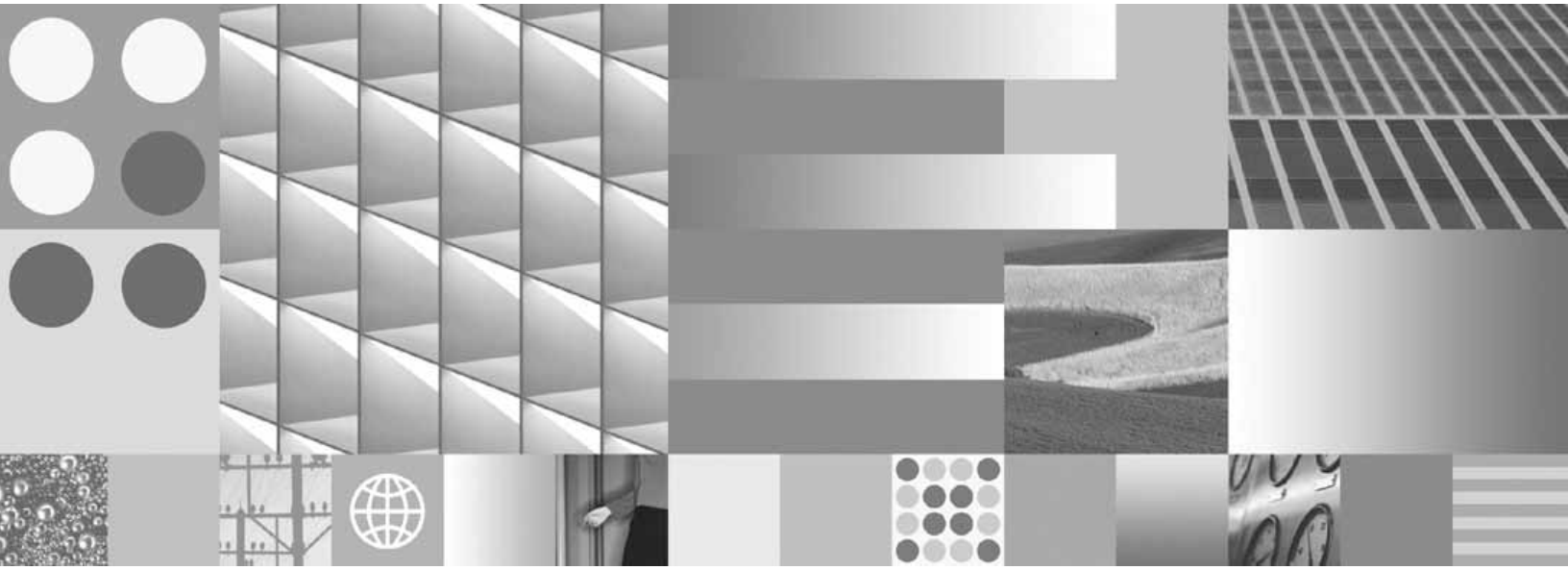
IBM FileNet Image Services

Version 4.1

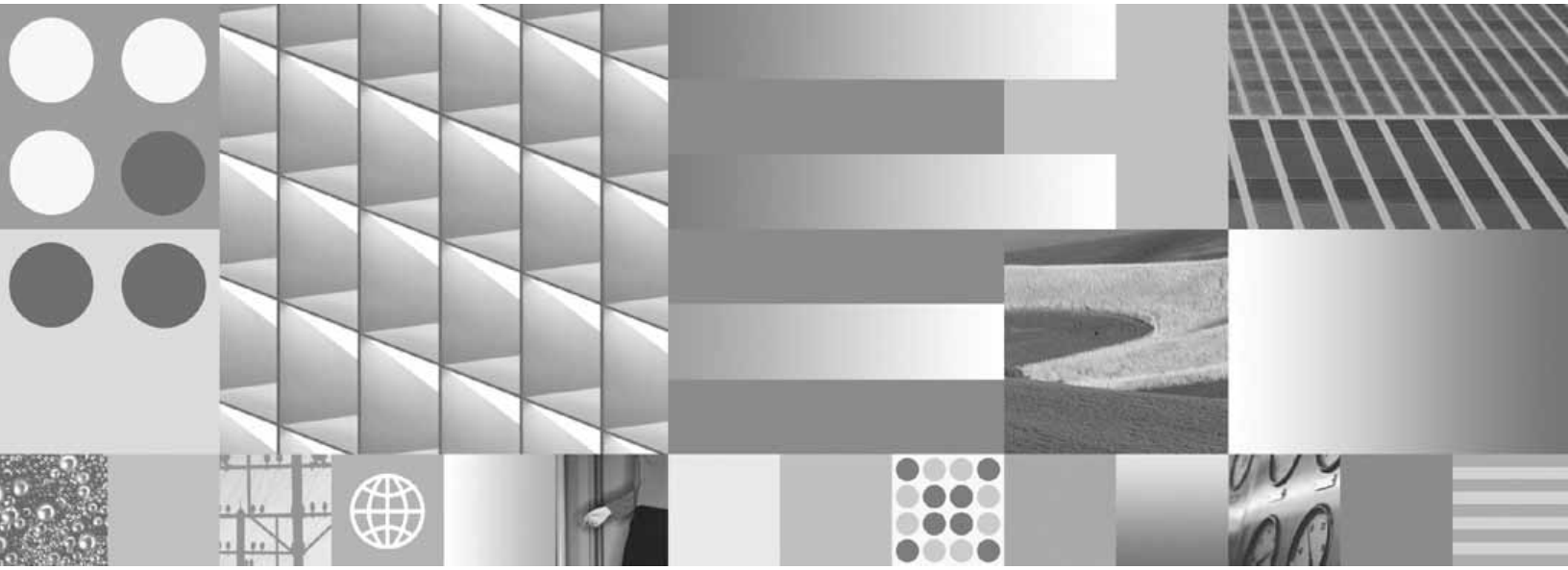


Installing Image Services in Non-English Environments Technical Notice

GC31-5607-00

IBM FileNet Image Services

Version 4.1



Installing Image Services in Non-English Environments Technical Notice

GC31-5607-00

Note
Before using this information and the product it supports, read the information in “Notices” on page 24.

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

Contents

About This Manual

This technical notice, *Installing Image Services in Non-English Environments,* describes the IBM® FileNet® Image Services tools for viewing and editing your Image Services configuration. It is designed primarily for service representatives to use when setting up Image Services configurations.

For a printed version of the online help text, see Chapter 2, "Online Help Text," on page 39.

Document revision history

IS version	Date	Comment
4.1	July 2008	Initial release.

Conventions used in this document

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

File Paths

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

UNIX /fnsw/local/sd

WIN \fnsw_loc\sd

Console Displays

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

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

Cautions, Notes, and Tips

Three message types call your attention to important information:

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

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

Tip Introduces an idea that might make your work easier.

Command Syntax

Command syntax definitions are indented and in bold text:

ddexim –e > <filename>

Optional Parameters

Optional parameters and keywords are within square brackets:

ddexim [–e] > <filename>

Required Parameters

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

For example, for the following command:

ddexim –e > <filename>

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

ddexim –e > myfile

IBM FileNet Education

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

Comments and Suggestions

Send your comments by e-mail to comments@us.ibm.com. Be sure to include the name of the product, the version number of the product, and the name of the book (if applicable). If you are commenting on a specific text, include the location of the text (for example, a chapter and section title, a table number, a page number, or a help topic title). Your suggestions help us improve the products we deliver.

Accessing IBM FileNet Documentation

To access documentation for IBM FileNet products:

1. Navigate to the Information Management support page (**www.ibm.com/software/data/support**).
2. Select the appropriate IBM FileNet product, such as FileNet image Services, from the “Select a category” list.
3. From the Product Support page, click Product Documentation under FileNet Image Services Support.
4. From the Product Documentation page, click Product Documentation for FileNet Image Services under Latest Documentation Information.
   a. If necessary, click the Doc Link for the appropriate component product to display the document list.
   a. Click the icon in the appropriate release column to access the document you need.

Installing Image Services in Non-English Environments

Getting started

The guidelines in this document provide information for system administrators to use when installing and configuring IBM® FileNet® Image Services (IS) in non-English environments.

Note Use this document as a supplement to the following IS documents:

- *Image Services Installation and Configuration Procedures* for your operating system
- *Image Services System Administrator's Handbook*

To download these documents from the IBM Web site, see **"Accessing IBM FileNet Documentation" on page 10**.

Language support for Image Services is as follows:

Table 1: Image Services Language Support

Activity	Supported Languages
Installation	English
Configuration	English, French, German
Error messages	English, French, German
Indexing	Multiple languages as described in **"Character set support" on page 19**

Operating systems

Servers that you purchase are preinstalled with the language that you specified at the time of order. In certain cases, it is possible to support several languages in addition to the pre-installed version. For example, if you have a server that uses the Windows operating system installed in English, you can install support for both the Chinese and Greek character sets.

Important All Image Services and Image Services Toolkit (ISTK) servers and clients must be configured to use compatible character sets at both the operating system level and the relational database level.

The Image Services software interface is available in English, French and German.

- For Windows, you can use a number of languages for the localized operating system. See your Microsoft Windows documentation for more information.
- For UNIX, use the values in the following table to display the appropriate interface.

Table 2: National Language variables for French and German

Language	AIX	HP-UX	Solaris
French	fr_FR	fr_FR.is088591	Fr
German	de_DE	de_DE.iso88591	De

Setting the Language variable

The LANG variable specifies the language, or locale, that the software uses to display messages and instructions, collating sequences, date formats, and so on.

Note The Image Services software always defaults to English if the LANG environment variable is not set to any of the supported languages: English, French, or German.

Different operating systems use different locale names to specify the same language. Skip to the section for your server:

- **"Setting the LANG variable on AIX" on page 13**
- **"Setting the LANG variable on HP-UX" on page 15**
- **"Setting the LANG variable on Solaris" on page 16**
- **"Setting the LANG variable on Windows Server" on page 18**

See the documentation for your operating system for additional information on managing the LANG environment variable.

Setting the LANG variable on AIX

Set up the LANG variable in your shell environment files using your preferred text editor (such as **vi**). From your HOME director, edit the necessary files by completely the steps in one of the following:

Important Verify that the language you select here matches the language that was selected when the relational database software was installed.

- For **sh** and **ksh**, add the following lines to your .profile file:

LANG=<language>
export LANG

where <language> is the native language (locale) in which you want your server to operate. For example:

French is **fr_FR**
German is **de_DE**

For French, you would add these lines:

```
LANG=fr_FR
export  LANG
```

Or for German you would add these lines:

```
LANG=de_DE
export  LANG
```

- For **csh**, add the following line to your .login file:

  setenv LANG <language>

  where <language> is the native language (locale) in which you want your server to operate.

  For French, you would add this line:

  ```
  setenv  LANG  fr_FR
  ```

  Or for German you would add this line:

  ```
  setenv  LANG  de_DE
  ```

Note When you install or upgrade Image Services software on an AIX server that is set to any Japanese locale such as ja_JP, you must set the LANG environment variable to en_EN (English) before running the installation program. Setting the LANG variable to en_EN prevents garbled characters from displaying during the installation. After the IS installation is finished, you can reset the LANG variable to its original locale, such as ja_JP.

Setting the LANG variable on HP-UX

Set up the LANG variable in your shell environment files using your preferred editor (such as **vi**). From your HOME directory, edit the necessary files by completing one of the following steps, depending upon the shell you are using:

- For **sh** and **ksh**, add the following lines to both your .profile and .vueprofile files:

  ```
  LANG=<locale>.iso88591
  export  LANG=C
  ```

  where <locale> is the abbreviated national language name your Xstation is dedicated to. For example:

  French is **fr_FR.iso88591**
  German is **de_DE.iso88591**

  For French, you would add these lines:

  ```
  LANG=fr_FR.iso88591
  export  LANG=C
  ```

Or for German you would add these lines:

```
LANG=de_DE.iso88591
export  LANG=C
```

- For **csh**, add the following line to both your .login and .vueprofile files:

  setenv LANG <locale>.iso88591

  where <locale> is the language your Xstation is dedicated to.

  For French, you would add this line:

  ```
  setenv  LANG  fr_FR.iso88591
  ```

  Or for German you would add this line:

  ```
  setenv  LANG  de_DE.iso88591
  ```

Setting the LANG variable on Solaris

Set up the LANG variable in your shell environment files using your preferred editor (such as **vi**). From your HOME directory, edit the necessary files by completing one of the following:

Important Verify that the language you select here matches the language that was selected when the relational database software was installed.

- For **sh** and **ksh**, add the following lines to your .profile file:

  ```
  LANG=<language>
  export  LANG
  ```

where <language> is the native language (locale) in which you want your server to operate. For example:

French is **Fr**
German is **De**

- For **csh**, add the following line to your .login file:

  setenv LANG <language>

  where <language> is the native language (locale) in which you want your server to operate.

Non-localized environment

To use 8-bit characters, the Solaris 10 operating system software must run in a European locale. However, European locales require installation of localization feature packages.

If these localization packages are not available to you, use the following work-around:

- For **sh** and **ksh**, enter:

  LC_CTYPE=iso_8859_1
  export LC_CTYPE

- For **csh**, enter:

  setenv LC_CTYPE iso_8859_1

Note The ISO_8859_1 setting is not valid for the OpenWindows locale X resources. The ISO_8859_1 setting is not a full locale setting, but a setting for the LC_CTYPE category only. **DO NOT set the LANG environment variable to ISO_8859_1.**

Setting the LANG variable on Windows Server

On Windows Server systems, the Image Services applications determines the desired language based on the following settings:

- The LANG environment variable
- The default OS locale (See your OS documentation for details.)

The LANG variable is an optional setting, but if you set it, it will always override the default OS locale. You can set it using the System Properties dialog, or at a command prompt in a CMD window.

For example, launch a CMD window and enter:

setenv LANG <language>

where <language> is the native language (locale) in which you want your server to operate. For example:

French is **fra**
German is **deu**

Important Verify that the language you select here matches the language that was selected when the relational database software was installed.

Relational databases

When the relational database management system (RDBMS) is installed, the language and character set for the database defaults to the language you selected for the operating system.

CAUTION To change the database character set after the RDBMS is installed, refer to the appropriate RDBMS documentation.

Note also that the NLS_LANG environment variable determines if the database will perform any character translations before storing characters in the database or after retrieving characters from the database. For optimum database performance, NLS_LANG is set to the same characters as the “Database Character Set.”

Image Services configuration

In the IS System Configuration Editor (fn_edit), select the System Attributes tab and set the appropriate default character set and former character set. If Image Services needs to be configure to process Japanese characters, select either Shift_Japanese or Japanese EUC for both the default and former character sets, depending on your usage. The IS configuration editor provides both single-byte and double-byte (or multi-byte) character set support. The character set must be selected before initializing the IS databases.

Character set support

IS supports single-byte character sets (SBCS) and multi-byte character sets (MBCS). However, some limitations exist for both homogeneous and heterogeneous configurations.

The default IS character set is configured through fn_edit by specifying an International Organization for Standardization (ISO) character encoding. Regardless of whether the IS platform is UNIX-based or Windows-based, the default character set is always defined as an ISO character encoding. Therefore, IS assumes that all data sent to it by clients is in ISO format, rather than in a Windows code page (CP) format.

Single-byte character sets

SBCSs are based on 8-bits and can represent up to 256 characters. These characters are often referred to as a code page on Windows servers. For example, the default code page on Windows servers with IS is CP1252 (also called the ANSI code page). The equivalent ISO character encoding on UNIX servers is ISO 8859-1.

The following table lists all the supported SBCS Windows Code Pages and their equivalent ISO encoding on Unix operating systems.

Table 3: Single-Byte Character Sets

Windows Code Page	fn_edit Name	Language Group	NLT Map Provided
1252	ISO 8859-1	Latin 1 (Western Europe)	Yes
1250	ISO 8859-2	Latin 2 (Central Europe)	Yes
1257	ISO 8859-4	Scandinavia and Baltic Rim	Yes
1251	Cyrillic (ISO 8859-5)	Cyrillic (Slavic)	Yes
1256	Arabic (ISO 8859-6)	Arabic	Yes
1253	Greek (ISO 8859-7)	Greek	Yes
1255	Hebrew (ISO 8859-8)	Hebrew	Yes
1254	Turkish (ISO 8859-9)	Turkish	Yes
874	Thai TIS 620-2533	Thai	No

Note The IS National Language Translation (NLT) subsystem automatically translates between single-byte Windows and UNIX code pages when Windows IS clients communicate across the network. The Thai char-

acter set is not fully supported in heterogeneous environments because a translation map is not available.

Double-byte and multi-byte character sets

In addition to single-byte character sets, IS supports several double-byte character sets (DBCS) and multi-byte character sets (MBCS). The terms DBCS and MBCS are often used interchangeably, but MBCS is a more generalized form of DBCS. In a multi-byte character set, the number of bytes per character can vary from 1 to 3. In both types of character set, each character can be represented by either one or two bytes. MS932 is an example of a DBCS, while eucJP is an example of a MBCS.

Important The IS and RDBMS software has specific maximum length requirements for many of its parameters and database fields. When the IS system is configured with a DBCS or MBCS, the maximum number of characters is correspondingly fewer.

For example, if a database field has a maximum length of 24 (single-byte) characters, the field can hold only 12 double-byte characters, and only 8 three-byte characters.

IS does not natively support any Wide Character Sets (WCS), which use a fixed number of bytes for each character in the set. For example, two, three, or four bytes per character. If a custom application manipulates strings internally using Unicode, the application is responsible for translating those strings to either a single-byte or double-byte character set before passing them to an IS application.

You can specify the following DBCS and MBCS through fn_edit:

Table 4: Double-Byte and Multi-Byte Character Sets

Windows Code Page	fn_edit Name	Language	NLT Map Provided
932	Shift Japanese Industrial Standard	Japanese	No
936	Chinese Simplified EUC (China)	Chinese	No
949	Korean 5601	Korean	No
950	Chinese Traditional EUC (Taiwan)	Chinese	No
	Japanese Extended UNIX Code	Japanese	No

- Japanese EUC
- Chinese Simplified EUC (China)
- Chinese Traditional EUC (Taiwan)
- Korean 5601

Note When the IS default character set is a DBCS or MBCS, the NLT sub-system does not perform any character translation across the network between IS clients and servers.

Heterogeneous environments

For homogeneous IS environments, such as Windows to Windows or UNIX to UNIX, there are no known issues with supporting DBCS or

MBCS character sets because no character translation occurs between clients and servers.

For heterogeneous IS environments, translation between equivalent character sets is limited to those defined in **"Table 3: Single-Byte Character Sets" on page 20**, and for which an NLT map is available.

Known issues and limitations

Image Services does not support GB 18030 (Chinese Standard) characters that are four bytes long.

In heterogeneous environments, such as systems that include both Windows and UNIX servers, correct translation is not guaranteed. For example, in the case of a Japanese Windows system, the 932 character set is based on Shift_JIS. Solaris supports EUC for Japanese, so character translation between a Japanese Windows server and a Japanese Solaris server might not be accurate.

However, the AIX operating system supports the Shift_JIS standard and is therefore more likely to provide correct translation with a Windows platform, which also supports Shift_JIS.

To minimize compatibility issues in heterogeneous environments, all IS and ISTK clients must be configured to use compatible character sets at the operating system and database levels.

Notices

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

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

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

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

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

IBM World Trade Asia Corporation
Licensing
2-31 Roppongi 3-chome, Minato-ku
Tokyo 106-0032, Japan

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

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

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

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

Licensees of this program who wish to have information about it for the purpose of enabling: (i) the exchange of information between indepen-

dently created programs and other programs (including this one) and (ii) the mutual use of the information which has been exchanged, should contact:

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

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

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

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

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

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

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

COPYRIGHT LICENSE:

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

Trademarks

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

law trademarks in other countries. A current list of IBM trademarks is available on the Web at “Copyright and trademark information” at **www.ibm.com/legal/copytrade.shtml**.

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

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

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

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

U.S. Patents Disclosure

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

Program Number: 5724-R95

Printed in USA

GC31-5607-00