Oracle® Application Server

Quick Installation Guide

10g Release 3 (10.1.3) for AIX 5L Based Systems (64-Bit)

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Oracle Application Server Quick Installation Guide 10g Release 3 (10.1.3) for AIX 5L Based Systems (64-Bit) B28073-01

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Introduction

This guide describes how to install the following Oracle Application Server installation types:

- Basic Installation
- Advanced Installation: Integrated Web Server, J2EE Server and **Process Management**

Contents of this Guide

- Section 2, "Documentation Accessibility" on page 4
- Section 3, "Installation Types Covered in this Guide" on page 5
- Section 4, "Requirements" on page 7
- Section 5, "Starting the Installer" on page 22
- Section 6, "Basic Installation" on page 26
- Section 7, "Advanced Installation" on page 29
- Section 8, "Accessing the Welcome Page" on page 33
- Section 9, "Additional Resources" on page 34

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This document includes the following sections:

- Accessibility Instructions Delete This Section After Reading
- TTY Access to Oracle Support Services
- Documentation Accessibility

3 Installation Types Covered in this Guide

This guide is intended for users who want to install an Integrated Web Server, J2EE Server and Process Management in a single Oracle home. This install type provides the following components:

Oracle HTTP Server

This is the Web server component of Oracle Application Server.

Oracle Containers for J2EE

This component provides a complete Java 2 Enterprise Edition (J2EE) environment for developing Java applications.

- Oracle Enterprise Manager 10g Application Server Control
 This component is used for Web-based management of Oracle Application Server.
- Oracle Process Manager and Notification Server

Integrated Web Server, J2EE Server and Process Management can be installed using the following install modes:

- Basic Installation: The basic (one-click) installation prompts you with questions on the initial installation screen, and then it proceeds to install the product without any further user interaction. The default values for all the components are used.
- Advanced Installation: The advanced installation provides you with a great degree of customization and flexibility, which

enables installation of additional languages, port configuration options, and cluster configuration.

If you want more complex topologies, read the Oracle Application Server Installation Guide for complete installation instructions.

Before installing Oracle Application Server, you should read the Oracle Application Server Release Notes for the latest information.

4 Requirements

Check that your computer meets the minimum requirements:

- Section 4.1, "Check System Requirements"
- Section 4.2, "Check Software Requirements"
- Section 4.3, "Configure Shell Limits"
- Section 4.4, "Configure System Configuration Parameters"
- Section 4.5, "Create an Operating System Group for the Inventory Directory"
- Section 4.6, "Create an Operating System User"
- Section 4.7, "Check Environment Variables"

4.1 Check System Requirements

Your computer must meet the following requirements.

Operating Systems Supported

AIX 5L Based Systems (64-Bit)

Other System Requirements

The following table shows other system requirements.

Table 1 Minimum System Requirements

	Minimum System Requirement
Memory	512 MB
Disk space	680 MB
Space in /tmp directory	400 MB
Swap space	1.5 GB

Complete the following steps to check these requirements:

 To determine the physical RAM size, enter the following command:

/usr/sbin/lsattr -E -l svs0 -a realmem

2. To determine the amount of free disk space, enter the following command:

prompt> df -k dir

Replace *dir* with the Oracle home directory or with the parent directory if the Oracle home directory does not exist yet. For example, if you plan to install Oracle Application Server in /opt/oracle/OracleAS, you can replace dir with /opt/oracle or /opt/oracle/OracleAS.

3. To determine the amount of available swap space, enter the following command:

/usr/sbin/lsps -a

If necessary, see your operating system documentation for information on how to configure additional swap space.

4.2 Check Software Requirements

Depending on the version of AIX you are using, refer to the following sections for the corresponding software requirements:

- Software Requirements for AIX 5L Version 5.2
- Software Requirements for AIX 5L Version 5.3

4.2.1 Software Requirements for AIX 5L Version 5.2 Table 2 lists the software requirements for AIX 5L version 5.2.

Table 2 Software Requirements for AIX 5L Version 5.2

Maintenance Level	07 or higher
Filesets	bos.adt.base bos.adt.lib bos.adt.libm bos.perf.libperfstat bos.perf.perfstat bos.perf.proctools
Patches (All Filesets)	IY76141: CHILD PROCESS UNABLE TO LOAD A MODULE

Before installing AIX-based systems running AIX 5L version 5.2, complete the following step:

1. Check that AIX 5.2, Maintenance Level 7 or higher is installed by entering the following command:

```
# oslevel -r
5200-07
```

In this example, the version of AIX is 5.2, Maintenance Level 7.

If the operating system version is lower than AIX 5.2.0.0 Maintenance Level 7 (5200-07), upgrade your operating system to this level. AIX 5L version 5.2 maintenance packages are available from the following Web site:

```
https://techsupport.ser-
vices.ibm.com/server/aix.fdc
```

2. To determine whether the required filesets are installed and committed, enter a command similar to the following:

```
# lslpp -1 bos.adt.base bos.adt.lib bos.adt.libm \
bos.perf.perfstat bos.perf.libperfstat
```

For the list of filesets required for AIX 5L version 5.2, refer to Table 2

If a fileset is not installed and committed, then install it. Refer to your operating system or software documentation for information on installing filesets.

3. Check that the patches mentioned in Table 2 are installed. To determine whether an authorized program analysis report (APAR) is installed, enter a command similar to the following:

```
# /usr/sbin/instfix -i -k "IY22854 IY26778 ..."
```

If an APAR is not installed, then download it from the following Web site and install it:

```
https://techsupport.ser-
vices.ibm.com/server/aix.fdc
```

4.2.2 Software Requirements for AIX 5L Version 5.3 Table 3 lists the software requirements for AIX 5L version 5.3.

Table 3 Software Requriements for AIX 5L version 5.3

Item	Requirements
Maintenance Level	03 or higher

Table 3 (Cont.) Software Requriements for AIX 5L version 5.3

Item	Requirements
Filesets	<pre>bos.adt.base bos.adt.lib bos.adt.libm bos.perf.libperfstat bos.perf.perfstat bos.perf.proctools</pre>
Patches	IY76141: CHILD PROCESS UNABLE TO LOAD A MODULE

Following are the steps to check if the parameters mentioned in Table 3 are installed on the system or not:

1. Check that AIX 5.3, Maintenance Level 3 or higher is installed by entering the oslevel -r command, as shown in the following example:

```
# oslevel -r
5300-03
```

In this example, the version of AIX is 5.3, Maintenance Level 3.

If the operating system version is lower than AIX 5.3.0.0 Maintenance Level 3 (5300-03), then upgrade your operating system to this level. AIX 5L version 5.3 maintenance packages are available from the following Web site:

```
https://techsupport.ser-
vices.ibm.com/server/aix.fdc
```

2. To determine whether the required filesets are installed and committed, enter following command:

```
# lslpp -1 bos.adt.base bos.adt.lib bos.adt.libm \
bos.perf.perfstat bos.perf.libperfstat
```

For the list of filesets required for AIX 5L version 5.3, refer to Table 3

If a fileset is not installed and committed, then install it. Refer to your operating system or software documentation for information on installing filesets.

3. Check that the patches mentioned in Table 3 are installed. To determine whether an authorized program analysis report (APAR) is installed, enter a command similar to the following:

```
# /usr/sbin/instfix -i -k "IY66513 IY70159 IY66513
```

If an APAR or one of its fileset is not installed, then download it from the following Web site and install it:

```
https://techsupport.ser-
vices.ibm.com/server/aix.fdc
```

4.3 Configure Shell Limits

The following table lists the shell limits that you need to set for AIX. The procedure following the table describes how to verify and set the values.

Shell Limit (As Shown in smit)	Recommended Value
Soft FILE size	-1 (Unlimited)
Soft CPU time	-1 (Unlimited)
Soft DATA segment	-1 (Unlimited)
Soft STACK size	-1 (Unlimited)
Soft NOFILE size	65536

To view the current value specified for these shell limits, and to change them:

1. Enter the following command:

smit chuser

- In the User Name field, enter the user name of the Oracle software owner, for example oracle.
- **3.** Scroll down the list and verify that the value shown for the soft limits listed in the previous table is -1.

If necessary, edit the existing value.

4. When you have finished making changes, press F10 to exit.

4.4 Configure System Configuration Parameters

Verify that the maximum number of processes allowed per user is set to 2048 or higher. The procedure following the table describes how to verify and set the value.

For production systems, this value should be at least 128 plus the sum of the PROCESSES and PARALLEL_ MAX_SERVERS initialization parameters for each database running on the system.

- **1.** Enter the following command:
 - # smit chqsys
- 2. Verify that the value shown for Maximum number of PROCESSES allowed per user is greater than or equal to 2048. If necessary, edit the existing value.
- **3.** When you have finished making changes, press F10 to exit.

Make sure that the ARG_MAX setting is set to the maximum value for AIX 51:

1. Check the ARG_MAX value setting:

prompt> getconf ARG_MAX

2. If the value is less than 524288, run the following command as the root user:

4.5 Create an Operating System Group for the Inventory Directory

If this is the first Oracle product to be installed on the computer, create an operating system group for the "inventory" directory. The installer creates files in the inventory directory to keep track of the Oracle products that are installed on the computer.

This guide uses the name oinstall for this group.

To create the oinstall group:

1. Enter the following command:

```
# smit security
```

- Choose the appropriate menu items to create the oinstall group.
- Press F10 to exit.

In Section 4.6, "Create an Operating System User", you will create an operating system user, and set this group to be the user's primary group.

By having a separate group for the inventory directory, you allow different users to install Oracle products on the computer. Users need write permission for the inventory directory. They can achieve this by belonging to the oinstall group.

The default name of the inventory directory is oraInventory.

If you are unsure if there is already an inventory directory on the computer, look in the oraInst.loc file. This file lists the location of the inventory directory and the group who owns it. If the file does not exist, the computer does not have Oracle products installed on it

4.6 Create an Operating System User

Create an operating system user to install and upgrade Oracle products. This guide refers to this user as the oracle user.

How to Create a User

To create the oracle operating system user as part of the oinstall group:,

- 1. Enter the following command as the root user:
 - # smit security

- **2.** Choose the appropriate menu items to create the oracle user, specifying the following information:
 - In the Primary GROUP field, specify the Oracle Inventory group, for example oinstall.
 - In the Group SET field, specify the OSDBA group and if required, the OSOPER group, for example dba or dba,oper.
- Press F10 to exit.
- **4.** To check which groups an operating system user belongs to, run the groups command with the name of the user. For example:

```
prompt> groups oracle
```

- **5.** Set the password for the oracle user by entering the following command and follow the instructions on screen:
 - # passwd oracle

For more information about operating system users and groups, see your operating system documentation or contact your system administrator.

4.7 Check Environment Variables

The operating system user who will be installing Oracle Application Server needs to set (or unset) the following environment variables.

Table 4 **Environment Variables**

Environment Variable	Set or Unset
DISPLAY	Set it to the X server that will display the installer.
ORACLE_HOME	Must not be set.
ORACLE_SID	Must not be set.
TNS_ADMIN	Must not be set.
PATH, CLASSPATH, and Shared Library Path	Must not contain references to directories in any Oracle home directories.
TMP and TMPDIR	Optional. If unset, defaults to /tmp.

- **4.7.1 Environment Variable Tips** This section describes some things to look out for when setting environment variables:
- If you set environment variables in the .profile file, they might not be read. To ensure environment variables are set to

- the correct values, check their values in the shell where you will be running the installer.
- To check the value of environment variables, use the env command. This displays all the currently defined environment variables and their values.
 - % env
- If you use the su command to switch users (for example, switching from the root user to the oracle user), check the environment variables when you are the new user because the environment variables might not be passed to the new user. This can happen even if you run su with the parameter (su user).

```
# /* root user */
# su - oracle
% env
```

5 Starting the Installer

To start the installer:

- 1. Log in to the computer as a user who is a member of the Administrators group.
- 2. Insert the disk:
 - CD-ROM: Insert Oracle Application Server Disk 1.
 - DVD: Insert the Oracle Application Server DVD.
- 3. If your computer does not mount CD-ROMs or DVDs automatically, you need to set the mount point manually. See Section 5.2, "Setting the Mount Point for the CD-ROM or DVD-ROM" for steps on mounting the CD-ROM or DVD-ROM manually.
- Log in as the oracle user.
- Start up the installer:

Note:

- Be sure you are not logged in as the root user when you start the Oracle Universal Installer. The installer gives an error message if you try to run it as the root user.
- Do not start the installation inside the mount_point directory. If you do, then you may not be able to eject the installation disk. The cd command below changes your current directory to your home directory.

CD-ROM:

```
prompt> cd
prompt> mount_point/10.1.3disk1/runInstaller
```

DVD:

```
prompt> cd
prompt> mount_point/application_server/runInstaller
```

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

5.1 Running the rootpre.sh Script

If you are installing Oracle software on an AIX system for the first time:

- Log in as the root user.
- 2. Insert Oracle Application Server Disk 1 into the disc drive.
- Enter the following command: 3.
 - # mount_point/rootpre/rootpre.sh

5.2 Setting the Mount Point for the CD-ROM or DVD-ROM

The Oracle Application Server CD-ROMs are in RockRidge format. The DVD-ROM is in DVD-ROM format.

To mount the first disc, follow these steps:

- Insert Oracle Application Server disc 1 into the CD-ROM or DVD.
- **2.** Enter a command similar to the following:
 - # /usr/sbin/mount -rv cdrfs /dev/cd0 /cdrom

6 Basic Installation

This section describes how to install Integrated Web Server, J2EE Server and Process Management using a basic installation. To install using a basic installation:

- Start up the installer. See Section 5, "Starting the Installer" for details.
- 2. Oracle Application Server 10g 10.1.3.0.0 screen

Installation Directory: Enter the directory where you want install Oracle Application Server.

Example:

/scratch/oracle/product/10.1.3/OracleAS

Basic Installation Mode: Select this option.

Installation Type: You cannot change the installation type in a basic installation.

Instance Name: The instance name identifies this Oracle Application Server instance. If you have more than one Oracle Application Server instance on the same host, the instances must have unique names.

Example: appserver

Administration Username: The administration username for Oracle Application Server instances is set to oc4jadmin and cannot be changed. To manage Oracle Application Server instances using Oracle Enterprise Manager, log in as the oc4jadmin user.

Administration Password and Confirm Password: Enter the password for the oc4jadmin user.

Example: welcome1

Click Install.

- 3. If this is the first Oracle product to be installed on this computer, the installer displays these additional screens:
 - a. Specify Inventory Directory and Credentials screen

Enter the full path of the inventory directory: Enter a full path to the inventory directory. This directory is different from the Oracle home directory for the product files.

Example: /opt/oracle/oraInventory

Specify operating system group name: Select the operating system group that will have write permission for the inventory directory.

Example: oinstall

Click Next.

b. Run orainstRoot.sh dialog

When prompted, run the orainstRoot.sh script as the root user in a different shell. The script is located in the inventory directory.

After running the script, click Continue.

4. Run root.sh dialog

Note: do not run this script until you see the dialog.

In a different window, log in as the root user and run the root. sh script. The script is located in this instance's Oracle home directory.

After you have run the root. sh script, click OK.

5. Configuration Assistants screen

This screen displays the progress of configuration assistants, which configure Oracle Application Server components.

6. End of Installation screen

Click Exit to quit the installer.

7 Advanced Installation

This section describes how to install Integrated Web Server, J2EE Server and Process Management using an advanced installation. To install using an advanced installation:

- 1. Start up the installer. See Section 5, "Starting the Installer" for details.
- Oracle Application Server 10g 10.1.3.0.0 screen

Installation Directory: Enter the directory where you want install Oracle Application Server.

Example:

/scratch/oracle/product/10.1.3/OracleAS

Advanced Installation Mode: Select this option.

Click Next.

- **3.** If this is the first Oracle product to be installed on this computer, the installer displays these additional screens:
 - a. Specify Inventory Directory and Credentials screen

Enter the full path of the inventory directory: Enter a full path to the inventory directory. This directory is different from the Oracle home directory for the product files.

Example: /opt/oracle/oraInventory

Specify operating system group name: Select the operating system group that will have write permission for the inventory directory.

Example: oinstall

Click Next.

b. Run orainstRoot.sh dialog

When prompted, run the orainstRoot.sh script as the root user in a different shell. The script is located in the inventory directory.

After running the script, click **Continue**.

4. Select Installation Type screen

Integrated Web Server, J2EE Server and Process Management: Select this option.

Click Next.

5. Specify Port Configuration Options screen

Select Automatic.

Click Next.

6. Administration Instance Settings screen

Select Configure this as an Administration OC4J instance.

Click Next.

7. Administration Settings screen

AS Instance Name: The instance name identifies this Oracle Application Server instance. If you have more than one Oracle Application Server instance on the same host, the instances must have unique names.

Example: appserver

Default OC4J Instance Administrator Account Username: The administration username for Oracle Application Server

instances is set to oc4 jadmin and cannot be changed. To manage Oracle Application Server instances using Oracle Enterprise Manager, log in as the oc4jadmin user.

Administrator Account Password and Confirm Adminis**trator Account Password**: Enter the password for the oc4jadmin user.

Example: welcome1

OC4J Instance Name: The OC4J instance name identifies the default OC4J instance created by the installer.

Example: home

Click Next.

8. <u>Cluster Topology Configuration screen</u>

Deselect Configure this instance to be part of an Oracle Application Server cluster topology.

Click Next.

9. Summary screen

Verify your selections and click **Install**. The installer now installs the files.

10. Run root.sh dialog

Note: do not run this script until you see the dialog.

In a different window, log in as the root user and run the root . sh script. The script is located in this instance's Oracle home directory.

After you have run the root. sh script, click **OK**.

11. Configuration Assistants screen

This screen displays the progress of configuration assistants, which configure Oracle Application Server components.

12. End of Installation screen

Click **Exit** to quit the installer.

8 Accessing the Welcome Page

After installation, access the Oracle Application Server Welcome page to verify that the installation was successful. The URL for the Welcome page is:

```
http://hostname.domainname:http_port
```

You can locate the URL for accessing the Welcome Page on the End of Installation Screen text, which is stored in the following file

```
ORACLE HOME/install/readme.txt
```

The Welcome page provides links to these useful pages:

- New features in Oracle Application Server 10g Release 3 (10.1.3)
- Oracle Enterprise Manager Application Server Control ("Application Server Control"), which is a browser-based administrative tool

- Release Notes
- Ouick Start
- Demos

9 Additional Resources

For more information, see these Oracle resources:

- Oracle Application Server Documentation Library CD-ROM
- Oracle Application Server platform-specific documentation on Oracle Application Server Disk 1 CD-ROM

Printed documentation is available for sale in the Oracle Store at http://oraclestore.oracle.com.

You can also contact your Oracle representative to purchase printed documentation.

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

http://www.oracle.com/technology/membership/.

If you already have a username and password for OTN, then you can go directly to the documentation section of OTN at http://www.oracle.com/technology/documentation.

9.1 Oracle Support Services

If you purchased Oracle Product Support, you can call Oracle Support Services for assistance. Oracle Support Services include phone assistance, version updates and access to our service offerings. You have access to phone support 24 hours a day, 7 days a week. In the U.S.A., you can call Product Support at 1-800-223-1711.

Make sure you have your CSI (CPU Support Identifier) number ready when you call. Keep the CSI number for your records, because it is your key to Oracle Support Services. The Oracle Store sends the CSI number to you in an e-mail alert when it processes your order. If you do not have your CSI number and you are in the U.S.A., you can look up your CSI number by accessing our online Order Tracker which provides detailed order information. Go to the Oracle Store and click on Order Tracker located above the top navigation bar.

For Oracle Support Services locations outside the U.S.A., call your local support center for information on how to access support. To

find the local support center in your country, visit the Support Web Center at http://www.oracle.com/support.

At the Support Web Center you will find information on Oracle Support Services, such as:

- contact information
- instructions on how to access electronic services
- helpful Web sites
- Support Resources
- Oracle Support Portfolio
- Oracle Support Services news

With Oracle Product Support, you have round-the-clock access to Oracle *MetaLink*, Oracle Support Services premier Web support offering. Oracle *MetaLink* offers you access to installation assistance, product documentation, and a technical solution knowledge base.

It has technical forums, where you can post questions about your Oracle products and receive answers from Oracle Technical Support Analysts and other Oracle users. The questions and answers remain posted for the benefit of all users.

OracleMetaLink options include:

- Technical Assistance Request (TAR) access
- patch downloads
- bug database query access
- product life-cycle information

You can access OracleMetaLink at http://metalink.oracle.com.

9.2 Version Updates

If you do not have a currently supported license, you can purchase the most recent version of an Oracle product from the Oracle Store at:

```
http://oraclestore.oracle.com
```

If you do have a currently supported license, you can place non-urgent requests for version update shipments through the iTAR feature on OracleMetaLink. You will need to log the iTAR type as a U.S. Client Relations/Non-Technical Request.

You can also request Version Update shipments in the U.S.A. by calling Client Relations. When requesting a Version Update, provide the following information to the Client Relations Analyst:

- CSI number
- contact information
- platform
- product name
- shipping address
- version number of the product

Outside the U.S.A., call your local Oracle Support Center.

9.3 Premium Services

For information on our Premium Services, including onsite support, OracleGOLD, remote services, and upgrade packages, visit the Support Web Center at

http://www.oracle.com/support

or call your Support Sales Representative in the U.S.A at 1-800-833-3536.

9.4 Quick Reference

Resource	Contact Information or Web Site
Purchase additional products, full-use licenses, version updates, and documentation in the U.S.A.	http://oraclestore.oracle.com
Access technical resources for developers	http://www.oracle.com/technology
Access installation documentation	http://www.oracle.com/technology/documentation
Access information about technical support	http://www.oracle.com/support
Locate local Oracle Support Centers outside the U.S.A.	http://www.oracle.com/support
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