA	Apache JServ Documentation (links to http://java.apache.org/jserv)
A83726-01	Oracle JSP Developer's Guide and Reference
NA	Oracle JSP Developer's Toolkit

Table E-6 Developer's Kits

Part	
Number	Title
A86030-01	Oracle8i Application Developer's Guide - XML
A83730-01	Oracle8i XML Reference Guide
A83723-01	Oracle8i SQLJ Developer's Guide and Reference
A83724-01	Oracle8i JDBC Developer's Guide and Reference
A86082-01	Oracle Internet Directory Application Developer's Guide

Table E-7 Portal Services

Part Number	Title
NA	Oracle9iAS Portal Quick Tour
A87567-01	Oracle9iAS Portal Tutorial
A87566-01	Oracle9iAS Portal Configuration Guide
A87570-01	Oracle9iAS Portal Building Portals
A86701-01	Oracle9iAS Wireless Configuration Guide
A86700-01	Oracle9iAS Wireless Developer's Guide
A86699-01	Oracle9iAS Wireless Implementation Guide

Table E–8 Caching Services

Part Number	Title
A86722-02	Oracle9iAS Web Cache Administration and Deployment Guide
NA	Oracle9iAS Database Cache Quick Tour
A88706-01	Oracle9iAS Database Cache Concepts and Administration Guide

Table E-9 System Services

Part Number	Title
NA	Oracle Enterprise Manager Console Quick Tour
NA	Standard Management Pack Quick Tour
A85250-01	Oracle Enterprise Manager Concepts Guide
A85247-01	Oracle Enterprise Manager Configuration Guide
A85248-01	Oracle Enterprise Manager Administrator's Guide
A85251-01	Oracle Intelligent Agent User's Guide
A85245-01	Oracle Enterprise Manager Messages Manual
A85249-01	Oracle SNMP Support Reference Guide

Table E-10 Business Intelligence Services

Part Number	Title
A87572-01	Oracle9iAS Discoverer Configuration Guide for UNIX
A87430-01	Oracle9iAS Discoverer Configuration Guide for Windows
NA	Reports Developer Quick Tour
A86784-02	Publishing Reports to the Web
A73172-01	Building Reports
A73174-01	Reports Developer Reference Manual
A73073-02	Guidelines for Building Applications
A73075-01	Graphics Builder Reference Manual
A73076-01	Procedure Builder Reference Manual
A73152-01	Common Built-in Packages Reference Manual

Table E-11 New Services for Release 1.0.2.1

Part Number	Title
A88729-01	Using Transparent Gateways with Oracle9i Application Server
A88714-01	Oracle Heterogeneous Services
A86101-01	Oracle Internet Directory Administrator's Guide
A86082-01	Oracle Internet Directory Application Developer's Guide
A87449-01	Oracle Workflow Guide
A86653-01	Oracle9iAS Email Server Administrator's Guide
A86650-01	Oracle9iAS Email Server Developer's Guide
A86093-02	Oracle9iAS Unified Messaging Developer's Guide
A86660-01	Oracle Applications InterConnect User's Guide
A65435-01	Oracle Message Broker Administration 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 Oracle9*i* 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.

For example, the following command copies the documentation from the CD-ROM to your Oracle home directory.

For UNIX, enter the following command:

```
prompt> cp -r mount_point/doc $ORACLE_HOME
```

For Windows, enter the following command at the command prompt:

```
prompt> xcopy /s cdrom drive\doc %ORACLE HOME%
```

Note: This method may overwrite files if the destination directory already exists.

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:

Launch the Oracle Universal Installer.

See Also: "Starting Oracle Universal Installer" on page 2-22

2. At the Welcome screen, click **Next**.

- **3.** At the File Locations screen do the following:
 - **a.** Eject the Oracle9*i* 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 Oracle9*i* 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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