Windows® Application Server Install Procedures for UNIX Systems

Release 4.0 DB2 Edition

9844116-001

June 2004

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1
Getting Started

This document explains how to install and configure 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, an appendix contains Microsoft System Management Server (SMS) Procedures **(page 126)** that can be used for installing and de-installing only FileNet software.

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

Documentation Conventions

We have tried to make this procedure easy to follow, whether you are a new or experienced technician. The organization and format of this procedure are designed to clarify the tasks you are about to perform.

To familiarize yourself with the conventions used in this document and for other general information, link to the **Document Conventions** file on the Image Services documentation CD.

New Features of the IS 4.0 DB2 Edition Installation

This release of Image Services software includes the following major improvements and features.

Windows 2000 Operating System Support

Only the Windows 2000 Operating System, with Service Pack 3, is supported with this release of Image Services software.

Note The service pack must be installed. You can download the service pack from: **http://www.microsoft.com/downloads/search.asp?**

IBM DB2 Universal Database Software

In this release of Image Services, FileNet introduces support for IBM DB2 relational database software. The DB2 database must be site-controlled and **must reside on a remote AIX 5.2 server**.

DB2 Universal Database version 8 FixPak 4a, or later, is also required.

Image Services on the Windows server accesses the remote DB2 database using DB2 client software installed on the IS server.

See ***Guidelines for Installing and Configuring DB2 Software*** for more information.

New Document for Installing DB2 Software

Guidelines for installing DB2 software are not contained in this document. To install DB2 software refer to the document, ***Guidelines for Installing and Configuring DB2 Software***.

Cross-Committal and Multi-Committal System Support

A new document, ***Multi-Committal and Cross-Committal Configuration Handbook***, is included in this release. It supplements the section in this document that deals with configuring Image Services servers in a cross-committal or multi-committal environment. This new document focuses on the important planning and coordination that must occur prior to the installation and configuration of the software. Please read the ***Multi-Committal and Cross-Committal Configuration Handbook*** for complete information on the concepts and prerequisites for configuring both Source and Target servers in this environment.

CSS Worldwide Customer Support

The following sub-sections describe various support documents and tables that will give you additional, up-to-the-minute information concerning your installation. These are all available on the FileNet Web site at **http://www.css.filenet.com**. Login to CSS Worldwide Customer Support to review these topics.

Release Notes for Image Services 4.0

The Release Notes file is available in two places.

- The Image Services 4.0 CD-ROM in location, \relnotes.htm
- The FileNet Web site at **http://www.css.filenet.com**.

Since the latest Release Notes are located on the FileNet Web site, it is **highly recommended** that you obtain the Release Notes file from that location instead using the file on the IS 4.0 CD-ROM.

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

Pay special attention to the **"Patches"** mentioned in the Release Notes. (Search for the keywords **PRE-INSTALL** and **REQUIRED** to locate information about Windows Server, DB2, and Image Services patches that need to be applied before starting this update.) Image Services patches are located on the FileNet Web Site.

Note If you are planning to install an Image Services/Document Services Coexistence system, search through the Release Notes file for the latest information using the key words **IS/DS Coexistence**.

Release Dependency Spreadsheet

Review the Release Dependency spreadsheet for information that might be pertinent to the entire system configuration. The Release Dependency spreadsheet contains software compatibility information for client workstations, fax servers, and printer servers.

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

Note Version 3.6 or higher of the Image Services Toolkit (formerly known as WAL) is required when running Image Services 4.0 and the IS Toolkit on the same server. Make sure any IS Toolkit SCRs listed in the Release Dependency spreadsheet have been downloaded and installed.

Terminal Services

Windows 2000 Terminal Services is not supported with this release of Image Services. This is because Terminal Services does not allow Xapex and other GUI functions to operate correctly. Some GUI's will lock-up, not generate correctly, or might be missing selection options.

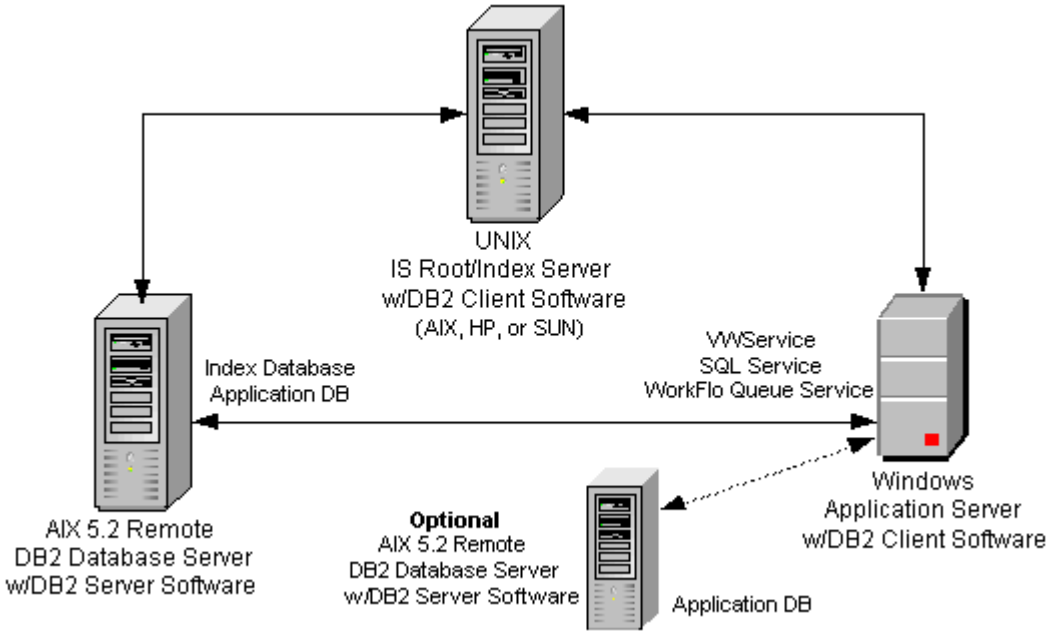
System Configuration

The following diagram shows a UNIX Image Services system using a DB2 database with a Windows Application server. In this diagram, the remote AIX 5.2 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 5.2 Server can also be used to host the Application Database. In this case, the primary AIX 5.2 Server would only host the Index Database.


UNIX
IS Root/Index Server
w/DB2 Client Software
(AIX, HP, or SUN)
Index Database
Application DB
VWService
SQL Service
WorkFlo Queue Service
AIX 5.2 Remote
DB2 Database Server
w/DB2 Server Software
Optional
AIX 5.2 Remote
DB2 Database Server
w/DB2 Server Software
Application DB
Windows
Application Server
w/DB2 Client Software

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 **"Installation Worksheet" on page 41**. 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 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 DB2 Software*** for information.

Note An optional second remote AIX 5.2 Database Server may also be used to host the database for the Windows Application Server. In this case the primary AIX 5.2 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:

- FileNet Image Services Release 4.0 DB2 Edition and DB2 client software have been installed and configured on a combined **UNIX** server. For information on the required DB2 software, see **"IBM DB2 Universal Database Software" on page 30**.

  To install DB2 software, see ***Guidelines for Installing and Configuring DB2 Software*** for information.

- 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.

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

National Language Support

This release of Image Services provides additional information on using character sets other than US7ASCII and ISO 8859-1. It's extremely important that the character set you select for one product matches the character sets you select for all the others.

For example, when you install the operating system, be sure to select the character set you plan to use with Image Services and DB2. Likewise, when you install DB2 software, be sure to select the same character set as you did for the operating system.

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/ DB2 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 DB2 and IS on the Image Services server.

For FileNet systems configured with Western European character sets, valid alphanumeric characters must be in the 7-bit ASCII range. For FileNet 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.

Character Sets			Decimal Values	
ISO (International Organization for Standardization)		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
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.

Hardware Requirements

To complete the procedures is this document, your server must meet the following minimum hardware requirements.

Note If your server will be used with an eProcess system, refer to the eProcess documentation for hardware requirements.

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

Tip To check the amount of memory, logon on the server 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:*

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

Tip To see how much disk space is available, use the *Windows Explorer,* and select the drive where you plan to install the Image Services software. The available 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

Minimum Disk Space

FileNet Image Services software, DB2 software, temporary working storage, and the Windows Operating System, have minimum disk space requirements. Refer to the chart below for disk space requirements for Combined Root/Index servers and Storage Library servers.

Note These sizes include a 30% growth factor.

Tip To check your free disk space, open the Windows Explorer, right click on the drive containing your FileNet or DB2 software, and choose Properties.

Software	Combined or Root/Index Server with DB2 Client	Storage Library Server
Windows Operating System	3 GB	3 GB
FileNet datasets	1 GB	1 GB
DB2 Client Software	110 MB	
Total disk space	4.11 GB	4 GB

Software Requirements

To complete the installation and configuration procedures is this document, your server must have the following:

Windows 2000 Operating System Software

The following Windows 2000 operating systems are supported with this release of Image Services software.

- Windows 2000 Server
- Windows 2000 Advanced Server
- Windows 2000 Datacenter Server (for Unisys ES7000 Server) and Service Pack 3. (**DB2 installations ONLY**)

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

IBM DB2 Universal Database Software

IBM DB2 V8.1.0 for AIX Database Server (1 CD)

DB2 UDB Enterprise Server Edition (ESE) for AIX 5L. This compact disk contains the IBM DB2 RDBMS software for the DB2 database server.

IBM DB2 V8.1.0 for Windows Client (1 CD)

DB2 UDB Administration / Runtime Client for Windows. This compact disk contains the IBM DB2 RDBMS software for the DB2 client on the Image Services server.

Note IBM DB2 software media are not supplied by FileNet.

IBM DB2 Universal Database Version 8 FixPak 4a (or later)

Download the FixPak from IBM's Web site, **www.ibm.com**.

FileNet Software Media

Image Services media: *Image Services 4.0 for Windows Server,* CD-ROM. (This CD-ROM contains the Image Services 4.0 software, COLD 4.0 software, and the four Universal SLAC Keys.)

Universal SLAC Key

In the IDMIS 3.5.0 release, a Universal SLAC Key replaced the Hardware-specific SLAC Key.

Hardware-specific SLAC Keys, which were available for releases prior to IDMIS 3.5.0, were generated specifically for each system and were tied to the servers' machine IDs.

Universal SLAC Keys now allow hardware and software re-configuration and expansion without requiring a new key, and they are no longer tied to specific machine IDs. The Universal SLAC Keys you may need are:

- Image Services with eProcess for DB2
- eProcess only (no Imaging) for DB2

Debugger

The debugger program is recommended for Image Services 4.0. The debugger enables FileNet support personnel to troubleshoot both FileNet and Windows-related problems and must be installed on each Image Services server.

To determine if the debugger is already installed, use the Windows Explorer to locate the file **/Windbg** on each Windows Server. If this file is present, the debugger is installed.

If this file is *not* present, and if the media and license are available, we recommend that you install it. Contact your Microsoft retailer for complete ordering information.

Note The debugger and C compiler are included with the Microsoft Developer Network (MSDN) professional subscription (formerly level2).

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 **20 characters** and should only contain ASCII alpha-numeric characters and hyphens.

Note Non-alphanumeric and underscore characters 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 or FileNetAccounting.

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 **"Installation Worksheet" on page 41**.

1. Determine the password for the user **Administrator**. Record the password in the **"Installation Worksheet".**

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 **"Server Naming Convention" on page 33**.

   - 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 10 digits.

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 **"Compatible System Information" on page 42**. For information on naming servers, see **"Server Naming Convention" on page 33**.

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 **"Printer Information" on page 44**. For information on naming servers, see **"Server Naming Convention" on page 33**.

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.

On the Image Services 4.0 Documentation CD-ROM:

- ***Guidelines for Installing and Configuring 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***

Other documentation:

FileNet Image Services System Configuration Editor Online Help

Note For information on DB2 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.

Server 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	
Domain Name	
Organization Name	

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 analyisis report and complete the following table appropriately for your system.

Dataset Name	RDBMS	Required Minimum Size	Actual System Size (Mb)
cache0	DB2	100 Mb	
permanent_db0	DB2	100 Mb	
permanent_rl0	DB2	40 Mb	
transient_db0	DB2	20 Mb	
transient_rl0	DB2	40 Mb	
sec_db0	DB2	12 Mb	
sec_rl0	DB2	4 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.

System Cache Information

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

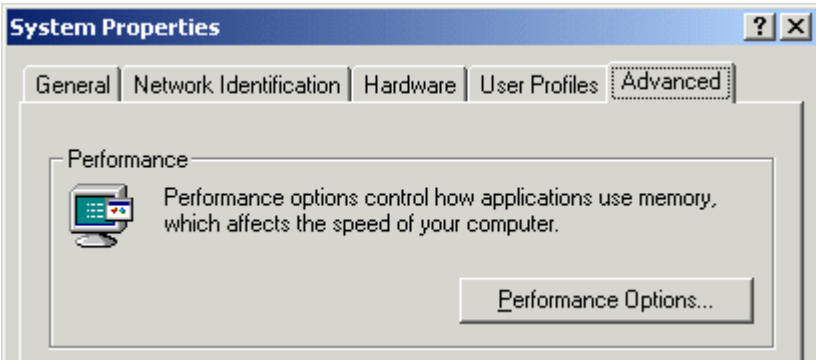
Cache Type	Min./Max. Default Size (%)	Min. Size (%)	Max. Size (%)
Retrieval	20% / 20%		
Fill-in	1% / 10%		
System Print	10% / 20%		
application Print	10% / 30%		
Batch	10% / 60%		
Folder View	10% / 20%		
Revise	10% / 20%		

System Configuration Issues

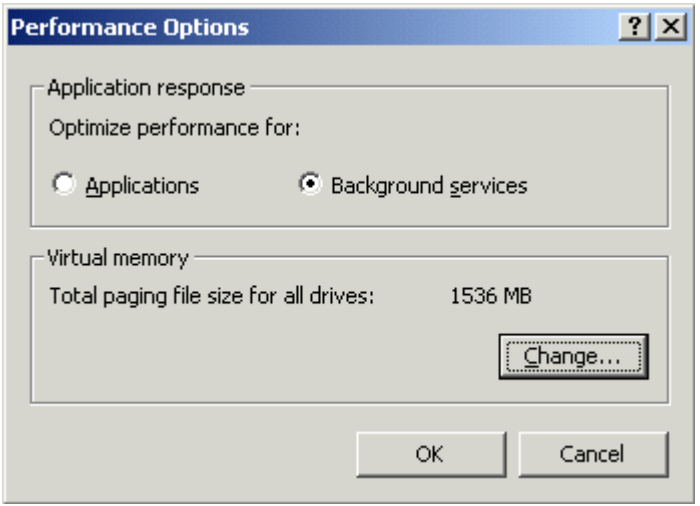
This section contains procedures that must be followed to ensure that your system is properly configured before installing Image Services and DB2 software.

Check/Configure Paging File Size

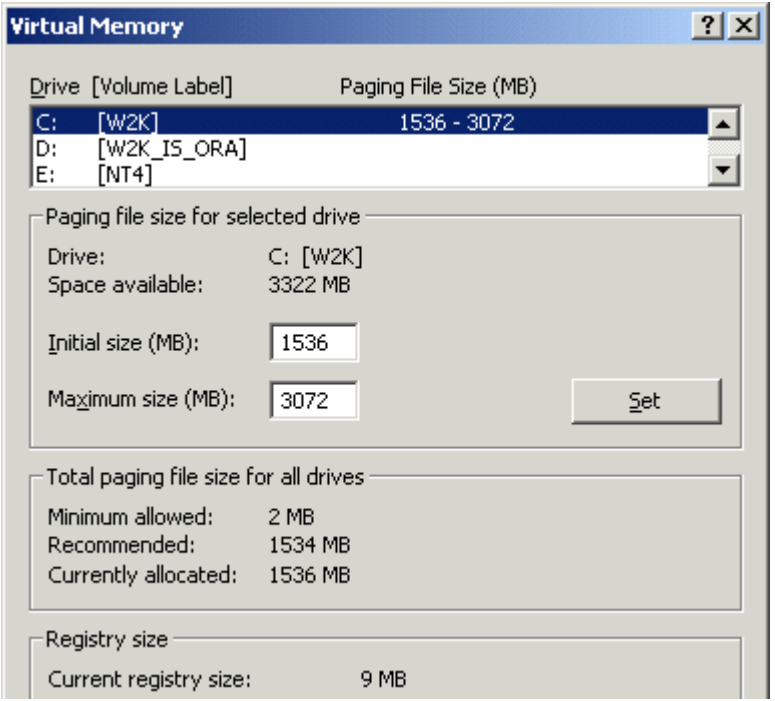
1 Open the Administrative Tools, and double-click the *System* icon. The System Properties window opens.



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.


Virtual Memory
Drive [Volume Label]
Paging File Size (MB)
C: [W2K] 1536 - 3072
D: [W2K_IS_ORA]
E: [NT4]
Paging file size for selected drive
Drive: C: [W2K]
Space available: 3322 MB
Initial size (MB): 1536
Maximum size (MB): 3072
Set
Total paging file size for all drives
Minimum allowed: 2 MB
Recommended: 1534 MB
Currently allocated: 1536 MB
Registry size
Current registry size: 9 MB

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, **“Configure TCP/IP Protocol and SNMP”** .

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>.

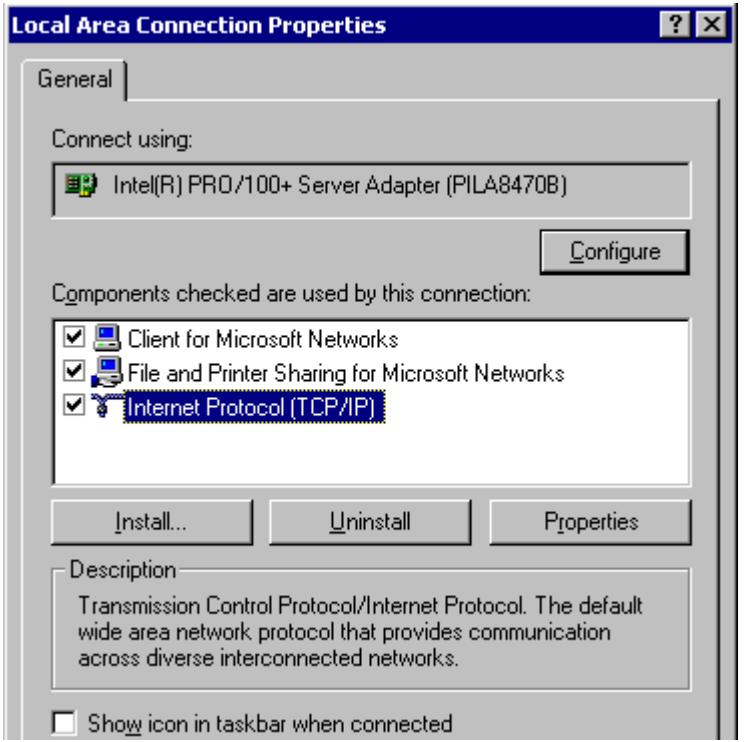
This procedure is slightly different for Windows 2000 and 2003 operating systems. Perform the procedure below for the operating system running on your server.

Verify NetBiOS Setting on Windows 2000 Servers

1. From the Taskbar, click the *Start* button, point to Settings, and click the *Network and Dial-up Connections* icon.

2. Right-click on *Local Area Connection*, and choose *Properties.*

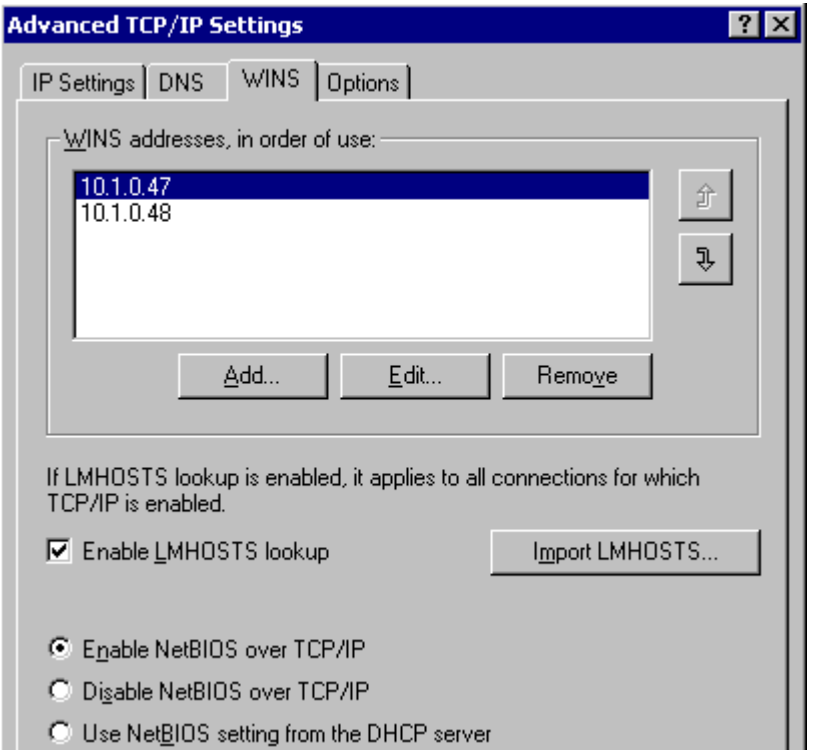
   The Local Area Connection Properties dialog box opens.


Local Area Connection Properties
General
Connect using:
Intel(R) PRO/100+ Server Adapter (PILA8470B)
Configure
Components checked are used by this connection:
Client for Microsoft Networks
File and Printer Sharing for Microsoft Networks
Internet Protocol (TCP/IP)
Install...
Uninstall
Properties
Description
Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.
Show icon in taskbar when connected

3 Select Internet Protocol (TCP/IP) and click *Properties.*

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

4 Click the *Advanced* button to open the Advanced TCP/IP Settings dialog box, and select the WINS tab.


Advanced TCP/IP Settings
IP Settings
DNS
WINS
Options
WINS addresses, in order of use:
10.1.0.47
10.1.0.48
Add...
Edit...
Remove
If LMHOSTS lookup is enabled, it applies to all connections for which TCP/IP is enabled.
Enable LMHOSTS lookup
Import LMHOSTS...
Enable NetBIOS over TCP/IP
Disable NetBIOS over TCP/IP
Use NetBIOS setting from the DHCP server

5 Verify that the Enable NetBIOS over TCP/IP option is selected, or select it if necessary, and click *OK*.

6 Click *OK* to close the Internet Protocol (TCP/IP) Properties window.

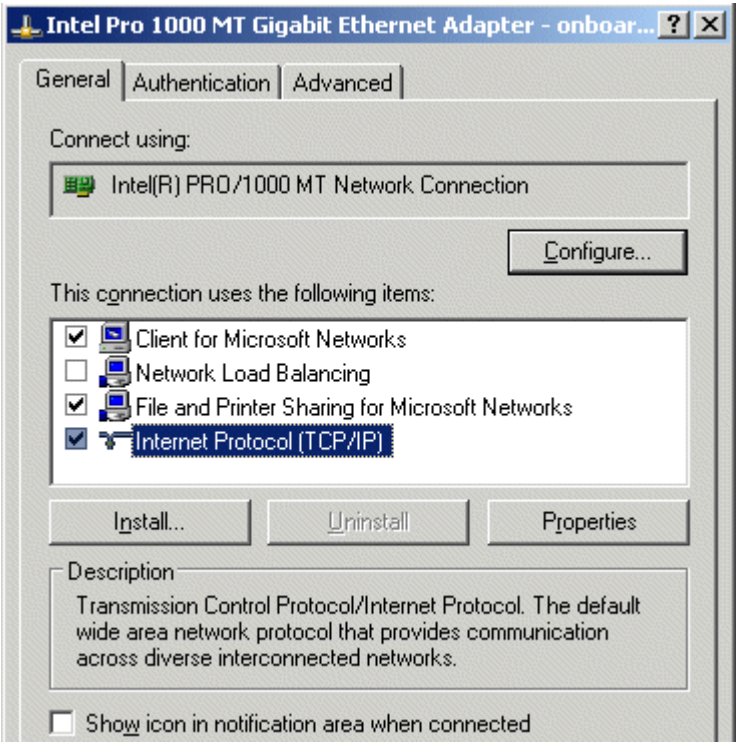
7 Close any other remaining windows.

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 Ehternet Adapter installed.

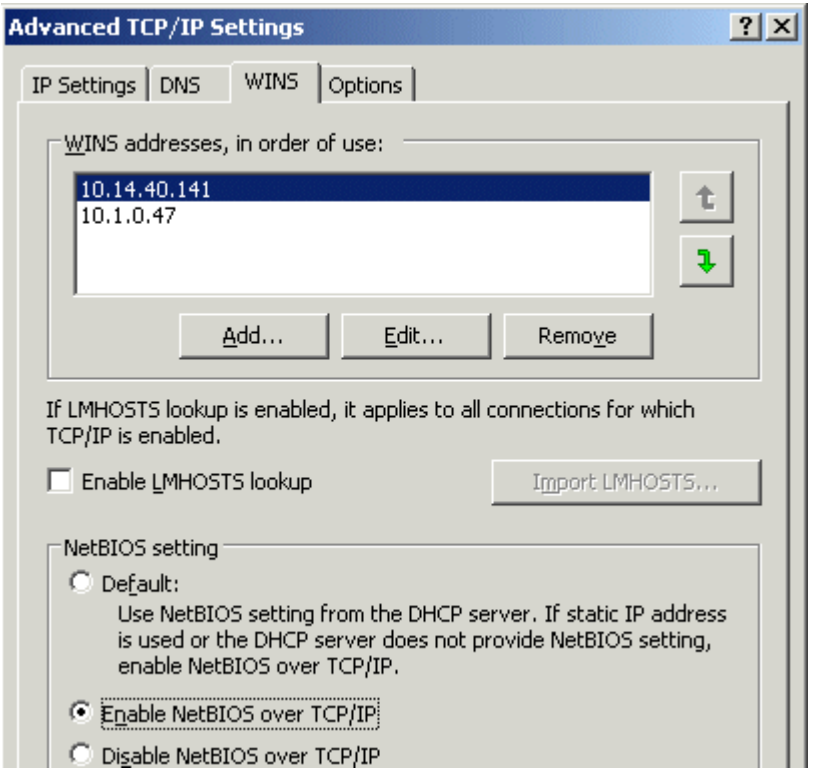
The Ethernet Adapter dialog box opens.


Intel Pro 1000 MT Gigabit Ethernet Adapter - onboar...
General
Authentication
Advanced
Connect using:
Intel(R) PRO/1000 MT Network Connection
Configure...
This connection uses the following items:
Client for Microsoft Networks
Network Load Balancing
File and Printer Sharing for Microsoft Networks
Internet Protocol (TCP/IP)
Install...
Uninstall
Properties
Description
Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.
Show icon in notification area when connected

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.


Advanced TCP/IP Settings
IP Settings
DNS
WINS
Options
WINS addresses, in order of use:
10.14.40.141
10.1.0.47
Add...
Edit...
Remove
If LMHOSTS lookup is enabled, it applies to all connections for which TCP/IP is enabled.
Enable LMHOSTS lookup
Import LMHOSTS...
NetBIOS setting
Default:
Use NetBIOS setting from the DHCP server. If static IP address is used or the DHCP server does not provide NetBIOS setting, enable NetBIOS over TCP/IP.
Enable NetBIOS over TCP/IP
Disable NetBIOS over TCP/IP

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.

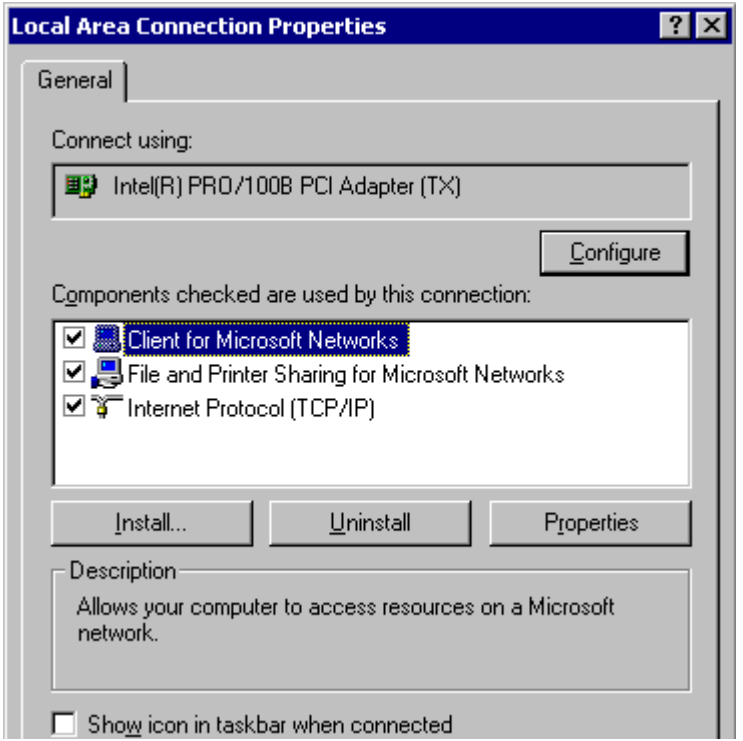
Set Server Optimization Level (Recommended)

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

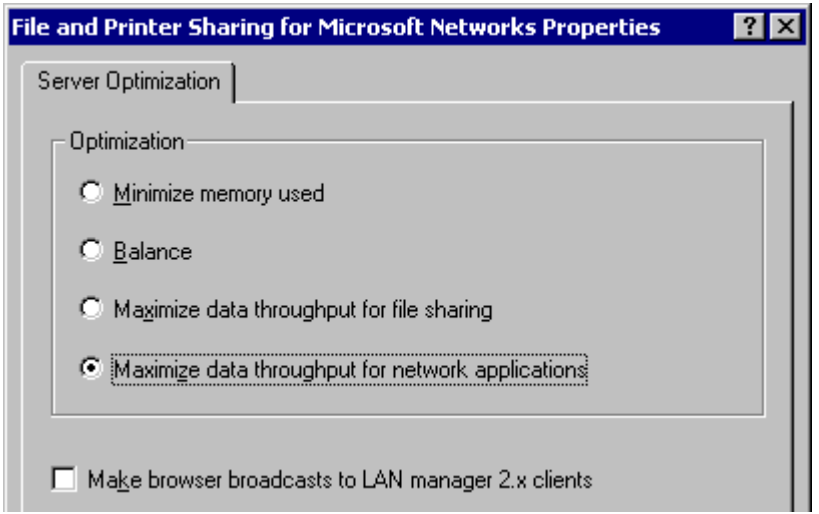
1 From the Taskbar, click the *Start* button and point to Settings and double-click the *Network and Dial-up Connections* icon.

2 Right-click on “Local Area Connection,” and choose *Properties.*

The Local Area Connection Properties dialog box opens.


Local Area Connection Properties
General
Connect using:
Intel(R) PRO/100B PCI Adapter (TX)
Configure
Components checked are used by this connection:
Client for Microsoft Networks
File and Printer Sharing for Microsoft Networks
Internet Protocol (TCP/IP)
Install...
Uninstall
Properties
Description
Allows your computer to access resources on a Microsoft network.
Show icon in taskbar when connected

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**.

3

Installing FileNet Image Services Software

This chapter contains instructions for installing Image Services software on your application server.

CAUTION The DB2 Client software must be installed on the application server **before** installing the FileNet Image Services software. If you have not yet installed the DB2 Client software you must do that first. To install the DB2 software, refer to ***Guidelines for Installing and Configuring DB2 Software*** for information.

Note FileNet strongly recommends that you **do not** install the IS and DB2 software on the drive where the Windows Operating System is installed. The Windows OS should reside on a separate drive.

If you are using Microsoft Systems Management Server (SMS) to install your software, proceed to **"Appendix A – Microsoft Systems Management Server (SMS) Procedures" on page 126**.

Tip Before installing any software, make sure that the Windows Explorer is set to display file names and extensions. (Do this by selecting Folder Options, View tab from the Windows Explorer Tools menu.)

Install the Image Services Software

The FileNet Setup Program will also not allow the installation of FileNet Image Services on a FAT file system. Only NTFS formatted target drives are supported in this release.

Tip Use the Computer Management tool to determine the file system of a particular drive before installing the IS software. The Computer Management tool is located in the Administrative Tools folder.

The Setup program will attempt to perform the following functions before and during the Image Services software installation process:

- Verify and create the basic operating environment required to install FileNet Image Services on a Windows server (for example, verifying resource requirements and the presence of required FileNet security group accounts)
- Verify the Windows Operating System version required for this release
- Create FileNet groups and users
- Assign advanced user rights to fnsw user
- Extract the FileNet Image Services objects from the distribution medium and install them to the respective target locations on the server. (An icon for the COLD 2.2 software will also be created and the software installed, but a license will be required to use the program.)
- Create basic System and FileNet specific Registry keys, services, and program groups necessary for the subsequent configuration of Image Services software

- Place appropriate security restrictions on released files or other objects

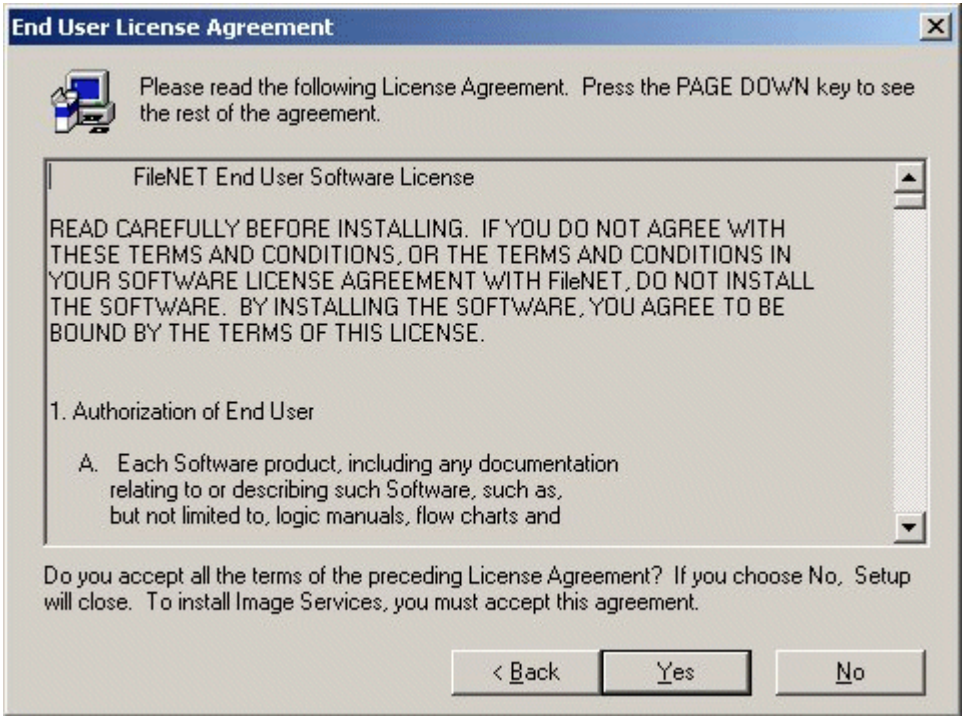
If you are licensed for COLD, you will see the COLD icon in the *FileNet Image Services Server Application* Program Group once the Setup program completes the installation process.

1 If you aren't already, logon as the *local* Windows **Administrator**.

2 Load the **Image Services 4.0 for Windows Server** CD-ROM into the CD-ROM drive.

3 In a few seconds, the Logo screen appears followed by the *Welcome to FileNet Image Services Setup Program* message box.

4 Click the *Continue* button to proceed. The End User License Agreement screen appears.


End User License Agreement
Please read the following License Agreement. Press the PAGE DOWN key to see the rest of the agreement.
FileNET End User Software License
READ CAREFULLY BEFORE INSTALLING. IF YOU DO NOT AGREE WITH THESE TERMS AND CONDITIONS, OR THE TERMS AND CONDITIONS IN YOUR SOFTWARE LICENSE AGREEMENT WITH FileNET, DO NOT INSTALL THE SOFTWARE. BY INSTALLING THE SOFTWARE, YOU AGREE TO BE BOUND BY THE TERMS OF THIS LICENSE.
1. Authorization of End User
A. Each Software product, including any documentation relating to or describing such Software, such as, but not limited to, logic manuals, flow charts and
Do you accept all the terms of the preceding License Agreement? If you choose No, Setup will close. To install Image Services, you must accept this agreement.
< Back
Yes
No

5 A screen displays with the message, “Setup has added the user Administrator to FileNet IS FNADMIN group. To continue installation of IS software, please log off and log on again.”

This screen informs you that you need to restart your computer to save fnadmin privileges before it can continue with the installation.

6 To continue with the installation, click *OK.*

7 Reboot your server and logon again as Windows **Administrator**.

Note It is necessary to logoff and log back on to refresh security information for the session.

8 When the *Welcome to FileNet Image Services Setup Program* message box appears, click the *Continue* button to proceed.

The License window appears.

9 Read the license agreement and click *Yes.*

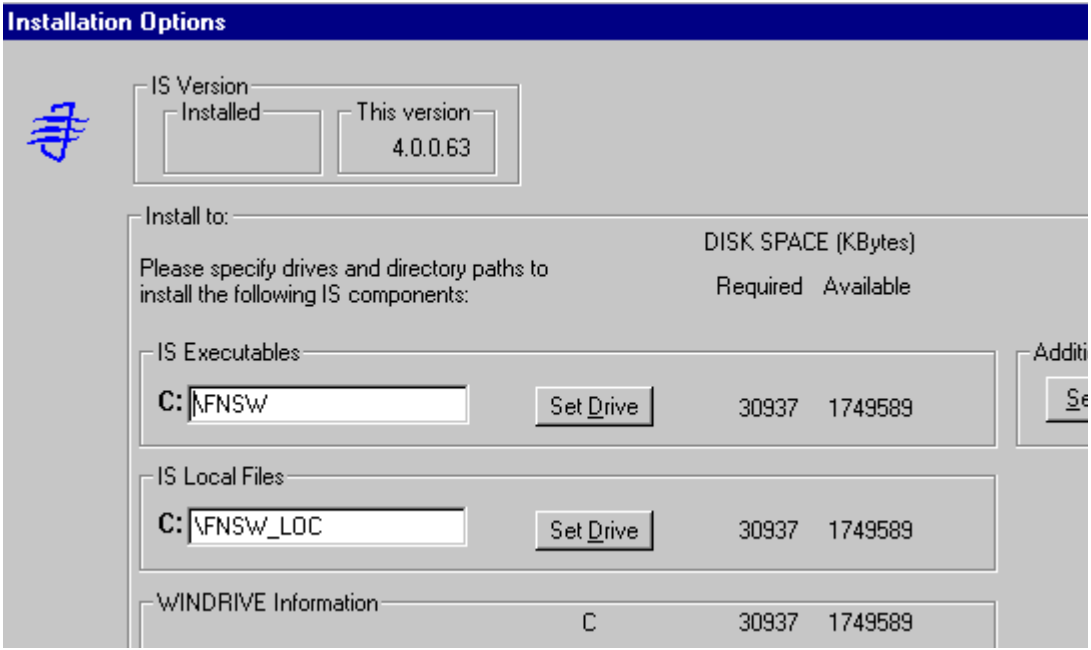
The *System Environment* window will display.

10 Verify that the information displayed in the System Environment window is correct, and that the Image Services release number that you have requested corresponds with what the Setup Program has detected on the screen. Then click the the *OK* button.

The Release Notes screen appears.

11 Read the information in the Release Notes that pertain to Windows Server, then close the window.

Note You must *close* the Release Notes window before you can continue.


Installation Options
IS Version
Installed
This version
4.0.0.63
Install to:
Please specify drives and directory paths to install the following IS components:
DISK SPACE (KBytes)
Required Available
IS Executables
C: \FNSW
Set Drive
30937 1749589
IS Local Files
C: \FNSW_LOC
Set Drive
30937 1749589
WINDRIVE Information
C
30937 1749589

12 In the Installation Options dialog box, the setup program lists default directories for the Image Services Executables and Image Services Local Files.

Note FileNet strongly recommends that you **do not** install the IS and RDBMS software on the drive where the Windows Operating System is installed. The Windows OS should reside on a separate drive.

To change either of these default drives:

a Click the *Set Drive* button next to the selection you want to change.

b From the drive list, select the drive you want.

c Click the *OK* button.

Note The selected disk for executable files must have at least 159 Mb of free space available to accommodate the Image Services 4.0 software installation.

13 To change the drive for additional files, repeat the step above. Otherwise, continue to the next step.

Note The installation setup program sets the permissions for the drive where the additional datasets will be located so that the database directories can be created. Therefore, you cannot select the drive where the \fnsw and \fnsw_loc directories are located, because the permissions for this drive has already been set. The drive you use for additional datasets must be different from the drive where \fnsw and \fnsw_loc is located.

14 When the drive and directory information is correct, click the *Install* button to start the installation.

15 When the Confirmation message window appears, click the *Yes* button to begin installing the Image Services software.

As the Image Services software is being installed, the Setup window appears and indicates the status of the installation.

The installation process takes approximately 5 minutes to complete. The Setup Program will automatically create two FileNet program groups:

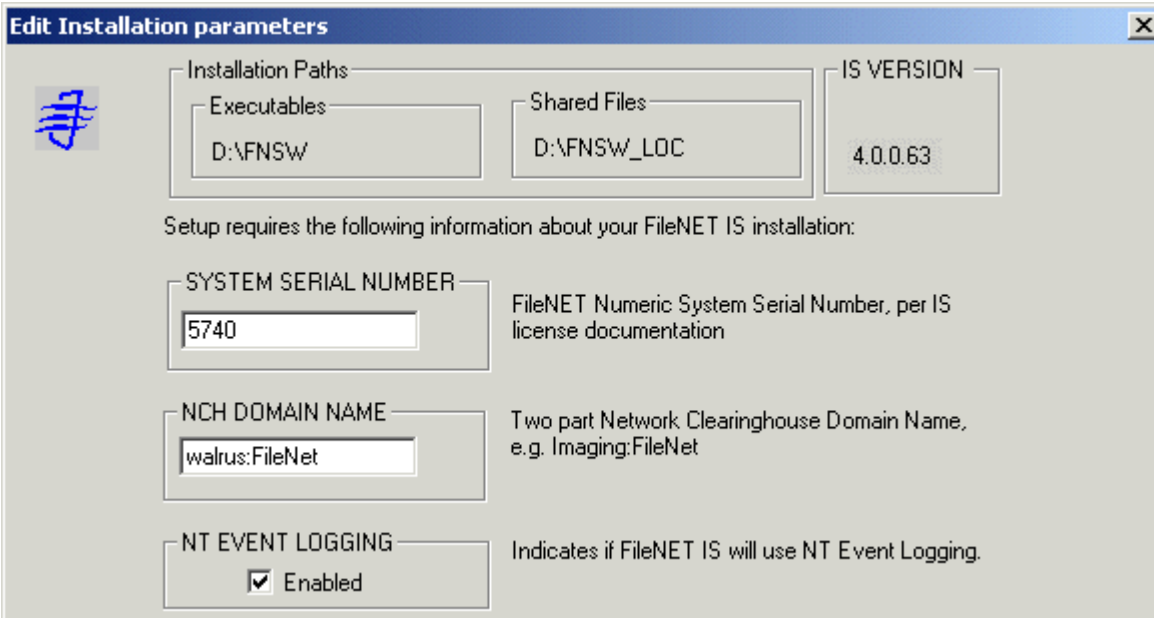
- *FileNet Image Services Server Applications* - Contains all Image Services related GUI applications
- *FileNet Image Services Configuration* - Contains the system configuration tools, the setup program, and the license administration program

16 Near the end of the installation, the following message appears, “Is this going to be an Image Services Combined server?”

Answer Yes or No.

17 If you choose No to the question above, the message, “Is this going to be an Image Services Index Server?” appears. Answer Yes or No as appropriate.

The Installation parameters dialog box appears.



18 In the Installation parameters dialog box:

a Enter the System Serial Number (**ssn**) and the two-part Domain:Organization name in the fields provided.

Note Refer to the **"Installation Worksheet" on page 41** for your ssn. If you are installing an Application Server or Storage Library Server, the domain name should be the Root Domain.

b If desired, you can disable WINDOWS EVENT LOGGING (enabled by default) by clicking in the EVENT LOGGING checkbox to toggle the check mark off.

19 After you have completed the above fields, click the *OK* button.

20 At the confirmation message prompt, click the *Yes* button to save the installation parameters.

21 At the next screen you can choose one of the following three button choices:

- *SLAC License Entry*

- *Edit Parameters*
- *Exit*

22 The Universal SLAC Key for the FileNet Image Services system you're installing is located on the Images Services CD-ROM. The Universal SLAC Keys that you may need are:

- Image Services with eProcess for DB2
- eProcess only (no Imaging) for DB2

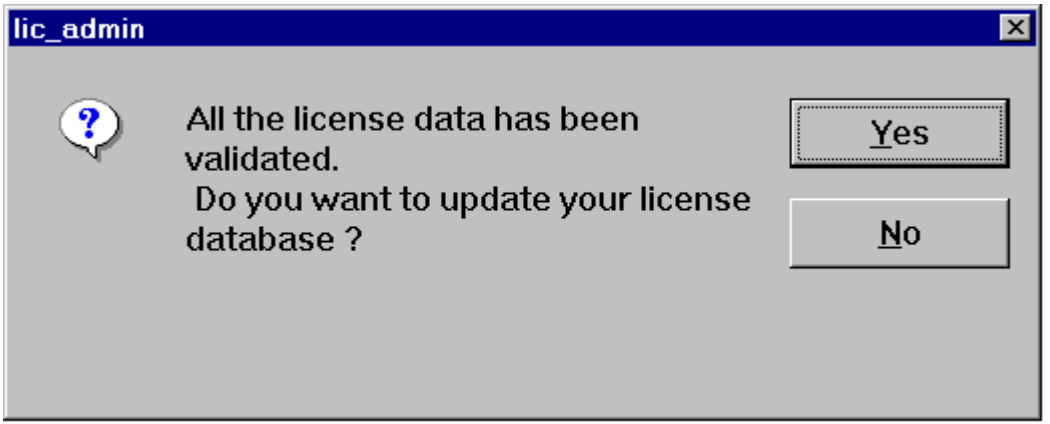
a Click the *SLAC License Entry* button to set up the system licensing.

b From the "Please select the file to import license data from" window, using the *Look in* list box, select the cd-rom drive and browse to where your SLAC Key resides. Highlight your system SLAC Key file and click *Open*.

c After you have selected the system SLAC Key file, you will see the FileNet Software License (SLAC) Manager window. Click the *OK* button if you want to proceed with the SLAC Key installation on

your system. Otherwise, click *Cancel* to exit this window and continue to **Step 23**.

d If you selected *OK* in Step **c**, you will receive the following message window. Otherwise, continue to **Step 23**.



e Click *Yes* to have your SLAC Key updated. Your system SLAC Key is now installed.

Tip The SLAC Key is stored only in the NCH database. Therefore, if you ever need to re-initialize the NCH database, you must also reinstall the SLAC Key.

23 If you want to make changes to any of the installation parameters you selected above, click the *Edit Parameters* button. Once all changes (if any) have been made, click the *Exit* button to exit the Setup Program.

24 Unload the **Image Services 4.0 for Windows Server** CD-ROM from the drive, and store it in a safe place.

Reboot the Server

At this point you must reboot the server so that newly installed device drivers can take effect.

1. Reboot the server.
2. After the server reboots, logon as **fnsw.**

Note The time needed for the shutdown/reboot process varies for each system.

Install Required Pre-Startup Fixes

At this time, install only the fixes that directly relate to Image Services 4.0 initial configuration issues. Search through the Release Notes file for the key words **PRE-STARTUP** and **REQUIRED.**

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

You can also retrieve the latest fixes from the CSS Worldwide Customer Support Web site at **http://www.css.filenet.com** or from the Tech Info CD.

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 **Chapter 3, "Installing FileNet Image Services Software," on page 68**.

Add Application Server(s) on the Root Server

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

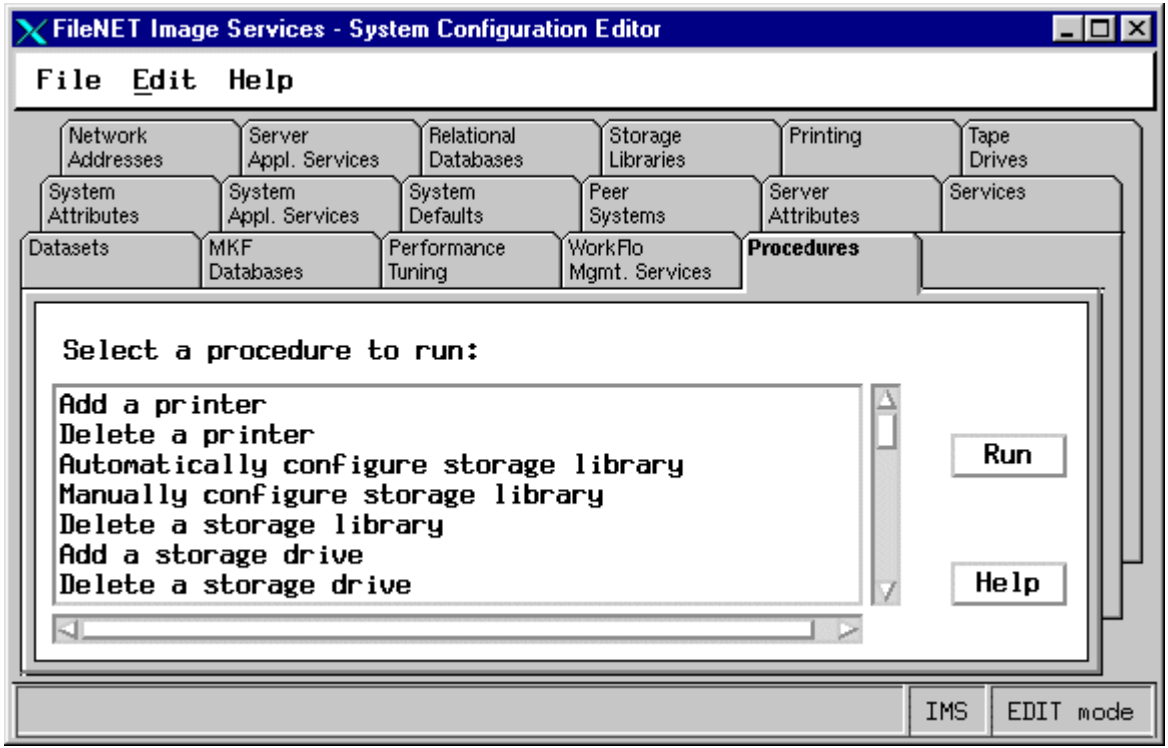
To create the new application server complete the following steps:

1. On an AIX/6000 server, go to your server console on logon 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.


FileNET Image Services - System Configuration Editor
File Edit Help
Network Addresses
Server Appl. Services
Relational Databases
Storage Libraries
Printing
Tape Drives
System Attributes
System Appl. Services
System Defaults
Peer Systems
Server Attributes
Services
Datasets
MKF Databases
Performance Tuning
WorkFlo Mgmt. Services
Procedures
Select a procedure to run:
Add a printer
Delete a printer
Automatically configure storage library
Manually configure storage library
Delete a storage library
Add a storage drive
Delete a storage drive
Run
Help
IMS
EDIT 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 **“Installation Worksheet” on page 41**). 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.

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.

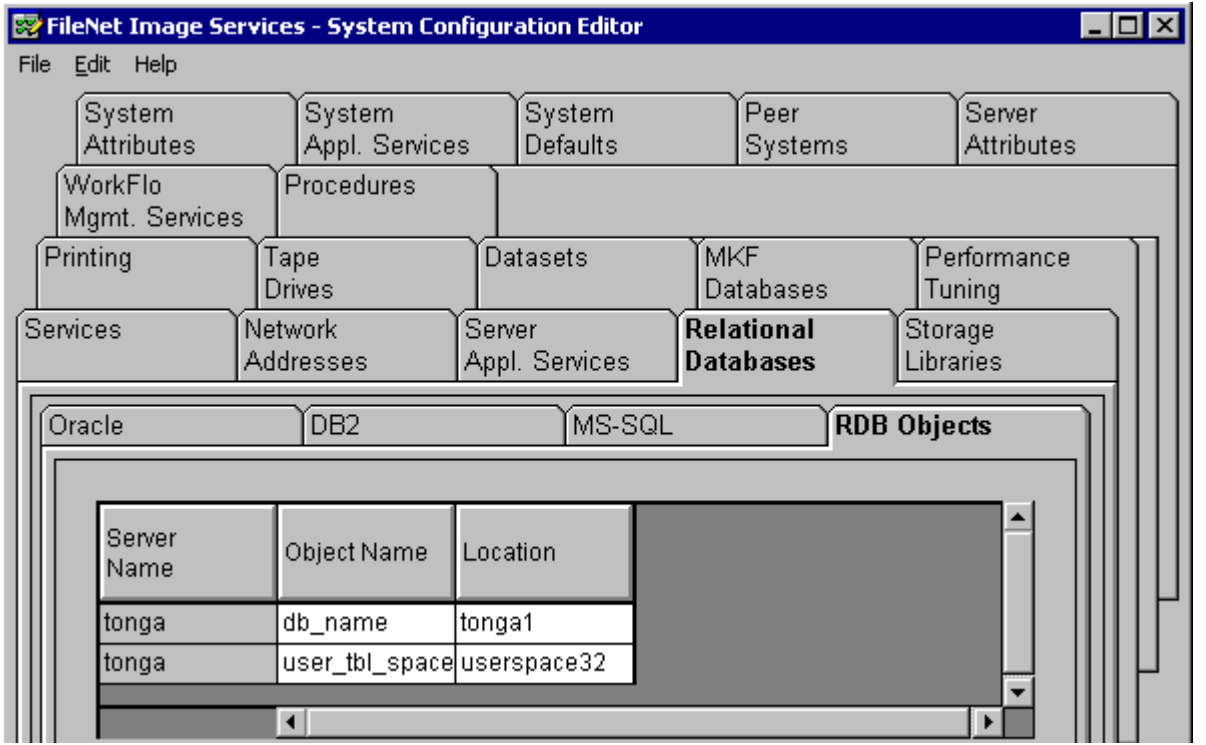
Define RDB Object Locations for DB2

Use the procedure in this section to define RDB Object locations for your DB2 RDBMS.

CAUTION This procedure assumes that the DB2 table spaces and devices that you specify in the System Configuration Editor either already exist, or that you will create them before you initialize the FileNet databases. These names *must* exist before you initialize the FileNet Image Services databases.

In this section you are defining the ownership and the names of the DB2 tables that will be used with the FileNet software.

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


FileNet Image Services - System Configuration Editor
File Edit Help
System Attributes
System Appl. Services
System Defaults
Peer Systems
Server Attributes
WorkFlo Mgmt. Services
Procedures
Printing
Tape Drives
Datasets
MKF Databases
Performance Tuning
Services
Network Addresses
Server Appl. Services
Relational Databases
Storage Libraries
Oracle
DB2
MS-SQL
RDB Objects
Server Name
Object Name
Location
tonga
db_name
tonga1
tonga
user_tbl_space
userspace32

2 In the Location column of the RDB Objects subtab, click on a cell and replace the default FileNet table names with the site-specific table names. While replacing the table names, use the following criteria:

- Change all occurrences of **fnsys_ts** to the name of your dedicated FileNet default DB2 table space name.
- Change all occurrences of **fntmp_ts** to the name of your dedicated FileNet temporary DB2 table space name.
- Change all occurrences of **fnusr_ts** to the name of your user DB2 table space name.

Note **fnusr_ts** is the name of the optional user tablespace for WorkFlo Queue Services (WQS). If your IS system will not be using these FileNet products, you do not need to create this tablespace.

The Image Services software will use the DB2 table space names you entered in the RDB Objects subtab above.

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 **fnsw** user, 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

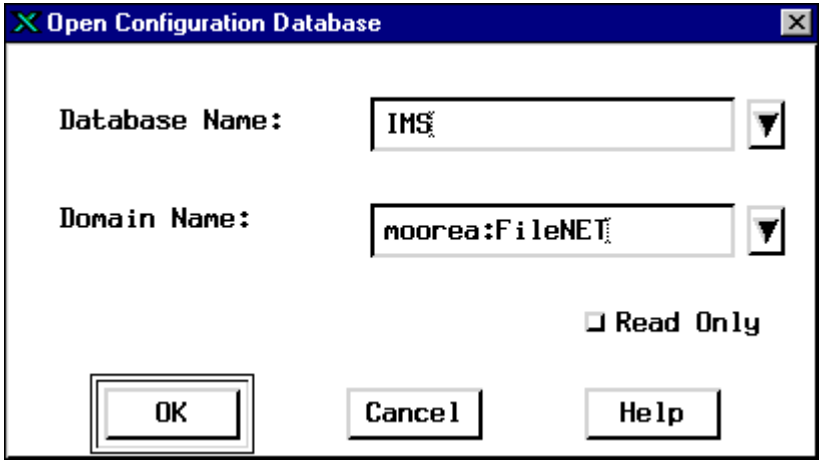
  To add a VWService to the server, see the installation handbook for your Process Engine platform for instructions.

Note Although ICR Service appears in the list of services to add, ICR is NOT SUPPORTED in this release.

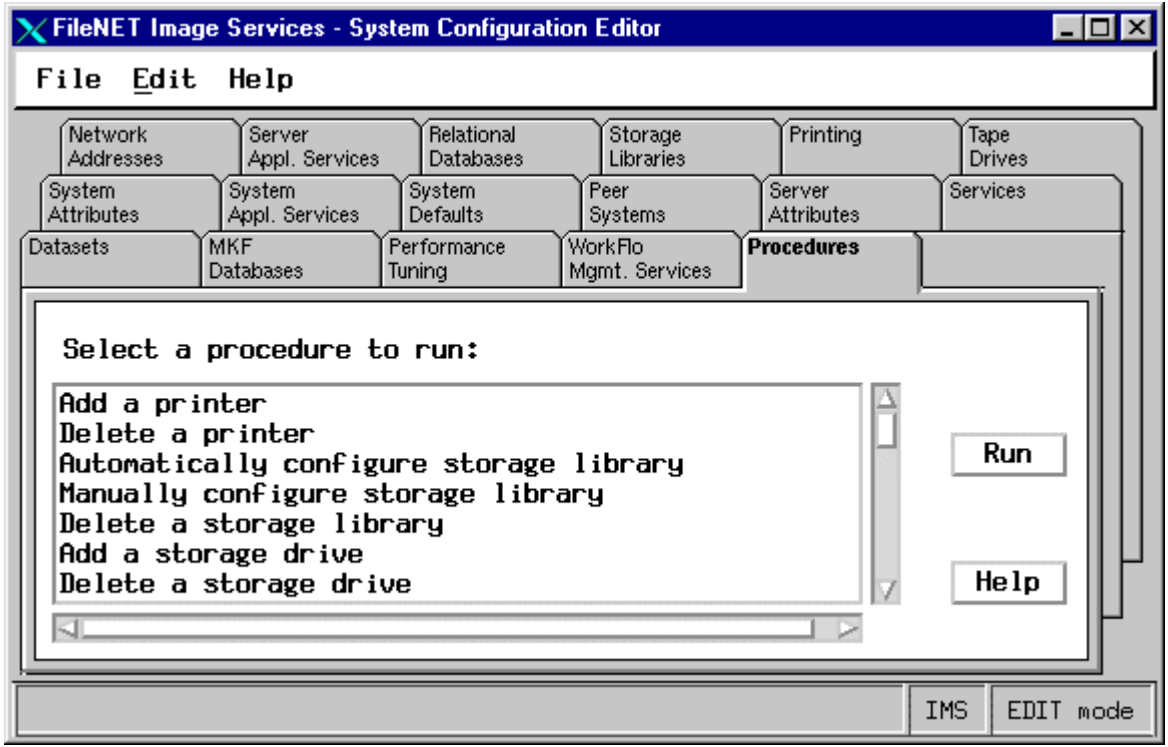
1. On an AIX/6000 server, go to your server console on logon as **fnsw**.
2. Open a new window, and enter the following command:

   fn_edit &

   A dialog box similar to the following displays.



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.


FileNET Image Services - System Configuration Editor
File Edit Help
Network Addresses
Server Appl. Services
Relational Databases
Storage Libraries
Printing
Tape Drives
System Attributes
System Appl. Services
System Defaults
Peer Systems
Server Attributes
Services
Datasets
MKF Databases
Performance Tuning
WorkFlo Mgmt. Services
Procedures
Select a procedure to run:
Add a printer
Delete a printer
Automatically configure storage library
Manually configure storage library
Delete a storage library
Add a storage drive
Delete a storage drive
Run
Help
IMS
EDIT mode

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*.

7 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*.

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 **"Exit the FileNet Image Services System Configuration Editor" on page 111**.

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 **"Exit the FileNet Image Services System Configuration Editor" on page 111**.

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 **Step 5** - **Step 14** will not appear. In this case, skip to **Step 15 on page 107**.

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 **"Exit the FileNet Image Services System Configuration Editor" on page 111**.

Add WorkFlo Queue Service

Before beginning this procedure, make sure that the DB2 software has been installed on the Application 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 **Step 5** - **Step 14** will not appear. In this case, skip to **Step 15 on page 109**.

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 **"Exit**

the FileNet Image Services System Configuration Editor" on page 111.

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 "Exit the FileNet Image Services System Configuration Editor" on page 111.

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 **"Exit the FileNet Image Services 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 **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**.

Build and Initialize the Application Server

1 On the application server, logon 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. (In addition, fn_build -a checks the validity of the software license.)

IMPORTANT! This step is extremely important because it gererates 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.

Initialize FileNet Databases on the Application Server

1 As **fnsw**, initialize the appropriate databases.

2 To initialize the index database and all the MKF databases (includes permanent, transient, and security databases), enter the following command at the Command Prompt:

```
fn_util -y init  >  \fnsw_loc\tmp\init.log
```

This process may take a while (a minimum of 10 minutes without any feedback to the user); the larger the datasets, the longer the wait.

Note View the **init.log** file afterward to make sure that there were no errors in the database initialization process.

Verify Connection to DB2 Database

Since the DB2 database is located on a remote AIX server, make sure that TCP/IP communications have been configured successfully on both server and client computers.

1. Verify the connection to the DB2 database using the Command Line Processor (CLP). To open the CLP, click Start>Programs> IBM DB2>Command Line Tools>Command Line Processor.

2. From the db2 => prompt, enter the following command:

   connect to <dbname> user f_sw using <f_sw password>

   If a screen similar to the following will displays, the DB2 client is connected to the database server:

```
  Database Connection Information

Database server     = DB2/AIX64 8.1.4
SQL authorization ID   = F_SW
Local database alias   = SENNA

db2 =>
```

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

1 Reboot the server.

Note The time needed for the shutdown/reboot process varies for each system.

2 Logon to the application server 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

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 **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 – Microsoft 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 that is contained on the FileNet *Image Services 4.0 for Windows Server* CD-ROM media.

This appendix provides instructions for the following procedures:

- Setting up the SMS Site Server Package **(page 129)**
- Installing FileNet Image Services Software **(page 139)**
- Uninstalling FileNet Image Services Software **(page 143)**

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 that is contained on the FileNet *Image Services 4.0 for Windows Server* CD-ROM media.

- 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 CD-ROM release media, 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. Load the **Image Services 4.0 for Windows Server** CD-ROM into the CD-ROM drive.

4 Copy the Image Services software from the CD to the directory location that you setup in step 2 above.

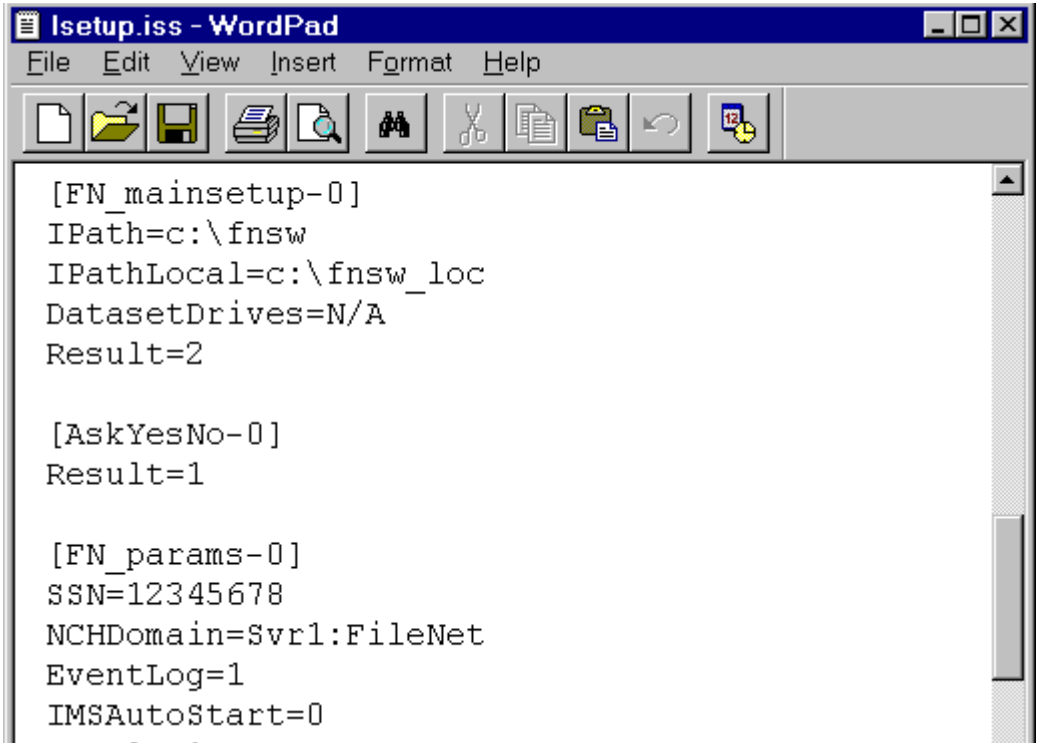
Modify the Isetup.iss File

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.


Isetup.iss - WordPad
File Edit View Insert Format Help
[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 **"Uninstalling FileNet Image Services software" on page 143**.

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.


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.
< Back
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 4.0\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 *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 **fnsw** user.

3 After logging on to the server, proceed to, **Chapter 4, "Configuring the Root and Application Servers," on page 86** to continue.

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.


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.
< Back
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.*

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