IBM FileNet Image Services
4.1 and 4.1.1

Release Notes

GC31-5578-06

IBM FileNet Image Services
4.1 and 4.1.1

Release Notes

GC31-5578-06

Note
Before using this information and the product it supports, read the information in "Notices" on page 77.

This edition applies to versions 4.1 and 4.1.1 of IBM FileNet Image Services (product number 5724-R95) and to all subsequent releases and modifications until otherwise indicated in new editions.

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Contents

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Revision log

Date	Revision
08/09/11	**Added information about** • Fn_setup_rdb -u • Support for IBM DR550 Tape Behind
05/19/10	**Edited information about** • Multiple concurrent write surfaces • Fn_snmpd warning message about the /etc/snmpd.conf file
06/08/09	**Added information about** • UNIX 2038 bug • Documentation does not reflect the recent changes to: o Maximum value for Document Buffer Count o Maximum Value for Directory Buffer Count o Default value for Directory Buffer Count • Remote Desktop (Terminal Services) **Removed information about** • Non-support of Microsoft Terminal Services
02/27/09	**Added** • "What's new" sections • A note to the existing known issue about the optional cor_backoff_config configuration file • 748247 – Oracle known issue • 751215 – Enhanced document security known issue • 788044 – A ddexim import error on DB2 9.5 when the code page is set to Unicode known issue • A "Resolved in 4.1.1.4-IS-FP004" section with one resolved defect: o **555628 – AIX 64-bit systems and a phantom SCSI optical device** **Updated** • Information about the SysV shared memory address allocation conflict **Removed the following known limitations** • IBM 5712 PCI-X Dual Channel Ultra 320 SCSI (LVD/SE) adapter for AIX • HP-UX library

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Date	Revision
	Moved the following known issues to the "Resolved known issue" section • 746639 – Query recovery requires user intervention after a database loses connection • 756925 – Installer removes the /fnsw/hfp directory • Updates for the IBM FileNet Microsoft Cluster Server Installation and Upgrade Procedures for Windows Servers document o 746376 – Update Microsoft SQL Server 2000 remote access content o 746378 – Obsolete the "Enable Autostart IS Processes Option" procedure and the "Enable Autostart IS Processes Option" procedure o 746379 – The "Set SQL Environment Variable" procedure applies only to Microsoft SQL Server 2000 o 746380 – Add steps to the "Create Configuration Database with a Microsoft SQL Server Relational Database" procedure and the "Test Cluster Server Operation – Move Control of Cluster Service Node 2" procedure • Updates for other documentation o 661700 – Updated FileNet Users and Groups tip in the IBM FileNet Image Services Installation and Configuration Procedures for Windows document o 744182 – Remove note about IS 4.1 not support Solaris 10 Zones from the IBM FileNet Image Services Installation and Configuration Procedures document and the IBM FileNet Image Services Upgrade Procedures document o 745118 – Add fn_oracle setquota information to the IBM FileNet Image Services Installation and Configuration Procedures document
10/07/08	Added a "Resolved in SCR 329304" section with one resolved defect: • 761985 – initfnsw -y stop Updated the "Documentation" known issues section to the "Documentation updates". Topics listed in "Documentation updates" section are known issues whose solutions are also updates for documentation. Added two new "Documentation updates": • 773279 – /etc/initab file and /etc directory in new installations on AIX/6000 • 774310 – Invalid license data on Windows Server Added known issue associated with the following independent software vendor: • Windows Added two topics under What's new for 4.1.

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Date	Revision
08/09/11	**Added information about** • Fn_setup_rdb -u • Support for IBM DR550 Tape Behind
07/17/08	Added the following known issues: • 746639, 747822, 748888, 751354, 756664, 756925 Added the following third-party known issue: • Oracle • Windows Vista Added “What’s new” topics for IS 4.1.1.1 • Edited content for Setup Adaptec SCSI Adapters known issue.
02/19/08	Added a “What’s new” topic for IS 4.1.1.1. Added the following known issues: • 661700, 744182, 746376, 746378, 746379, 746380, 746746, 747401, 749928
01/08/08	Added new features for 4.1.1. Added third party known issues: • eProcess 5.1 and 5.2 • HP Integrity servers/Ultra adapter Added the following known issues: • 391476, 393321, 663405, 744924, 745035, 745118 Updated the “Resolved known issues” section: • 339576, 339663, 339898, 375816, 376692, 378734, 662225, 664663, 553574, 554456, 660720, 662819, 661047, 664793
06/29/07	Initial release.

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Introduction

This release notes document provides information about the 4.1 and the 4.1.1 releases of IBM® FileNet® Image Services (IS), Image Services Toolkit, and Image Services Remote Admin Console, and has the following major topics:

- **What's new** – Describes new features in the various release of IS.
  - What's new in 4.1.1.5
  - What's new in 4.1.1.4
  - What's new in 4.1.1.3
  - What's new in 4.1.1.2
  - What's new in 4.1.1.2
    - **Known limitations** – Describes known limitations.
    - **Known issues** – Lists and describes known product and documentation issues.
    - **Resolved known issues** – Lists and describes known product and documentation issues that have been resolved. They are sorted according to the fix pack number in which they were fixed.
    - Image Services Toolkit
  - What's new in 4.1.1– Describes new features in the various release of ISTK.
  - Known limitations – Describes known limitations.
    - Image Services Remote Admin Console
  - What's new in 4.1.1 Describes new features in the various release of RAC.

Access IBM FileNet documentation and fix packs

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. For IBM FileNet P8 products, select **Image Services**.
3. From the Product Support page, click **Documentation**, and then click **Image Services** under **Product Documentation**.
4. Click the icon in the appropriate release column to access the document you need.

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Fix packs

To access compatibility matrices and fix packs for IBM FileNet products:

5. Navigate to the Information Management support page (www.ibm.com/software/data/support).
6. Select **FileNet Product Family**.
7. Click **Download** under “FileNet Product Family support”.
8. From the FileNet Product Family support page, search for “fix packs”.
9. From the search results page, click **IBM FileNet Fix Packs**.
10. From the IBM FileNet Fix Packs page, click a product name.
11. Click the product version number to start the fix pack download.

Contact customer support

For information about contacting customer support:

1. Navigate to the Information Management support page (www.ibm.com/software/data/support).
2. Select **FileNet Product Family** from the "Select a category" list.
3. From the FileNet Product Family support page, click **View all Flashes**, locate and then select **How to get support for IBM FileNet products**.

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What's new in 4.1.1.10

Fn_setup_rdb -u needs to be run as part of the installation instructions for installing IS 4.1.1 SP1 FP10. For more information, see the Image Services 4.1.1 fix pack 010 readme.

What's new in 4.1.1.5

DB2 v 9.5 support

As of IS 4.1.1.5, IS supports:

- DB2® v9.5 client

sgs -s utility option

A -s option was added to the sgs (system get status) tool.

The –s option lists the SDS devices attached to an IS server. (The sgs tool lists system configuration settings from the latest conf_db file for UNIX-based IS servers).

Example: (root)/> sgs -s

SDS devices configured on this system:

Domain	SDS ID	SDS name	SDS Lib
1	3	hc_ibm57d2r	SDSwHCAP
1	4	ss_ibm57d2r	SDSwSunSAR
1	5	cen_57	SDSw_centera

docfetch utility options

New options were added to the docfetch tool, which retrieves an image and place it into page cache.

[-s] Synchronous retrieval. The docfetch tool immediately retrieves the image and new commands are not accepted until after the image is retrieved.

[-n] Notification. Uses the UDP notification method (DOC_is_migrated()/TPI/ds_notify) to determine if retrievals have been completed. By default, a cache polling method is used.

[-a] Alternate page cache. <cache name>:<domain>:<organization>

Alternate page cache option cannot be used with the verify (-v) option

[-r] Descending. Changes the direction in which images are retrieved. By default, images are retrieved in ascending order.

[-d] Debug mode. Debug mode cannot be used with the list (-l) option except with prefetch.

[-l] List. Lists the doc_id successfully processed. Minimizes information to screen per document.

[-v] Verify. Verifies that documents can be retrieved from a storage device (MSAR/optical/SDS). If a document is stored on a storage device, the document will be removed from cache before it is retrieved. If the document is not in cache before it is retrieved by the docfetch tool, the document will be removed from cache after it has been successfully retrieved.

The synchronous mode is always used with the -v option.

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If a problem occurs when the docfetch tool tries to retrieve a document from a storage device and the retrieval has been successfully redirected, the docfetch tool will not be prompted to stop running. The initial device will fail and generate elogs. After running the verification option, review the elogs by using the vl command. A counter is maintained for documents that are stored in an SDS unit and either the SDS units read priority is set to high or there are no MSAR or optical surfaces associated with the document. This counter will be displayed after the docfetch tool finishes running and indicates the number of read requests that were initially directed to SDS.

[-k] Keep in cache. Keeps the document in cache when the verify (-v) option is used.

[-p] <first page> <end page> This option can be used with only one document. It cannot be used with the -v option.

[-f] Document ID list file

{<doc_id> [-p <first page> <end page>] | <first doc>-<last doc> | -f <file>}

For Multiple Storage Server systems, the local document page cache will be used.

Single document range or doclist file must be selected. When using a range, no spaces should used between the first document ID, the delimiter, and the last document ID (for example<first doc>-<last doc>). Also, if the document is not in cache, the associated surfaces are out of box, and SDS unit is Disabled, when the debug (-d) option is used in conjunction with prefetch, a message will be displayed (DOC_err_intervention_required) and the prefetch will not be performed on that document.

CSM_tool utility option

As a result of an issue reported in APAR PJ35508, a new statistics option was added to the CSM_tool that displays the number of free space block segments by various sizes, in a histogram format.

The new command is "stat free" and displays the following information:

CSM_tool> stat free

Physical space summary

reserved_sectors 2048000 locked_sectors 0 inuse_sectors 185705

max_cache_sectors 2047999 locked_objects 0 inuse_objects 785

free_sectors 1862294 largest_fs_blks 1858297, 1042, 1041, 955, 844

Free_space histogram

Range: >	1GB >	100MB >	10MB >	5MB >	1MB >	500kB >	100kB >	0kB
	>1000000 >	100000 >	10000 >	5000 >	1000 >	500 >	100 >	0
Counts:	1	0	0	0	2	2	1	0
Av Sz:	1858297	0	0	0	1041	899	115	0
% Free:	100	0	0	0	0	0	0	0

Counts are not cumulative. Each number is the count greater or equal to the column heading, and less than the previous column.

Bucket range is in 1024 byte block counts.

The descriptive titles are approximate, the number shown below is the exact block size boundary for the number of blocks.

<CSM_tool>

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911 utility

The CSM_tool –s "stat free" command was added to the 911 tool.

CSM_tool> stat free

The CSM_tool –s "stat free" command is implemented only when a trigger file is created prior to running the 911 command.

UNIX /fnsw/local/trigger/csm_stat_free

Windows \fnsw_loc\trigger/csm_stat_free

Having the trigger file in the CSM_tool> state free command can give the 911command up to an additional ten minutes to complete execution, depending upon the total size of cache that is configured on the server.

If the trigger file is not created, the default option "stat long" is used.

sds_import utility log update

The sds_import utility now logs the list of imported Centera clip IDs when executed with the -writelist flag.

IS documents embedded in Centera BLOBs

IS now embeds documents in Centera BLOBs by default. Embedding documents in Centera BLOBs:

- Increases archiving and retrieval performance because a document and its metadata can be accessed by one I/O instead of two separate I/Os
- Reduces the number of objects that are stored per document on each Centera storage node, thus increasing the amount of storage that is available for other objects

(Reducing the number of objects that are stored on each Centera storage node is especially important when the number of stored objects is either close to or at the maximum number of allowable objects. When the number of stored objects meets the maximum allowed, no more objects can be added even if plenty of space is available.)

You can prevent IS from implementing this new functionality by setting the new DSw_centera_not_embed environment variable.

What's new in 4.1.1.4

As of IS 4.1.1.4, the following changes were added to IS:

MSAR_surf_fixup_14x utility

IS now has a utility that scans MSAR surfaces and fixes problems that were caused by the 14x firmware.

GDM_exim utility modification

The export portion of the GDM_exim utility was modified so that generated *stepname*.def files have BLOB data in its own table space and index data in its own table space.

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Weekly build cycle numbers for fix pack identification

A weekly build cycle number is now included in the hfp_version file, which is located in the /fnsw/hfp directory. With this weekly build cycle number, you can now confirm that the weekly build cycle number retrieved from the getstamps.sh command is the same as or is different than the one from the currently installed fix pack.

ELA timers to monitor performance characteristics of CSM objects

IS now has one timer set for the csm_get_fd() function and one timer set for the in csm_claimpg() function. As a result, you can now view the performance characteristics of CSM objects when you run the perf_mon utility.

What's new in 4.1.1.3

As of IS 4.1.1.3, the following changes were added to IS:

Remote Desktop (Terminal Services)

As of 4.1.1.3, IS supports Remote Desktop (Terminal Services) in console mode.

Database queries

IS database queries now use cursors to retrieve a result set.

CFS-IS federation of closed documents

IS now supports CFS-IS federation of closed documents.

Oracle RAC for Oracle 10g

IS now supports Oracle RAC for Oracle 10g.

What's new in 4.1.1.2

The DR550 Tape Behind feature was qualified on Image Services 4.1.1 fix pack 002.

For information, see the , IBM DR550 product documentation.

What's new in 4.1.1.1

IBM LVD/SE SCSI adapter

Support for IBM 39R8743 single port LVD/SE SCSI adapter on IBM xSeries Windows 2003 servers.

The IBM 39R8743 is a single port LVD/SE SCSI adapter that goes in IBM xSeries Windows 2003 servers. The adpu320.sys driver that comes installed on the server is sufficient for this adapter. The driver can be updated with the latest driver from the Ultra320 family download section of the Adaptec Web site: "Adaptec Ultra320 SCSI Drivers v7.0.0.6 for Windows Server 2003 and XP, Microsoft certified." This adapter does not support optical storage libraries operating in LUN mode.

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Adaptec 29320ALP-R LVD/SE SCSI adapter

Support for Adaptec 29320ALP-R is a single port LVD/SE SCSI adapter that goes in Windows 2003 servers. The Adaptec 29320ALP-R is a single port LVD/SE SCSI adapter that goes in Windows 2003 servers. The adpu320.sys driver that comes installed on the server is sufficient for this adapter. The driver can be updated with the latest driver from the Ultra320 family download section of the Adaptec Web site: "Adaptec Ultra320 SCSI Drivers v7.0.0.6 for Windows Server 2003 and XP, Microsoft certified." This adapter does not support optical storage libraries operating in LUN mode.

Native support for the IBM 3996 optical drive

The IS 4.1.1.1 fix pack introduces full native support for the IBM 3996 optical drive. The IBM 3996 is recognized as a separate library that can be automatically and manually configured using the IS "fn_edit" tool. It is also separately identified as a library type in the IBM FileNet Storage Library Control application.

Plasmon UDO2 drives

The IS 4.1.1.1 fix pack introduces support for the second generation Plasmon UDO drives, UDO2. These drives have a capacity of 30 GB per side, for a total of 60GB per surface.

NOTE IS does not support mixed drive installations with first generation and second generation drives (UDO1/UDO2) in the library at the same time.

Plasmon Gx 158 optical library

The IS 4.1.1.1 fix pack introduces support for the Plasmon Gx 158 optical library. This is a new mid-range unit in the Plasmon Gx product line. It is similar to the Gx 174, 2 drive library and the Gx 166, 4 drive library models. The difference is that this library has 158 slots and 6 drives.

AIX 6.1 operating system support

The IS 4.1.1.1 fix pack qualifies support for the AIX 6.1 operating system. Before you install IS on an AIX 6.1 system, see the following topics in the Known Limitations section:

- "Correcting the location of the libMrm.a file" on page 37.
- "Install Oracle Patch to support AIX 6.1" on page 37.

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Enhancements to Integral Single Document Storage (SDS)

The IS 4.1.1.1 fix pack includes the following enhancements to Integral SDS:

New SDS devices support

IS Integral SDS now provides full support for EMC Centera and IBM DR550 devices, and supports a new separate SDS connector library for any Hitachi storage device that uses the Hitachi Content Archive Platform (HCAP) interface. Specifically, Integral SDS now supports the following SDS devices on all IS platforms, except as noted:

- EMC Centera
  with the SDSw_centera connector library
- IBM TotalStorage® DR550
  with the SDSw_tivoliDR connector library
- NetApp SnapLock
  with the SDSw_snaplock connector library
- Sun StorageTek 5320
  with the SDSw_SunSAR connector library
- Hitachi Content Archive Platform (HCAP)
  with the SDSw_HCAP connector library

NOTE HP Integrity servers do not support EMC Centera or IBM DR550 devices.

New sds_import utility

The sds_import tool can:

- Import data to an SDS repository
- Restore data to an SDS repository for disaster recovery
- Import an SDS repository to another IS system

Integral SDS with multiple storage library servers support

Integral SDS is now compatible with IS systems that include multiple storage library servers. Each storage server contains the descriptions of all the SDS devices, so when you configure the SDS unit, the configured repository location string is used on all storage servers.

Integral SDS with remote system committal support

Integral SDS can now be configured in a remote committal environment.

For more information about the Integral SDS new features, see the *IBM FileNet Image Services Integral SDS Procedures and Guidelines*. To download this manual from the IBM support page, see "Access IBM FileNet documentation and fix packs" on page 11.

Microsoft SQL Server 2005 in an Microsoft Cluster Server environment

The IS 4.1.1.1 fix pack provides support for running IS 4.1.1.1 software on servers with Microsoft® SQL Server 2005 software in a Microsoft Cluster Server (MSCS) environment. Previous releases support this configuration with MS SQL Server 2000 software.

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What's new in 4.1.1

MSSQL Server 2005 (IS)

IS 4.1.1 supports Microsoft SQL Server 2005.

Single document storage

Single Document Storage supports a number of storage devices. For more information, see the "*IBM FileNet Image Services Integral Single Document Storage Procedures and Guidelines*". To download this document from the IBM support page, see "Access IBM FileNet documentation and fix packs" on page 11.

WORM surfaces with MSAR

IS 4.1.1 includes support for WORM surfaces on MSAR storage systems. You can set a surface or file to "Read only" mode to prevent further updates to the file. In addition, WORM capability is enforced at the file open level for HCAP or SnapLock storage devices.

HP servers and Ultra320 SCSI adapter

IS 4.1.1 has been successfully tested for compatibility with the HP AB290A Ultra320 SCSI Adapter card on HP 9000 and HP Integrity servers.

64-bit AIX data transfer

On servers running a 64-bit AIX 5L or AIX 6 operating systems, the data transfer process (dtp) count is extended to two (2) dtp per optical drive. Increasing the dtp number can improve system stability on 64-bit AIX systems when running in LUN mode and when running on multi-CPU hardware.

To change the dtp count, use the IS System Configuration Editor (fn_edit). Select the Performance Tuning tab, and then select the Server Processes subtab.

The restriction of 1 dtp per drive still exists on 32-bit AIX systems.

AIX Wide SCSI Addressing

AIX now supports Wide SCSI Addressing. Previously narrow addressing was supported and this limited the SCSI Ids to a range of 0 to 7. Now SCSI IDs of devices can be in the range of 0 to 15.

Items to consider with Wide SCSI Addressing are:

Wide SCSI Addressing allows wide SCSI Devices to have their SCSI ID address range set from 0 to 15. Some devices may reference their SCSI ID as 0 to 9 and 10 to 15 others as 0 to 9 and A to F. An in hexadecimal is the same as 10 in decimal, and so forth.

Only devices that are wide can use the higher wide addresses. Narrow devices are still bound to the range of 0 to 7.

With Wide SCSI Addressing, it is possible to have 15 devices on the same SCSI Bus. Consequently, the number of SCSI Controllers can be reduced. However, with a large number of devices on the bus, there will be an upper limit as to how many drives can effectively transfer data at one time.

Wide devices are the Plasmon LD_8100, LD_8600 RapidChanger, and the UDO1 and UDO2 drives. The UDO 1 and UDO 2 drives are in Plasmon Gx and enterprise, HP-UX and IBM 3996 libraries. So, the drives can have SCSI ids from 0 to 15. Most library controllers are narrow in design, so the library SCSI id may be limited to a range of 0 to 7 but respond correctly in a wide environment.

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This change in the addressing does not affect the throughput of data transfers of individual devices.

The SCSI ID of the host adapters should remain in the 0 to 7 range. Setting a SCSI ID of the adapter to 8 or above results in the adapter not being able to talk to narrow library controllers. Also, the highest priority SCSI ids are 7, 6, 5, and so on. Host adapters should continue to be given a high priority.

German resource and error message files (IS, RAC)

German versions of the resource files and error message text have been updated for this release.

If the LANG environment variable is set as listed below, the server applications will use the German localized resource files and the ERM shared library will access the German error message file.

AIX	de_DE
HP-UX	de_DE.iso88591
Solaris	de
Windows®	DEU

French resource files (IS, RAC)

French versions of the resource files have been updated for this release.

If the LANG environment variable is set as listed below, the server applications will use the French localized resource files.

AIX	fr_FR
HP-UX	fr_FR.iso88591
Solaris	fr
Windows	FRA

NOTE French error message text is not available.

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What's new in 4.1

Adaptec 29320LPE SCSI adapter

IS 4.1 announces support for the Adaptec 29320LPE SCSI adapter, which is a single port PCI Express LVD/SE SCSI adapter that is installed in Windows 2003 servers.

Install or update the latest driver from the Adaptec Web site: "Adaptec" Ultra320 SCSI Drivers v7.0.0.6 for Windows Server 2003 and XP, Microsoft certified".

Values for the Adaptec 29320LPE SCSI Adapter

SCSI*Select* Options	Value Description	Value
SCSI Bus Interface Options	SCSI Controller ID	7
SCSI Bus Interface Options	SCSI Controller Parity	Enabled
SCSI Bus Interface Options	SCSI Controller Termination	Automatic (unless this is a HA environment. If HA then Disable.)
SCSI Device Configuration Options – BBS Systems Only	Select Master SCSI Controller	Disabled
SCSI Device Configuration Options – BBS Systems Only	Boot SCSI Controller	Disabled
SCSI Device Configuration Options – Non-BBS Systems Only	Select Master SCSI Controller	First
SCSI Device Configuration Options – Non-BBS Systems Only	Boot SCSI Controller	Disabled
SCSI Device Configuration Options – Non-BBS Systems Only	Boot SCSI ID	0
SCSI Device Configuration Options – Non-BBS Systems Only	Boot LUN Number	0

Advanced Configuration Options	Reset SCSI Bus at IC Initialization	Enabled
Advanced Configuration Options	Display <Ctrl><A> Messages during BIOS Initialization	Enabled
Advanced Configuration Options	Extended INT 13 Translation for DOS Drives > 1 Gbyte	Disabled
Advanced Configuration Options	Post Display Mode	Verbose

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Advanced Configuration Options	SCSI Controller INT 13 Support	Disabled; Scan Bus
Advanced Configuration Options	Domain Validation	Disabled
Advanced Configuration Options	Support Removable Disks Under INT 13 as Fixed Disks	Disabled
Advanced Configuration Options	BIOS Support for Bootable CD_ROM	Disabled
HostRAID Options	HostRAID	Disabled

SET THESE VALUES FOR the SCSI Device Ids 0 to 7:

SCSI Device Configuration Options	Sync Transfer Rate (MB/sec)	160 MB/sec.
SCSI Device Configuration Options	Packetized	No
SCSI Device Configuration Options	QAS	No
SCSI Device Configuration Options	Initiate Wide Negotiation	Yes
SCSI Device Configuration Options	Enable Disconnection	Yes
SCSI Device Configuration Options	Send Start Unit Command	No
SCSI Device Configuration Options	BIOS Multiple LUN Support	No
SCSI Device Configuration Options	Include in BIOS Scan	No

ATTO UL5D SCSI adapter

IS 4.1 announces support for the ATTO UL5D SCSI adapter, which is a dual port PCI Express LVD/SE Ultra320 SCSI adapter that is installed in Windows 2003 servers.

Minimum levels supported are:

- BIOS: 2.25
- Firmware: 2/18/2008
- Driver: 3.10

These version and updated versions are downloadable from the ATTO Web site.

The ATTO UL5D SCSI adapter supports optical devices operating in target or LUN mode. In the case of a hardware error, the ATTO UL5D SCSI adapter returns only 20 bytes of Request Sense data.

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Values for the ATTO UL5D SCSI adapter in the ATTO ExpressPCI setup utility (available during boot phase) are under **Adapter Menu > Configure Adapter Channel.** Values must be set for each channel used.

Screen Title	Value Description	Value
Host Adapter Settings	Boot Driver	Disabled
Host Adapter Settings	SCSI Bus Termination	Auto (unless this is an HA environment. If HA then Disable.)
Host Adapter Settings	Initiator ID	7
Host Adapter Settings	SCSI Bus Reset Delay	3 sec.
Host Adapter Settings	Selection Timeout	250 ms
Host Adapter Settings	Quick Arbitrate & Select	No
Host Adapter Settings	Max Single-Ended Sync Rate	20/40

SET THESE VALUES FOR the SCSI Device Ids 0 to 7:

SCSI Device Settings	Disc	Yes
SCSI Device Settings	Tagged	No
SCSI Device Settings	Sync	SyncDT-IU
SCSI Device Settings	Wide	Wide
SCSI Device Settings	Sync Offset	127
SCSI Device Settings	Sync Rate	320 DT
SCSI Device Settings	Enable LUNs	0-7

Installation and upgrades

InstallShield Multi-Platform (ISMP) Installer

The InstallShield Multi-Platform (ISMP) Installer provides automated installation for fresh installs and upgrades of IS 4.1 on all currently supported IS platforms (AIX, Solaris, HP-UX PA-RISC, HP-UX Integrity, and Windows). Upgrades from IS 3.6 and IS 4.1 are also supported.

The ISMP installer supports silent installs and upgrades. ISMP records interactive responses for later playback during silent mode installs.

Uninstalls of the IS software are also supported.

Automated license key installation

In past IS releases, you installed a Software License Access Control (SLAC) Key that was included with the IS software. Beginning with IS 4.1, the installer automatically installs the key.

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Internationalization

German resource and error message files

German versions of the resource files and error message text have been updated for this release.

If the LANG environment variable is set as listed below, the server applications will use the German localized resource files and the ERM shared library will access the German error message file.

DEU	Windows Server
de_DE	AIX
de_DE.iso88591	HP-UX
de	Solaris

French resource files

French versions of the resource files have been updated for this release.

If the LANG environment variable is set as listed below, the server applications will use the French localized resource files.

FRA	Windows Server
fr_FR	AIX
fr_FR.iso88591	HP-UX
fr	Solaris

NOTE French error message text is not available.

Databases

Support for Oracle 10g software

- In addition to support for Oracle 9i release 2, IS 4.1 includes support for Oracle Database 10g release 2 Standard or Enterprise Edition. All new installations of Oracle are site-controlled.
- For Oracle users, IS release 4.1 allows you to separate IS tables and indexes into different tablespaces.
- IS release 4.1 supports Oracle password complexity functionality.

Operating systems

For the latest information on maintenance level testing, see the *IBM FileNet Image Services Compatibility Matrix*. To download this document from the IBM support site, see "Access IBM FileNet Documentation, compatibility matrices, and fix packs" on page 11.

AIX

IS 4.1 provides support for the following AIX releases:

- AIX 5.2 Technology Level 8 and 9
- AIX 5.3 Technology Level 3 and 4

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HP-UX

IS 4.1 provides support for the following HP-UX releases:

- HP-UX 11i v1 (HP 9000 servers)
- HP-UX 11i v2 (HP 9000 servers and HP Integrity servers)

Solaris

IS 4.1 provides support for the following Solaris releases:

- Sun Solaris 9
- Sun Solaris 10

Windows

The IS initialization on Windows servers has been redesigned to conform to Microsoft standards.

IS 4.1 provides support for the following Windows releases:

- Windows 2003 SP1
- Windows 2003 Release 2
- Windows 2003 Release 2 SP2

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Known limitations

Installation and upgrades

Identify media

The format of the checkpoint.osa file was changed as of IS 4.1 so MSAR surface entries can be added to the file. The change caused all of the entries in the file to become longer.

When the software is restarted after it has been upgraded from either IS 4.1or an earlier release, the Identify Media procedure is performed on each storage library that is configured on the server. This must be done so that the file can be rebuilt in the new format.

The Identify Media procedure adds additional time to the upgrade process. The time needed to complete this process depends on the number of storage libraries configured on the server and the number of slots in each library.

Configuration

The setup tool for Windows was not implemented for IS 4.1. Changing SSN, Domain name, WINDOW Event log, IS auto start, Combine/Index setting and Set Drives through the old GUI screens is not supported.

Workaround

This workaround allows you to have the functionality of the old setup tool. It can be run in interactive or non-interactive mode.

Interactive mode

To launch the fn_setup program in interactive mode, start in the c:\fnsw\bin directory and enter the program name ‘fn_setup’ or ‘fn_setup.exe’. The installation paths will be displayed followed by a series of prompts. For each prompt, the default response displayed within the parenthesis is the current configured value or suggested setting if there is no current value. You can 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.

```
C:\fnsw\bin> 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]:
```

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The responses will be summarized as follows and you have the opportunity to save or discard the changes.

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 will be displayed prior to each operation. All updates will be done unconditionally so you will see all the 'Updating …' messages. If you do not choose to 'Reset file permission', then the operation to reset file permission will be skipped and the message 'Changing permission on IS software' will not be displayed. Then the program will exit.

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 IS 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, the following message will be displayed and the program will exit.

fn_setup: Changes are not saved.

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Non-Interactive Mode

For non-interactive mode, the syntax is based on fn_setup on UNIX® with the addition of some new arguments for Windows. All the arguments are optional and can be entered in any order.

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.

The syntax is:

fn_setup –n <NCH server name> -s <SSN> -r <y|n> –e <y|n> -a <y|n> -d -v

where:

-n <NCH server name>	The NCH server name of this server e.g. homer1:FileNet
-s <SSN>	The system serial number of this server
-r <y|n>	Indicates 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
-h	Display this usage
-v	Verbose

For example:

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

fn_setup –e n –d

will display 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 IS license

fn_setup: check log file c:\fnsw_loc\logs\fn_setup\fn_setup.log for any errors.

fn_setup: Done

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Application

Excessive disk swapping

Background jobs can cause excessive disk swapping.

Background jobs such as Import, Find Open Docs and Doc Copy can cause excessive disk swapping, even though fn_edit parameters are set to minimize disk swaps. This is because background jobs circumvent those parameters.

Storage

Optical

MSAR

Erase a “do not use” MSAR surface

If you erase an unlabelled surface that is marked “Do Not Use”, it won’t erase until the next recycle of the IS software. (A recycle removes a “Do Not Use” flag and retries the erase). At that point, the erase does a sequential database search for documents residing on that surface. This is extremely slow for large databases and can take an extended period of time.

Erase an “out-of-sync” MSAR surface

If you attempt to erase an MSAR surface with no active documents on it and the “Do Not Use” flag is set, the erase will terminate and the disk will be ejected.

If you want to erase an out-of-sync MSAR surface, you must recycle the IS software before starting the erase job. The recycle removes the “out-of-sync” flag for a retry.

MSAR families with multiple concurrent write surfaces

A system that has multiple concurrent write surfaces typically writes to only one surface at a time. It uses the other concurrent write surfaces for overflow purposes if a bottleneck occurs when processing write requests for the initial surface.

Additional software tuning might be required to best use the system resources and to eliminate bottlenecks.

200FX jukebox

Product ID C1170A is not in the OSAR contents table for 200FX jukebox. As a result, fn_edit auto-configure of HP200FX will not complete successfully. Therefore, you must manually configure the jukebox.

The jukebox, according to the HP website, should be returning a SCSI ID of C1170F (indicating 4X optical drives) instead of C1170A (indicating 2X optical drives). The 200FX is not a common jukebox. It was never sold by HP but is created with a field upgrade of a 2X jukebox model.

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Operating systems

AIX

After boot/reboot on AIX, FNPoll continues to run for up to two minutes after the system is available for logon. If you attempt to start IS while FNPoll is running, errors will log and the optical libraries will be unusable. Errors logged might include:

2007/06/22 15:00:41.431 133,0,2 <fnsw> fn_trapd (397514) … [SERIOUS]
ARM Can't open Storage Library a (device name='/fnsw/dev/1/osara'), err=ca64000a
2007/06/22 15:00:41.433 133,0,2 <fnsw> fn_trapd (397514) … [WARNING]
Can't get gripper enabled/disabled status on OSAR 'a'

Workaround

On a full-use system, after a boot/reboot of an AIX system, run the following command to determine when FNPoll finishes running:

```
ps –ef | grep FNPoll
```

Once the FNPoll process is not listed in the process listing, you can start IS.

On systems with IS autostart configured, add a 'sleep' to the /etc/rc.initfnsw file to allow enough delay for the devices to be created before IS startup begins. The entry in the /etc/rc.initfnsw file would look like this:

```
# AIX specific processing
if test "$system_type" = "AIX" ; then
 sleep 120
fi
```

Place the "sleep" in the file before the "Start IS" section where 'initfnsw start' is called.

UNIX

Due to a limitation in the UNIX time functions (known as the year 2038 problem or the UNIX millennium bug), you cannot set or extend retention dates in the MKF docs table past the year 2038 on documents that were archived by Image Services Integral SDS because retention values are stored as seconds in the MFK docs table and on the protected storage device (SDS).

Documents and SDS objects that are in the doctaba table and that have retention dates that are beyond the year 2038 will be protected by the retention date because retention dates are stored in the doctaba table as days and not as seconds.

Currently HCAP and SunSAR do not support retention dates beyond the year 2038 bit Snaplock, Centera, and DR550 SDS devices support retention dates past 2038. IBM anticipates that all supported SDS devices will at some point prior to 2038, support retention dates beyond 2038.

Solaris

Ultra320 kernel driver for Solaris 10

When using a Sun PCI-X Ultra 320 LVD/SE dual port (SG-XPCI2SCSI-LM320) SCSI card on Solaris 10, the FNSOD kernel driver fails with numerous optical drives. This is an issue with Sun's mpt driver which is the layer below FNSOD. (Trouble ticket case 65485545).

This is not a problem with any other SCSI adapters on Solaris 10. Other SCSI cards such as Sun X6541A, Sun X6758A, and Paralan P79320 Ultra 320 SCSI cards have the same functionality on Solaris 10 that they had on prior operating system versions.

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Workarounds

- Use a different SCSI card.
- Each time Solaris 10 is rebooted with the reconfigure flag (boot –r), or the /reconfigure file exists on reboot, Solaris 10 will recreated all of the device links. This is typically only used when new hardware is added or changed. Solaris 10 has been shown to consistently create invalid device links on reconfigure reboot with attached HP optical libraries. These invalid device links are associated with device LUNs that do not exist.

The following is a sample list of the /dev directory for optical device fnsod which has an invalid device entry.

```
ls –al /dev/fnsod*

lrwxrwxrwx   1 root     sys          49 May 18 09:46 /dev/fnsod.8,11,3,0 ->
../devices/pci@8,600000/scsi@1,1/SOD@3,0:8,11,3,0

lrwxrwxrwx   1 root     sys          49 May 18 09:46 /dev/fnsod.8,11,4,0 ->
../devices/pci@8,600000/scsi@1,1/SOD@4,0:8,11,4,0

lrwxrwxrwx   1 root     root         49 May 22 11:28 /dev/fnsod.8,11,4,1 ->
../devices/pci@8,600000/scsi@1,1/SOD@4,1:8,11,4,1
```

In this sample case, the device fnsod.8,11,4,1 is an invalid device. You would know this by understanding what devices actually exist on a given system. You can find this information from the control panel on the optical library. In this sample case the device arm is device id 3 Lun 0, and the disk drive is id 4 Lun 0, and id 4 Lun 1 is not a valid device.

To resolve this problem, remove and recreate the device links by hand.

Login with a root user account and type the following commands:

```
# rem_drv fnsod
# rm /dev/fnsod*
# rm /dev/SOD*
# /fnsw/bin/fnsod.install
```

You should see the following output which shows only the correct devices were created.

```
Beginning fnsod.install script
No match
Driver (fnsod) not installed.
No match
-rw-r--r--   1 root     sys         2584 May 22 15:01 /kernel/drv/fnsod.conf
-rwxr-xr-x   1 root     sys       132727 May 22 15:01 /kernel/drv/sparcv9/fnsod
Driver (fnsod) installed. Devices:
/dev/fnsod.8,11,3,0  /dev/fnsod.8,11,4,0
```

The second problem has been seen on IS startup, after the invalid device links are fixed. The IS software will log when attempting to open the library, similar to the following:

```
202,100,17 <fnsw> dsched b
FCL: unexpected errno 3 performing open_device operation on file: /fnsw/dev/1/oddb1
```

Workaround

Create the /kernel/drv/mpt.conf file that specifically configures the Ultra320 driver to force a bus width of 8 bits. This will not be a problem because these optical libraries can only work in 8 bits and an attempt to negotiate 16 bits is causing the problems.

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This is a sample mpt.conf file.

```
name="mpt" parent="/pci@8,600000"
        unit-address="4"
        target1-scsi-options=0x58
        scsi-options=0x178 scsi-initiator-id=7;
```

You will have to change the parent=”/pci@8,600000" to match your specific device. To find this device name, type the command:

```
ls –al /dev/SOD*
```

This is the output which matches the above mpt.conf file.

```
lrwxrwxrwx   1 root     sys          45 May 22 15:02 /dev/SOD.0 ->
../devices/pci@8,600000/scsi@1,1/SOD@3,0:osar

lrwxrwxrwx   1 root     sys          44 May 22 15:02 /dev/SOD.1 ->
../devices/pci@8,600000/scsi@1,1/SOD@4,0:odd
```

The mpt.conf file must also need to be owned by root. Use the following commands to change ownership of the mpt.conf file.

To find the unit-address use the number after the SOD@ which in this case is 4 for the drive. Multiple drives will require multiple entries.

```
chown root /kernel/drv/mpt.conf
chgrp root /kernel/drv/mpt.conf
```

The supported HA systems allow only one host to be active at a time, so the limitation of the interposer board would not cause problems in most cases. There are times when both hosts might be active however. One is when they are booted, although this can be avoided by waiting for one server to boot completely before starting the other one. If one of the servers fails however, when it is booted to bring it back on line, it will poll the devices on the SCSI bus and this could result in the command response being directed to the wrong host. If the customer always idled the SCSI bus by disabling the arm and all of the drives inside the library before booting the server, they could theoretically work around this. IBM does not recommend this workaround.

Workaround

Use target mode.

Windows

System failures associated with IS and ISTK shared memory address space allocation

After you install or upgrade IS or ISTK, the address space that is allocated to the SysV shared memory for IS or ISTK processes might conflict with the existing address spaces that are allocated by other products. Conversely, after you install or upgrade another product that is installed on the same server as IS or ISTK, the address spaces allocated by those other products might conflict with the address space that is allocated to the SysV shared memory for IS or ISTK processes.

If this address allocation conflict occurs, SysV stops the process that encounters the conflict, locks one of the shared memory semaphores (which stops other IS and ISTK processes), and records the following error message (or a similar one) in the IS ELOG or ISTK ELOG and the Event log:

SysV: Error 487 mapping file view. Process Aborting...

Due to the complex nature of address space allocation, all of the products and conditions that conflict with the address space allocation of the SysV shared memory are unknown. Therefore, the actual error message might be different than shown. If this is the case, contact IBM support to help you analyze the results.

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The products that are known to conflict with the address space allocation of the SysV shared memory are:

- Microsoft SQL Server 2005
- Microsoft security updates - The Microsoft security updates that might conflict with the address allocation of the SysV shared memory are: KB931768, KB933566, KB937143, KB931784, and KB937143

SysV creates a memory map, determines the largest area of free memory, and creates a registry edit file to update the starting address

IS and ISTK provides a SysV feature that troubleshoots and repairs the SysV shared memory address space allocation conflict. Specifically, SysV:

- Creates a memory map that has a detailed listing of every section of memory that is used by the conflicting IS or ISTK process
- Determines the starting address of the largest amount of available memory from the information in the memory map
- Creates a registry edit file that you can run that changes the starting address of the SysV shared memory to the new starting address determined by SysV

Initiation of this SysV feature occurs:

- Automatically, when an address space allocation conflict occurs
- Manually, by creating a trigger file and running the process

Create a trigger file

ATTENTION This procedure must be performed by a qualified IS or ISTK system administrator. If this procedure is not performed properly, it could have an adverse effect on system operation. Contact IBM support if you require assistance.

The starting address varies from system to system based on the configuration and other installed software. Therefore, the best address must be determined individually for each system.

1. If the shared memory conflict occurred during the IS or ISTK startup process, begin at "Confirm the creation of the virtual memory map..." to view the results of the SysV analysis of the conflicting process. If the shared memory conflict has not occurred, begin by creating a trigger file in the next step.
2. Create a trigger file that contains the name of the IS or ISTK process to examine.

   IS

   For example, "*docs*" is a sample name of an IS process:

   ```
   cd \fnsw_loc\sd\1
   echo docs > dump_vmap.txt
   initfnsw restart
   ```

   OR

   ```
   cd \fnsw_loc\sd\1
   echo all > dump_vmap.txt
   initfnsw restart
   ```

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ISTK

For example, "*my_istk_app*" is a sample name of an ISTK process:

cd \client\tmp	**OR**	cd \client\tmp
echo *my_istk_app* > dump_vmap.txt		echo *all* > dump_vmap.txt

NOTES

- The ISTK client\tmp directory is located in the directory where ISTK is installed. This installation directory is referred to as WAL_ROOT and is set in the Windows registry using the following path: HKEY_LOCAL_MACHINE\software\FileNet\WAL\CurrentVersion\WAL_ROOT.
- Although you can enter any IS or ISTK process name, respectively, in the trigger file, use the name of the process that links to the conflicting product to ensure that the trigger file captures all of the relevant libraries in the memory map. If the process name is unknown use "all" in the trigger file instead of the name of an unrelated process.

3. Confirm the creation of the virtual memory map by locating the following message (with a recent time-stamp) in the IS ELOG, ISTK ELOG, or the Event log.

IS

fn_NT_VMMap: saving virtual memory map in \fnsw_loc\logs\ims_logs directory

ISTK

fn_NT_VMMap: saving virtual memory map in client_logs directory

If this message is not in the IS ELOG, ISTK ELOG, or the Event log, the virtual memory map code was not created. If this is the case, contact IBM support. Otherwise, the following message (or a similar one) is recorded in the IS ELOG, ISTK ELOG, or the Event log:

IS

```
The Windows Registry may be updated to change the starting
SysV shared memory address to the largest free area in memory
at address 0x11000000).
A new registry edit script was created with the name:
c:\Program Files\FileNet\fnsw\etc\shm_c_3172-1320.reg.txt
To change the SysV shared memory address execute this script
after completely shutting down all IS applications.
```

ISTK

```
The Windows Registry may be updated to change the starting
SysV shared memory address to the largest free area in memory
at address 0x11000000).
A new registry edit script was created with the name:
c:\Program Files\FileNet\FNSW\client\logs\shm_c_3172-1320.reg.txt
To change the SysV shared memory address execute this script
after completely shutting down all ISTK applications.
```

SysV stores the virtual memory map file in the \fnsw_loc\logs\ims_logs directory for IS and the \client\logs\client_logs directory for ISTK, and names it according to the process name and ID that generated the file. For example, if the process was MyApp.exe with a process ID of 1234 and a thread ID of 5678, the file will be named sl_MyApp.exe_1234_5678.txt.

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SysV stores the registry edit file in the \fnsw\etc directory for IS and the \client\logs directory for ISTK, and names it according to the process that encountered the problem. (This naming convention allows multiple processes to create separate registry edit files). For example, if the process ID is 1234 and the thread ID is 5678, the file is named shm_c_1234-5678.reg.txt. The ".txt" extension prevents you from running the registry edit file accidentally.

4. If you created a trigger file, remove it after you have the information that you need so that a new virtual memory map does not get created every time the process runs.
5. Update the Windows registry.

NOTE The "StartShmAddress" registry key does not exist in the Windows registry by default. This key is created only on systems that need to modify their start SysV shared memory address so that it is different from the default value that is embedded inside the code. This default value is 0x45000000, which is the address where SysV starts its shared memory unless directed otherwise by the "StartShmAddress" registry key.

Automatically update the Windows registry

To run the registry edit file and change the start address of SysV shared memory, complete the following procedure:

1. Remove the .txt extension from the registry edit file, for example: shm_c_1234-5678.reg. The registry edit files are located in the following directories:

   IS

   \fnsw\etc directory

   ISTK

   \client\logs directory

2. Stop IS or all ISTK applications that are running.

   IS

   a. Run: initfnsw -y stop

   b. Clean up all IS processes and resources: killfnsw –Dy

3. Backup the Windows registry.
4. Run the registry edit script by double-clicking its icon.
5. Restart IS or the ISTK Applications.
6. Continue with "Verify the new shared memory start address".

Manually update the Windows registry

To manually update the Windows registry and change the starting address of SysV shared memory, complete the following procedure:

1. Use a text editor to view the contents of the registry edit files:

   IS

   \fnsw\etc directory

   ISTK

   \client\logs directory

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They will be similar to:

IS

```
REGEDIT4
[HKEY_LOCAL_MACHINE\SOFTWARE\FileNet\IMS\CurrentVersion]
"StartShmAddress"=dword:13000000
```

ISTK

```
REGEDIT4
[HKEY_LOCAL_MACHINE\SOFTWARE\FileNet\WAL\CurrentVersion]
"StartShmAddress"=dword:13000000
```

2. Use the regedit command to add or update the StartShmAddress key using the path and value in the registry edit file.

Verify the new shared memory start address

Verify the new start address by running the following command:

IS

```
ipc_tool –A
```

ISTK

```
wal_ipc -A
```

The new start address displays in the "Address" column for segment #0 under the title "Shared Memory Address Manager Information."

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Known issues

This section describes:

- Independent software vendor issues that are related to IS
- Other supported IBM FileNet application issues related to IS
- IS-specific known issues

Where applicable, each issue includes an associated defect ID (IMCS defect number) for reference and tracking purposes. As these known issues are resolved, they are move to the “Resolved known issues” section.

Independent software vendors

AIX 6.1

	Description
YES Update IS version to 4.2.0	AIX 6.1 installs the file /usr/lib/libMrm.a in a directory that is different from the one required by the IS 4.1.0 installer. As a result, the IS 4.1.0 installation will fail when running lic_admin. 1. To prevent this failure, use the following workaround after you install AIX 6.1, but before you install IS 4.1.0: 2. Log in as a user with root privileges. 3. Download and install APAR: IZ13179 on AIX 6.1. 4. Enter: ln -s /usr/lpp/x11/lib/R1/libMrm.a /usr/lib/libMrm.a
	AIX 6.1 requires the Oracle 10gR2 6613550 patch to fix a problem with rootpre.sh. 1. Download patch number 6613550 from the Oracle support web site. 2. As a user with root privileges, run the script. 3. As Oracle user, launch the Oracle Universal Installer (runInstaller).

Oracle

	Description
748247	I IS systems that use an Oracle database do not start when a user name in Active directory is the same as an IS server name. *Resulting errors* For example, if an IS server name in an ISDOM domain and a domain user name are as shown, IS will fail to start and will display (212,3,6) and (212,3,8) FN_util errors, and (211,1,11) and (211,1,13) TM_daemon_ctl errors. IS server name dn: CN=cortina,CN=Computers,DC=ISDOM Domain user name dn: CN=cortina,CN=Users,DC=ISDOM *Workaround* Manually restart Oracle by using SQL*Plus, and then on a long-term basis, ensure that all of the user names in Active Directory and all of the IS server names are unique.

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	Description
	When logging into the operating system as a user that is NOT the owner of the FileNet IS files (owner is typically fnsw), running any IS tool that accesses the database (for example, WQS_tool, ddexim, and so on) results in a "map:permission denied" error. Although this error is presented, the expected data output is ultimately returned as well. This error occurs when the permission of the executable file has the setuid and/or setgid bits set. There are certain checks that Oracle is performing that result in these errors, yet database access is still successful. There is an existing Bug on Oracle's Metalink support Web site related to this issue. The Oracle Bug No. is 6800649. The bug is reported on AIX5L Based Systems (64-bit) on Oracle Database Version 10.2.0.3.0. (It may not be limited to only those versions.) Example of a file with setuid and setgid bits set: -rwsr-s--- 1 fnsw fnusr 281049 Mar 13 16:10 WQS_tool* *Workaround* Changing the file permissions on the tool executable so that the setuid and setgid bits are not set will eliminate the error (just set to execute). Change the above example to the following permissions: -rwxr-x--- 1 fnsw fnusr 281049 Mar 13 16:10 WQS_tool* **NOTE** Running fn_setup restores the default file permission, so the setuid and setgid bits will be set back to the setting in the first example above. This will cause the errors to start again.

Windows

	Description
772207 774591	Windows 2008 users with Adaptec Ultra320 SCSI cards (29320ALP-R, 29320LPE, 39320A-R, and IBM 39R8743) should not use the Windows-supplied drivers (adpu320.sys) with these cards. The version numbers of these cards are either v.3.0.0 or v.7.2.0. IS created lettered drive and creates SCSI optical device errors when using the Windows-supplied drivers. Download the latest non-RAID driver from the Adaptec Web site. The version of the latest non-RAID driver should be at least v7.00.00.08.
748888	Newly connected optical drives on Windows 2003 servers create error when accessed. On servers running Windows 2003, the operating system mistakenly creates lettered drives for newly connected optical drives. If you access the optical drive for which a lettered drive exists, errors are written to the elog but operations appear to run successfully. Rebooting the server will remove the lettered drive and end the errors.

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Installation

NOTE For additional installation-related defects, see **Known issues** > **Documentation** > **Installation**.

Defect ID	Description

788044	If you install DB2 9.5 with the default code page set to Unicode, you might encounter the following DB2 errors when executing a ddexim import job:
	
	`2008/11/21 13:51:38.417 121,9,302 <fnsw> ddexim -sd -i /fnsw/local/tmp/disk_info/sun225d2r_ART_ADD_ON.db.exp (2583.1.115 0xa17.1) ... [SERIOUS]`
	
	`Error in GDBD_exec: SQLExecute, STMT 65538 (&000a3220) (../src/GDBD.c, VERSION 4.1.1.0, @3393).`
	
	`SQLSTATE = 22001, NativeError = -302,`
	
	`ErrorMsg = '[IBM][CLI Driver][DB2/SUN64] SQL0302N The value of a host variable in the EXECUTE or OPEN statement is too large for its corresponding use. SQLSTATE=22001`
	
	The error translates to:
	
	sun225d2r(fnsw)/fnsw/local/tmp/disk_info> db2 ? SQL000302
	
	SQL0302N The value of a host variable in the EXECUTE or OPEN statement is too large for its corresponding use.
	
	Cause
	
	The value of an input host variable was found to be too large for its use in the SELECT, VALUES, or prepared statement. One of the following occurred:
	
	• The corresponding host variable or parameter marker used in the SQL statement is defined as string, but the input host variable contains a string that is too long.
	• The corresponding host variable or parameter marker used in the SQL statement is defined as numeric, but the input host variable contains a numeric value that is out of range.
	• The terminating NUL character is missing from the C language NUL-terminated character string host variable.
	• Federated system users: in a pass-through session, a data source-specific restriction might have been violated.
	
	This error occurs as a result of specifying either an incorrect host variable or an incorrect SQLLEN value in an SQLDA on an EXECUTE or OPEN statement.
	
	The statement cannot be processed.
	
	Workaround
	
	Ensure that the input host variable value is the correct type and length. If the input host variables supply values to parameter markers, match values with the implied data type and length of the parameter marker.
	
	Federated system users: for a pass-through session, determine what data source is causing the error (see the Troubleshooting Guide for procedures to follow to identify the failing data source). Examine the SQL dialect for that data source to determine which specific restriction has been violated, and adjust the failing statement as needed.
	
	sqlcode: -302
	
	sqlstate: 22001, 22003

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Defect ID	Description

773279	AIX installations only
	
	A new installation of IS 4.1.0 GA does not update the /etc/inittab file with IS entries and does not copy the files that are executed by the IS entries in the iniittab file to the /etc directory.
	
	As a result, IS will not be able to access any optical libraries if any are attached to the server.
	
	Workaround
	
	As a user with root user privileges, complete the following procedure after IS installation is finished.
	
	1. At the system prompt, navigate to the /fnsw/etc directory.
	`cd /fnsw/etc`
	2. Enter the following series of commands to copy the files from /fnsw/etc to /etc:
	`cp rc.initfnsw /etc`
	`cp rc.fnodd /etc`
	`cp rc.single /etc`
	3. Navigate to the /etc directory and edit the inittab file:
	`cd /etc`
	`vi inittab`
	4. Add the following four lines to the /etc/inittab file:
	`rcfnext:2:once:/etc/rc.fnext 2>&1 | alog -tboot > /dev/console 2>&1`
	`dupip:2:wait:/fnsw/etc/dupip`
	`rcfnodd:2:wait:/etc/rc.fnodd 2>&1 | alog -tboot > /dev/console 2>&1`
	`rcsingle:1:wait:/etc/rc.single 2>&1 | alog -tboot > /dev/console 2>&1 # sngl usr mode`
	5. Save your changes to the file.
	6. Continue with the remainder of the installation procedure.

751354	The System Serial Number (SSN) is no longer supplied with new Image Services systems. When installing new Image Services systems, users are now required to construct their own ten-digit SSNs using any combination of numeric digits that they choose. This identifier is still 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. Current Image Services systems will continue to use their existing SSNs, which will always be valid.

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Defect ID	Description
747822	(*AIX only*) Fn_snmpd writes a warning message in the elog that indicates the /etc/snmpd.conf file cannot be read. *Cause* The 4.1.0 Image Services installation program does not add the required FileNet SNMP entries to the /etc/snmpd.peers and /etc/snmpd.conf files when Image Services uses AIX. *Solution* If you are running Image Services 4.1.0 or Image Services 4.1.1 that was upgraded from Image Services 4.1.0, manually edit the following files as specified to enable fn_snmpd functionality: • Add the following line to the end of the /etc/snmpd.peers file: "fnpd" 1.3.6.1.4.1.517 "fnpd_password" • Add the following line to the end of the /etc/snmpd.conf file: smux 1.3.6.1.4.1.517 fnpd_password # fnpd • **SNMP SUPPORT** Image Services supports only SNMP version 1 at this time. For more information, see the SNMP Reference Manual.

Databases

Defect ID	Description
756664	Recovery from error 90,1,26 after adding text string. When a user is adding a string index through Database maintenance, they receive the 90,1,26 error tuple because the user's DB2 page size is set to too small a page size to accommodate the new string. *Workaround:* To recover from this error, the user needs to export all tables under schema f_sw from the user tablespace, then create a tablespace with larger page size (16K or 32K), and import the data back into the newly created tablespace. **NOTE** A smaller pager size makes data retrieval faster; however, a larger page size makes a larger number of user-defined index fields possible. For more information, refer to the Guidelines for IBM DB2 Software. To download this manual from the IBM support page, see "Access IBM FileNet documentation and fix packs" on page 11. To recover from the error, complete the following steps: 1. Export all tables from the old tablespace (userspace1, for example) using DB2 tools. 2. Create a new tablespace (userspace2, for example) with the desired page size (32k, for example) using DB2 tools. 3. Update CDB RDB Objects in the RDB Object tab (using fn_edit) with the new tablespace name (userspace2, for example), by editing the Object Name field. 4. As the fnsw user, rebuild the system configuration files by entering: fn_build –a

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Defect ID	Description
	5. Create all tables and system indexes by entering the following commands: INXdbgen -f -m WQS_table_gen -f 6. Import the backup from the old tablespace (userspace1) to the new tablespace (userspace2).
663857	The DB2 client software must be installed in the default DB2 installation directory. If the DB2 client software on any UNIX platform is installed in any directory other than the default DB2 installation directory (/usr/opt/db2_08_01) the IS software will not start. When installing DB2 client software on the IS server, accept the default installation directory.

Configuration

Defect ID	Description
eProcess 5.1/5.2	eProcess 5.1 and 5.2 support only one VWService and one VWServer in an IS system. Although the IS System Configure Editor (fn_edit) includes procedures for adding, modifying, and deleting multiple VWServices and VWServers, a single VWService with a single VWServer is the only configuration supported by eProcess 5.1 and 5.2.
663405 393321	IS can run out of shared memory segments (Xapex > Background Job Control > New > Find Open Documents) when you have an extremely large number (millions) of documents. You might see a message similar to this: 202,0,2 opendocs getarea: No memory available for process. nbytes = 44000048 errno = 12 ***Workaround*** To resolve this issue, modify the /etc/security/limits file to increase the per process memory size to 512 MB. Use your preferred text editor to change the following values in the limits file for the IS user, such as fnsw: fnsw: data = 1048576 rss = 1048576 (These values are expressed in 512-byte blocks.) 1. Logoff and log back in again as the IS software user for the new values to take effect. 2. Stop the IS software. initfnsw stop 3. Kill the TM_daemon: killfnsw –Ady 4. Restart the IS software. Rerun Find Open Documents from Background Job Control.

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Defect ID	Description

391476	An optional configuration file “cor_backoff_config” has been implemented to allow an administrator to modify the connect failure/retry behavior for courier for both IS and WAL.
	
	What is the current default courier behavior?
	
	Courier performs an open connect request to talk to clients over a network. It will retry a connection on a failure using a binary exponential backoff algorithm. On IS releases 3.6.10/SP3, 3.6.30/SP1 and 4.0.x the courier connect default retry values were changed to the following:
	
	On IS servers (combined, OSAR, BES, etc.):
	
	The maximum wait on any single retry is the max_single_sleep value (½ second is the default). The wait time can be less than ½ second, which means there can be many more retries than 1 every ½ second. The maximum wait for the sum of all retries is the max_total_sleep value (5 seconds is the default). After a total of 5 seconds of wait time, it will close a socket and the OCOR_Open function returns with an error <15,16,17> and logs it to the elog.
	
	On WAL stations (IDM Desktop, ISTK applications, HPII, etc.):
	
	The retry logic behaves the same way as on IS servers, except that the default values for both max_single_sleep and max_total_sleep are zero. So, upon the first unsuccessful connect, a close is performed on the socket and the OCOR_Open function returns with an error <15,16,17> and logs it to the elog.
	
	When should I use the “cor_backoff_config” file?
	
	If the site has a slow network
	
	If the courier default values are not long enough for your network (½ second retry and 5 seconds of retries for IS and 0 seconds of retries for WAL)
	
	If the TCP/IP parameters are correct according to the IS Installation documents in the TCP/IP parameter section and they are encountering <15,16,17> errors in the elog
	
	Here is an example from a Windows server:
	
	`2006/03/10 03:53:34.288 15,16,17 <fn.service> PRI_check`
	
	`(3960.4368.45 0xf78.1110) …COR_Open: connect to 10.50.105.15 [32769] failed with WSAGetLastError 10060`
	
	How do I implement the “cor_backoff_config” file?
	
	The optional configuration file “cor_backoff_config” is manually created by the administrator for all IS and WAL servers. This configuration file permits the administrator to modify the default courier connect failure/retry behavior. If the file does exist, then its values override the default courier behavior.
	
	The following is a sample of the contents of a “cor_backoff_config” file with the current default courier failure/retry values for IS. This sample can be used for both WAL and IS servers. However, for IS you would use values greater than those shown in the sample. The values used in the “cor_backoff_config” file are in milliseconds and the file strings (e.g., “max_single_sleep”) are case sensitive. The file should be created with Read/Execute permissions.
	
	If the “cor_backoff_config” file has been accessed an informational message will be logged to the elog. For example:
	
	`2006/03/10 09:38:45.492 155,19,255 <fn.service> PRI_check`
	`(3736.3744.71 0xe98.ea0) ... [INFO]cor_backoff_config: debug: FALSE, max_single_sleep: 500ms, max_total_sleep: 5000ms`

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Defect ID	Description

	cor_backoff_config file contents:
	`debug 0 # if set to 1 output fn_log_msg() for each retry attempt`
	`max_single_sleep 500 # 500 ms means no more than ½ second in a single retry`
	`max_total_sleep 5000 # 5000 ms means no more than 5 seconds for all retries`
	`FN_COR_NO_CONNECT_ERROR 0 # when set to 1, courier errors will not be logged`
	NOTE In the debug line above, if debug is set to 1, the fn_log_msg function writes to different locations based on IS versus ISTK and operating system:
	• UNIX IS: /fnsw/local/logs/ims_logs
	• UNIX ISTK: /fnsw/client/logs/client_logs
	• Windows IS: \fnsw_loc\logs\ims_logs
	cor_backoff_config file location:
	On IS servers (combined, OSAR, BES, etc.):
	/fnsw/local/sd/cor_backoff_config # Unix
	<drive:>\fnsw_loc\sd\cor_backoff_config.txt # Windows
	On WAL stations (IDM Desktop, ISTK applications, HPII, etc.):
	/fnsw/client/cor_backoff_config # Unix
	<drive:>\fnsw\client\cor_backoff_config.txt # Windows

339663	The 1912 adapter does not directly support High Availability (HA) configuration because auto-termination cannot be disabled on the adapters. Support of LVD/SE devices in HA systems can be done via converter boxes where the termination on the HA SCSI bus is disabled in the converter box. **NOTE** HA configurations using the 1912 device can be configured because the converter boxes act as an isolator and can have the terminators in the converter boxes disabled. LVD optical devices can be configured by using an SE to LVD converter box and disabling the terminators in the converter boxes on the LVD SCSI bus.
	(HP11 and HP Integrity) Users must modify the entry depending on the type of library attached to the LVD/SE adapter. The values put in the fifth column depend on what is displayed in ioscan –fn. If an SE library and an SE ODU are attached to a A5150A card, ioscan –fn shows: ext_bus 5 0/4/0/0 c720 CLAIMED INTERFACE SCSI C896 Ultra2 Wide Single-Ended target 7 0/4/0/0.2 tgt CLAIMED DEVICE disk 5 0/4/0/0.2.0 sdisk CLAIMED DEVICE HP C1113J /dev/dsk/c5t2d0 /dev/rdsk/c5t2d0 The entry for an A-class server in FNPoll.servers would look like this for the configuration of the SE library to work: # A-Series SE1 A sctl ctl C896 □ This line was modified. SE2 A unknown unknown none DIFF1 A sctl ctl Ultra DIFF2 A sctl ctl C875

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Defect ID	Description
	If an LVD library and a Plasmon G104 are attached to a A6829A card, ioscan –fn shows: ext_bus 8 0/6/2/1 c8xx CLAIMED INTERFACE SCSI C1010 Ultra160 Wide LVD target 11 0/6/2/1.0 tgt CLAIMED DEVICE disk 10 0/6/2/1.0.0 sdisk CLAIMED DEVICE SONY SMO-F561 /dev/dsk/c8t0d0 /dev/rdsk/c8t0d0 target 12 0/6/2/1.1 tgt CLAIMED DEVICE disk 8 0/6/2/1.1.0 sdisk CLAIMED DEVICE SONY SMO-F561 /dev/dsk/c8t1d0 /dev/rdsk/c8t1d0 target 13 0/6/2/1.2 tgt CLAIMED DEVICE disk 9 0/6/2/1.2.0 sdisk CLAIMED DEVICE SONY SMO-F561 /dev/dsk/c8t2d0 /dev/rdsk/c8t2d0 target 14 0/6/2/1.3 tgt CLAIMED DEVICE disk 11 0/6/2/1.3.0 sdisk CLAIMED DEVICE SONY SMO-F561 /dev/dsk/c8t3d0 /dev/rdsk/c8t3d0 target 15 0/6/2/1.6 tgt CLAIMED DEVICE unknown -1 0/6/2/1.6.0 UNCLAIMED UNKNOWN IDE MULTI The entry for an A-class server in FNPoll.servers would look like this for the configuration of the SE library to work: # A-Series SE1 A sctl ctl C1010 This line was modified. SE2 A unknown unknown none DIFF1 A sctl ctl Ultra

Document security

Defect ID	Description

751215	If you transfer security information into the new database columns that were introduced as part of the Enhanced Document Security feature (introduced in IS 4.0 SP3), you might find messages similar to the following messages in the event log after you run the fn_util mlb_mig_sec_cols command as described in the IBM FileNet Image Services 4.0 Enhanced Document Security document:
	
	`2008/03/17 10:00:10.971 211,1,11 <msar> D:\FNSW\bin\tm_daemon.exe (568.656.0 0x238.290) ... [SERIOUS]`
	
	`TM_daemon error: Shared memory file mapping still exists. Please take screen shot of NT Task Manager and \fnsw\procs\!`
	
	`2008/03/17 10:00:10.987 211,0,3 <msar> D:\FNSW\bin\tm_daemon.exe (568.656.0 0x238.290) ... [CRITICAL]`
	
	`select: ok_to_send (error=10038). Exiting...`
	
	Wor*karound*
	
	Important The following information refers to a procedure that is documented in the IBM FileNet Image Services 4.0 Enhanced Document Security document.
	
	1. After the Turn off Archive Logging step, but before the step where you transfer the security information into the new database columns by using the fn_util mlb_mig_sec_cols command, shut down IS.
	
	initfnsw -y stop
	killfnsw -DAy (UNIX)
	killfnsw -D -y (Windows)
	2. Verify that the relational database software is running.
	
	3. Run the fn_util mlb_mig_sec_cols command. When you are prompted to confirm that IS will be shut down, enter “Y” even though IS is already shut down.
	
	4. Use the vl (view log) command to verify that the messages did not appear.

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Storage

Optical

Defect ID	Description
	When you run the fn_edit procedure to auto-configure a new optical library, the library number assignments for existing libraries might be changed. If this happens, then problems will occur for libraries that were configured as a “preferred library” for a document family. This can happen if a new library is attached to a server where any previously configured opticals are scanned in a different order than when they were initially configured. For example, if you already have library A and B, scanned in that order, and you attach library C such that the libraries are scanned in the order of C, A, B, you will run into this problem. Also, if you manually configured libraries previously, you might have assigned library numbers differently than what would have been assigned when they are auto-configured. Problems can occur when preferred libraries are defined for families, because they might no longer be assigned to the correct physical library. Maintain an old copy of the as_conf.s file as a reference. After the auto-configuration, check whether the library numbers of previously existing libraries have changed. If so, edit the file so that it reflects the old numbers. If a new library is assigned to one of the previously used numbers it must be given a new number so that the old numbers are used by the previously existing libraries.

MSAR

Defect ID	Description
	If you erase an unlabelled surface that is marked “Do Not Use”, it will not be erased until the next recycle of the IS software. (A recycle removes a “Do Not Use” flag and retries). At that point, the erase does a sequential database search for documents residing on that surface. This is extremely slow for large databases and can take an extended period of time.

COLD

Defect ID	Description
	Some changes were required to the character set translations provided by COLD during data import. Additionally, a procedural change was made to documents with the Euro character in them during COLD Preview. The solutions provided to these issues are not actual fixes, but considered legitimate workarounds. **Background** When importing data files into COLD, the data files are assumed to use the same character set format as the IS default character set. When this is not the case, a translation map is necessary so that the characters display correctly in the IS default character set. COLD provides a few translation maps to convert from other character set formats into the 8859-1 character set. The most common one translates from the EBCDIC character set into the 8859-1 character set. **Issue #1** The Euro character is not supported in the 8859-1 character set, which is the one

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Defect ID	Description
	normally used for Western European countries. Instead, it is supported in the 8859-15 character set. IS does not support the 8859-15 character set as a default character set on the system. However, the Windows 1252 code page is a superset of the 8859-1 character set and also includes the Euro character. Consequently, it has been decided to import COLD documents that include the Euro character into the 1252 character set instead of 8859-1. As a result, customers must use the new character set translation files provided to import documents that contain the Euro character. Two new character set translation tables are being provided: one that translates from 8859-15 to 1252 and one that translates from EBCDIC to 1252. **Issue #2** The Euro character cannot be displayed on UNIX based IS servers during COLD preview because the default character set used, 8859-1, does not include the Euro character. As a result, documents containing the Euro symbol can only be displayed during COLD preview on Windows-based IS servers. This can only be accomplished in conjunction with the resolution for issue #1, whereby COLD documents are being imported into the 1252 character set format. **Impact on the customer** The new translation maps are supported by COLD Preview, COLD Import, and the COLD daemon (cold_3770). Select one of the new translations maps from COLD Preview or Import in the 'Character Set Translation' part of the window in the user interface. For the COLD daemon, specify the '-t' option with the name of the character set translation file to use. ***Workaround*** The following files are provided to resolve the COLD related Euro character set issues. 8859-15_1252 8859-15 to 1252 translation map (binary) 8859-15_1252_src 8859-15 to 1252 translation map (ASCII) eb_1252_src EBCDIC to 1252 translation map (binary) ebcdic_1252 EBCDIC to 1252 translation map (ASCII) Note that only the binary versions of the files are used by COLD. The ASCII versions are made available for information only. They provide the specific mapping for each character in the character set and are used to generate the binary versions of the files.

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Hardware

Defect ID	Description
	Setup of an Adaptec 29160 SCSI adapter in a Windows server Setup of an Adaptec 39160 SCSI adapter in a Windows server Setup of an Adaptec 39320A-R SCSI adapter in a Windows server Setup of an Adaptec 29320ALP-R SCSI adapter in a Windows server Setup of an IBM 39R8743 SCSI adapter in a Windows server In the past when you set up a SCSI adapter, you could depend on the default adapter settings to allow IS to control the optical disk drive SCSI peripherals. You had no need to change the default settings. However, certain advancements have changed how the optical drives are presented to Windows. As a result of changes to the adapters and additional BIOS default settings, the Windows operating system, rather than IS, could take control the drives. If IS cannot control the optical drives, you must change the default adapter settings. This release note details the adapter settings that present the optical drives to Windows in a way that allows IS to control the drives. Two symptoms show that the Windows operating system has taken control of the SCSI peripherals: • You are unable to configure or access the optical drives from IS. • Windows Explorer shows a lettered drive assigned to each optical drive. Having Windows in control of the optical drives is not just a temporary inconvenience but also a threat to data integrity. The operating system can read and write to the optical media, potentially invalidating the FileNet data format or causing other integrity issues. **NOTE** On IS servers that are running Windows 2003 along with an Adaptec SCSI adapter card, the operating system mistakenly creates lettered drives for newly connected optical drives. Rebooting the server twice will remove the lettered drive and end the errors. ***Workaround*** To reassign control from Windows to IS, use the adapter's built-in setup utility, SCSI*Select*, to specify the correct parameters for the adapter settings. Refer to the descriptions and tables below for the settings you need to use: **Running SCSI*Select*:** 1. To enter the BIOS phase, if Windows is running, restart the system. If the system is off, turn it on. 2. When the Control-A message displays, press Control-A to enter the SCSI*Select* utility. 3. For each option and description, make sure the value matches that in the table below. You should need to change only a few values. **NOTE** For the SCSI Device Configuration Options, you must enter the same values for SCSI device IDs 0 through 7.

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Defect ID	Description

Values for the Adaptec 29160 SCSI Adapter

Group Name	Value Description	Value
SCSI Bus Interface Definitions	Controller SCSI ID	7
SCSI Bus Interface Definitions	SCSI Controller Parity	Enabled
SCSI Bus Interface Definitions	Host Adapter SCSI Termination/ LVD/SE Connectors	Automatic, Disabled if HA
SCSI Bus Interface Definitions	Host Adapter SCSI Termination/ SE Connectors	Automatic
SCSI Bus Interface Definitions – Additional Options	Advanced Configuration	See Advanced Configuration below
Boot Device Configuration	Select Master SCSI Controller	Select the 29160
Advanced Configuration	Reset SCSI Bus at IC Initialization	Enabled
Advanced Configuration	Display <Ctrl><A> Messages during BIOS Initialization	Enabled
Advanced Configuration V2.57.2 and earlier	Extended BIOS Translation for DOS Drives > 1 GByte	Disabled
Advanced Configuration V3.10.0 and later	Extended Int 13 Translation for DOS Drives > 1 GByte	Disabled
Advanced Configuration V2.57.2 and earlier	Verbose/Silent Mode	Verbose
Advanced Configuration V3.10.0 and later	POST Display Mode	Verbose
Advanced Configuration V2.57.2 and earlier	Host Adapter BIOS (Configuration Utility Reserves BIOS Space)	Disabled – Scan Bus
Advanced Configuration V3.10.0 and later	SCSI Controller Int 13 Support	Disabled – Scan Bus-
Advanced Configuration	Domain Validation	Disabled
Advanced Configuration	Support Removable Disks Under BIOS as Fixed Disks	Disabled
Advanced Configuration	BIOS Support for Bootable CD-ROM	Disabled
Advanced Configuration	BIOS Support for Int 13 Extensions	Disabled

4. Set these values for the SCSI Device Ids 0 to 7:

SCSI Device Configuration Options	Sync Transfer Rate (MB/sec)	40 MB/sec.
SCSI Device Configuration Options	Initiate Wide Negotiation	Yes
SCSI Device Configuration Options	Enable Disconnection	Yes
SCSI Device Configuration Options	Send Start Unit Command	No
SCSI Device Configuration Options	Enable Write Back Cache	N/C
SCSI Device Configuration Options	BIOS Multiple LUN Support	No
SCSI Device Configuration Options	Include in BIOS Scan	No

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Defect ID	Description

Values for the Adaptec 39160 SCSI Adapter

Group Name	Value Description	Value
SCSI Bus Interface Definitions	Host Adapter SCSI ID	7
SCSI Bus Interface Definitions	SCSI Parity Checking	Enabled
SCSI Bus Interface Definitions	SCSI Controller Termination / Ch A	Automatic or Low On/High On if HA
SCSI Bus Interface Definitions	SCSI Controller Termination / Ch B	Automatic, Disabled if HA
Boot Device Options	Boot Channel	First
Boot Device Options	Boot SCSI ID	0
Boot Device Options	Boot LUN Number	0

Advanced Configuration Options	Reset SCSI Bus at IC Initialization	Enabled
Advanced Configuration Options	Display <Ctrl><A> Messages during BIOS Initialization	Enabled
Advanced Configuration V2.57.2 and earlier	Extended BIOS Translation for DOS Drives > 1 GByte	Disabled
Advanced Configuration V3.10.0 and later	Extended Int 13 Translation for DOS Drives > 1 GByte	Disabled
Advanced Configuration V2.57.2 and earlier	Verbose/Silent Mode	Verbose
Advanced Configuration V3.10.0 and later	POST Display Mode	Verbose
Advanced Configuration V2.57.2 and earlier	Host Adapter BIOS (Configuration Utility Reserves BIOS Space)	Disabled – Scan Bus
Advanced Configuration V3.10.0 and later	SCSI Controller Int 13 Support	Disabled - Scan Bus-
Advanced Configuration Options	Verbose/Silent Mode	Verbose
Advanced Configuration Options	Post Display Mode	Verbose
Advanced Configuration Options	Host Adapter BIOS (Configuration Utility Reserves BIOS Space)	Disabled; Scan Bus-
Advanced Configuration Options	Domain Validation	Disabled
Advanced Configuration Options	Support Removable Disks Under BIOS as Fixed Disks	Disabled
Advanced Configuration Options	BIOS Support for Bootable CD-ROM	Disabled
Advanced Configuration Options	BIOS Support for Int 13 Extensions	Disabled

4. Set these values for the SCSI Device Ids 0 to 7:

SCSI Device Configuration Options	Sync Transfer Rate (MB/sec)	40 MB/sec.
SCSI Device Configuration Options	Initiate Wide Negotiation	Yes
SCSI Device Configuration Options	Enable Disconnection	Yes
SCSI Device Configuration Options	Send Start Unit Command	No
SCSI Device Configuration Options	Enable Write Back Cache	N/C
SCSI Device Configuration Options	BIOS Multiple LUN Support	No
SCSI Device Configuration Options	Include in BIOS Scan	No

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Defect ID	Description

Values for the Adaptec 29320ALP-R, Adaptec 39320A-R, and IBM 39R8743 SCSI Adapters

Group Name	Value Description	Value
SCSI Bus Interface Options	SCSI Controller ID	7
SCSI Bus Interface Options	SCSI Controller Parity	Enabled
SCSI Bus Interface Options	SCSI Controller Termination	Automatic (unless this is a HA environment. If HA then Disable.)
SCSI Device Configuration Options – BBS Systems Only	Select Master SCSI Controller	Disabled
SCSI Device Configuration Options – BBS Systems Only	Boot SCSI Controller	Disabled
SCSI Device Configuration Options – Non-BBS Systems Only	Select Master SCSI Controller	First
SCSI Device Configuration Options – Non-BBS Systems Only	Boot SCSI Controller	Disabled
SCSI Device Configuration Options – Non-BBS Systems Only	Boot SCSI ID	0
SCSI Device Configuration Options – Non-BBS Systems Only	Boot LUN Number	0
Advanced Configuration Options	Reset SCSI Bus at IC Initialization	Enabled
Advanced Configuration Options	Display <Ctrl><A> Messages during BIOS Initialization	Enabled
Advanced Configuration Options	Extended INT 13 Translation for DOS Drives > 1 Gbyte	Disabled
Advanced Configuration Options	Post Display Mode	Verbose
Advanced Configuration Options	SCSI Controller INT 13 Support	Disabled; Scan Bus
Advanced Configuration Options	Domain Validation	Disabled
Advanced Configuration Options	Support Removable Disks Under INT 13 as Fixed Disks	Disabled
Advanced Configuration Options	BIOS Support for Bootable CD_ROM	Disabled
HostRAID Options (Adaptec 39320A-R only)	HostRAID	Disabled

4. Set these values for the SCSI Device Ids 0 to 7:

SCSI Device Configuration Options	Sync Transfer Rate (MB/sec)	40 MB/sec.
SCSI Device Configuration Options	Packetized	No
SCSI Device Configuration Options	QAS	No
SCSI Device Configuration Options	Initiate Wide Negotiation	Yes
SCSI Device Configuration Options	Enable Disconnection	Yes
SCSI Device Configuration Options	Send Start Unit Command	No
SCSI Device Configuration Options	BIOS Multiple LUN Support	No
SCSI Device Configuration Options	Include in BIOS Scan	No

5. After changing the values to match the table, exit the SCSI*Select* utility by pressing the ESC key until you are prompted to save your changes.
6. Select the second port on this dual port adapter and repeat the procedure for that port.

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Defect ID	Description
	7. Repeat the procedure for each SCSI adapter port and for each additional controller card connected to Optical Drives/Libraries. Refer to related release notes for other Adaptec SCSI adapters. 8. Reboot the server to make your changes take effect. **Verification** Enter the Windows Device Manager. Each optical drive should now display as an Optical Memory device, preceded by a yellow exclamation point. You will also see “Note 31 - No driver exists for this device.”, which is normal and expected. If the optical drives do NOT display as expected, use the Windows Device Manager to rescan for new hardware, forcing Windows to recognize the hardware changes. As an additional verification, check that the optical drives no longer display as lettered drives in Windows Explorer. **Configuration** When your optical devices are recognized correctly, configure them following standard procedures: 1. Run fnddcfg –u 2. Run fnddcfg 3. Reboot 4. Run fndev to verify device creation 5. Run fn_edit to configure optical devices 6. Run fn_build –a. **LUN Device Notes** If multiple LUN devices are attached to the adapter only the first LUN device (LUN=0) will show up during the BIOS Scan of devices. Not all the devices will be seen at BIOS Boot time. However, IS will find the other LUN devices when it builds the device entries. If hardware verification of the attached devices is needed, then the item “BIOS Multiple LUN Support” could be momentarily set on and a boot sequence would show and verify the existence of each LUN device.

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System administrator tools

Defect ID	Description
	System administrator tools might require locks when updating system and IS resources. If more than one occurrence of the same tool runs concurrently, the other occurrences will to wait for the first one to release its lock. If you abort or kill a waiting/hung process, the tool could exit holding a resource lock and hang other processes waiting for the resource the tool was holding. These hangs can be prevented by running only one occurrence of any system administrator tool and by never aborting a tool abnormally. ***Workaround*** IBM recommends running no more than one occurrence of any IS system administrator tool. In addition, never exit these tools using the "X" in the upper right had corner of the window, issuing a control-C, or using any other methods for killing the process. System administrator tools are accessed through Xapex (Application Executive menu) or through the command line (SEC_tool, etc).

Documentation

Accessing documentation

Defect ID	Description
	Instead of following the information shown in the "Accessing IBM FileNet documentation" section of any of the IS documentation, complete the following steps to access the Image Services documentation on the IBM Web site: 1. Navigate to Product Documentation for FileNet P8 Platform at http://www-1.ibm.com/support/docview.wss?rs=3278&uid=swg27010422 2. Select the FileNet Image Manager Active Edition link. 3. Select the FileNet Image Services link.

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Installation

Installation and Configuration Procedures for Windows Server

Invalid license data

Defect ID	Description
774310	The lic_admin –f fails with error <232,0,1068> Invalid license data in file. **NOTE** The *IBM FileNet Image Services 4.1 Installation and Configuration Procedures for Windows Server* will not be updated to include the following procedure, which prevents a SLAC Entry License error, tuple <232,0,1068>. **Verify NetBiOS Setting on Windows 2003 Servers** Complete this procedure before the "Configure TCP/IP and SNMP Protocol" procedure that is located on page 60 of the June 2008 version of the *IBM FileNet Image Services 4.1 Installation and Configuration Procedures for Windows Server* document. 1. From the Windows Taskbar, select **Start > Control Panels > Network Connections**. 2. Right-click the Ethernet adapter to be configured, and then select **Properties**. The Ethernet Adapter dialog box opens. 3. On the **General** tab, select **Internet Protocol (TCP/IP)**, and then click **Properties**. The Internet Protocol (TCP/IP) Properties window opens. 4. Click **Advanced**. The Advanced TCP/IP Settings dialog box opens. 5. Select the WINS tab. 6. Verify that the Enable NetBIOS over TCP/IP option is selected, or select it if necessary, and then click **OK**. 7. Click **OK** to close the Internet Protocol (TCP/IP) Properties window. 8. Close any other remaining windows.

Installation and Configuration Procedures for *<Supported Operating System>*

Paralan MM16 expanders in high availability configurations

Defect ID	Description
749928	The *Installation and Configuration Procedures for <Supported Operating System>* document is missing the following information. Setup of Paralan MM16 expanders in a high availability configuration When IS servers are configured in a high availability (HA) environment that uses Paralan MM16 expanders to connect low voltage differential (LVD) SCSI adapters to LVD optical devices, you must remove the termination jumpers inside the expanders. The following procedure applies to all IS-supported hardware platforms that use LVD SCSI adapters and Paralan MM16 expanders. **Configuration Background** Many IS systems have large amounts of optical data that is accessed by optical drives in optical libraries that use the LVD SCSI interface. IS systems use Paralan MM16 expanders to connect an LVD SCSI adapter in the server to an LVD optical device.

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Defect ID	Description

See Figure 1 for an example of a typical HA configuration.

Each Paralan MM16 expander contains an internal SCSI terminator that must be removed in an IS HA environment.

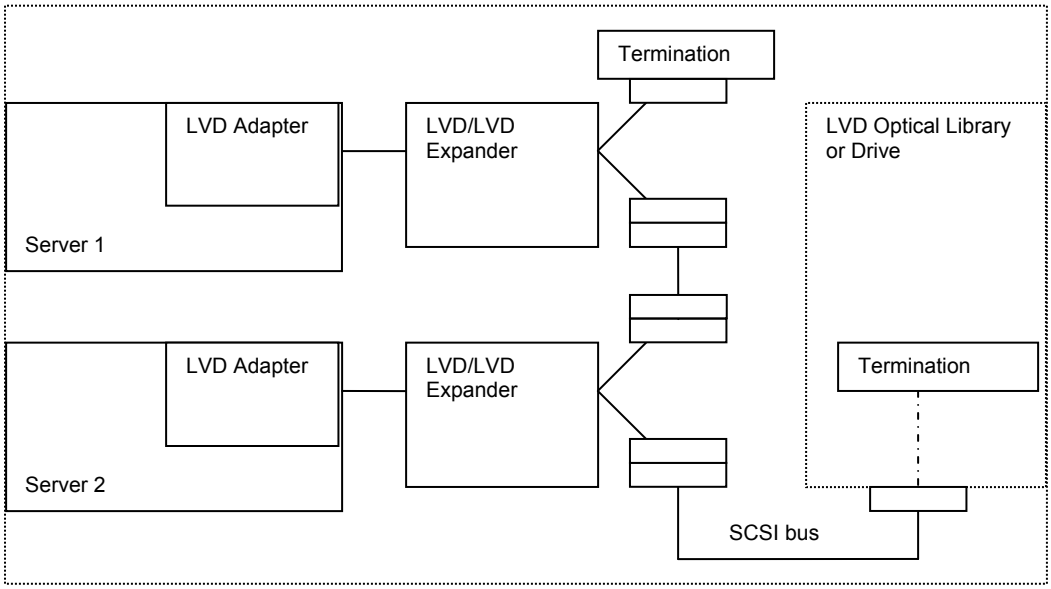

Figure 1: Typical HA configuration with LVD adapters and LVD libraries

OSAR Cable Tool

When configuring HA environments with LVD libraries and LVD adapters, the following message appears:

> "In HA systems the termination of Host Converter connecting from the <*Your Adapter Model Number*> (LVD) Dual Port SCSI Adapter to the HA SCSI Bus must be disabled. That is, the SCSI Converter termination on the side that is connected to the library must be disabled."
>
> **NOTE** Termination on the side of the converter that goes to the host adapter is to remain enabled."

Procedure

Modify both expander units at the same time. Converting one and not converting the other leaves the system as a whole in an undefined state.

To modify the Paralan MM16 expander, you will need the following tools:

- A small Philips head screwdriver
- A 3/16 inch hex head socket driver
- Tweezers or small long nose pliers

If you have questions at any point during this procedure, refer to the Paralan documentation that came with the converter.

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Defect ID	Description
	1. Disassemble the case. a. Remove the two 3/16 inch hex nuts from the side of the converter with the Power and Activity LEDs. b. Remove the two Philips screws from the other side of the converter. c. Slide out the circuit board and the end plate. 2. Disable the SCSI termination. Locate the W4 jumper, which is near one end of the SCSI connector, between the two LEDs. Remove the W4 jumper and place it on just one of the two W4 pins. 3. Reassemble the case. a. Slide the modified circuit board back into the case. b. Reattach the 3/16 inch hex nuts to one end and the two Philips head screws to the other end. c. Tighten the fasteners securely but not excessively. 4. Label the modified expanders. To document the state of the expanders, place a label on each modified expander. Print this page and tape one of these labels on each modified converter. This Paralan MM16 Expander has been modified for use in a LVD to LVD HA configuration: No termination on the LVD side with the two LEDs. Connect the side of the expander with the two LEDs to the common SCSI bus with Y-cables and the optical library. The SCSI connector on the other side of the MM16 expander with the power plug is connected to the LVD adapter in the server. This Paralan MM16 Expander has been modified for use in a LVD to LVD HA configuration: No termination on the LVD side with the two LEDs. Connect the side of the expander with the two LEDs to the common SCSI bus with Y-cables and the optical library. The SCSI connector on the other side of the MM16 expander with the power plug is connected to the LVD adapter in the server.

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ELOG messages

Defect ID	Description
747401	The *Installation and Configuration Procedures for <Supported Operating System>* document is missing the following hardware configuration information: **Throttle for COR ELOG messages** Various network-related problems might cause some error messages to repeat continuously in the ELOG file. These messages can cause the ELOG file to grow very large and can also have a negative impact on system performance. (In the following messages, ### represents any number and XXX represents any string of alphabetical characters.) *UNIX* Messages that only appear on UNIX systems: "cor_PutPacket: connection terminated prematurely" "Reject connection due to lack of server" "COR_Listen (###): Warning: got SIGPIPE while talking to XXX, connection abnormally terminated" "PANIC: cannot init cor handle" "maximum COR connections exceeded" "OPPM_GetProcess: rpcq_enqueue failed, rejecting connection" *UNIX and Windows* Messages that appear on both UNIX and Windows systems: "An SNMP trap was issued for this error with trap code ###, trap severity '###' XXX" "COR got Error in Ocor_snd, code=###" "cor_PutPacket failed to XXX" ***Workaround*** You can configure a special IS trigger file that throttles the various COR ELOG messages. This feature allows you to limit the number of times the various COR messages are logged. If you find that any of these messages repeat continuously, perform the following steps to limit their output. The following example allows only one out of every 500 of the messages to be logged. The number 500 is only a suggestion - you can use other values. *UNIX* 1. initfnsw stop 2. killfnsw -ADy 3. echo 500 > /fnsw/local/tmp/syslog_counter 4. initfnsw start

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Defect ID	Description
	Windows *initfnsw stop* *killfnsw -Dy* *echo 500 > C:\fnsw_loc\tmp\syslog_counter (assuming IS is installed on the C: drive)* *initfnsw start* **NOTE** Creating the trigger file does not fix the underlying problem that is causing the repeated messages. You must still troubleshoot the system to determine the cause of the network problem.

Paralan MM16 expanders in high availability configurations

Defect ID	Description
746746	The *Installation and Configuration Procedures for <Supported Operating System>* document is missing the following hardware configuration information: **Setup of Paralan MH16A/MH32A LVD/HVD Converters in a High Availability Configuration** When IBM FileNet IS servers are configured in a High Availability (HA) environment that uses Paralan MH16A/MH32A converters to connect LVD SCSI adapters to HVD optical devices, two hardware changes for the converters are required. The following procedure applies to all IS-supported hardware platforms that use LVD SCSI adapters and Paralan MH16A/MH32A converters. **Configuration Background** Many IS systems have large amounts of optical data that is accessed by optical drives in optical libraries that use the HVD SCSI interface. However, in recent years, the design and production of the LVD SCSI adapters has outpaced HVD adapters. LVD devices cannot be directly attached to HVD devices, so LVD to HVD converters fulfill this requirement. IS systems use Paralan MH16A or MH32A converters to connect an LVD SCSI adapter in the server to an HVD optical device. See Figure 1 for an example of a typical HA configuration. In an IS HA environment, Paralan converters require two internal modifications: Set the W6 jumper to enable SE mode. LVD SCSI protocol is much faster than the earlier SE protocol, and this speed difference causes some incompatibilities when connecting LVD and HVD devices. Some of the timing pulses need to be slowed down and stretched out. Remove the four termination resistor packages. In HA configurations, the terminators in the middle of the SCSI bus must be removed or disabled. Making these two setup changes to the converters produces successful HA configurations between LVD SCSI adapters and HVD optical devices.

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Defect ID	Description

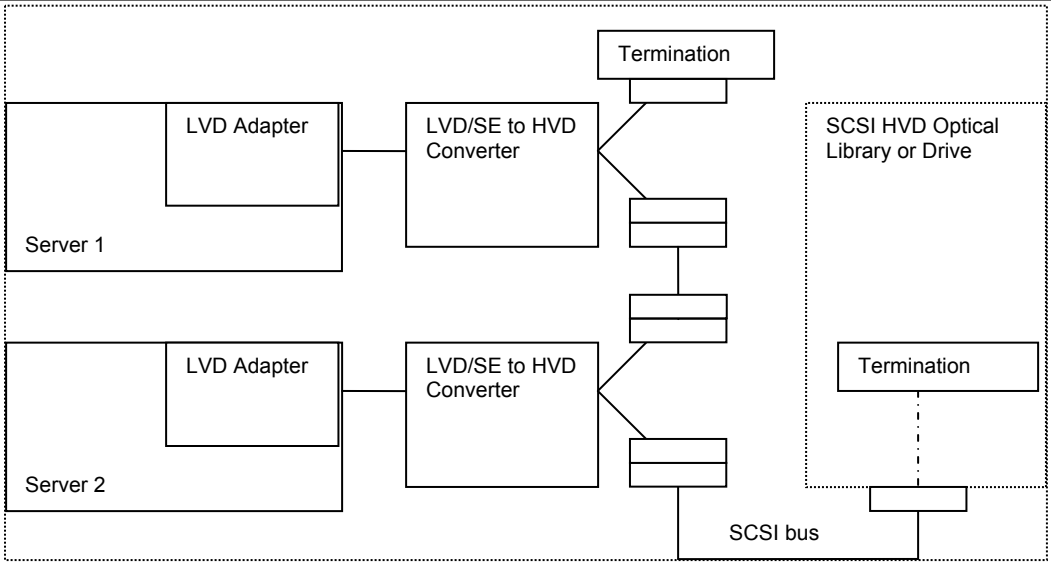

Figure 1: Typical HA configuration with LVD adapters and HVD libraries

OSAR Cable Tool

The OSAR Cable Tool points to this procedure.

When configuring HA environments with HVD libraries and LVD adapters, the following message appears:

"In HA systems the termination of Host Converter connecting from the <*Your Adapter Model Number*> (LVD) Dual Port SCSI Adapter to the HA SCSI Bus must be disabled."

That is, the SCSI Converter termination on the side that is connected to the library must be disabled. The internal SCSI resistor packages must be removed from the side of the SCSI Converter that connects to the optical devices in order to disable the SCSI Bus termination.

NOTE Termination on the side of the converter that goes to the host adapter is to remain enabled."

Cable Restrictions

The SE cable that connects the SE/LVD connector on the converter to the SCSI adapter in the server must be very short. SE protocol is very restrictive and is not immune to noise. The maximum cable length should be 3 feet.

Procedure

Modify both converter units at the same time. Converting one and not converting the other leaves the system as a whole in an undefined state.

To setup the Paralan MH16A or MH32A, you will need the following tools:

- A small Philips head screwdriver
- A 3/16 inch hex head socket driver
- A small, flat blade screwdriver or narrow knife for prying up IC chips
- Tweezers or small long nose pliers

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Defect ID	Description
	If you have questions at any point during this procedure, refer to the Paralan documentation that came with the converter. 1. Disassemble the case. a. Remove the two 3/16 inch hex nuts from the side of the converter with the Power and Activity LEDs. b. Remove the two Philips screws from the other side of the converter. c. Slide out the converter PCB and the end plate. 2. Remove the four termination resistor packs from the HVD side of the PCB. The resistor packs are labeled RN1 to RN4. Gently unseat each pack using a small prying device such as a small flat blade screwdriver. Be careful to not damage the PCB board or the components on it. (The resistor packs can be discarded.) 3. Set the LVD/SE side of the converter to SE mode. Locate a spare jumper that is only on a single pin and move it onto the W6 pins. Place a jumper on to the two pins labeled W6. These pins are also labeled S.E. 4. Reassemble the case. a. Slide the modified PCB back into the case. b. Reattach the 3/16 inch hex nuts to one end and the two Philips head screws to the other end. c. Tighten the fasteners securely but not excessively. 5. Label the modified converters. To document the state of the converter, place a label on each modified converter. Print this page and tape one of these labels on each modified converter. Paralan MH16A / MH32A has been modified: No termination on the HVD side SE Mode selected on the LVD/SE side Paralan MH16A / MH32A has been modified: No termination on the HVD side SE Mode selected on the LVD/SE side

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Guidelines for Installing and Updating Site-Controlled *<Database Type>* Software

Defect ID	Description
744924	The following information about upgrading the Oracle relational database with the database upgrade assistant (dbua) was not included in the *IBM FileNet Image Services Guidelines for Installing and Updating Site-Controlled Oracle 8i and 10g Software*. This information will be included in the next revision of the document. After installing the Oracle 10g software, but before installing the Oracle 10.0.2.0.2 patch set, upgrade the index database to 10gR2 format. Select the defaults for each prompt, unless indicated in the following steps. 1. Set ORACLE_HOME to point to the location of Oracle 10gR2 software, such as /opt/oracle/product/10gR2. 2. Launch the Oracle database upgrade assistant by entering: Dbua 3. During the index database upgrade, you are prompted for the path name of the initialization parameter file. Enter: /fnsw/local/oracle/init.ora 4. Click Yes to continue when you see the warning of CONNECT role changes. 5. When you are prompted for creating SYSAUX tablespace, enter the path name that was created above, a. Click on "Reuse Existing File Name". b. Keep the default size of 500 MB. c. Uncheck "Automatically extend datafile when full". 6. When you are prompted for configure the database with OEM, check "Use Database Control for Database Management." 7. Enter passwords for DBSNMP and SYSMAN. 8. When the Oracle database upgrade assistant is finished, check the log files in the following directory and ensure there are no errors: $ORACLE_HOME/cfgtoollogs/dbua Start the database: fn_util startrdb 9. Verify that the database starts successfully.

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MSAR Procedures and Guidelines

Defect ID	Description
745053	The following information needs to be included in the "*MSAR Procedures and Guidelines*" document. MSAR supports surface files up to 32 GB in size, but the HP-UX operating system generally limits file sizes to about 2 GB. If you try to write MSAR surface files larger than 2 GB, you might see the following elog error message: 2006/09/11 10:28:57.231 202,100,31 <fnsw> dsched e (24634) ... [SERIOUS] Lib e, MSAR surface 3118, file '/fnsw/msarE/003118.dat' has an RSVP. The error is 'FCL: write failed because the file size exceeds the file size limit.' ***Workaround*** When you initially create a logical volume for MSAR, select the option to allow large files, as described in the section "Setting File Size and ulimit" in the MSAR Procedures and Guidelines. For example, on an HP Integrity server select FS Type: Journaled (VxFS) and check the "Allow Large Files" option for the logical volume. For existing MSAR file systems, use SAM (HP-UX 11i v1) or kctune (HP-UX 11i v2 and higher) to increase the max_acct_file_size tunable kernel parameter. **HP-UX 11i v1:** 1. As a user with root privileges, launch SAM. 2. Navigate to Tunable Kernel Parameters. 3. Locate the max_acct_file_size parameter and increase its value. The maximum setting is: 2,147,483,647 bytes 4. Exit from SAM, and save your changes. The new value will take effect the next time HP-UX is restarted. **HP-UX 11i v2 and higher:** 1. As a user with root privileges, use the kctune command line tool: kctune max_acct_file_size=2147483647 2. If necessary, restart the server to put the change into effect.

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Resolved known issues

Resolved in SCR 329304

Defect ID	Description
761985	The initfnsw -y stop command is unresponsive and displays a <121,0,41>(Oracle not available) error when it exits backup mode. As of 4.1.1.2-IS-FP002, IS reattempts to log on to the index database five minutes after the previous attempt fails because of a <121,0,41> error. When the index database is not running, IS appears to be unresponsive. Prior to the fix, the initfnsw -y stop command performed the following steps: 1. Stops the index database. 2. Calls the flush_index_act_log process to flush activity logs. 3. Attempts to log on to the index database. (The <121,0,41>(Oracle not available) error occurs because the index database is not running.) SCR 329304 adds an additional step to the initfnsw -y stop sequence. To use the new initfnse stop program, complete the following procedure. 1. Install the new modules released in SCR 329304. 2. Back up the most current CDB file. (The most current CDB file is the file that has the highest number in its name, IMS_xxx.cdb). 3. Generate a new CDB file in the /fnsw/local/sd/conf_db directory by running one of the following: • fn_edit program (and then selecting **File > Exit > Yes** to save the changes) • fn_migrate pop command 4. Verify the /fnsw/local/sd/conf_db directory has the newly generated CDB file. The initfnsw -y stop command now performs the following steps: 1. Starts the index database if it is not running. 2. Calls the flush_index_act_log process to flush activity logs. 3. Stops the index database. 4. Continues the remaining steps in the initfnsw -y stop command.

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Resolved in 4.1.1.4-IS-FP004

Storage

Optical

Defect ID	Description

555628	On AIX 64-bit systems, you might see a phantom SCSI optical device listed with other SCSI devices. For example, the lsdev -C command might display the following devices:
	`hdisk0 Available 1S-08-00-8,0 16 Bit LVD SCSI Disk Drive`
	`hdisk1 Available 1S-08-00-9,0 16 Bit LVD SCSI Disk Drive`
	`scsi0 Available 1S-08 Wide/Ultra-3 SCSI I/O Controller`
	`scsi1 Available 1S-09 Wide/Ultra-3 SCSI I/O Controller`
	`ses0 Available 1S-08-00-15,0 SCSI Enclosure Services Device`
	`sod.1S,08,15,0 Available 1S-08-00-15,0 FileNet Optical Disk Library <-- Phantom device`
	The last entry, the phantom entry, uses a wide SCSI ID (15) and is only associated with SCSI cards that are used by internal devices, not externally accessible SCSI cards. Nothing is connected at that SCSI ID.
	This phantom SCSI device entry causes no harm as there is no chance of it using a wide device ID that an optical device can use.

Resolved in the 4.1.1.3-IS FP003

Installation

Defect ID	Description
756925	When Image Services Toolkit (ISTK) 4.1.1 is installed, the installer removes the /fnsw/hfp directory, which causes the fn_util whichfn utility to report the wrong version of currently installed IBM FileNet software. The fn_util whichfn utility does not report the currently installed Image Services fix pack. *Workaround:* Rename the hfp directory before installing ISTK 4.1.1. 1. Rename the directory. **UNIX** cd /fnsw mv hfp hfp.save **Windows** cd \fnsw rename hfp hfp.save

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Defect ID	Description
	2. After installing ISTK 4.1.1 change the name of the directory back to the original name. **UNIX** cd /fnsw mv hfp.save hfp **Windows** cd \fnsw rename hfp.save hfp

Databases

Defect ID	Description
746639	Query recovery requires user intervention following a database connection loss. When you lose your database connection during any IDM Desktop query, the database reconnect feature automatically restores the connection, but cannot recover from the failing query. As a result, you receive the following IDM Desktop error: "Failure calling INX_find_DIRs." *Workaround*Re-issue the query manually. *Message information:* 1. When you receive the message, "Failure calling INX_find_DIRs," you can view further details by completing the following steps: 2. From the error screen, click **Details**. 3. Click **Next** as many times as it takes to receive Native Code information about the 7900004e error. This hexadecimal code translates to decimal error tuple 121,0,78. 4. Run the fn_msg tool on this tuple as shown (example is for Windows Server) to display the error description and instructions: D:\FNSW\lib\shobj>fn_msg 121,0,78 <121,0,78> Client is required to re-issue operation after database connection loss. IS was able to reconnect to the database after its connection was lost. However, the original operation (such as query) cannot be recovered until it is issued by the client again.

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Resolved in IS 4.1.1

Configuration

Defect ID	Description
664663	When updating multiple IS servers to IS 4.1, the error tuple <155,212,4> DOCI_commit_option_doc might display when committing a document. COR_listen indicates that the process has timed out looking for request handler OSIs. The problem is that the /fnsw/etc/ServerConfig file indicates that there are a maximum of 24 DOCs to handle the DOCI_commmit_option_doc requests but only a maximum of 3 OSIs to handle the processing of them. Manually change the ServerConfig file using vi or some other editor, keeping in mind the following guidelines: If the entry of DOCs indicates 24 (the third number in the following): DOCs 0134231041 1 24 1 0 64 Then you need to change the OSIs entry so that it is half the DOCs setting, as follows: from OSIs 0134231052 1 3 0 0 64 to OSIs 0134231052 1 12 0 0 64 If the DOCs number is bigger than 24, the OCSs number should at least be half of the DOCs number.
662819	System failure occurs when the IS shared memory for AIX is set to the default setting of 320 MB. *Workaround* Increase the IS shared memory to 640 MB.
662225	When performing a fresh install of IS 4.1 on a Windows server, the installer prompts you to set an fnsw password for the IS ControlService. By setting the fnsw password to "fnsw" and rebooting after the installation is complete, an error message appears when trying to start the IS ControlService. *Workaround* When you create the IS software user, such as fnsw, you must select the "Logon as a Service" option. This option is fully described in the Microsoft Tech Note at: http://technet2.microsoft.com/windowsserver/en/library/be1ebd3f-3490-4fb6-9558-16b6b49b89ba1033.mspx?mfr=true.
376692	The 5712, 5736, and 1912 adapters do not directly support High Availability (HA) configuration because auto-termination cannot be disabled on the adapters. Support of LVD/SE devices in HA systems can be done via converter boxes where the termination on the HA SCSI bus is disabled in the converter box. **NOTE** HA configurations using the 5712 device can be configured because the converter boxes act as an isolator and can have the terminators in the converter boxes disabled. LVD optical devices can be configured by using an SE to LVD converter box and disabling the terminators in the converter boxes on the LVD SCSI bus.

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Storage

MSAR

Defect ID	Description
375816	When writing to MSAR surfaces the CPU wait time increases causing performance issues. The dtp process writing to the MSAR surface slowly consumes CPU resources causing a bottleneck for other processes running on the server. The problem has only been reported when writing to 32GB MSAR surfaces. This problem can occur when three conditions exist. • The operating system is AIX 5.2 (The maintenance level does not apply). • The file system configured for the MSAR library is a Journalized File System (JFS). • The dtp process assigned to the current active write surface is performing a large number of writes where the process is constantly working. To detect the problem, run the AIX topas utility. If a performance problem is suspected while writing to an MSAR surface. Topas is a performance monitoring tool available on all AIX servers. Topas displays CPU usage into four categories Kernel, User, WAIT, and Idle time. The topas utility also displays the 5 processes taking the largest amount of CPU resources. The topas data reports that most of the CPU resources are being spent in the Kernel and the dtp process is using the highest percentage of the CPU. *Workaround* AIX 5.2 provides the additional capability of creating Enhanced Journalized File Systems (JFS2). A feature known as Concurrent I/O was added to Enhanced Journalized File Systems as of AIX 5.2 ML1. This feature improves performance because the use of files for data storage involved overheads due to serialization, buffering and data copying which impacts I/O performance. AIX 5.2 servers that have performance problems when writing to the active MSAR surface must use the JFS2 type of file system for the location of the MSAR library. MSAR surfaces that are read only surfaces can remain on the older Journalized File System with no impact to system performance. Attempting to erase an MSAR surface with no active documents on it and the “Do Not Use” flag set will terminate the process and the disk will be ejected. If you want to erase an out-of-sync MSAR surface, you must recycle the IS software before starting the erase job. The recycle removes the out-of-sync flag for a retry.

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COLD

MKF

Defect ID	Description
339898 339663 339576	Num_act_docs is incorrectly incremented on secondary tranlogs when documents are committed to optical without using regular batch committal. This problem does not occur when using Fast Batch Committal. The num_act_docs value refers to the number of active documents on a given surface. An active surface is the primary surface and the active tranlog. Images on either of these active surfaces can be directly accessed by IS. The num_act_docs value for the primary surface and the active tranlog will be incremented after a successful image committal. When configuring a family in IS, multiple tranlogs can be selected. The last tranlog selected is considered to be the active tranlog, and the num_act_docs will be incremented on this surface when a document is successfully written to it. The other tranlogs will not have the num_act_docs incremented after a successful write. Alternate (or secondary) tranlogs are not considered active. Images stored in these alternate tranlogs must be imported into the system in order to access these images. If your system is set up to use multiple tranlogs, only one of them contains active documents and the last tranlog selected is considered to be the active tranlog. The num_act_docs value for any alternate tranlog(s) will not be incremented after a successful image committal. *Workaround* Use num_act_docs statistics from the active tranlog for a system with multiple tranlogs.

Documentation

Fn_edit and System Configuration Overview

APAR Name Defect ID	Description
PJ36414 824041	The following update is missing from the Image Services 4.1 System Configuration Overview document and the fn_edit on-line help: Document Buffer Count - Maximum value = **256** Default value = 64 Directory Buffer Count - Maximum value = **256** Default value = **64** The published versions of the Image Services 4.1 System Configuration Overview document and the fn_edit on-line help have: Document Buffer Count - Maximum value = **128** Default value = 64 Directory Buffer Count - Maximum value = 64 Default value = **16**

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Installation

Defect ID	Description
664793	The IS System Configuration Editor help text for the Datasets tab might not reflect the correct minimum dataset sizes. The table of dataset sizes should appear as follows: **Dataset** **Minimum Size** **Increment** Cache 100 MB 100 MB Permanent Database 100 MB 100 MB Permanent Redologs 64 MB 64 MB Transient Database 320 MB 320 MB Transient Redologs 256 MB 256 MB *Oracle System Tablespace 200 MB 200 MB *Oracle Database 200 MB 200 MB *Oracle Recovery logs 20 MB 20 MB **Oracle User DB 200 MB 200 MB *Oracle Temp Space 400 MB 400 MB MSSQL Server Temp Space 400 MB 400 MB MSSQL Server Redo Log 20 MB 20 MB MSSQL Server Database 200 MB 200 MB MSSQL Server User Database 200 MB 200 MB Security Database 64 MB 64 MB Security Redologs 64 MB 64 MB *Displayed for FileNet-controlled Oracle only. **The Oracle user database dataset is optional and displays only on the Datasets tab if one has been created.
661047	The "Verify TCP/IP Port Settings" section of the June 2007 version of the *Upgrade Procedure for AIX/60000*, Release 4.1 is incorrect. Replace the information in the "Verify TCP/IP Port Settings" section on Pages 104 - 106 of the Upgrade Procedure with the following information: 1. Verify Network Options. 2. Perform the steps in this section on all servers. 3. Run the following to add settings to /etc/tunables/nextboot: /usr/sbin/no -p -o tcp_ephemeral_high=65535 /usr/sbin/no -p -o tcp_ephemeral_low=42767 /usr/sbin/no -p -o upd_ephemeral_high=65535 /usr/sbin/no -p -o upd_ephemeral_low=42767
660720	The *IBM Image Services Toolkit Developer Reference Manual*, Release 4.1 - spec.# 9116042, Revision V dated May 22, 2006 requires the following edits: Disregard the following entries on Page 244 (22. INX DECLARATIONS section):

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Defect ID	Description
	typedef unsigned short INX_query_direc_typ; #define INX_QUERY_FORWARD 0 #define INX_QUERY_BACKWARD 1 On Page 335 (27. PRS SUBROUTINES section), lower part of the page should read as follows: The key condition string and filter condition string use the following operators with the restrictions documented in the CONSTRAINTS section. If an operator is not listed in the constraints section, the operator can be used in either a Key or a filter condition. AND logical and OR logical or NOT logical not < less than <= less than or equal to = equal to > greater than >= greater than or equal to != not equal to + addition - subtraction * multiplication / division IN RANGE a range is specified with the syntax "IN RANGE <op> <constant> <op> <constant>", where <op> is <, <=, >, or >=, and constant is a numeric or string constant. LIKE Similar to. The pattern on the right hand side of the LIKE operator must be a single quoted character string which can contain '?' to indicate match any character, and '*' to match any sequence of characters. DEFINED(x) The defined function returns non-zero if the given column name "x" is non-null, and zero if the value is null. CONSTRAINTS DEFINED and NOT DEFINED can only be in filter condition. != can only be used in filter condition. != and = are the only operators that can be used with F_DOCTYPE. + at the beginning of an FP number can only be used in filter condition. LIKE and NOT LIKE can only be in filter condition for a string index. LIKE and NOT LIKE cannot be used in a key OR filter condition as a date index. IN RANGE can only be used in key condition.

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Defect ID	Description
555328	The *IBM FileNet Content Federation Services for Image Services Guidelines* document does not include the following best practices information: When using a CFS-IS system with RM, it is recommended that customers do not set an expiration date on documents that are stored in IS. Currently, a CFS-IS administrative user on the IS system cannot differentiate between RM documents that are placed on hold and cannot be deleted, and those that can be deleted.
554456	The upgrade procedure (for all platforms) suggests that IS systems running Oracle 8 can upgrade to either Oracle 9i or Oracle 10G. When upgrading to IS 4.1 on systems running Oracle 8, Oracle must be upgraded to Oracle 10G. Upgrades to Oracle 9i are not supported when upgrading systems to IS 4.1.
553574	The IS 4.1 upgrade procedure for AIX/6000 (June 2007) inadvertently includes a Windows screen display in chapter 4, on page 82. The correct screen display is included in the IS 4.1 Upgrade Procedure for AIX/6000 (November 2007) on page 84.

Resolved in the June 2008 IS documentation refresh

Guidelines for Installing and Updating Site-Controlled *Database Type* Software

Defect ID	Description
746376	The *Guidelines for Installing and Updating Site-Controlled Oracle and MS SQL Software on Windows Servers* document does not indicate that Microsoft SQL Server 2000 enables remote access by default and Microsoft SQL Server 2005 does not. When using Microsoft SQL Server 2005, remote access must be enabled.

Installation and Configuration Procedures for Solaris

Solaris zones

Defect ID	Description
744182	Both the *Image Services Installation and Configuration Procedures for Solaris* document and the *Image Services Upgrade Procedure for Solaris* document incorrectly mention information about Solaris Zones. IS 4.1 does not support Solaris 10 Zones.

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Installation and Configuration Procedures for Windows

Users and groups

Defect ID	Description
661700	The following tip in the "FileNet Users and Groups Check" topic in the *IBM FileNet Image Services Installation and Configuration Procedures for Windows Server* document is incorrect. **TIP** "Click the **Back** button, create the missing users and add the users to the appropriate groups, then click **Next** again to rerun this check." If performed, the post install summary states that the IS installation failed, and the post install log states that the memberships do not exist. An updated tip indicates that you need to exit the installer, and log out and log back in for the new users and groups to take effect.

Installation and Configuration Procedures for *<Supported Operating System>*

Fn_oracle_setquotas

Defect ID	Description
745118 .	Fn_oracle setquotas fails during IS installation on Oracle. During a fresh installation of IS and Oracle where the Oracle datasets are located on a remote server, you might receive the following error message when you run the fn_oracle setquotas command as documented in Chapter 5 of the *Image Services Installation and Configuration Procedures* for your platform due to an incorrect sequence of instructions. BUA10S22(fnsw)/home/fnsw> fn_oracle setquotas CDB: error [d4000032] getting RDB_Object [Server_ID=1 & object_name=fn_index]fn_oracle: cannot get Index Tablespace name [0xd4000032] 'fn_oracle setquotas' failed (returning -738197454) *Workaround* The correct sequence is as follows: 1. Verify with the database administrator that the Oracle client software has been successfully installed on the IS root/index server, and that the fn_data, fn_index, and tmp_data relational database objects have been configured with the appropriate Oracle tablespace names in fn_edit on the Relational Databases tab, RDB Check the edition number applied to this common guide to determine the product versions covered. Objects subtab. 2. As the IS software user, such as fnsw, run the following command on the IS server: fn_oracle setquotas 3. This command creates the /fnsw/local/oracle/ora_users.sql file. Copy these scripts from the IS server to the corresponding directories on the remote Oracle server: /fnsw/oracle/FileNet.sql /fnsw/local/oracle/ora_users.sql

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Defect ID	Description
	4. Ask the database administrator to run these scripts on the remote Oracle server: SQL>@FileNet.sql (Grants privileges to IS users) SQL>@ora_users.sql (Assigns quotas, default tablespaces, and temporary tablespaces) Continue with the next section as indicated in the installation document.

Microsoft Cluster Server Installation and Upgrade Procedures for Windows Server

Defect ID	Description
746380	The “Set SQL Environment Variable” topic, in the *Microsoft Cluster Server Installation and Upgrade Procedures for Windows Server* document applies to Microsoft SQL Server 2000 only.
746379	Two topics in the *Microsoft Cluster Server Installation and Upgrade Procedures for Windows Server* document have missing steps. In the "Create Configuration Database with a Microsoft SQL Server Relational Database" topic, add the following information after the steps that update the Location field on the RDB Objects tab: Click the Relational Databases tab, and then click the MS-SQL subtab. In the Remote SQL Server Name field, enter the virtual hostname of the SQL server group. In the “Test Cluster Server Operation – Move Control of Cluster Service Node 2” topic, add the following information after the “Move Group” step but before the step that verifies IS is under cluster control on node 2. Run the following command: fn_util create_data_source
746378	The topics titled "Enable Autostart IS Processes Option" for Microsoft SQL Server and "Enable Autostart IS Processes Option" for Oracle in the *Microsoft Cluster Server Installation and Upgrade Procedures for Windows Server* document are obsolete. Use the following procedure instead. 5. Run the following command: \fnsw\bin\fn_setup 6. Reply to the prompts with the requested information. If the default values shown are correct, press **Return** to continue.
746376	The *Microsoft Cluster Server Installation and Upgrade Procedures for Windows Server* document does not indicate that Microsoft SQL Server 2000 enables remote access by default and Microsoft SQL Server 2005 does not. When using Microsoft SQL Server 2005, remote access must be enabled.

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Image Services Toolkit

What's new in 4.1.1

Single document storage

Single Document Storage supports a number of storage devices. For more information, see the "*IBM FileNet Image Services Integral Single Document Storage Procedures and Guidelines*". To download this document from the IBM support page, see "Access IBM FileNet documentation and fix packs" on page 11.

NCH_tool enables users to override the default character set

Some non-IDM desktop clients do not properly translate previously captured annotation text. IS 4.1.1 resolves this issue by enabling users to override the default character set through NCH_tool.

What's new in 4.1

ISTK (ISTK) 4.1 supports the following operating systems:

- AIX 5.1 ML9
- AIX 5.2, TL 8 and higher and AIX 5.3, TL4 and higher
- HP-UX 11i
- Solaris 9 and Solaris 10
- Windows 2003 SP1 and Windows 2003 Release 2 and higher
- Windows 2000 SP4

Known limitations

Shared memory conflicts on Windows servers

Description

The Image Services Toolkit (ISTK) implementation of shared memory on Windows servers can result in memory conflicts with third-party Dynamic Link Libraries (DLLs). A third-party library could possibly reside in the same virtual memory address that ISTK allocates for its own shared memory. Such conflicts cause ISTK processes to crash.

Resolution

For a full description of this problem and its resolution, see the IS known limitation "System failures associated with IS and ISTK shared memory address space allocation" on page 32.

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Image Services Remote Admin Console

What's new in 4.1.1

Plasmon ultra high-density optical drives

RAC 4.1.1 supports the second generation of Ultra High Density Optical Drives. This media can store 30 GB per side, for a total of 60 GB per surface.

Single document storage

Single Document Storage supports a number of storage devices. For more information, see the "*IBM FileNet Image Services Integral Single Document Storage Procedures and Guideline*s". To download this document from the IBM support page, see "Access IBM FileNet documentation and fix packs" on page 11.

What's new in 4.1

The Remote Admin Console (RAC) product was originally released for use with IS 4.1. A new version, RAC 4.1, is now available for use with IS 4.1. RAC 4.1 is required for running CFS-IS export functions. RAC can be installed on a new client system or be upgraded from a previous version of RAC. Note that RAC 4.1 is a full installation, not a service pack. ISTK is now a prerequisite for RAC.

- RAC 4.1 supports the following operating systems:
- Windows 2000 SP4 Roll-up package V2
- Windows 2003 SP1, Windows 2003 R2 and higher
- Windows Vista
- Windows XP SP2

For additional information on RAC, refer to the *Remote Admin Console User's Guide*, available on the RAC 4.1 software CD. Installation instructions for the RAC client software are provided in a RAC_readme file on the RAC media.

Known issues

Independent software vendors

Windows Vista

When you install RAC on a Windows Vista server, you must also download the WinHlp32.exe file from the Microsoft Download Center. This file is needed to view 32-bit .hlp files. WinHlp32.exe was included in previous versions of Windows, but it was not included in the Windows Vista release.

To download WinHlp32.exe, visit the following Microsoft Web site:

http://go.microsoft.com/fwlink/?LinkID=82148

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