



**Guidelines for Installing and Updating Site-Controlled Oracle 9i and 10g
Software on UNIX Servers**

Guidelines for Installing and Updating Site-Controlled Oracle 9i and 10g Software on UNIX Servers

Note

Before using this information and the product it supports, read the information in "Notices".

This edition applies to version 4.1 of IBM FileNet Image Services (product number 5724-R95) and to all subsequent releases and modifications until otherwise indicated in new editions.

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Guidelines for Installing and Updating Oracle 9i and 10g RDBMS Software on UNIX Servers

This document provides guidelines for installing and updating Oracle 9i and 10g relational database software for use with IBM® FileNet® Image Services on AIX/6000, HP-UX (HP 9000 and HP Integrity), and Sun SPARC Solaris servers.

Server Types

Perform the procedures in this document on these Image Services servers:

Root/Index - (Multi-server installation)

Root/Index/Storage Library - (Combined or Entry server install)

Application - (Running WorkFlo Queue Services,
SQL Services or VW Services)

The **Database Administrator** is responsible for installing and updating the Oracle RDBMS software. To ensure that Image Services software requirements are implemented correctly, the DBA must follow these guidelines to ensure compatibility with Image Services 4.1.

- Image Services 4.1 is compatible with both dictionary and locally managed Oracle tablespaces.
- Oracle 9i and 10g allow you to use either rollback segments or undo tablespace. Image Services 4.1 supports both features.

Document revision history

IS version	Date	Comment
4.1.1	Nov. 2007	Initial release.

Supported Oracle RDBMS Software

Image Services 4.1 supports both Oracle 9i and Oracle 10g.

Oracle 9i

The following versions of Oracle 9i are supported:

- Oracle9i Database Release 2 Enterprise/Standard Edition for AIX®-based 5L Systems (64-bit)
- Oracle9i Database Release 2 Enterprise/Standard Edition for HP-UX (64-bit)
- Oracle9i Database Release 2 Enterprise/Standard Edition for HP-UX Itanium® (64-bit)
- Oracle9i Database Release 2 Enterprise/Standard Edition for Sun SPARC Solaris (32-bit)*
- Oracle9i Database Release 2 Enterprise Edition for Sun SPARC Solaris (64-bit)

* 32-bit software can be installed on a 64-bit operating system, but 64-bit software cannot be installed on a 32-bit operating system.

Required Oracle 9i Patches

- Oracle Patch Set 8 (9.2.0.8)

This is the final patch set for the Oracle 9i release. Oracle patch sets are available for download from the Oracle MetaLink Web site at: <http://www.oracle.com/support/metalink/index.html>

Oracle 10g

The following versions of Oracle 10g are supported:

- Oracle Database 10g Release 2 (10.2.0.1.0) for AIX-5L Based Systems (64-bit)
- Oracle Database 10g Release 2 (10.2.0.1.0) for HP-UX PA-RISC (64-bit)
- Oracle Database 10g Release 2 (10.2.0.1.0) for HP-UX Itanium
- Oracle Database 10g Release 2 (10.2.0.1.0) for Solaris Operating System (SPARC 64-bit)

Required Oracle 10g Patches

- Oracle Patch Set 1 (10.0.2.0.2) or higher

Oracle patch sets are available for download from the Oracle MetaLink Web site at: <http://www.oracle.com/support/metalink/index.html>

Required Oracle 10g Interim Patches (for AIX and Solaris Only)

- Oracle Interim Patch **5087548**

This patch is also available for download from the Oracle MetaLink Web site at: <http://www.oracle.com/support/metalink/index.html>

Undo Segments and Rollback Segments

Oracle 9i and Oracle 10g allow you to use either rollback segments or undo segments to recreate the "before" image.

Choose either rollback or undo segments. You cannot use both at the same time.

To use undo segments, all data is placed in an undo tablespace. Performance can be increased by using undo segments because the undo tablespace is locally managed.

The rollback data is managed with system-managed undo (SMU).

Refer to Oracle documentation for further details.

Disk Space Requirements

The Oracle **Server** software requires a **minimum** of:

	Free Space for Oracle Software	Free Space for Database
AIX/6000	3.0 GB	1.2 GB
HP-UX (HP 9000)	2.5 GB	1.2 GB
HP-UX (HP Integrity)	5.0 GB	1.2 GB
Solaris	3.5 GB	1.2 GB

The total space required for Oracle depends on which Oracle products you're installing. (Refer to Oracle documentation for information about the disk space requirements.)

Oracle **Client** software requires **1.6 GB** of available disk space on the Image Services server.

Installing on a Local Server

To configure Oracle on the same server that will also host Image Services, see **Chapter 2, “Installation Guidelines for Servers with Local Oracle Databases,” on page 16** for further information.

Installing on a Remote Server

To configure a dedicated remote Oracle server and install Oracle client software on the Image Services server, see **Chapter 3, “Installation Guidelines for Remote Oracle Database Configurations,” on page 30** for further information.

Updating a Local or Remote Server

To update an existing Image Services system to Oracle 10g, or to update a remote Oracle database server to Oracle 10g, see **Chapter 4, “Update Guidelines for UNIX Servers,” on page 56** for further information. Updates to Oracle 9i are not supported.

Accessing IBM FileNet documentation

To access documentation for IBM FileNet products:

- 1 Navigate to the Information Management support page (**www.ibm.com/software/data/support**).
- 2 Select the appropriate IBM FileNet product from the “Select a category” list.

- 3 From the Product Support page, click **Product Documentation** under Learn.
- 4 From the Product Documentation page
 - a If necessary, display the list of component product documentation by clicking the appropriate Doc link.
 - b Click the icon in the appropriate release column to access the document you need.

Comments and Suggestions

Send your comments by e-mail to comments@us.ibm.com. Be sure to include the name of the product, the version number of the product, and the name and part number of the book (if applicable). If you are commenting on specific text, include the location of the text (for example, a chapter and section title, a table number, a page number, or a help topic title).

Installation Guidelines for Servers with Local Oracle Databases

This chapter describes how to configure an Oracle database on the same server where the FileNet Image Services software will reside.

Before You Begin

Verify that the server has the appropriate version of the operating system:

- AIX 5L® (5.2, or 5.3)
- HP-UX 11i v1 (B.11.11) and HP-UX 11i v2 (B.11.23)
- Solaris 9 or Solaris 10

Create an Oracle User and Group

Create a <dba group> and <dba user> for RDBMS administration using the appropriate system tool for your platform:

AIX

smit (System Management Interface Tool)

HPUX

sam (System Administration Manager)

SOL

smc (Solaris Management Console)

Add the <dba user> to the **fnusr** group, if it exists already. Add the FileNet software user, such as **fnsu**, to the <dba group>.

Group Name	Members	Group Description
fnusr	<fnsu>, root, <dba user>	FileNet User group. Members can operate any FileNet software (including COLD). All operators and administrators must belong to this group.
<dba group>	<fnsu>, <dba user>	Database Administration group.

Note The <dba group> name **dba** and the <dba user> name **oracle** are suggested but not required.

Prepare a Location for the Oracle Server Software

Create a file system for the Oracle Server software. The Oracle Server software requires a **minimum** of:

	Free Space for Oracle Software	Free Space for Database
AIX/6000	3.0 GB	1.2 GB
HP-UX (HP 9000)	2.5 GB	1.2 GB
HP-UX (HP Integrity)	5.0 GB	1.2 GB
Solaris	3.5 GB	1.2 GB

The total space required for Oracle depends on which Oracle products you're installing. (Refer to Oracle documentation for information about the disk space requirements.)

The volume names, mount points, user and group names in these tables are only examples. You can name them anything you choose.

AIX/6000

Oracle 9i

Volume Name	Mount Point	Minimum Size	Actual Size You Create	User Name	Group Name	Mode
orabase1 (Server)	/opt/oracle	4.0 GB		oracle	dba	755
oratmp *	/oratmp	400 MB		oracle	dba	755

Oracle 10g

Volume Name	Mount Point	Minimum Size	Actual Size You Create	User Name	Group Name	Mode
orabase1 (Server)	/opt/oracle	3.0 GB		oracle	dba	755
oratmp *	/oratmp	400 MB		oracle	dba	755

HP-UX

Oracle 9i

Volume Name	Mount Point	Minimum Size	Actual Size You Create	User Name	Group Name	Mode
orabase1 (Server)	/opt/oracle	4.0 GB		oracle	dba	755
oratmp *	/oratmp	400 MB		oracle	dba	755

Oracle 10g

Volume Name	Mount Point	Minimum Size	Actual Size You Create	User Name	Group Name	Mode
orabase1 (Server)	/opt/oracle	5.0 GB		oracle	dba	755
oratmp *	/oratmp	400 MB		oracle	dba	755

Solaris

Oracle 9i

Volume Name	Mount Point	Minimum Size	Actual Size You Create	User Name	Group Name	Mode
orabase1 (Server)	/opt/oracle	3000m		oracle	dba	755
oratmp *	/oratmp	400m		oracle	dba	755

Oracle 10g

Volume Name	Mount Point	Minimum Size	Actual Size You Create	User Name	Group Name	Mode
orabase1 (Server)	/opt/oracle	3500m		oracle	dba	755
oratmp *	/oratmp	400m		oracle	dba	755

* The oratmp file system is used for temporary space during the Oracle software installation. It can be removed at the end of this procedure.

Verify Operating System Patches

After installing the appropriate operating system software, go to the IBM support page at <http://www.ibm.com/software/data/support> and refer to the Compatibility Matrix. To download this document from

the IBM support page, see [**“Accessing IBM FileNet documentation” on page 14.**](#)

Create an Oracle Home Directory

Within the Oracle base volume (ORACLE_BASE=/opt/oracle), create an Oracle home directory where you will install the new Oracle software.

- For example, for Oracle 9i, create:

/opt/oracle/product/9iR2

(ORACLE_HOME=/opt/oracle/product/9iR2)

- For Oracle 10g, create:

/opt/oracle/product/10gR2

(ORACLE_HOME=/opt/oracle/product/10gR2)

Install Oracle Server Software

- If you're installing Oracle 9i, continue with the next section, [**“Install Oracle 9i Software”**](#).
- If you're installing Oracle 10g, skip to [**“Install Oracle Database 10g Software” on page 22.**](#)

Install Oracle 9i Software

Verify that, at a minimum, the Oracle products checked below are installed.

Tip Each listed item has an associated icon and checkbox. An icon with a plus sign indicates there are additional subordinate items. You can list those additional items by clicking on the icon.

Placing a **check** in the checkbox indicates that you have selected the item for installation. Products that are **not checked** in the list below are not required by Image Services.

The following products should be selected:

✓ Oracle 9i Database 9.2.0.1.0

✓ Oracle 9i 9.2.0.1.0

Enterprise Edition Options 9.2.0.1.0

Oracle Advanced Security 9.2.0.0.0

Oracle Partitioning 9.2.0.1.0

Oracle Spatial 9.2.0.1.0

Legato Networker Single Server 6.1.0.0.0

Oracle Label Security 9.2.0.1.0

Oracle OLAP 9.2.0.1.0

Oracle Data Mining 9.2.0.1.0

✓ Oracle Net Services 9.2.0.1.0

✓ Oracle Net Listener 9.2.0.1.0

Oracle Connection Manager 9.2.0.1.0

Oracle Names 9.2.0.1.0

Oracle Enterprise Manager Products 9.2.0.1.0

✓ Oracle9i Development Kit 9.2.0.1.0

Oracle C++ Call Interface 9.2.0.1.0

✓ Oracle Call Interface (OCI) 9.2.0.1.0

Oracle Programmer 9.2.0.1.0

Oracle XML Developer's Kit 9.2.0.0.0

(To remove the check from the Oracle XML Developer's Kit option, remove the check from the Oracle HTTP Server option first.)

Oracle HTTP Server 9.2.0.1.0

Oracle Transparent Gateways 9.2.0.1.0

iSQL*Plus 9.2.0.1.0

Oracle JDBC/OCI Interfaces 9.2.0.1.0

- 5 When the installation is finished, skip to **“Install the Oracle Patch Set” on page 23.**

Install Oracle Database 10g Software

- 1 Load the first Oracle 10g DVD for your platform.
- 2 As the Oracle user, launch the Oracle Universal Installer:

runInstaller
- 3 Select the **Advanced Installation** option.
- 4 Select either the **Standard Edition** or the **Enterprise Edition** option.
Image Services is compatible with both.

(Do not create a demo database.)
- 5 Select the **Install Software only** option.
- 6 Accept the default values for the remaining prompts and change DVDs as requested.

(There is no need to select individual products.)

Note You can ignore Warnings for patches that refer to older patch versions.

- 7 When the installation is finished, you are ready to install the patch set.

Install the Oracle Patch Set

Install the appropriate patch set for your version of Oracle.

Oracle 9i

After you've installed the Oracle 9.2.0.1 software, install:

- Oracle Patch Set 8 (9.2.0.8)

Oracle Patch Set 8 (9.2.0.8) is the final patch set for the Oracle 9i release. Oracle patch sets are available for download from the Oracle MetaLink Web site.

Oracle 10g

After you've installed the Oracle 10.2.0.1 software, install:

- Oracle Patch Set 1 (10.0.2.0.2)

Install the Oracle 10g Interim Patch (on AIX and Solaris Only)

Use the Oracle opatch utility to install:

- Interim Patch **5087548**

The interim patch is available for download from the Oracle MetaLink Web site.

Change Permissions for the Oracle Software

On all UNIX® platforms, for both Oracle 9i and 10g, enter the following command to set the access permissions:

\$ORACLE_HOME/install/changePerm.sh

Create the Oracle Database

To create your new Oracle database, refer to Oracle documentation for complete information. Create the database large enough to hold the two (and possibly three or four) tablespaces for IS use. You will configure them later in this chapter.

Create the Oracle data dictionary:

```
sqlplus "/ as sysdba"
SQL> @$ORACLE_HOME/rdbms/admin/catalog.sql
SQL> @$ORACLE_HOME/rdbms/admin/catproc.sql
```

Create Tablespaces for Oracle Objects

Image Services supports both local and dictionary managed tablespaces.

Two tablespaces are required for Image Service use; a third or fourth tablespace is optional.

Recommended Tablespace Names *	Minimum Tablespace Size (MB)	Tablespace Type
fnsys_ts	200	permanent
TEMP	400	temporary
fnidx_ts (optional)	200	permanent
fnusr_ts (optional for WorkFlo Queue Services)	200	permanent

* **fnsys_ts** is the name of the dedicated IS default tablespace for tables.

TEMP is the name of a general temporary tablespace.

fnidx_ts is the name of the optional IS index tablespace, which can be used to keep indexes separate from tables in the fnsys_ts tablespace, if necessary. If you do not create this

tablespace, tables and indexes will be kept together in `fnsys_ts`. **fnusr_ts** is the name of the optional IS user tablespace for WorkFlo Queue Services. If your Image Services system will not be using this product, you do not need to create this tablespace.

Tip You might want to create the `fnsys_ts` and `fnidx_ts` tablespaces on separate disks if your IS system does not include a SAN (Storage Area Network) or RAID (Redundant Array of Independent Disks).

You can name the tablespaces anything you choose, but their sizes should be at least as large as shown in the table. The FileNet SCouT (System Capacity Planning Tool) can help you determine the actual size needed for your application. Check with your IBM representative for details.

Set Oracle Environment Variables

Verify that the following environment variables are set correctly for the Oracle user, the IS software user, such as **fnsw**, and optionally a user with **root** privileges:

```
ORACLE_BASE
ORACLE_HOME
NLS_LANG    (an 8-bit character set is recommended)
ORA_NLS33   (for Oracle 9i only)
ORA_NLS10   (for Oracle 10g only)
ORACLE_SID
```

To change these environment settings, you need to edit **both** the user's `.profile` **and** `.cshrc` file.

- a In the Bourne or Korn shell, edit the `.profile` file.

```
export ORACLE_BASE=/opt/oracle
export ORACLE_HOME=/opt/oracle/product/<9iR2 or10gR2>
export ORACLE_SID=<Oracle Instance Identifier>
export NLS_LANG=AMERICAN_AMERICA.WE8ISO8859P1
export ORA_NLS33=$ORACLE_HOME/ocommon/nls/admin/data
    (for Oracle 9i)
export ORA_NLS10=$ORACLE_HOME/nls/data
    (for Oracle 10g)
```

b In the C shell, edit the .cshrc file.

```
setenv ORACLE_BASE /opt/oracle
setenv ORACLE_HOME /opt/oracle/product/<9iR2 or10gR2>
setenv ORACLE_SID <Oracle Instance Identifier>
setenv NLS_LANG AMERICAN_AMERICA.WE8ISO8859P1
setenv ORA_NLS33 $ORACLE_HOME/ocommon/nls/admin/data
    (for Oracle 9i)
setenv ORA_NLS10 $ORACLE_HOME/nls/data
    (for Oracle 10g)
```

CAUTION

The NLS_LANG variable must be set correctly. This character set must be equivalent to or be a subset of the character set used for your database. This ensures that every character input through the terminal has a matching character to map to in the database.

If you need to check the character set used when the database was created, continue with the next step. Otherwise, skip to **[“Report to Sys Admin and Service Representative” on page 28.](#)**

Verify Oracle NLS Parameters

Since the database is located on the local IS server, check the Oracle NLS parameters as the Oracle user as follows:

```
sqlplus "/as sysdba"
SQL> select * from nls_database_parameters;
```

The displays looks similar to this:

PARAMETER	VALUE
NLS_LANGUAGE	AMERICAN
NLS_TERRITORY	AMERICA
NLS_CURRENCY	\$
NLS_ISO_CURRENCY	AMERICA
NLS_NUMERIC_CHARACTERS	. ,
NLS_DATE_FORMAT	DD-MON-YY
NLS_DATE_LANGUAGE	AMERICAN
NLS_CHARACTERSET	WE8ISO8859P1
NLS_SORT	BINARY
NLS_CALENDAR	GREGORIAN
NLS_RDBMS_VERSION	10.2.0.2.0
11 rows selected	

Note

In this example, the NLS_CHARACTERSET is set to WE8ISO8859P1 so it matches the environment setting. If the environment setting does **not** match the NLS setting in the database, the system will have issues with document security and could possibly have memory fault problems.

If this display had shown the NLS_CHARACTERSET to be US7ASCII, for example, set the NLS_LANG environment variable to US7ASCII.

For example: export NLS_LANG=AMERICAN_AMERICA.US7ASCII

or

```
setenv NLS_LANG AMERICAN_AMERICA.US7ASCII
```

Report to Sys Admin and Service Representative

Return the following information to the system administrator and your service representative.

Database Users for Image Services

Image Services requires four database users, `f_sw`, `f_sqi`, `f_open`, and `f_maint`. These users will be created on the local server during the Image Services software installation procedure. Image Services will grant specific privileges to these users, assign quotas, and temporary tablespaces.

Oracle Variables

Return the following information to the system administrator and your service representative.

Oracle Version: _____

(Oracle software version) (10.2.0.2, for example)

\$ORACLE_HOME: _____

(Oracle software directory) (/opt/oracle/10gR2, for example)

\$ORACLE_SID: _____

(instance identifier) (IDB, for example)

<Oracle User ID>: _____

(the Oracle administrator) (oracle, for example)

<DBA Group>: _____

(for database administration) (dba, for example)

Add the FileNet software user, such as **fns**w, to this group.

Tablespace Names and Sizes

Recommended Tablespace Names	Tablespace Names You Actually Assign	Minimum Tablespace Size (MB)	Tablespace Size (MB) You Actually Create
fnsys_ts		200	
TEMP		400	
fnidx_ts (optional)		200	
fnusr_ts (optional for WorkFlo Queue Services)		200	

Continue the Image Services Installation

After the Oracle software has been successfully installed, your service representative can continue with the Image Services installation in Chapter 4, “Installing FileNet Image Services Software.” of the *Image Services Installation and Configuration Procedures* for your platform.

To download this document from the IBM support page, see [**“Accessing IBM FileNet documentation” on page 14.**](#)

Installation Guidelines for Remote Oracle Database Configurations

This chapter describes how to configure a remote Oracle database server and then configure the Image Services server as an Oracle client.

Before You Begin

The IS server and the Oracle server must be running one of these operating systems:

- AIX 5L (5.2 or 5.3)
- HP-UX 11i v1 (B.11.11) and HP-UX 11i v2 (B.11.23)
- Solaris 9 or Solaris 10

Prepare Locations for the Oracle Server and Client Software

On the Oracle database server, create a file system for the Oracle Server software. The Oracle Server software requires a **minimum** of: The Oracle 10g **Server** software requires a **minimum** of:

	Free Space for Oracle Software	Free Space for Database
AIX/6000	3.0 GB	1.2 GB
HP-UX (HP 9000)	2.5 GB	1.2 GB

	Free Space for Oracle Software	Free Space for Database
HP-UX (HP Integrity)	5.0 GB	1.2 GB
Solaris	3.5 GB	1.2 GB

On the Image Services server, the Oracle **Client** software requires a minimum of **1.6 GB** of available disk space.

The total space required for Oracle depends on which Oracle products you're installing. (Refer to Oracle documentation for information about the disk space requirements.)

The volume names, mount points, user and group names in these tables are only examples. You can name them anything you choose.

AIX/6000

Oracle 9i

Volume Name	Mount Point	Minimum Size	Actual Size You Create	User Name	Group Name	Mode
orabase1 (Server) (Client)	/opt/oracle	4.0 GB 1.6 GB		oracle	dba	755
oratmp *	/oratmp	400 MB		oracle	dba	755

Oracle 10g

Volume Name	Mount Point	Minimum Size	Actual Size You Create	User Name	Group Name	Mode
orabase1 (Server) (Client)	/opt/oracle	3.0 GB 1.6 GB		oracle	dba	755
oratmp *	/oratmp	400 MB		oracle	dba	755

HP-UX

Oracle 9i

Volume Name	Mount Point	Minimum Size	Actual Size You Create	User Name	Group Name	Mode
orabase1 (Server) (Client)	/opt/oracle	4.0 GB 1.6 GB		oracle	dba	755
oratmp *	/oratmp	400 MB		oracle	dba	755

Oracle 10g

Volume Name	Mount Point	Minimum Size	Actual Size You Create	User Name	Group Name	Mode
orabase1 (Server) (Client)	/opt/oracle	5.0 GB 1.6 GB		oracle	dba	755
oratmp *	/oratmp	400 MB		oracle	dba	755

Solaris

Oracle 9i

Volume Name	Mount Point	Minimum Size	Actual Size You Create	User Name	Group Name	Mode
orabase1 (Server) (Client)	/opt/oracle	3000m 1600m		oracle	dba	755
oratmp *	/oratmp	400m		oracle	dba	755

Oracle 10g

Volume Name	Mount Point	Minimum Size	Actual Size You Create	User Name	Group Name	Mode
orabase1 (Server) (Client)	/opt/oracle	3500m 1600m		oracle	dba	755
oratmp *	/oratmp	400m		oracle	dba	755

* If Oracle Client software is going to be installed on the FileNet server for a remote Oracle instance, the minimum size is 1600m (1.6 GB).

* The oratmp file system is used for temporary space during the Oracle software installation. It can be removed at the end of this procedure.

Strategy

Before making any modifications to the Image Services server, you'll want to bring new Oracle server up. This involves installing the same version of Oracle software that you plan to install on the Image Services server.

After installing the Oracle Server software on the new Oracle server, install the Oracle Client software on the IS server.

- To configure a **remote Oracle server** and a **FileNet Image Services Root/Index** server, continue with the following section, **[“Configure the New Oracle Server” on page 34.](#)**
- To add an Image Services **Application Server** to the configuration, skip to the section, **[“Configure the Image Services Server” on page 45.](#)**

Configure the New Oracle Server

After the new server has been set up with the appropriate version of the UNIX operating system and has been connected to the network, you can begin the Oracle configuration.

Note The use of IS Enterprise Backup and Restore (EBR) to backup a remote Oracle server is not supported by IBM.

Create an Oracle Home Directory

Within the Oracle base volume (ORACLE_BASE=/opt/oracle), create an Oracle home directory where you will install the new Oracle software.

- For example, for Oracle 9i, you might create:

`/opt/oracle/product/9iR2`

(ORACLE_HOME=/opt/oracle/product/9iR2)

- For Oracle 10g, you might create:

`/opt/oracle/product/10gR2`

(ORACLE_HOME=/opt/oracle/product/10gR2)

Create a Directory for FileNet Use

To facilitate the installation of fix packs and test scripts, create a directory named /fnsw/oracle. For example, as the Oracle user, enter:

`mkdir -p /fnsw/oracle`

(After the Image Services software has been installed on the IS server, you will copy several scripts to this directory.)

Verify Oracle Environment Variables

Verify that the following environment variables are set appropriately:

ORACLE_BASE
ORACLE_HOME
NLS_LANG (an 8-bit character set is recommended)
ORA_NLS33 (for Oracle 9i only)
ORA_NLS10 (for Oracle 10g only)
ORACLE_SID

If you need to change any of them, use the following commands:

- In the Bourne or Korn shell:

```
export ORACLE_BASE=/opt/oracle
export ORACLE_HOME=/opt/oracle/product/<9iR2 or10gR2>
export ORACLE_SID=<Oracle Instance Identifier>
export NLS_LANG=AMERICAN_AMERICA.WE8ISO8859P1
export ORA_NLS33=$ORACLE_HOME/ocommon/nls/admin/data
      (for Oracle 9i)
export ORA_NLS10=$ORACLE_HOME/nls/data
      (for Oracle 10g)
```

- In the C shell:

```
setenv ORACLE_BASE /opt/oracle
setenv ORACLE_HOME /opt/oracle/product/<9iR2 or10gR2>
setenv ORACLE_SID <Oracle Instance Identifier>
setenv NLS_LANG AMERICAN_AMERICA.WE8ISO8859P1
setenv ORA_NLS33 $ORACLE_HOME/ocommon/nls/admin/data
      (for Oracle 9i)
setenv ORA_NLS10 $ORACLE_HOME/nls/data
      (for Oracle 10g)
```

CAUTION

The NLS_LANG variable must be set correctly. This character set must be equivalent to or be a subset of the character set used for your data-

base. This ensures that every character input through the terminal has a matching character to map to in the database.

Verify Operating System Patches

After installing the appropriate operating system software, go to the IBM support page at <http://www.ibm.com/software/data/support> and refer to the Compatibility Matrix. To download this document from the IBM support page, see [“Accessing IBM FileNet documentation” on page 14.](#)

Install Oracle Server Software

- If you’re installing Oracle 9i, continue with the next section, [“Install Oracle 9i”](#).
- If you’re installing Oracle 10g, skip to [“Install Oracle 10g” on page 38.](#)

Install Oracle 9i

Verify that, at a minimum, the Oracle products checked below are installed.

Tip Each listed item has an associated icon and checkbox. An icon with a plus sign indicates there are additional subordinate items. You can list those additional items by clicking on the icon.

Placing a **check** in the checkbox indicates that you have selected the item for installation. Products that are **not checked** in the list below are not required by Image Services.

The following products should be selected:

✓ Oracle 9i Database 9.2.0.1.0

✓ Oracle 9i 9.2.0.1.0

Enterprise Edition Options 9.2.0.1.0

Oracle Advanced Security 9.2.0.0.0

Oracle Partitioning 9.2.0.1.0

Oracle Spatial 9.2.0.1.0

Legato Networker Single Server 6.1.0.0.0

Oracle Label Security 9.2.0.1.0

Oracle OLAP 9.2.0.1.0

Oracle Data Mining 9.2.0.1.0

✓ Oracle Net Services 9.2.0.1.0

✓ Oracle Net Listener 9.2.0.1.0

Oracle Connection Manager 9.2.0.1.0

Oracle Names 9.2.0.1.0

Oracle Enterprise Manager Products 9.2.0.1.0

✓ Oracle9i Development Kit 9.2.0.1.0

Oracle C++ Call Interface 9.2.0.1.0

✓ Oracle Call Interface (OCI) 9.2.0.1.0

Oracle Programmer 9.2.0.1.0

Oracle XML Developer's Kit 9.2.0.0.0

(To remove the check from the Oracle XML Developer's Kit option,
you need to remove the check from the Oracle HTTP Server
option first.)

Oracle HTTP Server 9.2.0.1.0

Oracle Transparent Gateways 9.2.0.1.0

iSQL*Plus 9.2.0.1.0

Oracle JDBC/OCI Interfaces 9.2.0.1.0

- 8 When the installation is finished, skip to **“Install the Patch Set” on page 38.**

Install Oracle 10g

- 1 Load the first Oracle 10g DVD for your platform.
- 2 As the Oracle user, launch the Oracle Universal Installer:

runInstaller
- 3 Select the **Advanced Installation** option.
- 4 Select either **Standard Edition** or the **Enterprise Edition** option.
Image Services is compatible with both.

(Do not create a demo database.)
- 5 Select the **Install Software only** option.
- 6 Accept the default values for the remaining prompts and change DVDs as requested.

(There is no need to select individual products.)

Note You can ignore Warnings for patches that refer to older patch versions.

- 7 When the installation is finished, you are ready to install the patch set.

Install the Patch Set

Install the appropriate patch set for your version of Oracle.

Oracle 9i

After you've installed the Oracle 9.2.0.1 software, install:

- Oracle Patch Set 8 (9.2.0.8)

Oracle Patch Set 8 (9.2.0.8) is the final patch set for the Oracle 9i release. Oracle patch sets are available for download from the Oracle MetaLink Web sit.

Oracle 10g

After you've installed the Oracle 10.2.0.1 software, install:

- Oracle Patch Set 1 (10.0.2.0.2)

Install the Oracle 10g Interim Patch (on AIX and Solaris Only)

Use the Oracle opatch utility to install:

- Interim Patch **5087548**

The interim patch is available for download from the Oracle MetaLink Web site.

Change Permissions for the Oracle Software

On all UNIX platforms, for both Oracle 9i and 10g, set the access permissions:

\$ORACLE_HOME/install/changePerm.sh

Create the Oracle Database

To create your new Oracle database, refer to Oracle documentation for complete information. Create the database large enough to hold the

two (or possibly three) tablespaces for IS use that you'll be configuring later in this chapter.

Create the Oracle data dictionary:

```
sqlplus "/ as sysdba"  
SQL>@$ORACLE_HOME/rdbms/admin/catalog.sql  
SQL>@$ORACLE_HOME/rdbms/admin/catproc.sql
```

Modify the SQLNET.ORA File

To prevent the Oracle server from terminating the connection to the IS server after an extended idle time, use your preferred text editor (such as **vi**) to modify the following file:

\$ORACLE_HOME/network/admin/sqlnet.ora

Set the following entry to the number of minutes you want the Oracle server to wait before terminating the connection to the IS server:

sqlnet.expire_time = 30

In this example, the time delay has been set to thirty minutes.

Note

Change this setting only on the Oracle database server, not on the Oracle client (Image Services) server.

Create the Database Users for Image Services

Create the following required users on the Oracle server so IS can access the database:

f_sw f_sqi f_open f_maint

Use sqlplus to create them. For example:

```
$sqlplus "/as sysdba"
SQL> create user f_sw identified by <password>
SQL> create user f_sqi identified by <password>
SQL> create user f_open identified by <password>
SQL> create user f_maint identified by <password>
```

Later on, Image Services will grant specific privileges to these users, assign quotas, and temporary tablespaces.

Create Tablespaces for IS Objects

Image Services supports both local and dictionary managed tablespaces.

A minimum of two tablespaces are required for Image Service use; a third or fourth tablespace is optional.

Recommended Tablespace Names *	Minimum Tablespace Size (MB)	Tablespace Type
fnsys_ts	200	permanent
TEMP	400	temporary
fnidx_ts (optional)	200	permanent
fnusr_ts (optional for WorkFlo Queue Services)	200	permanent

* **fnsys_ts** is the name of the dedicated FileNet default tablespace

for tables.

fntmp_ts is the name of the dedicated IS temporary tablespace.

fnidx_ts is the name of the optional IS index tablespace, which can be used to keep indexes separate from tables in the fnsys_ts tablespace, if necessary. If you do not create this tablespace, tables and indexes will be kept together in fnsys_ts.

fnusr_ts is the name of the optional IS user tablespace for WorkFlo Queue Services. If your Image Services system will not be using this product, you do not need to create this tablespace.

Tip Create the fnsys_ts and fnidx_ts tablespaces on separate disks if your IS system does not include a SAN (Storage Area Network) or RAID (Redundant Array of Independent Disks).

You can name the tablespaces anything you choose, but their sizes should be at least as large as shown in the table. The FileNet SCoUT (System Capacity Planning Tool) utility can help you determine the actual size needed for your application. Check with your service representative for details.

Configure and Test Oracle Networking (TCP/IP)

- 1 To set up Oracle networking, create or update the following files on the Oracle server.

- tnsnames.ora
- listener.ora

Use Oracle tools to configure Oracle Networking.

To verify these files, as the Oracle user, change to the **\$ORACLE_HOME/network/admin** directory and use your preferred text editor (such as **vi**):

The tnsnames.ora File

```
# TNSNAMES.ORA Network Configuration File
# Oracle Server and Client Server

<Same name as the GLOBAL_DBNAME in the Listener.ora file> =
  for example: Michigan_IDB.filenet.com
  (DESCRIPTION =
    (ADDRESS_LIST =
      (ADDRESS = (PROTOCOL = TCP)(HOST = <Oracle server name or IP
address>)(PORT = 1521))
    )
    (CONNECT_DATA =
      (SERVER = DEDICATED)
      (SERVICE_NAME = <Same GLOBAL_DBNAME as in the Listener.ora file>)
    )
  )
```

The listener.ora File

```
# LISTENER.ORA Network Configuration File
# Oracle Server only

LISTENER =
  (DESCRIPTION_LIST =
    (DESCRIPTION =
      (ADDRESS_LIST =
        (ADDRESS = (PROTOCOL = TCP)(HOST = <Oracle server name or IP
address>)(PORT = 1521))
      )
    )
  )

SID_LIST_LISTENER =
  (SID_LIST =
    (SID_DESC =
      (GLOBAL_DBNAME = <ServerName_<oracleSID>.filenet.com> )
                        Example: Michigan_IDB.filenet.com
      (ORACLE_HOME = <Oracle Server software location> )
                        Example: /opt/oracle/product/10gR2
      (SID_NAME = <the SID you named your database instance> )
                        FileNet default: IDB
    )
  )
)
```

2 Start the listener process:

```
lsnrctl
LSNRCTL> start
```

- 3 Verify that the internal Oracle networking is active and functional by running the Oracle loopback test on the Oracle server. Enter a sqlplus command in this format:

```
sqlplus <user>/<password>@<GLOBAL_DBNAME from  
tnsnames.ora file>
```

For example, enter:

```
sqlplus sys/<sys_password>@Michigan_IDB.filenet.com
```

If there are no errors, Oracle networking is working successfully. Exit from sqlplus.

Configure the Image Services Server

When the remote Oracle server is successfully configured, you can configure the Image Services server.

Use the procedures in this section to configure one of the following:

- Image Services Combined server or Root/Index server,
- Image Services Application Server with WorkFlo Queue Services, SQL Services, or VWServices.

Note Configure the Combined or Root/Index server first.

When adding an Application server to the configuration, use the **same** ORACLE_SID (**IDB**, for example) and ORACLE_UID (**oracle**, for example) as the Combined or Root/Index server.

Prepare Location for Oracle 10g Client Software

Create a file system for the Oracle Client software. The Oracle Client software requires a minimum of **1.6 GB**.

Create an Oracle Home Directory

Within the Oracle base volume (ORACLE_BASE=/opt/oracle), create an Oracle home directory where you will install the new Oracle software.

- For example, for Oracle 9i, you might create:

/opt/oracle/client/9iR2

(ORACLE_HOME=/opt/oracle/client/9iR2)

- For Oracle 10g, you might create:

/opt/oracle/client/10gR2

(ORACLE_HOME=/opt/oracle/client/10gR2)

Set Oracle Software Directory Ownership and Permissions

As a user with **root** privileges, change the ownership and access permissions for the Oracle software directory. Verify that the ownership is set to the Oracle user and the Database Administration group.

Install Oracle Client Software

- If you're installing Oracle 9i, continue with the next section, [**"Install Oracle 9i" on page 46.**](#)
- If you're installing Oracle 10g, skip to [**"Install Oracle 10g" on page 47.**](#)

Install Oracle 9i

Verify that, at a minimum, the Oracle products checked off on the list below are installed. Products that are **not checked** in the list below are not required by Image Services.

- ✓ Oracle 9i Client 9.2.0.1.0
 - Oracle Enterprise Manager Products 9.2.0.1.0
 - Enterprise Manager Client 9.2.0.1.0
 - Oracle Change Management Pack
 - Oracle Diagnostics Pack 9.2.0.1.0
 - Oracle Tuning Pack 9.2.0.1.0
 - Oracle Management Pack for Oracle Applications 9.2.0.1.0
 - Oracle Management Pack for Oracle Standard Edition 9.2.0.1.0
 - ✓ Oracle Network Utilities 9.2.0.1.0
 - ✓ Oracle Database Utilities 9.2.0.1.0
 - ✓ SQL*Plus 9.2.0.1.0
 - Oracle JDBC/OCI Interfaces 9.2.0.1.0
 - Oracle Internet Directory Client 9.2.0.1.0
 - Oracle Programmer 9.2.0.1.0
 - Oracle XML Developers Kit 9.2.0.1.0
 - Oracle9i for UNIX Documentation 9.2.0.1.0
 - ✓ Oracle Universal Installer 2.2.0.12.0
 - Oracle Advanced Security 9.2.0.1.0
- 4 When the installation is finished, skip to **“Install the Patch Set” on page 48.**

Install Oracle 10g

- 1 Load the first Oracle 10g DVD for your platform.
- 2 As the Oracle user, launch the Oracle Universal Installer:

runInstaller
- 3 Select the **Advanced Installation** option.
- 4 Select the **Enterprise Edition** option.

(Do not create a demo database.)

- 5 Select the **Install Software only** option.
- 6 Accept the default values for the remaining prompts and change DVDs as requested.

Install the Patch Set

Install the appropriate patch set for your version of Oracle.

Oracle 9i

After you've installed the Oracle 9.2.0.1 software, install:

- Oracle Patch Set 6 (9.2.0.6)

Oracle Patch Set 8 (9.2.0.8) is the final patch set for the Oracle 9i release. Oracle patch sets are available for download from the Oracle MetaLink Web site at: <http://www.oracle.com/support/metalink/index.html>

Oracle 10g

After you've installed the Oracle 10.2.0.1 software, install:

- Oracle Patch Set 1 (10.0.2.0.2)

Install the Oracle 10g Interim Patch (on AIX and Solaris Only)

Use the Oracle opatch utility to install:

- Interim Patch **5087548**

The interim patch is available for download from the Oracle MetaLink Web site at: <http://www.oracle.com/support/metalink/index.html>

Change Permissions for the Oracle Software

On all UNIX platforms, for both Oracle 9i and 10g, set the access permissions:

```
$ORACLE_HOME/install/changePerm.sh
```

Set Oracle Environment Variables

Verify that the following environment variables are set correctly for the Oracle user, the IS software user, such as **fns**, and optionally a user with **root** privileges:

```
ORACLE_BASE  
ORACLE_HOME  
TWO_TASK  
NLS_LANG      (an 8-bit character set is recommended)  
ORA_NLS33     (for Oracle 9i only)  
ORA_NLS10     (for Oracle 10g only)  
ORACLE_SID
```

(The TWO_TASK variable is set to the <GLOBAL_DBNAME> set in the TNSNAMES.ORA file.)

Follow these guidelines:

Note If the **oracle** user's .profile and/or .cshrc file do not have any customized settings, run the **install_templates** command instead of directly modifying these files as described in the following steps.

To change these environment settings, edit **both** the user's .profile **and** .cshrc file.

For example:

- a In the Bourne or Korn shell, edit the `.profile` file.

```
export ORACLE_BASE=/opt/oracle
export ORACLE_HOME=/opt/oracle/client/<9iR2 or 10gR2>
export TWO_TASK=<GLOBAL_DBNAME from tnsnames.ora
file>
export NLS_LANG=AMERICAN_AMERICA.WE8ISO8859P1

export ORA_NLS33=$ORACLE_HOME/ocommon/nls/admin/
data
      (for Oracle 9i)
export ORA_NLS10=$ORACLE_HOME/nls/data
      (for Oracle 10g)
```

- b In the C shell, edit the `.cshrc` file.

```
setenv ORACLE_HOME /opt/oracle/client/<9iR2 or 10gR2>

setenv TWO_TASK <GLOBAL_DBNAME from tnsnames.ora
file>

setenv NLS_LANG AMERICAN_AMERICA.WE8ISO8859P1

setenv ORA_NLS33 $ORACLE_HOME/ocommon/nls/admin/
data      (for Oracle 9i)
setenv ORA_NLS10 $ORACLE_HOME/nls/data
      (for Oracle 10g)
```

CAUTION

The `NLS_LANG` variable must be set correctly. This character set must be equivalent to or be a subset of the character set used for your database. This ensures that every character input through the terminal has a matching character to map to in the database.

If you need to check the character set used when the database was created on the Oracle server, continue with the next step. Otherwise, skip to **[“Prepare Location for Oracle 10g Client Software” on page 45.](#)**

Verify Oracle NLS Parameters

On the **Oracle server**, you can check the Oracle NLS parameters by entering as the Oracle user:

```
sqlplus "/ as sysdba"
SQL> select * from nls_database_parameters;
```

The displays looks similar to this:

PARAMETER	VALUE
-----	-----
NLS_LANGUAGE	AMERICAN
NLS_TERRITORY	AMERICA
NLS_CURRENCY	\$
NLS_ISO_CURRENCY	AMERICA
NLS_NUMERIC_CHARACTERS	. ,
NLS_DATE_FORMAT	DD-MON-YY
NLS_DATE_LANGUAGE	AMERICAN
NLS_CHARACTERSET	WE8ISO8859P1
NLS_SORT	BINARY
NLS_CALENDAR	GREGORIAN
NLS_RDBMS_VERSION	9.2.0.4.0
11 rows selected	

Note

In this example, the NLS_CHARACTERSET is set to WE8ISO8859P1 so it matches the environment setting. If the environment setting does **not** match the NLS setting in the database, the system will have issues with document security and could have memory fault problems.

If this display had shown the NLS_CHARACTERSET to be US7ASCII, for example, then you would need to set the NLS_LANG environment variable to US7ASCII.

For example:

```
export NLS_LANG=AMERICAN_AMERICA.US7ASCII  
or  
setenv NLS_LANG AMERICAN_AMERICA.US7ASCII
```

Copy the tnsnames.ora file onto the IS Server

Copy the **tnsnames.ora** file from the **\$ORACLE_HOME/network/admin** directory on the Oracle server to the **\$ORACLE_HOME/network/admin** directory on the FileNet Image Services server.

This ensures that the two tnsnames.ora files are identical on both servers.

Note

The tnsnames.ora file on the Oracle server can describe more than one listener process if more than one independent FileNet Image Services system is configured to access the same Oracle server.

The tnsnames.ora file on the Image Services server should describe only one listener process.

On an Application server, the tnsnames.ora file should be identical to the tnsnames.ora file on the Combined or Root/Index server. That is, it should describe only one listener process.

Test Oracle Networking on the Image Services Server

Oracle Networking has already been configured and tested on the Oracle server. Now you can test the Oracle Client's ability to access the database on the remote Oracle server with the following command:

```
tnsping <GLOBAL_DBNAME>
```

where **<GLOBAL_DBNAME>** is the global database name used in the tnsnames.ora and listener.ora files. For example: Michigan_IDB.world.

This verifies that the tnsnames file on the IS server can communicate successfully with the listener.ora file on the Oracle server.

To verify that you can access the Oracle database from the Image Services server, enter a sqlplus command in the following format:

```
sqlplus <user/password>@<GLOBAL_DBNAME>
```

where the user and password are the ones the Database Administrator set up earlier. For example:

```
sqlplus system/manager@Michigan_IDB.filenet.com
```

You should now be logged on to the Oracle server with no errors.

Test the TWO_TASK Environment Setting

To verify the TWO_TASK environment setting, enter a sqlplus command in the following format:

```
sqlplus <user/password>
```

For example:

```
sqlplus f_sw/<f_sw password>
```

You should now be logged onto the Oracle database server via Oracle networking and the TWO_TASK environment setting, as will the Image Services software.

Exit from sqlplus.

Report to Sys Admin and Service Representative

The new Oracle server has been successfully installed and configured, and the server on which you plan to install FileNet Image Services software has been configured as an Oracle client.

Oracle Variables

Return the following information to the system administrator and your service representative.

Oracle Version: _____
(Oracle software version) (10.2.0.2, for example)

\$ORACLE_HOME: _____
(Oracle software directory) (/usr/ora/10gR2, for example)

\$ORACLE_SID: _____
(instance identifier) (IDB, for example)

<Oracle User ID>: _____
(the Oracle administrator) (oracle, for example)

<DBA Group>: _____
(for database administration) (dba, for example)
The FileNet user **fns** must be made a member of this group.

f_sw password: _____

f_sqi password: _____

f_open password: _____

f_maint password: _____

Tablespace Names

Recommended Tablespace Names	Tablespace Names You Actually Assign	Minimum Tablespace Size (MB)	Tablespace Size (MB) You Actually Create
fnsys_ts		200	
TEMP		400	
fnidx_ts (optional)		200	
fnusr_ts (optional for WorkFlo Queue Services)		200	

Continue the Image Services Installation

After the Oracle software has been successfully installed, your service representative can continue with the Image Services installation in Chapter 4, “Installing FileNet Image Services Software.” of the *Image Services Installation and Configuration Procedures* for your platform.

To download this document from the IBM support page, see [**“Accessing IBM FileNet documentation” on page 14.**](#)

Update Guidelines for UNIX Servers

The **Database Administrator** will update the Oracle RDBMS software as specified in this chapter.

Note Updates to Oracle 9i are not supported. If your current version of Oracle is 8i, update directly to Oracle 10g.

This chapter covers updating both local and remote database configurations.

Operating System Considerations

Verify with the System Administrator that the server's operating system has been updated to the appropriate version and that the most recent patch sets, if any, have been installed.

Verify Operating System Patches

After installing the appropriate operating system software, go to the IBM support page at <http://www.ibm.com/software/data/support> and refer to the Compatibility Matrix. To download this document from the IBM support page, see [**“Accessing IBM FileNet documentation” on page 14.**](#)

Create a New Oracle Home Directory

Within the Oracle base volume (ORACLE_BASE=/opt/oracle), create an Oracle home directory where you plan install the new Oracle software.

- For example, for Oracle 10g server software, you might create:

`/opt/oracle/product/10gR2`

`(ORACLE_HOME=/opt/oracle/product/10gR2)`

- For Oracle 10g client software, you might create:

`/opt/oracle/client/10gR2`

`(ORACLE_HOME=/opt/oracle/client/10gR2)`

Turn Off Archive Logging (if necessary)

If Archive Logging is active on the server, turn it off before updating the Oracle software.

Turning off Archive Logging will prevent non-essential records from being written to the log file and will accelerate the update.

Install Oracle 10g Software

Refer to the Oracle documentation and the Oracle Metalink information (for registered users) on Oracle's Web site for complete information.

- To install Oracle 10g **Server software** on an Image Services server or an independent (remote) Oracle server accessed by Image Services, continue with the next section, **"Oracle Server"**.
- To Install Oracle 10g **Client software** on an Image Services server, skip to the section, **"Oracle Client" on page 59**.

Oracle Server

Install Oracle 10g in a different ORACLE_HOME directory than your current version, for example: `/opt/oracle/product/10gR2`.

- 1 As the Oracle user, load the first Oracle10g DVD, and launch the Oracle Universal Installer.

runInstaller

- 2 Select the **Advanced Installation** option.
- 3 Select either the **Standard Edition** or the **Enterprise Edition** option. Image Services is compatible with both.

(Do not create a demo database.)
- 4 Select the **Install Software only** option.
- 5 Accept the default values for the remaining prompts and change DVDs as requested.

(There is no need to select individual products.)

Note You can ignore Warnings for patches that refer to older patch versions.

- 6 When the installation is finished, you are ready to install the patch set.

Install the Patch Set

After you've installed the Oracle 10.2.0.1 software, install:

- Oracle Patch Set 1 (10.0.2.0.2)

Install the Interim Patch (on AIX and Solaris Only)

Use the Oracle opatch utility to install:

- Interim Patch **5087548**

The interim patch is available for download from the Oracle MetaLink Web site.

Change Permissions for the Oracle Software

On all UNIX platforms, set the access permissions:

\$ORACLE_HOME/install/changePerm.sh

Turn On Archive Logging (if necessary)

If you turned off Archive Logging on the database server before updating the Oracle software, turn it on again.

When the Oracle 10g Server software has been installed successfully, skip to the section, **[“Update IS Configuration Files” on page 61.](#)**

Oracle Client

Install Oracle 10g in a different ORACLE_HOME directory than your current version, for example: /opt/oracle/client/10gR2.

- 1 As the Oracle user, load the first Oracle10g DVD, and launch the Oracle Universal Installer.

runInstaller

- 2 Select the **Advanced Installation** option.
- 3 Select either the **Standard Edition** or the **Enterprise Edition** option. Image Services supports both.

(Do not create a demo database.)

- 4 Select the **Install Software only** option.

- 5 Accept the default values for the remaining prompts and change DVDs as requested.

(There is no need to select individual products.)

Note You can ignore Warnings for patches that refer to older patch versions.

- 6 When the installation is finished, you are ready to install the patch set.

Install the Patch Set

After you've installed the Oracle 10.2.0.1 software, install:

- Oracle Patch Set 1 (10.0.2.0.2)

Install the Interim Patch (on AIX and Solaris Only)

Use the Oracle opatch utility to install:

- Interim Patch **5087548**

The interim patch is available for download from the Oracle MetaLink Web site.

Change Permissions for the Oracle

On all UNIX platforms, set the access permissions:

\$ORACLE_HOME/install/changePerm.sh

Copy the tnsnames.ora File

After you've installed the Oracle 10g Client software, copy the tnsnames.ora file from its old location to the new \$ORACLE_HOME/network/admin directory.

Update IS Configuration Files

You can upgrade from Oracle 9i to Oracle 10g several weeks or months after upgrading to Image Services 4.1. If you are upgrading to Oracle 10g independently of an Image Services 4.1 installation or upgrade, run **fn_setup_rdb** to update the IS configuration files and RDBMS related files.

(This step is also included in the IS 4.1 installation and upgrade procedures, so you do not need to run this command now if you are also upgrading to IS 4.1 at this time.)

Note If the IS system is configured with a Site-controlled relational database (on a local or on a remote database server), verify that the relational database is up before running the **fn_setup_rdb** command.

As an IS software user, such as **fns**, enter:

fn_setup_rdb -u

You will be prompted to enter the passwords for the four IS database users, **fn_sw**, **f_sqi**, **f_open**, and **f_maint**.

Report to Sys Admin and Service Representative

Please return the following information to the System Administrator and your service representative.

\$ORACLE_SID: _____
(instance identifier) (IDB, for example)

Name of DBA Group: _____
(for database administration) (dba, for example)

Continue the Image Services Upgrade

After the Oracle software has been successfully installed, your service representative can continue with the Image Services Upgrade in Chapter 4, “Updating Image Services Software” of the *Image Services Upgrade Procedure* for your platform.

To download this document from the IBM support page, see **“Accessing IBM FileNet documentation” on page 14.**

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Program Number: 5724-R95

Printed in USA

GC31-5553-00

