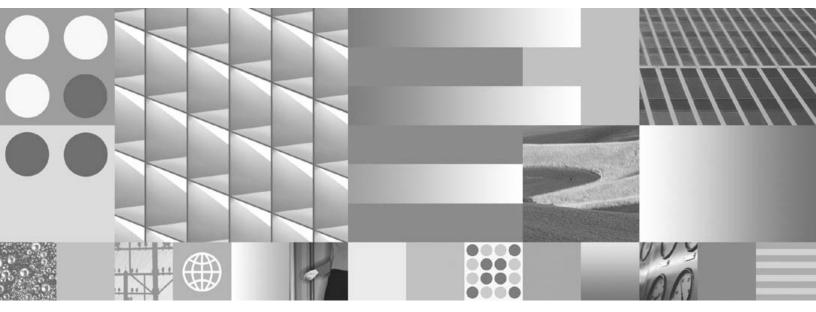
IBM FileNet Image Services

Version 4.1



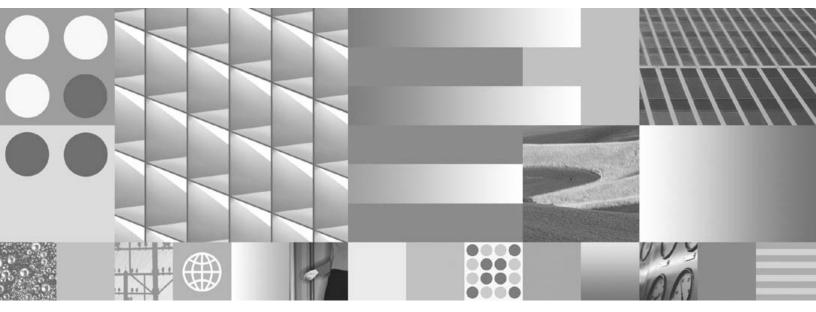


Windows Application Server Installation for UNIX Systems

IBM FileNet Image Services

Version 4.1





Windows Application Server Installation for UNIX Systems

Note

Before using this information and the product it supports, read the information in "Notices" on page 176.

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 1984, 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 13

Document revision history 14

Required Skills 14

Accessing IBM FileNet Documentation 15

Comments and Suggestions 16

New Features of the IS 4.1 Installation 17

InstallShield Installer 17 IBM DB2 Universal Database Software 18 Oracle Database 10g Software 18 Microsoft SQL Server 2005 (IS 4.1.1 and later) 19 SLAC Key Installation No Longer Required 19 System Serial Number 20

Additional documentation 21

Release Notes for Image Services 4.1 21 Release Dependency Spreadsheet 21 Operating System Notes 22 System Configuration 23 Installation Prerequisites 25 Install and Configure Remote Servers 25 DB2 Database Server 26 UNIX Root/Index Server 27 National Language Support 28 Minimum Hardware Requirements 31 Server Hardware 31 Server Memory 33 Total Disk Space 33 Available File System Space for Image Services Software 34 Space for RDBMS Software 34 Software Requirements 35 Windows Operating System Software 35 Image Services Software 36 IBM DB2 Universal Database Software 36

Oracle RDBMS Software 37 SQL RDBMS Software 37 Debugger 38 Server Naming Convention 38 Object Name 39 Domain Name 39 Organization Name 40 Additional System Information 41

Related Documentation 43

2 Preparing for the Installation 45

Installation Worksheet 46

System Information 47 Compatible System Information 48 Storage Library Information 49 Printer Information 50 Optical Drive information 51 File System and Dataset Information 52 Create FileNet Users and fnusr Group 53 System Cache Information 55

System Configuration Issues 56

Check/Configure Paging File Size 56 Configure TCP/IP Protocol and SNMP 59 Verify NetBIOS is Enabled 60

Verify NetBiOS Setting on Windows 2003 Servers 60 Set Server Optimization Level (Recommended) 61 Determining if Your Storage Management System Supports Synchronous Writes 62

Install Relational Database Software 64

Oracle 9i and Oracle 10g 65 Oracle Database Information 65 Oracle Variables 66 IBM DB2 V8.x 67 DB2 Database Information 68 MSSQL 2000 SP4 70 SQL Database Information 70

3 Installing FileNet Image Services Software 71

Check the Link to the Remote Oracle Database 72 Check the Link to the DB2 Database 73 Check the Link to the SQL Database 74 Run the Installation Installer 75 Launch the Image Services Installer 76 Hardware Checks 88 Operating System Checks 90 FileNet Users and Groups Check 91 Finishing the System Check 94 Rerunning the Image Services Installer 95 Installing Image Services 4.1 96 Grant "Logon as Service" Right to the fnsw User 99 Verify TCP/IP Parameter Settings (Optional) 101 Reboot the Server 106 Install Required Pre-Startup Fixes 106

4 Configuring the Root and Application Servers 108

Add Application Server(s) on the Root Server 108

Select and Configure Relational Database Instance (if applicable) 112 Oracle 9i and Oracle 10g 113 Define the Tablespace Names 113 DB2 V8.1 and V8.2 115 Verify the Database and User Tablespace Names 115 MSSQL 2000 SP4 117

Server Configuration on the Application Server 118

Configure the Windows Server as an Application Server 118

Add Application Server Services Via the UNIX Root Server 122

Change Application Server Attributes 126 Add Batch Service 127

Add Cache Service 129

Add SQL Service 130

Add WorkFlo Queue Service 132

Add Print Services 135

Add VWService 136

Exit the FileNet Image Services System Configuration Editor 136 Reboot the Server 137

Build and Initialize the Application Server 139

Build and Initialize the Application Server 140 Update IS Configuration Files 141 Verify the Connection to RDBMS 142 Verify FileNet Dataset Permissions 143 Bring Up FileNet Software 144

5 Completing the Installation 146

Backup the Root Server 147 Backup the Application Server 148

Appendix A – Systems Management Server (SMS) Procedures 151

What is Microsoft Systems Management Server (SMS)? 152

Overview 153

Setting up the SMS Site Server Package 154

Copy FileNet Image Services Software to Site Server 154 Modify the Isetup.iss File 155

Create Package 157

Configure the Distribution Points for Your Site 161

Installing FileNet Image Services Software 164

Complete the SMS Install of FileNet Software 166 Reboot the Server 167

Uninstalling FileNet Image Services software 169

Create Package 169 Configure the Distribution Points for Your Site 172 Uninstall FileNet Image Services Software 174

Notices 176

Trademarks 181

U.S. Patents Disclosure 183

Index 184

June 2008

1 Getting Started

This document explains how to install and configure IBM® FileNet® Image Services Software on a Windows Server used as an application server in a UNIX® system. Image Services and configuration procedures are described in the main body of this document.

In addition, <u>"Appendix A – Systems Management Server (SMS)</u> <u>Procedures</u>" on page 151 contains Microsoft® procedures that can be used for installing and de-installing FileNet software.

Document revision history

IS version	Date	Comment
4.1	June 2008	Documentation refresh. Updated SSN ori- gin information, Added IS uninstall appen- dix.
4.1	Nov. 2007	Documentation refresh. Bluewashing.
4.1	June 2007	Initial release.

Required Skills

This document assumes that the you have the following knowledge and experience:

- Knowledge of the Windows® Server operating environment
- Knowledge of Windows Server network models
- Experience with Windows Server Administrative Tools
- DB2® Database Administration

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, 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.

Comments and Suggestions

Send your comments by e-mail to <u>comments@us.ibm.com</u>. 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).

New Features of the IS 4.1 Installation

This release of Image Services includes the following new features:

InstallShield Installer

This release of Image Services incorporates an InstallShield MultiPlatform Installer. Before installing the Image Services software, the Installer performs a series of system configuration checks to verify that the Windows server is ready for the Image Services installation.The Installer gives you two options:

- System Check only
- System Check and Install Image Services

If the Installer detects a problem at any point during the System Check, you can back up to the previous screen, correct the problem, and then go forward to rerun that check again. The Windows server must pass the Installer System Check successfully before the it installs the Image Services software.

IBM DB2 Universal Database Software

This release of Image Services supports IBM DB2 Universal Database[™] V8.1/V8.2. The DB2 databases are site-controlled and must reside on remote AIX® 5.2/5.3 or Solaris 9/10 servers. See *Guidelines for Installing and Configuring IBM DB2 Software* for more information. To download this document from the IBM support page, see **"Accessing IBM FileNet Documentation" on page 15**.

Oracle Database 10g Software

In addition to support for Oracle 9i, this release of Image Services includes support for Oracle Database 10g Standard or Enterprise Edition (32-bit).

Note The Oracle media are not supplied by IBM.

All installations of Oracle are Site-controlled. See the *Guidelines for Installing and Updating Site-Controlled Oracle and MS SQL Software for Windows Server* for more information. To download this document from the IBM support page, see <u>"Accessing IBM FileNet Documen-</u> <u>tation" on page 15</u>.

Microsoft SQL Server 2005 (IS 4.1.1 and later)

After you install Service Pack 1 on IS 4.1, MS SQL Server 2005 is supported.

Note SQL software media are not supplied by IBM. If you want to use SQL Server 2005, you need to install SQL Server 2005 SP2 at a minimum.

Refer to the *Guidelines for Installing and Updating Site-Controlled Oracle and MS SQL Software for Windows Server* for more information. To download this document from the IBM support page, see "Accessing IBM FileNet Documentation" on page 15.

SLAC Key Installation No Longer Required

In past IS releases, you had to install a Software License Access Control (SLAC) Key that was included with the IS software. Beginning with IS 4.1, this key is installed automatically by the Installer.

System Serial Number

The System Serial Number (SSN) is no longer supplied with new Image Services systems.

When installing new Image Services systems, you are now required to construct your own SSNs using any combination of numeric digits that you choose. The valid range of SSNs is 1000 through 2147483646.

This identifier is vital to Image Services, as the SSN is included in the metadata of each committed record. Each IS system must have its own unique SSN to configure peer systems in a cross-system committal environment, and to prevent potential problems if media are ever transferred from one IS system to another.

Note Current Image Services systems will continue to use their existing SSNs, which will always be valid.

Additional documentation

The following sub-sections describe various support documents and tables that give you the latest information concerning your update. To download IBM FileNet document from the IBM support page, see **"Accessing IBM FileNet Documentation" on page 15**.

Release Notes for Image Services 4.1

The latest Release Notes file can be retrieved at any time from the IBM support page.

The Release Notes contain valuable information that you need to install and configure Image Services software. Do not start the update without first reading the Release Notes.

Release Dependency Spreadsheet

Review the Release Dependency spreadsheet for information that might pertain to the entire system configuration. The Release Dependency spreadsheet contains software compatibility information for client workstations, fax servers, and printer servers. To download this document from the IBM support page, see <u>"Accessing IBM FileNet</u> Documentation" on page 15.

You may see this spreadsheet referred to as the Support Matrix or the Compatibility/Dependency matrix.

Operating System Notes

Review the Operating System Notes for your current version of Windows to determine if any patches need to be installed prior to this Image Services update. The System Administrator is responsible for obtaining and installing these patches.

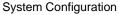
System Configuration

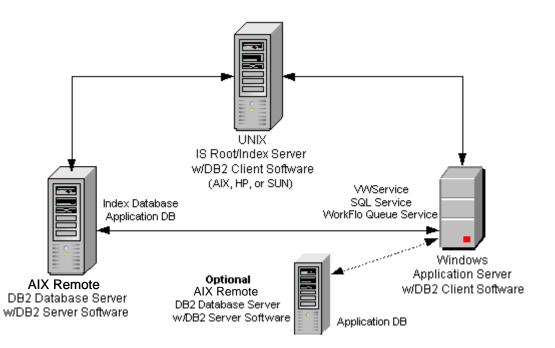
The following diagram shows a UNIX Image Services system using a relational database with a Windows Application server. In this diagram, the remote AIX Database Server contains the DB2 Server database software as well as both the IS Index Database and the Application Database.

The UNIX Image Services Root/Index server contains DB2 Client software.

The Windows Application Server also contains DB2 Client software, as well as one or more of the following application services: VW Service, SQL Service, and WorkFlo Queue Service. Using DB2 Client software the Windows Application Server can retrieve data from the Application Database on the remote AIX DB2 Database Server.

As an alternative, an optional second remote AIX Server can be used to host the Application Database. In this case, the primary AIX Server would only host the Index Database.





Installation Prerequisites

The prerequisites for an installation (software and system requirements) are included in the following sections. In addition, this section details specific file system and dataset information that you must gather (or determine) to complete the Image Services installation successfully.

For your convenience, this chapter contains an <u>"Installation Work-sheet" on page 46</u>. You should transfer all of the requested information to the appropriate sections on the Installation Worksheet. All of the information necessary to complete the Image Services installation on your application server will be in one easy-to-find place.

Install and Configure Remote Servers

Before using this document to add a Windows Application Server ensure that the following servers have been installed and configured.

DB2 Database Server

The DB2 database software must be installed on a remote AIX Database Server before installing the Windows Application Server.

The DB2 database must be site-controlled and **must reside on a** remote AIX 5.2 or 5.3 server.

Image Services on the Windows Application Server will access the remote DB2 database using DB2 client software installed on the IS Application Server.

To install DB2 software, see *Guidelines for Installing and Configuring IBM DB2 Software* for information. To download this document from the IBM support page, see <u>"Accessing IBM FileNet Documentation"</u> on page 15.

Note An optional second remote AIX 5.2 or 5.3 Database Server may also be used to host the database for the Windows Application Server. In this case the primary AIX 5.2 or 5.3 Database Server would only host the Index Database. If an optional second remote database server is used, be sure to also install DB2 server software on this server.

UNIX Root/Index Server

Before using this document to install a Windows Application Server ensure that the UNIX Root/Index server has been installed as follows:

- The Combined server will be the Root server for the application server. If a Root server has not already been established, see the *Image Services Installation and Configuration Procedures* for whichever UNIX platform you are going to be using to install the necessary software on the Root server.
- The IBM DB2 client software has been installed and configured on the UNIX Root server. For more information, the *Guidelines for Installing and Configuring IBM DB2 Software*.

To download these documents from the IBM support page, see "Accessing IBM FileNet Documentation" on page 15.

Note Reconfiguring an old server should be handled the same as installing and configuring a new application server, except where specifically noted.

National Language Support

It's important that the character set you select for one product matches the character sets you select for all the others.

Choose the same character system when you install Image Services, the operating system and the relational database software.

And when you install the FileNet Image Services software, be sure to select the appropriate character set on both the System Attributes tab in the System Configuration Editor and on the Relational Databases/ Oracle tab.

Later, when you create indexes, document classes, and media families, you'll be able to use the appropriate alphanumeric characters for your locale.

Note Folders are created and named using Desktop client software. Because the folders are stored in the index database, their names must also use the Windows code page character set that is the equivalent of the character set used by Oracle and IS on the Image Services server. For systems configured with Western European character sets, valid alphanumeric characters must be in the 7-bit ASCII range. For systems configured with non-Western European character sets, any valid 8-bit alphanumeric character is acceptable.

Both Western and non-Western 8-bit character sets (character values range from 0 to 255) have valid alphanumeric characters above the ASCII range. ASCII characters occupy the first half of all 8-bit character sets and range in value from 0 to 127. Non-ASCII characters have values ranging from 128 to 255.

The following table summarizes FileNet support for both ISO and MS single-byte character sets.

Chara	Decimal Values			
ISO (International Orga for Standardiza	Microsoft Windows Code Page	ASCII (0 to 127)	Non-ASCII (128 to 255)	
Western European	8859-1	CP 1252	Yes	No
Eastern European	8859-2	CP 1250	Yes	Yes

1 Getting Started

Installation Prerequisites

Chara	Decimal Values			
ISO (International Orga for Standardiza	Microsoft Windows Code Page	ASCII (0 to 127)	Non-ASCII (128 to 255)	
South European	8859-3	**	Yes	Yes
Northern and North- eastern European	8859-4	CP 1257	Yes	Yes
Latin/Cyrillic	8859-5	CP 1251	Yes	Yes
Latin/Arabic	8859-6	CP 1256	Yes	Yes
Latin/Greek	8859-7	CP 1253	Yes	Yes
Latin/Hebrew	8859-8	CP 1255	Yes	Yes
Western European and Turkish	8859-9	CP 1254	Yes	Yes
North European	8859-10	**	Yes	Yes

** Microsoft does not have character set code pages that correspond to ISO 8859-3 and ISO 8859-10. Be sure to choose an ISO character set for DB2 and Image Services that has a corresponding Windows code page.

Minimum Hardware Requirements

Note These requirements have changed from previous Image Services releases and from previous versions of this document.

Server Hardware

- Minimal Processor: 800Mhz Pentium® 32-bit processor
- 512 MB or more memory per CPU
- Tip To check the amount of memory, logon on to the server as the FileNet software user such as **fnsw** 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:*
 - 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 disk (free) 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
- **Note** Oracle9i and 10g software is compatible with 32-bit Windows servers.
 - A DVD drive installed and configured for use on your Windows server.

Server Memory

• Root/Index and Application Servers with Oracle:

9i/10g - 512 MB memory for each processor in the server.

• Root/Index and Application Servers with DB2:

512 MB memory or more for each processor in the server.

Storage Library and Application Servers without Oracle:
 512 MB memory or more for each processor in the server.

Total Disk Space

For FileNet software, minimum datasets:

• At least 1 GB

These sizes include a 30% growth factor, but do not include space required for the Windows Operating System.

Available File System Space for Image Services Software

The FileNet Image Services software needs the minimum amounts of free disk space in the file systems shown here:

- **500 MB** total space in \fnsw.
- 500 MB total space in \fnsw_loc

The Installer needs the following amount of temporary space for decompressing files:

- **500 MB** total space in temp
- **Tip** If you don't have enough space in temp, you can direct the Installer to use another directory that has enough space.

Space for RDBMS Software

The amount of disk space required for RDBMS software depends on whether Server or Client software is installed and the products selected. Refer to the *Guidelines for Installing and Updating Site-Controlled Oracle and MS SQL Software for Windows Server* or the *Guidelines for Installing and Configuring IBM DB2 Software* for additional information about space requirements for RDBMS software products. To download these documents from the IBM support page, see <u>"Accessing IBM</u> <u>FileNet Documentation" on page 15</u>.

FileNet's SCouT system configuration and output tool can help estimate the actual amount of disk space needed for FileNet and RDBMS datasets on this Image Services system.

Software Requirements

Your system must meet the following requirements to complete this Image Services software installation.

Windows Operating System Software

The following Windows operating systems are supported with this release of Image Services software.

- Windows 2003 SP1
- Windows 2003 Release 2
- Note You can download the service pack from: <u>http://www.microsoft.com/</u> <u>downloads/search.asp?</u>

Image Services Software

Image Services 4.1 for Windows (eSD image or software CD). This media contains the Image Services 4.1 software including COLD 4.1 software.

IBM DB2 Universal Database Software

Refer to the *Guidelines for Installing and Configuring IBM DB2 Software* for more information. To download this document from the IBM support page, see <u>"Accessing IBM FileNet Documentation" on page 15</u>.

Oracle RDBMS Software

Note Oracle 10g software media are not supplied by IBM.

Refer to the *Guidelines for Installing and Updating Site-Controlled Oracle and MS SQL Software for Windows Server* for more information. To download this document from the IBM support page, see "Accessing IBM FileNet Documentation" on page 15.

SQL RDBMS Software

Note SQL software media are not supplied by IBM.

Refer to the *Guidelines for Installing and Updating Site-Controlled Oracle and MS SQL Software for Windows Server* for more information. To download IBM FileNet documentation from the IBM support page, see <u>"Accessing IBM FileNet Documentation" on page 15</u>.

Debugger

The debugger program is recommended for Image Services 4.1. The debugger enables your service representative to troubleshoot both FileNet and Windows-related problems and must be installed on each Image Services server.

Server Naming Convention

Properly naming Image Services servers is an important step when setting up your Image Services system. Server names can have a maximum of **128 characters** and should only contain ASCII alphanumeric characters and underscores.

Note Non-alphanumeric characters and hyphens should not be used.

Every system resource is identified by a three-part name stored in the NCH database. The three parts of the resource name identify an object, a domain (system name), and an organization, in this format:

object:domain:organization

The maximum length of a three-part name is **82 characters**—40 for the object, 20 for the domain, 20 for the organization, two for the colons separating the parts.

Object Name

An **object** is a resource like a tape, printer, database, software service, logon name, etc. Some objects have names predefined by the system. For example, DefaultIMS is the name used to access the index database.

Domain Name

The **domain** (or system) name is set up at FileNet system configuration time using the **fn_setup** tool. In a multi-server system, each server has a different server name, so the domain name is usually the server name of the Root/Index server.

Organization Name

The third part of the NCH resource name is the **organization** name. This can be your company or department name, such as ABCDEnterprises.

Important When you specify an object from a PC workstation, the maximum length of a three-part name is 79 characters—39 for the object, 19 for the domain, 19 for the organization, two for the colons.

The reason for this convention is that when NCH (Network Clearing House) has to cross a router to find a server, it converts the domain name to an IP host name using specific criteria, one of which is dropping the underscore character. In fact, all non-alphanumeric and underscore characters are eliminated.

Additional System Information

In addition to verifying that your server meets the minimum software and hardware requirements detailed above, you must gather the following information to complete the Image Services software installation on your Windows application server.

Once you have gathered the information requested in this section, transfer the information to the <u>"Installation Worksheet" on page 46</u>.

- 1 Determine the password for the user **Administrator**. Record the password in the <u>"Installation Worksheet"</u>.
- 2 Verify that the PC server name and Internet Protocol (IP) address are in the **hosts** file (which is where the server software is installed, for example, \winnt\system32\drivers\etc) along with the names and addresses of any other servers you want to communicate with remotely. (You can use Notepad to view this file.)
- **Note** The location of the **hosts** file can change, depending on where the server software is installed.

- 3 Determine the Domain name(s), IP address(es) and System Serial Number(s) (SSN) of all Image Services servers (peer servers) that will be communicating with the PC server. For information on naming servers, see <u>"Server Naming Convention" on page 38</u>.
 - Each IP address should contain four numbers separated by decimals [e.g., 10.20.0.52].
- **Note** FileNet Image Services software requires that the server have a static IP address. Verify that a specific IP address has been assigned to the server. Use of a dynamic IP address (DHCP) is not supported.
 - Each System Serial Number (SSN) should contain a maximum of 10 digits between 1000 and 2147483646.
- **Note** After installation, your SSN can be determined by entering the **ssn** command at a Command Prompt on each compatible system's root server.
 - 4 Record the Domain Name, IP address, and System Serial Number for each peer server in <u>"Compatible System Information" on page 48</u>.

For information on naming servers, see <u>"Server Naming Conven-</u>tion" on page 38.

5 Determine the NCH (Network Clearing House) Name, Printer Type, and Printer Server Static IP address for all printers on the system and record the information in <u>"Printer Information" on page 50</u>. For information on naming servers, see <u>"Server Naming Convention" on</u> <u>page 38</u>.

Related Documentation

As you read this document you may see references to other documentation, or Online Help, that you might need to consult. This information is listed below. To download IBM FileNet documentation from the IBM support page, see <u>"Accessing IBM FileNet Documentation" on</u> <u>page 15</u>.

- Guidelines for Installing and Updating Site-Controlled Oracle and MS SQL Software for Windows Server
- Guidelines for Installing and Configuring IBM DB2 Software

- Enterprise Backup/Restore User's Guide
- System Administrator's Handbook
- System Administrator's Companion for UNIX
- System Administrator's Companion for Windows Server
- System Configuration Editor Overview

Note For information on relational database products, refer to the documentation that came with your software.

2

Preparing for the Installation

This chapter contains procedures that are necessary to modify your application server environment. These procedures must be performed before beginning your installation.

Note The sections in this chapter need to be performed on the application server.

Installation Worksheet

The following sections contain tables that are intended to allow you to organize the information you have gathered in a single place for easy reference during the installation process.

Print these pages and use them for recording the specified required information. You will refer to them often during the installation of your software.

In addition, this section details specific file system and dataset information that you must gather (or determine) to complete the Image Services installation successfully.

System Information

Password for the user Administrator:

Record the appropriate information in the table below.

Installation Information	System Information
Server Static IP Address	
Network Address	
System Serial Number (ssn)	
(Valid range: 1000 - 2147483646)	
Domain Name	
Organization Name	

Important The 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.

Compatible System Information

Record information about compatible (peer) servers and systems in the table below.

Domain Name	Static IP Address	SSN

Storage Library Information

Record the appropriate Storage Library device information for each Storage Library device on your application server in the table below.

Storage Library Device (SLD) Information	SLD 1	SLD 2	SLD 3	SLD 4
Storage Library Type (e.g., ODU, OSAR 96, OSAR 125, etc.)				
SBUS Slot Number				
SCSI Target Number				
SCSI Logical Unit Number				

Record the path for the Storage Library Device Driver here: _____

Printer Information

Record the information for each printer on your application server in the table below.

NCH Name	Printer Type	Printer Server Static IP Address

Optical Drive information

Record the appropriate Optical Drive information for each optical drive on your application server in the table below.

Optical Drive Information	Drive 1	Drive 2	Drive 3	Drive 4
Drive Type (e.g., Hitachi_II, etc.)				
SCSI Adapter Number (0-3)				
SCSI ID Number (0-6)				
Logical Unit Number (0-3)				

Record the path for the Optical Drive Driver here:

File System and Dataset Information

You must determine the expected size of the DB2 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	Required Minimum Size	Actual System Size (Mb)
cache0	Oracle/SQL/DB2	100 Mb	
permanent_db0	Oracle/SQL/DB2	100 Mb	
permanent_rl0	Oracle/SQL/DB2	64 Mb	
transient_db0	Oracle/SQL/DB2	320 Mb	
transient_rl0	Oracle/SQL/DB2	256 Mb	
sec_db0	Oracle/SQL/DB2	64 Mb	
sec_rl0	Oracle/SQL/DB2	64 Mb	

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

Create FileNet Users and fnusr Group

To add the following users and groups, click Start > Control Panel > Users and Groups.

Group Name	Required Members	Group Description
fnusr	<fnsw>, root, <dba user=""></dba></fnsw>	Members can operate any FileNet software (including COLD). All operators and admin- istrators must belong to this group.
fnadmin	<fnsw>, root</fnsw>	Members can perform administrative func- tions. Administrators must belong to this group to change configuration, perform diagnostics, or restore backups.
fnop	<fnsw></fnsw>	Members can start and stop all FileNet soft- ware (including COLD). Administrators must also belong to this group.

Note If you want to log in as a specific user and want to run the FileNet tools and software, you need to add the user into the **fnadmin** and **fnop** groups.

If Oracle software is installed on the local server, you also need to create a <dba group>, such as **oragrp**.

Group Name	Members	Group Description
<dba group=""></dba>	<dba user="">, fnsw</dba>	The Database Administration group <dba group=""> and user <dba user> are created by the Database Administrator. The FileNet user, fnsw, needs to be a member of the <dba group="">.</dba></dba </dba>

System Cache Information

You must determine the minimum and maximum cache sizes (in%) for the following caches. Refer to your Scout analysis report and record the cache information for your system in the table below.

Cache Type	Min./Max. Default Size (%)	Min. Size (%)	Max. Size (%)
Retrieval	20% / 20%		
Fill-in	1% / 10%		
System Print	10% / 20%		
application Print	10% / 30%		
Batch	10% / 60%		
Folder View	10% / 20%		
Revise	10% / 20%		

System Configuration Issues

This section contains procedures that must be followed to ensure that your system is properly configured before installing Image Services and DB2 software.

Check/Configure Paging File Size

- 1 Open the Administrative Tools, and double-click the *System* icon. The System Properties window opens.
- 2 Click on the *Advanced* tab of the System Properties window and choose the Performance button.
- **3** In the Virtual Memory section, click the *Change* button. The Virtual Memory dialog box opens.
- 4 In the Virtual Memory dialog box, select the drive where you want to allocate the virtual memory.

- **Tip** Performance is enhanced if virtual memory is not on the same drive as the FileNet datasets. In addition, you can allocate virtual memory on more than one drive.
 - 5 Ensure that the initial paging file size for FileNet software (alone) is at least 128 Mb. Therefore, you must increase the current virtual memory allocated (if any) by at least 128 Mb. In addition, the Maximum Size value must be equal to, or greater than, the Initial Size value.
 - a If you DO NOT need to increase the paging file size:
 - Click *Cancel* in the Virtual Memory dialog box.
 - Click OK in the System Properties dialog box.
 - Close the Control Panel, and skip to the next section, <u>"Configure TCP/IP Protocol and SNMP"</u>.
 - b If you DO need to increase the paging file size, enter the initial size and maximum size (in Mb) in the Virtual Memory dialog box.

- **Note** If your system requires more virtual memory than specified here, the error message: "System running low on virtual memory. Please close some applications...." will display during normal Image Services operation. Use this procedure to increase the virtual memory paging size.
 - 6 Click the Set button to accept the new settings.
 - 7 Click the OK button to close the Virtual Memory window.
 - 8 Click the *OK* button to close the Performance Options window.
 - 9 Click *OK* to exit the System Properties window.
 - **10** The System Settings Change dialog appears next with a message asking if you want to restart your computer now. Click *No.* (Do Not reboot the server at this time.)

Configure TCP/IP Protocol and SNMP

FileNet software requires that TCP/IP protocol be installed on your server for complete functionality. If TCP/IP is not currently installed on your server, you can install it by opening the Network and Dial-up Connections dialog box. Click the *Start* button, point to *Settings*, and double-click the *Network and Dial-up Connections* icon.

You must also install the SNMP (Simple Network Management Protocol) service. Refer to your Windows Server documentation for further details on installing both these components.

Verify NetBIOS is Enabled

This procedure is necessary to prevent a SLAC Entry License error, error tuple <232,0,1068>.

Verify NetBiOS Setting on Windows 2003 Servers

- 1 From the Taskbar, click the *Start* button, point to Control Panel, point to Network Connections, and right-click the *Ethernet Adapter* that you want to configure, and choose *Properties*.
- **Note** In our example, we have an Intel® Pro 1000 MT Gibabit Ethernet Adapter installed.

The Ethernet Adapter dialog box opens.

2 On the General tab, select Internet Protocol (TCP/IP) and click *Properties.*

The Internet Protocol (TCP/IP) Properties window appears.

- **3** Click the *Advanced* button to open the Advanced TCP/IP Settings dialog box, and select the WINS tab.
- 4 Verify that the Enable NetBIOS over TCP/IP option is selected, or select it if necessary, and click *OK*.
- 5 Click OK to close the Internet Protocol (TCP/IP) Properties window.
- 6 Close any other remaining windows.

Set Server Optimization Level (Recommended)

While the steps in this section are optional, FileNet Image Services software operates much better when the system is optimized for network applications.

- 1 From the Taskbar, click the *Start* button and point to Settings and double-click the *Network and Dial-up Connections* icon.
- 2 Right-click on "Local Area Connection," and choose *Properties*.

The Local Area Connection Properties dialog box opens.

- **3** Select "File and Printer Sharing for Microsoft Networks" and click *Properties*. The following window appears.
- 4 Select the *Maximize data throughput for network applications* radio button, and click *OK*.
- 5 Close the Network and Dial-up Connections window.

Determining if Your Storage Management System Supports Synchronous Writes

If your system uses a storage management system such as NAS (Network Attached Storage) to store database files or CSM cache data files, it **must** support synchronous writes. This requirement is not unusual. Directories which are used for storing database files, and any directories used for storing CSM cache files must support synchronous writes. Otherwise, data may be lost. It is also a specific requirement of database vendors for storing database files. A program called the **sync_write_test** program is used to determine if a given storage management system directory supports synchronous writes. This stand-alone program can also be used without other IS software.

Note Local SCSI magnetic disk drives and SAN devices always support synchronous writes. So, it is not necessary to run this tool on SCSI or SAN devices. Local ATA magnetic disk storage devices do not always support synchronous writes, so they must be tested.

> For information on how the sync_write_test program works and how to run the test, see the *IS System Tools Reference Manual*. To download this document from the IBM support page, see <u>"Accessing IBM</u> <u>FileNet Documentation" on page 15</u>.

Install Relational Database Software

Server Types Perform the steps in this section on these servers:

Root/Index server during a Dual server installation.

Root/Index/Storage Library server during a Combined server or Entry server installation.

Application server with WorkFlo Queue services or SQL services.

The Database Administrator is responsible for installing the appropriate version of the Relational Database Management software.

Image Services on Windows Server supports three Relational Database Management Systems. Skip to the section for the one that is going to be installed on this FileNet Image Services system:

- <u>"Oracle 9i and Oracle 10g" on page 65</u>
- <u>"IBM DB2 V8.x" on page 67</u>.
- <u>"MSSQL 2000 SP4" on page 70</u>

Oracle 9i and Oracle 10g

If the Oracle software and datasets are going to reside on the local FileNet Image Services server, refer to Chapter 2 of the *Guidelines for Installing and Updating Site-Controlled Oracle and MS SQL Software for Windows Server.*

The Database Administrator also has the option of installing Oracle software and datasets on a dedicated remote Oracle server. Refer to Chapter 3 of the *Guidelines for Installing and Updating Site-Controlled Oracle and MS SQL Software for Windows Server* for further information.

To download this document from the IBM support page, see "Accessing IBM FileNet Documentation" on page 15.

Give the Oracle Guidelines document to the Database Administrator.

Oracle Database Information

After Oracle 9i or Oracle 10g has been successfully installed, the Database Administrator must provide the following Oracle variables and

_

tablespace names and sizes to the System Administrator and your service representative.

Oracle Variables

\$ORACLE_HOME:
\$ORACLE_SID:
<oracle name="" user="">:</oracle>
<dba group="">:</dba>
<oracle name="" user="">:</oracle>
<dba group="">:</dba>
f_sw password:
f_sqi password:
f_maint password:
f open password:

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

After you have this information, you're ready to install the FileNet Image Services software. Continue with <u>Chapter 3, "Installing</u> <u>FileNet Image Services Software," on page 71</u>.

IBM DB2 V8.x

The **Database Administrator** is responsible for installing the DB2 software and creating the DB2 database for Image Services.

• The **DB2 server** software must be installed on a dedicated remote AIX server. Refer to **Chapter 2** of the *Guidelines for Installing and Configuring DB2 Software* for further information.

 The DB2 client software needs to be installed on the AIX Image Services server and linked to the remote DB2 database. Refer to Chapter 3 of the FileNet Guidelines for Installing and Configuring IBM DB2 Software for details.

To download this document from the IBM support page, see <u>"Accessing IBM FileNet Documentation" on page 15</u>. The Guidelines document can be given to the Database Administrator.

DB2 Database Information

After DB2 has been successfully installed, the Database Administrator must provide the following information to the System Administrator and your service representative.

	Default User Name	User Name You Chose	Default Group Name	Group Name You Chose
Instance Owner	db2inst1		db2iadm1	
Fenced User	db2fenc1		db2fadm1	
DB2 Administra- tion Server User	db2as		db2asgrp	

Install Relational Database Software

Recommended	Tablespace Name	Minimum Size	Tablespace Size
Tablespace	Actually Assigned	(MB)	Actually Created
userspace1		200	

f_sw password:	
f_sqi password:	
f_maint password:	
f_open password:	

DB2 Database Alias Name: _	
	(indexdb, for example)
User Tablespace Location:	
	(userspace1, for example)
After you have this information	vevine ready to install the FileNet

After you have this information, you're ready to install the FileNet Image Services software. Continue with Chapter 3, "Installing FileNet Image Services Software," on page 71.

MSSQL 2000 SP4

SQL Database Information

After SQL has been successfully installed, the Database Administrator must provide the following information to the System Administrator and your service representative.

f_sw password:	
f_sqi password:	
f_maint password:	
f_open password:	

After you have this information, you're ready to install the FileNet Image Services software. Continue with <u>Chapter 3, "Installing</u> <u>FileNet Image Services Software," on page 71</u>.

3

Installing FileNet Image Services Software

This chapter explains how to Install the Image Services software. It covers software installation issues that include:

- Verifying links to the database
- Installing FileNet Image Services software
- Verifying TCP/IP parameter settings
- **Note** If you want to configure Image Services with SQL Server 2005, you must install IS 4.1 SP1 **BEFORE** completing any of the configuration steps.

Note If you want to log in as a specific user to run the FileNet tools and software, you must add this user to the **fnadmin** and **fnop** groups.

Check the Link to the Remote Oracle Database

Server Types	Perform the steps in this section only on servers with Oracle Client software .
	If the Oracle database is located on a remote server, check the con- nection between the Oracle Client and the remote Oracle database.
	Verify that the internal Oracle networking is active and functional, by entering an sqlplus command in this format:
	sqlplus <user>/<password>@<global_dbname></global_dbname></password></user>
	For example, you might enter:
	sqlplus sys/ <sys_password>@Michigan_IDB.world</sys_password>
	If there are no errors, Oracle networking is working successfully. Exit from sqlplus.

Check the Link to the DB2 Database

Tip As a double-check, you can enter:

tnsping Michigan_IDB.world

Check the Link to the DB2 Database

Server Types Perform the steps in this section only on servers with DB2 Client software.

Since the DB2 database is located on a remote AIX server, use the Command Line Processor (CLP) to check the connection between the DB2 Client and the remote DB2 database.

Log onto the Image Services server as the DB2 Client instance owner (such as **fnsw**), and enter:

db2

DB2> connect to <db_alias_name> user f_sw using <f_sw password>

where <db_alias_name> is the database alias name of the DB2 database on the remote server, and <f_sw password> is the f_sw user's password set up by the Database Administrator.

Check the Link to the SQL Database

Server Types	Perform the steps in this section only on servers with SQL Client software .
	If the SQL database is located on a remote server, check the connec- tion between the SQL Client and the remote SQL database.
	Verify that the internal SQL networking is active and functional, by entering an sql command in this format:
	osql -E -S <servername>/<instancename> -d <dbname></dbname></instancename></servername>
	If there are no errors, SQL networking is working successfully. Exit from osql.

Run the Installation Installer

Server Types Perform the steps in this chapter on **all servers**.

If you're installing a multi-server system, verify the Root server is installed and running first.

The IS Installer performs two tasks.

- It runs a System Check to verify configuration prerequisites.
- It installs the Image Services software.

You can choose to run both, or just the System Check only.

Note The Image Services software can be running when performing only the System Check. To run both the System Check and the installation Installer, the FileNet Image Services software must not be running.

The Installer System Check inspects the server for prerequisites and lists any warning and error conditions in two locations:

- Pop-up windows on your screen.
- Report and log files in the \fnsw_loc\logs\install\ directory.
- **Note** COLD 4.1 is included on the Image Services eSD image or software CD. However, you must be licensed to use the COLD application.

Launch the Image Services Installer

The Image Services Installer can be run in graphical or silent mode.

- Graphical mode is the default graphical interface and is described later in this section.
- Silent mode displays nothing on the screen while the installer is running. The user should review the Silent install log file for access to the progress and results of the installation.
- 1 Log on as the local Windows Administrator.
- 2 If appropriate, load the **Image Services 4.1 for Windows Server** CD-ROM into the CD-ROM drive.

- 3 For Silent Installation only, locate the appropriate option.txt file on the eSD image or the software CD. The option file contains the standard responses to the installer's prompts. Copy the file to a local directory on your server. (You can rename it to something shorter, like opt.txt.) Use your preferred text editor to make any appropriate changes and save the file. The options and their default values are fully described in the file.
- 4 Locate the installer executable on the CD-ROM.
 - In graphical mode run:

is_4.1.0_win.exe

• In silent mode run:

is_4.1.0_win.exe -silent

If you copied and modified the option.txt file, the command might look like this:

is_4.1.0_win.bin -silent -options \tmp\opt.txt

where \tmp\opt.txt is the location of the text file you modified. Specify its full path on the command line. For example, "... -options \fnsw_loc\tmp\opt.txt".

If you do not specify -options and the file path, the installer uses the standard defaults from the option.txt file.

Note If you run the System Check in silent mode, check the log file in \fnsw_ loc\logs\install\4.1.0\ to determine the results. The name of the log file is IS_4.1.0.log.

> If you determined earlier that the \tmp directory does not have enough space, specify an alternate directory. Add -is:tempdir <directory> to the command line to override the default directory, as long as the <directory> you specify already exists. This optional temporary directory must be outside the fnsw directory structure. For example, you might enter:

is_4.1.0_win.bin -is:tempdir othertmp

where othertmp is the specific temporary directory you want to use.

5 In graphical mode, you'll see the Welcome screen. It might take a few minutes to display.



6 Read and accept the Notice to End Users.

I have read and understand this software license notice.

I do not accept the terms of this software license notice.

7 Select the parts of the Image Services Installation you want to perform. Run either the **System Check only** or the **System Check and Install Image Services**.

Select the parts of Image Services installation you wish to perform:
Image Services 4.1 GA
C System Check only
System Check and Install Image Services
The System Check option will perform the system checks required to insta the Image Services software without installing the software.

- If you select System Check only, skip to Step 13 on page 86.
- If you select **System Check and Install Image Services**, continue with the following steps.
- 8 On the Select database type screen, select the type of relational database installed on this server. If this is a Storage Library server or an Application server without an RDBMS, select None.

-	Select database type:	
	MS-SQL (Windows Only)	•
	DB2	
	MS-SQL (Windows Only)	
	Oracle	
	None	

9 To configure the FileNet software user account name, enter the name of the user account you created earlier for the FileNet software user, such as **fnsw**.

			1. <u>1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1</u>	
he operating sys he default name alue into the field	em user requin s shown on the on the right. Se	ed by Image e left and car elect Next wh	be changed	by entering a ne
'he op 'he de alue i	erating syst fault name i nto the field red Operatin	erating system user requir fault name is shown on the nto the field on the right. Se red Operating System User	fault name is shown on the left and can nto the field on the right. Select Next who red Operating System User	erating system user required by Image Services is d fault name is shown on the left and can be changed nto the field on the right. Select Next when you are re red Operating System User

10 Enter the password.

 Image Services
The fnsw password is required to create the IS ControlService. Please enter it now: fnsw Password Confirm fnsw password:
The installer will check for the existence of this user and the default

groups later in the installation. If the user or the groups do not exist, the installer will not install the IS software.

11 Select the server type, enable options and enter the serial number and the NCH Domain name.

Image Services Configuration Informat	tion
Choose FileNet Image Server type:	Combined Server
	C Index Server
	C other
Windows Event Logging:	🗹 Enabled
Autostart IS Processes	🗖 Enabled
Cluster Server?	🗖 Yes
System serial number:	1234567890
NCH Domain name:	ntvaga:FileNet

12 Choose the destination drives and directories for the IS files.

Choose destination drives and directories for IS files	
IS executables:	
clfnsw	
	Brows
IS local files:	
c:\fnsw_loc	
	Brows

- **13** During the System Check, the Installer verifies the status of server characteristics in these categories:
 - Hardware checks
 - Operating System checks
 - FileNet users and groups

The same checks are performed for both the **System Check only** and the **System Check and Install Image Services** options. Items in the status column are color coded to indicate:

- Green indicates the check has passed.
- Yellow indicates that the item has failed but the installer can continue
- **Red** indicates that a check has failed and the installer cannot continue

Some Installer System Checks produce only warnings while others prevent the installation of the Image Services software:

Condition	Severity
Not logged on as superuser	Will prevent install
Insufficient file system space	Will prevent install
Insufficient swap space	Warning only
Incompatible host name	Will prevent install
Incompatible O/S	Will prevent install
Missing debugger	Warning only
Kernel parameter out of range	Warning only
Missing FileNet user/group	Will prevent install
Incorrect FileNet user/group membership	Will prevent install
Image Services running	Will prevent install

Hardware Checks

The first System Check screen displays:

- Free disk space
- Memory
- Swap Space

The Installer lists the resource, how much you need, how much you have, and either Pass or Fail.

If a configuration item, such as "insufficient file system space" or "kernel parameter out of range" does not pass the System Check, you can correct it while the Installer is still running.

- a In a separate window, make the necessary change.
- b Then, click the **Back** button on the Installer display to return to the previous screen, and click **Next** again to rerun the check.

3 Installing FileNet Image Services Software

Run the Installation Installer

Free disk space:			
Resource	Needed	Found	Status
c∴tinsw	1050 MB		Pass
c:\fnsw_loc	395 MB	(Combined) MB	Ignored
C:\DOCUME~1\ADMINI~1\LOCALS~1\Temp	355 MB	(Combined) MB	Ignored
Memory:		2019030	
Resource Needed Found Status			
Memory 512 MB 2047 MB Pass			
Swap space:			

Click **Next** to continue.

Operating System Checks

The Operating System Checks screen displays:

- Host name
- O/S version
- Debugger
- Registry entries

As you scroll down the display you see the minimum and current kernel parameter settings.

Tip If any registries values (kernel parameters) fail the system check, click the **Back** button to return to the previous screen.

Enter the correct values.

Click Next on the installer screen to run the hardware check again.

FileNet Users and Groups Check

The FileNet Users and Groups Check screen displays the required user and group memberships for FileNet Image Services.

- FileNet groups
- FileNet users
- Database user and group (Oracle only)

+fnadmin FileNet administrators +fnsw, +administrator Pass +fnop FileNet operators +fnsw Pass +fnusr FileNet users +fnsw, +administrator Pass +Administrators System administrators +fnsw, +administrator Pass FileNet users: Name Purpose Required groups Statu +fnsw FileNet user +fnusr, +fnadmin, +fnop, +Administrators Pass	FileNet groups:	Durnaga		Domirad members	Ctatura
+fnop FileNet operators +fnsw Pass +fnusr FileNet users +fnsw, +administrator Pass +Administrators System administrators +fnsw, +administrator Pass FileNet users: Name Purpose Required groups Statu +fnsw FileNet user +fnusr, +fnadmin, +fnop, +Administrators Pass	Name	Purpose		Required members	Status
+fnusr FileNet users +fnsw, +administrator Pass +Administrators System administrators +fnsw, +administrator Pass FileNet users: Name Purpose Required groups Statu +fnsw FileNet user +fnusr, +fnadmin, +fnop, +Administrators Pass	+fnadmin	FileNet adn	ninistrators	+fnsw, +administrator	Pass
+Administrators System administrators +fnsw, +administrator Pass FileNet users: Name Purpose Required groups Statu +fnsw FileNet user +fnusr, +fnadmin, +fnop, +Administrators Pass	+fnop	FileNet ope	rators	+fnsw	Pass
FileNet users: Name Purpose Required groups Statu +fnsw FileNet user +fnusr, +fnadmin, +fnop, +Administrators Pass	+fnusr	FileNet use	rs	+fnsw, +administrator	Pass
FileNet users: Name Purpose Required groups Statu +fnsw FileNet user +fnusr, +fnadmin, +fnop, +Administrators Pass	+Administrators	s System adr	ninistrators	+fnsw, +administrator	Pass
	and the second second second second	Purpose	Required g	roups	Statu
+administrator super user +fnusr, +fnadmin, +Administrators Pass	+fnsw	FileNet user	+fnusr, +fn	admin, +fnop, +Administrators	Pass
	+administrator	super user	+fnusr, +fn:	admin, +Administrators	Pass

- + green indicates the group and member users are present;
- red indicates the group or member users are missing.

The Status column indicates whether the group in the Name column exists and contains the appropriate users listed in the Required Members column.

- **Tip** Click the **Back** button, create the missing users and add the users to the appropriate groups. After creating the missing users and adding them to the groups, exit the installer, log out, and log back in for the new users and groups to take affect. Then, restart the installer. Then click **Next** again to rerun this check.
- **Note** Oracle requires an additional user and group (DB2 does not). Since the Installer doesn't know whether Image Services will be configured to use Oracle or DB2, it shows a place holder for the Oracle user and group. This is for informational purposes only, and does not prevent the System Check from completing successfully.

Click Next to continue.

Finishing the System Check

When the System Check is complete it has either passed or failed.

If the System Check failed with errors, you must fix all the error conditions reported. You can then run the System Check again.

If the System Check passed all its tests, but generated warnings for the swap space, debugger, or kernel parameter tests the final screen will indicate this. Check the log file for additional items you might want to correct.

If the Installer System Check completed successfully and you selected the option to install Image Services software, the Installer continues with the section, <u>"Installing Image Services 4.1" on page 96</u>.

Rerunning the Image Services Installer

If the Installer System Check does not pass, review the log file in the \fnsw_loc\logs\install\4.1.0\ directory. The most recent information is appended to the end of this file.

After you have made the changes required by the Installer System Check, return to "Launch the Image Services Installer" on page 76 and run the System Check again.

Installing Image Services 4.1

1 As the Image Services installer continues, the Summary screen displays. Verify that the information is correct for your system.

	Image Services
F	Please read the summary information below.
1	Image Services 4.1 GA will be installed in the following location:
	c:\fnsw
	with the following features:
	Fresh Install
	for a total size:
	180.6 MB

2 As the Image Services software installs, a progress bar displays.

	Image Services	
\geq	Installing Image Services 4.1 GA. Please wait	
	c:\fnsw\lib\ebr\read_me	
	41%	

Depending on your server's processor speed, expect the installation to take approximately **20 minutes**. (If you're installing image Services on several servers simultaneously from the same location, it might take a while longer.)

- 3 When the software installation is finished, the InstallShield Installer creates an uninstaller (\fnsw\etc\uninstaller\uninstaller\uninstall_is.exe) and verifies the version information.
- 4 The final screen indicates success.

Grant "Logon as Service" Right to the fnsw User

"Logon as Service" right will automatically be granted when the user manually re-enters the password in the Service properties panel for the IS ControlService. A '1069 logon failure' error will occur if the IS ControlService user does not have that right. This should be done whether the user is local or a domain level user.

To guard against this error, the System Administrator, must reset the password for the user with fnsw privileges in the Service Control Panel for the IS service (ISControlService).

- 1 Logon as the FileNet software user, such as **fnsw**, if you aren't already.
- 2 From the Control Panel, open the Administrative Tools folder, and double-click the *Services* icon.
- **3** Right-click *IS ControlService* and the IS ControlService Properties dialog opens.
- 4 In the IS ControlService Properties window, complete the following:

- a Select the Logon tab.
- b Re-enter the password and confirm the password.
- c Click **OK** to exit the IS ControlService Properties window.
- 5 Close the Services window.

Verify TCP/IP Parameter Settings (Optional)

In this section you will verify the maximum number of available temporary ports and the length of time the server waits before reusing a closed socket ID. If either of these parameters do not yet exist, this section provides steps to define them.

- **Note** These modifications are not required, but they have been found to be favorable for optimal FileNet performance. Unless you have set these parameters differently for other system reasons, we suggest you use these parameter settings.
 - The **MaxUserPort** parameter determines the number of temporary ports that can be assigned on the server. These temporary ports are assigned by a server's IP stack from a designated range of ports for this purpose. When network traffic is extremely heavy, it's possible to run out of temporary ports unless you increase the MaxUserPort setting.
 - The **TcpTimedWaitDelay** parameter determines the length of time the server waits before reusing a closed socket ID. Although the default value is typically around 240 seconds (four minutes), this

parameter can safely be reduced to as little as 30 seconds on high-speed networks.

1 From a Command Prompt window, enter the following command to open the Registry editor:

REGEDT32

- **Note** You can also enter the above command in the taskbar Run dialog box.
 - 2 In the HKEY_Local_Machine on Local Machine window, open the System folder and navigate to the Tcpip Parameters folder using this path:

SYSTEM>CurrentControlSet>Services>Tcpip>Parameters

- **3** Locate the MaxUserPort Parameter.
 - If this parameter is already set to 65534 (decimal) or FFFE (hex), skip to <u>Step 4 on page 104</u>.
 - If this parameter is less than 65534 (decimal) or FFFE (hex), you need to increase it.

- a Double-click on the entry to open the DWORD Editor dialog box.
- b In the DWORD Editor dialog box, set the Radix to decimal or hex, and change the value to 65534 (decimal) or FFFE (hex).
- c Click OK, and skip to Step 4 on page 104.
- If this parameter does not exist, you need to define it.
 - a From the Registry Editor Edit menu, select Add Value.

The Add Value dialog box opens.

b Enter MaxUserPort in the Value Name box, and select REG_ DWORD from the Data Type box drop-down list; then click OK.

The DWORD Editor dialog box opens.

c Set the Radix to decimal or hex, enter 65534 (decimal) or FFFE (hex) in the Data box, and click *OK*.

The Registry Editor now shows the new MaxUserPort in hex.

- 4 Locate the TcpTimedWaitDelay parameter.
 - If this parameter is already set to 30 seconds (decimal) or 1E (hex), skip to <u>Step 5 on page 105</u>.
 - If this parameter is more than 30 seconds (decimal) or 1E (hex), you need to reduce it.
 - a Double-click on the entry to open the DWORD Editor dialog box.
 - b In the DWORD Editor dialog box, set the Radix to decimal or hex, and change the value to 30 (decimal) or 1E (hex).
 - c Click OK, and skip to Step 5 on page 105.
 - If this parameter does not exist, you need to define it.
 - a From the Registry Editor Edit menu, select Add Value.

The Add Value dialog box opens.

b Enter TcpTimedWaitDelay in the Value Name box, and select REG_DWORD from the Data Type box drop-down list; then click *OK*.

The DWORD Editor dialog box opens.

c Set the Radix to decimal or hex, enter 30 (decimal) or 1E (hex) in the Data box, and click *OK*.

The Registry Editor now shows the new TcpTimedWaitDelay entry in hex.

5 Close the Registry Editor window.

Reboot the Server

At this point you must reboot the server so that newly installed device drivers can take effect. The time needed for the shutdown/reboot process varies for each system.

- 1 Reboot the server.
- 2 After the server reboots, logon as the FileNet software user, such as **fnsw**, with password **fnsw**.

Install Required Pre-Startup Fixes

Server Types	Perform the steps in this section on all servers .
	At this time, install only the fixes that directly relate to Image Services 4.1 initial configuration issues. (You'll install any general Image Services 4.1 fix packs in a later section.)

Note These are only the fixes required to start the FileNet Image Services software successfully. Install any other fixes after the Image Services installation has been successfully completed.

To retrieve these fixes for IBM FileNet Image Services 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 the appropriate link under Downloads.

4

Configuring the Root and Application Servers

This chapter describes how to configure the application server. Before using these instructions, verify that the Image Services software has been installed (and is running) on both the Root and application servers as described in <u>Chapter 3</u>, "Installing FileNet Image Services Software," on page 71.

Add Application Server(s) on the Root Server

This section and its sub-sections need to be performed on the Root/ Index server.

To create the new application server complete the following steps:

1 On the AIX/6000 server, go to your server console and log on as the FileNet software user such as **fnsw**.

2 Open a new window, and enter the following command:

fn_edit &

3 Verify that the database and domain names are correct, and click *Next*. (The two-part domain name is set up as follows:<Domain>:<Organization>.)

The FileNet Image Services System Configuration Editor window displays with the Procedures tab opened by default.

4 Configuring the Root and Application Servers

Add Application Server(s) on the Root Server

X FileNET Image Services - System Configuration Editor						_ 🗆 ×
File <u>E</u> dit	Help					
Network Addresses System Attributes Datasets	Server Appl. Services System Appl. Services MKF Databases	Relational Databases System Defaults Performance Tuning	Storage Libraries Peer Systems WorkFlo Mgmt. Services	Printing Server Attributes Procedures	Tape Drives Services	
					IMS EI	DIT mode

4 Select the Add an Application Server option from the Procedure List Box, and then click *Run*.

Note If necessary, use online help when completing the following steps.

- **5** Enter the name of the application server. This can be user defined. Click *Next*.
- **6** At the prompt, "Is this a Windows Application Server?" select Yes and then click *Next*.
- 7 Enter the network address of the application server (refer to the <u>"Installation Worksheet" on page 46</u>). Click *Next*.
- 8 If you want to add another application server, click on the Procedures tab in the FileNet Image Services System Configuration Editor window and repeat Steps 4 through 7.
- **9** After completing the Add an Application Server procedure, verify that you entered the information correctly.

4 Configuring the Root and Application Servers

Add Application Server(s) on the Root Server

To verify, click on the Network addresses tab in the FileNet Image Services System Configuration Editor window. You should see the application server(s) listed.

- **10** From the FileNet Image Services System Configuration Editor window, click on the File pull down menu and click on the *Exit* option.
- 11 You will then be asked if you want to save the changes you have just made to the current configuration database before you exit. Click the Yes button to save the configuration and exit the System Configuration Editor.

Select and Configure Relational Database Instance (if applicable)

Important This procedure assumes that the tablespaces and databases that you specify in the System Configuration Editor either already exist or that you will create them before you initialize the FileNet databases. For more information, see the FileNet *Guidelines for Installing and Updating Site-Controlled Oracle and MS SQL Software for Windows Server.* To download this document from the IBM support page, see "Accessing IBM FileNet Documentation" on page 15.

Continue with the appropriate sub-section:

- "Oracle 9i and Oracle 10g" on page 113
- "DB2 V8.1 and V8.2" on page 115
- <u>"MSSQL 2000 SP4" on page 117</u>

Oracle 9i and Oracle 10g

Define the Tablespace Names

- 1 Click the Relational Databases tab, then click the RDB Objects subtab.
- 2 In the Location column of the RDB Objects window, click on a cell and replace the default FileNet tablespace names with the site-specific table names. While replacing the tablespace names, use the following criteria:
 - Change all occurrences of **fnsys_ts** to the name of your dedicated FileNet default tablespace.

- Change all occurrences of **fntmp_ts** to the name of your dedicated FileNet temporary tablespace.
- If an optional fnusr_ts was created for WorkFlo Queue Services, change all occurrences of the name to your dedicated FileNet user tablespace.
- If an optional **fnidx_ts** was created for indexes, change all occurrences of the name of your dedicated FileNet index tablespace.

The Image Services software will use the tablespace names entered in the RDB Objects subtab.

- **Note** The tablespace names specified in the RDB Objects list must exist before you initialize the FileNet Image Services databases.
 - 3 Skip to the section, <u>"Server Configuration on the Application</u> Server" on page 118.

DB2 V8.1 and V8.2

Verify the Database and User Tablespace Names

1 Click the Relational Databases tab, then click the RDB Objects subtab.

	Ora	cle	DB2)́мs-s	SQL .	RDB Objects	וור	
								
		Server Name	Object Name	Location				
Ш		nttaos	db_name	indexdb				
		nttaos	user_tbl_space	userspace1				1

- 2 On the RDB Objects subtab, verify the database name and the tablespace name in the Location column:
 - Database name, such as indexdb.

- User Tablespace name, such as userspace1.
- **3** On the DB2 subtab, verify the following fields:

Or	acle	DB2		MS-S	SQL	RDB Objects	ווב
	Server Name	Version Number		Password Expiration Policy	Notify Administrator		
	nttaos	8.1.7	+	60	14		
	tonga	8.1.7	+	60	14		

- Version must be 8.1.12 or later (DB2 version 8.1.0 plus FixPak 12 or later), or 8.2.5 or later (DB2 version 8.2.0 plus FixPak 5 or later). DB2 version 7.2.0 is not supported at this time.
- **Password Expiration Policy** This field lists the number of days that the f_sw, f_maint, f_sqi, and f_open passwords remain in effect

before they expire. The default value is **60 days**. To change the default, enter a new value in this field.

- **Note** A blank field is not permitted, and a value of 0 is equivalent to "Never Expires."
 - Notify Administrator This field lists the number of days prior to password expiration that the administrator will be reminded to update the password. The default value is **14 days** before the password expires. To change the default, enter a new value in this field.
- **Note** This value must always be less than or equal to the password expiration value. A blank field is not permitted, and a value of 0 would mean notification the day the password expires.

MSSQL 2000 SP4

Follow the procedures in this section to configure the SQL 2000 software on your server.

1 On the server, click Start --> MicroSoft SQL Server and

Client Network Utility OR

Server Network Utility

The SQL Server Client Network Utility dialog box appears.

2 On the DB-Library Options tab, verify that the Automatic ANSI to OEM conversion option is NOT checked.

Server Configuration on the Application Server

This section and its sub-sections need to be performed on all Windows application server(s).

Configure the Windows Server as an Application Server

Note This section only needs to be performed on a Windows application server(s) that is being converted from a Combined server.

As the FileNet software user such as **fnsw**, perform the following steps.

- 1 From the Taskbar, click Start and point to Programs, FileNet Image Services, System Configuration, and click Setup.
- 2 Click on the Edit Parameters option.
- 3 Change the NCH Domain server name to the Root/Index server name and change the System Serial Number to the serial number of the Root/Index server.
- 4 From the FileNet Image Services System Configuration Editor window, click on the File menu and click the *Exit* option.
- **5** When the Exit dialog box appears, click the Yes button to save the configuration and exit the System Configuration Editor.
- 6 Shutdown the NCH database by entering the following command where **d** is the drive where you have installed your FileNet software:

MKF_shutdown "::" d:\fnsw_loc\sd\nch_db0

7 Flush the NCH database by entering the following command:

nch_flush

- 8 Next, check the registry. From the Taskbar, click the Start button, select *Run*.
- **9** Enter the following command:

regedt32

The Registry Editor displays containing several windows.

- **10** Select the HKEY_LOCAL_MACHINE on Local Machine window.
- **11** Double click on the FILENET folder.
- **12** Inside the FILENET folder, double click on Image Services folder.
- **13** Inside the Image Services folder, click on CurrentVersion selection.

- 14 Check the RootStation field. If it reads **0x1** it is set incorrectly. Click in the field and change the setting to **0**.
- 15 Click *OK* to accept this new value.
- **16** Close the Registry Editor.

Add Application Server Services Via the UNIX Root Server

This section and its sub-sections need to be performed on the Root/ Index server.

Use the steps in this section to add Application Services to your Application server. You can add one or more of the following Application Services:

- Batch Entry Service
- Cache Service
- Print Service
- Structured Query Language (SQL) Service
- WorkFlo Queue Service
- VWService

To add a VWService to the server, see the installation handbook for your Process Engine platform for instructions.

Add Application Server Services Via the UNIX Root Server

- **Note** Although ICR Service appears in the list of services to add, ICR is NOT SUPPORTED in this release.
 - 1 On an AIX/6000 server, go to your server console on logon as the FileNet software user such as **fnsw**.
 - 2 Open a new window, and enter the following command:

fn_edit &

A dialog box similar to the following displays.

4 Configuring the Root and Application Servers

Add Application Server Services Via the UNIX Root Server

X Open Configuration Database				
Database Name:	IMS	¥		
Domain Name:	moorea:Filo	eNET 🗸		
		🗆 Read Only		
ОК	Cancel	Help		

3 Verify that the database and domain names are correct, and click *OK*. (The two-part domain name is set up as follows: <Domain>:<Organization>.) The FileNet Image Services System Configuration Editor window displays with the procedures tab opened by default.

4 Configuring the Root and Application Servers

Add Application Server Services Via the UNIX Root Server

X FileNET Image Services - System Configuration Editor						_ 🗆 ×
File <u>E</u> dit	: Help					
Network Addresses System Attributes Datasets	Server Appl. Services System Appl. Services MKF Databases	System Defaults Performance	Storage Libraries Peer Systems WorkFlo Mamt, Services	Printing Server Attributes Procedures	Ta Dr Serv	ives
						Run
Delete a		ve			Н	elp

Note The online help contains information on all of the tabs. You can access the online template information by selecting the Help menu option in the FileNet Image Services System Configuration Editor window.

Change Application Server Attributes

- 1 From the FileNet Image Services System Configuration Editor window, click on the Server Attributes tab.
- 2 Find the server that is going to be used as your application server and go to the far right side of the window. Click on the platform pulldown and select **Windows Server**.
- **3** Continue to the next appropriate procedure to add the services you want.

Add Batch Service

- 1 From the FileNet Image Services System Configuration Editor window, click on the Procedures tab.
- 2 Select Add a Service to a Server from the list of Procedures and click *Run*.
- 3 Click on the domain name of the application server and click *Next*.
- 4 Choose Batch Service and click *Next*.
- 5 You are prompted for dataset path for the Cache database on your application server. You will see a UNIX path and you need to change the slashes to backslashes. The default is D:\fnsw\dev\1\cache0. Enter the path and click *Next*.
- **Note** The path must be on the application server, NOT the root/index server.
 - **6** You are prompted for the size of the Cache database. The default is 100. Enter the size, in MB, and click *Next*.

- You are prompted for dataset path for the transient database on your application server. You will see a UNIX path and you need to change the slashes (/) to back-slashes (\). The default is D:\fnsw\dev\1\transient_db0. Enter the path and click *Next*.
- 8 You are prompted for the size of the transient database. The default is 20. Enter the size, in MB, and click *Next*.
- **9** Enter the dataset path for the transient redo log (for example, d:\fnsw\dev\1\transient_rl0).
- **10** Enter the dataset size in MB (for example, 40) and click *Next*.
- **11** Respond to the Do you want to use fast batch committal? prompt by clicking *yes* or *no*. If you accept fast batch committal, you will accept the defaults. If you want, you can change the configuration later.
- 12 You are prompted for the number of BES commitment processes. Choose 2 (the default) or 4.

Add Application Server Services Via the UNIX Root Server

- **Note** When you configure a Batch Service, a Cache Service is automatically configured.
 - 13 If you want to add another service, continue to the next appropriate procedure below. If you don't want to add any more services, skip to <u>"Exit the FileNet Image Services System Configuration Editor" on page 136</u>.

Add Cache Service

If you have added a Batch Entry Service, you do not need to perform this procedure.

- 1 From the FileNet Image Services System Configuration Editor window, click on the Procedures tab.
- 2 Select Add a Service to a Server from the list of Procedures, and click *Run*.
- **3** Click on the domain name of the application server.

- 4 Choose Cache Service and click Next.
- 5 If you want to add another service, continue to the next appropriate procedure below. If you don't want to add any more services, skip to <u>"Exit the FileNet Image Services System Configuration Editor" on page 136</u>.

Add SQL Service

Before beginning this procedure, make sure that the DB2 software has been installed on the Application server.

- **Note** If you add an SQL Service to this Application server, DB2 client software is required. Before beginning this procedure, make sure that the DB2 client software has been installed on the Application server.
 - 1 From *FileNet Image Services System Configuration Editor* window, click on the *Procedures* tab.

- 2 Select Add a Service to a Server from the list of Procedures and click *Run.*
- **3** Select the server to add the SQL Service to, and click *Next*.
- 4 Select SQL Services from the list of services that appear, and click *Next.*
- **Note** If DB2 passwords have already been set using the "Add WorkFlo Queue Service" procedure, prompts for <u>Step 5</u> <u>Step 14</u> will not appear. In this case, skip to <u>Step 15 on page 132</u>.
 - 5 Enter the DB2 password for user f_sw, and click *Next*.
 - 6 Enter the password for user f_sw again, and click Next.
 - 7 Enter the DB2 password for user f_maint, and click *Next*.
 - 8 Enter the password for user f_maint again, and click *Next*.
 - 9 Enter the DB2 password for user f_sqi, and click *Next*.

- **10** Enter the password for user f_sqi again, and click *Next*.
- **11** Enter the DB2 password for user f_open, and click *Next*.
- **12** Enter the password for user f_open again, and click *Next*.
- **13** Enter the DB2 database name. This name is user defined. It can be whatever you want up to 8 characters in length.
- **14** Enter the location of the DB2 user table space, or accept the default, and click *Next*.
- 15 If you want to add more services, continue to the next appropriate procedure below. If you don't want to add any more services, skip to <u>"Exit</u> the FileNet Image Services System Configuration Editor" on page 136.

Add WorkFlo Queue Service

Before beginning this procedure, make sure that the DB2 software has been installed on the Application server.

Add Application Server Services Via the UNIX Root Server

- **Note** If you add a WorkFlo Queue Service to this Application server, DB2 client software is required. Before beginning this procedure, make sure that the DB2 client software has been installed on the Application server.
 - 1 From the FileNet Image Services System Configuration Editor window, click on the Procedures tab.
 - 2 Select Add a Service to a Server from the list of Procedures and click *Run.*
 - **3** Click on the domain name of the application server.
 - 4 Choose WorkFlo Queue Service and click *Next*.
- Note If DB2 passwords have already been set using the "Add SQL Service" procedure, prompts for <u>Step 5</u> <u>Step 14</u> will not appear. In this case, skip to <u>Step 15 on page 134</u>.
 - 5 Enter the DB2 password for user f_sw, and click *Next*.

- 6 Enter the password for user f_sw again, and click Next.
- 7 Enter the DB2 password for user f_maint, and click *Next*.
- 8 Enter the password for user f_maint again, and click *Next*.
- **9** Enter the DB2 password for user f_sqi, and click *Next*.
- **10** Enter the password for user f_sqi again, and click *Next*.
- 11 Enter the DB2 password for user f_open, and click *Next*.
- **12** Enter the password for user f_open again, and click *Next*.
- **13** Enter the DB2 database name. This name is user defined. It can be whatever you want up to 8 characters in length.
- 14 Enter the location of the DB2 user table space, or accept the default, and click *Next*.
- 15 If you want to add more services, continue to the next appropriate procedure below. If you don't want to add any more services, skip to <u>"Exit</u>"

Add Application Server Services Via the UNIX Root Server

the FileNet Image Services System Configuration Editor" on page 136.

Add Print Services

- 1 From the FileNet Image Services System Configuration Editor window, click on the Procedures tab.
- 2 Select Add a Service to a Server from the list of Procedures and click *Run*.
- 3 Select the server to add a service to and click *Next*.
- 4 Choose Print Services and click *Next*.
- 5 If you want to add more services, continue to the next appropriate procedure below. If you don't want to add any more services, skip to <u>"Exit the FileNet Image Services System Configuration Editor" on page 136</u>.

Add VWService

For instructions on adding a VWService, see the *WorkFlo Services for UNIX Installation Handbook*.

Note If you add a VWService to this Application server, DB2 client software is required. Before beginning this procedure, make sure that the DB2 client software has been installed on the Application server.

Continue to the next section to <u>"Exit the FileNet Image Services</u> System Configuration Editor".

Exit the FileNet Image Services System Configuration Editor

When you exit the System Configuration Editor, be sure to save your changes.

1 Select the *Exit* option from the File pull-down menu in the System Configuration Editor window. 2 When prompted to save your changes, click the Yes button to save the configuration and exit the System Configuration Editor.

Reboot the Server

In order for the configuration changes you made in the preceding procedures to take effect, you must restart the Image Services on the root server.

- **Note** The time needed for the restart process varies for each system.
 - 1 Logon as the FileNet software user such as **fnsw** (if you aren't already), and start X Windows (if you have not already done so)
 - 2 Stop all FileNet processes by entering the following command:

killfnsw -A -D -y

3 Start the updated FileNet application software by entering:

Xtaskman &

The FileNet Task Manager interface displays.

- 4 Once the **TM_daemon.exe** message displays in the Process table, select the Monitor menu.
- **5** From the Monitor menu, select the Event Logs option. (The FileNet Event Logs window displays.)
- 6 From the Event Logs window, select the DISPLAY menu, and select Dynamic. (The Dynamic option enables screen refreshes each time the messages are logged.) Return to the FileNet Task Manager window, but do not close the Event Logs window.
- 7 From the FileNet Task Manager window, select START.

You will receive system messages in the Current Status window as the FileNet software starts. Once the FileNet software startup process finishes, the CLOSE button is highlighted.

8 Select the CLOSE button. (The Current Status window closes.)

9 Review the contents of the Event Log window to make sure that there are no error messages from the software startup.

Build and Initialize the Application Server

Perform the procedures in this section and its sub-sections on the Windows application server.

Use these procedures to build the application server's configuration files and initialize the server.

The same version of Image Services software must already be installed on the root/index server and the application server. There must be no RDBMS or NCH database already existing on the application server.

Note Make sure FileNet software is running on the Root server, and not on the application server. (You can do a whatsup on the Root server.) If FileNet is running on the application server, run a killfnsw -A -D -y.

- 1 On the application server, logon as the FileNet software user such as **fnsw**.
- **2** Open a Command Prompt window, and type in the following command to build the system configuration files:

fn_build -a

The fn_build program will generate configuration files used by the components of the Image Services software. Each file is produced in two steps. First a temporary file is produced with a **.new** extension. Then, if there is a difference between the .new version and the existing version, the .new version of the file is copied over the existing version of the file.

IMPORTANT! This step is extremely important because it generates a special file that fn_util init needs when it's run in the next section.

3 Make sure fn_build ran successfully by checking that no errors have occurred.

Update IS Configuration Files

- **Note** If the IS system is configured with a Site-controlled relational database (on a local or on a remote database server), make sure that the relational database is up before running fn_setup_rdb.
 - 1 As the FileNet software user such as **fnsw**, enter the following command to update the IS configuration files and RDBMS related files:

fn_setup_rdb -f

Follow the prompts to enter the requested information for your relational database.

2 Initialize all datasets configured on your server by entering

fn_util init

This process may take a while (sometimes up to 30 minutes without any feedback to the user); the larger the datasets, the longer the wait. After the initialization process finishes, the prompt returns.

Note View the **\fnsw_loc\logs\fn_util\fn_util.log** file after initializing to verify that there were no errors in the database initialization process.

Verify the Connection to RDBMS

Since the relational database is located on a remote AIX server, make sure that TCP/IP communications have been configured successfully on both server and client computers.

- To verify the connection to the DB2 database, see <u>"Check the</u> Link to the DB2 Database" on page 73.
- To verify the connection to the Oracle database, see <u>"Check the</u> Link to the Remote Oracle Database" on page 72.
- To verify the connection to the SQL database, see <u>"Check the</u> Link to the SQL Database" on page 74.

Verify FileNet Dataset Permissions

Use this procedure to verify and/or set your FileNet dataset permissions.

- **Note** If the FileNet datasets reside on a different disk than the FileNet Image Services software, you must set the group permissions.
 - 1 Open Windows Explorer, and select a directory containing the desired FileNet dataset.
 - 2 From the File menu, select the Properties menu option, click the Security tab, and click the Permission button. Set the following permissions:

Group	Permissions
Administrators	Full Control (ALL) (ALL)
Everyone	Special Access (R) (R)
fnadmin	Full Control (ALL) (ALL)
fnop	Special Access (RX) (RX)
fnusr	Special Access (RX) (RX)

3 Repeat steps 2 and 3 for all datasets affected.

Bring Up FileNet Software

- Important If you are installing SQL Server 2005 on this system, you need to first install IS 4.1.1 before starting the Image Services software. Refer to the FileNet Image Service 4.1.1 Readme for information.
 - 1 Reboot the server.
 - **Note** The time needed for the shutdown/reboot process varies for each system.
 - 2 Logon to the application server as the FileNet software user such as **fnsw**, if you aren't already.
 - **3** Locate the FileNet Image Services Server Applications window, and double-click on the Task Manager icon.

- 4 Once you see the TM_daemon.exe process message appear under the Process column, bring up the FileNet event log window by clicking on the Monitor pull down menu and selecting the Event Logs... option.
- **5** From the Event Logs window, enable the event window to be refreshed whenever messages are logged by clicking on the Display pull down window and selecting the Dynamic option.
- 6 To bring up the FileNet software, return to the FileNet Task Manager window and click on Start. The system will display messages in the Current Status pop-up window as FileNet software is being started up.
- 7 When the FileNet software is up and the Close button is highlighted, click on the Close button to close the Current Status window.
- 8 View the Event Log window to make sure there are no error messages.

5

Completing the Installation

This chapter explains steps that need to be followed to complete the backing up of both the Root server and the Windows application server installation. Backups should be made of your system configuration in case something unforeseen occurs. You should do this for both the root and application servers.

Backup the Root Server

Make a complete system backups for the root/index server and the application server. To make complete backups of your system configuration, refer to the following documents depending upon the operating system on your UNIX server:

Enterprise Backup and Restore User's Guide

System Administrator's Handbook

System Administrator's Companion for UNIX

To download IBM FileNet documentation from the IBM support page, see <u>"Accessing IBM FileNet Documentation" on page 15</u>.

Once you have backed up the system configuration on the appropriate server, you will have successfully added an application server to your system.

Backup the Application Server

- 1 If you aren't already, logon as the FileNet software user such as **fnsw** or Windows **Administrator**.
- 2 Shutdown the FileNet software by entering the following command:

initfnsw stop

- **3** Load a blank tape into the tape drive.
- **4** Double-click on the Administrative Tools icon to open the Administrative Tools window.
- **5** From the Administrative Tools window, locate and double-click the Backup icon.
- 6 The backup tool should list all of the drives on your server which can be backed up. Locate and select the drive(s) containing the files and databases for both the operating system and FileNet system (for example, drive C and D.) This can be done by clicking on the white box to the left of the drive(s) you intend to backup.

- 7 Next, click the Operations pull down menu, and select the Backup... option.
- 8 Select the following options in the Backup Information window:
 - Verify After Backup
 - Backup Registry
 - Restrict Access to Owner or Administrator

Also, if you need to, you may change the tape name in this window.

9 Type in the back up type (for example, Full Backup, <System Name>,W/E 2-26-95) in the Description field.

Note the location of the backup log file and record the location here:

10 Click the *OK* button to begin the backup. The backup program will display its status while it is in progress. The backup and verification will take about 20 - 30 minutes to complete, depending on the system.

- 11 When the backup is complete, make sure it can successfully verify the database file, and click the *OK* button.
- **12** To exit the backup tool, click the Operations pull down menu and select the *Exit* option.
- **13** Unload and label the backup tape.

Appendix A – Systems Management Server (SMS) Procedures

This appendix contains instructions for using the Microsoft Systems Management Server (SMS) product for installing or uninstalling software on your FileNet Image Services server(s).

Note Only a brief description of SMS is provided in this appendix. For detailed information or instructions, refer to the *Microsoft SMS documentation* and the *Readme* file.

This appendix provides instructions for the following procedures:

- "Setting up the SMS Site Server Package" on page 154
- "Installing FileNet Image Services Software" on page 164
- <u>"Uninstalling FileNet Image Services software" on page 169</u>

What is Microsoft Systems Management Server (SMS)?

Microsoft Systems Management (SMS) is Windows Server product designed to make it easier for you to centrally manage, support, and maintain a distributed network of computers. SMS is an integrated system that is part of the Microsoft BackOffice[™] family of business products.

This appendix will only use the Software Distribution portion of the SMS product to install, or uninstall, FileNet Image Services software. With SMS, you will be able to install software from a single, central location.

The basic structure of SMS utilizes a site server, which controls and distributes software to client servers that are part of the SMS system. The software contained on the FileNet Image Services release media is loaded onto the SMS site server and distributed to client servers from there.

Overview

To use SMS to distribute and install software, a few basic steps must be performed.

Note For detailed information, refer to the *Microsoft SMS documentation* and the *Readme* file.

- Microsoft SMS software must be installed and setup on a server you designate as the SMS Site Server. This process enables you to create workstation packages which are necessary to distribute the software to individual Image Services (client) servers. Refer to your SMS documentation for information on setting up your SMS site server.
- FileNet Image Services provides a template Package Definition File (or PDF file) called IS.pdf. This file, which is located in the root directory of the eSD image or software CD, must also be installed on the SMS site server. Workstation packages for software distribution are created using the IS.pdf file.

• On the SMS site server, an advertisement must be created for each Image Services (client) server. Advertisements can be created for new installations, updates, or to uninstall software.

Setting up the SMS Site Server Package

This section contains procedures to setup packages on your SMS Site Server. It is from the SMS Site Server that you will execute jobs to install the software on your client servers.

Copy FileNet Image Services Software to Site Server

- 1 At the Site Server, logon as Windows Administrator
- 2 Create a directory folder on the Site Server drive where you want the Image Services software to reside. Name the folder Image Services Software, or something meaningful.
- 3 If appropriate, load the **Image Services 4.0 for Windows Server** CD-ROM into the CD-ROM drive.

4 Copy the Image Services software from the eSD image or the software CD to the directory location that you set up in step 2 above.

Modify the Isetup.iss File

The Isetup.iss file must be edited for your system setup.

- 1 Open the directory where you copied the Image Services software and locate the Isetup.iss file.
- **2** Open the Isetup.iss file in Wordpad or Notepad.

A portion of this file is shown in the example below.

Setting up the SMS Site Server Package

```
Isetup.iss - WordPad
                                                      _ 🗆 ×
File
    Edit
                    F<u>o</u>rmat
        <u>V</u>iew
             Insert
                           <u>H</u>elp
                                  2
                                          2
 [FN mainsetup-0]
 IPath=c:\fnsw
 IPathLocal=c:\fnsw loc
 DatasetDrives=N/A
 Result=2
 [AskYesNo-0]
 Result=1
 [FN params-0]
 SSN=12345678
 NCHDomain=Svr1:FileNet
 EventLog=1
 IMSAutoStart=0
```

- 3 Locate the IPath= and IPathLocal= entries and change the drive letter (c:) to the drive letter on your Client Server where you want to install the FileNet software.
- 4 Locate the SSN entry and change the number to the SSN number of the Client Server where the software will be installed.
- **5** Locate the NCHDomain= entry and change **FileNet** to the domain name for your Client Server.
- 6 Rename the Isetup.iss file, setup.iss and save it.

Create Package

This procedure will create a new package to install your software.

- Note To uninstall software, see <u>"Uninstalling FileNet Image Services soft-</u> ware" on page 169.
 - 1 At the SMS Site Server, click the *Start* button, point to *Programs*, point to the *Systems Management Server*, and click *SMS Administrator*

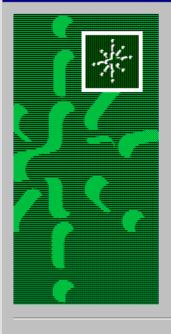
Console. The Systems Management Server\Site Database window opens.

- 2 Double click on Site Database to expand it.
- **3** Select Packages, and click the Action button. A drop-down list appears.
- 4 Click New and select Package From Definition.

The Create Package from Definition Wizard opens.

Setting up the SMS Site Server Package

Create Package from Definition Wizard



Welcome to the Create Package from Definition Wizard

This wizard helps you create a new package from a previously defined package definition file.

A package definition file is a template that specifies all the information that Systems Management Server (SMS) needs about a package except where to finds its source files (the package's executables and data files).

To create a new package from a package definition file, click Next.

Next >

Cancel

- 5 Click Next.
- 6 In the next window, click on the Publisher drop-down list and select SMS 1.x PDF.
- 7 Click *Browse* and navigate to the location where you copied the Image Services 4.0 software to your local hard drive.
- 8 Select IMS.PDF and click Open.
- 9 Click Next.
- **10** In the Source Files window, choose the *Always obtain files from a source directory* radio button, and click *Next.*
- 11 In the Source Directory window, select the appropriate Source directory location radio button and enter the Source directory where the Image Services 4.0 media was copied. Then click *Next*.
- **12** When the Completing the Create Package from Definition Wizard window appears, click *Finish.*

Configure the Distribution Points for Your Site

- 1 In the Systems Management Server\Site Database window, select Packages\FileNet Image Services 4.1\Distribution Points, and then click the Action button.
- 2 In the drop-down list that appears, select *New*.
- 3 Select *Distribution Points*. The New Distribution Points Wizard opens.
- 4 Check the box next to the name of the Distribution points, and click *Finish.*
- 5 In the Systems Management Server∖Site Database window, open the Programs for the FileNet Image Services 4.0 package.
- 6 Right-click on *Fresh Installation* and click *All Tasks.* The Distribute Software Wizard opens.
- 7 Click Next.

- 8 In the Package window, choose the *Distribute an existing package* radio button, select the package that you wish to distribute, and click *Next.*
- **9** In the Distribution Points window, confirm the name of the distribution points you selected earlier, and click *Next*.
- **10** In the Advertise a Program window, select the Yes radio button to advertise a program to a collection.
- **11** Select Fresh Installation in - and click Next.
- 12 In the Advertisement Target window, select *Advertise the program* - or *Create a new collection* - as appropriate for your site. Then click *Next*.
- **13** In the Advertisement Name window, use the default name or enter an advertisement name and comment, and click *Next*.
- **14** In the Advertise to Subcollections window, select the appropriate radio button for your site and click *Next*.

- **15** In the Advertisement Schedule window, enter the schedule information as needed for your site, and click *Next*.
- **16** In the Assign Program window, enter the information appropriate for your site, and click *Next*.
- **17** When the Completing the Distribute Software Wizard window appears, click *Finish.*
- **18** Close the Systems Management Server\Site Database window.

Installing FileNet Image Services Software

When the New Advertised Manager alerts you that a new Advertisement has arrived, follow this procedure to install the FileNet Image Services software.

- **Note** The FileNet Image Services Setup Program will not allow the installation of FileNet Image Services on a FAT file system. Only Fixed, Local, and NTFS formatted target drives are supported in this release.
 - **Tip** You can use the Windows Explorer to determine the file system of a particular drive before installing the Image Services software.
 - 1 At the client server, logon as Windows Administrator.
 - 2 Create a local group called **fnadmin** and add the Administrator user to this group.

- Note You must create a local group called **fnadmin** and add the Administrator user to the fnadmin group to install Image Services via SMS. This group is not created automatically as it is during a normal interactive install.
 - **3** After creating the fnadmin local group, logoff and log back onto the system. This is necessary for the above changes to take effect.
 - 4 Exit the Performance Monitor tool if it is currently running.
- **Note** Stopping the Performance Monitor now will prevent you from having to cancel the installation process to stop it later.
 - **5** Open the Control Panel and double-click the Advertised Programs icon. The Advertised Programs Wizard opens.
 - 6 Check the box next to the advertised program that you want to run, and click *Next*.
 - 7 In the next window, enter the appropriate schedule information for when you want to run the program and click *Next*.

- 8 When the Completing the Advertised Programs Wizard window appears, click *Finish.*
- **CAUTION** The Advertisement Wizard icon, shown here 😨, will appear at the far right side of the Task bar while the Advertisement Wizard is running. Do Not reboot your computer until this icon disappears. This may take approximately 15 minutes.

Complete the SMS Install of FileNet Software

- 1 From the Taskbar, click *Start*, point to *FileNet Image Services, System Configuration*, and click *Setup.*
- **2** A Question window appears asking if you are logged on to a domain using a domain user account.

Select Yes or No as appropriate. The FileNet Image Services Installation Maintenance window appears.

3 Click Edit Parameters. The Edit Installation Parameters window opens.

- 4 Verify that System Serial Number and NCH Domain Name are correct and click *OK*.
- 5 At the Confirm Save window, click Yes.
- 6 At the Edit Installation Parameters window, click *Exit* and then click *Yes* at the next screen to confirm your exit.

Reboot the Server

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

- 1 Reboot the server.
- **Note** The time needed for the shutdown/reboot process varies for each system.
 - 2 When the system restarts, logon as the FileNet software user such as **fnsw**.

Installing FileNet Image Services Software

3 After logging on to the server, proceed to, <u>Chapter 4, "Configuring</u> the Root and Application Servers," on page 108 to continue.

Uninstalling FileNet Image Services software

Uninstalling FileNet Image Services software

This section contains procedures to Uninstall FileNet Image Services software.

Create Package

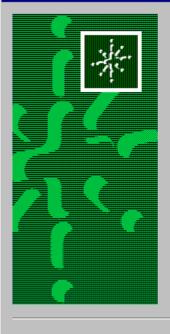
This procedure will create a new package to uninstall your software.

- 1 If you are not already, logon to the SMS Site Server as Windows Administrator.
- 2 Click the Start button, point to Programs, point to the Systems Management Server, and click SMS Administrator Console. The Systems Management Server\Site Database window opens.
- **3** Double click on Site Database to expand it.
- 4 Select Packages, and click the Action button. A drop-down list appears.
- 5 Click New and select Package From Definition.

The Create Package from Definition Wizard opens.

Uninstalling FileNet Image Services software

Create Package from Definition Wizard



Welcome to the Create Package from Definition Wizard

This wizard helps you create a new package from a previously defined package definition file.

A package definition file is a template that specifies all the information that Systems Management Server (SMS) needs about a package except where to finds its source files (the package's executables and data files).

To create a new package from a package definition file, click Next.

Next >

Cancel

- 6 Click Next.
- 7 In the next window, click on the Publisher drop-down list and select SMS 1.x PDF.
- 8 Click *Browse* and navigate to the location where you copied the Image Services 4.0 software to your local hard drive.
- 9 Select IMS.PDF and click Open.
- 10 Click Next.
- 11 In the Source Files window, choose the *This package does not contain any files* radio button, and click *Next.*
- **12** In the Source Directory window, select the appropriate Source directory location radio button and enter the Source directory where the Image Services 4.0 media was copied. Then click *Next*.
- **13** When the Completing the Create Package from Definition Wizard window appears, click *Finish.*

Configure the Distribution Points for Your Site

- 1 In the Systems Management Server\Site Database window, select Packages\FileNet Image Services 4.0\Distribution Points, and then click the Action button.
- 2 In the drop-down list that appears, select *New*.
- 3 Select *Distribution Points*. The New Distribution Points Wizard opens.
- 4 Check the box next to the name of the Distribution points, and click *Finish.*
- 5 In the Systems Management Server∖Site Database window, open the Programs for the FileNet Image Services 4.0 package.
- 6 Right-click on *Uninstallation* and click *All Tasks*. The Distribute Software Wizard opens.
- 7 Click Next.

- 8 In the Package window, choose the *Distribute an existing package* radio button, select the package that you wish to distribute, and click *Next.*
- **9** In the Distribution Points window, confirm the name of the distribution points you selected earlier, and click *Next*.
- **10** In the Advertise a Program window, select the Yes radio button to advertise a program to a collection.
- **11** Select Uninstallation in - and click Next.
- 12 In the Advertisement Target window, select *Advertise the program* - or *Create a new collection* - as appropriate for your site. Then click *Next*.
- **13** In the Advertisement Name window, use the default name or enter an advertisement name and comment, and click *Next*.
- **14** In the Advertise to Subcollections window, select the appropriate radio button for your site and click *Next*.

- **15** In the Advertisement Schedule window, enter the schedule information as needed for your site, and click *Next*.
- **16** In the Assign Program window, enter the information appropriate for your site, and click *Next*.
- **17** When the Completing the Distribute Software Wizard window appears, click *Finish.*
- **18** Close the Systems Management Server\Site Database window.

Uninstall FileNet Image Services Software

When the New Advertised Manager alerts you that a new Advertisement has arrived, follow this procedure to uninstall the FileNet Image Services software.

- 1 At the client server, logon as Windows Administrator.
- **2** Open the Control Panel and double-click the Advertised Programs icon. The Advertised Programs Wizard opens.

- **3** Check the box next to the advertised program that you want to run to uninstall the FileNet software, and click *Next*.
- 4 In the next window, enter the appropriate schedule information for when you want to run the program and click *Next*.
- **5** When the Completing the Advertised Programs Wizard window appears, click *Finish.*

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:

Notices

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-INFRINGE-MENT, 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 indepen-

dently 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

Notices

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

Notices Trademarks

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

Notices Trademarks

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.

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

Microsoft, BackOffice, 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.

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.

Index

Α

application server, configuration 108–145 add application server 108 add batch services 127 add cache services 129 add print services 135 add services 122 add SQL services 130 add WorkFlo Queue services 132 build and initialize server 140 configure server 139 start FileNet software 144 verify FileNet dataset permissions 143

С

commands fn_build -a 140 initfnsw stop 148 REGEDT32 102 regedt32 120

regedt32 120 winmsd 31

D

de-installing using SMS 169 Domain name 42 domain name 39

F

file system and dataset information Installation Worksheet 52 FileNet groups, creating 53 FileNet users, creating 53

L

Image Services software requirements 36 software installation 75 installation prerequisites 25–46 software requirements 35 system information 41–46 Installation Worksheet 46–55 compatible system information 48 file system and dataset information 52 optical drive information 51 server information 47 storage library information 49 system cache information 55 installing software, using SMS 164–167 Internet Protocol (IP) address 41

Μ

Microsoft Systems Management Server de-installing Image Services software 169 installing Image Services software 164–167 preparing to use 154

Ν

naming servers 38

0

object name 39 operating system 22 Operating system notes 22 Oracle software 18, 19 organization name 40

Ρ

paging file size 56 patches operating system notes 22 prerequisites installation 25–46 server memory 33

R

RDBMS groups, creating 53 RDBMS users, creating 53 release dependency spreadsheet 21

S

server naming convention 38 SMS procedures de-installing Image Services software 169 installing Image Services software 164–167 software requirements Image Services 36 system configuration issues 56 system serial number 42 W wizard description 17

IBW ®

Program Number: 5724-R95

Printed in USA

GC31-5556-01

