

IBM FileNet Image Services
Version 4.2

System Configuration Overview



IBM FileNet Image Services
Version 4.2

System Configuration Overview



Note

Before using this information and the product it supports, read the information in "Notices" on page 131.

This edition applies to version 4.2 of IBM FileNet Image Services (product number 5724-R95) and to all subsequent releases and modifications until otherwise indicated in new editions.

© Copyright IBM Corporation 1996, 2011.

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

Contents

About this manual 10

Document revision history	10
Conventions used in this manual	10
File Paths	10
Console Displays	11
Attention, Note, and Tip	11
Command Syntax	12
Optional Parameters	12
Required Parameters	12
Accessing IBM FileNet Documentation	12
IBM FileNet Education	13
Feedback	13
Documentation feedback	13
Product consumability feedback	13

1 System Configuration Tools 15

System Configuration Tool Programs	15
fn_edit	15
fn_build	16
fn_setup	17
fn_util	17
Configuration Databases	17

Administration Tools Restricted to fnadmin 20**FileNet Image Services - System Configuration Editor 21**

FileNet Image Services - System Configuration Editor Overview 21

Procedures tab 22

Other System Configuration Editor tabs 25

Tailored Interfaces 27

Customized Startup and Shutdown Scripts 27

How to Use the FileNet Image Services – System Configuration Editor 28

fn_setup Program 30

fn_setup on UNIX 30

UNIX Command Line Mode 30

UNIX Interactive Mode 32

fn_setup on Windows Server 33

Windows Server Command Line Mode 33

Windows Server Interactive Mode 34

fn_util Program 36

Re-initializing the Permanent Database 39

fn_build Program 39

2 Online Help Text 43

System Configuration Editor Online Help 43**Datasets Tab 44****MKF Databases Tab 47****Network Addresses Tab 48****Storage Libraries Tab 50**

Storage Libraries Subtab 50

Storage Drives Subtab 52

Peer Systems Tab 55

Performance Tuning Tab 56

System Processes Subtab 56

Server Processes Subtab 57

Server Memory Subtab 58

Increasing MKF Buffer Pools or Shared Memory 62

Printing Tab 64

Print Services Subtab 64

Printers Subtab 65

Relational Databases Tab 68

Oracle Relational Database 68

DB2 Relational Database 72

MSSQL Relational Database 73

RDB Objects 76

Server Appl. Services Tab 77

Scheduling Subtab 77

Cache Duration Subtab 82

Batch Subtab 83

Cache Subtab 84

ICR Subtab 88

Server Attributes Tab 89

Services Tab 90

System Appl. Services Tab 91

Document Services Subtab 92

Other Services Subtab 93

System Defaults Tab 99

System Attributes Tab 101**Tape Drives Tab 102****WorkFlo Mgmt. Services Tab 104**

VW Servers Subtab 104

VWServices Subtab 105

Procedures Tab 105

List of Procedures 106

Add a Printer 108

Delete a Printer 110

Automatically Configure Optical Storage Library 110

Manually Configure Optical Storage Library 111

Delete an Optical Storage Library 112

Configure an MSAR Storage Library 113

Delete an MSAR Storage Library 114

Add an Optical Storage Drive 115

Delete an Optical Storage Drive 116

Add a Tape Drive 116

Delete a Tape Drive 117

Set to Site-Control 117

Set to FileNet-Control 118

Add Relational Database Object 118

Delete Relational Database Object 119

Set Up Required Oracle Datasets on Root/Index Server 119

Deconfigure Oracle Datasets on Root/Index Server 120

Set Up Required Microsoft SQL Datasets on Root/Index Server 120

Deconfigure Microsoft SQL Datasets on Root/Index Server 121

Create an Optional Relational DB Dataset 122

Delete an Optional Relational DB dataset 123

Add an Additional Dataset 123

Delete an Additional Dataset	124
Add a Peer System	124
Remove a Peer System	125
Add an Optional Logical Cache	125
Delete an Optional Logical Cache	126
Add an Application Server	126
Delete Server	127
Add a Service to a Server	127
Delete a Service from a Server	128
Add a Storage Library Server	128
Add VWService	129
Modify VWService	129
Delete VWService	129

Notices 131

Trademarks 134

U.S. Patents Disclosure 135

Index 136

About this manual

This *System Configuration Overview* describes the IBM® FileNet® Image Services tools for viewing and editing your FileNet Image Services configuration. It is designed primarily for service representatives to use when setting up FileNet Image Services configurations.

For a printed version of the online help text, see [Chapter 2, “Online Help Text,” on page 43](#).

Document revision history

Image Services version	Date	Comment
4.2	Nov. 2011	Initial release.

Conventions used in this manual

The following paragraphs discuss the ways in which we call your attention to information throughout this document.

File Paths

Since this manual is used for all platforms, examples of file path designations, where used, are given for both UNIX® and Windows® platforms. For example:



/fnsw/local/sd

WIN

\fnsw_loc\sd

Console Displays

Information you see displayed at your console is shown in this document in the following manner:

```
Surface '3176' : 1 document processed
Local doc_id = '2235007' Original doc_id = '2235007'
Original ssn = '8502'
Primary copy. No tranlog copy exists.
* document successfully deleted from databases. *
* Purging pages from disk... *
* This document has been successfully purged. *
```

Attention, Note, and Tip

Three message types call your attention to important information:

Attention: Indicates the possibility of damage to a program, device, system, or data.

possible damaging consequences of an action, such as loss of data or time.

Note Draws your attention to essential information you should be sure to read.

Tip Introduces an idea that might make your work easier.

Command Syntax

Command syntax definitions are indented and in bold text:

ddexim -e > <filename>

Optional Parameters

Optional parameters and keywords are within square brackets:

ddexim [-e] > <filename>

Required Parameters

Parameters that require you to provide information are shown within angle brackets (< >).

For example, for the following command:

ddexim -e > <filename>

you must substitute the name of a command for the parameter in angle brackets, such as:

ddexim -e > myfile

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 On the Product Support page, click **Documentation** and then click **Product Documentation**.
- 4 On the Product Documentation page, locate the document you need, then click the icon in the appropriate release column to access the document.

IBM FileNet Education

IBM FileNet provides various forms of education. Please visit the Training and certification page on IBM's Web site at (www-306.ibm.com/software/sw-training/).

Feedback

Documentation feedback

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

Product consumability feedback

Help us identify product enhancements by taking a [Consumability Survey](#). The results of this comprehensive survey are used by product development teams when planning future releases. Although we are especially interested in survey responses regarding the most recent product releases, we welcome your feedback on any of our products.

The survey takes approximately 30 minutes to complete and must be completed in a single session; there is no option to save a partially completed response.

System Configuration Tools

System Configuration Tools are the utilities you use to configure the FileNet Image Services software for your system. System Configuration Tools work in conjunction with the FileNet Task Manager. Task Manager provides a graphical user interface (GUI) and online help.

System Configuration Tool Programs

The System Configuration includes three programs:

- fn_edit (FileNet Image Services - System Configuration Editor)
- fn_build (FileNet Configuration Builder)
- fn_util (FileNet Configuration Utilities)

fn_edit

The **fn_edit** program invokes a graphical user interface (GUI) utility called the *FileNet Image Services - System Configuration Editor*, which enables you to create, display, and modify the system configuration database.

With the FileNet Image Services - System Configuration Editor, you can easily configure a new system using a series of dialog boxes. When you create a new Configuration Database, the initialization procedure guides you through the configuration process appropriate for the server environment you specify. When you finish the procedure, the remaining configuration parameters are set to suitable default values.

You must manually change any configuration values that differ from the defaults.

The System Configuration Editor also has online help. The Online help provides a table of contents and keyword searches, hypertext links, and browse sequences.

The Help pull-down menu contains these options:

Help Menu Option	Function
Contents	Display table of contents for online help
Search for help on	Search for a particular help topic
How to use help	Instructions on using online help
On Context Help	Display a help window related to the currently-active window
About	Display information about the current version of Image Services software

For more information on the System Configuration Editor, see:

- [**“FileNet Image Services - System Configuration Editor” on page 21**](#)
- [**“How to Use the FileNet Image Services – System Configuration Editor” on page 28**](#)
- [**“System Configuration Editor Online Help” on page 43**](#)

fn_build

The **fn_build** program creates various configuration files. The **fn_build** program is run automatically by the FileNet Task Manager when the

FileNet software is restarted. You can also run `fn_build` from a command prompt.

For more information on `fn_build`, see [**“Configuration Databases” on page 17**](#) and [**“fn_build Program” on page 39**](#).

fn_setup

The **fn_setup** program attempts to set the permissions for all files under `/fnsw` and `/fnsw/local` directories using a `permission_table` that is updated with each new Image Services release. You can run `fn_setup` in interactive (command line) mode or in non-interactive (silent) mode.

For more information on `fn_setup`, see [**“fn_setup Program” on page 30**](#).

fn_util

The **fn_util** program starts, stops, creates, and updates the MKF and RDBMS databases, calling `fn_oracle`, `fn_db2`, `fn_mssql` (MS SQL 2000), and `fn_msodbc` (MS SQL 2005 / 2008) to perform RDBMS configurations. Run `fn_util` from a system prompt on UNIX servers, or from a command prompt on Windows servers.

For more information on `fn_util`, see [**“fn_util Program” on page 36**](#).

Configuration Databases

The `fn_build`, `fn_edit`, and `fn_util` programs use the Configuration Database (CDB) abstract. Applications obtain configuration information by making calls to CDB. In cases where getting configuration information

from CDB is not practical, applications can read configuration files from the directory /fnsf/local/sd (UNIX) or \fnsf_loc\sd (Windows).

The Image Services Configuration Database is created during system initialization or migrated to a new revision level during an IS software upgrade. It resides in /fnsf/local/sd/conf_db (UNIX) or \fnsf_loc\sd\conf_db (Windows), and is named:

IMS_xxx.cdb

where xxx is the version number and cdb stands for Configuration Database. Each time you run the fn_edit program, and save it, the version number is incremented. (The current version of the cdb is saved, and a new version is created. This new version has the version # incremented in the name.) To support multiple server configurations, the configuration database can be remotely accessed.

The system configuration file is in ASCII format, so utilities to import and export the file are not necessary. Other configuration files like as_conf and print_conf are generated by fn_build from information in the Configuration Database.

System Configuration also includes eight read-only databases that reside in /fnsf/lib/conf_db (UNIX) or \fnsf\lib\conf_db (Windows). These files are described in the following table.

Configuration File	Description
FN_CMB_1.CDB	Read-only database template for Combined servers. Contains the default values used to create a new database.
FN_DUO_1.CDB	Read-only database template for Dual Server configuration.

Configuration File	Description
FN_RES_1.CDB	Read-only database template for Remote Entry Server configuration.
FN_VWF_1.CDB	Read-only database template for Visual WorkFlo Server configuration.
FN_DEV_1.CDB	Read-only database containing information about devices.
FN_EP_1.CDB	Read-only database containing information about edit procedures.
FN_PRT_1.CDB	Read-only database containing information about printers.
FN_MIG_1.CDB	Read-only database containing information about migration.

The schema of a CDB is embedded in the data file; when the schema changes, the template data file must be updated with new schema data. When the schema is updated, the revision level is incremented. For example, the CDB schema is at revision level 23 in IS Release 3.6 ESE, level 34 in IS Release 4.0, and level 43 in IS Release 4.0 SP3.

The update process uses `fn_migrate` to determine the revision level of a CDB file and upgrades it to the current level, supplying default values for new parameters and deleting parameters that are no longer needed. The migration specification file, `FN_MIG_1.cdb`, is installed in the directory `/fnsf/lib/conf_db` (UNIX) or `\fnsf\lib\conf_db` (Windows).

The update process also places an `fnsf_update` trigger file in the following directory:

The UNIX logo, consisting of the word "UNIX" in white capital letters on a red parallelogram background.

`/fnsf/local/tmp/fnsf_update`

 WIN

\fnsw_loc\tmp\fnsw_update

So when the **initfnsw start** command is issued to start Image Services after a software update, and the trigger file exists, the TM_daemon calls fn_migrate to update the CDB schema.

The schema update occurs only once for each format change, takes only a few seconds, and is transparent to other processes and to users.

Administration Tools Restricted to fnadmin

To execute FileNet programs that modify configuration information, modify databases, or start or stop the Image Services software, you must be logged in as a member of the fnadmin group. The root logon is a member of fnadmin.

Use of this group allows a system administrator to differentiate between users of end-user server applications, such as those available from the Applications menu, and FileNet administrative users.

The release tools create the fnadmin group.

The following programs validate, at startup, that the user is a member of the fnadmin group.

```
fn_build
fn_dataset_config
fn_edit
lic_admin
nch_tool
nch_update
task_man
```

FileNet Image Services - System Configuration Editor

The FileNet Image Services - System Configuration Editor program (fn_edit) is started from a system prompt on UNIX servers, or from the Start Menu on a Windows server. Before edits can take effect, you must use the Task Manager to restart the FileNet software, which automatically runs fn_build.

FileNet Image Services - System Configuration Editor Overview

The central element of the system configuration tool set is the CDB abstract. (CDB stands for Configuration Database). The GUI editor, fn_edit (System Configuration Editor), creates and modifies the system configuration database, IMS_xxx.CDB, by means of calls to CDB. The other programs, fn_util, fn_build, and Task Manager, access configuration data by means of CDB to control their actions.

The MKF and relational databases are started, stopped, created, and updated by fn_util. For relational database commands, fn_util calls fn_oracle, fn_db2, fn_mssql, or fn_msodbc to carry out the command.

The configuration files controlling some of the programs started by Task Manager's tm_daemon (the GUI front end to the FileNet Image Services software) are created by fn_build.

Task Manager determines which programs to run based on the SERVER_Processes table accessed from CDB. Notice that Task Manager runs fn_build. When a configuration change is made, you only need to restart the software, and the configuration files are generated automatically.

FN_DEV_1.CDB, FN_EP_1.CDB, and FN_PRT_1.CDB files are distributed read-only databases that contain information about devices,

edit procedures, and printers respectively. FN_CMB_1.CDB is a database template for combined servers and contains the default values used when a new database is created. Other template files include:

FN_DUO_1.CDB (Dual Server configuration),
FN_RES_1.CDB (Remote Entry Server configuration), and
FN_VWF_1.CDB (Visual Workflo Server configuration).

These files reside in the /fnsw/lib/conf_db directory.

Task Manager and System Configuration Editor are documented with online help. Both fn_util and fn_build output help when called without arguments and are started from a system prompt on UNIX servers or command prompt on Windows servers. The *IBM FileNet Image Services Installation and Configuration Procedures* contain detailed instructions for running each of these programs when a new system is created.

Procedures tab

The System Configuration Editor window is designed in a file folder format with each tab of the folder containing a major subset of editor functions.

Unless the system configuration database is opened in read-only mode, the procedures tab displays first as shown on the next page.

To run a procedure, select one from the list and click the *Run* button. Dialog boxes will then appear and prompt you for the information you must provide to complete the task. You can select choices from list boxes, type in new information, or accept the default entries.

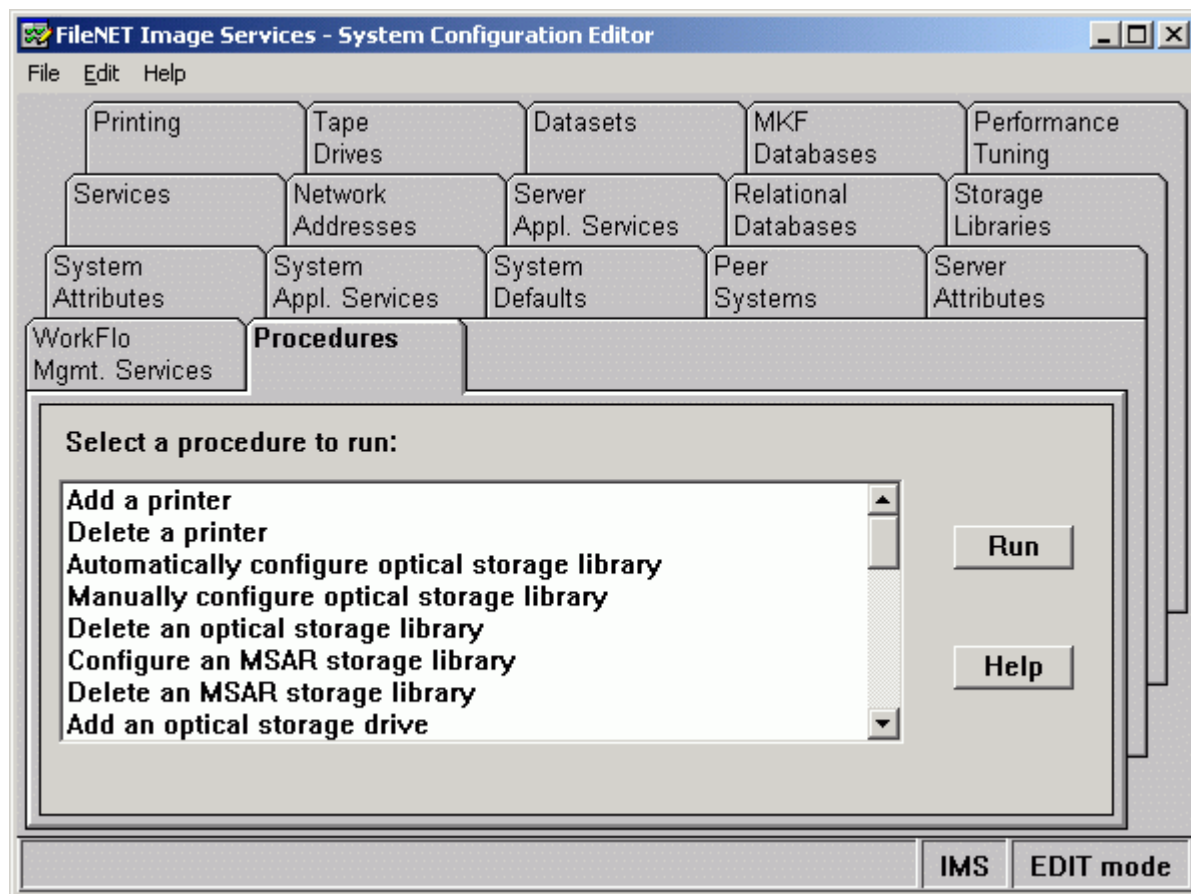
The following procedures are listed on the Procedures tab:

- Add a printer
- Delete a printer
- Automatically configure optical storage library
- Manually configure optical storage library
- Delete an optical storage library
- Configure an MSAR storage library
- Delete an MSAR storage library
- Add an optical storage drive
- Delete an optical storage drive
- Add a tape drive
- Delete a tape drive
- Set to site-control *
- Set to FileNet-control **

(continued on next page)

* Only appears if Oracle is FileNet-controlled

** Only appears if Oracle is site-controlled



(continued from previous page)

Add Relational Database Object
Delete Relational Database Object

(continued on next page)

(continued from previous page)

Set up required Oracle datasets on root/index server *

Deconfigure Oracle datasets on root/index server *

Set up required M/S SQL datasets on root/index server **

Deconfigure M/S SQL datasets on the root/index server **

Create an optional relational DB dataset

Delete an optional relational DB dataset

Add an additional dataset

Delete an additional dataset

Add a peer system

Remove a peer system

Add an optional logical cache

Delete an optional logical cache

Add an Application Server

Delete Server

Add a Service to a Server

Delete a Service from a Server

Add a Storage Library Server

Add VWService

Modify VWService

Delete VWService

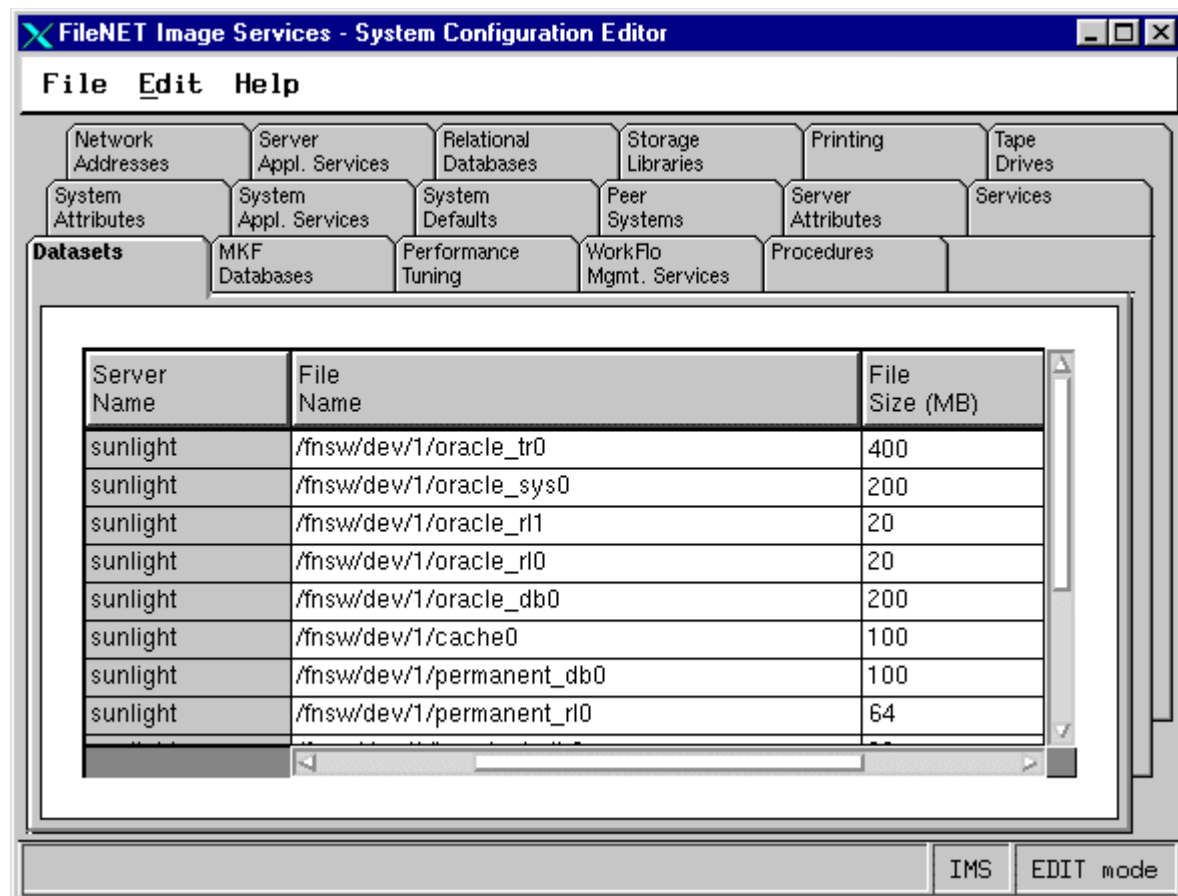
* Only appears if you have an Oracle RDBMS.

** Only appears if you have an Microsoft SQL Server RDBMS

Other System Configuration Editor tabs

Besides the Procedures tab, there are several other tabs where you can view, and possibly modify, configuration data.

Each System Configuration Editor tab you select displays a different window. For example, if you click the Datasets tab the following screen displays.



The system in this example has an Oracle RDBMS.

Tailored Interfaces

The System Configuration Editor tabs, procedures, and columns are displayed, hidden, or read-only, based on a table keyed to the product type in the software license. For example, only WorkGroup configuration parameters display on a WorkGroup Image Services system.

The System Configuration Editor includes additional changes to tailor the interface for a WorkFlo server:

- You cannot access Database Maintenance, Storage Library Control, Background Job Control, or Cache Backup from the Applications menu.
- In System Monitor, you cannot select the Magnetic Disk Cache and Storage Libraries options on the Storage menu or the Document Services Statistics option on the Statistics menu.
- You see only the appropriate Configuration Editor parameters; some tabs and columns do not display and you cannot run certain procedures.
- The SCouT Capacity Planning Tool provides only the appropriate WorkFlo server entries.

Customized Startup and Shutdown Scripts

The TM_daemon interprets the SERVER_Processes table generated by the System Configuration Editor (fn_edit). You cannot permanently edit the SERVER_Processes table since the table regenerates itself whenever you create a new IMS_xxx.cdb file by making and saving a change to an fn_edit tab.

To allow you to run customized scripts or batch files at startup or shutdown, TM_daemon looks for customized startup and shutdown files on the local drive. If a file is found, fn_edit inserts the startup file at the end of the Image Services startup mode and inserts the shutdown file at the beginning of the Image Services shutdown mode.

Locate customized files for Image Services as follows:

UNIX

- UNIX servers:

/fnsw/local/sd/ims_start
/fnsw/local/sd/ims_stop

WIN

- Windows servers:

\fnsw_loc\sd\ims_start.bat
\fnsw_loc\sd\ims_stop.bat

Customized scripts are run in the foreground unless the script itself places an operation in the background.

How to Use the FileNet Image Services – System Configuration Editor

The FileNet Image Services – System Configuration Editor consists of a series of editing tabs where you can view and edit your system configuration. In addition, File and Edit menus are located at the top of the System Configuration Editor window.

Changes to your system configuration are made by clicking the tab that contains the configuration data, and then the cell within the tab that has the value you wish to change. Depending on the data you wish to

change, you can either select from a pulldown list or type in a new value.

Note

Some tabs allow you to change the state of an item by marking it with a check mark or with an X. A check mark indicates a Yes (available or enabled) response, and an X indicates a No (unavailable or disabled) response.

The following is a list of the System Configuration Editor editing tabs. If you want to find Help information on a specific tab you can go directly to the page number listed, or if you are viewing this document Online simply click on the tab you want below.

- **[“Datasets Tab” on page 44](#)**
- **[“MKF Databases Tab” on page 47](#)**
- **[“Network Addresses Tab” on page 48](#)**
- **[“Storage Libraries Tab” on page 50](#)**
- **[“Peer Systems Tab” on page 55](#)**
- **[“Performance Tuning Tab” on page 56](#)**
- **[“Printing Tab” on page 64](#)**
- **[“Procedures Tab” on page 105](#)**
- **[“Relational Databases Tab” on page 68](#)**
- **[“Server Appl. Services Tab” on page 77](#)**
- **[“Server Attributes Tab” on page 89](#)**

- [“Services Tab” on page 90](#)
- [“System Appl. Services Tab” on page 91](#)
- [“System Defaults Tab” on page 99](#)
- [“System Attributes Tab” on page 101](#)
- [“Tape Drives Tab” on page 102](#)
- [“WorkFlo Mgmt. Services Tab” on page 104](#)

fn_setup Program

The **fn_setup** program attempts to set the permissions for all files under /fnsw and /fnsw/local directories using a permission_table that is updated with each new Image Services release. There is a UNIX version and a Windows Server version of the tool.

fn_setup on UNIX

On UNIX platforms, fn_setup must be run after installing the Image Services software. After the system is fully installed and configured, the common usage of fn_setup is to reset file permissions of IS files and directories. You can run the tool in interactive (command line) mode or in non-interactive (silent) mode.

UNIX Command Line Mode

As a user with **root** privileges, enter the fn_setup command and answer the prompts appropriately for your system. The output below shows the series of prompts.

Syntax

UNIX

```
fn_setup [-n <NCH server name>] [-s <SSN>] [-b <RDBMS type>]
[-h <RDBMS home>] [-u <RDBMS user ID>] [-g <group ID>]
[-i <RDBMS SID>] [-r] [-d <dir>] [-v]
```

-n <NCH server name> The NCH server name of this server (for example, pegasus:YourCorp)

-s <SSN> The system serial number of this server

-b <RDBMS type> The relational database type on this server (oracle or db2)

-h <RDBMS home> The relational database home directory (for example, usr/oracle)

-u <RDBMS user ID> The relational database user ID (for example, oracle)(Oracle only)

-g <RDBMS group ID> The relational database group ID (for example, dba)(Oracle only)

-i <RDBMS SID> The relational database ID (for example, IDB)(Oracle only)

-r Indicate that this is the root station (Optional)

-d <dir> Starting path of FileNet IS software (Used to force "set permissions only" mode)(Optional)

-v Verbose. Print out files as they are processed. (Optional)

Note In the UNIX version of fn_setup, the presence of '-r' indicates that this is a root server and fn_setup will create the root_station file. The absence of '-r' will do nothing. There is no way to change to non-root server via the arguments as in the interactive mode. For the new Windows version of fn_setup, if '-r' is specified, you must explicitly indicate

whether it is a root station. The absence of '-r' will not change the current setting.

UNIX Interactive Mode

As a user with root privileges, enter the `fn_setup` command and answer the prompts appropriately for your system. The output below shows the series of prompts.

```
corona(root)/> fn_setup
Is this the NCH server (1=yes, 2=no) [1]:
Is this the NCH server (1=yes, 2=no) [1]:
Enter NCH server name [ibmmsar:YourCorp]:
Enter system serial number [6789]:
Enter the relational database type configured on this server
(0=None, 1=Oracle, 2=DB2) [1]:
Enter the relational database home directory [/usr/ora/920]:
Enter the relational database user ID [oracle]:
Enter the relational database group ID [dba]:
Enter the relational database ID [SITEDB]:
    This is the setup configuration:
        NCH server name:  ibmmsar:FileNet
        SSN:  6789
        Relational database type:  oracle
        Relational database home:  /usr/ora/920
        Relational database user ID:  oracle
        Relational database group ID:  dba
        Relational database ID:  SITEDB
Do you want to continue (y/n) [y]:
fn_setup: Creating file /fnsw/local/setup_config
fn_setup: Creating file /fnsw/local/sd/root_station
fn_setup: Creating file /fnsw/local/ssn
fn_setup: Creating file /fnsw/local/sd/nch_domain
fn_setup: Changing permission on FileNet IS software and databases
fn_setup: Running "/fnsw/bin/nch_update ibmmsar:FileNet"
fn_setup: Installing Image Services license.
Successfully installed license data !
fn_setup: Changing permission on FileNET IS software and databases
```


fn_setup on Windows Server

On the Windows Server platform, fn_setup must be run after installing Image Services. After the system is fully installed and configured, the common usage of fn_setup is to reset file permissions of IS files and directories. You can run the tool in interactive (command line) mode or in non-interactive (silent) mode.

Windows Server Command Line Mode

As a user with **root** privileges, enter the fn_setup command and answer the prompts appropriately for your system. The output below shows the series of prompts.

Syntax

WIN	fn_setup [-n <NCH server name>] [-s <SSN>] [-r <y/n>] [-e <y/n>] [-a <y/n>] [-d] [-v]
-n <NCH server name>	The NCH server name of this server (for example, pegasus:FileNet)
-s <SSN>	The system serial number of this server
-r <y/n>	Indicate if this is a Combined/Index server
-e <y/n>	Enable or disable Windows Event Logging
-a <y/n>	Enable or disable Autostart IS processes
-d	Update permission on IS software
-v	Verbose
-h	Display this usage

Example

Enter the following command to disable Windows event logging and update the IS software permission. All the non- specified configuration will remain the same.

fn_setup -e n -d

You will see a display similar to the following:

```
fn_setup: Updating server type
fn_setup: Updating NCH server name
fn_setup: Updating SSN
fn_setup: Updating Windows Event Logging setting
fn_setup: Updating Autostart setting
fn_setup: Updating IS ControlService parameter
fn_setup: Changing permission on IS software
fn_setup: Updating NCH database
fn_setup: Installing Image Services license
fn_setup: check log file c:\fnsw_loc\logs\fn_setup\fn_setup.log for any errors.
fn_setup: Done
```

Windows Server Interactive Mode

As a user with **root** privileges, enter the `fn_setup` command and answer the prompts for your system. The output below shows the series of prompts. The default response displayed within the parenthesis is the currently configured value or suggested setting if there is no current value. You can always enter a different value or press **Enter** to accept the default value. When the prompt expects a 'yes' or 'no' response, y, yes, n, no are all valid.

```
corona(root)/> fn_setup.exe
Installation path for Executables: c:\fnsw
Installation path for Shared Files: c:\fnsw_loc
Is this a Combined/Index server (y=yes, n=no) [y]:
Enter NCH server name [homer1:FileNet]:
Enter System Serial Number [1234567890]:
Windows Event Logging (y=yes, n=no) [y]:
Autostart IS Processes (y=yes, n=no) [n]:
Reset file permissions of IS software (y=yes, n=no) [y]:
```

The **fn_setup** tool then displays the information you supplied so you can confirm your entries. Determine whether or not you want to continue: y/n (default: yes).

```
This is the setup configuration:
  Combined/Index Server: yes
  NCH server name: homer1:FileNet
  SSN: 1234567890
  Windows Event Logging: yes
  Autostart IS processes: no
  Reset file permissions: yes
Do you want to save your changes (y/n) [y]:
```

If the response is to save the changes, a message is displayed prior to each operation. All updates are done unconditionally so you see all the 'Updating ...' messages. If you do not choose to 'Reset file permission', then the operation to reset file permission is skipped and the message 'Changing permission on IS software' is not displayed. Then the program exits.

```
fn_setup: Updating server type
fn_setup: Updating NCH server name
fn_setup: Updating SSN
fn_setup: Updating Windows Event Logging setting
fn_setup: Updating Autostart setting
fn_setup: Updating IS ControlService parameter
fn_setup: Changing permission on IS software
fn_setup: Updating NCH database
fn_setup: Installing Image Services license
fn_setup: check log file c:\fnsw_loc\logs\fn_setup\fn_setup.log for any
errors.
fn_setup: Done
```

If the response is to discard the changes, you see the `fn_setup:` Changes are not saved. message and the program exits.

fn_util Program

The **fn_util** program starts, stops, creates, and updates the MKF and RDBMS databases, calling `fn_oracle`, `fn_db2`, `fn_mssql`, and `fn_msodbc` to perform RDBMS configurations. Run `fn_util` from a system prompt on UNIX servers, or from a command prompt on Windows servers.

The syntax is:

fn_util [command]

Running `fn_util` with no arguments displays the `fn_util` help text.

The commands and their actions are included in the following table.

fn_util Command	Action
abortrdb	shutdown relational database
check_osconfig	check for minimum O/S requirements to run fnsw (AIX®, HP-UX only)
cinitrdb	initialize relational database for RDBMS coexistence
configrdb	configure relational database (Windows only)
init	initialize security, permanent, transient (includes cache), and relational databases below (not for conversions or nch)
initsec	initialize security database
initperm	initialize permanent database
inittrans	initialize transient database and cache
initrdb	initialize relational database
initnch	initialize nch database
initconv	initialize empty relational database for conversions
linkrdb	creates links to Oracle shared library (UNIX only)
mk_links	create device and dataset symbolic links (UNIX only)
remove_datasets	removes datasets and registry entries made by fn_oracle
servicerdb	update IMS Service dependency for RDB services (Windows only)
spacerdb	initialize relational udb and tr databases
start	starts
startdb	start all databases
startsec	start security database
startperm	start permanent database

fn_util Command	Action, continued
starttrans	start transient database
startrdb	start relational database (FileNet-controlled only) *
stopdb	shutdown all databases
stopsec	shutdown security database
stopperm	shutdown permanent database
stoptrans	shutdown transient database
stoprdb	shutdown relational database (FileNet-controlled only) *
update	update all datasets below
updatesec	update security database
updateperm	update permanent database
updatetrans	update transient database
updatench	update nch database
updatecache	update cache partitions (Windows only)
updaterdb	update relational database (FileNet-controlled only) *
whichfn	print release information

* The startdb, stopdb, and update options affect only the MKF databases when the relational database is site-controlled. The startrdb, stoprdb, and updaterdb options affect only FileNet-controlled Oracle relational databases. They do no harm if they are run on site-controlled relational databases.

Re-initializing the Permanent Database

If you ever have to re-initialize your permanent database, using **fn_util init** or **fn_util initperm**, you may see the following error message:

Severe Error condition: The Scalar Numbers Table is behind the snt.chkpt file. This should only happen after a Permanent DB restore has been done. Continuing with this condition may cause multiple documents to be committed with the same doc ID. To resolve this problem, you must update the Scalar Numbers Table with the SNT_update program. Doc Services will not function until this problem is resolved.

If this occurs, you must run SNT_update to resolve the problem. For information on running SNT_update, refer to the *FileNet Image Services Third-Party Backup/Restore Guidelines*. To download IBM FileNet documentation from the IBM support page, see [**“Accessing IBM FileNet Documentation” on page 12**](#).

fn_build Program

The fn_build program creates various configuration files and is run automatically by the FileNet Task Manager when the FileNet Image Services software is restarted. You can also manually run fn_build from a command prompt.

The fn_build program creates the nch.ddl file differently from the other configuration files. Some of the default values for the nch.ddl file have been increased.

nch.ddl Parameters	Old Default Values	New Default Values
number of buffers	32	1000
max_concurrent_transactions	1	4
max_concurrent_long_transactions	1	1
rl_update_frequency	50	750
max_record_types	8	8
max_items_per_record	16	16
overwrite_rl_action	Ignore	Ignore
File parameters	Old Blocksize	New Blocksize
base data size (blocks)	500	500
recovery log size (blocks)	200	2000

The syntax is:

fn_build [command]

Running the fn_build program with no arguments displays the fn_build help text.

Command	Action
-a	<p>Automatically builds or rebuilds all files, except nch.ddl. The nch.ddl file is not overwritten if the file /fnsw/local/sd/1/nch.ddl already exists.</p> <p>A message to that effect is logged. If the nch.ddl file does not exist, it is created using the OLD default values.</p>
-f nch.ddl	<p>If the file /fnsw/local/sd/1/nch.ddl already exists, the nch.ddl is not overwritten.</p> <p>A message to that effect is logged. If the nch.ddl file does not exist, it will be created using the OLD default values.</p>
-f nch.ddl -new	<p>If the file /fnsw/local/sd/1/nch.ddl already exists, the nch.ddl is not overwritten.</p> <p>A message to that effect is logged. If the nch.ddl file does not exist, it will be created using the NEW default values.</p>
-f nch.ddl -force	<p>A new nch.ddl file will always be built. If the file already exists, it is overwritten. The file will be built using the OLD default values.</p>
-f nch.ddl -force -new	<p>A new nch.ddl file will always be built. If the file already exists, it is overwritten. The file will be built using the NEW default values.</p>

The new default values are not installed unless the "-new" parameter is explicitly used. This ensures that any tuning to the nch.ddl file is not automatically overwritten by the fn_build program.

The new default nch.ddl file contains the following values:

```
--NCH Document Server Database DDL

PARAMETERS

(
number_of_buffers = 1000,
max_concurrent_transactions = 4,
max_concurrent_long_transactions = 1,
max_record_types = 8,
max_items_per_record = 16,
overwrite_rl_action = ignore,
rl_update_frequency = 750
);

FILES
(
target_station "DocServer";
base data      file "/fnsw/local/sd/NCH_db0" (blocks = 500);
recovery_log   file "/fnsw/local/sd/NCH_db0" (start = 500, blocks = 2000);
);

#include "/fnsw/lib/nch_db.desc"
```

Online Help Text

This chapter provides an overview of the System Configuration Editor Online Help text. The text has been modified slightly to clarify the relationship of context-sensitive help text segments. Future Image Services releases may not include printed versions of the online help text.

System Configuration Editor Online Help

The following is a list of the System Configuration Editor editing tabs. To view the Online Help for a specific tab you can go directly to the page number listed, or if you are viewing this document Online simply click on the tab you want below.

- [**“Datasets Tab” on page 44**](#)
- [**“MKF Databases Tab” on page 47**](#)
- [**“Network Addresses Tab” on page 48**](#)
- [**“Storage Libraries Tab” on page 50**](#)
- [**“Peer Systems Tab” on page 55**](#)
- [**“Performance Tuning Tab” on page 56**](#)
- [**“Printing Tab” on page 64**](#)
- [**“Procedures Tab” on page 105**](#)
- [**“Relational Databases Tab” on page 68**](#)
- [**“Server Appl. Services Tab” on page 77**](#)
- [**“Server Attributes Tab” on page 89**](#)

- [“Services Tab” on page 90](#)
- [“System Appl. Services Tab” on page 91](#)
- [“System Defaults Tab” on page 99](#)
- [“System Attributes Tab” on page 101](#)
- [“Tape Drives Tab” on page 102](#)
- [“WorkFlo Mgmt. Services Tab” on page 104](#)

Datasets Tab

This tab enables you to view and modify characteristics of the datasets currently configured on this server. To delete datasets or to create additional or optional datasets, use the Procedures tab.

Server Name

This field displays the host name for the server. The name is initially created by the setup program when the software is installed. This field is locked and cannot be edited. To change the server name, go to the Server Attributes tab.

Dataset Type

This field displays the type of the dataset, such as Perm_DB, Trans_DB, Sec_DB, and so on. This field is locked and cannot be edited. To initialize all of the dataset names or to add/delete a specific dataset, go to the Procedures tab.

File Name

The full path name for the dataset is shown in this field. This is the device driver pathname for the dataset (for example, d:\fns\dev\1\cache0). To create additional or optional datasets, go to the Procedures tab.

File Size (MB)

This field contains the current size of the dataset in megabytes.

Note

The minimum sizes on your server could be slightly different, depending on the server type and its configuration.

The following minimum dataset sizes are required:

Dataset	Minimum Size
Cache	100 MB
Permanent Database	100 MB
Permanent Recovery logs	64 MB
Transient Database	320 MB
Transient Recovery logs	256 MB
* Oracle System Tablespace	200 MB
* Oracle Database	200 MB
* Oracle Recovery logs	20 MB
* Oracle User DB	200 MB
* Oracle Temp Space	400 MB
MS SQL Server Temp Space	400 MB
MS SQL Server Redo Log	20 MB
MS SQL Server Database	200 MB
MS SQL Server User Database	200 MB
Security Database	64 MB
Security Redologs	64 MB

* Displayed for FileNet-controlled Oracle only

Note

The Oracle User DB is optional and will only appear on the Datasets tab if one has been created.

The number displayed in the previous table is the minimum size of the dataset partition in megabytes. You can increase the size of each dataset type, if necessary. Cache is the only dataset that you can reduce in size (after clearing all caches).

If you choose to change these values, use the following increments for modifying each dataset type:

Dataset	Increment
Cache	100 MB
Permanent Database	100 MB
Permanent Recovery logs	64 MB
Transient Database	320 MB
Transient Recovery logs	256 MB
Permanent Database	100 MB
Permanent Recovery logs	64 MB
* Oracle System Tablespace	200 MB
* Oracle Database	200 MB
* Oracle Recovery logs	40 MB
* Oracle User DB	200 MB
* Oracle Temp Space	400 MB
MS SQL Server Temp Space	400 MB
MS SQL Server Redo Log	20 MB
MS SQL Server Database	200 MB
MS SQL Server User Database	200 MB
Security Database	64 MB
Security Redologs	64 MB

* Displayed for FileNet-controlled Oracle only

Note The increment sizes on your server could be slightly different, depending on the server type and its configuration.

MKF Databases Tab

The MKF Databases tab contains the following fields:

Server Name

This field displays the host Name for the server. The name is created initially by the setup program when the software is installed. This field is locked and cannot be edited here. To change the server name, go to the Server Attributes tab.

Database Type

This field is locked and cannot be edited. It displays the database type and can be either Permanent, Transient, NCH, or Security.

Max Concurrent Transactions

This number determines the maximum number of transactions that will ever be concurrently executed by MKF. The number of transactions allowed depends on two factors: the size of the database and the size of the data pool.

Max Concurrent Long Transactions

This number determines how many of the Maximum Concurrent Transactions may be long transactions. The value must be between the default value and the number of Max Concurrent Transactions.

Verify Disk Writes

This switch provides protection against disk I/O problems by reading back each block and verifying it after writing to it. This

option is not useful if the database is not in a raw disk partition. Click in this field to toggle between Yes and No.

Overwrite Recovery Log Action

This field contains three choices: Warning Message, Stop, or Ignore. Click the down arrow and select the action you want.

Block size

This field contains the block size (KB) of the specified MKF database. The default value is 8 KB for the Permanent, Transient, and Security MKF databases.

Recovery Log Buffer Blocks

This field contains the number of database blocks (of the size specified above), that are allotted to the recovery log buffer. The default value is 24.

Network Addresses Tab

The Network Addresses tab contains the following fields:

Server Name

This field displays the host name for the IS server. The name is created initially by the setup program when the IS software is installed. This field is locked and cannot be edited here. To change the server name, go to the Server Attributes tab.

Network Name

This field can only be used by customers running client Image Services Toolkit (ISTK) software version 3.6 or higher. Earlier versions of client ISTK software will ignore this field and instead retrieve a Network Address.

This field allows newer client software to resolve a standard DNS name into an appropriate Network Address for the client. This can be very useful for clients that are on different network segments than the server.

The newer client ISTK software will attempt to retrieve a Network Name. If it fails, it will retrieve a Network Address instead.

Note If your IS system uses **IPv6** network addresses, which are eight part hexadecimal numbers separated by colons, enter **only** the Network Name in this field and leave the Network Address fields blank. Your DNS service will automatically resolve the IP address of the network name for you.

If your IS system uses the familiar **IPv4** addresses, the Network Name field is optional. You do not have to specify a Network Name in this field if you enter a Network Address.

To support mixed versions of client ISTK software, you can enter both a Network Name and a Network Address. Newer clients will request the Network Name, older clients will request the Network Address.

The Network Name you enter in this field is the DNS host name of the server. The name must be unique, less than 256 characters, and composed of alpha, digits, dot, dash, underline characters only (No Spaces).

Network Address

For IS systems using IPv4, there are eight Network Address fields that are available for different TCP/IP network protocol (IP) addresses. Each field displays the four-part TCP address for the corresponding server name. You can add or modify network addresses in any of these fields.

Note If your IS system uses **IPv6** network addresses, leave the Network Address fields blank, and enter **only** the network name in the Network Name field.

An **IPv4** address is a four part decimal number. Each part must be between 0 and 255 and is separated by a period.

Example: 135.0.20.91

An **IPv6** address is an eight part hexadecimal number. Each part can be up to four digits and is separated by a colon. You can substitute double colons for consecutive groups of zeros, but this can only be done once in an address.

Example: 2002:c063:5801::c065:3801

Storage Libraries Tab

The Storage Libraries tab enables you to view and modify parameters for your system's storage libraries and storage drives. Parameters for each are found on their respective subtabs under the Storage Libraries tab.

Storage Libraries Subtab

Storage Libraries is a subtab of the Storage Libraries tab. This subtab contains the following fields:

Server Name

This field displays the host Name for the server. The name is initially created by the setup program when the software is installed. This field is locked and cannot be edited. To change the server name, go to the Server Attributes tab.

Library Name

Values in this field are automatically assigned by the system

and correlate to the library number (for example, Library number 0 = Library A, Library number 1 = Library B, and so on). Library numbers are assigned when configuring a storage library. Go to the Procedures tab to configure a storage library.

Library Type

Use the pulldown menu arrow to choose the type of storage library connected to your system.

Note For MSAR, the model number refers to the number of virtual slots in the library; that is, Model 128 has 128 slots, Model 256 has 256 slots, and so on. Furthermore, if you change the library type from a lower model number to a higher model number, for example from Model 128 to Model 256, and save this change, you will not be able to change back to a lower model number. In fact, model numbers lower than what is currently listed in the Library Type list box, will not even be available in the drop-down list.

Device Address

This is the SCSI hardware address for your storage library. It is usually a four part number, each part separated by a space. The first number designates the bus ID, the second designates the port ID, the third is the storage library device ID, and the fourth is the logical unit number. If a library is connected to an IBM 5712 or 5736 adapter card, the library's SCSI address is a five part number, with the first two numbers designating the bus ID.

To determine the SCSI parameters for the storage libraries connected to your system, enter:

ls /dev/fnsod* (on UNIX servers)

fndev -v (on Windows servers)

Note Since MSAR libraries aren't actual hardware devices, they do not require or use a device address. Therefore, this field is disabled for MSAR storage libraries. The number will always be 0 0 0 0.

MSAR Surface Creation Directory

This column contains the directory location where all created MSAR surface files will be placed for each MSAR library. If you need to, you can edit this field to change the location path, or name, of the directory. The path can be up to 241 characters in length.

Note For optical storage libraries, this field is not enabled.

Storage Drives Subtab

Storage Drives is a subtab of the Storage Libraries tab. This subtab contains the following fields:

Server Name

This field displays the host Name for the server. The name is initially created by the setup program when the software is installed. This field is locked and cannot be edited. To change the server name, go to the Server Attributes tab.

Library Name

Values in this field are automatically assigned by the system and correlate to the library number (for example, Library number 0 = Library A, Library number 1 = Library B, and so on). Library numbers are assigned when configuring a storage library. Go to the Procedures tab to configure a storage library.

Library Type

This designates the type of storage library connected to your system. Go to the Storage Libraries tab to modify this field.

Drive Number

This designates an ID number for the storage drive. Acceptable values are 0 through 12. The ID numbers are normally assigned when a storage library is configured on the system.

Storage Drive Type

This is the type of storage drive used in the library. It can be an optical or MSAR drive. To identify an optical storage drive, you need to know the manufacturer, the optical disk size, the capacity and/or its model number. For MSAR drives, there is only one choice.

Device Address

The SCSI address of the storage drive is a four part number composed of the following elements:

- bus ID
- port ID
- device ID
- logical unit number

For a drive that is connected to an IBM 5712 or 5736 adapter card, the SCSI address is a five part number.

- bus ID (part 1)
- bus ID (part 2)
- port ID
- device ID

- logical unit number

Note Since MSAR libraries aren't actual hardware devices, they do not require or use a device address. Therefore, this field is disabled for MSAR storage libraries. The number will always be 0 0 0 0.

Favor Writes

The default value for this field is No (marked with an X). Normally, read requests are given priority over write requests. However, if you want this drive to give priority to write requests for fast batch committal, click on the field to toggle its value to Yes (checkmark).

Peer Systems Tab

The Peer Systems tab contains the following fields:

Domain Name

This field displays the Network Clearinghouse domain name for a peer system. Peer systems are used to represent both the remote and compatible system concepts.

A remote system is recognized by its internet address, is accessible via a network, and is usually a recipient for storage media data from a remote entry station (which has no storage library).

A compatible system is set up with a unique range of document and surface IDs. This allows an easy import of documents and media from one system to the compatible system. Compatible systems are usually not on the network and are recognized by their system serial number.

You must identify the internet address for each remote system and the system serial number for each compatible system when designating them as a peer.

System Serial Number

This is the serial number of the remote or compatible system. The system serial number is a unique ten-digit number from 0000000001 to 4294967295, such as 1007280000.

Note

The system serial number is mandatory for a compatible system).

Network Address

This is the four part IPv4 internet address of the remote or compatible system. The syntax for the network address must be

four decimal numbers separated by periods (dots), with each number between 0 and 255. For example, 135.20.20.52.

Note The network address is mandatory for a remote system.

Performance Tuning Tab

Performance tuning options allow you to adjust a variety of system parameters to suit the use and configuration of your FileNet Image Services system. These parameters are located on three subtabs.

System Processes Subtab

System Processes is a subtab of the Performance Tuning tab. This subtab contains the following fields:

Domain Name

This field contains the name of your system's domain. The name shown here is used as the "domain" part of your system's NCH name.

DS Notify Processes

This field contains the number of Document Services notify (ds_notify) processes, which send the retrieval status back to the client that initiated a retrieval. If the client exits before the retrieval completes, the ds_notify process will retry sending the status until it times out.

Additional ds_notify processes will reduce the backlog of retrieval statuses. The default value for this field is 2.

RMT Commit Processes

This field contains the number of remote committal (rmt_

commit) processes, which send documents to a remote system after local committal completes.

Multiple rmt_processes will expedite remote committal. This value must be greater than 0; the default value is 1.

Number of dtp tran processes

The dtp tran process is responsible for cataloging documents in the Index database using Document Service's fast batch committal option. Under high volume committal scenarios, the dtp tran process can become bottlenecked.

Performance can be improved, therefore, if more than one dtp_tran process is running on a system.

The default value for this field is one dtp_process. You can select a value of 1 -16.

CAUTION

Increasing the number of dtp tran processes should only be done on systems that have multiple CPUs. In addition, the number of dtp processes should never exceed the total number of CPU's on your system.

Server Processes Subtab

Server Processes is a subtab of the Performance Tuning tab. This subtab contains the following fields:

Server Name

This field displays the host Name for the server. The name is initially created by the setup program when the software is installed. This field is locked and cannot be edited.

CSM I/O Process Count

Cache Manager Process Count is the number of I/O worker processes doing asynchronous magnetic disk cache I/O. The maximum usable value is the minimum of the number of storage media and magnetic drives on the system. The default value is 2.

DTP Process Count

Data Transfer Process Count is the number of DTP processes per drive. You can select a value of 1 or 2. The default is 1.

Note The DTP Process Count value affects OSAR drives only. For MSAR, the DTP Process Count is always 1 regardless of the number in this field.

BES Commit Process Count

BES Commit Process count is the number of bes_commit processes started when the server boots. You can start a maximum number of four bes_commit processes on a server. The default value is 2.

Server Memory Subtab

Server Memory is a subtab of the Performance Tuning tab. This subtab contains the following fields:

Server Name

This field contains the name of the server whose configuration database you are currently editing.

Document Buffer Count

This field contains the number of document and descriptor buffers to be allocated by the DBP abstract. The number must

be between 1 and 256. The default value is 64. A smaller number uses less memory, but a larger number provides better performance.

Note For MSAR Storage Library systems, use the following configuration guidelines to calculate the Document Buffer Count for each applicable server: 1 per MSAR drive, +1 per optical drive, +1 per scanner, +1 per COLD process, +1 per HPIL (High Performance Image Import) or any other document entry program, +16.

Document Buffer Size (KB)

This field contains the size of the document buffer(s). The number must be between 16 and 1024 KB. The default is 256 KB.

More complex images require a larger buffer size, while less complex images do not. You might be able to reduce the buffer size and increase the number of buffers to increase system performance; or you might want to increase the buffer size to accommodate extremely complex images. If necessary, use the **dbp -s** command to display buffer size and count statistics for fine tuning the system.

Directory Buffer Count

This field contains the number of directory buffers to be allocated by the DBP abstract. The number must be between 1 and 256. The default value is 64. A smaller number uses less memory, but a larger number provides better performance.

Directory Buffer Size (KB)

This field contains the size of the directory buffer(s). The number must be between 1 and 256. The default is 64 KB.

If memory is limited, you can change the buffer size to two times the number of fast batch committal jobs that will be running concurrently. For example, if you specified (on the Performance Tuning/Server Processes tab) that four fast batch committal jobs (bes_commit processes) would run on the server, the buffer size you enter here would be 8 KB (2 x 4).

Oracle Cache Size (MB)

(FileNet-controlled Oracle only)

This field contains the size of the Oracle database cache. This is the portion of the Oracle database cached in memory. It is the most significant parameter in determining database size and performance. The default size is 100 MB.

A larger number could improve performance, depending on how much memory is available and many other factors. Since Oracle performance tuning issues are complex, refer to the Oracle documentation for more information on setting this parameter.

Oracle Log Buffer Size (bytes)

(FileNet-controlled Oracle only)

This field contains the size of the Oracle redo log buffer, which is the portion of the Oracle redo log cached in memory. The default size is 163840 bytes. (160 KB)

A large number could improve performance, depending on how much memory is available and many other factors. Since Oracle performance tuning issues are complex, refer to the Oracle documentation for more information on setting this parameter.

Permanent Buffer Pool Size (KB)

This field contains the size of the permanent database buffer

pool, which is the portion of the permanent database cached in memory. The default size is 5000 KB. To increase performance by having a small database entirely resident in memory, the size of this buffer should be almost twice the size (in KB) of the data and index (but not the description) in the database.

Note After making any change to this field, additional steps **must** be performed. See the section, [**“Increasing MKF Buffer Pools or Shared Memory” on page 62**](#), for more information.

Transient Buffer Pool Size (KB)

This field contains the size of the transient database buffer pool. This is the portion of the transient database cached in memory. The default size is 100000 KB (100 MB). To increase performance by having a small database entirely resident in memory, the size of this buffer should be almost twice the size (in KB) of the data and index (but not the description) in the database.

Note After making any change to this field, additional steps **must** be performed. See the section, [**“Increasing MKF Buffer Pools or Shared Memory” on page 62**](#), for more information.

Security Buffer Pool Size (KB)

This field contains the size of the security database buffer pool. This is the portion of the security database cached in memory. The default size is 4000 KB. To increase performance by having a small database entirely resident in memory, the size of the buffer should be almost twice the size (in KB) of the data and index (but not the description) in the database.

Note After making any change to this field, additional steps **must** be performed. See the section, [“Increasing MKF Buffer Pools or Shared Memory” on page 62](#), for more information.

Max Shared Memory (MB)

This field contains the maximum amount of server shared memory allowed with the current configuration. The default memory sizes are 640 MB for AIX platforms, and 2048 MB for all others.

When Image Services starts, it only allocates shared memory as needed, so the actual amount of shared memory in use could be far below the value in this field. If the number in this field is not enough to handle your processing requirements, then this value should be increased as needed.

Note After making any change to this field, additional steps **must** be performed. See the section, [“Increasing MKF Buffer Pools or Shared Memory” on page 62](#), for more information.

Increasing MKF Buffer Pools or Shared Memory

CAUTION Changing the MKF Buffer Pool sizes or Shared Memory size impacts system performance. Modifying these fields should only be done with the advice and consent your service representative. Be sure to make small adjustments to these field sizes over a period of time so their effect on the system can be monitored.

Follow these steps if you have increased the Buffer Pool Size (KB) field for one or more of the datasets, or the Max Shared Memory (MB) field.

- 1 Exit **fn_edit** and save your changes.
- 2 Enter the following command to rebuild the system configuration files:

fn_build -a

Make sure the command runs successfully by checking that no errors have occurred.

- 3 If you changed only the Max Shared Memory (MB) field, skip to the next step.

If you changed any of the Buffer Pool Size fields, enter the following command to update the affected databases configured on your server:

fn_util update<xxxx>

where **<xxxx>** is the MKF database (for example, **trans**, **perm**, or **sec**) whose buffer pool size was modified.

Repeat this step for each MKF database whose buffer pool size was increased.

- 4 Stop all FileNet processes by entering the following command:

killfnsw -DAy

- 5 Enter the following command to bring up the FileNet software:

initfnsw start

Note any errors when restarting the FileNet software after a configuration change. In many cases, the size of the recovery logs must also be increased in proportion to the new buffer pool sizes.

Printing Tab

The Printing tab enables you to view and modify parameters for print services and specific printers (or Fax machines). These parameters are located on two subtabs.

Print Services Subtab

Print Services is a subtab of the Printing tab. This subtab contains the following fields:

Server Name

This field displays the host name for the server. The name is created initially by the setup program when the software is installed. This field is locked in this spreadsheet and cannot be edited here; to change the server name, go to the Server Attributes tab.

In Library Timeout

This field displays the number of seconds the software will wait before a timeout error occurs when requesting a document from storage media resident in the storage library. The default value for this field is 3600.

Out of Library Timeout

This field displays the number of seconds the software will wait before a timeout error occurs when requesting a document from storage media that is not resident in the storage library. The default value for this field is 3600.

Cache Elasticity

When the print cache fills beyond the fullness threshold, data is sent from the cache to the printer. You can set values in this

field from 0 through 6. The value set is used to calculate the fullness threshold. The formula for the calculation is:

$$\text{fullness threshold} = 100\% - (\text{\$value} * 10)$$

For example, if this field has a value of 2, the print cache will stop accepting new print requests and will start printing its contents when the cache is 80% full.

$$\text{fullness threshold} = 100\% - (2 * 10) = 80\%$$

Average Bytes Per Page

This value is used to calculate the number of pages that will fit into the print cache. The default is 50,000 bytes. If the value is set too low, you will fail to utilize all available print cache. If the value is set too high, you could overflow the cache. In this case, print services deletes objects from the cache before they are printed, then remigrates them from storage media for printing at a later time.

Bad Request Keep Alive (Hr)

This variable will allow you to control how long an unserviceable print request, which terminated with an error, will remain in the MKF database. This is useful to help determine which request may have failed, and why. If the print request succeeds, the request is deleted from the MKF database. The default is 24 hours, but you can edit this field to specify a longer or shorter period.

Printers Subtab

Printers is a subtab of the Printing tab. This subtab contains the following fields:

Server Name

This field displays the host Name for the server. The name is

initially created by the setup program when the software is installed. This field is locked and cannot be edited. To change the server name, go to the Server Attributes tab.

Printer Ordinal

This field displays the printer number of each printer installed on the server listed in the column to the left. The number indicates the order in which each printer was added to the server.

The first printer added is assigned a printer number of 0, the second printer is assigned a printer number of 1, and so on.

Printer Name

This field displays the Network Clearinghouse object name for the printer. The printer name is created when the printer is first added to the system under the Procedures tab.

Printer Type

The printer type field lists the currently supported printers. If you want to change the printer type, use the pulldown arrow to select a different printer.

WorkFlo/Print Address

This address is the four part IPv4 network address assigned to the print station. The network address must be a four part decimal number. Each part must be between 0 and 255 and separated by a period (for example, 135.0.20.91).

Cache Allocation

This number, between 1 and 10, specifies the relative cache allocation for each printer you have configured. For example, if you have two printers, setting the cache allocation for both printers to 5 will provide equal cache allocation. If one printer is more active than the other, you might set the cache allocation

for the more active printer to 6, and set the cache allocation for the other printer to 4. Click on the arrow in this field to increment the number. To lower the number, continue clicking on the arrow to cycle back to 1.

Paper Sizes

This field displays the current paper sizes defined for this printer. Use the pulldown arrow to display the Select Supported Paper Sizes dialog box. Select the paper sizes you want from this dialog box; then click the **OK** Button to complete the configuration, **Backup** to return to the previous window, or **Cancel** to exit from the procedure.

Paper Trays

This field identifies the number of paper trays in the printer.

Eject Trays

This field lists the trays that are designated as eject trays. Use the pulldown list to select a new eject tray or modify this field.

Fax Modes

This field indicates the Fax Mode or resolution for the fax machine listed. The Fax Mode is set when the fax machine is added to your system, but you can edit the Fax Mode here as well. You can select “coarse,” “fine,” or both.

Maximum Number of Requests

This field contains the number of maximum print requests that the printer can support. The default is 32.

Device Security

Use this field to configure device security, or access, to the printer. Mark the box Yes or No to activate or deactivate device security.

Yes - The printer is treated like a user. It must have read access for a document before it is allowed to print it.

No - No access required. The printer can print anything.

Relational Databases Tab

The Relational Databases tab enables you to view and modify parameters and objects for Oracle, DB2®, or Microsoft® SQL Server™ relational databases.

Changes to parameters only take effect after a database has been installed. If the database is already installed, changes take effect only after the database is restarted.

Note Microsoft SQL Server is supported only on the Windows platform.

Oracle Relational Database

The Oracle Relational Database tab is a subtab under Relational Databases. It contains the following fields:

Server Name

This field, which cannot be edited, displays the server's host name. The name is created by the setup program when the software is installed. To change the server name, go to the Server Attributes tab.

Version Number

This field contains the version of Oracle currently in use.

Oracle SID

This field lists the Oracle System Identifier (SID) that refers to the instance of the Oracle database running on the server.

Oracle Home

This field lists the Oracle Home directory path.

Database Files

(FileNet-controlled Oracle only)

The maximum number of Oracle database files that can be opened at runtime. The system assigned default value is 20. Changes to this value will not take effect until the database is restarted.

PGA Aggregate Target (Bytes)

(FileNet-controlled Oracle only)

This field lists the PGA (Program Global Area) Aggregate Target size in bytes. Starting in Oracle 9i, Oracle provides an option to completely automate the management of PGA memory by specifying the maximum amount of PGA memory available to an instance using this initialization parameter. The default value is 209715200 bytes (200 MB).

Log Checkpoint Interval

(FileNet-controlled Oracle only)

The number of newly filled redo log blocks (in System Global Area memory), needed to trigger a checkpoint. Once a checkpoint has been reached, the DBWR (Database writer) process writes all the modified blocks to the disk's redo log. The default is 50,000 blocks.

Index DB Table Size

(FileNet-controlled Oracle only)

The size of the FileNet tables space for the Index database.

Four options are available under the pulldown arrow:

Small - Select small if fewer than 1 million documents will be entered into the system.

Medium - Select medium if 1 to 10 million documents will be entered into the system. This is the system default value.

Large - Select large if more than 10 million documents will be entered into the system.

Demo - Select demo if fewer than 10 thousand documents will be entered into the system.

License Maximum Sessions

(FileNet-controlled Oracle only)

The maximum number of user sessions that can occur simultaneously. Once the maximum is reached, only users with Restricted Session privilege can connect. The system assigned default value is 64.

Log Archive Start

This field determines if archiving of the redo log will be automatic. This field must be checked Yes if you are doing Online Backups of the FileNet software. The system default is No.

Click on this field to toggle between Yes and No.

Note: Archive logging must already be enabled in Oracle.

Archive Log Destination

The path name where archived redo logs are kept. The path

includes the base name of the archive log file.

If you checked *Yes* in the Log Archive Start field on this tab, you must provide an Archive Log Destination path.

Number of Rollback Segments

(FileNet-controlled Oracle only)

Rollback segments are a dedicated part of an Oracle database that contains database activity information. The information is used to return the database to a previous state in case a database action fails.

Oracle requires that there is at least one rollback segment. The default is 4.

To change the number of rollback segments, highlight the current entry and type in a new value.

Additional rollback segments can be added to the oracle_tr dataset (temporary/rollback data). To create new rollback segments, run **fn_util updatetdb**.

Note If the number of rollback segments in the database is less than the number listed in the init.ora file, the database will not start.

Languages

(FileNet-controlled Oracle only)

This field contains the language parameter used to set the Oracle nls_territory parameter in the init.ora file. The territory is the name of the country associated with the language selected.

Select the language you want from the drop-down list.

Character Sets

(FileNet -controlled Oracle only)

Several character sets are available for this field. Select the character set you want from the drop-down list.

Note The character set is established when initializing the Oracle database. Changing the character set thereafter has no effect on the database.

DB2 Relational Database

The DB2 Relational Database tab is a subtab under Relational Databases. It contains the following fields:

Server Name

This field displays the host name for the server. The name is initially created by the setup program when the software is installed. This field is locked and cannot be edited.

Version Number

This field lists the version of DB2 currently in use.

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."

To change the passwords themselves, before they expire, use the Application Executive (Xapex).

CAUTION

Once the passwords expire, the IS software (including the Application Executive) will not run and you will have to update the passwords by running **Xdbconnect -r** from a command line.

Notify Administrator

This field lists the number of days before 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 same day the password expires.

MSSQL Relational Database

MSSQL is supported on Windows servers only. The MSSQL Relational Database tab is a subtab under Relational Databases. It contains the following fields:

Server Name

This field displays the host name for the server. The name is initially created by the setup program when the software is installed. This field is locked and cannot be edited. To change the server name, go to the Server Attributes tab.

Remote Server Name

If you have an instance on a Remote Server, enter the name of the server where MSSQL resides in this field. If you have a local server, leave this field blank.

Instance Name

Beginning with MSSQL 2000, Image Services supports mul-

tuple instances: the "default instance" and other "named instances."

This field allows you to type in the name of the MSSQL instance that you want the IS to use. Any valid string, up to 127 characters, will be accepted.

The default instance name is "MSSQLServer." If the "instance name" field is blank, or contains the name "MSSQLServer," the default instance will be used. If the field contains any other name, that named instance will be used.

The instance can reside on the remote server or on the local server. If the instance is on a remote server, the name of that server must be entered in the Remote Server field. If the instance is on a local server, the Remote Server field should be left blank.

User Connection

This variable sets the maximum number of user connections that can be connected to the Microsoft SQL Server at the same time. It does not refer to the maximum number of processes; that number depends not only on this value but also on other system activity. The default is 20.

Memory

This variable sets the size of memory, in 2 KB units, the Microsoft SQL Server allocates from the operating system. The default value of memory is 4096.

The more memory available, the more resources Microsoft SQL Server has for internal buffers and caches, reducing the

number of times the server has to read data from disk for static information or compiled procedure plans.

There is no performance penalty for configuring Microsoft SQL Server to use the maximum memory available to it on your system. However, you must be sure to assess other memory needs on your system, or Microsoft SQL Server may not be able to acquire enough memory to boot.

Procedure Cache (%)

This variable gives the percentage of memory allocated to the procedure cache after Microsoft SQL Server's memory needs are met. The default is 30 percent.

Microsoft SQL Server's memory needs are the sum of memory necessary for locks, user connections, the code itself (which varies slightly from release to release), and other resources. The remaining memory is divided between the procedure cache and the data cache according to the percentage given by this configuration variable.

Open Objects

This variable sets the maximum number of database objects that can be open at one time on Microsoft SQL Server.

The default value is 500. If this number proves insufficient, Microsoft SQL Server displays a message.

Setting the number of open database objects higher does not have a significant impact on performance or storage requirements. Therefore, you might have to increase this value if Microsoft SQL Server displays a message saying that you've exceeded the allowable number of open database objects.

Recovery Interval

The recovery interval sets the maximum number of minutes per database that Microsoft SQL Server should use to complete its recovery procedures in case of a system failure. The default value is 5 (minutes per database).

The Microsoft SQL Server uses this number and the amount of activity on each database to decide when to checkpoint each database. When Microsoft SQL Server checkpoints a database, it writes all modified pages (data pages which have been changed by data modification commands) to the disk. The checkpoint also performs a few other “housekeeping” tasks.

You might need to change the recovery interval if your application and its usage change.

Default Language

This is the language that is used to display system messages. The default (us_english) is set at installation time. Use the pull-down menu to change the default setting.

RDB Objects

The RDB Objects tab is a subtab under Relational Databases. An RDB Object can be any FileNet object in an RDBMS, such as a specific table, index, rollback segment, or WorkFlo queue. These objects can be defined by users or other FileNet subsystems.

The RDB Object tab contains the following fields:

Server Name

This field displays the host name for the server. The name is initially created by the setup program when the software is

installed. This field is locked and cannot be edited. To change the server name, go to the Server Attributes tab.

Object Name

This field displays the RDB Object Name.

Location

This field displays the location of the object named in the Object name field. When an object is defined, an RDBMS location must be specified. The location is an existing Oracle tablespace name, DB2 tablespace name, or an MSSQL Server filegroup name.

To change the location, highlight the text in this field and type in a new location.

Server Appl. Services Tab

This tab enables you to view and modify parameters for Server Application Services. Parameters for these application services are located on the subtabs listed below.

Scheduling Subtab

Scheduling is a subtab of the Server Application Services tab. The parameters on this subtab help the scheduler process determine when to unload media currently in the storage drive in favor of media that have write requests waiting for them.

This subtab contains the following fields:

Server Name

This field displays the host name for the server. The name is initially created by the setup program when the software is

installed. This field is locked and cannot be edited. To change the server name, go to the Server Attributes tab.

RSVP/INFO Trigger

The RSVP/INFO Trigger is used to launch a user-provided program or script that will automatically generate email notification messages to inform the System Administrator that an RSVP or INFO event has occurred. The System Administrator can then respond to the RSVP or INFO message. This feature is optional. If you choose not to implement this feature, there will be no change to the behavior of your system.

To configure this optional feature, enter the full path to the script or program in this field.

Write Delay Values

The following three parameters help prevent excessive disk swapping due to write requests for several different media. These parameters should minimize the number of media swaps for write requests and optimize the processing of such requests.

For example, if any of the three values below are exceeded and a write request for new media is made, the current disk is swapped for the new disk.

Note If medium or high priority read requests for a new disk are pending, these write values do not apply. The current disk will be swapped regardless of the Write Delay Values. The current disk will also be swapped for a new disk if the retrieval cache is more than 85 percent full.

Write Delay Requests

Number of write requests that can accumulate for all out-of-drive media. If this number is exceeded, a new disk is mounted. The default is 50.

Write Delay Time (sec)

Number of seconds that the scheduler will wait for a write request for the disk currently in the drive. If this number of seconds is exceeded, the disk can be replaced with another (out-of-drive) disk that has write requests. The default is 60.

Mount Delay Time (sec)

This field contains the number of seconds that the scheduler can keep a disk in the drive. If this number of seconds is exceeded, the disk can be replaced with another (out-of-drive) disk that has write requests. The default is 600.

Prefetch Delay Values

The following two parameters help prevent excessive disk swapping due to prefetch requests for several different media. These parameters should minimize the number of optical disk swaps for prefetch requests and optimize the processing of such requests.

Note

Prefetch requests are the lowest priority of requests. They will only cause a swap to occur if there are no higher priority requests (read or write) pending.

Prefetch Delay Requests

Number of prefetch delay requests that can accumulate for any out-of-drive disk. If this number is exceeded, (and there are no higher priority requests pending) a new disk is mounted. The default is 0.

Prefetch Delay Time (sec)

Number of seconds that the scheduler will wait for a new prefetch request for the disk currently in the drive. If this number of seconds is exceeded, the disk will be replaced with another (out-of-drive) disk that has prefetch requests. The default is 0.

Minimum Transfers

This field contains the number of operations (document reads, writes, and so on) that should be done before the disk is swapped. This value applies only if the disk in the drive has the same priority as the (out-of-drive) disk requested. The value should be as large as your retrieval cache can support. You should consider the average document size (as well as the retrieval cache size) when you set this value. The default is 50.

Critical Read Time (sec)

This field contains the number of seconds a document request can wait before it becomes critical to mount the disk containing the requested document. The scheduler uses the critical time to determine which disks to mount, as follows:

- If the wait times for the outstanding document requests **have not** exceeded the critical time, the scheduler selects the storage media surface with the **most** requests.
- If the wait times for the outstanding document requests **have** exceeded the critical time, the scheduler selects the storage media surface with the **oldest** request.

This formula achieves a balance between optimum turn-around (mount disks with old requests) and optimum throughput (mount disks with many requests). The default is 60.

I/O Active Time (sec)

This field contains the number of seconds in time span used by the scheduler to keep track of read/write requests for each disk in a drive.

The scheduler knows how many read/write requests were made for these media in the last time span. The disk with the fewest requests (the least active disk), is the disk most likely to be replaced with another (out-of-drive) disk that has write requests.

This parameter is primarily for systems with low I/O activity. The default is 1800.

Spindown Delay (sec)

This field contains the number of seconds a disk can be idle before it is spun-down (a preliminary activity to removing a disk from the drive). If this number is exceeded, the disk is spun-down. The default value is 6 seconds.

This parameter applies only to OSAR-GT devices. The parameter helps balance the time required to move the gripper and the time required to spin-down a disk.

If the gripper is frequently waiting for the disk to spin down before removing it, you may want to lower this parameter value. A lower value increases the probability that the disk will begin to spin down before the gripper moves to the drive; therefore, the gripper will not need to wait as long to remove the disk. The default is 6.

Read Look Ahead Count

The data transfer process looks ahead for a specified number of read requests in order to minimize seek time on storage media. Of these read requests, the process executes the one

which is at the closest sector address to the read request just executed. The default value for this field is 10.

OSAR Server ID

This read-only field contains the system assigned ID number for the server providing OSAR Services. The default is 2.

Cache Duration Subtab

This subtab of the Server Application Services tab contains four fields:

Server Name

This field displays the host name for the server. The name is initially created by the setup program when the software is installed. This field is locked and cannot be edited. To change the server name, go to the Server Attributes tab.

Prefetch Cache Duration (sec)

This field contains the number of seconds that a prefetched document is guaranteed to remain in the pagecache. It can be deleted from the cache after this, unless it is requested again. The default is 300.

Migrate Cache Duration (sec)

This field contains the number of seconds that a retrieved document is guaranteed to remain in the pagecache. It can be deleted from the cache after this, unless it is requested again. The default is 300.

Refresh Cache Duration (sec)

For a document that was requested again (requested while already in the cache), this field contains the number of seconds the document is guaranteed to remain in the cache. The default is 120.

Batch Subtab

This subtab of the Server Application Services tab contains the following fields:

Server Name

This field displays the host name for the server. The name is initially created by the setup program when the software is installed. This field is locked and cannot be edited. To change the server name, go to the Server Attributes tab.

Target Image Services Domain Name

This field specifies which system (target system) will receive the committed batches. Use the pull-down menu to select only compatible systems as remote target systems. Compatible systems have no overlapping document IDs or media IDs. Select 0 to specify the local system as the target system.

Fast Batch Committal

Fast batch committal commits groups or batches of documents together for more efficient committal. It is a performance tuning item.

Note

If fast batch committal is enabled, you cannot use cluster indexes. See the *System Administrator's Handbook* for more details on fast batch committal and clustering. To download IBM FileNet documentation from the IBM support page, see [**“Accessing IBM FileNet Documentation” on page 12.**](#)

If this option is turned on, fast batch objects are automatically deleted from cache after they have been committed to an optical device. To retrieve an image that has just been committed, the image has to be migrated back to cache.

In addition, drives doing mostly fast batch committal should favor writes over reads.

When the Fast Batch Committal option is turned on, it is not necessary to turn on the Delete On Write option. The objects will be deleted from cache regardless.

However, if the Fast Batch Breakup option is also turned on, it will take precedence over both the Fast Batch Committal option and the Delete On Write option, and the objects will remain in cache.

To enable Fast Batch Committal, check this box Yes.

Cache Subtab

This subtab of the Server Application Services tab contains the following fields:

Server Name

This field displays the host name for the server. The name is initially created by the setup program when the software is installed. This field is locked and cannot be edited. To change the server name, go to the Server Attributes tab.

Cache ID

This read-only field contains the system assigned ID number for the cache.

Cache Type

This read-only field contains the Cache Type, which can be: Batch, Retrieval, System Print, or Application Print.

Note Revise, Fill-in, and Folder View caches are NOT SUPPORTED in this release.

Batch Cache	Batch cache holds document entry batches between the time the batch is created and the time it is ready to be committed. When the batch is ready to be committed, it is moved to the retrieval cache.
Retrieval Cache	<p>Retrieval cache holds documents for retrieval by workstations and documents waiting to be written to storage media.</p> <p>When Batch Entry services is ready to commit a document, it moves the document from the batch cache to the retrieval cache. The document tables are then updated and the document is written to storage media.</p>
System Print Cache	System Print cache holds printable objects, such as Apex screens, text files, COLD documents, and bitmap images, waiting to be printed. System print cache is used only for image migration.
Application Print Cache	Application Print cache holds printable objects, defined by applications, waiting to be printed. WorkFlo/Fax uses application print cache for its mailboxes. The application print cache is configured automatically, and there must be exactly one application print cache per Print Service.
Revise Cache	Revise cache is NOT SUPPORTED in this release.
Fill-in Cache	Fill-in cache is NOT SUPPORTED in this release.
Folder View Cache	Folder View cache is NOT SUPPORTED in this release.

Minimum Allocation (%)

This field contains the minimum percentage of the total physical cache space that should be reserved for the logical cache you are setting up. This amount of space is always available for the cache, which also means that no other caches can use this space.

The minimum and maximum percentages assigned to the retrieval cache must be equal.

Maximum Allocation (%)

This field contains the maximum percentage of the total physical cache space that should be reserved for the logical cache you are setting up. The cache cannot use any more space than you allocate with this value.

You must not specify 0 as the maximum percentage for a cache, even if you do not plan to use the cache. (This requirement is due to internal software dependencies.)

Note For Retrieval cache, the minimum and maximum percentages must be equal. The Maximum Allocation (%) automatically assumes the same value as the Minimum Allocation (%) field.

The Maximum Allocation (%) field for Retrieval cache cannot be edited.

The media sizing tool can help you determine the maximum percentage for each cache. The number in the Percent column can be rounded up and used as the maximum percentage.

The total of maximum percentages can be more than 100 percent. However, this configuration may create situations in

which a cache with a 0 minimum percentage may not have any space available for it.

Locked Threshold (%)

This field contains the percentage of cache (allocated to each cache type) that can be filled with locked documents before the system will stop accepting uncommitted images.

If the number of locked documents exceeds this percentage, you will not be able to scan documents. You will not be able to resume scanning until enough images are written to media to put the number below the locked percentage.

Example: If Batch cache is set with a maximum allocation of 50% out of a total cache of 10GB, then a 90% threshold would be triggered when the Batch cache reached 4.5GB.
(5GB x .90 = 4.5GB)

You should accept the default unless you use overnight prefetching. If prefetching is done, the percentage must be smaller than the Cache threshold write percentage by either 5000 sectors or 10 percent of the retrieval cache, whichever is less.

Daemon Threshold (%)

This field contains the percentage of cache (allocated to each cache type) that can be filled with both unlocked and locked documents before the cache daemon will begin deleting unlocked images.

If the number of unlocked and locked images exceeds this percentage, unlocked images will be deleted until the combined number of images no longer exceeds the percentage.

Example: If Batch cache is set with a maximum allocation of 50% out of a total cache of 10GB, then a 90% threshold would be triggered when the Batch cache reached 4.5GB.
(5GB x .90 = 4.5GB)

You should accept the default unless you use overnight prefetching. If prefetching is done, the percentage must be less than the Cache threshold write percentage by either 10,000 sectors or 10 percent of the retrieval cache, whichever is less.

Write Threshold (%)

This field contains the percentage of cache (allocated to each cache type) that can be filled with both unlocked and locked documents before storage media writes are given a higher priority than storage media reads. Usually, reads have a higher priority than writes.

Example: If Batch cache is set with a maximum allocation of 50% out of a total cache of 10GB, then a 90% threshold would be triggered when the Batch cache reached 4.5GB.
(5GB x .90 = 4.5GB)

You should accept the default unless you use prefetching. If prefetching is done, the percentage must be less than the total retrieval cache size (that is, 100 percent) by either 5000 sectors or 10 percent of the retrieval cache, whichever is less.

ICR Subtab

ICR (Intelligent Character Recognition) is NOT SUPPORTED in this release.

Server Attributes Tab

The Server Attributes tab contains the following fields:

Domain Name

This field displays the Network Clearinghouse domain name. The name is initially created by the setup program when the software is installed. This field is locked and cannot be edited. Go to the System Attributes tab to edit the domain name.

Server Number

The Server Number is the sequential number automatically assigned to each server when the system is configured. For example, the server number of a combined server is 1. This field cannot be edited.

Server Name

The field contains the name of the server whose configuration database you are currently editing.

Server Type

The Server type in this read-only field indicates whether this server is a:

Combined (Root/Index/OSAR) server

Dual (Root/Index) server

Root/OSAR server

Index server

DocLocator server

OSAR server

Application Server

Platform

The Platform listed in this field identifies the type of computer hardware on which the FileNet Image Services is installed.

Platform types include:

IBM RS/6000®

HP Integrity

HP 9000/800

Windows Server

Sun (Solaris)

Use the pulldown menu to modify the platform type.

Services Tab

The Services tab lists the services installed on your system server.

This tab contains the following read-only information:

Server Name

This field displays the host name for the server. The name is initially created by the setup program when the software is installed. This field is locked and cannot be edited. To change the server name, go to the Server Attributes tab.

Batch Services

If this field is checked Yes, it indicates this server is responsible for Batch Services.

To select a different default server, go to the System Defaults tab, and select a new default server from the Batch Services pulldown list.

Cache Services

If this field is checked Yes, it indicates this server is responsible for Cache Services. This service is automatically assigned to any server providing Batch or Print Services.

Print Services

If this field is checked Yes, it indicates this server is responsible for Print Services. Go to the System Defaults tab to select a different server.

WQS Services

If this field is checked Yes, it indicates this server is responsible for WorkFlo Queue Services. Go to the System Defaults tab to select a different server.

SQL Services

If this field is checked Yes, it indicates this server is responsible for Structured Query Language Services. Go to the System Defaults tab to select a different server.

ICR Services

ICR (Intelligent Character Recognition) is NOT SUPPORTED in this release.

WMS Services

If this field is checked Yes, it indicates that this server has Workflo Management Services installed.

System Appl. Services Tab

The System Application Services tab allows you to view and modify system-wide application services parameters located on two subtabs.

Document Services Subtab

This subtab of the System Application Services tab contains the following fields:

Domain Name

This field contains the name of your system's domain. The name shown here is used as the "domain" part of your system's NCH name.

Document Number (low value)

This is the first number in the range of document numbers to be assigned on your system. This value must be 100,000 or greater. The start of the document number range must not overlap the ranges of other compatible systems.

Document Number (high value)

This is the last number in the range of document numbers to be assigned on your system. This value must be greater than the Document number low value, and be 3,999,999,999 or less. The end of the document number range must not overlap the ranges of other compatible systems.

Surface ID (low value)

This is the first number in the range of surface IDs assigned on the system. This value must be 3000 or greater. The start of the surface ID range must not overlap the ranges of other compatible systems.

Surface ID (high value)

This is the last number in the range of surface IDs to be assigned on your system. This value must be greater than the Surface ID low value, and also must be 4,294,967,289 or less.

The end of the surface ID range must not overlap the ranges of other compatible systems.

Pages Per Retrieval

This field contains the number of pages retrieved with each document display request. The maximum allowable value is 300. A smaller number improves system performance. A larger number provides more pages for a user to “browse” through with good response time. The default is 8.

Document Batch Buffer Size

This field specifies the size of the buffer used for fast batch committal. The default value, 80 KB, multiplied by 1024 is the buffer size used. The maximum value is 511 KB. This value applies to all servers with Document Services.

Other Services Subtab

This subtab of the System Application Services tab contains the following fields:

Domain Name

This field contains the name of your system's domain. The name entered here is used as the “domain” part of your system's NCH name.

Delete on Write

This field specifies whether documents are deleted from the page cache after they are written to storage disk.

Click this field to toggle the setting to Yes if you want documents to be deleted after they are written to disk.

Note This option is ignored if the “Fast Batch Breakup” option is turned on.

Fast Batch Breakup

This option provides Image Services with the capability to breakup fast batch objects during the committal process, leaving retrievable document pages in the storage library server’s cache. This allows an image to be retrieved directly from cache after it’s been committed, without having to retrieve it from the optical device or MSAR library. If this option is used, the need to prefetch these documents into cache is eliminated.

If either the Delete On Write option or the Fast Batch Committal option is also turned on, they are ignored and the objects will remain in cache regardless.

If you want to use the Fast Batch Breakup option, turn this feature **ON** by clicking in this field. The default is **Off**.

Note If you have a Cache-only system, this option is ignored.

Fast Batch Committal Breakup First

This option allows documents to be retrievable immediately from the storage library server’s cache after the Fast Batch Committal is submitted.

The order the documents are broken up and written are:

- 1 The storage library server’s cache
- 2 Asynchronously catalogued to the DOCS table in the permanent database and committed to the DOCTABA table in the relational database
- 3 The storage library

To use Fast Batch Committal Breakup First create a touch only trigger file. For unix the file is /fnsw/local/trigger/FBC_breakup_first. For windows the file is <drive letter>:/fnsw_loc/trigger/FBC_breakup_first.

If Fast Batch Committal Breakup First is enabled the following message will appear in the error log:

***** FBC breakup first *****

Note Fast Batch Breakup should be turned on in fn_edit when using this feature.

Optical Disk Read After Write Count

This field specifies how often to do read after write checking for optical disk writes. If the value is zero (default), then no read after write checking is done. If the value is 1, then every write is checked by a read after write. If the value is 5, then every 5th optical disk write is checked with a read after write.

The highest-performance, lowest-reliability setting is 0 (never do a read after write). The lowest-performance, highest-reliability setting is 1 (always do a read after write). After that, as the number gets higher, the performance goes up and the reliability goes down (because you are doing read after write less often).

Click this box to type in a new value.

Checksum

Checksumming is used to verify image integrity. If you suspect hardware problems, checksumming can assist you in pinpointing the difficulty. Checksumming has an impact on system performance, but it provides you with a valuable troubleshooting tool. The available settings are: None, Minimum (the

default setting), or Maximum. To modify this setting, use the pulldown menu.

None

If checksumming is set to None, any checksums (if present) will only be validated by the server during normal committal, at the point where they are written to optical disk. When set to None, some remote FileNet applications, such as Document Entry, will not generate documents with checksums.

Minimum

This is the default setting for this field. The Minimum default value only applies to new installations. Systems that have been upgraded from a previous release maintain their previous checksum setting.

Minimum checksumming (or end-point checksumming) causes a checksum to be calculated as soon as the image data is written to magnetic disk. At that point, the checksum is used to verify that the image is intact. When checksumming is set to Minimum (or Maximum), some remote FileNet applications will automatically generate checksums for documents.

Maximum

Maximum checksumming causes the checksum to be recalculated and checked each time the image data is moved anywhere in the system: within memory, to and from magnetic disk, or to and from storage media.

With maximum checksumming, additional verification is done to insure that a corrupted image in cache is detected before it is written to optical media. (The images written to cache might have been corrupted because of magnetic disk faults.) After the

image is written to cache, it is read into a temporary buffer and compared to the original cache image.

Note When checksumming is set to Maximum (or Minimum), some remote FileNet applications will automatically generate checksums for documents.

Cataloging Enabled

This field specifies whether documents are allowed to be entered into the index database. The default is Yes. Click this box to change the entry. If you mark this box (no), no entries are made to the index database and no index cataloging is performed during the committal phase. In either case, the document indexes are still inserted into the WorkFlo queue if the document class has a WorkFlo queue associated with it.

Dist. Queue Mode

This field specifies whether other items besides the Document ID will be inserted into the WorkFlo queue when committing documents. Click this box to change the entry.

Yes

If you specify Yes, all user indexes whose names and types match fields in the queue will be passed to the respective field, and the document number will be inserted into the first WorkFlo queue field of type document.

No

If you specify No, only the Document ID number to be inserted into the first document type field of the WorkFlo queue is allowed.

Collect Statistics

This field specifies whether Quick Logging statistics will be maintained. Click this box to change the entry. If you check this box (yes), statistics for committals, retrievals, and deletions during system image processing are kept in the /fnsw/local/logs/qlogs/1 directory.

Surface Activity Tracking

This field allows you to monitor optical or MSAR activity on a per surface/per day basis. Click this box to change the entry. This information can be used to help you predict system needs, and which surfaces are good candidates for off-line storage. Use the DOC_tool utility to create the Surface Activity reports.

Export Annotations

This field specifies whether annotations will be copied to a P8 Content Engine system in a Content Federation Services for Image Services environment. The default setting is No.

Yes

If you specify Yes, annotations will be copied to the Content Engine server whenever they are created or updated. Set this field to Yes when the Content Engine system is running P8 4.0 or higher.

No

If you specify No, any new annotations or changes to existing annotations will not be copied to the Content Engine system.

System Defaults Tab

The information on this tab indicates the system-wide services and default devices that have been defined for this FileNet Image Services system.

Domain Name

This field contains the name of your system's domain. The name shown here is used as the "domain" part of your system's NCH name.

Batch Services

This field indicates the name of the server where Batch Services are located on the system. Use the pulldown list to select the server where Batch Services are located.

If no server name is shown, the service is not active anywhere on the system.

Print Services

This field indicates the name of the server where Print Services are located on the system. If no server name is shown, the service is not active anywhere on the system.

WQS Services

This field indicates the name of the server where WQS (WorkFlo Queue) Services are located on the system.

If no server name is shown, the service is not active anywhere on the system.

SQL Services

Indicates whether SQL (Structured Query Language) Services are active on the system. If no server name is shown, the service is not active anywhere on the system.

ICR Services

ICR (Intelligent Character Recognition) is NOT SUPPORTED in this release.

Printer Name

This field contains the name of the system default printer.

To change the system default printer, use the pulldown list to select another printer as the default. To add a new printer, use the Procedures tab. To modify the characteristics of an existing printer, use the Printing/Printers tab.

If no printer names are shown in the pulldown list, no printers have been installed on the system.

Tape Drive Name

This field contains the name of the system default tape drive. The tape drive shown may or may not be the same as the server default tape drive shown on the Tape Drives tab.

To change the system default tape drive, use the pulldown list to select another tape drive as the system default. To add a new tape drive, use the Procedures tab. To modify the characteristics of an existing printer, use the Tape Drives tab.

If no tape drive names are shown in the pulldown list, no tape drives have been installed on the system.

Revise Cache

Revise cache is NOT SUPPORTED in this release.

System Attributes Tab

The System Attributes tab contains the following fields:

Domain Name

This field contains the name of your system's domain. The name shown here is used as the "domain" part of your system's NCH name.

Software Release

This field contains the Software Release number of the current FileNet Image Services software installed on this server. This field cannot be edited.

System Type

This field contains the system type. It is always shown as IS. This field cannot be edited.

System Serial Number

Each Image Services system (domain) requires a System Serial Number (SSN) that not only identifies the specific IS system, but also helps identify all the records stored within the system.

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.

Your system serial number might have been provided to you, but on newer Image Services systems, you are required to construct your own SSN using any combination of numeric digits

that you choose. The valid range of SSNs is 1000 through 2147483646. You can edit this field.

Default Character Set

This field contains the default character set used for indexing.

Former Character Set

If the system has been converted from one character set to another, the Former Character Set indicates the character set previously used for indexing. Normally, the Former Character Set and the Default Character Set are the same.

Network Protocol

This field contains the network protocol that the system currently uses. Only TCP/IP is currently supported.

Protocol Preference

Since only one network protocol is supported, and listed in the Network Protocols field (to the left), that protocol is also listed here as the preferred protocol. This field can only contain the TCP/IP network protocol.

Client Character Set

This field contains the character set used by client workstations. Ideally, the Client Character Set should match the Default Character Set.

Tape Drives Tab

The fields on this tab contain the parameters for the tape drives that are installed on your system. If no tape drives are installed, all fields will be blank.

Server Name

This field displays the host name for the server. The name is initially created by the setup program when the software is installed. This field is locked and cannot be edited. To change the server name, go to the Server Attributes tab.

Tape Drive Type

This field indicates the type of tape drive installed. Use the pull-down menu arrow to change the type of tape drive.

Device Address

This field is not currently used.

Device Name

This is the unique Network Clearinghouse object name for your tape drive (for example, Tape1). The name is created when the tape drive is first added to the system under the Procedures tab.

Default Tape Drive

This field is used to set a tape drive as the default unit for its associated Server Name. Click on the field to toggle the value between Yes and No. Set the field to Yes for the tape drive you want as the default unit.

If only one tape drive is configured on your system, it is automatically designated as the default drive and you will not be able to change this field.

Only one tape drive can be designated as the default on each server. The name of the default tape drive for the entire FileNet system might be different and can be viewed (or modified) under the System Defaults tab.

WorkFlo Mgmt. Services Tab

The WorkFlo Mgmt. Services tab enables you to view and modify parameters of WorkFlo Management Services and Servers that are currently configured on your system.

There are two subtabs, VW Servers and VWServices.

Note Throughout the System Configuration Editor interface, workflow servers and services are referred to as VW Servers and VWServices.

VW Servers Subtab

VW Servers is a subtab of the WorkFlo Mgmt. Services tab.

A VW Server may be added, or deleted, using the appropriate procedure on the Procedures tab. This subtab contains the following fields:

Server Name

This field displays the host name for the server. The name is initially created by the setup program when the software is installed. This field is locked and cannot be edited. To change the server name, go to the Server Attributes tab.

VWService Number

This field displays the VWService number associated with the named WorkFlo Server. This number uniquely identifies the VWService throughout an IS domain. The VWService number is automatically assigned for you, starting with 0.

VW Server Ordinal

This field displays the ordinal number assigned to the named WorkFlo Server. The ordinal numbers are unique within a given

VWService and are automatically assigned for you, starting with 0.

Note A VWService may have more than one server associated with it.

VWServices Subtab

VWServices is a subtab of the WorkFlo Mgmt. Services tab.

An IS domain may have one or more VWServices and each VWService may have one or more WorkFlo servers. A VWService may be added, deleted, or modified by using the appropriate procedure on the Procedures tab. This subtab contains the following fields:

Domain Name

This is the name of the Network Clearinghouse domain where your system is located.

VWService Number

This field identifies the VWService number. This number uniquely identifies the VWService throughout an IS domain. The VWService number is automatically assigned for you, starting with 0.

SQL Server Name

This field identifies the server name of the SQL server that is associated with this VWService.

Procedures Tab

When you need to add or delete a configuration item, such as a printer, the Procedures tab is used. For help running any procedure, click the Help button on the Procedures tab.

After you've completed a procedure, your new configuration values can be viewed (or modified) under the appropriate System Configuration Editor tab.

To run a procedure:

- 1 Click on the procedures tab.
- 2 Click on the procedure you want to run.
- 3 Click Run to begin the procedure.

A series of dialog boxes will prompt you for the information needed. When you complete the information in each dialog box:

Click **OK** to continue

Click **Backup** to return to the previous dialog box

Click **Cancel** to exit from the procedure

- 4 When you have completed making all the changes you want to your configuration, select Exit from the file menu and save your changes.

A new configuration database file is created with the next higher version number.

Note: You must run Task Manager to restart the FileNet software for the changes you made to take effect.

List of Procedures

The following is list of procedures contained on the Procedures tab. If you want to find information on a specific procedure you can go directly

to the page number listed, or if you are viewing this document online, simply click on the procedure you want.

[“Add a Printer” on page 108](#)

[“Delete a Printer” on page 110](#)

[“Automatically Configure Optical Storage Library” on page 110](#)

[“Manually Configure Optical Storage Library” on page 111](#)

[“Delete an Optical Storage Library” on page 112](#)

[“Configure an MSAR Storage Library” on page 113](#)

[“Delete an MSAR Storage Library” on page 114](#)

[“Add an Optical Storage Drive” on page 115](#)

[“Delete an Optical Storage Drive” on page 116](#)

[“Add a Tape Drive” on page 116](#)

[“Delete a Tape Drive” on page 117](#)

[“Set to Site-Control” on page 117](#)

[“Set to FileNet-Control” on page 118](#)

[“Add Relational Database Object” on page 118](#)

[“Delete Relational Database Object” on page 119](#)

*** [“Set Up Required Oracle Datasets on Root/Index Server” on page 119](#)**

*** [“Deconfigure Oracle Datasets on Root/Index Server” on page 120](#)**

*** [“Set Up Required Microsoft SQL Datasets on Root/Index Server” on page 120](#)**

*** [“Deconfigure Microsoft SQL Datasets on Root/Index Server” on page 121](#)**

- * [**“Create an Optional Relational DB Dataset” on page 122**](#)
- * [**“Delete an Optional Relational DB dataset” on page 123**](#)
 - [**“Add an Additional Dataset” on page 123**](#)
 - [**“Delete an Additional Dataset” on page 124**](#)
 - [**“Add a Peer System” on page 124**](#)
 - [**“Remove a Peer System” on page 125**](#)
 - [**“Add an Optional Logical Cache” on page 125**](#)
 - [**“Delete an Optional Logical Cache” on page 126**](#)
 - [**“Add an Application Server” on page 126**](#)
 - [**“Delete Server” on page 127**](#)
 - [**“Add a Service to a Server” on page 127**](#)
 - * For FileNet-controlled Oracle Only
 - [**“Delete a Service from a Server” on page 128**](#)
 - [**“Add a Storage Library Server” on page 128**](#)
 - [**“Add VWService” on page 129**](#)
 - [**“Modify VWService” on page 129**](#)
 - [**“Delete VWService” on page 129**](#)

Add a Printer

To add a printer or fax machine to your system:

- 1 Scroll through the list of the currently supported printers and select the type of printer that you want to add.
- 2 Enter a unique object name for your printer (for example, Printer1).

- 3 Enter your TCP address for the printer.

The TCP address is a four part number. Each part must be a number between 0 and 255 and separated by a period (for example, 135.0.20.91).

- 4 After entering the network address:

Click **OK** to continue

Click **Backup** to return to the previous dialog box

Click **Cancel** to exit from the procedure

- 5 Select paper sizes for the new printer.

This dialog box is used to select paper trays that contain the paper sizes to use. The selection list displays only the supported paper sizes for the type of printer you are adding. Scroll through the list and select the paper sizes you want. Use your mouse button and the Shift or Control key to select more than one tray size.

- 6 Select the trays to use as eject trays for the new printer. The selection list displays only the supported paper trays for the type of printer you are adding to your system. Default is the only selection available with this release.

- 7 Select the Fax Mode resolution to use for the fax machine you are adding: Coarse, Fine, or Both.

- 8 Choose whether to make the new printer or fax machine the default.

Only one printer or fax can be designated as your system default.

Delete a Printer

To delete a printer or fax machine:

- 1 Scroll through the list of system printers and select the one to delete.
- 2 If you delete the default printer, you see this message:

System Default Printer is Set to Null

- 3 If you delete the default printer, you must then go the System Defaults tab and select another printer to be the system default printer.

Automatically Configure Optical Storage Library

An optical storage library must be installed and powered on for the configuration software to access it. Click Run to automatically configure an optical storage library. When the configuration is complete, you can customize default settings in the appropriate System Configuration Editor tabs.

Note: The auto configuration utility is run on the server physically connected to the storage library device. If the storage library is physically connected to a different server, you must manually configure it.

If a library or drive fails to configure automatically for any reason, use the manual configuration procedure.

The following are limitations to the auto configuration procedure.

- FileNet OSARs cannot be automatically configured because they do not have SCSI arms.
- The Hitachi high capacity, backwards compatible optical drive cannot be automatically configured because its product ID is not

unique. The product ID is the same as the non-backwards compatible drive.

- The FileNet MOSAR cannot be automatically configured because the device is not SCSI II compliant.

Manually Configure Optical Storage Library

This procedure is used to manually configure an optical storage library.

CAUTION

There is a known bug when using the Quit button to cancel this procedure. The Quit button (Cancel feature) does not work from any dialog box after entering the storage library number, and before completing the procedure. Clicking the Quit button results in the storage library being added anyway. If this situation occurs, you must delete the storage library using the Delete a Storage Library procedure.

To manually configure an optical storage library on your system:

- 1 Select the optical storage library type.

Using the up and down arrows, scroll through the list and select the storage library type that you want to configure.

- 2 Enter the storage library number.

Select from the list or type in the storage library number.

- 3 Enter the number of storage drives.

Select from the list or type in the number of storage drives you want to configure.

- 4 Select the storage drive type.

Using the up and down arrows, scroll through the list and select the storage drive type that you want to configure.

5 Enter the storage drive position.

Using the left and right arrows, scroll through the list and select the storage drive position. The number you select depends on the drive type you selected earlier.

- For FileNet **Serial** OSAR libraries, the drive positions start at **0**.
- For FileNet **SCSI** OSAR libraries, the drive positions start at **1**.

6 Enter the SCSI Address for the drive.

The SCSI address is usually a four part number with a space in between each part. If the drive is connected to an IBM 5712 or 5736 adapter card, the drive's SCSI address must have five parts.

To determine the exact SCSI address of the drive, enter:

ls /dev/fnsod* (on UNIX servers)

fndev -v (on Windows servers)

Delete an Optical Storage Library

To delete an optical storage library, use the left and right arrows to enter the number of the optical storage library to remove.

To determine the library's number, find the library's name under the Storage Libraries tab, then convert the name to its correlating number (for example, number 0 = Library A, number 1 = Library B, and so on).

Configure an MSAR Storage Library

To configure the MSAR library you will have to know the following information:

- Server name (if more than one server is configured)
- MSAR library type
- MSAR library number
- MSAR surface directory
- Number of drives that should favor writes

- 1 Scroll through the list of servers and select the server to add the storage library to.

Note This dialog box only appears if you have more than one server configured on your system.

- 2 Select the storage library type.
- 3 Enter the storage library's number.

To determine the library's number, find the library's name under the Storage Libraries tab, then convert the name to its correlating number (for example, number 0 = Library A, number 1 = Library B, and so on).

- 4 Enter the MSAR surface directory for the MSAR library. This is the MSAR Creation directory.

Note The MSAR Surface Directory you create here will be listed on the Storage Libraries tab.

- 5 Enter Number of Drives that Favor Writes.

Since MSAR drives are controlled with software only, an MSAR library always has the maximum number of drives (12) available. To increase performance or for other reasons, you may wish to have fewer active drives. This setting allows you to do that.

To increase throughput in the page cache, some drives can be configured to favor write operations. This allows documents to be unlocked and aged more quickly, thereby increasing performance.

The number you select in this box will apply to the drives beginning with drive 1. That is., if you enter 3, drives 1, 2, and 3 will be set to favor writes.

Enter a number, or accept the default 0, and click **Next** to continue.

Note If you want to change this setting later, use Storage Library Control.

Delete an MSAR Storage Library

To delete an MSAR library you will have to know the library's number. This can be determined by looking up the library's name under the Storage Libraries tab and then converting the name to its correlating number (for example. number 0 = Library A, number 1 = Library B, and so on).

After you've deleted the library, your configuration values will be removed under the Storage Libraries tab.

- 1 Click the **Run** button after selecting this procedure on the Procedures tab. The following message appears.

If any MSAR surfaces are still in the library, they should be ejected before deleting the MSAR library. Are you sure you want to delete the MSAR Library now?

- 2 Click **Yes** to continue.
- 3 Scroll through the list of servers and select the server to add the storage library to.

Note This dialog box only appears if you have more than one server configured on your system.

- 4 Enter the storage library's number.

Add an Optical Storage Drive

To add an optical storage drive to an existing library:

- 1 Enter the optical storage library's number.

To determine the library's number, find the library's name under the Storage Libraries tab, then convert the name to its correlating number (for example, number 0 = Library A, number 1=Library B, and so on).

- 2 Select the type of storage drive from the scrolling list.
- 3 Enter the position for the new storage drive in the library.
- 4 Enter the SCSI address for the new storage drive.

The SCSI address can be determined using fndev tool.

Delete an Optical Storage Drive

To delete an optical storage drive from a library:

- 1 Scroll through the list of servers and select the server with the storage drive you want to delete.

Note This dialog box only appears if you have more than one server configured on your system.

- 2 Enter the storage library's number to remove the drive from.
- 3 Enter the number of the drive to remove.

Use the left and right arrows to enter the physical position number for the storage drive.

Add a Tape Drive

To add a tape drive to your system:

- 1 Scroll through the list of servers and select the server that you want to configure with a tape drive.

This dialog box only appears if you have more than one server configured on your system.

- 2 Scroll through the list of the currently supported tape drives and select the appropriate drive type.
- 3 In the space provided, enter a unique object name for the tape drive you are adding.

- 4 Choose whether to make the new tape drive the default for the server.

Only one drive can be designated as your default server tape drive.

- 5 Enter the tape drive device path in the space provided.

This dialog box only appears if you have more than one server configured on your system.

- 6 Choose whether to make the new tape drive the default for the FileNet system.

Only one drive can be designated as your default system tape drive.

Delete a Tape Drive

To delete a tape drive, select the name of the drive you want to delete from the scrolling list.

If the tape drive you delete was the system default tape drive, you must go to the System Defaults tab and select another tape drive to be the system default. Your system must have a default tape drive.

Set to Site-Control

A site-controlled database is an existing RDBMS (Oracle or MSSQL Server instance) which is not owned or operated by the FileNet IS software.

To change from a FileNet-controlled database to a site-controlled database, select **Set to Site-Control** from the list of procedures and click **Run**.

Set to FileNet-Control

A FileNet-controlled database is a RDBMS (Oracle or MSSQL Server instance) which is owned or operated by the FileNet IS software.

To change from a site-controlled database to a FileNet-controlled database, select **Set to FileNet-Control** from the list of procedures and click **Run**.

Follow the subsequent prompts as they appear.

Add Relational Database Object

To add a relational database object select or enter the following information in the procedure dialog box.

Note You can also use this procedure to modify the Database Reconnect settings, or to turn off the feature. The Database Reconnect feature is described in the IS System Administrator's Handbook.

- 1 Select the server where you want to add the relational database (RDB) object.

Note If only one server is configured on your system, this prompt does not appear.

- 2 Enter the name that you want to use for the RDB object.

Note If you are modifying DB reconnect settings, you can enter **db_reconnect_disabled**, **db_reconnect_timeout**, or **db_reconnect_interval**. To modify all three of these settings, you must run this procedure three times.

- 3 Enter the location of the RDB object.

Note If you are modifying DB reconnect settings, enter the appropriate numeric value for the setting you want to modify:

db_reconnect_disabled	1 (disabled) or 0 (enabled)
db_reconnect_timeout	nn (default is 300 seconds)
db_reconnect_interval	n (default is 5 seconds)

To modify all three of these settings, you must run this procedure three times. When you finish, exit from **fn_edit** and run **fn_build -a** to put the new values into effect.

The combination of object type, record type, name, and location must be unique or you will receive a warning message to re-enter the information.

Delete Relational Database Object

To delete a relational database object:

- 1 Select the name of the RDB object that you want to delete.
- 2 Select the type of RDB object that you want to delete and click Next.

After you have deleted the RDB object, the configuration values will be removed from the Relational Databases tab/RDB Objects subtab.

Set Up Required Oracle Datasets on Root/Index Server

To set up an Oracle dataset on the Root/Index server:

- 1 Enter the Oracle database path.

The default path for the dataset automatically displays in this dialog box. You can edit the path if needed.

- 2 Enter the database size in megabytes.

The minimum database size for the new database is displayed in the dialog box. Use the left and right arrows to select the amount of space you want for the dataset.

- 3 Enter the Oracle redo path.

Oracle requires two redo logs. The default path for the redo log displays automatically in this dialog box. You can edit the path if needed.

- 4 Enter the redo log size in megabytes.

The minimum size for the redo log is displayed in the dialog box. Use the left and right arrows to select the amount of space you want for the redo log.

Note This procedure only appears if you have an Oracle RDBMS.

Deconfigure Oracle Datasets on Root/Index Server

To deconfigure an Oracle dataset, click the Run button. The Oracle database and redo logs will be automatically removed. Go to the Datasets tab to verify that the Oracle Dataset has been deconfigured.

Note This procedure only appears if you have an Oracle RDBMS.

Set Up Required Microsoft SQL Datasets on Root/Index Server

To set up an Microsoft SQL dataset on the Root/Index server:

- 1 Enter the Microsoft SQL database path.

The default path for the dataset automatically displays in this dialog box. You can edit the path if needed.

2 Enter the database size in megabytes.

The minimum database size for the new database is displayed in the dialog box. Use the left and right arrows to select the amount of space you want for the dataset.

3 Enter the Microsoft SQL redo path.

Microsoft SQL requires two redo logs. The default path for the redo log displays automatically in this dialog box. You can edit the path if needed.

4 Enter the redo log size in megabytes.

The minimum size for the redo log is displayed in the dialog box. Use the left and right arrows to select the amount of space you want for the redo log.

5 Enter the Microsoft SQL temp space path. The default path for the temp space file displays automatically in this dialog box. You can edit the path if needed.**6** Enter the Microsoft SQL temp space size in megabytes. The minimum size for the temp space file is displayed in the dialog box. Use the left and right arrows to select the amount of space you want for the temp space file.

Note This procedure only appears if you have an MSSQL Server RDBMS.

Deconfigure Microsoft SQL Datasets on Root/Index Server

To deconfigure an Microsoft SQL dataset, click the Run button. The Microsoft SQL database and redo logs will be automatically removed.

Go to the Datasets tab to verify that the Microsoft SQL Dataset has been deconfigured.

Note This procedure only appears if you have an MSSQL Server RDBMS.

Create an Optional Relational DB Dataset

To create a new dataset:

- 1 Select the name of the server where you want to add the dataset from the list displayed.

This dialog box only appears if you have more than one server configured on your system.

- 2 Select the type of dataset that you want to add from the list displayed.

If you create an Oracle User Database, you must also create Oracle temporary data and rollback segments.

- 3 Accept the default dataset path or enter a new path.

- 4 Enter the dataset size in megabytes.

A message displays to remind you to run **fn_util updatetdb** on the system where the new dataset resides. This is necessary to implement the changes you have just made.

- 5 After you finish your configuration edits, exit the System Configuration Editor and save your changes.
- 6 As fnsu user, run the **fn_util updatetdb** command at the command prompt.

Delete an Optional Relational DB dataset

To delete an optional relational DB dataset:

- 1 Scroll through the list of servers and select the server that has the optional relational DB dataset you want to delete.

This dialog box only appears if you have more than one server configured on your system.

- 2 Scroll through the list of dataset choices and select the dataset you want to delete.

Only one dataset can be selected at a time. If only one dataset is configured on the server you selected above, this dialog box does not appear.

Add an Additional Dataset

To add another dataset:

- 1 Scroll through the list of servers and select the server where you want to add the additional dataset.

This dialog box only appears if you have more than one server configured on your system.

- 2 Scroll through the list of available dataset choices and select the appropriate dataset.
- 3 Accept the displayed default directory for the dataset or edit the path-name.
- 4 Enter the dataset size in megabytes.

Use the arrows to select the amount of space you need for the dataset. The default size for the new dataset is displayed in the window.

Run “fn_util updatertdb.”

A message displays to remind you to run **fn_util updatertdb** on the system housing in order to implement the change you are making.

- 5 After you finish your configuration edits, exit the System Configuration Editor and save your changes.
- 6 As **fns** user, run the **fn_util updatertdb** command from a command prompt.

Delete an Additional Dataset

- 1 Scroll through the list of servers and select the server that has the additional dataset you want to delete.

This dialog box only appears if you have more than one server configured on your system.

- 2 Scroll through the list of dataset choices and select the dataset you want to delete.

Only one dataset can be selected at a time. If only one dataset is configured on the server you selected above, this dialog box does not appear.

Add a Peer System

Peer systems are used to represent both the remote and compatible system concepts. A remote system is recognized by its internet address, is accessible via a network, and is usually a recipient for data from a remote entry station (which has no storage library of its own).

A compatible system is set up with a unique range of document and surface IDs. This allows an easy import of documents and media from one system to the compatible system. Compatible systems are usually not on the network and are recognized by their system serial number.

To add a the new peer system:

- 1 Enter the Network Clearinghouse domain name of the remote or compatible system.
- 2 Enter the system serial number.

This is the serial number of the remote or compatible system (mandatory if you are adding a compatible system).

- 3 Enter the network address for this system.

This is the four part internet address (such as 135.0.20.91) of the remote or compatible system (mandatory if you are adding a remote system).

Remove a Peer System

To remove a peer system from your configuration, scroll through the list of peer systems, select the system you want to remove, and click **OK**.

If only one peer system is configured on your system, this dialog box does not appear.

Add an Optional Logical Cache

To add an optional logical cache to your system, scroll through the list and select the logical cache type that you want to add.

If you select a cache type that already exists on the server, a notification message displays. Click **OK** and select another cache type.

Delete an Optional Logical Cache

This procedure is used to delete an optional logical cache to your system. Click the Run button to continue with this procedure.

After clicking **Run**, scroll through the list and select the logical cache type that you want to delete; then press **Next** to continue.

Add an Application Server

After clicking the Run button to perform this procedure, you will need to enter the following information when prompted:

Server Name

At this prompt, enter the name you want to use for the application server. This name is user defined. It can be whatever you want.

Is This a Windows Application Server?

If you are adding an Application Server to a system that has a UNIX root server, you will see this prompt: "Is this a Windows Application Server?" Answer Yes or No as appropriate for your system.

Note

You will not see the prompt above if you are adding an Application Server to a system that has a Windows root server.

Network Address

The network address must be TCP. The TCP address is a four number. Each part of the address must be a number between 0 and 255 and separated by a period (for example, 135.0.20.91)

Delete Server

To delete a server, select the server you want to delete from the list box and click **OK**.

A message is displayed to warn you that you may be deleting a server that was configured as a system default server. Unless you cancel this operation, the system defaults for the server may be set to null. Since your system requires a default server, go to the System Defaults tab to reset defaults as required.

Add a Service to a Server

Services you can add include:

- Batch Service
- Cache Service
- SQL Service
- WorkFlo Queue Service
- Print Service
- ICR Service (ICR is NOT SUPPORTED in this Image Services release)

Note You cannot modify, or change, the print service that a printer is associated with using this procedure. Instead, you must first delete the printer and then add it again.

To add a service to a server, select these options from the scrolling lists:

- the server where the service will be added
- the service that you want to add
- dataset paths and dataset sizes
- use Fast Batch Committal option? (Y or N)
- the bes_commit process number

If the service you selected to add has already been configured on the server, a notification message displays. Choose another service to add.

Delete a Service from a Server

To delete a service from a server, scroll through the list of servers and select the server that has the service that you want to delete.

If only one server is configured on your system, the dialog box containing the list of servers does not appear.

Select the service that you want to delete and click Next.

If you select a service that is not configured on the server, a warning message appears. Click the Next button and select another service to delete.

Add a Storage Library Server

To add a storage library server to your system:

- 1 Enter the server name.
- 2 Enter the network address.
- 3 Enter the dataset path.

- 4 Enter the dataset size.
- 5 Select whether or not to use the fast batch committal option.
- 6 Enter the number of bes_commit process.

Use the left and right arrows to enter a number for the bes_commit process. You can enter a value from 1 through 4.

Add VWService

The VWService you are adding must be associated with an SQL Service server number.

When you run this procedure, you will need to select a server to run the associated SQL service.

Modify VWService

This procedure is used to modify a VWService. Use this procedure to add WorkFlo Servers to, or delete them from, a VWService. The VWService you are modifying must be associated with an SQL Service server number.

When you run this procedure you will have to select the WorkFlo Management Service you want to modify, and the server(s) for that WorkFlo Management service.

Delete VWService

To delete a VWService, select the VWService from the list (if there are more than one) and click **Next**.

Notices

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

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

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

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

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

Intellectual Property Licensing
Legal and Intellectual Property Law
IBM Japan, Ltd.
1623-14, Shimotsuruma, Yamato-shi
Kanagawa 242-8502 Japan

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

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

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

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

Licensees of this program who wish to have information about it for the purpose of enabling: (i) the exchange of information between independently created programs and other programs (including this one) and (ii) the mutual use of the information which has been exchanged, should contact:

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

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

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

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

Information concerning non-IBM products was obtained from the suppliers of those products, their published announcements or other publicly available sources. IBM has not tested those products and cannot confirm the accuracy of performance, compatibility or any other

claims related to non-IBM products. Questions on the capabilities of non-IBM products should be addressed to the suppliers of those products.

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

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

COPYRIGHT LICENSE:

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

Trademarks

IBM, the IBM logo, and ibm.com are trademarks or registered trademarks of International Business Machines Corporation in the United States, other countries, or both. If these and other IBM

trademarked terms are marked on their first occurrence in this information with a trademark symbol (® or ™), these symbols indicate U.S. registered or common law trademarks owned by IBM at the time this information was published. Such trademarks may also be registered or common law trademarks in other countries. A current list of IBM trademarks is available on the Web at “Copyright and trademark information” at www.ibm.com/legal/copytrade.shtml.

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

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

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.

A

- administration tools, access restricted 20
- annotations, export 98
- application server
 - delete 127
- as_conf.g 18

B

- batch committal 83

C

- cache
 - allocation 86
 - definitions 84
 - logical, add optional 125
 - threshold 87
- cataloging 97
- CDB abstract 21
- cdb_migrate 19
- checksumming 95
- compatible system 55
- configuration database
 - remote access 18
 - schema updates 19

D

- database, MKF 47
- datasets
 - add additional 123
 - create new 122
 - delete additional 123

- delete optional RDB 123
- file size 44
- modify 44
- Oracle, deconfigure 119, 120
- Oracle, setup 119, 120
- view 44

- devices 19
- document services 92

E

- export annotations 98

F

- fn_admin group 20
- fn_build 15, 17
- fn_edit 15, 17, 21
- fn_setup 30
- fn_util 17

G

- GUIs, tailored 27

I

- interface, tailored
 - Visual WorkFlo server 27
 - WorkGroup 27

M

- media writes, scheduling 77
- MKF databases 47

N

network
 address 49
 protocols 102

P

peer system
 add 125
 identify network address 55
 remove 125
performance tuning 56
print_config 18
printer
 add 108
 delete 108
printers 19
procedures
 application server, add 126
 cache, add optional 125
 datasets
 add additional 123
 create optional 122
 delete additional 124
 delete optional 123
 Oracle datasets 119, 120
 peer system
 add 124
 delete 125
 printer
 add 108
 delete 108
 server, delete 127
 service
 add 127
 delete 128

storage drive
 add 115
 delete 116
storage library
 add server 128
 configure automatically 110
 configure manually 111
 delete 112
tape drive
 add 116
 delete 117

Q

quick logging statistics 98

R

remote system 56

S

schema updates, CDB 19
server
 add service 127
 attributes 89
 processes 57
 services 90
service, delete 128
storage drive
 add 115
 delete 115
 modify 53
 view 52
storage library
 add server 128
 configure automatically 110
 configure manually 111

- delete 112
 - view 50
- surface activity tracking 98
- system
 - attributes 101
 - defaults 99
 - file 18
 - parameters 56
 - processes 56
- System Configuration
 - tabs 28

T

- tape drive
 - add 116
 - delete 116
 - parameters 102
- Task Manager 16

V

- Visual WorkFlo, tailored interface 27

W

- WorkGroup, tailored interface 27



Product Number: 5724-R95

Printed in USA

SC19-3323-00

