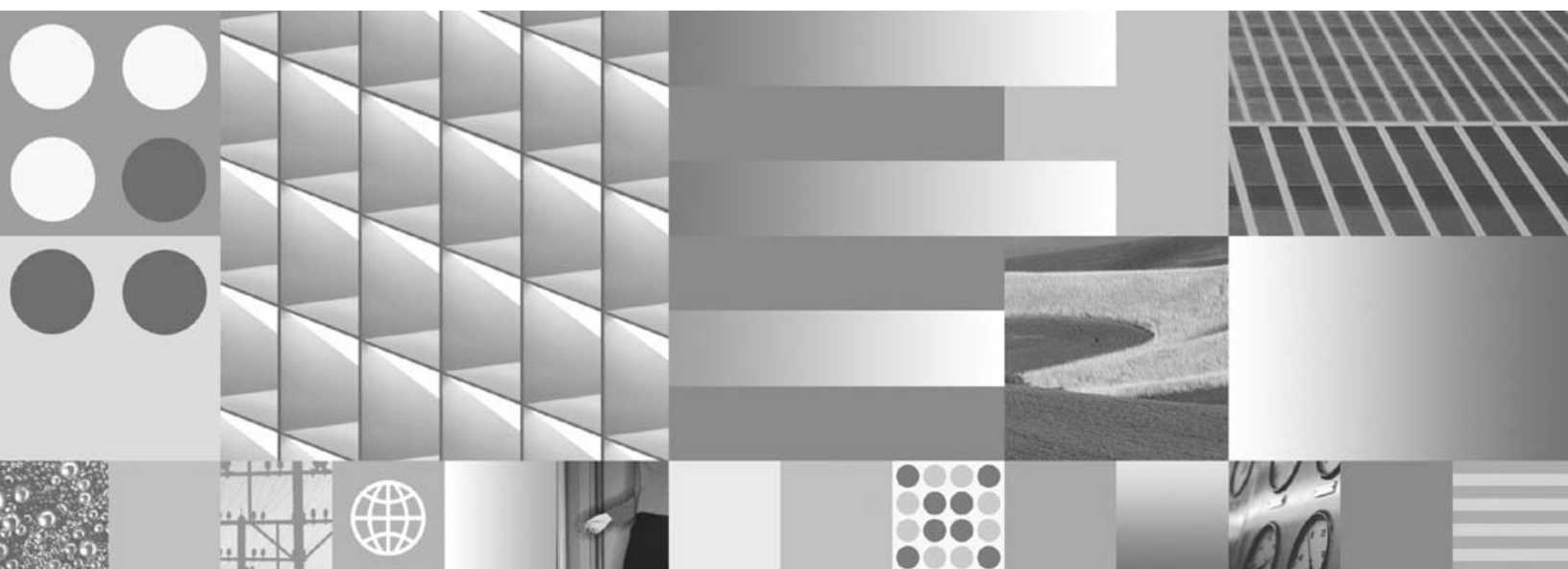


**Guidelines for Installing and Updating Site-Controlled Oracle and MS SQL  
Software for Windows Server**





**Guidelines for Installing and Updating Site-Controlled Oracle and MS SQL  
Software for Windows Server**

**Note**

Before using this information and the product it supports, read the information in “Notices” on page 72.

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.

© **Copyright International Business Machines Corporation 2003, 2008. All rights reserved.**

US Government Users Restricted Rights – Use, duplication or disclosure restricted by GSA ADP Schedule Contract with IBM Corp.

# Contents

## 1 Getting Started 10

**Document revision history 10**

**Accessing IBM® FileNet® Documentation 11**

**Supported RDBMS Software 12**

Microsoft SQLServer 2000 12

Microsoft SQLServer 2005 12

Updating MS SQLServer 2000 to MS SQL Server 2005 13

Oracle RDBMS Software 14

Oracle 9i 14

    Required Oracle 9i Patch 14

Oracle 10g 14

    Required Oracle 10g Patch 14

Undo Segments and Rollback Segments 15

**Installation Prerequisites 15**

Hardware Requirements 15

    Minimum Disk Space 16

        Minimum Disk Space Requirements 17

Software Requirements 18

    Windows 2003 Operating System 18

    RDBMS Software Media 18

Additional Information (Microsoft SQL Server ONLY) 19

## 2 Preparing for the Installation/Update 21

**Preparing to Install RDBMS Software 21**

File System and Dataset Information (SQL Only) 21

Verify Disk Space Requirements 22

Local Server Installations 23

Remote Server Installations 23

**Preparing to Update RDBMS Software 23**

Tasks for Your Service Representative/ValueNET Partner 23

Check Current Software Release 24

Windows Operating System 24

FileNet and RDBMS Software 24

Verify the System Serial Number 25

Exit Image Services Toolkit Applications 25

Back Up the System 26

Shutdown the FileNet Software 26

Update to Windows 2003 (If Necessary) 26

Local or Remote Updates 27

## **3 Installing RDBMS Software on a Local Server 28**

**Install Oracle Server Software 29**

Install Oracle 9i Server Software Products 29

Install Oracle Database 10g Software 30

Install the Oracle Patch Set 31

Oracle 9i 31

Oracle 10g 32

Create the ORACLE\_SID 32

Edit the sqlnet.ora File 33

Create the Oracle Service 34

Reboot the Server 34

Report to Sys Admin and Your Service Representative	35
Database Users for Image Services	35
Oracle Variables	36
Defining Additional RDB Objects (Optional)	36
RDB Object Name Basic Syntax	37
Index Services Example	38
WFL Services Example	38
VW Services Example	39
<b>Continue the Image Services Installation</b>	<b>41</b>
<b>Local Microsoft SQL Server RDBMS Guidelines</b>	<b>42</b>
Reboot the Server	42
Verify the File Names and Filegroups	43
Install Image Services	43

## 4 Installing RDBMS Software on a Remote Server 44

<b>Strategy</b>	<b>44</b>
<b>Remote Oracle RDBMS Guidelines</b>	<b>45</b>
Configure the Remote Oracle Server	45
Create Oracle Users and Group	45
Create a Directory for FileNet Software Use	46
Prepare a Location for the Oracle Server Software	46
Install Oracle Server Software	46
Install Oracle 9i	46
Install Oracle 10g	48
Install the Patch Set	49
Oracle 9i	49

Oracle 10g	49
Create listener.ora and tnsnames.ora Files	49
The tnsnames.ora File	50
The listener.ora File	50
Start the Oracle Listener	51
Execute the Oracle Loopback Test on the Oracle Server	51
<b>Configure the FileNet Image Services (Client) Server</b>	<b>51</b>
Install Oracle Client Software	52
Install Oracle 9i	52
Install Oracle 10g	54
Install the Patch Set	54
Oracle 9i	54
Oracle 10g	55
Ensure the Remote Environment is Setup Correctly	55
Copy the tnsnames.ora file onto the FileNet (Client) Server	55
Test Oracle Networking on the FileNet IS (Client) Server	56
Test the Local Environment Setting	57
Report to Sys Admin and Your Service Representative	57
Set ORACLE_SID	57
Name Oracle Database Administration Group	58
Tablespace Names	58
Install Image Services	59
<b>Remote Microsoft SQL Server RDBMS Guidelines</b>	<b>59</b>
Configure the Remote Microsoft SQL Server	59
Shutdown All Applications	59
Installing Remote Microsoft SQL Server Software	60
Reboot the Server	61
Verify the File Names and Filegroups	61
Configure the FileNet Image Services (Client) Server	62
Installing the Client Microsoft SQL Server 2000/2005 Software	63



Test SQL Networking on the FileNet IS (Client) Server	63
Install Image Services Software	63

## 5 Updating RDBMS Software 64

### **Guidelines for Updating a Site-Controlled Oracle RDBMS 65**

Turn Off Archive Logging (if necessary)	65
Install Oracle 10g Products	65
Oracle 10g Server	65
Run Upgrade Scripts	66
Install Oracle Patch Set	66
Oracle 10g Client	66
Report to Sys Admin and Your Service Representative	67
ORACLE_SID	67
Name Oracle Database Administration Group	67
Update Image Services	68

### **Guidelines for Updating a Site-Controlled Microsoft SQL Server RDBMS 68**

Minimum Microsoft SQL Server 2000 Components	68
Minimum Microsoft SQL Server 2005 Components	69
File Group Names	71
Notify System Users	71

### **Report to Sys Admin and Your Service Representative 71**

### **Continue the Image Services Upgrade 71**

## Notices 72

### **Trademarks 75**

### **U.S. Patents Disclosure 76**

# Getting Started

This document provides guidelines for installing and updating Relational Database Management Software (RDBMS) on a Windows® Server.

---

**Note** The RDBMS software must be installed, or updated, before you install, or update, the Image Services software.

---

Beginning with the Image Services 4.1 software release, **only Site-controlled** database installations are supported for new installations. However, existing **FileNet-controlled** databases are still supported for updates.

The Database Administrator (DBA) will install/update the RDBMS software. Because FileNet Image Services software requires that certain RDBMS products be installed and certain table spaces be defined, the DBA needs to follow the guidelines outlined in this document.

## Document revision history

IS version	Date	Comment
4.1	June 2008	Documentation refresh. Added SQL 2000 to SQL 2005 update info.
4.1	Nov. 2007	Documentation refresh. Bluewashing. Added MSSQL 2005 information (IS 4.1.1).
4.1	June 2007	Initial release.

## 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](http://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, click the Doc Link for the appropriate component product to display the document list.
  - b Click the icon in the appropriate release column to access the document you need.

## Supported RDBMS Software

The following RDBMS software is supported in Image Services 4.1.

---

**Note** For detailed information on Microsoft® or Oracle® products, refer to the documentation that came with your software.

---

### Microsoft SQLServer 2000

If you will be using an SQL Server relational database, only Microsoft SQLServer 2000 SP4 software is supported for the 4.1 GA release of Image Services.

### Microsoft SQLServer 2005

If you will be using a SQL Server relational database, only Microsoft SQLServer 2005 SP2 software is supported for the 4.1.1 release of Image Services. SQL Server 2005 offers a Windows Authentication Mode and a Mixed Authentication Mode, but Image Services can **only** support Mixed Authentication Mode.

- Windows Authentication Mode grants the user access on a security token assigned during a successful domain logon by a Windows account, which then requests access to SQL Server resources (not supported by IS).
- Mixed Authentication Mode grants the user access by SQL Server Authentication which relies on the verification of credentials stored and maintained by the SQL Server as well as Windows Authentication (supported by IS).

Users have the ability to manage SQL Server account password and lockout properties with SQL Server 2005. The user can enforce such

restrictions on password complexity, password expiration and account lockout. CHECK\_EXPIRATION controls password expiration and CHECK\_POLICY determines both state of password complexity and account lockout settings. IS database users are created with CHECK\_EXPIRATION = OFF and CHECK\_POLICY = ON.

---

**Note** Be aware that SQL Server 2000 enables remote access by default, but SQL Server 2005 does not. You will need to enable remote access on your SQL Server 2005 servers.

---

## Updating MS SQLServer 2000 to MS SQL Server 2005

You can upgrade from MS SQL Server 2000 to MS SQL Server 2005 several weeks or months after upgrading to Image Services 4.1. If you are upgrading to MS SQL Server 2005, independently of Image Services installation or upgrade, run fn\_setup\_rdb to update the Image Services configuration files and create the Open Database Connectivity (ODBC) data source name.

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 fnsw, enter:

**fn\_setup\_rdb -u**

## Oracle RDBMS Software

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

### Oracle 9i

The following version of Oracle 9i is supported:

- Oracle9i Database Release 2 Enterprise/Standard Edition for Microsoft Windows

#### Required Oracle 9i Patch

Also required is:

- 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 version of Oracle 10g is supported:

- Oracle Database 10g Release 2 (10.2.0.1.0) for Microsoft Windows (32-bit)

#### Required Oracle 10g Patch

Also required is:

- 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>

## 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.

You must 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 via system-managed undo (SMU).

Image Services supports the undo feature only with site-controlled Oracle databases. FileNet-controlled databases will continue to use rollback segments.

Refer to Oracle documentation for further details.

## Installation Prerequisites

The prerequisites for installing and updating RDBMS software (hardware and software requirements) are included in the following sections.

### Hardware Requirements

To complete the installation/update procedures in this document, your server must meet the following hardware requirements.

- Minimum Processor: 800Mhz Pentium
- 256 MB or more memory per CPU (512 MB recommended)

- 512 MB or more memory per CPU (1 GB recommended) **-MS SQL Server 2005**

---

**Tip** To check the amount of memory, logon on the server as **fns** or **Administrator**. From the Command Prompt window, enter the **winmsd** command, click the Memory... tab, and look for the entry that says Physical Memory Total:

---

- A tape device (such as DAT Cartridge, 8mm, QIC) (Record the tape device type here: \_\_\_\_\_.)
- An NTFS file system with the required amount of disk space as described in the Total Disk Space section below.

---

**Tip** To see how much disk space is available, use the Windows Explorer, and select the drive where you plan to install the Image Services software. The available free disk space appears in the message area at the bottom of the window. Refer to the *FileNet Disk Sizing Spreadsheet* for actual FileNet dataset sizes.

---

- A modem installed (and configured for operation) on your server
- An HP Optical Disk Library (optional)

### Minimum Disk Space

For Windows Operating System software, FileNet Image Services software, minimum FileNet datasets, and Oracle or Microsoft SQL Server software:

- At least 6.5 GB with Oracle
- At least 4.35 GB with SQL Server



These sizes include a 30% growth factor.

**Note** The above disk space does not reflect the space needed for Oracle or Microsoft SQL datasets. It is the responsibility of the site DBA to correctly estimate the size that will be needed for the RDBMS datasets.

### Minimum Disk Space Requirements

For FileNet Image Services software, RDBMS software, and temporary working storage, the following minimum disk space is required for Combined Root/Index servers and Storage Library servers.

Software	SQL Combined or Root/Index Server	Oracle Combined or Root/Index Server	Storage Library Server
Windows Operating System	3 GB	3 GB	3 GB
FileNet datasets	1 GB	1 GB	1 GB
SQL Server 2000 Software	350 MB	-	-
SQL Server 2005 Software	660 MB	-	-
Oracle 9i Software	-	2 GB	-
Free space on drive c: for Oracle installation software*	-	500 MB*	-
Free space on drive c: for SQLServer 2005 installation software*	2 GB	-	-
<b>Total disk space</b>	<b>7.1 GB</b>	<b>6.5 GB</b>	<b>4 GB</b>

\* Oracle Updates ONLY. This space is required for decompressing Oracle files from the media onto the c: drive, and is only needed temporarily for an update. These files are automatically deleted when the update is finished. If desired, this space can be moved to another drive by setting the TEMP variable.

To check your free disk space, open the Windows Explorer, right click on the drive containing your FileNet or RDBMS software, and choose Properties.

## Software Requirements

To complete the installation/update and configuration procedures in this document, your server must meet the following software requirements:

### Windows 2003 Operating System

Only the Windows 2003 operating system is supported in this release of Image Services.

If you are installing or updating a remote database system, both the FileNet server and the remote RDBMS server must be running the same version of the Windows 2003 operating system.

The following versions are supported:

- Windows Server 2003 SP1 or SP2
- Windows Server 2003 R2
- Windows Server 2003 R2 SP2

---

**Note** You can download the service packs from: <http://www.microsoft.com/downloads/search.asp?>

---

### RDBMS Software Media

Depending on the RDBMS software you intend to install/update on your system, you will need one of the following:

- Microsoft SQL Server 2000 (CD-ROM)
- Microsoft SQL Server 2005 (CD-ROM)
- Oracle 9i Release 2 Enterprise/Standard Edition (CD-ROM)
- Oracle 10g Release 2 Enterprise/Standard Edition (DVD)

---

**Note** The Oracle media are **not** shipped with the FileNet Image Services software.

---

If you plan to set up your own Oracle RDBMS user (such as default=**oracle**) and database administration group (default=**dba**\* and default=**ora\_dba**\*), make sure that both the FileNet Image Services user (default=**fns**) and the RDBMS user belong to the existing database administration group.

\* dba and ora\_dba are the default group names for FileNet-controlled Oracle databases. Your Oracle database may use the existing group name.

## Additional Information (Microsoft SQL Server ONLY)

When you install the Microsoft SQL Server server software, you'll be asked to provide certain information for the SQL Server Database, as shown in the following table. Write this information in the spaces provided in the table below so you'll have it available when you need it.

Information	SQL Server Database
Server Name	
Instance Name	
License Mode (per seat or per number of processors)	

Information	SQL Server Database
* Number of processor licenses	
Location (path) for Image Services Datasets	

\* If licensed by number of processors.

## Preparing for the Installation/Update

This chapter contains information that is necessary to prepare your system environment. Perform the steps in these sections before beginning your relational database installation or update.

---

**Note** These procedures are necessary to prepare your server for an installation/update of RDBMS software only. Before installing or updating the FileNet software, you still need to complete the preparation steps in Chapter 2 of the install or update document.

---

To prepare for an **installation** of RDBMS software, continue to the section [\*\*“Preparing to Install RDBMS Software” on page 21.\*\*](#)

To prepare for an **update** of RDBMS software, continue to the section [\*\*“Preparing to Update RDBMS Software” on page 23.\*\*](#)

### Preparing to Install RDBMS Software

This section contains required steps to prepare your server for a successful installation of RDBMS software.

#### File System and Dataset Information (SQL Only)

You must determine the expected size of the SQL datasets (in Mb), and on which NTFS file system to install each dataset. Refer to your

Scout analysis report and complete the following table appropriately for your system.

Dataset Name	RDBMS	Recommended Minimum Size	Actual System Size (Mb)
ms_db0.mdf	SQL	200 Mb	
ms_pri0.mdf	SQL	20 Mb	
ms_tlo.ldf	SQL	20 Mb	
ms_udb0.dat	SQL	200 Mb	
ms_tmp0.mdf	SQL	80 Mb	
master.mdf	SQL	52 Mb	

---

**Note** The FileNet Image Services software and all FileNet configuration files and datasets must reside on NTFS file systems to maintain data integrity, security, and file naming requirements.

---

## Verify Disk Space Requirements

Before you install the RDBMS software, you must ensure that you have adequate space for the new Image Services and RDBMS software.

Refer to the table in the section, **“Minimum Disk Space Requirements” on page 17** of Chapter one of this document to make sure you have the required space.

## Local Server Installations

If you are installing RDBMS software on a Local server, continue to [\*\*Chapter 3, “Installing RDBMS Software on a Local Server,” on page 28.\*\*](#)

## Remote Server Installations

If you will be configuring a dedicated remote database Server with the FileNet server as the client, continue to [\*\*Chapter 4, “Installing RDBMS Software on a Remote Server,” on page 44.\*\*](#)

## Preparing to Update RDBMS Software

This section contains required steps to prepare your server for a successful update of RDBMS software.

### Tasks for Your Service Representative/ValueNET Partner

Your service representative or the ValueNET Partner will complete the following tasks at least four weeks before the software update:

- Schedule the update with the FileNet Upgrade/Install Assurance Team and access the team's latest list of current scheduling procedures.
- Copy the Image Services CDB file. Send this file to the Upgrade/Install Assurance Team.
- Run spacerpt. Send the results to the Upgrade/Install Assurance Team, and keep a printed copy for comparison after the update is complete.

When you send a file or output to the FileNet Upgrade/Install Assurance Team, you can either email the file or send the file on disk to your service representative.

## Check Current Software Release

Before updating your software, check the current versions of the software you are currently running.

### Windows Operating System

You must be running Windows 2003 to run this release of Image Services software. If you are running an earlier version, you must upgrade to the Windows 2003 operating system **BEFORE** you update your RDBMS and IS software.

### FileNet and RDBMS Software

Check your current version of FileNet and RDBMS software to see if it can be updated with this document. To see what versions of software can be updated with this document, see the section, "Update Paths" in the *IS Update Procedure for Windows Server*. To download this document from the IBM support page, see [\*\*"Accessing IBM® FileNet® Documentation" on page 11.\*\*](#)

To find out which FileNet Image Services software release is currently running on your system, open the FileNet System Configuration Editor and check the System Attributes tab.

To find out which RDBMS software release is currently running on your system, do the following:



- For Oracle, use the FileNet System Configuration Editor and check the Relational Databases tab, Oracle sub tab.
- For Microsoft SQL Server, click Start on the task bar and then click Programs. Microsoft SQL Server is in the Programs list and the SQL Server version number is in the title.

## Verify the System Serial Number

Use the **ssn** command to display the system serial number. At a Command Prompt, enter the following command:

**ssn**

### Important

---

The 10-digit ssn is written onto all storage media and **must** be unique for each Image Services system. If you have more than one Image Services system (domain), each **must** use its own unique ssn to prevent potential problems if media are ever transferred from one IS system to another.

---

## Exit Image Services Toolkit Applications

If you are running any ISTK applications, you must exit these applications before you continue with this update procedure. Later in this chapter you will need to stop the FileNet IS software, which clears ISTK shared memory.

After you have exited all ISTK applications, continue to the next section.

## Back Up the System

If you do not have a recent full backup of the FileNet system, especially the \fnsw and \fnsw\_loc file systems, you need to backup the system datasets onto cartridge tapes. Refer to your *Systems Administrator's Companion for Windows Server*, for complete information on performing a system backup. To download this document from the IBM support page, see ["Accessing IBM® FileNet® Documentation" on page 11.](#)

## Shutdown the FileNet Software

- 1 Log on as the FileNet software user, such as **fnsw**.
- 2 Open the FileNet Task Manager and Stop the FileNet software by clicking **STOP** in the Task Manager window.
- 3 Close the FileNet Task Manager.

## Update to Windows 2003 (If Necessary)

Only the Windows 2003 Operating System is supported in this release of Image Services software. If you are not running Windows 2003, you must update your operating system before you install the Relational Database software and FileNet Image Services software.

In addition to updating to Windows 2003, you must also install Windows 2003 Service Pack 1 or higher.

Refer to the Microsoft documentation and installation procedures to upgrade your operating system and install the required service pack.

**Tip** You can download the service pack from: <http://www.microsoft.com/downloads/search.asp?>

---

## Local or Remote Updates

To update an existing Image Services system with a local or remote database server, skip to the appropriate section listed below.

- [“Guidelines for Updating a Site-Controlled Microsoft SQL Server RDBMS” on page 68](#)
- [“Guidelines for Updating a Site-Controlled Oracle RDBMS” on page 65](#)

---

**Note** If you are updating an Image services system that accesses a remote Oracle database server, you **do not** need to update the Oracle software or datasets on the remote server. Just update the Oracle client software on the Image Services server to Oracle 10g.

---

## Installing RDBMS Software on a Local Server

This chapter contains guidelines for installing the following versions of RDBMS software on a **local** server.

- Oracle 9i Release 2 Enterprise/Standard Edition
- Oracle Database 10g Release 2
- Microsoft SQL Server

To configure an Oracle RDBMS on the local server continue to, **[“Install Oracle Server Software” on page 29.](#)**

To configure an Microsoft SQL Server RDBMS on the local server continue to, **[“Local Microsoft SQL Server RDBMS Guidelines” on page 42.](#)**

## Install Oracle Server Software

- If you're installing Oracle 9i, continue with the next section, [\*\*"Install Oracle 9i Server Software Products" on page 29.\*\*](#)
- If you're installing Oracle 10g, skip to [\*\*"Install Oracle Database 10g Software" on page 30.\*\*](#)

## Install Oracle 9i Server Software Products

Make sure that, at a minimum, the following Oracle products, with check marks, are installed.

### Tip

Each listed item has an associated icon and checkbox. An icon with a plus sign indicates if 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. Be sure to **uncheck** any products that you do not want to install.

---

✓ 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

Oracle Label Security 9.2.0.1.0

Oracle OLAP 9.2.0.1.0

Oracle Data Mining 9.2.0.1.0

Oracle COM Automation Feature 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

✓ Oracle 9i 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 Objects for OLE 9.2.0.4.4

Oracle ODBC Driver 9.2.0.1.0

Oracle Provider for OLE DB 9.2.0.1.0

Oracle Programmer 9.2.0.1.0

Oracle XML Developer's Kit 9.2.0.0.0

Oracle 9i Windows Documentation 9.2.0.1.0

Oracle HTTP Server 9.2.0.1.0

Oracle Windows Interfaces 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

- 4 When the installation is finished, skip to **“Install the Oracle Patch Set” on page 31.**

## 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 version 9.2.0.8.

The final patch set for the Oracle 9i release is Oracle Patch Set 8 (9.2.0.8). You can find the patch set on 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)

## Create the ORACLE\_SID

- 1 Open the Registry window by entering the following command at a Command Prompt:

**REGEDT32**

---

**Tip** You can also enter this command in the taskbar Run dialog box.

---

- 2 In the HKEY\_Local\_Machine on Local Machine window, open the Software folder.
- 3 Locate and open the Oracle folder.
- 4 Locate and open the Home $n$  folder, where  $n$  is the sequence number assigned when Oracle was installed. Numbering starts with 0 (zero), so choose the highest (most recent) number.
- 5 From the Registry Editor Edit menu, select **Add Value**.
- 6 Type ORACLE\_SID in the Value Name box.
- 7 In the Data Type box, select REG\_SZ and click **OK**.

The String Editor screen opens.

- 8 Enter the value you wish to assign ORACLE\_SID (such as IDB), and click **OK**.



- 9 Verify that the NLS\_LANG parameter is set to the appropriate value (AMERICAN\_AMERICA.WE8ISO8859P1, for example) for your locale. If not, double-click the entry to open the String Editor dialog box.
- 10 Also check the values of the NLS\_TERRITORY and NLS\_CHARACTERSET parameters. (AMERICAN\_AMERICA.WE8ISO8859P1, for example).
- 11 In the Edit String dialog box, change the value to the appropriate character set.
- 12 Close the Registry Editor Window.

## Edit the sqlnet.ora File

Before the Oracle installation is complete, you must create an sqlnet.ora file with the proper settings.

- 1 Open a Command Prompt window (or use your favorite text editor) and make the following entries in a new file:

```
AUTOMATIC_IPC=OFF  
TRACE_LEVEL_CLIENT=OFF  
names.directory_path=(TNSNAMES)  
names.default_domain=world  
names.default_zone=world  
sqlnet.authentication_services=(NTS)
```

- 2 Save the file as sqlnet.ora and put it in the following location:

<drive>:\<oracle home directory>\network\admin

**Note** Verify that the editor you used did not add a .txt file extension to the sqlnet.ora file. (Notepad or Wordpad may add a .txt extension.) If necessary, rename the file with a **.ora** extension.

---

## Create the Oracle Service

- 1 To create the Oracle Service enter the following command at a Command Prompt.

**oradim -new -sid IDB**

**Note** In the command above, **IDB** is your assigned ORACLE\_SID from **Step 8 on page 32**. If your ORACLE\_SID is different, substitute yours in the command above.

---

- 2 In the Control Panel, open Services and verify that the Oracle service is Started with Startup Type set to Automatic.

## Reboot the Server

After you finish installing the Oracle software, you must reboot the server so the newly installed device drivers can take effect.

- 1 Make sure that all applications and windows have been closed.
- 2 Reboot the server.

## Report to Sys Admin and Your Service Representative

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

Guidelines for FileNet-Used Tablespaces

FileNet Default Tablespace Names*	Tablespace Names You Assigned	Minimum Tablespace Size (MB)	Tablespace Size (MB) You Created
fnsys_ts		200	
fntmp_ts		400	
fnidx_ts (optional for indexes)		200	
fnusr_ts (optional for WorkFlo Queue Service)		200	

- \* **fnsys\_ts** is the name of the dedicated FileNet default tablespace.  
**fntmp\_ts** is the name of the dedicated FileNet temporary tablespace.  
**fnidx\_ts** is the name of the optional FileNet index tablespace, which can be used to keep indexes separate from tables in the fnsys\_ts tablespace, if necessary  
**fnusr\_ts** is the name of the optional user tablespace for WorkFlo Queue Services. If your IS system will not be using this feature, you do not need to create this tablespace.

## 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

Please 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)

The FileNet software user, such as **fnsw**, must be made a member of this group.

## Defining Additional RDB Objects (Optional)

A brand new Image Services system has a basic set of default objects. Defining additional RDB objects allows you to customize the data layout of your relational database. The object name, in conjunction with the location, tells the Image Services software where in the database that object (or group of objects) is to be created.

An object can be a table like doctaba, a retrieval key (rdb index) like f\_docnumber, or a whole group of objects like everything created from

WFL, queues, workspaces, and so on. The scope of the RDB object depends on how the RDB object name is formatted or built.

It's very important to build the object name string correctly. When the Image Services software is directed to create an RDB object (WFL queue, table, and so on), it dynamically builds a string that must exactly match the one that is defined in the object name column. The Image Services software searches the configuration database for a matching RDB\_Object to find the location of the object. If it's not found, the search continues for the location of the parent object.

### RDB Object Name Basic Syntax

The object name is a multi-part character string, separated by periods. Its maximum length is 255 characters plus a null terminator. The object name is built in a hierarchy where all names begin with `fn_data`. For example:

Object name format:

```
fn_data[.services_name[.subname1[.subname2[.subname3] ] ] ]
```

`fn_data.services_name.subname1.subname2` is the parent of  
`.subname3`

`fn_data.services_name.subname1` is the parent of `.subname2`

`fn_data.services_name` is the parent of `.subname1`

---

**Note** Not all services support all the subnames. See the following examples.

---

### **Index Services Example**

To have the Image Services software create all index services tables and indexes in a specific location in your database, define an RDB Object using the following name:

**fn\_data.INXdb**

To have the Image Services software create doctaba in its own location, define the object name as one of the following examples:

**fn\_data.INXdb.doctaba**

To have the Image Services software create a specific index (retrieval key) in its own location, define the object name as one of the following examples:

**fn\_data.INXdb.doctaba.f\_docnumber**

**fn\_data.INXdb.table\_name.index\_name**

### **WFL Services Example**

To have the Image Services software create all WQS Database Objects in one location, you would define an RDB Object with the following object name:

**fn\_data.WFLdb**

Then, to create an index (retrieval key) of a queue in its own location, you would enter:

**fn\_data.WFLdb.Workspace\_name.queue\_name.index\_name**

## VW Services Example

The object name is composed of the following values:

### VW queues

For indexes:

```
fn_data.vw.region<region#>.server<server#>.  
queue.<logical_queue_table_name>.<logical_index_name>
```

For base data sets:

```
fn_data.vw.region<region#>.server<server#>.  
queue.<logical_queue_table_name>
```

### VW rosters (indexes and base data set)

For indexes:

```
fn_data.vw.region<region#>.server<server#>.  
roster.DefaultWCTable.<logical_index_name>
```

For base data sets:

```
fn_data.vw.region<region#>.server<server#>.  
roster.DefaultWCTable
```

### All other VW tables

For indexes:

```
fn_data.vw.region<region#>.server<server#>.  
table.<table_name>.<index_name>
```

For base data sets:

**fn\_data.vw.region<region#>.server<server#>.  
table.<table\_name>**

**Key** In the previous examples:

<region#> is the isolated region number>

<server#> is the VW server number.

<logical\_queue\_table\_name> is the name of the table for the  
queue as specified in Composer.

<table\_name> is the actual table name.

<index\_name> is the actual index name.

---



## Continue the Image Services Installation

After the Oracle software has been successfully installed, continue with the Image Services installation in Chapter 3 of the *IS Installation and Configuration Procedures for Windows Server, Release 4.1*. To download this document from the IBM support page, see [“Accessing IBM® FileNet® Documentation” on page 11](#).

## Local Microsoft SQL Server RDBMS Guidelines

If you have a Local Microsoft SQL Server database, the Database Administrator needs to perform the following steps.

Refer to the Microsoft installation instructions to install the SQL software and create the Site DB for your system.

For SQL 2000, you can find these instructions on the Microsoft Web site at:

[http://msdn2.microsoft.com/en-us/library/aa176559\(SQL.80\).aspx](http://msdn2.microsoft.com/en-us/library/aa176559(SQL.80).aspx)

For SQL 2005, you can find these instructions on the Microsoft Web site at:

<http://msdn2.microsoft.com/en-us/library/ms143516.aspx>

---

#### Important

You must choose **Custom** setup type for the installation of SQL Server and enter the following information:

- In the Authentication Mode dialog box, choose **Mixed Mode**.
  - In the Collation Settings dialog box, choose **Latin1\_General** as the Collation designator and choose **Binary** Sort order.
- 

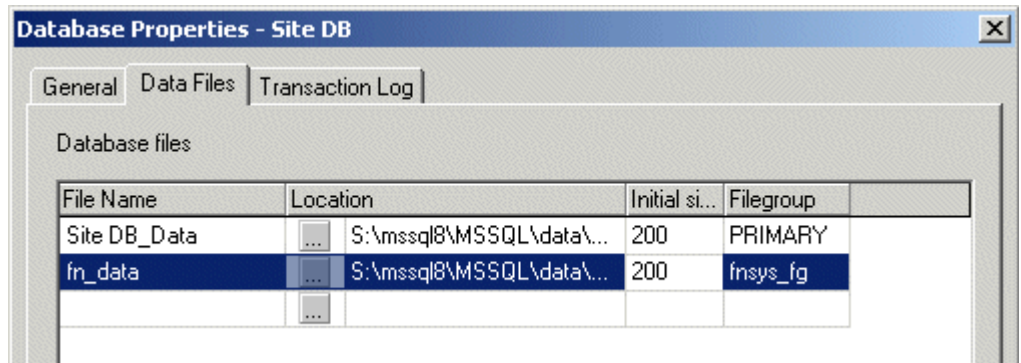
## Reboot the Server

After you finish installing the SQLServer software, you must reboot the server so that newly installed device drivers can take effect.

- 1 Close all applications and windows.
- 2 Reboot the server.

## Verify the File Names and Filegroups

Ensure the File Names and Filegroups have been setup properly. Refer to the Overview of Installing SQL Server 2000/2005 installation documentation on the Microsoft Web site to create the Site Database.



**Note** **fnsys\_fg** is the name of the dedicated FileNet default file group.

## Install Image Services

After the Microsoft SQL Server software has been successfully installed, continue with the Image Services installation in Chapter 3 of the *IS Installation and Configuration Procedures for Windows Server, Release 4.1*. To download this document from the IBM support page, see [\*\*“Accessing IBM® FileNet® Documentation” on page 11.\*\*](#)

## Installing RDBMS Software on a Remote Server

Typically, Image Services and RDBMS software run on the same server; however, there are advantages to running these software products on separate servers. This chapter provides guidelines on how to configure a remote database server and configure the FileNet server as the database client.

### Important

---

The procedures in this document must be performed by an experienced Database Administrator.

---

### Strategy

The RDBMS software will be installed on the remote database server, and the RDBMS Client Software will be installed on the FileNet Image Services server.

The first step is to get the new remote database server up and running. This involves the following:

- Installing the same version of the operating system that's installed on the FileNet Image Services server.
- Installing the same version of RDBMS software that you plan to install on the FileNet IS server.

After installing the RDBMS software on the new remote database server, install the RDBMS Client software on the FileNet server.

- To configure a remote Oracle server system continue to the section, [\*\*“Remote Oracle RDBMS Guidelines” on page 45.\*\*](#)
- To configure a remote Microsoft SQL Server system continue to the section, [\*\*“Remote Microsoft SQL Server RDBMS Guidelines” on page 59.\*\*](#)

## Remote Oracle RDBMS Guidelines

If you have a Remote Oracle database, the Database Administrator needs to perform the procedures in the following sections.

### Configure the Remote Oracle Server

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

#### Create Oracle Users and Group

Create a Database Administrator group identical to the Database Administrator group on the FileNet Image Services server.

**Start > Programs > Administrative Tools >  
Computer Management > Local Users and Groups**

For example, if the name of the Oracle user on the FileNet server is **oracle**, and the name of the Database Administration Group is **dba**, they should be the same on the Oracle server.

Also create an **fnusr** group containing an **fnsw** user.

### Create a Directory for FileNet Software Use

To facilitate the installation of FileNet-specific patches and test scripts, create a directory named \fnsw\oracle.

Use the Windows Explorer to create the new folders:

**<drive>:\fnsw\oracle**

### Prepare a Location for the Oracle Server Software

Make sure the server has enough free disk space. The Oracle Server software requires a minimum of: 2.0 GB.

### Install Oracle Server 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 48.\*\*](#)

#### Install Oracle 9i

- 1 As the Oracle user, load the first Oracle 9i Enterprise 9.2 CD-ROM and launch the Oracle Universal Installer.
- 2 Ensure that, at a minimum, the following Oracle 9i products, with check marks, are installed.
  - ✓ 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

Oracle Label Security 9.2.0.1.0

Oracle OLAP 9.2.0.1.0

Oracle Data Mining 9.2.0.1.0

Oracle COM Automation Feature 9.02.0.1.0

✓ 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

✓ Oracle 9i 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 Objects for OLE 9.2.0.4.4

Oracle ODBC Driver 9.2.0.1.0

Oracle Provider for OLE DB 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 9i Windows Documentation 9.2.0.1.0

Oracle HTTP Server 9.2.0.1.0

Oracle Windows Interfaces 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

**Note** Some of the Oracle products listed above are not separately selected in the Oracle Installer. They are automatically installed when other products are selected for installation.

---

- 3 Set or verify that the Oracle\_SID is set correctly.
- 4 When the installation is finished, skip to **“Install the Patch Set” on page 49.**

### 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)

## Create listener.ora and tnsnames.ora Files

Change to the **<drive>:\\$ORACLE\_HOME\network\admin** directory and create the listener.ora and the tnsnames.ora files. The following are samples of these two files:

## The tnsnames.ora File

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

<Same name as the GLOBAL_DBNAME in the Listener.ora file> =
  for example: Michigan_IDB.world
(DESCRIPTION =
  (ADDRESS = (PROTOCOL = TCP)(HOST = <Oracle Server IP address>)(PORT = 1521))
  (CONNECT_DATA = (SID = <Same SID as in the Listener.ora file>))
)
```

## The listener.ora File

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

LISTENER_<the SID you named your database instance> = FileNET Default: IDB
(ADDRESS = (PROTOCOL = TCP)(HOST = <Oracle server IP address>)(PORT = 1521))

SID_LIST_LISTENER =
  (SID_LIST =
    (SID_DESC =
      (GLOBAL_DBNAME = <ServerName_<oracleSID>.world> )
      Example: Michigan_IDB.world
      (ORACLE_HOME = <Oracle Server software location> )
      FileNET default: %oracle_home
      (SID_NAME = <the SID you named your database instance> )
      FileNET default: IDB)
    )
  )
```

#### Start the Oracle Listener

On the Oracle Server, open a Command Prompt and start the listener by entering:

```
lsnrctl  
LSNRCTL> start
```

---

**Note** Ensure that listener.ora and tnsnames.ora files are correctly setup.

---

#### Execute the Oracle Loopback Test on the Oracle Server

Verify that the internal Oracle networking is active and functional, by entering a sqlplus command in this format:

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

For example, you might enter:

```
sqlplus system\manager@Michigan_IDB.world
```

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

## Configure the FileNet Image Services (Client) Server

The remote Oracle server has been successfully configured, and now you're ready to configure the FileNet Image Services (client) server.

You can use the procedures in this section to configure either:

- an Image Services Combined server or Root/Index server or

- an Image Services Application Server with WorkFlo Queue Services, SQL Services, or VWServices.

---

**Note** Be sure to configure the Combined or Root/Index server first.

---

When adding an Application server to the configuration, use the same ORACLE\_SID (For example, **IDB**) and ORACLE\_UID (For example, **oracle**) as the Combined or Root/Index server.

## Install Oracle Client Software

- If you're installing Oracle 9i, continue with the next section, [\*\*"Install Oracle 9i" on page 52.\*\*](#)
- If you're installing Oracle 10g, skip to [\*\*"Install Oracle 10g" on page 54.\*\*](#)

### Install Oracle 9i

- 1 If you aren't already, logon as Windows **Administrator**.
- 2 Load the **Oracle 9.2** CD-ROM into the CD-ROM drive.

The Oracle 9i Autorun screen displays.

---

**Note** There are two versions of the Oracle 9i software on CD-ROM: Oracle 9i Enterprise Edition and Oracle 9i Standard Edition. The installation instructions in this appendix refer to the Enterprise Edition. If you are installing the Standard Edition, some text may be slightly different.

---

- 3 When you get to the Available Products screen, select **Oracle 9i Client 9.2**.
- 4 At the Installation Types screen, select the **Custom** option.

- 5 When you get to the Available Product Components screen, make sure that only the Oracle products checked below are installed.

Uncheck any other products that may already be checked by default.

- ✓ Oracle 9i Client 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

After selecting the products, click **Next**.

- 6 Respond to the subsequent prompts as appropriate for your site.
- 7 When the oracle install finishes, the Net Configuration Assistant screen appears.
- 8 In the Net Configuration Assistant screen, click **Cancel** and then **Yes** to confirm.
- 9 If an error message appears, ignore it and click **OK**.
- 10 Click **Next** to continue.
- 11 When the software installation is complete, click **Exit**.

The installation of the Oracle 9.2 software is complete. Remove the Oracle 9i CD from the CD-ROM drive, and skip to **“Install the Patch Set” on page 54**.

#### Install Oracle 10g

- 1 Load the Oracle Database 10g Release 2 DVD for Windows (32 bit).
- 2 Change directories to the **Client** folder.
- 3 In the Client folder, double-click on the **setup.exe** file.
- 4 At the **Installation Types** screen, select the Custom option.
- 5 Make sure the following products are installed:
  - ✓ Oracle Client 10.2.0.1.0
  - ✓ SQL\*PLUS 9.2.0.1.0
  - ✓ Oracle Call Interface (OCI) 10.2.0.1.0
  - ✓ Oracle Net 10.2.0.1.0

#### 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 7 (9.2.0.8)

Oracle Patch Set 7 (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)

### Ensure the Remote Environment is Setup Correctly

Make sure that the following are setup correctly on your system.

- Ensure that the local variable is setup correctly in the system environment. (Michigan\_IDB.world, for example).
- Ensure that ORACLE\_HOME is set up correctly in the Registry.
- Verify that the NLS\_LANG parameter is set to the appropriate value (AMERICAN\_AMERICA.WE8ISO8859P1, for example) for your locale.
- Check the values of the NLS\_TERRITORY (America, for example) and NLS\_CHARACTERSET (US7ASCII, for example) parameters.

### Copy the tnsnames.ora file onto the FileNet (Client) Server

Copy the **tnsnames.ora** file from the <drive>:\<oracle home directory>\network\admin directory on the Oracle server to the **same** directory on the FileNet IS (Client) server. This ensures that the two tnsnames.ora files are identical on both servers.

---

**Note** The tnsnames.ora file on the Oracle server may 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 (client) 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 FileNet IS (Client) Server

Oracle Networking has already been configured and tested on the Oracle server.

- 1 Test the Oracle Client's ability to access the database on the remote Oracle server by entering 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.

- 2 To verify that you can access the Oracle database from the Image Services server, enter an 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.world**

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



## Test the Local Environment Setting

- 1 To verify the local environmental settings, enter a sqlplus command in the following format:

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

For example:

```
sqlplus system/manager
```

You should now be logged on to the Oracle server via NET 8 and the LOCAL environment setting, the same as the IS software will be.

- 2 Exit from sqlplus.

## Report to Sys Admin and Your Service Representative

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

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

### Set ORACLE\_SID

When you set the \$ORACLE\_SID, write it in the space below:

**\$ORACLE\_SID:** \_\_\_\_\_  
(instance identifier) (for example, IDB)

### Name Oracle Database Administration Group

When you create the users and groups for administering the RDBMS databases, write down the name of the group that will be used for database administration. Later, the FileNet user **fns**w must be made a member of this group.

**Name of DBA Group:** \_\_\_\_\_  
(for database administration)                      (for example, dba)

### Tablespace Names

Make sure the tablespaces are set up as shown:

Guidelines for FileNet-Used Tablespaces

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

- \* **fnsys\_ts** is the name of the dedicated FileNet default tablespace.
- fntmp\_ts** is the name of the dedicated FileNet temporary tablespace.
- fnidx\_ts** is the name of the optional FileNet index tablespace, which can be used to keep indexes separate from tables in the fnsys\_ts tablespace, if necessary.
- fnusr\_ts** is the name of the optional user tablespace for WorkFlo Queue Services. If your IS system will not be using this feature, you do not need to create this tablespace.

## Install Image Services

After the Oracle software has been successfully installed, install the Image Services software on the client server. These procedures are found in Chapter 3 of the *IS Installation and Configuration Procedures for Windows Server, Release 4.1*. To download this document from the IBM support page, see [\*\*“Accessing IBM® FileNet® Documentation” on page 11.\*\*](#)

## Remote Microsoft SQL Server RDBMS Guidelines

If you have a **Remote SQL Server** database, the Database Administrator needs to perform the procedures in the following sections.

## Configure the Remote Microsoft SQL Server

After the new server has been set up with the appropriate version of the Windows operating system and has been connected to the network, you can begin installing and configuring the SQL Server software.

### Shutdown All Applications

Before installing Microsoft SQL Server 2000/2005 software, make sure that any SQL server-related applications are shut down. This is especially important, if you have any applications running that are using ODBC drivers. If these applications are left running, they may cause installation errors.

## Installing Remote Microsoft SQL Server Software

In this section you will install the Microsoft SQL Server software. For instructions on doing this.

For SQL 2000, you can find these instructions on the Microsoft Web site at:

[http://msdn2.microsoft.com/en-us/library/aa176559\(SQL.80\).aspx](http://msdn2.microsoft.com/en-us/library/aa176559(SQL.80).aspx)

For SQL 2005, you can find these instructions on the Microsoft Web site at:

<http://msdn2.microsoft.com/en-us/library/ms143516.aspx>

---

**Note** Certain SQL Server information will need to be entered during the installation procedure. Refer to the table in the section **“Additional Information (Microsoft SQL Server ONLY)” on page 19** for this information.

---

As you install the SQL Server software, use the following guidelines:

- When the Installation Definition dialog box appears, select the **Server and Client Tools** option.
- When the Instance Name dialog box appears, clear the Default checkbox and enter an Instance name, such as INSTANCE1, PAY-ROLL, CLAIMS, and so on.

---

**Note** Named instances are recommended. In addition, the instance name you specify must be different from any other SQL instance that may already be defined on this server.

---

- When the Authentication Mode dialog box appears, select the Mixed Mode.
- When the Collation Settings dialog box appears:
  - a Select the *Collation Designator* radio button.
  - b In the Collation designator drop-down list box, select the appropriate designator, such as *Latin1\_General*.
  - c Select the checkbox for the appropriate Sort order, such as *Binary*.

### Reboot the Server

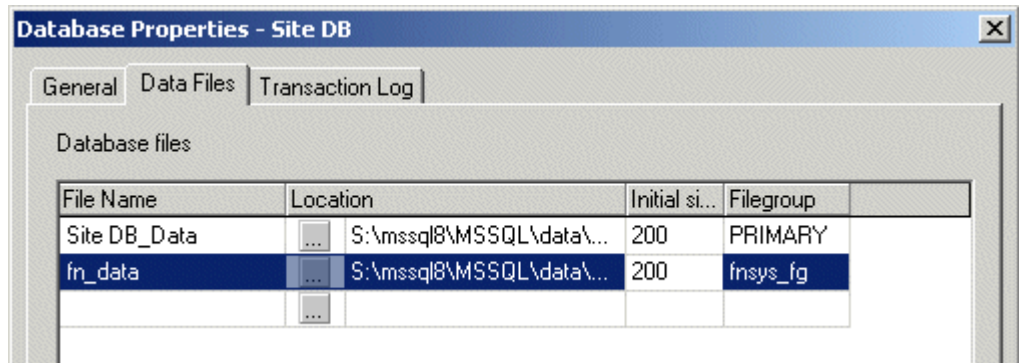
After you finish installing the SQLServer software, you must reboot the server so that newly installed device drivers can take effect.

- 1 Make sure that all applications and windows have been closed.
- 2 Reboot the server.

### Verify the File Names and Filegroups

Ensure the File Names and Filegroups have been setup properly.

Refer to the Overview of Installing SQL Server 2000/2005 installation documentation on the Microsoft Web site to create the Site Database.



---

**Note** **fnsys\_fg** is the name of the dedicated FileNet default file group.

---

## Configure the FileNet Image Services (Client) Server

After the remote SQL database server has been successfully configured, you're ready to install the Microsoft SQL database software on the FileNet Image Services (client) server.

Use the procedures in this section to configure either:

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

---

**Note** Be sure to configure the Combined or Root/Index server first.

---

## Installing the Client Microsoft SQL Server 2000/2005 Software

In this section you will install the Microsoft SQL Server software. Refer to the Overview of Installing SQL Server 2000/2005 installation documentation on the Microsoft Web site.

---

**Note** Certain SQL Server information will need to be entered during the installation procedure. Refer to the table in the section **“Additional Information (Microsoft SQL Server ONLY)” on page 19** for this information.

---

## Test SQL Networking on the FileNet IS (Client) Server

- 1 Verify that the SQL networking is active and functional by entering the appropriate osql command.
  - With Windows Authentication, enter the osql command in the following format:

```
osql -E -S <server\instance> -d Indexdb
```

For example:

```
osql -E -S Maui\payroll -d indexdb
```

- 2 If the commands were successful, the select prompt will appear.

## Install Image Services Software

After the Microsoft SQL Server software has been successfully installed, continue with the Image Services installation in Chapter 3 of the *IS Installation and Configuration Procedures for Windows Server, Release 4.1*. To download this document from the IBM support page, see **“Accessing IBM® FileNet® Documentation” on page 11**.

## Updating RDBMS Software

This chapter contains guidelines for updating a Site-controlled Oracle or Microsoft SQL Server database.

If your server has a FileNet-controlled Oracle or Microsoft SQL Server database, use the procedures in Chapter 3 of the *Image Services Update Procedure for Windows Server, Release 4.1*. To download this document from the IBM support page, see [“Accessing IBM® FileNet® Documentation” on page 11](#).

---

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

---

Because the FileNet Image Services software requires certain RDBMS products to be installed, the DBA needs to follow these guidelines.

- **Oracle** - To update a site-controlled Oracle RDBMS, continue to the next section, [“Guidelines for Updating a Site-Controlled Oracle RDBMS” on page 65](#).
- **MS SQL** - To update a site-controlled Microsoft SQL Server RDBMS, skip to the section, [“Guidelines for Updating a Site-Controlled Microsoft SQL Server RDBMS” on page 68](#).



## Guidelines for Updating a Site-Controlled Oracle RDBMS

If you have a site-controlled Oracle database, the Database Administrator must perform the following steps.

### Turn Off Archive Logging (if necessary)

If Archive Logging is active on the server, you may wish to 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 Products

- To install Oracle 10g **Server** software on a FileNet Image Services server **or** an independent (remote) Oracle server accessed by FileNet Image Services, continue to the next section, [\*\*“Oracle 10g Server” on page 65.\*\*](#)
- To install Oracle 10g **Client** software on a FileNet Image Services server used to access a remote server, skip to the section, [\*\*“Oracle 10g Client” on page 66.\*\*](#)

### Oracle 10g Server

Follow the steps in this section to install Oracle 10g server software.

---

**Note** If you are updating an Image services system that accesses a remote Oracle database server, you need to update the Oracle software or datasets on the remote server so they match.

---

- 1 As the Oracle user, make sure the Oracle Database 10g Release 2 DVD is loaded and launch the Oracle Universal Installer.

- 2 Follow the Oracle document to upgrade your database server to 10g Release 2.

### Run Upgrade Scripts

Prior to installing Oracle patch set you must run the oracle upgrade scripts.

#### **CAUTION**

---

It is imperative that the upgrade scripts be run at this time to prevent database corruption.

---

### Install Oracle Patch Set

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

- Oracle Patch Set 1 (10.0.2.0.2)

You can find the patch set on the Oracle MetaLink Web site at: <http://www.oracle.com/support/metalink/index.html>

If you are updating a **remote** Oracle system, continue to the next section, **“Oracle 10g Client”** to install Oracle 9i Client software on the FileNet Image Services server.

If you are **not** updating a remote Oracle System, skip to the section, **“Report to Sys Admin and Your Service Representative” on page 67.**

### Oracle 10g Client

Follow these steps to install Oracle 10g Client software:

- 1 Load the Oracle Database 10g Release 2 DVD for Windows (32 bit).

- 2 Change directories to the **Client** folder.
- 3 In the Client folder, double-click on the **setup.exe** file.
- 4 At the **Installation Types** screen, select the Custom option.
- 5 Make sure the following products are installed:
  - ✓ Oracle Client 10.2.0.1.0
  - ✓ SQL\*PLUS 9.2.0.1.0
  - ✓ Oracle Call Interface (OCI) 10.2.0.1.0
  - ✓ Oracle Net 10.2.0.1.0

## Report to Sys Admin and Your Service Representative

Please provide the information below to the System Administrator and your service representative.

### ORACLE\_SID

Ensure that the ORACLE\_SID is known, written in the space below, and set correctly.

**Site-Controlled ORACLE\_SID:** \_\_\_\_\_  
(instance identifier) (for example, IDB)

### Name Oracle Database Administration Group

Write down the name of the group that will be used for database administration. Later, the FileNet user **fns** must be made a member of this group.

**Name of DBA Group:** \_\_\_\_\_  
(for database administration) (for example, dba)

## Update Image Services

After the Oracle software has been successfully updated, continue with the Image Services update in Chapter 4 of the *Image Services Update Procedures for Windows Server, Release 4.1*. To download this document from the IBM support page, see [\*\*“Accessing IBM® FileNet® Documentation” on page 11.\*\*](#)

## Guidelines for Updating a Site-Controlled Microsoft SQL Server RDBMS

If your SQL Server RDBMS is Site-controlled, the Database Administrator needs to perform the following steps.

### Minimum Microsoft SQL Server 2000 Components

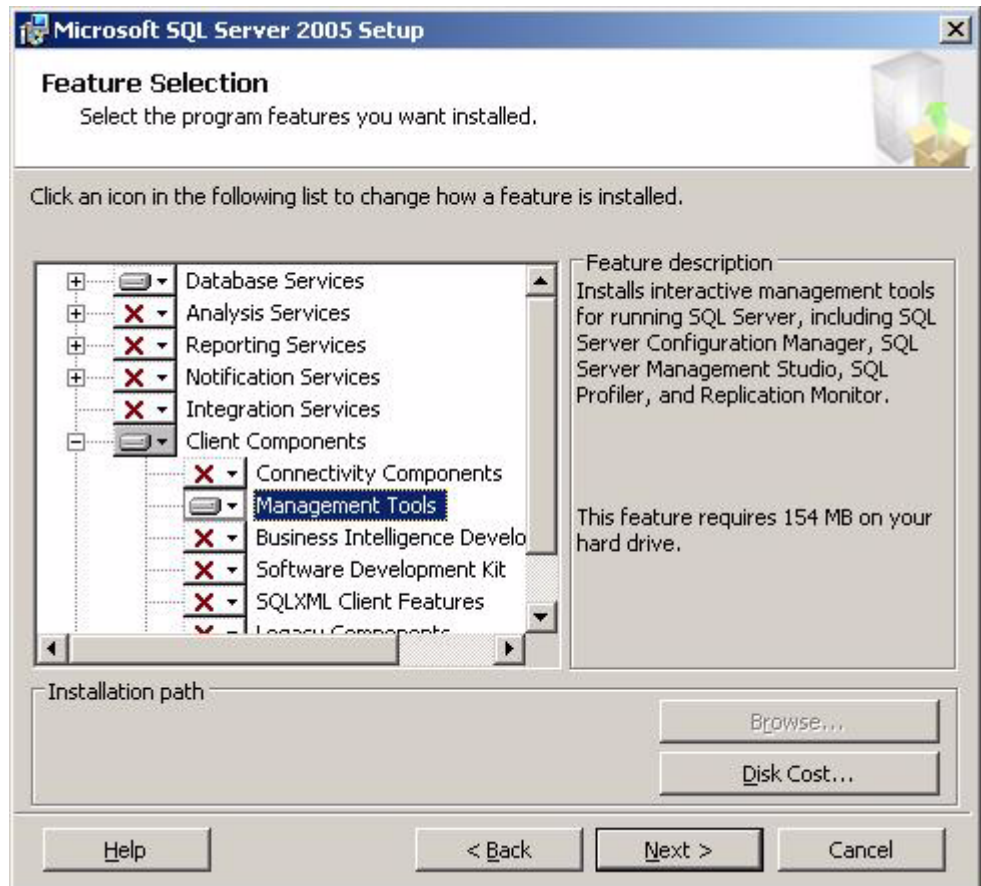
Ensure that, at a minimum, the following SQL Server components are installed.

SQL Server Component
Server Components
Management Tools
Client Connectivity
Books Online (optional)

## Minimum Microsoft SQL Server 2005 Components

Complete the following steps to install MSSQL 2005.

- 1 From the Setup screen, select the SQLServer Database Services option as shown:



- 2 Next access Management Studio by selecting the Management Tools option found in Advanced > Client Components, as shown:



- 3 Ensure that, at a minimum, the following SQL Server 2005 components are installed.

SQL Server Component
SQL Server Database Services
Management Tools
SQL Server Books Online (optional)

## File Group Names

Make sure there are file group names set up as shown in the table below.

### Guidelines for Site-Controlled/FileNet-Used File Groups

FileNet Equivalent/Default File Group Names	Site-Controlled File Group Names
fnsys_fg	
fnusr_fg	

\*Required for full-use RDBMS

**fnsys\_fg** is the name of the dedicated FileNet default file group.

**fnusr\_fg** is the name of the user file group.

## Notify System Users

Notify system users that during the Image Services update the Microsoft SQL Server software will be shut down several times.

## Report to Sys Admin and Your Service Representative

Please provide the information above to the System Administrator and your service representative.

## Continue the Image Services Upgrade

After the Microsoft SQL Server software has been successfully updated, continue with the Image Services update in Chapter 4 of the *Image Services Update Procedures for Windows Server, Release 4.1*. To download this document from the IBM support page, see **[“Accessing IBM® FileNet® Documentation” on page 11.](#)**

# Notices

This information was developed for products and services offered in the U.S.A.

IBM may not offer the products, services, or features discussed in this document in other countries. Consult your local IBM representative for information on the products and services currently available in your area. Any reference to an IBM product, program, or service is not intended to state or imply that only that IBM product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any IBM intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any non-IBM product, program, or service.

IBM may have patents or pending patent applications covering subject matter described in this document. The furnishing of this document does not grant you any license to these patents. You can send license inquiries, in writing, to:

IBM Director of Licensing  
IBM Corporation  
North Castle Drive Armonk, NY 10504-1785  
U.S.A.

For license inquiries regarding double-byte (DBCS) information, contact the IBM Intellectual Property Department in your country or send inquiries, in writing, to:

IBM World Trade Asia Corporation  
Licensing



---

2-31 Roppongi 3-chome, Minato-ku  
Tokyo 106-0032, Japan

**The following paragraph does not apply to the United Kingdom or any other country where such provisions are inconsistent with local law:** INTERNATIONAL BUSINESS MACHINES CORPORATION PROVIDES THIS PUBLICATION “AS IS” WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some states do not allow disclaimer of express or implied warranties in certain transactions, therefore, this statement may not apply to you.

This information could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in new editions of the publication. IBM may make improvements and/or changes in the product(s) and/or the program(s) described in this publication at any time without notice.

Any references in this information to non-IBM Web sites are provided for convenience only and do not in any manner serve as an endorsement of those Web sites. The materials at those Web sites are not part of the materials for this IBM product and use of those Web sites is at your own risk.

IBM may use or distribute any of the information you supply in any way it believes appropriate without incurring any obligation to you.

Licensees of this program who wish to have information about it for the purpose of enabling: (i) the exchange of information between independently created programs and other programs (including this one) and

(ii) the mutual use of the information which has been exchanged, should contact:

IBM Corporation  
J46A/G4  
555 Bailey Avenue  
San Jose, CA 95141-1003  
U.S.A.

Such information may be available, subject to appropriate terms and conditions, including in some cases, payment of a fee.

The licensed program described in this document and all licensed material available for it are provided by IBM under terms of the IBM Customer Agreement, IBM International Program License Agreement or any equivalent agreement between us.

Any performance data contained herein was determined in a controlled environment. Therefore, the results obtained in other operating environments may vary significantly. Some measurements may have been made on development-level systems and there is no guarantee that these measurements will be the same on generally available systems. Furthermore, some measurements may have been estimated through extrapolation. Actual results may vary. Users of this document should verify the applicable data for their specific environment.

Information concerning non-IBM products was obtained from the suppliers of those products, their published announcements or other publicly available sources. IBM has not tested those products and cannot confirm the accuracy of performance, compatibility or any other claims related to non-IBM products. Questions on the capabilities of non-IBM products should be addressed to the suppliers of those products.

All statements regarding IBM's future direction or intent are subject to change or withdrawal without notice, and represent goals and objectives only.

This information contains examples of data and reports used in daily business operations. To illustrate them as completely as possible, the examples include the names of individuals, companies, brands, and products. All of these names are fictitious and any similarity to the names and addresses used by an actual business enterprise is entirely coincidental.

#### **COPYRIGHT LICENSE:**

This information contains sample application programs in source language, which illustrate programming techniques on various operating platforms. You may copy, modify, and distribute these sample programs in any form without payment to IBM, for the purposes of developing, using, marketing or distributing application programs conforming to the application programming interface for the operating platform for which the sample programs are written. These examples have not been thoroughly tested under all conditions. IBM, therefore, cannot guarantee or imply reliability, serviceability, or function of these programs.

## **Trademarks**

IBM, the IBM logo, and ibm.com are trademarks or registered trademarks of International Business Machines Corporation in the United States, other countries, or both. If these and other IBM trademarked terms are marked on their first occurrence in this information with a trademark symbol (® or ™), these symbols indicate U.S. registered or common law trademarks owned by IBM at the time this information was published. Such trademarks may also be registered or common law trademarks in other countries. A current list of IBM trademarks is

available on the Web at "Copyright and trademark information" at [www.ibm.com/legal/copytrade.shtml](http://www.ibm.com/legal/copytrade.shtml).

FileNet is a registered trademark of FileNet Corporation, in the United States, other countries, or both.

Microsoft and Windows are trademarks of Microsoft Corporation in the United States, other countries, or both.

UNIX is a registered trademark of The Open Group in the United States and other countries.

Java and all Java-based trademarks are trademarks of Sun Microsystems, Inc. in the United States, other countries, or both.

Other company, product, and service names may be trademarks or service marks of others.

## U.S. Patents Disclosure

This product incorporates technology covered by one or more of the following patents: U.S. Patent Numbers: 6,094,505; 5,768,416; 5,625,465; 5,369,508; 5,258,855.





Program Number: 5724-R95

Printed in USA

GC31-5555-01

