

Oracle® Application Server

Forms and Reports Services Installation Guide

10g Release 2 (10.1.2) for Microsoft Windows (64-Bit) on Intel
Itanium

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Oracle Application Server Forms and Reports Services Installation Guide, 10g Release 2 (10.1.2) for Microsoft Windows (64-Bit) on Intel Itanium

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Contents

Preface	vii
Audience.....	vii
Documentation Accessibility	vii
Related Documents	viii
Conventions	viii
1 What's New in the Installation	
1.1 New Screen for Specifying the staticports.ini File	1-1
1.2 New Element for Specifying Port Numbers for CORBA Communication	1-1
1.3 Configuring Forms and Reports Services to Use the Services of an Oracle Application Server Infrastructure 1-2	
1.4 Cloning Forms and Reports Services Instances.....	1-2
1.5 Additional Tool for Deinstallation	1-2
1.6 Recording Feature for Silent Installations	1-2
1.7 Generating Installation Statistics	1-3
1.8 Change in the Default Port Range.....	1-3
2 Introduction to Forms and Reports Services	
2.1 Restrictions with This Installation Type.....	2-1
2.2 Available Features with This Installation Type.....	2-1
2.2.1 Oracle Application Server Forms Services.....	2-2
2.2.2 Oracle Application Server Reports Services	2-2
2.2.3 Oracle HTTP Server.....	2-2
2.2.4 Oracle Application Server Web Cache	2-2
2.2.5 Oracle Application Server Containers for J2EE.....	2-2
2.2.6 Oracle Enterprise Manager.....	2-2
2.2.7 Oracle Process and Management Notification	2-3
2.2.8 Distributed Configuration Management.....	2-3
3 Requirements	
3.1 System Requirements	3-1
3.1.1 Memory and Pagefile Requirements for Running Multiple Instances on the Same Computer 3-5	
3.1.2 Tips for Reducing Memory Usage	3-5
3.2 Windows System Files (wsf.exe)	3-5

3.3	Ports	3-6
3.3.1	About Ephemeral Ports.....	3-6
3.3.2	Checking If a Port Is in Use	3-8
3.3.3	Using Default Port Numbers	3-8
3.3.4	Using Custom Port Numbers (the Static Ports Feature)	3-9
3.3.4.1	Format of the staticports.ini File.....	3-9
3.3.4.2	Error Conditions That Cause the Installer to Use Default Ports Instead of Specified Ports	3-11
3.3.4.3	Ports for Oracle HTTP Server and OracleAS Web Cache.....	3-11
3.4	Operating System User	3-13
3.5	Environment Variables	3-13
3.5.1	How to Set Environment Variables.....	3-14
3.5.2	ORACLE_HOME and ORACLE_SID	3-14
3.5.3	PATH, CLASSPATH	3-14
3.5.4	TEMP	3-14
3.5.5	TNS_ADMIN.....	3-14
3.5.6	REPORTS_DEFAULT_DISPLAY	3-15
3.6	The %WINDIR%\system32\drivers\etc\hosts File.....	3-15
3.6.1	Location of the Default Oracle Identity Management Realm	3-15
3.6.2	Hostname for OracleAS Single Sign-On.....	3-16
3.7	Network Topics.....	3-16
3.7.1	Installing on DHCP Computers	3-16
3.7.2	Installing on Multihomed (Multi-IP) Computers	3-17
3.7.3	Installing on Computers with Multiple Aliases	3-17
3.7.4	Installing on Non-Networked Computers.....	3-17
3.7.5	Installing on Static IP Computers that You Want to Disconnect from the Network Later	3-18
3.7.6	Installing a Loopback Adapter	3-19
3.7.6.1	Checking If a Loopback Adapter Is Installed on Your Computer	3-19
3.7.6.2	Installing a Loopback Adapter on Windows 2003 server for Itanium	3-20
3.7.6.3	Checking the Hostname	3-21
3.7.6.4	Removing a Loopback Adapter on Windows 2003 server for Itanium.....	3-22
3.7.7	Copying CD-ROMs or DVD-ROM to Hard Drive, and Installing from the Hard Drive..	3-22
3.7.8	Installing from a Remote CD-ROM or DVD-ROM Drive.....	3-23
3.7.9	Installing on Remote Computers.....	3-24
3.8	Prerequisite Checks Performed by the Installer.....	3-25

4 Considerations Before Starting the Installation

4.1	Oracle Home Directory	4-1
4.2	First-Time Installation of Any Oracle Product	4-1
4.3	Installing Additional Languages	4-2
4.4	Forms and Reports Services Instances and Instance Names	4-2
4.5	The ias_admin User	4-2
4.6	Installer File Locations	4-3
4.7	Starting Oracle Universal Installer	4-3

5 Installation Overview

6 Configuring Forms and Reports Services to Use an Oracle Application Server Infrastructure

6.1	Configuring Forms and Reports Services to Use Oracle Identity Management	6-2
6.2	Configuring Forms and Reports Services to Use OracleAS Metadata Repository	6-3
6.3	Making the Reports Server Secure	6-4
6.4	Starting OPMN Services	6-5
6.5	Testing the Configuration on Oracle Application Server Forms Services.....	6-5
6.6	Testing the Configuration on Oracle Application Server Reports Services	6-6

7 Post-Installation Tasks

7.1	State of Forms and Reports Services Instances After Installation.....	7-1
7.2	NFS Installations	7-1
7.3	Testing the Forms and Reports Services Installation.....	7-1
7.4	Backup and Recovery	7-2
7.5	SSL.....	7-2
7.6	NLS_LANG Environment Variable	7-2
7.7	Deployment of Forms and Reports	7-2

A Troubleshooting

A.1	Verifying Requirements	A-1
A.2	Resolving Installation Errors.....	A-1
A.3	Troubleshooting Configuration Assistants	A-2
A.3.1	Configuration Assistant Failure	A-2
A.3.2	Failure During Component Configuration and Startup	A-2
A.3.3	Fatal Errors.....	A-3
A.4	Descriptions of Forms and Reports Services Configuration Assistants	A-4

B Deinstallation and Reinstallation

B.1	Deinstallation of Forms and Reports Services Instances.....	B-1
B.2	Reinstallation	B-1

C Default Port Numbers

C.1	Method of Assigning Default Port Numbers.....	C-1
C.2	Default Port Numbers	C-1

D URLs for Components

E Java Access Bridge Installation

E.1	Introduction	E-1
E.2	Setup for JRE 1.4.2.....	E-1
E.3	Setup for Oracle Installed Components.....	E-1
E.3.1	Installing Java Access Bridge	E-2

E.3.2	Configuring Oracle Components to Use Java Access Bridge.....	E-2
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Index

Preface

Oracle Application Server Forms and Reports Services Installation Guide covers requirements, new features in the installer, concepts that affect installation, compatibility with other products, post-installation tasks, and troubleshooting tips.

Audience

This guide is intended for users who are comfortable performing system administration operations such as creating users and groups, adding users to groups, and installing operating system patches on the computer on which Forms and Reports Services will be installed. Users installing Forms and Reports Services need root access to run some scripts.

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Related Documents

For more information, see the following documents:

- *Oracle Application Server Forms and Reports Services Release Notes*
- *Oracle Application Server Reports Services Publishing Reports to the Web*
- *Oracle Reports Building Reports*
- *Getting Started with Oracle Reports*, available on the Oracle Technology Network (<http://www.oracle.com/technology/products/reports/>)

The Index of *Getting Started with Oracle Reports* provides access to Reports documentation not available on the main OTN Reports Documentation page. You can select from the Topic and Collateral Type lists to view any Reports document, including online help and tech notes.

- *Oracle Application Server Forms Services Deployment Guide*

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
<i>italic</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
monospace	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

What's New in the Installation

This chapter describes new features in Oracle Application Server 10g Forms and Reports Services. This chapter is mostly of interest to users who have installed previous versions of Forms and Reports Services.

To see a list of new features in the product itself, visit the Oracle Technology Network site (<http://www.oracle.com/technology>). For frequently asked questions (FAQ) about the installation of Forms and Reports Services, visit the Forms and Reports Services Installation FAQ page on the Oracle Technology Network site (http://www.oracle.com/technology/products/reports/htdocs/faq/faq_fr_services.htm).

This chapter includes the following topics:

- [New Screen for Specifying the staticports.ini File](#)
- [New Element for Specifying Port Numbers for CORBA Communication](#)
- [Configuring Forms and Reports Services to Use the Services of an Oracle Application Server Infrastructure](#)
- [Cloning Forms and Reports Services Instances](#)
- [Additional Tool for Deinstallation](#)
- [Recording Feature for Silent Installations](#)
- [Generating Installation Statistics](#)
- [Change in the Default Port Range](#)

1.1 New Screen for Specifying the staticports.ini File

In earlier releases, for components to use custom ports, you created a `staticports.ini` file to map components and port numbers. When you started the installer, you used a command-line option to specify the file.

In this release, you specify the `staticports.ini` file in the new "Select Port Configuration Options" screen in the installer. You do not use the command-line options to specify the file.

1.2 New Element for Specifying Port Numbers for CORBA Communication

This release introduces the `ORBPorts` element in the server configuration file to enable you to explicitly specify the port numbers used by Reports Server and engines

for communication through CORBA. You can specify either a range of ports or individual ports separated by commas. For example:

```
<ORBPorts value="15000-15010"/> (Range of values)
```

```
<ORBPorts value="15000,16000,17000,18000"/> (Comma-separated values)
```

By default, the `ORBPorts` element is not present in the Reports Server configuration file. If this element is missing, Reports Server chooses a random port for CORBA communication. For more information about the `ORBPorts` element, see the chapter "Configuring OracleAS Reports Services" in the *Oracle Application Server Reports Services Publishing Reports to the Web* manual.

Note: The `ORBPorts` element should be defined only if the TCP port filtering has been enabled on the server where Reports Server is running. If port filtering is enabled, and a few ports can be opened for Reports Server, then use `ORBPorts` to specify them in the server configuration file for Reports Server and engine communication. If any of the ports are not available, Reports Server or engines may fail to start and an error displays.

1.3 Configuring Forms and Reports Services to Use the Services of an Oracle Application Server Infrastructure

In this release, you can configure Forms and Reports Services to use the services of an Oracle Application Server Infrastructure. Forms and Reports Services can then use the services of an OracleAS Infrastructure in the same way as used by the Business Intelligence and Forms components. For more information on the configuration, see [Chapter 6, "Configuring Forms and Reports Services to Use an Oracle Application Server Infrastructure"](#).

1.4 Cloning Forms and Reports Services Instances

Cloning is the process of copying an existing installation to a different location while preserving its configuration. In this release, cloning an installation of Forms and Reports Services instance is possible. For more information on cloning, see the *Oracle Application Server Administrator's Guide*.

1.5 Additional Tool for Deinstallation

In this release, there is a new tool called the Deconfig tool that removes entries from Oracle Internet Directory and the Oracle Application Server Metadata Repository. You run this tool before you deinstall an Oracle Application Server instance using the installer. For more information about the Deconfig tool, see the *Oracle Application Server Installation Guide*.

1.6 Recording Feature for Silent Installations

The installer has a record mode, in which it saves your inputs to a response file. You can then use the generated response file to install Forms and Reports Services on different computers using the same values.

For details, see the *Oracle Application Server Installation Guide*.

1.7 Generating Installation Statistics

The installer provides command-line options for monitoring resources used for installation. [Table 1–1](#) lists the options that are supported.

Table 1–1 *Installer Options for Generating Installation Statistics*

Option	Description
-printtime	Use this option to get information on the time taken for the installation. The installer writes the information in the following file: C:\Program Files\Oracle\Inventory\logs\time <i>timestamp</i> .log
-printmemory	Use this option to get information on the memory used for the installation. The installer writes the information in the following file: C:\Program Files\Oracle\Inventory\logs\memory <i>timestamp</i> .log
-printdiskusage	Use this option to get information on the disk space used for the installation. The installer writes the information in the following file: C:\Program Files\Oracle\Inventory\logs\diskusage <i>timestamp</i> .log

For example, the following command provides information for the time taken, memory used, and disk space used for the installation:

```
setup.exe -printtime -printmemory -printdiskusage
```

1.8 Change in the Default Port Range

The default port ranges for the following components have changed:

- Oracle Application Server Reports Services
- Oracle Internet Directory
- Oracle Application Server Certificate Authority
- Oracle Application Server Containers for J2EE
- Oracle Enterprise Manager 10g
- Oracle Application Server Web Cache

For details, see [Appendix C, "Default Port Numbers"](#).

Introduction to Forms and Reports Services

Oracle Application Server Forms and Reports Services enables you to install and configure Forms and Reports Services without the need to install and configure the entire Oracle Application Server. This is called a standalone installation of Forms and Reports Services. You can also configure the standalone Forms and Reports Services instance to use the Oracle Identity Management and Oracle Application Server Metadata Repository services of an Oracle Application Server Infrastructure.

Forms and Reports Services standalone installation is best suited for users who want to upgrade Forms and Reports applications to the Grid environment in two phases. In phase one, they move to the Grid environment by upgrading their client/server-based Forms and Reports applications to Web-based applications. In phase two, users can then choose to use the services offered by an existing OracleAS Infrastructure installation.

This chapter includes the following topics:

- [Restrictions with This Installation Type](#)
- [Available Features with This Installation Type](#)

2.1 Restrictions with This Installation Type

Once you configure Forms and Reports Services to use the services of an OracleAS Infrastructure, you *cannot* reverse this configuration.

2.2 Available Features with This Installation Type

When you install Forms and Reports Services, you will have access to these features:

- [Oracle Application Server Forms Services](#)
- [Oracle Application Server Reports Services](#)
- [Oracle HTTP Server](#)
- [Oracle Application Server Web Cache](#)
- [Oracle Application Server Containers for J2EE](#)
- [Oracle Enterprise Manager](#)
- [Oracle Process and Management Notification](#)
- [Distributed Configuration Management](#)

2.2.1 Oracle Application Server Forms Services

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

2.2.2 Oracle Application Server Reports Services

Oracle Application Server Reports Services provides an easy-to-use, scalable, and manageable solution for high-quality enterprise reporting and publishing. Using Oracle Reports, you can publish data generated by multiple sources in various formats (paper layout, Web, or data interchange format). This provides flexibility in the presentation of data. OracleAS Reports Services is part of Oracle Application Server.

2.2.3 Oracle HTTP Server

Oracle HTTP Server, built on Apache Web server technology, is the Web server that Oracle Application Server uses. It offers scalability, stability, speed, and extensibility. It also supports Java servlets, Java Server Pages (JSPs), Perl, PL/SQL, and CGI applications.

2.2.4 Oracle Application Server Web Cache

Oracle Application Server Web Cache is a server-accelerator caching service that improves the performance, scalability, and availability of frequently used Oracle E-business Web sites that run on the Oracle platform. By storing frequently accessed URLs in virtual memory, Oracle Application Server Web Cache eliminates the need to repeatedly process requests for those URLs on the Web server. It also caches both static and dynamically generated HTTP content from one or more applications Web servers.

2.2.5 Oracle Application Server Containers for J2EE

Oracle Application Server Containers for J2EE (OC4J) is a complete set of J2EE containers written entirely in Java that execute on the Java Virtual Machine (JVM) of the standard Java Development Kit (JDK).

2.2.6 Oracle Enterprise Manager

Oracle Enterprise Manager Application Server Control (henceforth referred to as Application Server Control) provides you with Web-based management tools that you need to monitor, administer, and configure multiple Oracle Application Server instances and its components. By default, Application Server Control is installed with every instance of Oracle Application Server. You can deploy applications, manage security, and create and manage Oracle Application Server clusters.

Application Server Control consists of the following:

- The Enterprise Manager home pages you use to manage Oracle Application Server and its components. These Web pages provide you with a high-level view of your Oracle Application Server environment. From these pages you can drill down for more detailed information on administration, configuration, and performance monitoring. These pages also let you administer Oracle Application Server, its components, and deployed applications.

- The underlying software technologies that keep track of your Oracle Application Server instances and components. These technologies automatically perform the necessary management tasks. For example, these technologies discover the components of each Oracle Application Server instance, gather and process performance data, and provide access to application configuration information.

2.2.7 Oracle Process and Management Notification

Oracle Process and Management Notification (OPMN) provides process control and monitoring services for Oracle Application Server instances and their components such as Forms and Reports Services. It gathers component status information and distributes the information to the relevant components. Application Server Control uses OPMN for such tasks as starting and stopping the components of your Oracle Application Server instance.

2.2.8 Distributed Configuration Management

Distributed Configuration Management (DCM) manages configurations among Oracle Application Server instances with a common Oracle Application Server Metadata Repository. It enables cluster-wide deployment of Oracle Application Server; thus, enabling you to deploy an application to one instance and have it automatically propagated to the entire cluster. You can also make a single host or instance configuration change to one instance and have it propagated across all instances in the cluster. Application Server Control uses DCM to make configuration changes and to propagate configuration changes and deployed applications across the cluster.

Requirements

Before installing Forms and Reports Services, ensure that your computer meets the requirements described in this chapter.

This chapter contains the following sections:

- [System Requirements](#)
- [Windows System Files \(wsf.exe\)](#)
- [Ports](#)
- [Operating System User](#)
- [Environment Variables](#)
- [The %WINDIR%\system32\drivers\etc\hosts File](#)
- [Network Topics](#)
- [Prerequisite Checks Performed by the Installer](#)

3.1 System Requirements

[Table 3–1](#) lists the system requirements for running Forms and reports services. The installer checks many of these requirements at the start of the installation process and displays a warning if any of the requirement is not met.

You can also run the system checks performed by running the `setup.exe` command. The `setup.exe` command is on the Forms and Reports Services CD-ROM (Disk 1) or DVD (in the `application_server` directory).

CD-ROM (assumes E: is the CD-ROM drive):

```
E:\> setup.exe -executeSysPrereqs
```

DVD (assumes E: is the DVD drive):

```
E:\> cd application_server
E:\application_server> setup.exe -executeSysPrereqs
```

The results are displayed on the screen as well as written to a log file. For more information on the types of checks performed, see [Section 3.8, "Prerequisite Checks Performed by the Installer"](#).

It contains the following sections:

- [Section 3.1.1, "Memory and Pagefile Requirements for Running Multiple Instances on the Same Computer"](#)
- [Section 3.1.2, "Tips for Reducing Memory Usage"](#)

Table 3–1 System Requirements

Item	Requirement
Operating system	Microsoft Windows 2003 (64 bit) with Service Pack 1 or later Checked by Installer: Yes
64-bit Certification	The 32-bit version of Oracle Application Server for Windows runs on Intel x86, AMD64, and Intel EM64T processors. For additional information, visit Oracle <i>MetaLink</i> at http://metalink.oracle.com . The following 64-bit operating systems are supported: <ul style="list-style-type: none"> ■ Microsoft Windows XP Professional x64 Edition ■ Microsoft Windows Server 2003, Standard x64 Edition ■ Microsoft Windows Server 2003, Enterprise x64 Edition ■ Microsoft Windows Server 2003, Datacenter x64 Edition Note: All products and components except OracleAS Infrastructure 10g are certified on AMD64 and Intel EM64T processors.
Network	You can install Oracle Application Server on a computer that is connected to a network, or on a "standalone" computer (not connected to the network). If you are installing Oracle Application Server on a standalone computer, you can connect the computer to a network after installation. You have to perform some configuration tasks when you connect it to the network. Refer to <i>Oracle Application Server Administrator's Guide</i> for details. Checked by Installer: No
IP	You can install Oracle Application Server on a computer that uses static IP or DHCP-based IP. Notes: <ul style="list-style-type: none"> ■ If you are installing on DHCP computers, see Section 3.7.1, "Installing on DHCP Computers" for additional requirements. ■ If you are installing on static IP computers and you want to be able to run Oracle Application Server on or off the network, see Section 3.7.5, "Installing on Static IP Computers that You Want to Disconnect from the Network Later" for additional requirements. Checked by Installer: No
Hostname	Ensure that your hostnames are not longer than 255 characters.
Processor Speed	Intel Itanium 2 (900 MHz or higher) Checked by Installer: No

Table 3–1 (Cont.) System Requirements

Item	Requirement
Memory	<p>OracleAS Infrastructure:</p> <ul style="list-style-type: none"> ■ OracleAS Metadata Repository and Oracle Identity Management: 3.7GB ■ Oracle Identity Management only: 1.25 GB ■ OracleAS Metadata Repository only: 3.7 GB <p>Oracle Application Server middle tier:</p> <ul style="list-style-type: none"> ■ J2EE and Web Cache: 846 MB ■ Portal and Wireless: 1.2 GB ■ Business Intelligence and Forms: 1.7 GB <p>OracleAS Developer Kits: 256 MB</p> <p>Notes:</p> <ul style="list-style-type: none"> ■ The installer checks the amount of memory on your computer and will warn you if your computer does not meet the minimum memory requirements. ■ These values assume you are running only one Oracle Application Server instance per computer. If you plan to run multiple instances on the same computer, see Section 3.1.1, "Memory and Pagefile Requirements for Running Multiple Instances on the Same Computer". ■ These are minimum values that are enough to install and run Oracle Application Server. For most production sites, you should configure at least 512 MB of physical memory. For sites with substantial traffic, increasing the amount of memory further may improve performance. For Java applications, you should either increase the maximum heap allocated to the OC4J processes or configure additional OC4J processes to utilize this memory. See the <i>Oracle Application Server Performance Guide</i> for details. ■ To determine the optimal amount of memory for your installation, the best practice is to load test your site. Resource requirements can vary substantially for different applications and different usage patterns. In addition, some operating system utilities for monitoring memory can overstate memory usage, partially due to the representation of shared memory. The preferred method for determining memory requirements is to monitor the improvement in performance resulting from the addition of physical memory in your load test. Refer to your platform vendor documentation for information on how to configure memory and processor resources for testing purposes. <p>Checked by Installer: Yes</p>
File system type	<p>NTFS is recommended over FAT32 or FAT file system types because NTFS includes security features such as enforcing permission restrictions on files.</p> <p>Checked by Installer: No</p>
Disk space	<p>OracleAS Infrastructure:</p> <ul style="list-style-type: none"> ■ OracleAS Metadata Repository and Oracle Identity Management: 3.07 GB You can install the data files for the OracleAS Metadata Repository database on a disk that is different from the disk where you are installing OracleAS Infrastructure. If you do this, make sure the disk for the data files has at least 1.85 GB of free space. ■ Oracle Identity Management only: 1.25 GB ■ OracleAS Metadata Repository only: 3.7 GB <p>Oracle Application Server middle tier:</p> <ul style="list-style-type: none"> ■ J2EE and Web Cache: 846 MB ■ Portal and Wireless: 1.2 GB ■ Business Intelligence and Forms: 1.7 GB <p>OracleAS Developer Kits: 256 MB</p> <p>Checked by Installer: No</p>

Table 3–1 (Cont.) System Requirements

Item	Requirement
Space in TEMP directory	<p>55 MB to run the installer, but you need 256 MB to install certain installation types.</p> <p>If the TEMP directory does not have enough free space, you can specify a different directory by setting the TEMP environment variable. See Section 3.5.4, "TEMP" for details.</p> <p>Checked by Installer: Yes</p>
Total Pagefile size (Virtual Memory)	<p>These values are estimates. You should use the values recommended by Windows based on the amount of memory on your computer.</p> <p>OracleAS Infrastructure:</p> <ul style="list-style-type: none"> ■ OracleAS Metadata Repository and Oracle Identity Management: 1 GB ■ Oracle Identity Management only: 1 GB ■ OracleAS Metadata Repository only: 1 GB <p>Oracle Application Server middle tier:</p> <ul style="list-style-type: none"> ■ J2EE and Web Cache: 512 MB ■ Portal and Wireless: 512 MB ■ Business Intelligence and Forms: 1 GB <p>OracleAS Developer Kits: 512 MB</p> <p>If you plan to use OracleAS Personalization, you must use a pagefile size that is at least 1.5 times the amount of physical memory on your computer.</p> <p>If you plan to use OracleAS Clusters, Oracle recommends a minimum of 1 GB.</p> <p>In a production environment, Oracle recommends a minimum of 1 GB.</p> <p>To view and change the total pagefile size (virtual memory):</p> <ol style="list-style-type: none"> 1. Display the System control panel. To do this, select Start > Control Panel > System. 2. Select the Advanced tab. 3. Click Settings in the Performance section. 4. Select the Advanced tab. 5. Click Change to review and change the virtual memory setting. <p>Checked by Installer: Yes</p>
Monitor	<p>256 color display</p> <p>Checked by Installer: Yes</p>
Supported browsers	<p>Oracle Enterprise Manager 10g is supported on the following browsers:</p> <ul style="list-style-type: none"> ■ Microsoft Internet Explorer 6.0 (supported on Microsoft Windows only) ■ Netscape 7.2 ■ Mozilla 1.7. You can download Mozilla from http://www.mozilla.org. ■ Firefox 1.0.4. You can download Firefox from http://www.mozilla.org. ■ Safari 1.2 (on Apple Macintosh computers) <p>For the most current list of supported browsers, check the Oracle<i>MetaLink</i> site (http://metalink.oracle.com).</p> <p>Checked by Installer: No. However, if you access Oracle Enterprise Manager 10g using a non-supported browser, you will get a warning message.</p>

3.1.1 Memory and Pagefile Requirements for Running Multiple Instances on the Same Computer

If you plan to run OracleAS Infrastructure and a middle tier on the same computer, ensure the computer meets the memory and pagefile requirements listed in [Table 3–2](#).

The pagefile values below were suggested by Windows based on the amount of memory on the computer. Use the value suggested for your computer.

Note that these values have been tested against a small number of users. If you have many users, you might have to increase the amount of memory.

Table 3–2 Memory and Pagefile Requirements for Running Multiple Instances on the Same Computer

Description	Memory	Pagefile
OracleAS Infrastructure plus J2EE and Web Cache	1 GB	1.5 GB
OracleAS Infrastructure plus Portal and Wireless	1.5 GB	2.0 - 2.5 GB
OracleAS Infrastructure plus Business Intelligence and Forms	1.5 GB	2.0 - 2.5 GB

3.1.2 Tips for Reducing Memory Usage

If you need to reduce memory consumption:

- After installation, use Oracle Enterprise Manager to stop services not used. This reduces the memory usage. For details, see the *Oracle Application Server Administrator's Guide*.
- For OracleAS Reports Services, you can control the JVM heap size by specifying small values using the `REPORTS_JVM_OPTIONS` environment variable.

For Reports Engine, the JVM options are specified in the `server_name.conf` file in the `jvmoptions` attribute of the `engine` element. If specified, the JVM options set in `server_name.conf` override the value of the `REPORTS_JVM_OPTIONS` environment variable. If not specified in `server_name.conf`, Oracle Reports uses the JVM options specified by the `REPORTS_JVM_OPTIONS` environment variable. For Reports Server, you can use the command line to specify the JVM options. For details about JVM option support, see the *Oracle Application Server Reports Services Publishing Reports to the Web* manual.

3.2 Windows System Files (wsf.exe)

Note: Perform this procedure only if prompted by the installer.

Oracle Application Server requires minimum versions of some system files in the Windows system directory (typically `C:\Windows\system32` or `C:\Winnt\system32`). When you run the installer for Oracle Application Server, the installer checks the Windows system files on your computer. If it finds old versions of these files, and the files are in use by other processes, then it prompts you to exit the installer and run `wsf.exe` to install the latest Windows system files. (If it finds old versions of the files, but the files are not in use by other processes, then it just replaces the files and you do not have to run `wsf.exe`.)

You can find `wsf.exe` in the same directory as the installer.

To run `wsf.exe`, which you need to do only if prompted by the installer, perform these steps:

1. Start `wsf.exe`, which starts up Oracle Universal Installer to install the Windows system files.

CD-ROM (assumes E: is the CD-ROM drive):

```
E: \> wsf.exe
```

DVD (assumes E: is the DVD drive):

```
E: \> cd application_server
```

```
E: \> wsf.exe
```

2. Follow the screens in the installer:

Table 3–3 Screens for Installing Windows System Files

Screen	Action
1. Welcome	Click Next .
2. Specify File Locations	<p>Destination Name: Enter a name for the Oracle home for <code>wsf</code>.</p> <p>Destination Path: Enter any full path. The installer installs the files in the proper system directories, regardless of the value you enter in this field.</p> <p>Click Next.</p>
3. Warning: System Reboot Required	<p>If you see this screen, the installer will reboot your computer automatically at the end of this installation to complete the Windows system files installation. Save and close applications (other than this installer) that you have running on your computer.</p> <p>Click Next.</p>
4. Summary	Click Next to start installing the Windows system files.
5. End of Installation	Click Exit to exit the installer.

3. If the installer displayed the "Warning: System Reboot Required" screen during installation, the installer now reboots your computer. If not, please reboot your computer before continuing.

3.3 Ports

Many Oracle Application Server components, such as Oracle HTTP Server, OracleAS Web Cache, and Oracle Enterprise Manager 10g, use ports. You can have the installer assign default port numbers, or use port numbers that you specify.

- [About Ephemeral Ports](#)
- [Section 3.3.2, "Checking If a Port Is in Use"](#)
- [Section 3.3.3, "Using Default Port Numbers"](#)
- [Section 3.3.4, "Using Custom Port Numbers \(the Static Ports Feature\)"](#)

3.3.1 About Ephemeral Ports

An ephemeral port is a port number that an operating system can temporarily assign to a service or process. Some services or processes have conventionally assigned permanent port numbers. In other cases, an ephemeral port number is assigned

temporarily (for the duration of the request and its completion) from a range of assigned port numbers.

Ephemeral Port Range

The ephemeral port range on Microsoft Windows is ports 1024 through 5000, inclusive.

Only the upper end of this range is adjustable in Windows. In most other operating systems, the ephemeral range by default is much larger, and the lower and upper bounds of the range are adjustable.

Several Application Server processes, including Oracle HTTP Server, OracleAS Web Cache, Oracle Enterprise Manager 10g Application Server Control, and OC4J, use ports in the ephemeral port range. These processes cannot start up if the ports that they need are already in use by clients.

Problem: Components Cannot Start Up Because of Conflicts with Ephemeral Ports

On rare occasions, Oracle Application Server processes are unable to start up because required ports are not available. Processes may fail to start up or report that they are unable to "bind" to ports. The behavior may be transient in that if you try to restart the affected process later, it does start successfully.

The cause of this problem is that by default, Oracle Application Server uses a number of ports that fall into the range of "ephemeral" ports. Ephemeral ports are usually used on the client ends of client/server TCP/IP connections. Because client processes usually are unconcerned with which port value is used on the client side of the connection, all TCP/IP implementations allow clients to defer to the operating system the choice of which port value to use for the client side. The operating system selects a port from the "ephemeral" port range for each client connection of this type.

On the other hand, server processes (for example, Oracle Application Server processes) cannot use ephemeral ports. They must use fixed port values so that clients can always connect to the same server port to communicate with the server.

Port conflicts with ephemeral ports arise when an Oracle Application Server process is configured to use a port in the ephemeral port range. The Oracle Application Server process tries to start up, but discovers that the port that it needs is already in use by a client process (the client received the ephemeral port assignment from the operating system). This client can be any process on the computer capable of communicating via TCP/IP. The Oracle Application Server process fails to start up when the port that it needs is unavailable.

This problem occurs relatively more frequently on Microsoft Windows than on other operating systems because by default Windows uses a small range of ports for ephemeral client connections.

Avoiding Conflicts with Ephemeral Ports

To avoid conflicts with ephemeral ports, you have these options:

- Install Forms and Reports Services using `staticports.ini` so that Forms and Reports Services components do not use ports within the ephemeral range. In the `staticports.ini` file, use port numbers below 1024 or above 5000.

See [Section 3.3.4, "Using Custom Port Numbers \(the Static Ports Feature\)"](#) for details.

- If you have already installed Forms and Reports Services, you can reconfigure the components to use ports below 1024 or above 5000. See the Oracle Application

Server Administrator's Guide to learn how to change the current ports used by Application Server processes.

- (This option can be done post-installation.) Modify the ephemeral port range on your computer. Use this option only if you cannot use any of the alternatives above. This option is the least preferred because it makes changes to the Windows registry, and it affects all products that you run on your computer.

This option moves the ephemeral port range to a new location. Before making the change, you must verify that none of the products you are using (Oracle or non-Oracle) on your computer use non-ephemeral ports within the ephemeral port range. If any products do so, you must relocate them to the new ReservedPorts range (see below), above the new ephemeral range, or below port 1024.

To implement this option, perform these steps:

- Raise the upper bound of the ephemeral port range to expand the size of the range.

Set the MaxUserPort value in the registry to at least 13000, but no higher than 65534. MaxUserPort is the upper bound of the ephemeral port range.

For steps, see Microsoft Knowledge Base article 196271:

[http://support.microsoft.com/default.aspx?scid=kb; \[LN\] ;196271](http://support.microsoft.com/default.aspx?scid=kb;[LN];196271).

- Reserve a portion of the newly expanded ephemeral port range for use by Oracle Application Server.

Set the ReservedPorts value in the registry so that ports 1024 through 8000 are reserved for Oracle Application Server. The reserved range incorporates the range of ports normally used by Oracle Application Server.

For steps, see Microsoft Knowledge Base article 812873:

[http://support.microsoft.com/default.aspx?scid=kb; \[LN\] ;812873](http://support.microsoft.com/default.aspx?scid=kb;[LN];812873).

- Restart your computer for the changes to take effect.

After performing the steps, you end up with the following: ports from 1024 through 8000 are reserved for Oracle Application Server, and ports 8001 through 13000 are the new ephemeral port range (assuming you set the MaxUserPort to 13000). The reserved range incorporates the range of ports normally used by Oracle Application Server, and the ephemeral range has the same size as the original.

3.3.2 Checking If a Port Is in Use

To check if a port is being used, run the `netstat` command as follows:

```
C:\> netstat -an | find portnum
```

3.3.3 Using Default Port Numbers

If you want to use the default port numbers for components, you do not have to do anything. Ensure that at least one port is available in the port range for each component. If the installer is unable to find a free port in the range, the installation fails.

Note the following points:

- The installer assigns the default ports to components only if the ports are not in use by other applications. If the default port is in use, the installer tries other ports in the port number range for the component. For example, the default non-SSL port for Oracle HTTP Server for the middle tier is port 80. If this port is in use by another application, the installer assigns a port in the 7777 - 7877 range.
- The default ports for Oracle HTTP Server depend on the installation type (Table 3-4). The middle tier gets ports 80 and 443 because it is where you would deploy your applications. Users would send requests to the middle tier's Oracle HTTP Server/OracleAS Web Cache to access the applications.

In Table 3-4, the values in parenthesis indicate the ports that the installer tries to assign to Oracle HTTP Server if the default port is already in use.

Table 3-4 Default Ports for Oracle HTTP Server

Installation Type	Default Non-SSL Port	Default SSL Port
OracleAS Infrastructure	7777 (7777 - 7877)	4443 (4443 - 4543)
Middle tier	80 (7777 - 7877)	443 (4443 - 4543)

3.3.4 Using Custom Port Numbers (the Static Ports Feature)

To instruct the installer to assign custom port numbers for components:

1. Create a file containing the component names and port numbers. [Section 3.3.4.1, "Format of the staticports.ini File"](#) describes the file format. This file is typically called `staticports.ini`, but you can name it anything you want.
2. In the installer, on the Specify Port Configuration Options screen, select **Manual** and enter the *complete path* to the `staticports.ini` file.

If you do not specify the complete path to the file, the installer will not be able to find the file. The installer then assigns default ports for all the components, and it does this without displaying any warning.

3.3.4.1 Format of the staticports.ini File

The `staticports.ini` file has the following format. Replace `port_num` with the port number that you want to use for the component.

```
# J2EE and Web Cache
Oracle HTTP Server port = port_num
Oracle HTTP Server Listen port = port_num
Oracle HTTP Server SSL port = port_num
Oracle HTTP Server Listen (SSL) port = port_num
Oracle HTTP Server Diagnostic port = port_num
Java Object Cache port = port_num
DCM Java Object Cache port = port_num
DCM Discovery port = port_num
Oracle Notification Server Request port = port_num
Oracle Notification Server Local port = port_num
Oracle Notification Server Remote port = port_num
Application Server Control port = port_num
Application Server Control RMI port = port_num
Oracle Management Agent port = port_num
Web Cache HTTP Listen port = port_num
Web Cache HTTP Listen (SSL) port = port_num
Web Cache Administration port = port_num
Web Cache Invalidation port = port_num
Web Cache Statistics port = port_num
```

```

Log Loader port = port_num
ASG port = port_num

# Business Intelligence and Forms
Reports Services SQL*Net port = port_num
Reports Services discoveryService port = port_num
Reports Services bridge port = port_num

# Infrastructure
Oracle Internet Directory port = port_num
Oracle Internet Directory (SSL) port = port_num
Oracle Certificate Authority SSL Server Authentication port = port_num
Oracle Certificate Authority SSL Mutual Authentication port = port_num
Ultra Search HTTP port number = port_num

```

The easiest way to create the file is to use the `staticports.ini` file on the CD-ROM (Disk 1) or DVD-ROM as a template:

1. Copy the `staticports.ini` file from the CD-ROM or DVD-ROM to your hard disk.

Table 3–5 Location of the `staticports.ini` File on CD-ROM and DVD-ROM

Media	Location of <code>staticports.ini</code> File (assumes E: is your CD-ROM or DVD-ROM drive)
CD-ROM	Disk 1: E:\stage\Response\staticports.ini
DVD-ROM	E:\application_server\stage\Response\staticports.ini

2. Edit the local copy (the file on the hard disk) to include the required port numbers.

You do not need to specify port numbers for all components in the `staticports.ini` file. If a component is not listed in the file, the installer uses the default port number for that component.

The following example sets the Application Server Control port and some OracleAS Web Cache ports. For components not specified, the installer assigns the default port numbers.

```

Application Server Control port = 2000
Web Cache Administration port = 2001
Web Cache Invalidation port = 2002
Web Cache Statistics port = 2003

```

When installation is complete, you can check the `portlist.ini` file to see the assigned ports.

Choosing Port Numbers:

- Port numbers cannot be greater than 65535.
 - If you plan to set port numbers for Oracle HTTP Server and OracleAS Web Cache, be sure you read [Section 3.3.4.3, "Ports for Oracle HTTP Server and OracleAS Web Cache"](#).
-
-

The installer verifies that the ports specified in the file are available by checking the memory. This means that it can only detect ports that are being used by running processes. It does not look in configuration files to determine which ports an application is using.

If the installer detects that a specified port is not available, it displays an alert. The installer does not assign a port that is not available. To fix this:

1. Edit the `staticports.ini` file to specify a different port, or shut down the application using the port.
2. Click **Retry**. The installer rereads the `staticports.ini` file and verifies the entries in the file again.

Using `portlist.ini` as the `staticports.ini` File

The `staticports.ini` file uses the same format as the `portlist.ini` file, which is created *after* a Forms and Reports Services installation. If you have installed Forms and Reports Services and want to use the same port numbers in another installation, use the `portlist.ini` file from the first installation as the `staticports.ini` file for subsequent installations.

Note: In `staticports.ini`, the Oracle Management Agent port line corresponds to the Enterprise Manager Agent port line in `portlist.ini`.

3.3.4.2 Error Conditions That Cause the Installer to Use Default Ports Instead of Specified Ports

Check the `staticports.ini` file carefully because a mistake can cause the installer to use default ports without displaying any warning. Here are some things that you should check:

- If you specify the same port for more than one component, the installer uses the specified port for the first component, but for the other components, it uses the components' default ports. The installer does not warn you if you have specified the same port for multiple components.
- If you have syntax errors in the `staticports.ini` file (for example, if you omitted the = character for a line), the installer ignores the line. For the components specified on such lines, the installer assigns the default ports. The installer does not display a warning for lines with syntax errors.
- If you misspell a component name, the installer assigns the default port for the component. Names of components in the file are case-sensitive. The installer does not display a warning for lines with unrecognized names.
- If you specify a non-numeric value for the port number, the installer ignores the line and assigns the default port number for the component. It does this without displaying any warning.
- If you specify a relative path to the `staticports.ini` file, the installer will not find the file. The installer continues without displaying a warning and assigns default ports to all components. You must specify a complete path to the `staticports.ini` file.

3.3.4.3 Ports for Oracle HTTP Server and OracleAS Web Cache

In the `httpd.conf` file for Oracle HTTP Server, the `Port` and the `Listen` directives specify the ports used by OracleAS Web Cache and Oracle HTTP Server. The correct lines in the `staticports.ini` file for setting these ports depend on the components that you are configuring.

Ensure that you understand the following when setting ports for these components.

If You Are Configuring OracleAS Web Cache and Oracle HTTP Server

1. Set the port for OracleAS Web Cache.

OracleAS Web Cache uses the port specified by the `Port` directive (Figure 3-1). To set this port, use this line in the `staticports.ini` file:

```
Web Cache HTTP Listen port = port_number
```

To configure the SSL port for OracleAS Web Cache, use the following line:

```
Web Cache HTTP Listen (SSL) port = port_number
```

You cannot set the port number using the `Oracle HTTP Server port` line in this case. If the `staticports.ini` file contains both the `Oracle HTTP Server port` and the `Web Cache HTTP Listen port` lines, the `Oracle HTTP Server port` line is ignored. For example, if you have these lines in `staticports.ini`:

```
Web Cache HTTP Listen port = 7979
Oracle HTTP Server port = 8080
```

the `Port` directive is set to 7979.

2. Set the port for Oracle HTTP Server.

Oracle HTTP Server uses the port specified by the `Listen` directive. To set this port, use this line in the `staticports.ini` file:

```
Oracle HTTP Server Listen port = port_number
```

To configure the SSL Listen port, use the following line:

```
Oracle HTTP Server Listen (SSL) port = port_number
```

Figure 3-1 Configuring Both OracleAS Web Cache and Oracle HTTP Server

	Uses this directive in the <code>httpd.conf</code> file	Line in <code>staticports.ini</code> to set the value for the directive
OracleAS Web Cache	Port	Web Cache HTTP Listen port
Oracle HTTP Server	Listen	Oracle HTTP Server Listen port

If You Are Configuring Oracle HTTP Server Only (no OracleAS Web Cache)

If you are configuring Oracle HTTP Server only, then Oracle HTTP Server uses both `Port` and `Listen` directives (Figure 3-2). In this case, you must set both directives to use the same port number.

To set these ports, use the `Oracle HTTP Server port` and `Oracle HTTP Server Listen port` lines in the `staticports.ini` file. For example:

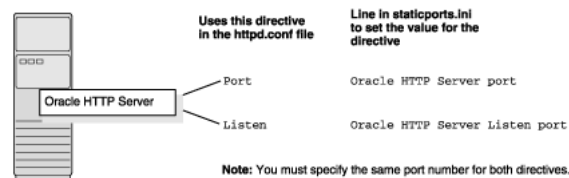
```
Oracle HTTP Server port = 8080
Oracle HTTP Server Listen port = 8080
```

To set the SSL version of these ports, use the following lines. As in the non-SSL version, the port numbers must be the same.

```
Oracle HTTP Server SSL port = 443
Oracle HTTP Server Listen (SSL) port = 443
```

If you also specify the Web Cache lines in `staticports.ini`, they are ignored because you are not configuring OracleAS Web Cache.

Figure 3–2 Configuring Only Oracle HTTP Server



3.4 Operating System User

The operating system user performing the installation must belong to the Administrators group.

Note: The user must be listed directly in the Administrators group. The user cannot belong to the Administrators group indirectly (for example, by being a member of a group that is part of the Administrators group).

Perform the following steps to check if you belong to the Administrators group:

1. Display the Computer Management dialog.
On Windows 2003 server for itanium: Right-click the local computer icon on the desktop and select **Manage**.
2. On the left side, expand **Local Users and Groups**, and select **Users**.
3. On the right side, right-click the user and select **Properties**. This displays the Properties dialog.
4. In the Properties dialog, select the **Member Of** tab.

If you are not a member of the Administrators group, get an administrator to add you to the group or log in as a user who is a member of the Administrators group.

3.5 Environment Variables

The operating system user who will be installing Forms and Reports Services needs to set (or unset) the environment variables listed in [Table 3–6](#).

It includes the following sections:

- [Section 3.5.1, "How to Set Environment Variables"](#)
- [Section 3.5.2, "ORACLE_HOME and ORACLE_SID"](#)
- [Section 3.5.3, "PATH, CLASSPATH"](#)
- [Section 3.5.4, "TEMP"](#)
- [Section 3.5.5, "TNS_ADMIN"](#)
- [Section 3.5.6, "REPORTS_DEFAULT_DISPLAY"](#)

Table 3–6 Summary of Environment Variables

Environment Variable	Set or Unset
ORACLE_HOME and ORACLE_SID	Does not matter (the installer unsets these two environment variables).
PATH, CLASSPATH	Must not contain references to directories in any Oracle home directories. Must not be longer than 1023 characters.
TEMP	Optional. If unset, defaults to C:\temp.
TNS_ADMIN	Must not be set.
REPORTS_DEFAULT_DISPLAY	Default set to YES. If set to NO, ensure that you specify the appropriate display.

3.5.1 How to Set Environment Variables

This section describes how to set environment variables in Windows:

1. Display the System control panel.
On Windows 2003 server for Itanium: Select **Start > Control Panel > System**.
2. Select the **Advanced** tab.
3. Click **Environment Variables**.
4. To change the value of a variable, select the variable and click **Edit**.

3.5.2 ORACLE_HOME and ORACLE_SID

It does not matter if these environment variables are set or unset when you start the installer because the installer unsets these environment variables.

3.5.3 PATH, CLASSPATH

Edit the PATH, CLASSPATH environment variables so that they do not reference any Oracle home directories.

3.5.4 TEMP

During installation, the installer needs to write temporary files to a "temporary" directory. By default, the "temporary" directory is C:\temp.

If you want the installer to use a directory other than C:\temp, set the TEMP environment variable to the full path of an alternate directory. This directory must meet the requirements listed in [Table 3–1](#).

If you do not set this environment variable, and the default directory does not have enough space, then the installer displays an error message that says the environment variable is not set. You can either set the environment variable to point to a different directory or free up enough space in the default directory. In either case, you have to restart the installation.

3.5.5 TNS_ADMIN

Ensure that the TNS_ADMIN environment variable is not set when you run the installer. If set, then it can cause errors during installation.

3.5.6 REPORTS_DEFAULT_DISPLAY

The `REPORTS_DEFAULT_DISPLAY` environment variable specifies whether to implement the following for Oracle Reports:

- Elimination of dependency on `DISPLAY`
- Elimination of dependency on having a valid printer defined for font information
- `ScreenPrinter` (`screenprinter.ppd`) for surface resolution for images and font information
- Advanced Imaging Support

For Oracle Reports, if `REPORTS_DEFAULT_DISPLAY=YES`, it overrides any value set for the `DISPLAY` environment variable. For more information about `REPORTS_DEFAULT_DISPLAY`, see the *Oracle Application Server Reports Services Publishing Reports to the Web* manual.

Note: `REPORTS_DEFAULT_DISPLAY` is used for Oracle Reports only and is not applicable to the Oracle Application Server installer. The installer continues to use the `DISPLAY` environment variable even if `REPORTS_DEFAULT_DISPLAY` is set to `YES`.

3.6 The %WINDIR%\system32\drivers\etc\hosts File

Although the contents of the `%WINDIR%\system32\drivers\etc\hosts` file affect these items:

- [Section 3.6.1, "Location of the Default Oracle Identity Management Realm"](#)
- [Section 3.6.2, "Hostname for OracleAS Single Sign-On"](#)

the installer provides alternative methods for you to enter the values that you want without editing the `hosts` file. See the following subsections for details.

`%WINDIR%` specifies the Windows operating system directory. Typically, it is `C:\WINDOWS` for Windows 2003 server for Itanium.

3.6.1 Location of the Default Oracle Identity Management Realm

The installer reads the `hosts` file to construct the location of the default Oracle Identity Management realm. It displays this location in the "Specify Namespace in Internet Directory" screen.

The `hosts` file should use the following format:

```
ip_address    fully_qualified_hostname    short_hostname
```

Example:

```
123.45.67.89    primaryHost.mydomain.com    primaryHost
```

In the preceding example, the location of the default Oracle Identity Management realm would look like "dc=mydomain,dc=com".

If the file uses a different format, the installer displays an incorrect value in the screen. For example, if the `hosts` file contains:

```
123.45.67.89    primaryHost    primaryHost.mydomain.com    <--- incorrect format
```

the installer would display "dc=primaryHost,dc=com" as the default Oracle Identity Management realm. This is probably not the value that you want for the default Oracle Identity Management realm.

Tip: If you need the `hosts` file to use a different format, you can edit the file to use the required format, perform the installation, then revert the file back to its original format after installation.

If you are unable, or unwilling, to edit the `hosts` file, you can enter the desired value for the default Oracle Identity Management realm in the Custom Namespace field on the "Specify Namespace in Internet Directory" screen.

3.6.2 Hostname for OracleAS Single Sign-On

If you are installing OracleAS Single Sign-On, and your `hosts` file contains only the hostname of your computer, without the domain name, then you will only be able to sign on to the Single Sign-On server using the hostname by itself (without the domain name).

If you want to require a domain name when connecting to the Single Sign-On server, you can edit the `hosts` file to include the domain name. If you do not want to edit the file, you can use the `OUI_HOSTNAME` command-line parameter to the installer to override the value in `hosts`. For example:

```
E:\> setup.exe OUI_HOSTNAME=myserver.mydomain.com
```

3.7 Network Topics

Typically, the computer on which you want to install Forms and Reports Services is connected to the network, has local storage to contain the Forms and Reports Services installation, has a display monitor, and has a CD-ROM or DVD-ROM drive.

This section describes the procedure to install Forms and Reports Services on computers that do not meet the typical scenario. It covers the following cases:

- [Installing on DHCP Computers](#)
- [Installing on Multihomed \(Multi-IP\) Computers](#)
- [Installing on Computers with Multiple Aliases](#)
- [Installing on Non-Networked Computers](#)
- [Installing on Static IP Computers that You Want to Disconnect from the Network Later](#)
- [Installing a Loopback Adapter](#)
- [Copying CD-ROMs or DVD-ROM to Hard Drive, and Installing from the Hard Drive](#)
- [Installing from a Remote CD-ROM or DVD-ROM Drive](#)
- [Installing on Remote Computers](#)

3.7.1 Installing on DHCP Computers

Note this limitation when running Forms and Reports Services on DHCP computers: Forms and Reports Services instances on DHCP computers cannot communicate with instances running on other computers. All the instances that need to communicate

with each other must run on the same computer. There are no limitations on clients; clients from other computers can access instances running on the DHCP computer, as long as the client computer can resolve the DHCP computer on the network.

3.7.2 Installing on Multihomed (Multi-IP) Computers

A multihomed computer is associated with multiple IP addresses. This is achieved by having multiple network cards on the computer. Each IP address is associated with a hostname; additionally, you can set up aliases for the hostname. By default, Oracle Universal Installer uses the `ORACLE_HOSTNAME` environment variable setting to find the hostname. If `ORACLE_HOSTNAME` is not set and you are installing Forms and Reports Services on a computer that has multiple network cards, Oracle Universal Installer determines the hostname by using the first name in the hosts file (typically located in `DRIVE_LETTER:\WINDOWS\system32\drivers\etc`)

You may need to reorder the lines in this file so that the required hostname appears first. You can change the file back to its original state after installation.

Clients must be able to access the computer using this hostname (or using aliases for this hostname). To check, ping the hostname from the client computers using the short name (hostname only) and the full name (hostname and domain name). Both must work.

3.7.3 Installing on Computers with Multiple Aliases

A computer with multiple aliases is registered with the naming service under a single IP but with multiple aliases. The naming service resolves any of those aliases to the same computer. Before installing Oracle Application Server on such a computer, set the `ORACLE_HOSTNAME` environment variable to the computer whose hostname you want to use.

For information on setting environment variables, see [Section 3.5.1, "How to Set Environment Variables"](#).

3.7.4 Installing on Non-Networked Computers

You can install Forms and Reports Services on a non-networked computer, such as a laptop. Because a non-networked computer has no access to other computers, you have to install all the components that you need on the computer. Examples:

- You can install a J2EE and Web Cache middle tier without Oracle Identity Management or farm repository.
- If you install a middle tier that requires infrastructure services, you need to install both OracleAS Infrastructure and middle tier on the computer. Ensure your computer has enough resources to run both instances. See [Section 3.1.1, "Memory and Pagefile Requirements for Running Multiple Instances on the Same Computer"](#).

Note that to install Forms and Reports Services on a non-networked computer, the computer must have networking capabilities. Non-networked means that the computer is not connected to a network.

If you want to install Forms and Reports Services on a non-networked computer, and you never want to connect the computer to a network after installation, ever, then you can just go ahead and install Oracle Application Server on your non-networked computer.

However, if you plan to connect the computer to a network after installation, perform these steps before you install Forms and Reports Services on the non-networked computer.

1. Install a loopback adapter on the computer. See [Section 3.7.6, "Installing a Loopback Adapter"](#).

The loopback adapter and local IP address simulate a networked computer. If you connect the computer to the network, Forms and Reports Services still uses the local IP and hostname.

2. Ping the computer from itself, using only the hostname and using the fully qualified name.

For example, if you installed a loopback adapter on a computer called `mycomputer`, check the following:

```
prompt> ping mycomputer                Ping itself using just the hostname.
Reply from 10.10.10.10                  Returns loopback adapter IP.
prompt> ping mycomputer.mydomain.com   Ping using a fully qualified name.
Reply from 10.10.10.10                  Returns loopback adapter IP.
```

Note: When you ping a computer from itself, the `ping` command should return the IP of the loopback adapter.

If `ping` fails, then you need to talk with your network administrator.

Connecting the Computer to the Network After Installation

If you connect the computer to a network after installation, your Forms and Reports Services instance on your computer can work with other instances on the network. Recall that you must have installed a loopback adapter on your computer. Your computer can use a static IP or DHCP, depending on the network to which you are connected.

See the Oracle Application Server Administrator's Guide for details.

3.7.5 Installing on Static IP Computers that You Want to Disconnect from the Network Later

If you plan to install Forms and Reports Services on a networked computer with static IP and you want to be able to run Forms and Reports Services when you disconnect the computer from the network, you need to do the following steps before installing Forms and Reports Services:

1. Install a loopback adapter on your computer. See [Section 3.7.6, "Installing a Loopback Adapter"](#) for details.

Without a loopback adapter, Forms and Reports Services cannot function correctly when you disconnect the computer from the network because the static IP is no longer available.

2. Make sure the loopback adapter is the primary network adapter. To check, ping the computer from itself using (1) the hostname only and (2) the fully qualified name.

For example, if you installed a loopback adapter on a computer called `mycomputer`, you can run these commands:

```

prompt> ping mycomputer                Ping itself using just the hostname.
Reply from 10.10.10.10                Returns loopback adapter IP.
prompt> ping mycomputer.mydomain.com  Ping using a fully qualified name.
Reply from 10.10.10.10                Returns loopback adapter IP.

```

When you ping a computer from itself, the ping command should return the IP of the loopback adapter. It should not return the network IP of the computer.

These steps are required regardless of whether the computer is using static IP or DHCP. If this is a DHCP computer, you already know you need a loopback adapter; see [Section 3.7.1, "Installing on DHCP Computers"](#).

When you disconnect the computer from the network, the computer has no access to any network resources. Make sure you have all the instances (for example, OracleAS Infrastructure and middle tier) you need on your computer.

3.7.6 Installing a Loopback Adapter

A loopback adapter is required in any of these scenarios:

- you are installing on a DHCP computer (see [Section 3.7.1, "Installing on DHCP Computers"](#)), or
- you are installing on a non-networked computer and plan to connect the computer to a network after installation (see [Section 3.7.4, "Installing on Non-Networked Computers"](#)), or
- you are installing on a computer with multiple aliases (see [Section 3.7.3, "Installing on Computers with Multiple Aliases"](#)), or
- you are installing on a networked computer (with static IP or DHCP), but you want to be able to run Oracle Application Server when you take the computer off the network.

The procedure for installing a loopback adapter depends on the version of Windows:

- [Section 3.7.6.1, "Checking If a Loopback Adapter Is Installed on Your Computer"](#)
- [Section 3.7.6.2, "Installing a Loopback Adapter on Windows 2003 server for Itanium"](#)
- [Section 3.7.6.3, "Checking the Hostname"](#)
- [Section 3.7.6.4, "Removing a Loopback Adapter on Windows 2003 server for Itanium"](#)

3.7.6.1 Checking If a Loopback Adapter Is Installed on Your Computer

To check if a loopback adapter is installed on your computer, run the "ipconfig /all" command:

```
prompt> ipconfig /all
```

If there is a loopback adapter installed, you would see a section that lists the values for the loopback adapter. For example:

```

Ethernet adapter Local Area Connection 2:
    Connection-specific DNS Suffix . . :
    Description . . . . . : Microsoft Loopback Adapter
    Physical Address. . . . . : 02-00-4C-4F-4F-50
    DHCP Enabled. . . . . : Yes
    Autoconfiguration Enabled . . . . : Yes
    Autoconfiguration IP Address. . . : 169.254.25.129

```

Subnet Mask : 255.255.0.0

3.7.6.2 Installing a Loopback Adapter on Windows 2003 server for Itanium

To install a loopback adapter on Windows 2003 or Windows XP:

1. Open the Windows Control Panel.
Windows 2003: Select **Start > Control Panel > System**.
Windows XP: Select **Start > Control Panel**, then double-click **System**.
2. Double-click **Add Hardware** to start the Add Hardware wizard.
3. In the Welcome window, click **Next**.
4. In the Is the hardware connected? window, select **Yes, I have already connected the hardware**, and click **Next**.
5. In the The following hardware is already installed on your computer window, in the list of installed hardware, select **Add a new hardware device**, and click **Next**.
6. In the The wizard can help you install other hardware window, select **Install the hardware that I manually select from a list**, and click **Next**.
7. In the From the list of hardware types, select the type of hardware you are installing window, select **Network adapters**, and click **Next**.
8. In the Select Network Adapter window, make the following selections:
 - **Manufacturer**: select **Microsoft**.
 - **Network Adapter**: select **Microsoft Loopback Adapter**.
9. Click **Next**.
10. In the The wizard is ready to install your hardware window, click **Next**.
11. In the Completing the Add Hardware Wizard window, click **Finish**.
12. If you are using Windows 2003, restart your computer.
13. Right-click **My Network Places** on the desktop and choose **Properties**. This displays the Network Connections Control Panel.
14. Right-click the connection that was just created. This is usually named "Local Area Connection 2". Choose **Properties**.
15. On the **General** tab, select **Internet Protocol (TCP/IP)**, and click **Properties**.
16. In the Properties dialog box, click **Use the following IP address** and do the following:
 - a. **IP Address**: Enter a non-routable IP for the loopback adapter. Oracle recommends the following non-routable addresses:
 - 192.168.x.x (x is any value between 1 and 255)
 - 10.10.10.10
 - b. **Subnet mask**: Enter 255.255.255.0.
 - c. Record the values you entered, which you will need later in this procedure.
 - d. Leave all other fields empty.
 - e. Click **OK**.
17. Click **OK** in the Local Area Connection 2 Properties dialog.

18. Close Network Connections.**19. Restart the computer.****20. Add a line to the C:\winnt\system32\drivers\etc\hosts file with the following format, right after the localhost line:**

```
IP_address hostname.domainname hostname
```

where:

- *IP_address* is the non-routable IP address you entered in step 14.
- *hostname* is the name of the computer.
- *domainname* is the name of the domain.

For example:

```
10.10.10.10 mycomputer.mydomain.com mycomputer
```

21. Check the network configuration:

- a. Open **System** in the Control Panel, and select the **Computer Name** tab. In **Full computer name**, make sure you see the host name and the domain name, for example, `sales.us.mycompany.com`.
- b. Click **Change**. In **Computer name**, you should see the host name, and in **Full computer name**, you should see the host name and domain name. Using the previous example, the host name would be `sales` and the domain name would be `us.mycompany.com`.
- c. Click **More**. In **Primary DNS suffix of this computer**, you should see the domain name, for example, `us.mycompany.com`.

3.7.6.3 Checking the Hostname

If your DHCP server also assigns the hostname for your computer (in addition to assigning an IP address), the installer might use this hostname instead of the hostname you defined locally.

To ensure that the installer uses the local hostname, you have two options:

- Option 1: Start up the installer with the `OUI_HOSTNAME` parameter. This parameter specifies the hostname that you want to use.

```
E:\> setup.exe OUI_HOSTNAME=myhostname.mydomain.com
```

- Option 2: Before running the installer, add a line to the C:\winnt\system32\drivers\etc\hosts file with the following format:

```
IP_address hostname.domainname hostname
```

This line should come after the `localhost` line in the file.

Replace *IP_address* with the loopback adapter's IP address. This should be a non-routable IP address.

Replace *hostname* and *domainname* with the appropriate values.

Example:

```
10.10.10.10 mycomputer.mydomain.com mycomputer
```

If you have already installed Oracle Application Server, you can change the hostname after installation using the change IP/hostname procedures documented in the Oracle Application Server Administrator's Guide.

3.7.6.4 Removing a Loopback Adapter on Windows 2003 server for Itanium

To remove a loopback adapter on Windows 2003 server for Itanium:

1. Display the System control panel.
Windows 2003: Select **Start > Control Panel > System**.
2. In the Hardware tab, click **Device Manager**.
3. In the Device Manager windows, expand **Network adapters**. You should see **Microsoft Loopback Adapter**.
4. Right-click **Microsoft Loopback Adapter** and select **Uninstall**.
5. Click **OK**.

3.7.7 Copying CD-ROMs or DVD-ROM to Hard Drive, and Installing from the Hard Drive

Instead of installing from the Forms and Reports Services CD-ROMs or DVD-ROM, you can copy the contents of the CD-ROMs or DVD-ROM to a hard drive and install from the hard drive. This might be easier if you plan to install many instances of Forms and Reports Services on your network, or if the computers on which you want to install Forms and Reports Services do not have CD-ROM or DVD-ROM drives.

You can also install from remote CD-ROM or DVD-ROM drives. See [Installing from a Remote CD-ROM or DVD-ROM Drive](#).

When you install from the hard drive, the installer does not prompt you to swap CD-ROMs. It can find all the files if they are in the proper locations.

Accessing the Hard Drive from Other Computers:

If you want to install Forms and Reports Services on remote computers from the hard drive where you copied the contents of the CD-ROM or DVD-ROM, perform the following steps:

1. On the local computer, share the hard drive.
2. On the computers where you want to install Forms and Reports Services, map to the shared hard drive.
3. Run the installer from the remote computers on which you want to install Forms and Reports Services.

Note: You need to use the drive letter for the mapped drive to access the installer (for example, H: \orawinfrs_10_1_2\setup.exe).

You cannot use the universal naming convention (UNC) syntax (\hostname\sharename) to access the installer.

To copy the CD-ROMs:

1. Create a parent directory (for example, orawinfrs) and, under the parent directory, create subdirectories called `Disk1`, `Disk2`, and so on. The names of the subdirectories must be `DiskN`, where N is the CD-ROM number.

2. Copy the contents of each CD-ROM into the corresponding directory. You can copy the files using Windows Explorer or the command line. If you are using the command line, you can use the `xcopy` command.

The following example assumes E: is the CD-ROM drive, and C:\orawinfrs\DiskN are the directories that you want to copy the CD-ROMs to.

```
E:\> xcopy /e /i E:\1012disk1 C:\orawinfrs\Disk1
E:\> xcopy /e /i E:\1012disk2 C:\orawinfrs\Disk2
... Repeat for each CD-ROM.
```

To run the installer from the copied files, invoke the `runInstaller` executable from the `Disk1` directory. Run it from the computer that will be running Forms and Reports Services.

```
C:\> cd orawinfrs\Disk1
C:\orawinfrs\Disk1> setup.exe
```

To copy the orawinfrs Directory from the DVD-ROM

You can copy the `orawinfrs` directory using Windows Explorer or the command line. If you are using the command line, here are the steps:

1. (optional) Create a directory to contain the `orawinfrs` directory.
2. Copy the `orawinfrs` directory from the DVD-ROM to your hard disk.

The example assumes E: is the DVD-ROM drive, and C:\orawinfrs is the destination directory:

```
E:\> xcopy /e /i E:\orawinfrs C:\orawinfrs
```

To run the installer from the copied files, invoke the `setup.exe` executable from the computer that will be running Forms and Reports Services:

```
C:\> cd orawinfrs
C:\orawinfrs> setup.exe
```

3.7.8 Installing from a Remote CD-ROM or DVD-ROM Drive

If the computer on which you want to install Forms and Reports Services does not have a CD-ROM or DVD-ROM drive, you can perform the installation from a remote CD-ROM or DVD-ROM drive. Check that you have performed these steps:

On the Remote Computer, Share the CD-ROM or DVD-ROM Drive

The remote CD-ROM or DVD-ROM drive that you want to use must allow shared access. To set this up, perform these steps on the remote computer (the computer that has the CD-ROM or DVD-ROM drive):

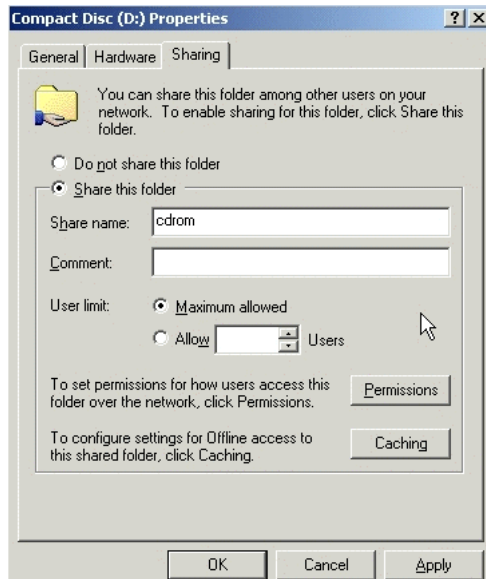
1. Log on to the remote computer as an Administrator user.
2. Start up Windows Explorer.
3. Right-click the CD-ROM or DVD-ROM drive letter and choose **Sharing** (Windows 2000) or **Sharing and Security** (Windows 2003, Windows XP).
4. On the **Sharing** tab (Figure 3-3):
Select **Share this folder**.

Share name: Give it a share name such as `cdrom` or `dvd`. You will use this name when you map the CD-ROM or DVD-ROM drive on the local computer.

Click **Permissions**. The user who accesses this folder to install Forms and Reports Services will need at least read permission.

Click **OK** when done.

Figure 3–3 Sharing a CD-ROM Drive



5. CD-ROM: Insert Forms and Reports Services Disk 1 into the CD-ROM drive.
DVD-ROM: Insert the Forms and Reports Services DVD into the DVD-ROM drive.

3.7.9 Installing on Remote Computers

If you want to install and run Forms and Reports Services on a remote computer (that is, the remote computer has the hard drive and will run Forms and Reports Services components), but you do not have physical access to the computer, you can still perform the installation on the remote computer if it is running remote control software such as VNC or Symantec pcAnywhere. You also need the remote control software running on your local computer.

You can install Forms and Reports Services on the remote computer in one of two ways:

- If you have copied the contents of the Forms and Reports Services CD-ROM or DVD-ROM to a hard drive, you can install from the hard drive.
- You can insert the CD-ROM or DVD-ROM into a drive on your local computer, and install from the CD-ROM or DVD-ROM.

Installing from a Hard Drive

If you have copied the contents of the Forms and Reports Services CD-ROM or DVD-ROM to a hard drive, you can install from the hard drive.

The steps that you have to do are:

1. Make sure that the remote control software is installed and running on the remote and local computers.

2. Share the hard drive that contains the Forms and Reports Services CD-ROM or DVD-ROM.
3. On the remote computer, map a drive letter to the shared hard drive. You would use the remote control software to do this on the remote computer.
4. Through the remote control software, run the installer on the remote computer. You access the installer from the shared hard drive.

Installing from a Remote CD-ROM or DVD-ROM Drive

You can insert the CD-ROM or DVD-ROM into a drive on your local computer, and install from the CD-ROM or DVD-ROM. This is similar to the scenario described in [Section 3.7.8, "Installing from a Remote CD-ROM or DVD-ROM Drive"](#).

The steps that you have to do are:

1. Make sure that the remote control software is installed and running on the remote and local computers.

2. On the local computer, share the CD-ROM or DVD-ROM drive.

On the remote computer, map a drive letter to the shared CD-ROM or DVD-ROM drive. You would use the remote control software to do this on the remote computer.

These steps are described in [Section 3.7.8, "Installing from a Remote CD-ROM or DVD-ROM Drive"](#).

3. Using the remote control software, run the installer on the remote computer. You access the installer from the shared CD-ROM or DVD-ROM drive.

3.8 Prerequisite Checks Performed by the Installer

[Table 3-7](#) lists the checks performed by the installer:

Table 3-7 Prerequisite Checks Performed by the Installer

Item	Description
User	The installer checks that the user has administrative privileges.
CPU	Checks that the CPU meets the minimum speed requirement.
Operating system version	See Table 3-1 for supported versions.
Windows service pack	See Table 3-1 for supported service packs.
Memory	See Table 3-1 for recommended values.
Total pagefile (virtual memory) size	See Table 3-1 for recommended values.
Swap space	See Table 3-1 for recommended values.
TMP space	See Table 3-1 for recommended values.
Instance name	The installer checks that the computer on which you are installing Forms and Reports Services does not already have an instance of the same name.
Oracle home directory name	The installer checks that the Oracle home directory name does not contain any spaces.
Path to Oracle home directory	The installer checks that the path to the Oracle home directory is not longer than 127 characters.
Oracle home directory contents	The installer checks that the Oracle home directory does not contain any files that may interfere with the installation.

Table 3–7 (Cont.) Prerequisite Checks Performed by the Installer

Item	Description
Oracle home directory	<p>You should install Forms and Reports Services in a new directory, unless you are expanding middle tier or installing middle tier in an Oracle home that contains Oracle Developer Suite. Here are some examples of installations that are <i>not allowed</i>:</p> <ul style="list-style-type: none"> ▪ Any type of Oracle Application Server 10g into an Oracle Management Service Oracle home ▪ Any type of Oracle Application Server 10g into an Oracle Collaboration Suite Oracle home ▪ Any type of Oracle Application Server 10g into an Oracle HTTP Server standalone Oracle home ▪ Any type of Oracle Application Server 10g into an OracleAS Web Cache standalone Oracle home ▪ OracleAS Infrastructure 10g into an Oracle Application Server 10g Forms and Reports Services middle tier or OracleAS Developer Kits 10g Oracle home
Static port conflicts	The installer checks the ports listed in the <code>staticports.ini</code> file, if specified. For more information about the <code>staticports.ini</code> file, see Section 3.3, "Ports" .
Monitor	The installer checks that the monitor is configured to display at least 256 colors.
Cluster file system	The installer checks that you are not installing Oracle Application Server in a cluster file system (CFS).
Display permission	The installer checks that the user has permissions to display on the monitor specified by the <code>DISPLAY</code> environment variable.
DISPLAY environment variable	The installer checks that the <code>DISPLAY</code> environment variable is set.
Oracle Enterprise Manager directories are writable	<p>The installer runs this check only if you are expanding a middle tier or reinstalling Forms and Reports Services in the same Oracle home. The installer checks that these directories are writable by the operating system user running the installer:</p> <ul style="list-style-type: none"> ▪ <code>%ORACLE_HOME%\sysman\emd</code> ▪ <code>%ORACLE_HOME%\sysman\config</code> ▪ <code>%ORACLE_HOME%\sysman\webapps\emd\WEB-INF\config</code>
Oracle Enterprise Manager files exist	<p>The installer runs this check only if you are expanding a middle tier or if you are reinstalling Forms and Reports Services in the same Oracle home. The installer checks that these files exist:</p> <ul style="list-style-type: none"> ▪ <code>%ORACLE_HOME%\sysman\config\iasadmin.properties</code> ▪ <code>%ORACLE_HOME%\sysman\webapps\emd\WEB-INF\config\consoleConfig.xml</code>

Considerations Before Starting the Installation

This chapter contains the following topics:

- [Section 4.1, "Oracle Home Directory"](#)
- [Section 4.2, "First-Time Installation of Any Oracle Product"](#)
- [Section 4.3, "Installing Additional Languages"](#)
- [Section 4.4, "Forms and Reports Services Instances and Instance Names"](#)
- [Section 4.5, "The `ias_admin` User"](#)
- [Section 4.6, "Installer File Locations"](#)
- [Section 4.7, "Starting Oracle Universal Installer"](#)

4.1 Oracle Home Directory

The directory in which you install Forms and Reports Services is called the Oracle home. During installation, you must specify the full path to this directory and a name for this Oracle home.

For example, you can install Forms and Reports Services in `/opt/oracle/` and you can name it `oralinfrs`.

4.2 First-Time Installation of Any Oracle Product

If Forms and Reports Services is the first Oracle product to be installed on a computer, the installer displays a screen where you specify an "inventory" directory (also called the "oraInventory" directory). This inventory directory is used by the installer to keep track of all Oracle products installed on the computer.

The inventory directory is separate from the Oracle home directory for Forms and Reports Services.

To ensure that other users in the `oinstall` group have access to the inventory directory (so that they can install Oracle products), do not use the `oracle` user's home directory as the inventory directory because home directories might not have the proper permissions set up for the `oinstall` group. Instead, you can put the inventory directory in the `\opt\oracle` directory (for example, `\opt\oracle\oraInventory`).

If you have installed an Oracle product on the computer previously, the installer uses the existing inventory directory. Ensure that you have write permissions on that

directory. The best way of ensuring this is to run the installer as the same operating system user who installed the existing Oracle products.

It is recommended that you create an operating system user to perform all tasks related to installation of Oracle products. See [Section 3.9, "Operating System User"](#).

4.3 Installing Additional Languages

By default, the installer installs Forms and Reports Services with text in English and in the operating system language. If you need to install additional languages, click **Product Languages** on the Available Product Components screen.

Note that you cannot install additional languages after installation. You must install additional languages only during installation. If you run Forms and Reports Services in an environment that uses a language you did not install, the user interface may display text in that language and in English, or it may display square boxes (caused by missing fonts) instead of text.

4.4 Forms and Reports Services Instances and Instance Names

When you install Forms and Reports Services, an instance of Forms and Reports Services is created. The installer prompts you to provide a name for this new instance that you are installing. For example, you can name an instance `oralinfrrs` or `J2EE_1012`. This name can be different from the Oracle home name. You cannot change this name after installation.

The Enterprise Manager appends the hostname and domain name to the given instance name to form a complete instance name. For example, if you are installing an instance on a computer named `c1`, and you name the instance `frs1`, then the full name of the instance is `frs1.c1.mydomain.com`, assuming the domain name is `mydomain.com`.

Valid Characters in Instance Names

Instance names can consist only of the alphanumeric characters (A-Z, a-z, 0-9) and the \$ or _ (underscore) characters.

There is no maximum length restriction for instance names.

How Forms and Reports Services Uses Instance Names

Instance names are important because Forms and Reports Services uses them to uniquely identify instances. This means that if you install multiple Forms and Reports Services instances on the same computer (for example, an OracleAS Infrastructure 10g and a J2EE and Web Cache instance), you must give them different names.

When you administer Forms and Reports Services using Oracle Enterprise Manager Application Server Control, the instance name appears on the screens. You can click the instance name to see details about the instance, such as the components that are installed in that instance, whether the components are running or stopped, and the log files for the components. The Application Server Control is a browser-based administration tool for Forms and Reports Services. See the *Oracle Application Server Administrator's Guide* for details about this administration tool.

4.5 The `ias_admin` User

The installer prompts you to specify a password for the `ias_admin` user. The `ias_admin` user is the administrative user for Forms and Reports Services instances. To

manage Forms and Reports Services instances using Application Server Control, log on as `ias_admin`.

On a computer, you can install multiple Forms and Reports Services instances, each with its own unique instance name, but the name of the administrative user is `ias_admin` for all instances. The password for the `ias_admin` user can be different for each instance.

Each Forms and Reports Services instance has its own password. Even if you install multiple Forms and Reports Services instances on the same computer using the same operating system user, you have to enter a new password for each instance on the same computer.

Password for the `ias_admin` User

The password for the `ias_admin` user must conform to the following password policy:

- The minimum length is five alphanumeric characters.
- At least one of the characters must be a number.

The password for the `ias_admin` user has these restrictions:

- Passwords must be shorter than 30 characters.
- Passwords can contain only alphanumeric characters from your database character set, the underscore (`_`), the dollar sign (`$`), and the number sign (`#`).
- Passwords must begin with an alphabetic character. Passwords cannot begin with a number, the underscore (`_`), the dollar sign (`$`), or the number sign (`#`).
- Passwords cannot be Oracle reserved words. Appendix C in the *Oracle9i SQL Reference* guide lists the reserved words. You can find this guide on Oracle Technology Network (<http://www.oracle.com/technology>). Alternatively, avoid using words that sound as though they may be reserved words.

You must remember the password because you need to enter it to perform the following task:

- When you log on to Application Server Control to manage Forms and Reports Services, you log on as the `ias_admin` user.

If you forget the password, you can reset it. See the *Oracle Application Server Administrator's Guide* for details.

4.6 Installer File Locations

The installer writes files to the following directories:

Table 4–1 Directories to Which the Installer Writes Files

Directory	Description
Oracle home directory	Directory in which you install Oracle Application Server 10g Forms and Reports Services.
Inventory directory	Directory that the installer uses to keep track of the Oracle products installed on the computer. In subsequent installations, the installer uses the same inventory directory.

4.7 Starting Oracle Universal Installer

To start Oracle Universal Installer:

1. Log in to the computer as a user who is a member of the Windows Administrators group.
2. If you are installing Oracle Application Server on a multihomed computer or a computer that uses multiple aliases, use the Windows System control panel to create the ORACLE_HOSTNAME system environment variable. Set this variable to point to the hostname of the computer on which you are installing Oracle Application Server.

See Also:

- [Section 3.5.1, "How to Set Environment Variables"](#)
- [Section 3.7.2, "Installing on Multihomed \(Multi-IP\) Computers"](#)
- [Section 3.7.3, "Installing on Computers with Multiple Aliases"](#)

3. If you are installing from your hard drive, go to the next step.
CD-ROM users: Insert Oracle Application Server Disk 1 into the CD-ROM drive.
DVD users: Insert the Oracle Application Server DVD into the DVD drive.
4. If you are installing from a CD-ROM or DVD and your computer supports the auto run feature, the installer launches automatically.

If you are installing from your hard drive or your computer does not support the auto run feature, you have to start up the installer manually:

Note: If you are running the installer on a computer that is already running Oracle Database 10g, then you have to start up the installer with the following option:

```
E:\> setup.exe -J-Dsun.java2d.noddraw=true
```

If you do not start up the installer with the option, then the installer may not display.

CD-ROM users: Double-click `setup.exe` in the main directory of the CD.

DVD users: Double-click `setup.exe` in the `application_server` directory.

Hard Drive users: Double-click `setup.exe` in the directory where you unzipped the Disk 1 file.

Installation Overview

It is highly recommended that you read this guide in its entirety to ensure a successful installation and to optimize the capabilities of this release.

There are a few restrictions with this installation. For more information about these restrictions, see [Section 2.1, "Restrictions with This Installation Type"](#).

To install Forms and Reports Services, follow these steps:

1. Read the latest versions of the following Release Notes:
 - *Oracle Application Server Forms and Reports Services Release Notes* contains release notes for OracleAS Forms Services, Oracle Forms Developer, OracleAS Reports Services, and Oracle Reports Developer. In addition, *Oracle Application Server Forms and Reports Services Release Notes* contains information about the features available in this installation type.
 - *Oracle Application Server Release Notes* contains general information about Oracle Application Server 10g Release 2 (10.1.2), as well as references to other sources of information. You can find the latest version of the release notes document on the Oracle Technology Network (<http://www.oracle.com/technology/documentation/ias.html>).
2. Start Oracle Universal Installer (OUI).

For information about starting OUI, see [Section 4.7, "Starting Oracle Universal Installer"](#).
3. The Welcome screen appears. Click **Next**.
4. The Specify File Locations screen appears. On the Specify File Locations screen, enter the following information:
 - **Name:** A name to identify this Oracle home. This name cannot contain spaces and can have a maximum length of 16 characters.
Example: `oralinfrs`
 - **Path:** The full path to the destination directory (Oracle home). If the directory specified does not exist, the installer creates it with administrative privileges.
5. Click **Next**.
6. The Product-Specific Prerequisite Checks screen appears. Verify that all product prerequisite checks complete successfully.
7. Click **Next**.
8. The Language Selection screen appears. This screen lists the additional languages that you can install to run Forms and Reports Services. Select the required language from the **Available Languages** list.

Note: By default, the installer installs Forms and Reports Services with text in English and in the operating system language.

9. Click **Next**.
10. The Specify Port Configuration Options screen appears.
 - Select **Automatic** to assign default ports to Forms and Reports Services. For more information about default ports, see the *Oracle Application Server Installation Guide*.
 - Select **Manual** if you want to manually configure the ports. If you select **Manual**, then create a port configuration file that specifies the port numbers that you want to use. Enter the entire path of the port configuration file in the field provided. For more information about the port configuration file, see the *Oracle Application Server Installation Guide*.
11. Click **Next**.
12. The Provide Outgoing Mail Server Information screen appears. Enter the outgoing mail (SMTP) server to be used by Forms and Reports Services.

Example: smtp.oracle.com

Note: This field is optional. However, you cannot distribute reports through e-mail until you have configured the mail server information. Refer to the *Oracle Application Server Reports Services Publishing Reports to the Web* manual for more information on specifying the outgoing mail server information.

13. The Specify Instance Name and ias_admin Password screen appears.
 - **Instance Name:** Enter a name for this instance. Instance names can contain only alphanumeric and underscore characters. If you have more than one Forms and Reports Services instance on a computer, then the instance names must be unique.
 - **ias_admin Password** and **Confirm Password:** Enter a password for the ias_admin user. This is the administrative user for the instance. By default, the password must have a minimum of five alphanumeric characters and at least one of the characters must be a number.

Note: Each Forms and Reports Services instance has its own password, regardless of the user performing the installation. Passwords are not shared across instances even if the instances are installed by the same user.

14. Click **Next**.
15. The Summary screen appears and lists all the components that will be installed. Click **Install** to complete the installation. The Summary screen shows the progress of the installation.

Note: At any time during the installation, click **Stop Installation** to exit.

When you install OracleAS Reports Services, the broadcast mechanism is configured for server communication. For information on changing this to the Common Object Service (COS) naming mechanism, see the *Oracle Application Server Reports Services Publishing Reports to the Web* manual.

If you want to retain the broadcast mechanism for communication, but if your Reports Server is located across subnets, configure the Oracle Reports bridge. For information on configuring the Oracle Reports bridge, see the *Oracle Application Server Reports Services Publishing Reports to the Web* manual. In case of the COS naming service, the Oracle Reports bridge is not needed even if your servers are located across subnets.

To configure Oracle Reports security, you must have OracleAS Portal installed, as the security information is stored in the OracleAS Portal repository. For information about configuring OracleAS Portal to store OracleAS Reports Services security information, refer to the Securing Oracle Reports white paper on OTN

(<http://www.oracle.com/technology/products/reports/htdocs/getstart/whitepapers/securing9i.pdf>).

Configuring Forms and Reports Services to Use an Oracle Application Server Infrastructure

In this release, you can configure Forms and Reports Services to use the services of an Oracle Application Server Infrastructure. This configuration enables Forms and Reports Services to be a part of an Oracle Application Server Farm. Forms and Reports Services can then use the services of an OracleAS Infrastructure in the same way as used by the Business Intelligence and Forms components.

Forms and Reports Services can be configured to use the following services:

- Oracle Identity Management

This enables Forms and Reports Services to use Oracle Identity Management components such as Oracle Application Server Single Sign-On, Oracle Internet Directory, and so on.

To configure Forms and Reports Services to use Oracle Identity Management, refer to [Section 6.1, "Configuring Forms and Reports Services to Use Oracle Identity Management"](#).

- Oracle Application Server Metadata Repository

This adds Forms and Reports Services to an OracleAS Farm, thus enabling it to join an OracleAS Cluster.

To configure Forms and Reports Services to use OracleAS Metadata Repository, refer to [Section 6.2, "Configuring Forms and Reports Services to Use OracleAS Metadata Repository"](#).

Note: Once you configure Forms and Reports Services, you *cannot* reverse this configuration, though you can reassociate to a different Oracle Identity Management and OracleAS Metadata Repository.

This chapter includes the following topics:

- [Configuring Forms and Reports Services to Use Oracle Identity Management](#)
- [Configuring Forms and Reports Services to Use OracleAS Metadata Repository](#)
- [Making the Reports Server Secure](#)
- [Starting OPMN Services](#)
- [Testing the Configuration on Oracle Application Server Forms Services](#)

- [Testing the Configuration on Oracle Application Server Reports Services](#)

6.1 Configuring Forms and Reports Services to Use Oracle Identity Management

This section describes the procedure to configure Oracle Identity Management. Oracle Identity Management components provide directory, security, and user-management functionality. Some of these components (such as OracleAS Single Sign-On) have schemas in the Oracle Application Server Metadata Repository.

Before starting the configuration, ensure that:

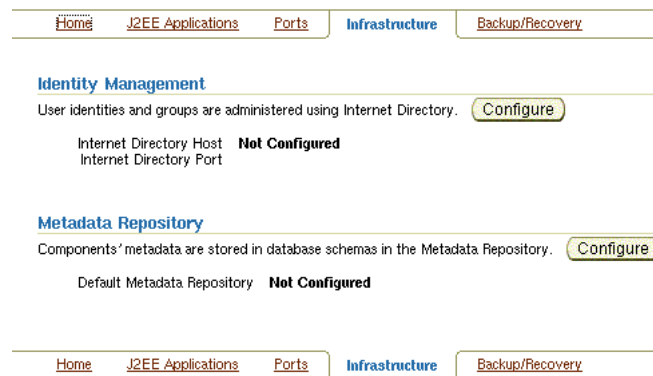
- The Oracle Identity Management instance is started (status is Up)
- You know the Oracle Internet Directory host and port numbers
- You know the password for `cn=orcladmin`, or another user who is a member of the `iASAdmins` group

To configure Oracle Identity Management:

1. Navigate to the Application Server Control home page.
2. Click **Infrastructure**.

Internet Directory Host in the Identity Management section and Default Metadata Repository in the Metadata Repository section display **Not Configured** as shown in [Figure 6-1](#).

Figure 6-1 Identity Management and Metadata Repository Sections



3. In the Identity Management section, click **Configure** to display the Configure Identity Management: Internet Directory page.
4. On the Configure Identity Management: Internet Directory page:
 - a. In the **Host** field, enter the name of the computer on which Oracle Internet Directory and Identity Management are running.
For example, `host.oracle.com`
 - b. In the **Port** field, enter the port at which Oracle Internet Directory is listening. The default port number is 389.
 - c. Select **Use Only SSL Connections with Internet Directory** if you want to use only SSL to connect to Oracle Internet Directory.

Note: If you select **Use Only SSL Connections with Internet Directory**, then the default port number is 636.

- d. Click **Next** to display the Configure Identity Management: Login page.
5. On the Configure Identity Management: Login page:
 - a. In the **User Name** field, the user name to log on to Oracle Internet Directory is displayed as `cn=orcladmin`. You may change this provided the user belongs to the `IASAdmin` group and the user name is in the `cn=user_name` format. For example, `cn=admin` where `admin` is the username.

You must log on as a user who belongs to the necessary groups in Oracle Internet Directory. For more information about the necessary groups, see the *Oracle Application Server Installation Guide*.
 - b. In the **Password** field, enter the password for the user name.
 - c. Click **Next** to display the Configure Identity Management: Validation page.
6. The Configure Identity Management: Validation page displays a summary of the Oracle Application Server and Oracle Internet Directory details. Click **Finish** to complete the configuration.

The configuration of Oracle Identity Management is complete. For more information about Oracle Identity Management, see the *Oracle Identity Management Concepts and Deployment Planning Guide*.

6.2 Configuring Forms and Reports Services to Use OracleAS Metadata Repository

This section describes the procedure to configure OracleAS Metadata Repository. OracleAS Metadata Repository is a collection of schemas that are used by other Oracle Application Server components.

Before starting the configuration, ensure that:

- OracleAS Metadata Repository is started (status is **Up**)
- The Oracle Identity Management instance is started (status is **Up**)
- You know the password for `cn=orcladmin`, or another user who is a member of the `iASAdmins` group

To configure OracleAS Metadata Repository:

1. Navigate to the Application Server Control home page.
2. Click **Infrastructure**.

Internet Directory Host in the Identity Management section and Default Metadata Repository in the Metadata Repository section display **Not Configured** as shown in [Figure 6-1](#).

3. In the Metadata Repository section, click **Configure** to display the Configure Repository: Internet Directory page.
4. On the Configure Repository: Internet Directory page:
 - a. In the **User Name** field, the user name to log on to Oracle Internet Directory is displayed as `cn=orcladmin`. You may change it provided the user is in the

IASAdmin group and the user name is in the `cn=user_name` format. For example, `cn=admin` where `admin` is the user name.

You must log on as a user who belongs to the necessary groups in Oracle Internet Directory. For more information about the necessary groups, see the *Oracle Application Server Installation Guide*.

- b. In the **Password** field, enter the password for the user name.
 - c. Click **Next** to display the Configure Repository: Location page.
5. On the Configure Repository: Location page:
 - a. From the **Repository** list, select an existing OracleAS Metadata Repository.
 - b. Click **Next** to display the Configure Repository: Validation page.
 6. The Configure Repository: Validation page displays a summary of the Oracle Application Server instance and the new database. Click **Finish** to complete the configuration.

The configuration of OracleAS Metadata Repository is complete. Forms and Reports Services is now a part of the OracleAS Metadata Repository's farm. For more information about OracleAS Metadata Repository's farms, see the *Oracle Application Server High Availability Guide*.

6.3 Making the Reports Server Secure

After configuring Forms and Reports Services to use the services of an OracleAS Infrastructure, you must make the Reports Server secure. The in-process server reduces the maintenance and administration of the Reports Server by providing a means for starting the server automatically. For more information about the in-process server, see the *Oracle Application Server Reports Services Publishing Reports to the Web* manual.

To make the existing Reports Server secure:

1. Update the `server_name.conf` file located in the `%ORACLE_HOME%\reports\conf` directory. To do this:
 - a. Navigate to the Application Server Control home page.
 - b. Under the System Components section, click the **Reports Server:server_name** link to display the Reports Server page.
 - c. On the Reports Server page, under the Administration section, click **Configuration** to display the Configuration page.
 - d. On the Configuration page, click **Edit Configuration File** to display the Edit Configuration File page.

On the Edit Configuration page, the `server_name.conf` file is displayed.

2. In the `server_name.conf` file, search for the `security` element. Uncomment the `security` element. After uncommenting, the `security` element must look like this:

```
<security id="rwSec" class="oracle.reports.server.RWSecurity">
<!--property name="securityUserId" value="portal_db_username/portal_db_
password@%portal_db_tnsname" confidential="yes" encrypted="no"/-->
<property name="oidEntity" value="reports_oid_entity"/>
</security>
```

3. Ensure that the value of `oidEntity` is the same as the value of `oidEntity` in the `rwserver.template` file. The `rwserver.template` file is located in the `%ORACLE_HOME%\reports\conf` directory.

Save your changes and restart the Reports Server. To make the earlier servers secure, perform steps on the other servers.

All newly started servers will be secure by default.

Note: OracleAS Reports Services enables Reports-related groups (prefixed `RW_`) such as `RW_ADMINISTRATORS`, `RW_DEVELOPER` and `IASADMINS` to run the certain Web commands such as `getjobid`, `getserverinfo`, `showjobs`, and `showenv`. If OracleAS Portal is not configured to use the services of the OracleAS Infrastructure that is configured with the Forms and Reports Services installation, `RW_` groups are not created. In this case, to enable these users to run the Web commands, you have to create the `RW_` groups manually and add users to these `RW_` groups. For more information on the Reports-related (`RW_`) groups, refer to the chapter "Deploying Reports in OracleAS Portal" in the *Oracle Application Server Reports Services Publishing Reports to the Web* manual.

6.4 Starting OPMN Services

Once the configuration of Oracle Identity Management and OracleAS Metadata Repository is complete, the status of the Oracle Process and Management Notification (OPMN) services is displayed as **Down**. You must restart the OPMN services.

To restart the OPMN services:

1. Navigate to the Application Server Control home page.
2. Click **Start All** to display the Processing: Start All page. The Processing: Start All page displays the progress of the Start All operation.

After the Start All operation is complete, the Application Server Control home page displays the earlier standalone Forms and Reports Services instance as part of an OracleAS Farm as shown in [Figure 6–2](#).

Figure 6–2 Forms and Reports Services Part of an OracleAS Farm



6.5 Testing the Configuration on Oracle Application Server Forms Services

To test whether the configuration of Oracle Application Server Forms Services to use the services of an OracleAS Infrastructure is successful:

1. Navigate to the Application Server Control home page.

2. In the System Components section, click **Forms** to display the Forms Overview page.
3. Click the **Configuration** tab on the Forms Overview page.
4. From the **View** list, select **Forms Web Configuration (formsweb.cfg)**.
5. Click **Create New Section**. The section that you create will be added to the `formsweb.cfg` file.
6. In the **Section Name You Want to Add** field, enter a name for the section. For example, `modosso`.
7. Click **OK**.
8. The section that you added is displayed in the Configuration page. You can add comments in the field next to the section name. Select the section that you added and click **Edit** to display the Edit Section page.
9. On the Edit Section page, you must add parameters to the section you created. To add parameters:
 - a. In the **Name** field, enter a name for the parameter. For example, `ssomode`.
 - b. In the **Value** field, enter `true`.
 - c. Click **Add New Parameter**.
 - d. The parameter name and value are displayed in the Edit Section page. Click **Apply**.
10. Run a form by typing the following URL to display the Oracle Single Sign-On page:

```
http://host-name:port-number/forms/frmservlet?config=modosso
```

For example,

```
http://host.oracle.com:7778/forms/frmservlet?config=modosso
```
11. On the Oracle Single Sign-On page, log on with the Oracle Internet Directory user name and password.

If the configuration is successful, an OracleAS Forms Services page is displayed.

6.6 Testing the Configuration on Oracle Application Server Reports Services

To test whether the configuration of Oracle Application Server Reports Services to use the services of an OracleAS Infrastructure is successful:

1. Navigate to the following URL to open the Reports demo page:

```
http://host-name:port-number/repdemo
```

For example,

```
http://host.oracle.com:80/repdemo
```
 2. Click either the **Test a JSP Web Report** link or the **Test a Paper Report on the Web** link.
 3. On the Getting Started with Oracle Reports page, click **Run Report**.
- If the configuration is successful, a "Reports Ran Successfully" message is displayed.

Post-Installation Tasks

This chapter describes the post-installation tasks you need to perform to ensure complete installation of Forms and Reports Services.

This chapter contains the following topics:

- [Section 7.1, "State of Forms and Reports Services Instances After Installation"](#)
- [Section 7.2, "NFS Installations"](#)
- [Section 7.3, "Testing the Forms and Reports Services Installation"](#)
- [Section 7.4, "Backup and Recovery"](#)
- [Section 7.5, "SSL"](#)
- [Section 7.6, "NLS_LANG Environment Variable"](#)
- [Section 7.7, "Deployment of Forms and Reports"](#)

7.1 State of Forms and Reports Services Instances After Installation

After installation, the components that you have configured are started (unless you have configured them to use ports lower than 1024, in which case you have to start them up manually).

You can use scripts or the Oracle Enterprise Manager Application Server Control to start and stop Forms and Reports Services instances. See the *Oracle Application Server Administrator's Guide* for details.

7.2 NFS Installations

If you installed Forms and Reports Services on an NFS disk, edit the `LockFile` directive in the `%ORACLE_HOME%\Apache\Apache\conf\httpd.conf` file so that it points to a local disk. This file is used by the Oracle HTTP Server component.

See the *Oracle HTTP Server Administrator's Guide* for details.

7.3 Testing the Forms and Reports Services Installation

Testing the Forms and Reports Services installation requires you to use a Web browser to invoke the Enterprise Manager page of your installation.

To test your installation, perform the following steps:

1. Open the Oracle Application Server Welcome page (`http://hostname:80`).
2. Click the **Demonstrations** tab.

3. Click the **Forms Services** or **Reports Services** link to run a test Form or a test Report.

Note: If your computer is not on the network, then configure the Common Object Service (COS) naming service to access the Reports Server. For information about configuring the naming service, see the *Oracle Application Server Reports Services Publishing Reports to the Web* manual.

7.4 Backup and Recovery

Post-installation is an ideal time to set up your backup and recovery strategies and implement them. See the *Oracle Application Server Administrator's Guide* for details.

7.5 SSL

By default, most components are not configured for SSL. To enable SSL for the components, view the guide for the specific components. For example, to enable SSL for Oracle HTTP Server, see the *Oracle HTTP Server Administrator's Guide*.

7.6 NLS_LANG Environment Variable

Check the value of the NLS_LANG environment variable to ensure that it is correct for your environment. See the *Oracle Application Server Globalization Guide* for details, including a list of files that set this variable. You may need to edit the value of the NLS_LANG variable in these files.

7.7 Deployment of Forms and Reports

Table 7-1 lists the guides that outline post-installation information on how to configure and deploy Forms and Reports applications. These guides are available on Oracle Technology Network (<http://www.oracle.com/technology>)

Table 7-1 Deploying Forms and Reports Applications

Component	Guides
Oracle Reports	<i>Oracle Application Server Reports Services Publishing Reports to the Web</i>
Oracle Application Server Forms Services	<i>Oracle Application Server Forms Services Deployment Guide</i>

Troubleshooting

This appendix lists some methods for troubleshooting your Forms and Reports Services installation. It includes the following topics:

- [Verifying Requirements](#)
- [Resolving Installation Errors](#)
- [Troubleshooting Configuration Assistants](#)
- [Descriptions of Forms and Reports Services Configuration Assistants](#)

A.1 Verifying Requirements

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

- Ensure that the computer meets the requirements specified in [Chapter 3, "Requirements"](#).

Read the Release Notes

- Read *Oracle Application Server Forms and Reports Services Release Notes*, which contains release notes for Oracle Forms Services, Oracle Forms Developer, Oracle Reports Services, and Oracle Reports Developer. In addition, *Oracle Application Server Forms and Reports Services Release Notes* contains information about the features that are available in this installation type.
- Read *Oracle Application Server Release Notes* prior to installing Forms and Reports Services. The release notes are available with the platform-specific documentation. The latest version of the release notes is available on OTN at:

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

A.2 Resolving Installation Errors

If you encounter an error during installation of Forms and Reports Services:

- Ensure that you entered correct information on all the installation screens. In case you entered wrong information on one of the screens, return to that screen by clicking **Back** and enter the correct information.
- Exit the installer only if you want to access the component log files. The log files located in the `%ORACLE_HOME%/cfgtoollogs` directory are inaccessible if the installer is running.
- If you encounter an error while the installer is copying or linking files, do the following:

1. Note the error and review the installation logs for causes:
 - * `inventory_location\logs\installActionstimestamp.log`
 - * `inventory_location\logs\oraInstalltimestamp.err`
 - * `inventory_location\logs\oraInstalltimestamp.out`

The default `inventory_location` is:

`C:\Program Files\Oracle\Inventory`
2. Remove the failed installation by following the steps in [Appendix B, "Deinstallation and Reinstallation"](#).
3. Correct the issue that caused the error.
4. Restart the installation.

A.3 Troubleshooting Configuration Assistants

To troubleshoot an installation error that occurs when the configuration assistants are running:

- Review the installation log files listed in [Section A.2, "Resolving Installation Errors"](#).
- Review the configuration assistant log files located in the `%ORACLE_HOME%\cfgtoollogs` directory for a specific Forms and Reports Services configuration assistant. [Section A.4, "Descriptions of Forms and Reports Services Configuration Assistants"](#) also lists any other log file locations for a specific configuration assistant. Try to fix the issue that caused the error.
- If you see a `Fatal Error. Reinstall` message, try to find the cause of the problem by analyzing the log files. Refer to [Section A.3.3, "Fatal Errors"](#) for further instructions.

A.3.1 Configuration Assistant Failure

Forms and Reports Services configuration assistant failures are noted at the bottom of the installation screen. The configuration assistant interface displays additional information when applicable. The configuration assistant's execution status is identified by the result. The result codes are given in the following table.

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

This result code is written to the following log file:

`C:\Program Files\Oracle\Inventory\logs\installActionstimestamp.log`

A.3.2 Failure During Component Configuration and Startup

During installation, configuration assistants run when the Configuration Assistants screen appears. If a configuration assistant fails, try the following procedure to correct the problem:

1. Review the installation log files for this Forms and Reports Services instance.
2. Review the log files for each configuration assistant located in the `%ORACLE_HOME%\cfgtoollogs` directory. Default log file locations are described in [Section A.4, "Descriptions of Forms and Reports Services Configuration Assistants"](#).
3. Refer to the section describing the configuration assistants in [Section A.4, "Descriptions of Forms and Reports Services Configuration Assistants"](#).
 - a. If the failing configuration assistant has any dependencies, then run the dependencies again. You must do this even if the dependency completed successfully.
 - b. Run the failing configuration assistant again. If you are using the installer, select the configuration assistant and click **Retry**.
 - c. If an optional configuration assistant fails, and it does not have any dependencies, run the remaining configuration assistants. Deselect the cancelled optional configuration assistant, highlight and check the next listed configuration assistant, and click **Retry**.
 - d. If configuration assistant failure occurs when running configuration assistant execution commands on the command line, then run the configuration assistant execution command again.

You can use the generated script file named `configToolCommands` located in the `%ORACLE_HOME%\cfgtoollogs` directory to execute the failed configuration assistant again. The `configToolCommands` script is generated after you exit the installer. During silent or non-interactive installation of Forms and Reports Services, the `configToolCommands` script is generated immediately after configuration assistant failure.

You must set the following environment variables before using the generated script:

- Set the `ORACLE_HOME` environment variable to the `ORACLE_HOME` path.
- Append the `PATH` environment variable with `%ORACLE_HOME%\lib` and `%ORACLE_HOME%\network\lib`.
- For the Register DCM Plug-Ins With EM Configuration Assistant only, set the `PERL5LIB` environment variable to the directory `%ORACLE_HOME%\perl\lib\5.8.3`

Note: If the description of a configuration assistant includes an "Initial Tasks" section, perform these tasks before running the configuration assistant.

A.3.3 Fatal Errors

Some configuration assistant failures are "fatal errors". You cannot recover from a fatal error by correcting the problem and continuing. You must remove the current installation and reinstall Forms and Reports Services. The following tasks describe the recovery procedure:

1. Deinstall the failed installation using the procedure described in [Section B.1, "Deinstallation of Forms and Reports Services Instances"](#).
2. Correct the cause of the fatal error.

3. Reinstall Forms and Reports Services.
4. If the fatal error reoccurs, then you must remove all Oracle installations from your computer.

A.4 Descriptions of Forms and Reports Services Configuration Assistants

Table A–1 lists the Forms and Reports Services configuration assistants in alphabetical order. Different installations use different configuration assistants depending on installation type and configuration options you selected.

For information about configuring Oracle Reports, see the *Oracle Application Server Reports Services Publishing Reports to the Web* manual. For information about configuring Oracle Forms, see the *Oracle Application Server Forms Services Deployment Guide*.

Table A–1 Forms and Reports Services Configuration Assistants

Configuration Assistant	Description	Log File Location
Application Server Control Configuration Assistant	Starts the Oracle Management Agent and the Application Server Control to deploy applications through the Oracle Enterprise Manager Application Server Control.	not applicable
BC4J Configuration Assistant	Integrates BC4J with the Oracle Enterprise Manager Application Server Control. This configuration assistant requires the %ORACLE_HOME%\jlib\emConfigInstall.jar file.	not applicable
DCM Repository Backup Assistant	Enables you to back up your DCM repository.	not applicable
Forms Configuration Assistant	Configures the Oracle Application Server Forms Services server and integrates Oracle Application Server Forms Services with Oracle Enterprise Manager Application Server Control.	%ORACLE_HOME%\cfgtoollogs\formsConfig.log
HTTP Server Configuration Assistant	Configures Oracle HTTP Server and registers it with the Oracle Enterprise Manager Application Server Control.	%ORACLE_HOME%\Apache\Apache\logs %ORACLE_HOME%\Apache\Apache\httpd.log %ORACLE_HOME%\cfgtoollogs\configtoolstimestamp.log
Java Security Configuration Assistant	Changes default password and sets and reassigns new passwords for JAAS security.	%ORACLE_HOME%\cfgtoollogs\jaznca.log

Table A-1 (Cont.) Forms and Reports Services Configuration Assistants

Configuration Assistant	Description	Log File Location
OC4J Configuration Assistant	Integrates OC4J with the Oracle Enterprise Manager Application Server Control. It uses the Oracle Enterprise Manager Application Server Control-provided APIs to perform the following steps: <ul style="list-style-type: none"> ■ Add entries to the <code>targets.xml</code> file ■ Add entries to the <code>iasadmin.properties</code> file ■ This configuration assistant is dependent on the presence of the <code>deploy.ini</code> file. 	not applicable
OC4J Instance Configuration Assistant	Configures OC4J instances for deployed Forms and Reports Services applications.	not applicable
OPMN Configuration Assistant- start DAS instance	Starts DAS instance through OPMN.	<code>%ORACLE_HOME%\opmn\logs\opmn.log</code>
Oracle Net Configuration Assistant	Configures the database listener and Forms and Reports Services instances to use the LDAP naming by default.	<code>%ORACLE_HOME%\oraInventory\logs\installActions<time.stamp>.log</code>
OracleAS Instance Configuration Assistant	Adds Forms and Reports Services instance name into the <code>%ORACLE_HOME%\config\ targets2add.xml</code> file	not applicable
Register DCM Plug-Ins With Oracle Enterprise Manager Configuration Assistant	Registers DCM plug-ins with Enterprise Manager.	not applicable
Reports Configuration Assistant	Configures the Oracle Reports server and integrates Oracle Reports with Oracle Enterprise Manager Application Server Control.	<code>%ORACLE_HOME%\cfgtoollogs\reportsConfig.log</code>
Web Cache Configuration Assistant	Configures OracleAS Web Cache and registers it with Oracle Enterprise Manager Application Server Control.	<code>%ORACLE_HOME%\cfgtoollogs\configtoolstimestamp.log</code>

See Also: Appendix F, "Configuration Assistants" in the *Oracle Application Server Installation Guide* for more information on log file locations

Deinstallation and Reinstallation

This appendix guides you through the deinstallation and reinstallation process for Forms and Reports Services.

Note: Forms and Reports Services is a flexible product that you can start and stop in different ways, depending on your requirements. Before you either deinstall or reinstall the product, see the *Oracle Application Server Administrator's Guide* for more information on stopping all related services or processes.

This appendix contains the following topics:

- [Deinstallation of Forms and Reports Services Instances](#)
- [Reinstallation](#)

B.1 Deinstallation of Forms and Reports Services Instances

To deinstall Forms and Reports Services instances, you have to completely remove the items listed in [Table B-1](#).

Table B-1 *Items to Deinstall*

Item to Clean Up	Tool to Use
Files from the Oracle home directory	Installer If the installer does not remove all the files, you can remove the remaining files using the <code>rm</code> command.
Entries for the deleted instance in the Inventory directory	Installer
Instance name from Farm page	Installer

See the *Oracle Application Server Installation Guide* for more information on deinstallation of components.

B.2 Reinstallation

The installer does not allow reinstallation of an Forms and Reports Services instance in a directory that already contains a Forms and Reports Services instance. To reinstall Forms and Reports Services in the same directory, deinstall Forms and Reports Services and then install it again.

Default Port Numbers

By default, the installer assigns port numbers to components from a set of default port numbers. This appendix contains a list of these port numbers.

If you want to use a different set of port numbers, you have to create a file called `staticports.ini`, in which you list the port numbers that you want to use. See [Section 3.3.4, "Using Custom Port Numbers \(the Static Ports Feature\)"](#) for details.

This appendix contains the following topics:

- [Method of Assigning Default Port Numbers](#)
- [Default Port Numbers](#)

C.1 Method of Assigning Default Port Numbers

The installer assigns default port numbers to each component using the following method:

1. The installer checks if the default port number is in use. If it is not in use, the installer assigns it to the component.
2. If the default port number is already in use by an Oracle product or by any running application, the installer tries the lowest number in the port number range. It keeps trying the port numbers in the range until it finds one that is available.

C.2 Default Port Numbers

[Table C–1](#) lists the default port numbers for components. The last column, [Name in staticports.ini](#), specifies the component name as it appears in the `staticports.ini` file, which enables you to override the default port numbers. See [Section 3.3.4, "Using Custom Port Numbers \(the Static Ports Feature\)"](#) for details.

Table C–1 *Default Port Numbers and Ranges (Grouped by Component)*

Component	Default Port	Port Number Range	Name in staticports.ini
Oracle Process Manager and Notification Server (OPMN)			
Oracle Notification Server Request Port	6003	6003 - 6099	Oracle Notification Server Request port
Oracle Notification Server Local Port	6100	6100 - 6199	Oracle Notification Server Local port

Table C-1 (Cont.) Default Port Numbers and Ranges (Grouped by Component)

Component	Default Port	Port Number Range	Name in staticports.ini
Oracle Notification Server Remote Port	6200	6200 - 6299	Oracle Notification Server Remote port
Oracle Application Server Containers for J2EE (OC4J)			
OC4J AJP	3301	3301 - 3400	Not settable through staticports.ini
OC4J RMI	3201	3201 - 3300	Not settable through staticports.ini
JMS	3701	3701 - 3800	Not settable through staticports.ini
IIOp	3401	3401 - 3500	Not settable through staticports.ini
IIOpS1	3501	3501 - 3600	Not settable through staticports.ini
IIOpS2	3601	3601 - 3700	Not settable through staticports.ini
OracleBI Discoverer			
OracleBI Discoverer	--	--	Uses the same port as Oracle HTTP Server.
OracleAS Forms Services			
OracleAS Forms Services	--	--	Uses the same port as Oracle HTTP Server.
Oracle HTTP Server			
Oracle HTTP Server Listener (OracleAS Web Cache not configured)	Middle tier: 80 Infrastructure: 7777	7777 - 7877	Oracle HTTP Server Listen port
Oracle HTTP Server Listener (SSL)	Middle tier: 443 Infrastructure: 4443	4443 - 4543	Oracle HTTP Server Listen (SSL) port
Oracle HTTP Server Listener (non-SSL, OracleAS Web Cache configured)	Middle tier: 80 Infrastructure: 7777	7777 - 7877	Oracle HTTP Server port
Oracle HTTP Server Listener (SSL, OracleAS Web Cache configured)	Middle tier: 443 Infrastructure: 4443	4443 - 4543	Oracle HTTP Server SSL port
Java Object Cache	7000	7000 - 7099	Java Object Cache port
DCM Java Object Cache	7100	7100 - 7199	DCM Java Object Cache port
DCM Discovery	7100	7100-7199	DCM Discovery port
SOAP server	9998	9998 - 9999	Not settable through staticports.ini
Port Tunneling	7501	7501 - 7599	Not settable through staticports.ini
Oracle HTTP Server Diagnostic port	7200	7200 - 7299	Oracle HTTP Server Diagnostic port

Table C-1 (Cont.) Default Port Numbers and Ranges (Grouped by Component)

Component	Default Port	Port Number Range	Name in staticports.ini
OracleAS Portal			
OracleAS Portal	--	--	Uses the same port as Oracle HTTP Server.
OracleAS Single Sign-On			
OracleAS Single Sign-On	--	--	Uses the same port as Oracle HTTP Server.
OracleAS Reports Services			
SQL*Net (for 6i backward compatibility only)	14040	14040 - 14049	Reports Services SQL*Net port
Discovery Service	14021	14021 - 14030	Reports Services discoveryService port
Bridge	14011	14011 - 14020	Reports Services bridge port
OracleAS Reports Services Visigenics CORBA	14000	14000 - 14010	Not settable through staticports.ini
OracleAS Web Cache			
OracleAS Web Cache - HTTP Listener	80	80; 7777 - 7877	Web Cache HTTP Listen port
OracleAS Web Cache - HTTP Listener (SSL)	8250	8250 - 8350	Web Cache HTTP Listen (SSL) port
OracleAS Web Cache Administration	9400	9400 - 9499	Web Cache Administration port
OracleAS Web Cache Invalidation	9401	9400 - 9499	Web Cache Invalidation port
OracleAS Web Cache Statistics	9402	9400 - 9499	Web Cache Statistics port
OracleAS Wireless			
OracleAS Wireless	--	--	Uses the same port as Oracle HTTP Server.
Oracle Enterprise Manager 10g Application Server Control			
Application Server Control	1156	1156; 1810 - 1829	Application Server Control port
Oracle Management Agent	1157	1157; 1830 - 1849	Not settable through staticports.ini
Application Server Control - RMI	1850	1850 - 1869	Application Server Control RMI port
Application Server Control - SSL	1810	1810 - 1829	This port number is assigned after installation, when you configure Application Server Control for SSL. See the Oracle Application Server Administrator's Guide for details.
Enterprise Manager Console HTTP port (orcl)	5500		Not settable through staticports.ini
Enterprise Manager Agent port (orcl)	1831		Not settable through staticports.ini

Table C-1 (Cont.) Default Port Numbers and Ranges (Grouped by Component)

Component	Default Port	Port Number Range	Name in staticports.ini
Log Loader	44000	44000 - 44099	Log Loader port
Oracle Internet Directory			
Oracle Internet Directory	389	13060 - 13129	Oracle Internet Directory port
Oracle Internet Directory (SSL)	636	13130 - 13199	Oracle Internet Directory (SSL) port
OracleAS Certificate Authority (OCA)			
Server Authentication Virtual Host	6600	6600 - 6619	Oracle Certificate Authority SSL Server Authentication port
Mutual Authentication Virtual Host	6601	6600 - 6619	Oracle Certificate Authority SSL Mutual Authentication port

D

URLs for Components

Table D-1 shows the URLs and login IDs to use to access components after installation. The URLs in the table use the default ports. The components in your environment might use different ports. To determine the port numbers for components, look in the `%ORACLE_HOME%\install\portlist.ini` file.

Table D-1 URLs for Components

Component	URL	Entry in portlist.ini	Login and Password
OracleAS Welcome Pages	<code>http://host:80</code>	Oracle HTTP Server port or Web Cache Listen port	not applicable
Oracle HTTP Server	<code>http://host:80</code> (without Web Cache) <code>http://host:80</code> (with Web Cache)	Oracle HTTP Server Listen port	not applicable
Oracle Application Server Forms Services	<code>http://host:port/forms/frmservlet</code>	Web Cache Listen port	not applicable
Oracle Reports	<code>http://host:80/reports/rwservlet/help?</code>	Web Cache Listen port	<code>orcladmin</code> Password: The default password for <code>orcladmin</code> is the same as the <code>ias_admin</code> password you supplied during installation.
Oracle Enterprise Manager Application Server Control	<code>http://host:1810</code>	Application Server Control port	<code>ias_admin</code> Password: Use the <code>ias_admin</code> password you supplied during installation.

Java Access Bridge Installation

This appendix describes the procedure to install Java Access Bridge. Java Access Bridge enables the use of a screen reader with Oracle components.

This appendix contains the following topics:

- [Introduction](#)
- [Setup for JRE 1.4.2](#)
- [Setup for Oracle Installed Components](#)

E.1 Introduction

Java Access Bridge enables assistive technologies, such as the JAWS screen reader, to read Java applications running on the Windows platform. Assistive technologies can read Java-based interfaces, such as Oracle Universal Installer and Oracle Enterprise Manager Application Server Control.

The Forms and Reports Services CD-ROMs contain Java Runtime Environment (JRE) 1.4.1 used by Oracle Universal Installer during installation. JRE enables use of Java Access Bridge during installation. To install and configure Java Access Bridge after installing Oracle components, see [Section E.3, "Setup for Oracle Installed Components"](#) on page E-1.

E.2 Setup for JRE 1.4.2

To set up Java Access Bridge with JRE 1.4.2, run the following batch file on Oracle installation media.

```
DRIVE_LETTER:\install\access_setup.bat
```

After the batch file has run, restart your assistive technology program.

E.3 Setup for Oracle Installed Components

This section describes the procedure to install and configure Java Access Bridge for Windows after installing Oracle components. This section contains the following topics:

- [Section E.3.1, "Installing Java Access Bridge"](#)
- [Section E.3.2, "Configuring Oracle Components to Use Java Access Bridge"](#)

E.3.1 Installing Java Access Bridge

To install Java Access Bridge:

1. On the Oracle installation media, navigate to the `AccessBridge` directory.
2. Select the `accessbridge-1_0_4.zip` file and extract the files to the location where you plan to install Java Access Bridge. For example:

```
c:\AccessBridge-1.0.4
```

3. Copy the Java Access Bridge files listed in [Table E-1](#) into the JRE 1.4.2 directory used by Oracle components. By default, the JRE used by Oracle components is installed in:

```
%ORACLE_HOME%\jre\1.4.2
```

[Table E-1](#) lists the files you need to copy from the Java Access Bridge location on your hard drive to the JRE directory used by Oracle components:

Table E-1 Files to be Copied to JRE Directory

Copy	To
\AccessBridge-1_0_4\installer \installerFiles\jaccess-1_4.jar	%ORACLE_ HOME%\jre\1.4.2\lib\ext
\AccessBridge-1_0_4\installer \installerFiles\access-bridge.jar	%ORACLE_ HOME%\jre\1.4.2\lib\ext
\AccessBridge-1_0_4\installer \installerFiles\JavaAccessBridge.dll	windows_ directory\system32
\AccessBridge-1_0_4\installer installerFiles\WindowsAccessBridge.dll	windows_ directory\system32
\AccessBridge-1_0_4\installer \installerFiles\JAWTAccessBridge.dll	windows_ directory\system32
\AccessBridge-1_0_4\installer \installerFiles\accessibility.properties	%ORACLE_ HOME%\jre\1.4.2\lib

4. Rename `jaccess-1_4.jar` (now located at `%ORACLE_HOME%\jre\1.4.2\lib\ext`) to `jaccess.jar`.
5. Following a successful installation, you can access the Java Access Bridge documentation located at:

```
c:\AccessBridge-1.0.4\doc
```

E.3.2 Configuring Oracle Components to Use Java Access Bridge

You can configure Oracle components to use Java Access Bridge after completing the installation. To do so, set the `ORACLE_OEM_CLASSPATH` system variable to point to the installed Java Access Bridge files.

Configuring for Windows Server 2003 Server for Itanium

To configure Oracle components to use Java Access Bridge on Windows Server 2003 server for Itanium, follow these steps:

1. Select **Start > Settings > Control Panel > System** to display the Windows System Control Panel.
2. Select the **Advanced** tab.

3. Click **Environment Variables**.
4. Click **New** under the System Variable list to display the New System Variable dialog box.
5. In the **Variable Name** field, enter ORACLE_OEM_CLASSPATH.
6. In the **Variable Value** field, enter the full path to `jaccess.jar` and `access-bridge.jar`.

Use a semicolon to separate the two paths. Do not use the quotes or character spaces. For example, if JRE 1.4.2 is installed in the default location, the setting would be:

```
c:\oracle\product\10.1.0\Db_
1\jre\1.4.2\lib\ext\jaccess.jar;c:\oracle\product\10.1.0\Db_
1\jre\1.4.2\lib\ext\access-bridge.jar
```

7. Click **OK**.

Numerics

256 color requirement, 3-4

A

additional languages, 4-2
additional tool
 desinstallation, 1-2
Administrators group, 3-13
aliases
 installing on computers with aliases, 3-17
Application Server Control, 2-2

B

backup and recovery
 post-installation, 7-2
browser requirement, 3-4

C

CD-ROM
 copying to hard drive, 3-22
CLASSPATH environment variable, 3-14
cloning Forms and Reports Services, 1-2
components
 default port numbers, C-1
 how to assign custom port numbers, 3-9
 URLs for, D-1
configuration assistants, A-2
 dependencies, A-3
 descriptions, A-4
 error codes, A-2
 troubleshooting, A-2
copying CD-ROM/DVD to hard drive, 3-22
CPU requirements, 3-2
custom ports
 see static ports

D

default port numbers, 3-8, C-1
deinstallation, B-1
deployment, 7-2
disk space requirements, 3-3
Distributed Configuration Management, 2-3

DVD

 copying to hard drive, 3-22

E

environment variables, 3-13
 CLASSPATH, 3-14
 LD_LIBRARY_PATH, 3-14
 NLS_LANG, 7-2
 ORACLE_HOME, 3-14
 ORACLE_SID, 3-14
 PATH, 3-14
 setting, 3-14
 TEMP, 3-14
ephemeral ports, 3-6
error codes from configuration assistants, A-2

F

fatal errors, A-3
file system type requirement, 3-3
first-time installation of any Oracle product, 4-1
Forms and Reports Services
 cloning, 1-2

H

hostname requirement, 3-2
hostnames
 installing on computers with multiple
 aliases, 3-17
hosts file, 3-15
httpd.conf file, 3-11

I

ias_admin user, 4-2
 password for, 4-2
Identity Management default realm location, 3-15
installation errors, A-1
installation statistics, generating, 1-3
installation steps, summary of, 5-1
installer file locations, 4-3
installing additional languages, 4-2
installing from hard drive, 3-22
instance names, 4-2

- how they are used, 4-2
- valid characters, 4-2

inventory directory, 4-1, 4-3

IP

- installing on a computer with multiple IP addresses, 3-17
- requirements, 3-2

J

Java Access Bridge

- configuring, E-2
- installing, E-2

JRE 1.4.2, E-1

L

languages, installing additional, 4-2

LD_LIBRARY_PATH environment variable, 3-14

log files, A-1

loopback adapters

- installing, 3-19
- removing (Windows 2000, Windows 2003, Windows XP), 3-22

M

memory requirements, 3-3

- for multiple instances, 3-5
- reducing, 3-5

monitor requirement, 3-4

multihomed computers, installing on, 3-17

N

names of instances

- see* instance names

network requirements, 3-2

network topics, 3-16

- installing from hard drive, 3-22
- installing from remote CD-ROM/DVD drive, 3-23
- installing on computers with aliases, 3-17
- installing on multihomed computers, 3-17
- installing on off-network computers, 3-17
- remote installations, 3-24

new element

- ORBPorts, 1-1

new features in the installation, 1-1

NFS installations

- configuring Oracle HTTP Server, 7-1

NLS_LANG environment variable, 7-2

non-networked computers, installing on, 3-17

O

OC4J, 2-2

off-network computers, installing on, 3-17

oinstall group, 4-1

operating system groups

- Administrators group, 3-13

operating system users, 3-13

- Administrators group, 3-13

operating system version, 3-2

Oracle Application Server Containers for J2EE, 2-2

Oracle Application Server Forms and Reports Services

- features, 2-1

Oracle Application Server Forms Services, 2-2

Oracle Application Server Reports Services, 2-2

Oracle Application Server Web Cache, 2-2

Oracle Enterprise Manager, 2-2

Oracle Home directory, 4-1

Oracle HTTP Server, 2-2

- configuring static ports, 3-11, 3-12
- in NFS installations, 7-1

Oracle Process Manager and Notification Server, 2-3

Oracle Universal Installer

- generating statistics, 1-3
- log files, A-1
- new features, 1-1
- prerequisite checks, 3-25

oracle user, 3-13

ORACLE_HOME environment variable, 3-14

ORACLE_SID environment variable, 3-14

OracleAS Single Sign-On

- specifying hostname on command-line, 3-16

OracleAS Web Cache

- configuring static ports, 3-11, 3-12

oraInventory directory, 4-1

ORBPorts element, 1-1

P

pagefile size (virtual memory) requirement, 3-4

passwords

- for ias_admin user, 4-2

PATH environment variable, 3-14

pcAnywhere, 3-24

portlist.ini file, 3-10

ports, 3-6

- choosing port numbers, 3-10
- ephemeral, 3-6
- list of default port numbers, C-1
- static ports, 3-9
- using default port numbers, 3-8

prerequisite checks, 3-25

processor speed, 3-2

R

RAM requirements, 3-3

remote control software, 3-24

remote installations, 3-23, 3-24

requirements

- browser, 3-4
- disk space, 3-3
- environment variables, 3-13
- file system type, 3-3
- for computers that you want to disconnect from network later, 3-18
- for multi-alias computers, 3-17
- for multihomed computers, 3-17

- for non-networked computers, 3-17
- hostname, 3-2
- IP, 3-2
- memory, 3-3, 3-5
- monitor, 3-4
- network, 3-2
- operating system version, 3-2
- pagefile size (virtual memory), 3-4, 3-5
- processor speed, 3-2
- space in TEMP directory, 3-4
- restrictions, 2-1
- runInstaller command
 - OUI_HOSTNAME parameter, 3-16

S

- setup.exe command
 - executeSysPrereqs parameter, 3-1
- Specify Namespace in Internet Directory screen, 3-15
- SSL
 - post-installation configuration, 7-2
- static ports, 3-9
 - for Oracle HTTP Server, 3-11, 3-12
 - for OracleAS Web Cache, 3-11
 - not working, 3-11
- staticports.ini file, 3-9
 - creating, 3-10
 - format, 3-9
- steps, summary of, 5-1
- summary of installation steps, 5-1
- system requirements, 3-1

T

- TEMP directory, 3-14
 - space required, 3-4
- TEMP environment variable, 3-14
- testing, 7-1
- troubleshooting, A-1, A-2
 - configuration assistants, A-2
 - fatal errors, A-3
 - installation errors, A-1
 - verify requirements, A-1

U

- URLs for components, D-1
- users (operating system)
 - see* operating system users

V

- virtual memory (pagefile size) requirement, 3-4
- VNC, 3-24

W

- Windows system files (wsf.exe), 3-5
- wsf.exe, 3-5

