DB2 Content Manager Version 8.2 Fix Pack 9 Readme

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Chapter 1. Introduction

Introduction

This readme file is the first document to read when setting up and installing DB2 Content Manager Version 8.2 Fix Pack 9, DB2 Information Integrator for Content Version 8.2 Fix Pack 9, DB2 Content Manager eClient Version 8.2 Fix Pack 9.

Customer technical support: WBTS - Support Web site

For any questions, concerns, or problems related to Content Manager for Multiplatforms, visit this Web site:

`www.ibm.com/software/data/cm/cmgr/mp/support.html`

For any questions, concerns, or problems related to Content Manager for z/OS, visit this Web site:

`http://www-306.ibm.com/software/data/cm/cmgr/390/support.html`

For any questions, concerns, or problems related to Enterprise Information Portal, visit this Web site:

`www.ibm.com/software/data/eip/support.html`

At the support Web sites, you can browse or search many technical documents, including Frequently Asked Questions (FAQs), Hints and Tips, defects (APARs), and other important information.

Before you install DB2 Content Manager Version 8.2 Fix Pack 9

The fix pack installation and removal (uninstall) instructions are organized by product and by operating system. After reviewing the common information here, go to the appropriate section for your operating system and follow the instructions. Applying a fix pack can take up to an hour.

Important: Before you install DB2 Content Manager Version 8.2 Fix Pack 9, you must have DB2 Content Manager Version 8.2 Fix Pack 8 installed on your system.

Fix pack requirement: If Content Manager and Information Integrator for Content (formerly Enterprise Information Portal) system administration clients are installed on the same system, they must be at the same fix pack level.

It is also required that the eClient and its prerequisite product, Information Integrator for Content, be at the same fix pack level.

If you plan to use a shared Content Manager and Enterprise Information Portal database, make sure that you install Content Manager before EIP.

Fix pack recommendation: All the DB2 Content Manager components including DB2 Content Manager, Information Integrator for Content, eClient, and system administration client should be at the same fix pack level.

Fix pack locale requirement: You will receive errors if you use a different locale fix pack to install than what is native to your system. For example, if you have CHT operating system and Content Manager/EIP, but you use an ENU fix pack 4 to install, then an error occurs. If this occurs, uninstall the fix pack you installed, and use the correct locale fix pack to install again.

Important: If you have a DB2 Content Manager Version 8.2 resource manager and want it to work with a DB2 Content Manager Version 8.3 library server, you must apply Fix Pack 9 first.

Restriction: Before installing the fix pack on any operating system, you must:

1. Stop the WebSphere Application Server.
2. Stop all running resource manager processes.
3. Stop all library server processes.
4. Stop and restart the DB2 instance.

Restriction: After you upgrade from DB2 Content Manager Version 8.2 Fix Pack 9 to DB2 Content Manager Version 8.3, all Fix Pack 9 fixes and functions are rolled back. Therefore, after you upgrade, make sure that you apply DB2 Content Manager Version 8.3 Fix Pack 1 in order to get back the Fix Pack 9 fixes and functions.

Conventions and variables: The variable WAS Home represents the installation path of WebSphere Application Server. The default path varies by operating system and is indicated when WAS Home is used. The variable App Server represents the name of the resource manager application. The default name, which is used in examples, is icmrm.

DB2 Content Manager Version 8.2 migration utilities

On Windows: An updated version of the migration utilities is delivered with each fix pack. You can use the migration utilities to migrate data from a Content Manager Version 6.1 or Content Manager Version 7.1 system to Content Manager Version 8.2.

The contents of this ZIP file are a complete replacement for the migrate\DB2 directory that originally ships on the Content Manager V8.2 Product CD-ROM. Any reference in the Migrating to Content Manager Version 8 guide to the contents of the migrate\DB2 directory from the Content Manager V8.2 Product CD-ROM should be substituted with the contents of the files below.

For Content Manager, the migration utility is now placed in the `Migrate` folder. Tivoli files are located in the `Tivoli` folder.

On AIX: An updated version of the migration utilities that are used to migrate data from a Content Manager V6.1 or Content Manager V7.1 system to Content Manager V8.2 can be found in the file utilities.tar.

The contents of this TAR file can be seen as a complete replacement for the `migrate/DB2` directory that originally ships on the Content Manager V8.2 Product CD-ROM. Any reference in the Migrating to Content Manager Version 8 guide to the contents of the `migrate/DB2` directory from the Content Manager V8.2 Product CD-ROM should be substituted with the contents of the `utilities.tar` file.

Content Manager:

WIN   CM_win_ENU_820.800.zip

- Migrate
- Tivoli
- Update_CM_win_ENU.exe

AIX   CM_aix_ENU_820.800.tar

- Migrate
- Tivoli
- Update_CM_aix_ENU

SUN   CM_sun_ENU_820.800.tar

- Tivoli
- Update_CM_sun_ENU

EIP:

WIN   EIP_win_ENU_820.800.zip
- Migrate
- WFInstall
- Update_EIP_win

AIX   EIP_aix_820.800.tar
- Migrate
- WFInstall
- Tivoli
- Update_EIP_aix

SUN   EIP_sun_820.800.tar
- WFInstall
- Update_EIP_sun

Important: For information about previous DB2 Content Manager Version 8.2 fix packs

For more information about previous DB2 Content Manager Version 8.2 fix packs, go to:
http://www.ibm.com/support/docview.wss?uid=swg27005891

Chapter 2. Prerequisites

DB2 Universal Database (UDB)

To run Content Manager for Multiplatforms and Content Manager for z/OS, the recommended prerequisites are:

- DB2 UDB Version 8.2 or higher with Net Search Extender (NSE) Version 8.2 or higher
- DB2 UDB Version 7.2 FixPak 12 or higher, with DB2 Text Search Extender Version 7.2 Fix Pack 2 or higher. Note: If Linux is your operating system, you cannot use DB2 UDB Version 7.2 FixPak 12.
- DB2 UDB Version 8.1 FixPak 6b or higher, with Net Search Extender (NSE) Fix Pack 4 or higher.

   Note:
   – DB2 UDB Version 8.1 FixPak 7a or higher requires Net Search Extender (NSE) Version 8.1 Fixpack7 or higher.
   – NSE Version 8.1 Fix Pack 7 is available at: FTP site:

   `ftp.software.ibm.com`

   Directory:

   `/ps/products/db2extenders/fixes/v8xxx/NSE_82*/*`

   where

   xxx   Platform

   NSE_8.2_fp7_IPnnnnn
         nnnnn is the number associated with different distributed platforms (AIX, Solaris, Windows, and Linux)

For Red Hat Enterprise Linux (EL) 3.0, you must download and apply the following patch for NSE, instead of using NSE Fix Pack 4. To access this FTP site, you might need to enter a user ID and password. If you need a user ID and password, enter anonymous as the user ID, and enter your Internet email address as the password.

`ftp.software.ibm.com/ps/products/db2extenders/fixes/v8linux_intel/ NSE_FP4_IP22795`

The file name is -rw-rw-r-- 1 20708 208 8376320 Aug 17 02:04 NSE_FP4_IP22795.tar.

Note: After you upgrade your DB2 UDB Version 8.1 to FixPak 6a and later, you must rebind the Content Manager library server by performing the following steps:

Windows
1. `cd` to `%ICMROOT%/config`
2. Enter the following command: `icmbindlsdb.bat`
3. When prompted, enter the database information (library server name, ID, password, and schema).

AIX, Solaris, Linux
1. `cd` to `$ICMROOT\config`
2. Type the following command: `icmbindlsdb.sh`
3. When prompted, enter the database information (library server name, ID, password, and schema).

Oracle

For running Content Manager using IBM DB2 Relational Connect (RCon) with Oracle, the prerequisites are: Oracle 8.1.7.4 EnterPrise Edition

Before installing Content Manager V8.2 Fix Pack 9 on a Content Manager V8.2 system with the resource manager, the following steps must be performed to configure the use of an Oracle database:

1. Create a temporary file name cmrmora.properties. This properties file must conform to a key=value pair scheme. The following keys with corresponding values must be included:

   ```
   ORACLE_DOMAIN=sv.ibm.com
   ORACLE_PORT=1521
   ICM_RM_ORACLE_HOSTNAME=RMDBH
   ```

   where

   ORACLE_DOMAIN
   > The Oracle domain name used for the resource manager database

   ORACLE_PORT
   > Indicates the Listener port for the Oracle instance

   ICM_RM_ORACLE_HOSTNAME
   > Indicates the host name where the resource manager database resides

   > **Note:** Do not add the domain name.

2. Copy the cmrmora.properties file to the default temporary directory:
   - On Windows, the default temporary directory is indicated by the environment variable %TMP%
   - On UNIX operating systems, you must copy cmrmora.properties to /tmp

IBM WebSphere Application Server

The minimum recommended levels are:
- WebSphere Application Server Version 4.0.5 (Advanced Edition or Advanced Single Server Edition)
- WebSphere Application Server Version 5.0.2 or later
- WebSphere Application Server Version 5.1.1 or later

> **Note:** WebSphere Application Server Version 6.0 is not supported.

Operating systems
- Microsoft Windows 2000 Professional, Microsoft Windows 2000 Server, and Windows Server 2003
- Clients: Windows NT, 2000, 2003, XP

> **Note:** The eClient application, that is, the portion of the eClient that runs on the application server, is not supported on Windows XP. However, the eClient that end-users access through a browser can run on the Windows XP operating system.

- AIX Version 4.3.3
- AIX Version 5.1
- AIX Version 5.2

> **Note:** AIX Version 5 Release 3 is not CURRENTLY supported in Content Manager Version 8.2.

- Sun Solaris 8
- Sun Solaris 9

Note: Sun Solaris 10 is not CURRENTLY supported in DB2 Content Manager Version 8.2.

- Linux:
  - Red Hat AS 2.1 kernel 2.4.9-e24, glibc 2.2.4
  - Red Hat Version 8.0 kernel 2.4.18, glibc 2.2.93 (system administration client and custom clients only)
  - Red Hat Enterprise Linux 3 (RHEL 3) update 4 kernel 2.4.21-27.Elsmp, glibc 2.3.2-95.6
  - SUSE LINUX Enterprise Server 8 kernel 2.4.19, glibc 2.2.5
  - SuSE Pro 8.1 kernel 2.4.19, glibc 2.2.5 (system administration client and custom clients only)
  - United Linux 1.0+ kernel 2.4.19, glibc 2.2.5

  Note: SUSE Linux Enterprise Server 9 is not CURRENTLY supported in DB2 Content Manager Version 8.2.

JDK/JRE

All JDK/JRE levels refer to IBM JDK/JRE levels.

Note: JDK 1.4.x is not CURRENTLY supported in DB2 Content Manager Version 8.2 unless it is stated below for specific platforms.

Microsoft Windows 2000 Server and Windows Server 2003
    Version 1.3.1 SR3

AIX 5.1 or 5.2
    Version 1.3.1 SR3

Solaris Version 8
    Version 1.3.1 SR4

Linux:

Red Hat AS 2.1
    Version 1.3.1 SR4

Red Hat Version 8.0
    Version 1.3.1 SR4

Red Hat Enterprise Linux 3 (RHEL 3) update 1
    Version 1.4.2

SUSE LINUX Enterprise Server 8
    Version 1.3.1 SR4

SuSE Pro 8.1
    Version 1.3.1 SR4

United Linux
    Version 1.3.1 SR4

C++ compiler

Required C++ compilers are:

Windows
    Visual C++ 6.0 or Microsoft .NET 2000 V7

AIX
- VisualAge C++ 5.0.2 or 6.0
- XL C/C++ Version 7 for AIX

Solaris

  - Sun Forte C++ 6.0 Update 2 or later

    Note: When installing EIP Version 8.2 GA with later editions of Forte C++ 6.0 Update 2, before you launch the installation, run the command:
    ```
    export IGNORE_PREREQ=true
    ```

Linux   Not applicable

IBM Tivoli Storage Manager

The minimum recommended levels are:
- Tivoli Storage Manager Version 5.1.5 or later
- Tivoli Storage Manager Version 5.2 or later
- Tivoli Storage Manager Version 5.3

Tivoli Storage Manager Version 5.1 setup: Tivoli Storage Manager 32 bit API client is the only client supported with the Content Manager resource manager. The Tivoli Storage Manager Version 5 32 bit API client package for AIX Version 5 is labeled as the 32 bit API client for AIX 4.3, but you can use the package if your system is configured with AIX Version 5.

Lightweight Direct Access Protocol (LDAP)

Supported LDAP products are:
- IBM Tivoli Directory Server Version 5.1, 5.2
- Lotus Domino Address Book Version 5.0.1.1, 6.x
- Microsoft Active Directory 2000, 2003
- Sun Java Directory Server Version 5.2 (SunOne)

WebSphere MQ Workflow (formerly MQSeries Workflow)

The minimum recommended levels are: WebSphere MQ Workflow Version 3.4 or Version 3.5

Browsers

Support browsers on Windows are:
- Microsoft Internet Explorer Version 5.5 or higher
- Netscape Version 4.7 or higher
- Apple Macintosh Safari 1.2 or higher

Chapter 3. Installing a Content Manager fix pack

Installing a Content Manager fix pack on Windows

Preparing for the fix pack

1. Stop WebSphere Application Server.

   To stop WebSphere Advanced Edition Version 5: Run this command:

   `%WAS_Home%\bin\stopServer.bat <App Server>`

   where

   %WAS_Home%
   : `C:\WebSphere\AppServer` by default

   App Server
   : `icmrm` by default

   To stop WebSphere Application Server Version 4 Advanced Edition: Stop the service IBM WebSphere Application Server.

   To stop WebSphere Application Server Version 4 Advanced Single Server Edition: Run this command:

   `%WAS_Home%\bin\stopServer.bat`

   where

   %WAS_Home%
   : `C:\WebSphere\AppServer` by default

2. If you have any resource manager processes running, stop all of them.

   For each resource manager, stop these four services:
   - ICM Migrator *DBNAME*
   - ICM Purger *DBNAME*
   - ICM Replicator *DBNAME*
   - ICM Stager *DBNAME*

3. If you have a library server process running, stop the process before continuing. Stop the service ICM LS Monitor *DBNAME*.

4. Stop the DB2 instance where the Content Manager databases are installed. Exit all DB2 applications, and type `db2stop` at a command prompt.

5. If you have DB2 Text Information Extender installed, type `db2text stop` at a command prompt. You should see the following message: `CTE0001 Operation completed successfully.`

6. Start the DB2 instance:

   a. Type

   `db2start`

   at a command prompt. You should see the following message:

   `SQL1063N DB2START processing was successful.`

   b. If you have DB2 Text Information Extender installed, type

   `db2text start`

   at a command prompt. You should see the following message:

   `CTE0001 Operation completed successfully.`

7. **Optional:** You can set the UPDATEDIR environment variable to identify an alternate location for the fix pack installation. **Restriction:** UPDATEDIR must be set to a different location for different products and different fix pack levels. It is highly recommended to have the product and fix pack level included in the UPDATEDIR path. For example, for Content Manager fix pack 3, set UPDATEDIR to C:\Program Files\IBM\CM82\CMFixpack03.

Running the Content Manager fix pack installation program

This section describes how to run the Content Manager fix pack installation program.

Before applying the fix pack, remove the class file CsaLSUpgrade.class, if it exists. This file is located at %ICMROOT%\config. Having the file in the config directory might cause the wrong class file to be used, and sometimes might cause failure during the library server configuration in the fix pack. Do not remove the CsaLSUpgrade.jar file.

1. Unzip the file.
2. From the command line, enter (as a locale example): `Update_CM_win_ENU` . The Installer window opens.
3. In the Installer window, click **Next**. If the library server is installed, you are directed to the Library Server Info window to type information about your library server. This information includes the library server database name, library server schema name, library server database administration ID, and password. After you type information about your library server, click **Next**.
4. If resource manager is installed, you are directed to the Resource Manager Info window. Type the number of your local resource manager Web applications, and click **Next**.
5. Type information about your first resource manager Web application including WebSphere home directory, application server name, Web application name, context root, and node name. After you type the information, click **Next**.
6. Type your resource manager database location, and enter information about your first resource manager database, including resource manager database name, database administration ID, and password. After you type the information, click **Next**.
7. The last window of the fix pack installation program displays the location where the product update temporary files are installed. Click **Next**.

Verifying the Content Manager fix pack installation and configuration

1. Verify the Content Manager fix pack was installed successfully by running from the command prompt: `%ICMROOT%\bin\cmlevel`. You should see output similar to: `IBM Content Manager for Multiplatforms 8.2.0.<This Fixpack Number>00 (........)`
2. Review the two files in %ICMROOT%\Fixpack0<This Fixpack Number>\logs, file_copy<timestamp>.log and update.log, and search for any occurrences of the keyword "error". Any errors may be subject to your system's configuration and should be investigated as necessary. Visit the CM Support Webpage `http://www-306.ibm.com/software/data/cm/cmgr/mp/support.html` to search for any known errors.

Uninstalling a Content Manager fix pack

Before you run the fix pack uninstall program, go through the steps described in **Preparing for the fix pack**. For example, make sure that the DB2 applications and services have been stopped correctly.

Do not remove the CM Update entry from the Add/Remove Programs list. The fix pack uninstall cannot start if CM Update is removed.

You must be in the directory where the fix pack is installed to start the fix pack uninstall program.

• If UPDATEDIR is not set, the fix pack is installed to <Product>\Fixpack<fp#>\ Example for Content Manager fix pack 3: C:\Program Files\IBM\CM82\Fixpack03\

- If UPDATEDIR is set, the fix pack is installed to UPDATEDIR Example if UPDATEDIR is set to C:\Temp\CMFixpack03: C:\Temp\CMFixpack03\

To run the Content Manager fix pack uninstall program, type the following command from the fix pack installation directory from a command prompt:

`updateUninstall.bat`

Verifying that the products function correctly

When bringing up the system administration client, if you receive the following error: `COM.ibm.db2.jdbc.app.DB2Driver`, which indicates that the JDBC driver is not found, perform the following steps to check whether DB2HOME is defined, and whether the JDBC driver exists:

1. Change directory to /d %CMSYSADMIN%.
2. Edit cmadmin81.bat, and look for the line: `set DB2JAR="%DB2HOME%\java12\db2java.zip";"%DB2HOME%\java\db2java.zip"`
3. Delete all the double quotes, so it changes to: `set DB2JAR=%DB2HOME%\java12\db2java.zip;%DB2HOME%\java\db2java.zip`

After you install each of the components, use the information available in *Planning and Installing Your Content Management System Version 8 Release 2*, GC27-1332-02 to guide you through the verification process.

Table 1. Information available in Planning and Installing Your Content Management System Version 8 Release 2

Platform	Product	Chapters from Planning and Installing Your Content Management System
Windows	• Content Manager	Chapter 11

Installing a Content Manager fix pack on AIX

Preparing for the fix pack

Before you run the fix pack installation program, you must stop WebSphere Application Server, stop all running resource manager processes, stop all running library server processes, and stop and restart the DB2 instance. Also ensure you use the X Windows System to install the fix pack on UNIX systems.

Attention:
- Make sure that you run the fix pack installation program as the root user.
- Run the DB2 profile of the instance where the Content Manager database is installed. For example, run:

  `. /home/db2inst1/sqllib/db2profile`

Restriction:
- On AIX 4.3.3 systems, the following system variable must be exported before running the fix pack installation:

  `AIX_ISMP_SUPPORT=AIX_VPD_OFF`
- After the installation of Content Manager and EIP on UNIX, the Content Manager and EIP file sets will not reflect the current version of the product. For example, after Content Manager V8.2 fix pack 1 installation, the lslpp command on the system will show product version at 8.2.0.0 instead of 8.2.0.10. Enter the command cmlevel to retrieve the correct Content Manager and EIP product level.
- Content Manager: cmlevel is located at /usr/lpp/icm/bin/cmlevel
- EIP: cmlevel is located at /usr/lpp/cmb/bin/cmlevel

1. Stop WebSphere Application Server.

   To stop WebSphere Advanced Edition Version 5: Run this command:

   `/usr/WebSphere/AppServer/bin/stopServer.sh <App Server>`

   where

   App Server
   > icmrm by default

   To stop WebSphere Advanced Edition 4:

   a. As root, enter this command to determine the node name:

      `/usr/WebSphere/AppServer/bin/wscp.sh -c "Node list"`

   b. As root, enter this command (on a single line) to stop the node:

      `/usr/WebSphere/AppServer/bin/wscp.sh -c "Node stop /Node:node_name /"`

      where

      node_name
      > The node where the resource manager is deployed. This is typically the name of your machine.

   To stop WebSphere Advanced Single Server Edition 4 (AES): As root, run this command:

   `/usr/WebSphere/AppServer/bin/stopServer.sh`

2. If you have any resource manager processes running, stop all of them.

   Enter:

   `/etc/rc.cmrmproc -act stop`

   You will see the client shutdown information on the console. To confirm that the resource manager processes have stopped, view /tmp/cmrmproc.log.

3. If you have a library server process running, stop the process before continuing. Run
   `/etc/rc.cmlsproc -shutdown`

4. Stop the DB2 instance where the Content Manager databases are installed. Run
   `su - userID of the DB2 instance`

   An example of userID of the DB2 instance is `db2inst1`. Run
   `db2stop`

5. If you have DB2 Text Information Extender installed, stop it by running `db2text stop` at a command prompt. You should see the message: `CTE0001 Operation completed successfully.`

6. As root, run slibclean.

7. Start the DB2 instance:

   a. As root, run

      `su - db2inst1`

   b. Run

      `db2start`

      You should see the message:

      `SQL1063N DB2START processing was successful.`

   c. If you have DB2 Text Information Extender installed, run

      `db2text start`

      You should see the message

      `CTE0001 Operation completed successfully.`

   d. Run

      `Exit`

8. **Optional:** You can set the UPDATEDIR environment variable to identify an alternate location for the fix pack installation.

   Restriction: UPDATEDIR must be set to a different location for different products and different fix pack levels. It is highly recommended to have the product and fix pack level included in UPDATEDIR path. For example, for Content Manager fix pack 3, set UPDATEDIR to /tmp/CMFixpack03 .

   Make sure that the Content Manager database administrator user IDs (typically icmadmin and rmadmin) have the proper permissions to access UPDATEDIR. For example, if UPDATEDIR is set to "/usr/lpp/CMFixpack03", type the following commands:

   ```
   su - icmadmin
   touch /usr/lpp/CMFixpack03/file_name
   exit
   chmod 777 /usr/lpp/CMFixpack03
   ```

Running the Content Manager fix pack installation program

This section describes how to run the Content Manager fix pack installation program.

Before applying the fix pack, remove the class file CsaLSUpgrade*.class, if it exists. This file is located at $ICMROOT/config. Having the file in the config directory might cause the wrong class file to be used, and sometimes might cause failure during the library server configuration in the fix pack. Do not remove the CsaLSUpgrade.jar file.

Before you run the fix pack installation program, change to the directory where you downloaded the image to run the fix pack installation program.

1. Un-tar the file: `tar -xvf <name of the downloaded file>`
2. From the command line, enter (as a locale example): `Update_CM_aix_ENU` The Installer window opens.
3. In the Installer window, click **Next**. If the library server is installed, you are prompted to type information about your library server including library server database name, library server schema name, library server database administration ID, and password. After you type information about your library server, click **Next**.
4. If resource manager is installed, you are prompted to type the number of your local resource manager Web applications. Type the number of your local resource manager Web applications, and click **Next**. You are directed to the window to type information about each resource manager Web application.
5. Type information about your first resource manager Web application, including the WebSphere home directory, application server name, Web application name, context root, and node name. After you type the information, click **Next**.
6. Type your resource manager database location, and type information about your first resource manager database, including the resource manager database name, database administration ID, and password. After you type the information, click **Next**.
7. The last window of the fix pack installation program displays the location where the product update temporary files are installed. Click **Next**.

Verifying the Content Manager fix pack installation and configuration

1. Verify the Content Manager fix pack was installed successfully by running from the command prompt: $ICMROOT/bin/cmlevel. You should see output similar to: `IBM Content Manager for Multiplatforms 8.2.0.<This Fixpack Number>00 (........)`
2. Review the two files in $ICMROOT/Fixpack0<This Fixpack Number>/logs, file_copy<timestamp>.log and update.log, and search for any occurrences of the keyword "error". Any errors may be subject to your system's configuration and should be investigated as necessary. Visit the CM Support Webpage `http://www-306.ibm.com/software/data/cm/cmgr/mp/support.html` to search for any known errors.

Uninstalling a Content Manager fix pack

Before you run the fix pack uninstall program, go through the steps described in Preparing for the fix pack. For example, make sure that DB2 applications and services are stopped correctly.

You must be in the directory where the fix pack is installed to start the fix pack uninstall program. Perform the following steps to ensure that the Content Manager database administrator user IDs (typically icmadmin and rmadmin) have the proper permissions to access UPDATEDIR. For example, if UPDATEDIR is set to "/home/user1/CMFixpack01", type the following commands:

```
su - icmadmin
touch /home/user1/CMFixpack01/file_name
exit
chmod 777 /home/user1/CMFixpack01
```

To run the Content Manager fix pack uninstall program, enter the following command:

```
updateUninstall
```

.

Verifying that the products function correctly

After you install each of the components, use the information available in *Planning and Installing Your Content Management System Version 8 Release 2*, GC27-1332-02 to perform the verification process.

Table 2. Information available in Planning and Installing Your Content Management System Version 8 Release 2

Platform	Product	Chapters from Planning and Installing Your Content Management System
AIX	• Content Manager	Chapter 19

Installing a Content Manager fix pack on Solaris

Preparing for the fix pack

Before you run the fix pack installation program, you must stop WebSphere Application Server, stop all running resource manager processes, stop all running library server processes, and stop and restart the DB2 instance. Also ensure you use X Windows System to install the fix pack on UNIX systems.

Attention:
- Make sure that you run the fix pack installation program as the root user.
- Run the DB2 profile of the instance where the Content Manager database is installed. For example, run:
  ```
  . /export/home/db2inst1/sqllib/db2profile
  ```

Restriction: After the installation of Content Manager and EIP on UNIX, the Content Manager and EIP file sets will not reflect the current version of the product. For example, after Content Manager V8.2 fix pack 1 installation, the pkginfo command on the system will show product version at 8.2.0.0 instead of 8.2.0.10. Enter the command cmlevel to retrieve the correct Content Manager and EIP product level.
- Content Manager: cmlevel is located at /opt/IBMicm/bin/cmlevel
- EIP: cmlevel is located at /opt/IBMcmb/bin/cmlevel
1. Stop WebSphere Application Server.

   To stop WebSphere Advanced Edition Version 5: Run this command:

```
/opt/WebSphere/AppServer/bin/stopServer.sh <App Server>
```
where

App Server
> `icmrm`

To stop WebSphere Advanced Edition 4:

a. As root, enter this command to determine the node name:
```
/opt/WebSphere/AppServer/bin/wscp.sh -c "Node list"
```

b. As root, enter this command (on a single line) to stop the node:
```
/opt/WebSphere/AppServer/bin/wscp.sh -c "Node stop /Node:node_name /"
```

where

node_name
> The node where the resource manager is deployed. This is typically the name of your machine.

To stop WebSphere Advanced Single Server Edition 4 (AES): As root, run this command:
```
/opt/WebSphere/AppServer/bin/stopServer.sh
```

2. If you have any resource manager processes running, stop all of them.
   Enter:
```
/etc/rc.cmrmproc -act stop
```
   You will see the client shutdown information on the console. To confirm that the resource manager processes have stopped, view /tmp/cmrmproc.log.

3. If you have a library server process running, stop the process before continuing. Run
   `/etc/rc.cmlsproc -shutdown`

4. Stop the DB2 instance where the Content Manager databases are installed. Enter the following commands, each on its own line (replace db2inst1 with the user ID of your DB2 instance):su -
   db2inst1 db2stop You should see the message: SQL1064N DB2STOP processing was successful.

5. If you have DB2 Text Information Extender installed, stop it by running db2text stop. You should see the message: CTE0001 Operation completed successfully.

6. Start the DB2 instance:

   a. As root, run
```
su - db2inst1
```

   b. Run
```
db2start
```

   You should see the message:
```
SQL1063N DB2START processing was successful.
```

   c. If you have DB2 Text Information Extender installed, run
```
db2text start
```

   You should see the message
```
CTE0001 Operation completed successfully.
```

   d. Run
```
Exit
```

7. **Optional:** You can set the UPDATEDIR environment variable to identify an alternate location for the fix pack installation.

   Restriction: UPDATEDIR must be set to a different location for different products and different fix pack levels. It is highly recommended to have the product and fix pack level included in UPDATEDIR path. For example, for Content Manager fix pack 3, set UPDATEDIR to /tmp/CMFixpack03.

Make sure that the Content Manager database administrator user IDs (typically icmadmin and rmadmin) have the proper permissions to access UPDATEDIR. For example, if UPDATEDIR is set to "/opt/CMFixpack03", type the following commands:

```
su - icmadmin
touch /opt/CMFixpack03/file_name
exit
chmod 777 /opt/CMFixpack03
```

Running the Content Manager fix pack installation program

This section describes how to run the Content Manager fix pack installation program.

Before applying the fix pack, remove the class file CsaLSUpgrade*.class, if it exists. This file is located at $ICMROOT/config. Having the file in the config directory might cause the wrong class file to be used, and sometimes might cause failure during the library server configuration in the fix pack. Do not remove the CsaLSUpgrade.jar file.

Before you run the fix pack installation program, change to the directory where you downloaded the image to run the fix pack installation program.

1. Un-tar the file: `tar -xvf <name of the downloaded file>`
2. From the command line, enter (as a locale example): `Update_CM_sun_ENU` The Installer window opens.
3. In the Installer window, click **Next**. If the library server is installed, you are prompted to type information about your library server including library server database name, library server schema name, library server database administration ID, and password. After you type information about your library server, click **Next**.
4. If a resource manager is installed, you are prompted to type the number of your local resource manager Web applications. Type the number of your local resource manager Web applications, and click **Next**. You are directed to the window to type information about each resource manager Web application.
5. Type information about your first resource manager Web application, including the WebSphere home directory, application server name, Web application name, context root, and node name. After you type the information, click **Next**.
6. Type your resource manager database location, and type information about your first resource manager database, including the resource manager database name, database administration ID, and password. After you type the information, click **Next**.
7. The last window of the Fix Pack installation program displays the location where the product update temporary files are installed. Click **Next**.

Verifying the Content Manager fix pack installation and configuration

1. Verify the Content Manager fix pack was installed successfully by running from the command prompt: `$ICMROOT/bin/cmlevel`. You should see output similar to: `IBM Content Manager for Multiplatforms 8.2.0.<This Fixpack Number>00 (........)`
2. Review the two files in $ICMROOT/Fixpack0<This Fixpack Number>/logs, file_copy<timestamp>.log and update.log, and search for any occurrences of the keyword "error". Any errors may be subject to your system's configuration and should be investigated as necessary. Visit the CM Support Webpage `http://www-306.ibm.com/software/data/cm/cmgr/mp/support.html` to search for any known errors.

Running the Content Manager fix pack uninstall program

Before you run the fix pack uninstall program, go through the steps described in Preparing for the fix pack. For example, make sure that DB2 applications and services are stopped correctly.

You must change to the directory where the fix pack is installed to start the fix pack uninstall program.

- If UPDATEDIR is not set, the fix pack is installed to <Product>/Fixpack<fp#>. Example for Content Manager fix pack 3: /opt/IBMicm/Fixpack03
- If UPDATEDIR is set, the fix pack is installed to UPDATEDIR Example if UPDATEDIR set to /opt/CMFixpack03: /opt/CMFixpack03

To run the Content Manager fix pack uninstall program, enter the following command:
`updateUninstall`

.

Verifying that the products function correctly

After you install each of the components, use the information available in *Planning and Installing Your Content Management System Version 8 Release 2*, GC27-1332-02 to perform the verification process.

Table 3. Information available in Planning and Installing Your Content Management System Version 8 Release 2

Platform	Product	Chapters from Planning and Installing Your Content Management System
Solaris	• Content Manager	Chapter 26

Installing a Content Manager fix pack on Linux

Preparing for the fix pack

Before you run the fix pack installation program, you must stop WebSphere Application Server, stop all running resource manager processes, stop all running library server processes, and stop and restart the DB2 instance. Also ensure you use X Windows System to install the fix pack on UNIX systems.

Attention:
- Make sure that you run the fix pack installation program as the root user.
- Run the DB2 profile of the instance where the Content Manager database is installed. For example, run:
  `. /home/db2inst1/sqllib/db2profile`

Restriction: After the installation of Content Manager and EIP on UNIX, the Content Manager and EIP file sets will not reflect the current version of the product. For example, after Content Manager V8.2 fix pack 1 installation, the pkginfo command on the system will show product version at 8.2.0.0 instead of 8.2.0.10. Enter the command cmlevel to retrieve the correct Content Manager and EIP product level.
- Content Manager: cmlevel is located at /opt/IBMicm/bin/cmlevel
- EIP: cmlevel is located at /opt/IBMcmb/bin/cmlevel
1. Stop WebSphere Application Server.

   To stop WebSphere Advanced Edition Version 5: Run this command:

   `/opt/WebSphere/AppServer/bin/stopServer.sh <App Server>`

   where

   App Server
   > `icmrm` by default
2. If you have any resource manager processes running, stop all of them.

   Enter:

   `/etc/rc.cmrmproc -act stop`

You will see the client shutdown information on the console. To confirm that the resource manager processes have stopped, view /tmp/cmrmproc.log.

3. If you have a library server process running, stop the process before continuing. Run /etc/rc.cmlsproc -shutdown

4. Stop the DB2 instance where the Content Manager databases are installed. Enter the following commands, each on its own line (replace db2inst1 with the user ID of your DB2 instance):su - db2inst1 db2stop You should see the message: SQL1064N DB2STOP processing was successful.

5. If you have DB2 Text Information Extender installed, stop it by running db2text stop. You should see the message: CTE0001 Operation completed successfully.

6. Start the DB2 instance:

   a. As root, run

      su - db2inst1

   b. Run

      db2start

      You should see the message:

      SQL1063N DB2START processing was successful.

   c. If you have DB2 Text Information Extender installed, run

      db2text start

      You should see the message

      CTE0001 Operation completed successfully.

   d. Run

      Exit

7. **Optional:** You can set the UPDATEDIR environment variable to identify an alternate location for the fix pack installation.

   Restriction: UPDATEDIR must be set to a different location for different products and different fix pack levels. It is highly recommended to have the product and fix pack level included in UPDATEDIR path. For example, for Content Manager fix pack 3, set UPDATEDIR to /tmp/CMFixpack03.

   Make sure that the Content Manager database administrator user IDs (typically icmadmin and rmadmin) have the proper permissions to access UPDATEDIR. For example, if UPDATEDIR is set to "/opt/CMFixpack03", type the following commands:

   su - icmadmin
   touch /opt/CMFixpack03/file_name
   exit
   chmod 777 /opt/CMFixpack03

Running the Content Manager fix pack installation program

This section describes how to run the Content Manager fix pack installation program.

Before applying the fix pack, remove the class file CsaLSUpgrade*.class, if it exists. This file is located at $ICMROOT/config. Having the file in the config directory might cause the wrong class file to be used, and sometimes might cause failure during the library server configuration in the fix pack. Do not remove the CsaLSUpgrade.jar file.

Before you run the fix pack installation program, change to the directory where you downloaded the image to run the fix pack installation program.

1. Un-tar the file: tar -xvf <name of the downloaded file>

2. From the command line, enter (as a locale example): Update_CM_lnx_ENU The Installer window opens.

3. In the Installer window, click **Next**. If the library server is installed, you are prompted to type information about your library server including library server database name, library server schema name, library server database administration ID, and password. After you type information about your library server, click **Next**.

4. If a resource manager is installed, you are prompted to type the number of your local resource manager Web applications. Type the number of your local resource manager Web applications, and click **Next**. You are directed to the window to type information about each resource manager Web application.

5. Type information about your first resource manager Web application, including the WebSphere home directory, application server name, Web application name, context root, and node name. After you type the information, click **Next**.

6. Type your resource manager database location, and type information about your first resource manager database, including the resource manager database name, database administration ID, and password. After you type the information, click **Next**.

7. The last window of the Fix Pack installation program displays the location where the product update temporary files are installed. Click **Next**.

Verifying the Content Manager fix pack installation and configuration

1. Verify the Content Manager fix pack was installed successfully by running from the command prompt: $ICMROOT/bin/cmlevel. You should see output similar to: `IBM Content Manager for Multiplatforms 8.2.0.<This Fixpack Number>00 (........)`

2. Review the two files in $ICMROOT/Fixpack0<This Fixpack Number>/logs, file_copy<timestamp>.log and update.log, and search for any occurrences of the keyword "error". Any errors may be subject to your system's configuration and should be investigated as necessary. Visit the CM Support Webpage `http://www-306.ibm.com/software/data/cm/cmgr/mp/support.html` to search for any known errors.

Running the Content Manager fix pack uninstall program

Before you run the fix pack uninstall program, go through the steps described in Preparing for the fix pack. For example, make sure that DB2 applications and services are stopped correctly.

You must change to the directory where the fix pack is installed to start the fix pack uninstall program.
- If UPDATEDIR is not set, the fix pack is installed to <Product>/Fixpack<fp#>. Example for Content Manager fix pack 3: /opt/IBMicm/Fixpack03
- If UPDATEDIR is set, the fix pack is installed to UPDATEDIR Example if UPDATEDIR set to /opt/CMFixpack03: /opt/CMFixpack03

To run the Content Manager fix pack uninstall program, enter the following command:
`updateUninstall`

.

Verifying that the products function correctly

After you install each of the components, use the information available in *Planning and Installing Your Content Management System Version 8 Release 2*, GC27-1332-02 to perform the verification process.

Table 4. Information available in Planning and Installing Your Content Management System Version 8 Release 2

Platform	Product	Chapters from Planning and Installing Your Content Management System
Linux	Content Manager	Chapter 33

Chapter 4. Installing an Information Integrator for Content fix pack

Installing an Information Integrator for Content fix pack on Windows

Preparing for the fix pack

1. If you have a library server process running, stop the process before continuing. Stop the service ICM LS Monitor *DBNAME*.
2. Stop the DB2 instance where the EIP database is installed. Exit all DB2 applications, and type `db2stop` at a command prompt.
3. If you have DB2 Text Information Extender installed, type `db2text stop` at a command prompt. You should see the following message: `CTE0001 Operation completed successfully.`
4. Start the DB2 instance:
   a. Type

      `db2start`

      at a command prompt. You should see the following message:

      `SQL1063N DB2START processing was successful.`
   b. If you have DB2 Text Information Extender installed, type

      `db2text start`

      at a command prompt. You should see the following message:

      `CTE0001 Operation completed successfully.`
5. **Optional:** You can set the UPDATEDIR environment variable to identify an alternate location for the fix pack installation. **Restriction:** UPDATEDIR must be set to a different location for different products and different fix pack levels. It is highly recommended to have the product and fix pack level included in the UPDATEDIR path. For example, for EIP fix pack 3, set UPDATEDIR to C:\CMBROOT\EIPFixpack03.

Running the Information Integrator for Content fix pack installation program

1. Unzip the file.
2. From the command line, enter (as a locale example): `Update_EIP_win_ENU` The Installer window opens.
3. In the Installer window, click **Next**. If the EIP administration database is installed, you are directed to a window that prompts you to type information about your EIP database, including database name, schema name, user ID and password. After you type information about your EIP database, click **Next**. You are directed to the last window of the fix pack installation program.
4. The last window of the fix pack installation program displays the location where the product update temporary files are installed. Click **Next**.

Verifying the Information Integrator for Content fix pack installation and configuration

1. Verify the Information Integrator for Content fix pack was installed successfully by running from the command prompt: %CMBROOT%\cmlevel. You should see output similar to: `IBM Enterprise Information Portal for Multiplatforms 8.2.0.<This Fixpack Number>00 (........)`
2. Review the two files in %CMBROOT%\Fixpack0<This Fixpack Number>\logs, file_copy<timestamp>.log and update.log and search for any occurrences of the keyword "error". Any

errors may be subject to your system's configuration and should be investigated as necessary. Visit the II4C Support Webpage `http://www-306.ibm.com/software/data/eip/support.html` to search for any known errors.

Uninstalling an Information Integrator for Content fix pack

Before you run the fix pack uninstall program, go through the steps described in Preparing for the fix pack. For example, make sure that the DB2 applications and services have been stopped correctly.

Do not remove the EIP Update entry from the Add/Remove Programs list. The fix pack uninstallation cannot start if EIP Update is removed.

You must be in the directory where the fix pack is installed to start the fix pack uninstall program.
- If UPDATEDIR is not set, the fix pack is installed to <Product>\Fixpack<fp#>\ Example for EIP Fix Pack 1: C:\CMBROOT\Fixpack01\
- If UPDATEDIR is set, the fix pack is installed to UPDATEDIR Example if UPDATEDIR set to C:\Temp\EIPFixpack01: C:\Temp\EIPFixpack01\

To run the Enterprise Information Portal fix pack uninstall program, type the following command from the fix pack installation directory at the command prompt:

`updateUninstall.bat`

Verifying that the products function correctly

When bringing up the system administration client, if you receive the following error: `COM.ibm.db2.jdbc.app.DB2Driver`, perform the following steps:
1. Change directory to /d %CMSYSADMIN%.
2. Edit cmadmin81.bat, and look for the line: `set DB2JAR="%DB2HOME%\java12\db2java.zip";"%DB2HOME%\java\db2java.zip"`
3. Delete all the double quotes, so it changes to: `set DB2JAR=%DB2HOME%\java12\db2java.zip;%DB2HOME%\java\db2java.zip`

After you install each of the components, use the information available in *Planning and Installing Your Content Management System Version 8 Release 2*, GC27-1332-02 to guide you through the verification process.

Table 5. Information available in Planning and Installing Your Content Management System Version 8 Release 2

Platform	Product	Chapters from Planning and Installing Your Content Management System
Windows	• Enterprise Information Portal	Chapter 13

Installing an Information Integrator for Content fix pack on AIX

Preparing for the fix pack

Before you run the fix pack installation program, you must stop all running library server processes, and stop and restart the DB2 instance. Also ensure you use the X Windows System to install the fix pack on UNIX systems.

Attention:

- Make sure that you run the fix pack installation program as the root user.
- Run the DB2 profile of the instance where the EIP database is installed. For example, run:

  `. /home/db2inst1/sqllib/db2profile`

Restriction:
- On AIX 4.3.3 systems, the following system variable must be exported before running the fix pack installation:

  `AIX_ISMP_SUPPORT=AIX_VPD_OFF`
- After the installation of Content Manager and EIP on UNIX, the Content Manager and EIP file sets will not reflect the current version of the product. For example, after Content Manager V8.2 fix pack 1 installation, the lslpp command on the system will show product version at 8.2.0.0 instead of 8.2.0.10. Enter the command cmlevel to retrieve the correct Content Manager and EIP product level.
- Content Manager: cmlevel is located at /usr/lpp/icm/bin/cmlevel
- EIP: cmlevel is located at /usr/lpp/cmb/bin/cmlevel

1. If you have a library server process running, stop the process before continuing. Run `/etc/rc.cmlsproc -shutdown`
2. Stop the DB2 instance where the EIP database is installed. Run

   `su - userID of the DB2 instance`

   An example of userID of the DB2 instance is db2inst1. Run

   `db2stop`
3. If you have DB2 Text Information Extender installed, stop it by running `db2text stop` at a command prompt. You should see the message: `CTE0001 Operation completed successfully.`
4. As root, run slibclean.
5. Start the DB2 instance:
   a. As root, run

      `su - db2inst1`
   b. Run

      `db2start`

      You should see the message:

      `SQL1063N DB2START processing was successful.`
   c. If you have DB2 Text Information Extender installed, run

      `db2text start`

      You should see the message

      `CTE0001 Operation completed successfully.`
   d. Run

      `Exit`
6. **Optional:** You can set the UPDATEDIR environment variable to identify an alternate location for the fix pack installation.

   Restriction: UPDATEDIR must be set to a different location for different products and different fix pack levels. It is highly recommended to have the product and fix pack level included in UPDATEDIR path. For example, for EIP Fix Pack 3, set UPDATEDIR to /tmp/EIPFixpack03 .

   Make sure that the EIP database administrator user ID (typically icmadmin) has the proper permissions to access UPDATEDIR. For example, if UPDATEDIR is set to "/usr/lpp/EIPFixpack03", type the following commands:

```
su - icmadmin
touch /usr/lpp/EIPFixpack03/file_name
exit
chmod 777 /usr/lpp/EIPFixpack03
```

Running the Information Integrator for Content fix pack installation program

1. Un-tar the file: `tar -xvf <name of the downloaded file>`

2. From the command line, enter: `Update_EIP_aix` The Installer window opens.

3. In the Installer window, click **Next**. If the EIP administration database is installed, you are prompted to type information about your EIP database, including the database name, schema name, user ID and password, After you type information about your EIP database, click **Next**. You are directed to the last window of the fix pack installation program.

4. The last window of the fix pack installation program displays the location where the product update temporary files are installed. Click **Next**.

Verifying the Information Integrator for Content fix pack installation and configuration

1. Verify the Information Integrator for Content fix pack was installed successfully by running from the command prompt: $CMBROOT/bin/cmlevel. You should see output similar to: `IBM Enterprise Information Portal for Multiplatforms 8.2.0.<This Fixpack Number>00 (........)`

2. Review the two files in $CMBROOT/Fixpack0<This Fixpack Number>/logs, file_copy<timestamp>.log and update.log and search for any occurrences of the keyword "error". Any errors may be subject to your system's configuration and should be investigated as necessary. Visit the II4C Support Webpage `http://www-306.ibm.com/software/data/eip/support.html` to search for any known errors.

Uninstalling an Information Integrator for Content fix pack

Before you run the fix pack uninstall program, go through the steps described in Preparing for the fix pack. For example, make sure that DB2 applications and services are stopped correctly.

You must be in the directory where the fix pack is installed to start the fix pack uninstall program. Perform the following steps to ensure that the EIP database administrator user ID (typically icmadmin) has the proper permissions to access UPDATEDIR. For example, if UPDATEDIR is set to "/home/user1/EIPFixpack01", type the following commands:

```
su - icmadmin
touch /home/user1/EIPFixpack01/file_name
exit
chmod 777 /home/user1/EIPFixpack01
```

To run the Enterprise Information Portal fix pack uninstall program, enter the following command:

```
updateUninstall
```

Verifying that the products function correctly

After you install each of the components, use the information available in *Planning and Installing Your Content Management System Version 8 Release 2*, GC27-1332-02 to perform the verification process.

Table 6. Information available in Planning and Installing Your Content Management System Version 8 Release 2

Platform	Product	Chapters from Planning and Installing Your Content Management System
AIX	• Enterprise Information Portal	Chapter 21

Installing an Information Integrator for Content fix pack on Solaris

Preparing for the fix pack

Before you run the fix pack installation program, you must stop all running library server processes, and stop and restart the DB2 instance. Also ensure you use X Windows System to install the fix pack on UNIX systems.

Attention:

- Make sure that you run the fix pack installation program as the root user.
- Run the DB2 profile of the instance where the EIP database is installed. For example, run:

  `. /export/home/db2inst1/sqllib/db2profile`

Restriction: After the installation of Content Manager and EIP on UNIX, the Content Manager and EIP file sets will not reflect the current version of the product. For example, after Content Manager V8.2 fix pack 1 installation, the pkginfo command on the system will show product version at 8.2.0.0 instead of 8.2.0.10. Enter the command cmlevel to retrieve the correct Content Manager and EIP product level.

- Content Manager: cmlevel is located at /opt/IBMicm/bin/cmlevel
- EIP: cmlevel is located at /opt/IBMcmb/bin/cmlevel

1. If you have a library server process running, stop the process before continuing. Run `/etc/rc.cmlsproc -shutdown`

2. Stop the DB2 instance where the EIP database is installed. Enter the following commands, each on its own line (replace db2inst1 with the user ID of your DB2 instance):su - db2inst1 db2stop You should see the message: SQL1064N DB2STOP processing was successful.

3. If you have DB2 Text Information Extender installed, stop it by running db2text stop. You should see the message: CTE0001 Operation completed successfully.

4. Start the DB2 instance:

   a. As root, run

      `su - db2inst1`

   b. Run

      `db2start`

      You should see the message:

      `SQL1063N DB2START processing was successful.`

   c. If you have DB2 Text Information Extender installed, run

      `db2text start`

      You should see the message

      `CTE0001 Operation completed successfully.`

   d. Run

      `Exit`

5. **Optional:** You can set the UPDATEDIR environment variable to identify an alternate location for the fix pack installation.

Restriction: UPDATEDIR must be set to a different location for different products and different fix pack levels. It is highly recommended to have the product and fix pack level included in UPDATEDIR path. For example, for EIP Fix Pack 3, set UPDATEDIR to /tmp/EIPFixpack03.

Make sure that the EIP database administrator user ID (typically icmadmin) has the proper permissions to access UPDATEDIR. For example, if UPDATEDIR is set to "/opt/EIPFixpack03", type the following commands:

```
su - icmadmin
touch /opt/EIPFixpack03/file_name
exit
chmod 777 /opt/EIPFixpack03
```

Running the Information Integrator for Content fix pack installation program

1. Un-tar the file: `tar -xvf <name of the downloaded file>`
2. From the command line, enter (as a locale example): `Update_EIP_sun_ENU` The Installer window opens.
3. In the Installer window, click **Next**. If the EIP administration database is installed, you are prompted to type information about your EIP database, including the database name, schema name, user ID and password. After you type information about your EIP database, click **Next**. You are directed to the last window of the fix pack installation program.
4. The last window of the fix pack installation program displays the location where the product update temporary files are installed. Click **Next**.

Verifying the Information Integrator for Content fix pack installation and configuration

1. Verify the Information Integrator for Content fix pack was installed successfully by running from the command prompt: $CMBROOT/bin/cmlevel. You should see output similar to: `IBM Enterprise Information Portal for Multiplatforms 8.2.0.<This Fixpack Number>00 (........)`
2. Review the two files in $CMBROOT/Fixpack0<This Fixpack Number>/logs, file_copy<timestamp>.log and update.log and search for any occurrences of the keyword "error". Any errors may be subject to your system's configuration and should be investigated as necessary. Visit the II4C Support Webpage `http://www-306.ibm.com/software/data/eip/support.html` to search for any known errors.

Uninstalling an Information Integrator for Content fix pack

Before you run the fix pack uninstall program, go through the steps described in Preparing for the fix pack. For example, make sure that DB2 applications and services are stopped correctly.

You must be in the directory where the fix pack is installed to start the fix pack uninstall program. Perform the following steps to ensure that the EIP database administrator user ID (typically icmadmin) has the proper permissions to access UPDATEDIR. For example, if UPDATEDIR is set to "/home/user1/EIPFixpack01", type the following commands:

```
su - icmadmin
touch /home/user1/EIPFixpack01/file_name
exit
chmod 777 /home/user1/EIPFixpack01
```

To run the Enterprise Information Portal fix pack uninstall program, enter the following command:

```
updateUninstall
```

Verifying that the products function correctly

After you install each of the components, use the information available in *Planning and Installing Your Content Management System Version 8 Release 2*, GC27-1332-02 to perform the verification process.

Table 7. Information available in Planning and Installing Your Content Management System Version 8 Release 2

Platform	Product	Chapters from Planning and Installing Your Content Management System
AIX	• Enterprise Information Portal	Chapter 21

Installing an Information Integrator for Content fix pack on Linux

Preparing for the fix pack

Before you run the fix pack installation program, you must stop all running library server processes, and stop and restart the DB2 instance. Also ensure you use X Windows System to install the fix pack on UNIX systems.

Attention:
- Make sure that you run the fix pack installation program as the root user.
- Run the DB2 profile of the instance where the EIP database is installed. For example, run:

  `. /home/db2inst1/sqllib/db2profile`

Restriction: After the installation of Content Manager and EIP on UNIX, the Content Manager and EIP file sets will not reflect the current version of the product. For example, after Content Manager V8.2 fix pack 1 installation, the pkginfo command on the system will show product version at 8.2.0.0 instead of 8.2.0.10. Enter the command cmlevel to retrieve the correct Content Manager and EIP product level.

- Content Manager: cmlevel is located at /opt/IBMicm/bin/cmlevel
- EIP: cmlevel is located at /opt/IBMcmb/bin/cmlevel

1. If you have a library server process running, stop the process before continuing. Run `/etc/rc.cmlsproc -shutdown`

2. Stop the DB2 instance where the EIP database is installed. Enter the following commands, each on its own line (replace db2inst1 with the user ID of your DB2 instance):su - db2inst1 db2stop You should see the message: `SQL1064N DB2STOP processing was successful.`

3. If you have DB2 Text Information Extender installed, stop it by running `db2text stop`. You should see the message: `CTE0001 Operation completed successfully.`

4. Start the DB2 instance:

   a. As root, run

      `su - db2inst1`

   b. Run

      `db2start`

      You should see the message:

      `SQL1063N DB2START processing was successful.`

   c. If you have DB2 Text Information Extender installed, run

      `db2text start`

      You should see the message

      `CTE0001 Operation completed successfully.`

d. Run

```
Exit
```

5. **Optional:** You can set the UPDATEDIR environment variable to identify an alternate location for the fix pack installation.

   Restriction: UPDATEDIR must be set to a different location for different products and different fix pack levels. It is highly recommended to have the product and fix pack level included in UPDATEDIR path. For example, for EIP fix pack 3, set UPDATEDIR to /tmp/EIPFixpack03.

   Make sure that the EIP database administrator user ID (typically icmadmin) has the proper permissions to access UPDATEDIR. For example, if UPDATEDIR is set to "/opt/EIPFixpack03", type the following commands:

```
su - icmadmin
touch /opt/EIPFixpack03/file_name
exit
chmod 777 /opt/EIPFixpack03
```

Running the Information Integrator for Content fix pack installation program

1. From the command line, enter (as a locale example): `Update_EIP_lnx_ENU` The Installer window opens.
2. In the Installer window, click **Next**. If the EIP administration database is installed, you are prompted to type information about your EIP database, including the database name, schema name, user ID and password. After you type information about your EIP database, click **Next**. You are directed to the last window of the fix pack installation program.
3. The last window of the fix pack installation program displays the location where the product update temporary files are installed. Click **Next**.

Verifying the Information Integrator for Content fix pack installation and configuration

1. Verify the Information Integrator for Content fix pack was installed successfully by running from the command prompt: $CMBROOT/bin/cmlevel. You should see output similar to: `IBM Enterprise Information Portal for Multiplatforms 8.2.0.<This Fixpack Number>00 (........)`
2. Review the two files in $CMBROOT/Fixpack0<This Fixpack Number>/logs, file_copy<timestamp>.log and update.log and search for any occurrences of the keyword "error". Any errors may be subject to your system's configuration and should be investigated as necessary. Visit the II4C Support Webpage `http://www-306.ibm.com/software/data/eip/support.html` to search for any known errors.

Uninstalling an Information Integrator for Content fix pack

Before you run the fix pack uninstall program, go through the steps described in Preparing for the fix pack. For example, make sure that DB2 applications and services are stopped correctly.

You must be in the directory where the fix pack is installed to start the fix pack uninstall program. Perform the following steps to ensure that the EIP database administrator user ID (typically icmadmin) has the proper permissions to access UPDATEDIR. For example, if UPDATEDIR is set to "/home/user1/EIPFixpack01", type the following commands:

```
su - icmadmin
touch /home/user1/EIPFixpack01/file_name
exit
chmod 777 /home/user1/EIPFixpack01
```

To run the Enterprise Information Portal fix pack uninstall program, enter the following command:

```
updateUninstall
```

Verifying that the products function correctly

After you install each of the components, use the information available in *Planning and Installing Your Content Management System Version 8 Release 2*, GC27-1332-02 to perform the verification process.

Table 8. Information available in Planning and Installing Your Content Management System Version 8 Release 2

Platform	Product	Chapters from Planning and Installing Your Content Management System
AIX	• Enterprise Information Portal	Chapter 21

Chapter 5. Installing a Content Manager eClient fix pack

Installation information for eClient on Windows

Installing the fix pack

1. Start or stop WebSphere Application Server as indicated:

   WebSphere Application Server Version 5.0: Make sure the WebSphere Application Server administrative server (server1) is started, but others servers are stopped. Server1 is required in order for JACL scripts to be executed successfully.

   WebSphere Application Server Version 4.0: Make sure WebSphere Application Server service is stopped.

   Attention: Sometimes even after stopping the WebSphere Application Server service, the Java.exe processes that WebSphere Application Server runs under do not stop. This causes locks on the files that the fix pack needs to update and your fix pack installation will fail. Use the Windows Task Manager to verify that the processes have stopped. You might want to restart your system and then stop WebSphere Application Server again if it's set to startup automatically at Windows startup. This should cause the Java.exe processes to end properly.

2. For certain languages the Windows command prompt does not display characters correctly. If you are running on a non-English system, perform the following steps from a DOS prompt:

   a. Change to the directory where you unzipped the driver (setup.jar). For example:

      ```
      cd C:\Temp\eclient
      ```

   b. Change the codepage to one appropriate to your country.

      ```
      chcp XXXX
      ```

      where

      XXXX   Windows code page for your language

   c. Change the console font to Lucida:

      1) Right-click the title bar of the DOS windows and select **Properties**.
      2) Select the Font tab.
      3) Change Font to Lucida Console.

3. Enter the following command in the directory where you extracted the fix pack. Enter the installation command: `java -cp setup.jar run -silent`

4. Verify that the eClient successfully installed by typing the cmlevel command in the eClient installation directory. You should see output similar to: `cmlevel Content Manager eClient 8.2.0.700`

Uninstalling the fix pack

For both WebSphere Application Server Advanced Edition Version 4 and Version 5: Make sure the administration server is started. This is required for the eClient to be successfully undeployed.

For WebSphere Application Server Advanced Edition Single Server Version 4: Make sure the administration server is stopped. This is required for the eClient to be successfully undeployed.

Restriction: The eClient does not support incremental uninstall of fix packs. If you uninstall the client, you will lose both fix packs and the eClient General Availability (GA) product code.

Known problems and restrictions

Abstract: Unable to detect if the GA installation is on Windows 2000 systems.

Problem Description: The eClient fix pack checks to see if there is a GA version of the product installed on the system before allowing you to install files. The fix pack performs this check by evaluating the vpd.properties file. The default location is C:\WINNT\vpd.properties. If, however, the %HOMEPATH% environment variable has been changed or if the user who is installing the fix pack is not the one who installed the eClient originally, then the fix pack installation will not be able to locate the vpd.properties file. This causes the installation to display the following message "Unable to install product: Fix Pack is associated with product that is not installed on target machine."

Workaround: Unset the %HOMEPATH% environment variable, and rerun the fix pack installation.

Abstract: The eClient will stop on the logon page for WebSphere Application Server 5.0 SP1 or SP2.

Workaround: To get around the problem you must set cm7=false in IDM.properties or set FRNADDRON=true in the eClient_Server environment properties using the WebSphere Application Server administrator.

Open the WebSphere Application Server 5.0 administrative console and navigate to **Servers > eClient_Server > Process Definition > Environment Entries**. Select **New** and add FRNADDRON for the entry name and true for the value. Save the changes and restart the eClient application server.

Installation information for eClient on AIX

Installing the fix pack

Make sure that the WebSphere administrative server (server1) is started. This is required in order for JACL scripts to be executed successfully. Download and then un-tar the eclient820.600.UNIX.tar file. In the directory where the fix pack was extracted, enter: `java -cp setup.jar run -silent`

Uninstalling the fix pack

For both WebSphere Advanced Edition Version 4 and Version 5: Make sure the administration server is started. This is required for the eClient to be successfully undeployed.

For WebSphere Advanced Edition Single Server Version 4: Make sure the administration server is stopped. This is required for the eClient to be successfully undeployed.

Attention: The eClient does not support incremental uninstall of fix packs. If you uninstall the client, you will lose both fix packs and the eClient General Availability (GA) product code.

Known problems and restrictions

Abstract: For fix pack 2, the eClient hangs on the logon page for WebSphere Application Server 5.0 SP1 or SP2.

Workaround: Make one of the following changes:
- Set cm7=false in IDM.properties. Set FRNADDRON=true in the eClient_Server environment properties using the WebSphere Application Server administrator.

- Open the WebSphere Application Server 5.0 administrator and navigate to **Servers > eClient_Server > Process Definition > Environment Entries**. Select New and add FRNADDRON for the entry name and true for the value. Save the changes and restart the eClient application server.

Installation information for eClient on Solaris

Installing the fix pack

1. Make sure that the WebSphere administrative server (server1) is started. This is required in order for JACL scripts to be executed successfully.
2. Download and then un-tar the eclient820.600.UNIX.tar file.
3. In the directory where the fix pack was extracted , enter: `java -cp setup.jar run -silent`

Uninstalling the fix pack

For both WebSphere Advanced Edition Version 4 and Version 5: Make sure the administration server is started. This is required for the eClient to be successfully undeployed.

For WebSphere Advanced Edition Single Server Version 4: Make sure the administration server is stopped. This is required for the eClient to be successfully undeployed.

Attention: The eClient does not support incremental uninstall of fix packs. If you uninstall the client, you will lose both fix packs and the eClient General Availability (GA) product code.

Installation information for eClient on Linux

Installing the fix pack

1. Make sure that the WebSphere administrative server (server1) is started. This is required in order for JACL scripts to be executed successfully.
2. Download and then un-tar the eclient820.600.UNIX.tar file.
3. In the directory where the fix pack was extracted , enter: `java -cp setup.jar run -silent`

Uninstalling the fix pack

Make sure the WebSphere Advanced Edition Version 5 administration server is running. This is required for the eClient to be successfully undeployed.

Attention: The eClient does not support incremental uninstall of fix packs. If you uninstall the client, you will lose both fix packs and the eClient General Availability (GA) product code.

Verifying the eClient fix pack installation and configuration

1. Verify the eClient fix pack was installed successfully by running from the command prompt: `CMeClient\cmlevel`. You should see output similar to: `Content Manager eClient 8.2.0.<This Fixpack Number>00 (.......)`
2. Review CMeClient\eC_Fixpack.log and search for any occurrences of the keyword "error". Depending on your configuration, there should be a single occurrence of "The fixpack_config script has completed successfully.", and a total of 3 occurrences of "Fixpack installation complete." Any exceptions are subject to your system's configuration and should be investigated as necessary. Visit the II4C Support Webpage `http://www-306.ibm.com/software/data/eip/support.html` to search for any known errors.

3. Start your eClient server, and ensure login, search, document retrieval, and other basic functions are working properly.

Chapter 6. Fix pack 9 Content Manager fixes and descriptions

Important: For information about previous DB2 Content Manager Version 8.2 fix packs

For more information about previous DB2 Content Manager Version 8.2 fix packs, go to:
http://www.ibm.com/support/docview.wss?uid=swg27005891

IO00041

APAR description
> DB2 Content Manager Version 8.2 Fix Pack upgrade has hard coded the database authentication.

Fix description
> Removed hardcoded ″DBAUTH=SERVER″ from connector.

IO00046

APAR description
> The library server monitor incorrectly marked some resource managers as being unavailable, even though they were up and running.

Fix description
> The library server monitor now waits for a reply from the resource managers using the RMStatusTimeOut value in the ICMSTSysControl table as the wait time limit.

IO00049

APAR description
> When ACL user exit is enabled, you get a retrieve link failure with error codes.

Fix description
> This problem has been fixed.

IO00056

APAR description
> Retrieving from item type subsets after adding new attributes to the item type causes error DGL3608A with library server return code 7007. The item type subset is marked unavailable.

Fix description
> This problem has been fixed.

IO00075

APAR description
> An analysis of library server performance indicates that item creation and update activity is slowed by reads of the library server tracking table.

Fix description
> The library server has been modified (where appropriate) to perform uncommitted reads of the library server tracking table.

IO00334

APAR description

Storing from or migrating to Tivoli Storage Manager hangs if file is larger than 2 GB.

Fix description

This problem has been fixed.

IO00118

APAR description

While copying attributes using the DB2 Content Manager system administration client, the panel shows the default length of the attribute, however, it does not preserve the original length of the source attribute, and you need to change the destination attribute length manually.

Fix description

This problem has been fixed.

IO00126

APAR description

While using an RME client and EIP Java APIs to connect to DB2 Content Manager, when replication is enabled, an attempt to update only ACL fails with error code ICM9798 rc=7015, ext RC=100.

Fix description

This problem has been fixed.

IO00154

APAR description

In the eClient applet viewer, the icons are not displayed for printing and the editing of annotations. They are displayed only for subview users.

Fix description

This problem has been fixed.

IO00176

APAR description

While a user ID is deleted from Active Directory, that user is not deleted from Content Manager when the LDAP import utility is run.

Fix description

This problem has been fixed.

IO00185

APAR description

ERROR DESCRIPTION: The threshold migrator is not deleting objects that had been migrated to the next storage class (or management class). This caused the percent full on the volume to never decrease, so the threshold migrator kept migrating objects until there were no more objects available for migration.

LOCAL FIX: Turn off threshold migration and manually track volume space.

Fix description

Logic for threshold migration is modified to delete the file right after an object is migrated successfully.

IO00187

APAR description

Non-workflow suspend items are not migrated.

Fix description

This problem has been fixed. Non-workflow suspend items will be migrated to DB2 Content Manager Version 8 with this fix.

IO00214

APAR description

The rc.cmrmproc script does not use a posix compliant version of awk, which causes error with long CLASSPATH or PATH statements.

Fix description

This problem has been fixed.

IO00222

APAR description

You encountered the following error scenario:

1. Created a text-searchable item type with a non-icmadmin user ID that has the same privileges as icmadmin.
2. From the system administration client, you selected **LS config->features**, set the TIE ID to `icmadmin`.
3. Imported a document, and performed content search.
4. Deleted the document, and attempted to delete the item type. Failed with error code ICM7015 error with SQL -811. Detailed error message shows the following:

```
  Error defining text search index
          Error from TS  <CTE0100 A DB2 operation failed.
DB2 information:"40001" "[IBM][CLI Driver][DB2/6000] SQL0911N
The current transaction has been rolled back because of a
deadlock or timeout.
Reason code "68".  SQLSTATE=40001>
    Ext RC =       100
```

Fix description

This problem has been fixed. A workaround is to use the same user ID to create item types and for text search.

IO00266

APAR description

Re-indexed migrated Work In Progress (WIP) item disappear after ″REFRESH″.

Fix description

This problem has been fixed.

IO00267

APAR description

Getting DGL3841 - Attribute does not exist in entity : 'ORIFNAME' while accessing resource item with child component after upgrading to Fix Pack 7 or Fix Pack 8.

Fix description

With the fix, applying Fix Pack 9 cleans up the child component table, and ensures child component updates are correct.

IO00305

APAR description

The migrator thread hangs.

Fix description

The migrator thread hangs when it cannot delete all objects within the duration. This problem has been fixed.

IO00313: Incorrect length of DB2 Content Manager Version 8 internal names

The following table locates the documentation change.

Title	Chapter, if applicable	Section title
Migrating to DB2 Content Manager Version 8	Overview	Truncation and character substitution in mapping

Current, incorrect information

In addition, the internal names are limited to 16 characters. So, Content Manager Version 7 names longer than 16 characters are truncated.

Correct information

In addition, the internal names are limited to 15 characters. So, Content Manager Version 7 names longer than 15 characters are truncated.

IO00396

APAR description

The system defined foreign key is dropped after altering an item type that has a reference attribute.

Fix description

This problem has been fixed.

IO00397

APAR description

Duplicate reference IDs might be created (in very rare cases) in a race condition. As a result, relationships between reference attributes in component tables and their corresponding rows in the reference table (ICMSTRI001001) might be lost.

Fix description

The library server has been corrected to always generate a unique reference ID.

IO00592

APAR description

Logon to EIP Fix Pack 7 takes too long time to return.

Fix description

This problem has been fixed.

IO00597

APAR description

The users with long DN (Distinguished Name) are not be imported.

Fix description

This problem has been fixed.

IO00626

APAR description

C++ DKUserMgmtICM::add() or DKUserMgmtICM::update() causes memory leak.

Fix description

This problem has been fixed.

IO00629: DefaultType values for ICMSTCOMPATTRS

The valid values for DefaultType are as follows:

0 (DK_ATTR_TYPE_DEFAULT_UNDEFINED)

The attribute has no default value. The default value is ignored, regardless of what the default value is set to. The attribute is considered to have no default value based on the default type.

1 (DK_ATTR_TYPE_DEFAULT_STRING)

The attribute has a default value that is the string constant found in the DefaultValue column. Regardless of whether the attribute is defined as nullable or not, the default value is considered as a String representation of the value, and will be converted to the correct type depending on the attribute type (and set as the default value).

2 (DK_ATTR_TYPE_DEFAULT_FLOAT)

The attribute has a default value that is the floating-point constant found in the DefaultValue column. If the attribute type is a float, then the default value is converted to a float object (and set as the default value). If the attribute type takes a String, then it is set as the string. Otherwise, it is ignored if ″not applicable″ for that attribute type.

3 (DK_ATTR_TYPE_DEFAULT_DECIMAL)

The attribute has a default value that is the decimal constant found in the DefaultValue column. If the attribute type is a float, then the default value is converted to a decimal object (and set as the default value). If the attribute type takes a String, then it is set as the string. Otherwise, it is ignored if ″not applicable″ for that attribute type.

4 (DK_ATTR_TYPE_DEFAULT_INTEGER)

The attribute has a default value that is the integer constant found in the DefaultValue column. If the attribute type is numeric, then the default value is converted to that type (and set as the default value). If the attribute type takes a String, it is set as the string. Otherwise, it is ignored if ″not applicable″ for that attribute type.

5 (DK_ATTR_TYPE_DEFAULT_HEXSTRING)
The attribute has a default value that is the hex string found in the DefaultValue column. This is considered a string containing a hexadecimal numeric value. If the attribute type is numeric, then the default value is converted to that type (and set as the default value). If the attribute type takes a String, then it is set as the string. Otherwise, it is ignored if "not applicable" for that attribute type.

6 (DK_ATTR_TYPE_DEFAULT_OTHER)
The default value depends on the data type of the attribute, the bit 0 of AttrFlags, and the value of the DefaultValue column. If the attribute is not nullable (required), then it is converted to the correct type depending on the attribute type. If the attribute is nullable, then the default value is ignored and not set. **Recommendation:** Consider using String (1) rather than Other (6) because of the less complicated behavior.

- If the value of the DefaultValue column is not null, the default is the value in the DefaultValue column.
- If the value of the DefaultValue column is null, the default depends on bit 0 of AttrFlags.
- If bit 0 of AttrFlags is 1 (nullable), then the attribute has a default value of null.
- If bit 0 of AttrFlags is 0 (not null), the default value depends on the data type of the attribute:

Table 9. Default values and data types of attributes

Data type	Default value
Numeric	0
Fixed-length string	Blanks
Varying-length string	A string length of 0
Date	The current date
Time	The current time
Timestamp	The current timestamp

Important notes:
Some of the behavior controlled or requested by the above default types is not available in the C++ connector. Upgrading to the latest fix pack will ensure that you have most of the enabled functionality for C++. All of the above behavior is available for the Java connector. For more information, refer to the SAttributeDefinitionICM.java or .cpp API Education Sample that is available with DB2 Information Integrator for Content's tool kits and samples for the DB2 Content Manager Version 8 connector.

IO00684

APAR description
While adding a new part to an item and the caller does not specify the part number, the library server does not automatically determine the current max part number, increment it by 1, and set that value as the new part's number. Instead, the library server always sets the part number to 1.

Fix description
This problem has been fixed.

IO00739: IBM Directory Server not supported on Windows 2003

While the DB2 Content Manager Version 8.2 product package ships with IBM Directory Server, IBM Directory Server is not supported on Windows 2003, and does not install. Use the Tivoli Directory Server Client SDK.

Obtain IBM Tivoli Directory Server and IBM Tivoli Directory Server SDK

IR53040

APAR description

When creating a unique index for a component view, the system administration client and library server were both not taking into account whether or not versioning was turned on.

Fix description

Logic will be added to the system administration client to not allow unique indexes to be created unless versioning is set to never. Also, the manner in which unique indexes are created will be modified to include the attribute, as well as componentid and version.

IR53899

APAR description

The reference item is not completely deleted by CASCADE rule.

Fix description

The fix is to clean up orphaned items for scenarios when the target item is deleted with DELETE_CASCADE rule.

IR54207

APAR description

The migration utility that migrates Content Manager Version 7.1 to DB2 Content Manager Version 8.2 wraps rows in the *.DEL file.

Fix description

The migration utility has been corrected, and it no longer wraps rows.

IR54476

APAR description

Saving a document to overflow volume the second time after adding the second annotation fails with return code 9875 from the resource manager.

Fix description

This problem has been fixed.

IR54693

APAR description

If you attempt to upgrade to Fix Pack 7 and the library server database user ID is different from the library server schema, the installation fails with an error similar to the following:

```
Reset Max Sequence Number error at /dldaily/cm/ls/icmpls82.ccc line 442
SQL0204N  "ICMADMIN.CM_SEQ_ACL" is an undefined name.  SQLSTATE=42704
SQLSTATE 42704: An undefined object or constraint name was detected
```

Fix description

This problem has been fixed.

IR54809

APAR description

The TIFF1STP Mime type (image/tiff1stp) is redundant.

Fix description

The TIFF1STP Mime type with Mime type ID 194 has been change to "TIFF1STP Image".

IR54925

APAR description

EIP migration always resets type to parametric search in Search Template.

Fix description

This problem has been fixed.

IR54950

APAR description

You attempted to run text indexing on files that are larger then 25 MB, and failed with different errors under different scenarios. This APAR extends the text indexing to files larger than 25 MB with guidelines and restrictions for use provided in the readme.

Fix description

This problem has been fixed.

IR54951

APAR description

Cannot update item type by adding text indexing or update text search information for text searchable attributes in an item type. You might see the following errors in the server log:

```
SQL0803N  One or more values in the INSERT statement, UPDATE statement,
or foreign key update caused by a DELETE statement are not valid
because the primary key, unique constraint or unique index
identified by "2" constrains table "ICMADMIN.ICMSTCOMPATTRS"
from having duplicate rows for those columns.
  SQLSTATE=23505
```

or you might see an error indicating the text index is not found in the server log.

Fix description

This problem has been fixed.

IR55008

APAR description

Privileges from Version 7 are not mapped to Version 8 privileges correctly during migration.

Fix description

This problem has been fixed.

IR55073

APAR description

Work In Progress (WIP) items disappear after they are re-indexed.

Fix description

This problem has been fixed.

IR55104

APAR description

Previously, the utility for creating Content Manager system defined item types (ICMDefineSystemItemTypes.java) cannot be run more than once.

Fix description

The utility has been modified so that it can be run more than once. It defines item types that do not exist, and leaves alone the item types that already exist.

IR55161

APAR description

The Compute Size panel of the migration GUI was calculating the size required incorrectly.

Fix description

The calucation of the disk space required is now correct.

Chapter 7. Fix pack 9 Information Integrator for Content fixes and descriptions

Important: For information about previous DB2 Content Manager Version 8.2 fix packs

For more information about previous DB2 Content Manager Version 8.2 fix packs, go to: http://www.ibm.com/support/docview.wss?uid=swg27005891

IO00032

APAR description

While performing the destroy process, the timer thread is not stopped during error conditions using the datastore pool.

Fix description

This problem has been fixed.

IO00045

APAR description

LDAP user import tool failed to add user to group if the EIP database is not shared with Content Manager.

Fix description

Keep PUserMgmtImpFed.java synch with PUserMgmtImpICM.java.

IO00067

APAR description

While adding a text annotation in the eClient applet viewer, the default ″rotate with image″ property is enabled. Therefore, if the document is flipped 180 degrees before this, the annotation is flipped also right after it's added. You need to modify its properties to disable ″rotate with image″ so that the annotation may stay where intended. The same problem exists with sticky notes. It is more problematic for sticky notes since there is no way to change the property for a sticky note.

Fix description

This problem has been fixed.

IO00071

APAR description

CMBGenericDocViewer.addAnnotation() API is used in a visual scenario to add annotation programmatically, however, the API is not setting certain required properties on the annotation. As a result, the annotation is not displayed correctly.

Fix description

The addAnnotaiton() API is now fixed to set the correct properties.

IO00147

APAR description

>Using JRE 1.4 versions, when the applet viewer is initialized, the viewer jar file is downloaded into the client machine for each toolbar icons. This is a big impact on the applet performance. This is indeed a JDK bug, for details,
>
>http://bugs.sun.com/bugdatabase/view_bug.do?bug_id=4912903
>
>.

Fix description

>To workaround the JDK bug, create a urlconnection object to load the image icon and set the useCaches to true for this urlconnection instance.

IO00178

APAR description

>Customer's application using C++ API's occasionally gets hung by the transaction manager during the commitTx() call.

Fix description

>This problem has been fixed.

IO00196

APAR description

>You received error messages while trying to change password through the eClient, however, the password was successfully changed.

Fix description

>This problem has been fixed.

IO00221

APAR description

>Across multiple invocations of an applet container for the Java viewer, some user interface elements in the annotation properties window might stop responding.

Fix description

>This problem has been fixed.

IO00228

APAR description

>The `TotalMaxResults` property setting in `IDM.properties` for the eClient does not work while connecting to an OnDemand server. It always returns all available results.

Fix description

>This problem has been fixed.

IO00233

APAR description

>The document conversion engine did not convert correctly certain umlaut characters in a MO:DCA format document correctly displaying them as junk or question marks.

Fix description

>This problem has been fixed.

IO00239

APAR description

The document conversion engine was not able to render MO:DCA format documents containing more than one image objects on a page.

Fix description

This problem has been fixed.

IO00258

APAR description

OLE method Item.GetParetFolders() is very slow.

Fix description

This problem has been fixed.

IO00344

APAR description

If your OnDemand user password has been reset or expired, and you try to log in from the eClient with that password, a password change window comes up. After you enter the old password and the new password, you receive the following message:

```
DGL0394A Error in DKdatastore.chagngepassword [RC=6(DK_OD_RC_NO_Permission)]
```

Fix description

The password was actually changed, and you can use the new password.

IO00372

APAR description

The date is not padded with zeros for years less than 1000 when changing a date to a string.

Fix description

This problem has been fixed.

IO00404

APAR description

The Java viewer hangs in a multiprocessor environment while loading a document.

Fix description

Fixed the problem to provide better synchronization in a multiprocessor environment.

IO00449

APAR description

System attributes are not skipped while processing results for the Content Manager iSeries connector.

Fix description

This problem has been fixed.

IO00473

APAR description

NullPtrExcption happens while updating an item with children that have null attribute values.

Fix description

This problem has been fixed.

IO00580

APAR description

The applet viewer page setup window does not recognize the paper size setting from the printer preference on your system. No matter what you set the paper size to in your machine's printer preferences, the page setup window always changes it to Letter.

Fix description

This problem has been fixed.

IO00613

APAR description

You received error message DGL0303A: Invalid parameter while searching for OnDemand folders through RMI.

Fix description

This problem has been fixed.

IO00622

APAR description

The document engine was requesting nonexistent overlay forms. This causes exceptions in the mid-tier, as a result, you cannot view certain documents.

Fix description

The engine is now fixed to be tolerant to the unusual content of these documents, and not make the call for nonexistent overlays. These documents can now be viewed correctly.

IR53603

APAR description

Failed to retrieve Mime Type.

Fix description

This problem has been fixed.

IR53785

APAR description

Query returns 0 rows while querying against part item types.

Fix description

This problem has been fixed.

IR54278

APAR description

Multiple C++ threads in the same process performing queries serialized portions of the query processing, regardless of whether each thread had its own connection and DKDatastoreICM instance. Serialization resulted in slower performance of each thread on average when performing a query and did not make use of multiple processors when available because only a single thread could continue while other threads waited for access to the serialized code paths even though

additional processors were available. Multiple threads issuing queries at the same time did not properly scale proportionally to the number of processors available.

Fix description

C++ query processing was enhanced to avoid serialization of multiple threads within when performing queries. This enhancement enabled multiple threads to continue processing at the same time, restricted only on external resource limitations of the system, such as available processors to execute each thread.

Existing restrictions on using multiple threads in C++ remain. For example, each thread must either have its own connection/DKDatastoreICM instance or serialize access to a single DKDatastoreICM instance. Multiple threads in C++ are only supported on Windows.

IR54482

APAR description

In the eClient applet viewer, if you open document A and B, then open document A again from the search results, document A is not visible anymore (you see a grey screen), however, you can still view document B. This problem occurred because the viewer is trying to close document A while having a different document B selected. Trying to select a document and close a document at the same time creates synchronization problems.

Fix description

This problem has been fixed.

IR54656

APAR description

If the rotateWithImage property is set to false programmatically on a newly created annotation while the page being annotated is rotated, the following problems might occur:

- The resize handles on the annotation do not work properly. The handles resize in the wrong directions.
- The annotation appears in the wrong location (not where you clicked).
- If the annotation is arrow, circle, highlight, line, or rectangle, it cannot be swept to the correct size.
- If you use a pen annotation, after the page is rotated the second time, the annotation is placed in the wrong location.

Fix description

All problems described above have been fixed.

IR55015

APAR description

The method CMBDataManagement.getAllVersions() does not properly detect and throw an exception when using a federated connection to an ICM backend datastore. Fed->ICM is an invalid connection type for this method.

Fix description

Changed the Javadoc for the method to clearly state that Fed->ICM connections are not valid for this method, and changed the method of testing the connection type to ensure that the proper exception indicating the method is not supported is thrown.

IR55048

APAR description

While conducting a federated search against an OnDemand folder, the search might crash. The problem happened because a sub object that is referenced is a part of an object that has been freed.

Fix description

This problem has been fixed.

IR55058

APAR description

Previous results are returned while listing reference folders for the Content Manager Version 7 connector.

Fix description

This problem has been fixed.

IR55098

APAR description

While changing an OnDemand/390 user password from the eClient using a password that is not valid on the OS/390 system, the client report `password successfully changed` despite the change failing at the server.

Fix description

This problem has been fixed.

IR55127

APAR description

The Java viewer hangs in a multiprocessor environment while loading a document.

Fix description

Fixed the problem to provide better synchronization in a multiprocessor environment.

IR55141

APAR description

While conducting a federated search involving a federated entity that maps to multiple native entities with at least one being the OnDemand native entity, the federate search might not return all results if the search against one OnDemand entity returns 0 hits.

Fix description

This problem has been fixed.

IR55168

APAR description

The current connection is not being used after performing a connect, disconnect and connect on a datastore instance for the DB2 connector.

Fix description

This problem has been fixed.

Chapter 8. Fix pack 9 eClient fixes and descriptions

Important: For information about previous DB2 Content Manager Version 8.2 fix packs

For more information about previous DB2 Content Manager Version 8.2 fix packs, go to: http://www.ibm.com/support/docview.wss?uid=swg27005891

IR54427: eClient only supports Version 4 of data sources

The following table locates the documentation change.

Title	Chapter, if applicable	Section title
Installing, Configuring, and Managing the eClient	Configuring the eClient	Configuring WebSphere Application Server Version 5 connection pooling for use with the eClient

Current, incorrect information

Add the data sources to the database driver, step 3:

Under **Additional Properties**, click **Data Sources**.

Configure the data source driver, step 3:

Under **Additional Properties**, click **Data Sources**.

Correct information

Add the data sources to the database driver, step 3:

Under **Additional Properties**, click **Data Sources (Version 4)**.

Configure the data source driver, step 3:

Under **Additional Properties**, click **Data Sources (Version 4)**.

IR55026

APAR description
> In the eClient worklist page, after changing tabs, you might receive a null pointer exception while invoking actions from the worklist actions.

Fix description
> This problem has been fixed.

IR55094

APAR description
> The view clipboard fails when the clipboard contains items from an item type that contains comma in the display name.

Fix description

This problem has been fixed.

IO00033

APAR description

For Hebrew (also Arabic) eClient, Internet Explorer might return an "invalid syntax" error if you run an advanced search on an item type with many attributes, or some attributes are too long.

Fix description

This problem has been fixed.

IO00066

APAR description

If the backend server is Content Manager Version 7: You can modify the notelog even without updating notelog privilege; You cannot perform notelog/edit attributes actions in the applet viewer even though you have the privilege for notelog/edit attributes.

Fix description

This problem has been fixed.

IO00159

APAR description

When you attempt to start an item on a process from the search result, an error occurs.

Fix description

This problem has been fixed.

IO00180

APAR description

When you attempt to filter work items in a worklist, the eClient tells you that the worklist is empty, and the resource bundle is not found in the progress bar.

Fix description

This problem has been fixed.

IO00162

APAR description

You cannot add, edit annotations to an item in the applet viewer when the backend server is a Content Manager 400 server even though you have the privilege to add or update annotations.

Fix description

Do not require checkin/out privilege for add/update annotations since there is no such privilege in Content Manager 400.

IO00471

APAR description

When you open multiple work lists, the worklist contents (CMBItems) are saved into the user session. The more work lists are opened, the more worklist contents are saved into the user session.

Fix description
> The system now clears the instances of the previous work lists from the user session while opening a new work list.

IO00526

APAR description
> When a worklist contains a large number of items, for example, 500 items, the check box process is obviously delayed.

Fix description
> This problem has been fixed.

IO00567

APAR description
> In the eClient search results, if you open three or more documents (that is, click on the documents' check boxes) in the applet viewer, the applet viewer shows all the documents, but some documents might have the same tab names as the first document, and nothing happens if you click those tabs.

Fix description
> This problem has been fixed.

IO00608

APAR description
> There is an incorrect version number in the eClient trace log file.

Fix description
> This problem has been fixed.

IO00676

APAR description
> eClient requires input for non-mandatory float fields.

Fix description
> This problem has been fixed.

IO00689

APAR description
> Sort order in the View Version Information window is not properly arranged.

Fix description
> This problem has been fixed.

IO00694

APAR description
> The eClient workflow "suspend" function incorrectly checks for leap years.

Fix description
> This problem has been fixed.

IO00701

To set up single sign-on (SSO) for the eClient, you basically just need to configure SSO for both DB2 Content Manager and WebSphere Application Server. When this is done, you can log into the eClient with the same credentials as your WebSphere Application Server user ID.

1. Enable single sign-on in the Content Manager Version 8.2 library server by completing the following steps:

    a. In the system administration client, click **Library server parameters --> Configuration**. This displays the library server configuration page in the contents frame.

    b. Right-click it in the contents frame and click **Properties**. The Library Server Configuration page opens.

    c. Click the **Definition** tab.

    d. In the Max User Action menu, select **Allow logon without warning**. Select the **Allow trusted logon** check box.

    e. Click **OK** to save the changes.

    f. In the system administration client, click **Authentication --> Users**. This displays a list of users in the contents frame.

    g. Right-click the connection user ID (default is icmconct) and click **Properties**. The User Properties window displays with the content user ID's definition.

    h. Click the **Define Users** tab.

    i. In the Privilege set menu, select **UserDB2TrustedConnect**. This set allows Content Management users to connect to the DB2 database without their own DB2 user IDs.

    j. Click **OK** to save changes and close.

2. Create a new privilege set for SSO called ClientSSO by completing the following steps:

    a. In the system administration client, click **Authorization --> Privilege Set**.

    b. Right-click Privilege Set and click **New**. The New Privilege Set Definition window opens.

    c. In the **Name** field, type `ClientSSO`.

    d. In the **Privilege groups** list, select **ClientTaskLogon**.

    e. In the **Privileges** list, select **Select all**. Both AllowConnectToLogon and AllowTrustedLogon should appear in the Selected privileges list.

    f. If you plan to use more privilege sets for SSO, select the same privileges for them.

3. Assign the ClientSSO privilege set to any user IDs that will log into DB2 Content Manager using SSO.

4. Configure WebSphere Application Server Version 5 for single sign-on: For instructions, see

    ```
    http://publib.boulder.ibm.com/infocenter/wasinfo/topic/
    com.ibm.wasee.doc/info/ee/ae/tsec_msso.html
    ```

    .

5. Restart the WebSphere Application Server and the eClient.

To verify that your SSO for eClient works, complete the following steps:

1. Launch the eClient in a Web browser and log into the WebSphere Application Server.

2. At the eClient logon window, SSO should automatically disable the user ID and password fields and use your WebSphere Application Server credentials instead. Note that only the DB2 Content Manager server that has been SSO enabled will appear under the server dropdown list.

3. Click **Logon** to log into the eClient.

Chapter 9. Fix Pack 9 new functionality

Important: For information about previous DB2 Content Manager Version 8.2 fix packs

For more information about previous DB2 Content Manager Version 8.2 fix packs, go to: http://www.ibm.com/support/docview.wss?uid=swg27005891

Fix Pack 9 Content Manager new functionality

Tivoli Storage Manager Version 5.3 support in DB2 Content Manager Version 8.2

Tivoli Storage Manager Version 5.3 (32 bits only) is now supported in DB2 Content Manager Version 8.2.

XL C/C++ Version 7.0 support on AIX for IBM DB2 Content Manager Version 8.2 and IBM DB2 Information Integrator for Content Version 8.2

XL C/C++ Version 7.0 is supported on AIX for IBM DB2 Content Manager Version 8.2 and IBM DB2 Information Integrator for Content Version 8.2

Support for text indexing of large documents

Text indexing of large documents is supported in IBM DB2 Content Manager Version 8.2.

Lithuanian language support

Lithuanian language, code page 1257, is supported in DB2 Content Manager Version 8.2 Fix Pack 9 in the following aspects:

- In the defining new languages panel of the system administration client, "LTH" is added to the list of languages to be defined.
- CCSID 1257 and 5353 are added to the list in the Text Searchable definition panel in the system administration client.
- "LTH" is added to the list of languages to be defined in the library server.

To enable Lithuanian language support, manually add the following into eClient `langaugeMapping.properties` file:

```
#Lithuanian

lt   = ENU
```

By default, the language code is `ENU`. If you have created the language of LTH in the system administration client, and want to use the `LTH` display name, you need to change the language code to `LTH`.

New and revised classes and methods in OOAPI interfaces

In order to provide a way for DB2 Content Manager application to specify the location of the content (associated with document-part and resource item) to be stored at the item level, a new method `DKStorageManageInfoICM` is created, and two existing methods, `DKLobICM` and `DKDatastoreICM` are revised. This section describes the new method and updated existing methods.

Class DKStorageManageInfoICM

Method detail

setStoreLocation

```
public void setStoreLocation(java.lang.String RMName,
                             java.lang.String CollectionName)
                  throws com.ibm.mm.sdk.common.DKNotExistsException,
                         com.ibm.mm.sdk.common.DKUsageError,
                         com.ibm.mm.sdk.common.DKException,
                         java.lang.Exception
```

Method to specify the RM/Collection into which the content is to
be stored in to. The user using this method needs to have a
specific privilege (ItemsetRMCollection) else an exception
will be thrown at runtime. This method is applicable
only for the store operation and is a no-op for other
operations (operations which rely on a PID being present
in the item like Update/Retrieve/Reindex etc).

The parameters specified with the setCollectionName(),
setStoreLocation or setRMName() method just before calling the
add method will be the ones that will be considered during
the add operation. For example, just before calling the
add method, if a collection name was specified using the
setCollectionName() method it will be overwritten by the
collection name specified in this method if invoked after
the call to the setCollectionName method. If the
setCollectionName() method was called after a call to
this method it will overwrite the collection
 name specified in this method.

The Resource Manager name and Collection name must be valid
i.e. they must exist in the CM system or an DKUsageError
is thrown. In addition, the collection name specified must
be defined in the specified resource manager and not in other
 Resource Manager's or a DKUsageException is thrown.

Throws:
com.ibm.mm.sdk.common.DKNotExistsException: When the RM
specified does not exist.

com.ibm.mm.sdk.common.DKUsageError — If an invalid
RMName/Collection Name is specified.

The Message ID in DKUsageError in the case when an invalid
collection is specified
will be: DK_ICM_MSG_COLLNAME_NOTEXISTS_IN_RM. An invalid,
null or an empty string for a collection name will result
in the same error.

DKException:
MessageID: DK_CM_MSG_INVALID_INSTANCEOF_OBJECT. This exception
is thrown when the DKStorageManageInfoICM was not obtained
properly from DKLobICM.
 The DKStorageManageInfoICM needs to be extracted as an
extension like:

DKStorageManageInfoICM storageInfo =
(DKStorageManageInfoICM) lob.getExtension("DKStorageManageInfoICM");

This exception could also occur as a result of using the DKLobICM's
Constructor instead of obtaining the instance from the createDDO method.

      java.lang.Exception: for java language related exception.

Class DKLobICM

add

```
public void add(int option)
        throws com.ibm.mm.sdk.common.DKException,
               java.lang.Exception
```

Adds or stores the content and meta-data of this resource
object into the persistent store. The content is stored
in the Resource Manager and the meta-data describing the
content is stored in the Library Server of DB2
Content Manager. If the Resource Manager associated with
user or item type is unavailable, the content is stored
into one of its replica servers. The meta-data describing
the content is stored in the DB2 Content Manager Library
 Server. Both pieces of information are tied together.
If the content is not available (when the content to be
stored is not specified at add time, i.e. there is not
content to be stored at creation time), only the meta-data
is created. The content can be added later.
Users who are modifying or creating the item can choose
to store the object by specifying the RMName AND
SMSCollectionName pair in DKStorageManageInfoICM
in one of the following ways:
  DKStorageManageInfoICM storageInfo =
       (DKStorageManageInfoICM) lob.getExtension
("DKStorageManageInfoICM");

       storageInfo.setStoreSite("RM1");
       storageInfo.setCollectionName("Coll1");
   ....
       lob.add(); //Other variants of add like add(int)..
can be used too.

       [OR]

       DKStorageManageInfoICM storageInfo =
       (DKStorageManageInfoICM) lob.getExtension("DKStorageManageInfoICM");
       storageInfo.setStoreLocation("RM1","Coll1");
   .....
       lob.add(); //Other variants of add like add(int).. can be used too.
```

If only the Resource Manager name or the Collection Name is specified,
then an exception is thrown. If Resource Manager Name and SMS
Collection Name are both specified and there is no content
associated with it, the specified Resource Manager Name and
collection Name are not persisted for this item. To clarify,
since content has not been associated with the item only the metadata
 is inserted and data relating to the content like the RM/Collection
cannot be stored with the item. If the specified RMName is
unavailable, CM will store the object in the one of its replica
servers (if replication is enabled for the collection).

```
Specified by:
add in interface com.ibm.mm.sdk.common.dkXDO
Overrides:
add in class com.ibm.mm.sdk.common.dkResource
Throws:
DKNotExistsException: When the RM specified does not exists or if
it is invalid.

DKException: on error.
DKUsageError -
• With message-id DKMessageIdICM.DK_ICM_MSG_FEATURE_NOT_SUPPORTED
is thrown if the user specifies store location (RM/Collection pair)
and the library-server does not support the feature to allow the
user to override the RM/Collection specified by the administrator.
• With message-id DKMessageIdICM.DK_ICM_MSG_RC_PRIV_GENERAL_ERROR is
```

thrown if the user does not have privilege to override the
RM/Collection set by the administrator.
• With message-id DKMessageIdICM.DK_ICM_MSG_COLLNAME_NOTEXISTS_IN_RM
when an invalid collection name is specified.
• With message-id DKMessageIdICM. DK_ICM_RC_INVALID_COLLNAME
when just the Resource Manager is specified. This error is thrown
only when the setStoreSite method in DKStorageManageInfoICM is
used to specify the Resource Manager name and the setCollectionName
method is not used to set the Collection Name.
• With message-id DKMessageIdICM. DK_ICM_RC_INVALID_RMNAME when
only the Collection Name is specified. This error is thrown
when only the Collection Name is specified by the setCollectionName
method in DKStorageManageInfoICM.
The Resource Manager was not specified and needs to be specified
using the setStoreSite method.

java.lang.Exception: on error.

See Also:
DKDatastoreICM.addObject(dkDataObject), add(String),
add(InputStream,long)

The semantics of specifying collection is applicable for all the
add methods in DKLobICM. The add methods that are available as
of CM v83 fp8 are:

add()
Adds or stores the content and meta-data of this resource object
into the persistent store.

add(DKThirdPartyServerDef thirdpartyObject, int option)
Adds or stores a resource from a third party source to the
resource manager and Content Manager persistent store.

add(java.io.InputStream is, long length)
Adds the content and meta-information of this resource
object into the persistent store with input stream.

add(java.io.InputStream is, long length, int option)
Adds the content and meta-information of this resource
object into the persistent store with input stream.

add(int option)
Adds or stores the content and meta-data of this resource
object into the persistent store.

add(java.lang.String aFullFileName)
Adds the content and meta-information of this resource
object into the persistent store with input file.
add(java.lang.String aFullFileName, int option)
Adds the content and meta-information of this resource
object into the persistent store with input file.

In addition to these methods, the semantics of specifying
the resource manager and collection to store the content
into also applies to persisting content through the
addObject methods of DKDatastoreICM. Namely:

addObject(dkDataObject ddo)
Adds this DDO into the Content Manager persistent store.

update
public void update()
        throws com.ibm.mm.sdk.common.DKException, java.lang.Exception

Updates the meta-data and content of this resource in the

persistent store from the value in memory. If the resource
manager associated with this object is not available,
one of the replicas of this item is updated.
If user specifies the RMName and SMSCollname, CM will
ignore the user inputs and continue with update to the
rmname/collection pair where the object was stored.
In other words, user specified rmname/collection will
not be honored for this operation.

Specified by:
update in interface com.ibm.mm.sdk.common.dkXDO
Overrides:
update in class com.ibm.mm.sdk.common.dkResource
Throws:
DKException - on error.

java.lang.Exception - on error.
See Also:
update(String)

The semantics specified above with regards to specifying
the Resource Manager name and Collection Name is also
applicable to the other update methods namely:

update()
Updates the meta-data and content of this resource in
the persistent store from the value in memory.

update(DKThirdPartyServerDef thirdpartyObject, int option)
Updates the content and meta-data of the resource stored
in the Resource Manager and Content Manager persistent
store from a third party content source.

update(java.io.InputStream is, long length)
Updates the metadata in the datastore and object content
in resource manager with the content from a stream file.

update(java.io.InputStream is, long length, int option)
Updates the metadata in the datastore and object content
in resource manager with the content from a stream file.

update(int option)
Updates the meta-data in the datastore and object content
in resource manager with the content in memory, according
to the specified option.

update(java.lang.String aFullFileName)
Updates this resource in the persistent store with content
directly from the specified file.

update(java.lang.String aFullFileName, int option)
Updates this resource in the persistent store with content
directly from the specified file.

The semantics also apply to update methods in DKDatastoreICM,
namely:

updateObject(dkDataObject ddo)
Updates this item version in the persistent store.

updateObject(dkDataObject ddo, int option)
Updates this item version in the persistent store.

catalogContent

```
        public void catalogContent(java.lang.String fileName,
                                java.lang.String rmScopeFilePath)
                        throws com.ibm.mm.sdk.common.DKException,
                                java.lang.Exception
        This will catalog into the Library Server and store the
        content into the Resource Manager from a file that is
        physically present on the Resource Manager machine.
        Users with right authority can choose a location to
        catalog the object by specifying the RMName AND
        SMSCollectionName pair in DKStorageManageInfoICM
        in one of the following ways:
          DKStorageManageInfoICM storageInfo =
              (DKStorageManageInfoICM) lob.getExtension("DKStorageManageInfoICM");
               storageInfo.setStoreSite("RM1");
               storageInfo.setCollectionName("Coll1");
          .......
               lob.catalogContent(fileName,filePath);

              [OR]

              DKStorageManageInfoICM storageInfo =
              (DKStorageManageInfoICM) lob.getExtension("DKStorageManageInfoICM");
               storageInfo.setStoreLocation("RM1","Coll1");
          .....
               lob.catalogContent(fileName,filePath);

        If either one of the RMName or CollectionName is not
        specified, CM defaults to item-type or user default
        rmname/smscollection pair based on the administrat
        or settings.
        Parameters:
        fileName - name of the file to be cataloged.
        rmScopeFilePath - absolute path of the file to be cataloged.
        Throws:
        DKException - on server error.
        DKUsageError -
        • With message-id DKMessageIdICM.DK_ICM_MSG_FEATURE_NOT_SUPPORTED
        is thrown if the user specifies store location
        (RM/Collection pair) and the library-server
         does not support the feature to allow the user to override
        the RM/Collection specified by the administrator.
        • With message-id DKMessageIdICM.DK_ICM_MSG_RC_PRIV_GENERAL_ERROR
        is thrown if the user does not have privilege to override
        the RM/Collection set by the administrator.
        java.lang.Exception - on error.
```

Class DKDatastoreICM

addObject

```
        public void addObject(com.ibm.mm.sdk.common.dkDataObject ddo)
        throws com.ibm.mm.sdk.common.DKException,java.lang.Exception

        Adds this DDO into the Content Manager persistent store.
        The corresponding item type for this DDO must exist already.
        Add this new item, including all child components, to the
        Content Manager persistent store. The tree of component
        DDOs with all supported attributes, properties, content,
        and child components are added through the root component
        DDO. Use the appropriate createDDO() methods to create the
        item in memory first. By default, the item will be checked
        in (unlocked). If the item type of this item is classified
        as DKConstantICM.DK_ICM_ITEMTYPE_CLASS_RESOURCE_ITEM,
        users with right authority can choose a location to store.
        For more information DKLobICM.add(int).
        If the item type of this item is classified as
        DKConstantICM.DK_ICM_ITEMTYPE_CLASS_DOC_MODEL,
```

users with right authority
can choose a location to store by setting the rmname
and collectionName to the parts. For example, user can
traverse the parts and set rmname/collection
 name as following:
 ....
 DKStorageManageInfoICM storageInfo =
   (DKStorageManageInfoICM) part.getExtension("DKStorageManageInfoICM");
    storageInfo.setStoreLocation("RM1","Coll1");
 ....
If user does not specify the rmname/collection for a part,
CM stores in the default rmname/collection pair based on
administrator settings.

Specified by:
addObject in interface com.ibm.mm.sdk.common.dkDatastore
Overrides:
addObject in class com.ibm.mm.sdk.server.dkAbstractDatastore
Parameters:
ddo - Data object for the root component of the item to be added.
Throws:
com.ibm.mm.sdk.common.DKException - if a problem is encountered.
java.lang.Exception
DKUsageError -
• With message-id DKMessageIdICM.DK_ICM_MSG_FEATURE_NOT_SUPPORTED
is thrown if the user specifies store location
(RM/Collection pair) for a document-part and the library-server
does not support the feature to allow the user to
override the RM/Collection specified by the administrator.
• With message-id DKMessageIdICM.DK_ICM_MSG_RC_PRIV_GENERAL_ERROR
is thrown if the user does not have privilege to override
the RM/Collection set by the administrator.

The semantics specified above are also applicable to other
add methods in DKDatastoreICM, namely:

addObject(dkDataObject ddo, int option)
Adds this DDO into the Content Manager persistent store,
with options.

Update:
The update methods in DKDatastoreICM ignore the Resource Manager and
Collection specified through DKStorageManageInfoICM.
The update methods in DKDatastoreICM are

updateObject(dkDataObject ddo)
Updates this item version in the persistent store.

updateObject(dkDataObject ddo, int option)
Updates this item version in the persistent store.

C++ Interfaces:
The following C++ interfaces will have the same semantics
specified in the Java APIs with regards to the user setting
the Resource Manager and Collection
 Name in the DKStorageManageInfoICM before invoking the add method.
The
methods in DKDatastoreICM are:

   virtual void addObject(dkDataObject* dataobj);
   virtual void addObject(dkDataObject* dataobj, long option);
   virtual void addObjects(dkCollection * ddoCollection);
   virtual void addObjects(dkCollection * ddoCollection, long option);

Methods in DKLobICM are:

```
    DKEXPORT dkDataObjectBase& add();
    DKEXPORT dkDataObjectBase& add(int iOption);
    DKEXPORT dkDataObjectBase& add(DKString aFullFileName);
    DKEXPORT dkDataObjectBase& add(DKString aFullFileName,int iOption);
    DKEXPORT dkDataObjectBase& add(istream *is,long length);

    dkDataObjectBase& addFrom();
    dkDataObjectBase& addFrom(DKString hostname, DKString userid,
DKString passwd,
                              DKString protocol, int port,
DKString filename);
    dkDataObjectBase& addFromAsync(DKString hostname,
DKString userid, DKString
passwd, DKString protocol, int port, DKString
filename);
    dkDataObjectBase& addFromAsync();

Setting the Resource Manager name and Collection Name will not
have any effect when invoking the update methods on DKLobICM or
DKDatastoreICM.
The update methods in DKLobICM are:

    DKEXPORT dkDataObjectBase& update();
    DKEXPORT dkDataObjectBase& update(DKString aFullFileName );
    DKEXPORT dkDataObjectBase& update(istream *is,long length);

    void updateFrom();
    void updateFrom(int Option);
    void updateFrom(DKString hostname, DKString userid, DKString passwd,
DKString
                    protocol, int port, DKString filename);
    void updateFrom(DKString hostname, DKString userid, DKString passwd,
DKString
                    protocol, int port, DKString filename, int Option);
    void updateFromAsync( DKString hostname, DKString userid,
DKString passwd, DKString protocol, int port, DKString filename);
    void updateFromAsync( DKString hostname, DKString userid,
DKString passwd, DKString protocol, int port, DKString filename,
int Option);
    void updateFromAsync();
    void updateFromAsync(int Option);

The methods in DKDatastoreICM are:

    virtual void updateObject(dkDataObject* dataobj);
    virtual void updateObject(dkDataObject* dataobj, long option);

There is an addition to the DKStorageManageInfoICM along the lines
of what has been done for java. A method to allow for the setting
of the Resource Manager and Collection has been introduced.

    void setStoreLocation(const char * RMName,
                          const char * CollectionName)

This method has the same semantic as the one in Java.
```

In addition, a new privilege is added to the set of existing privileges in system administration API:

ItemSetRMCollection
    Allows user to override the resource manager or collection set by the administrator

Support for text indexing of large objects
Guidelines for use

The maximum file size of content that can be successfully full-text indexed has been increased from 25 MB to 60 MB. This means that you can successfully index large file sizes (for example, 100 MB) that have maximum of 60 MB of text.

Enabling this functionality

1. Use the following script to increase the RETURNS CLOB for ICMFetchFilter to 20% of the largest non-text file to be indexed. (In this example, 60 M is used for the 20% calculated value):

```
drop function ICMFetchFilter;
create function ICMfetchFilter
(
    VARCHAR(512)
)
RETURNS CLOB(60M)
EXTERNAL NAME 'ICMNLSUF!ICMfetch_Filter'
LANGUAGE C
PARAMETER STYLE DB2SQL
FENCED
NO SQL;
```

2. While defining the item type, use the following table as a guideline for planning your text indexing strategy. Use the parameters below (Update Frequency, Commit Count) in the Text Search window for item type definitions:

Table 10. Parameters that you can use for item type definitions

File size	File type	Commit Count (Number of files per index update)	Update frequency
300 MB	PDF, Word, Excel, 20% text	5	Every hour or less frequently
100 MB	Text, 100% text	5	Every hour or less frequently

3. Depending on the size, number, or frequency, provide adequate machine resources to keep system from getting degraded. It is strongly recommended that you perform stress and endurance test with these large objects to arrive at an optimal set of resource requirements, before going into production.

   Note: Known restrictions: Documents exceeding the following file size might result in indexing failures:

   PDF   Documents above 150 MB

   Excel   Documents above 100 MB

Object aggregation during migration

Starting from DB2 Content Manager Version 8.2 Fix Pack 9, the resource manager provides the ability to aggregate objects while migrating to Tivoli Storage Manager (TSM) managed storage devices under Archive Retention Protection. This function provides significant performance improvements during migration, and can be enabled or disabled by modifying your Resource Manager configuration.

To enable object aggregation, perform the following updates in the system administration client interface to the resource manager:

1. **In the Device Manager Properties panel:** Configure the Device Manager using a Tivoli Storage Manager managed data retention volume as follows to enable object aggregation:

   a. Set Class to Tivoli Storage Manager.

b. Set Parameters to "mode=retention_aggregate". This setting enables data targeted for Tivoli Storage Manager volumes to be aggregated during migration. An existing retention enabled Device Manager can be updated to support aggregation by modifying this value from "mode=retention" to be "mode= retention_aggregate".

     Note: Normal Tivoli Storage Manager setting has no value for Parameters. Starting from DB2 Content Manager Verison 8.2 Fix Pack 3, mode=retention was introduced to support Tivoli Storage Manager in data retention mode.

2. **Migration Policy Panel:** Within a collection, this panel lists all data migration transitions between storage classes. When a DB2 Content Manager resource manager collection is assigned to a migration policy, all data flows between these defined migration transitions. What has changed is:

   a. All migration transitions are scanned for storage classes containing volumes that are managed by a retention enabled Tivoli Storage Manager device manager.

   b. When there is only one migration transition, no restrictions are made.

   c. When there are multiple migration transitions, and you want to have a migration transition with a retention volume in the migration flow, the following rules apply:

      1) The first migration transition must be a storage class of type FIXED or an equivalent storage class.

      2) The last migration transition must have the storage class with a retention volume.

         Note: This type of migration path was enabled in DB2 Content Manager Version 8.2 Fix Pack 7, and restricts any other storage class from being defined after a storage class that contains a retention enabled Tivoli Storage Manager type device manager.

3. For existing collection with a migration policy using object aggregation, update the Content Manager resource manager database and modify the COL_RETENTION field in RMCOLLECTIONS. The default for this field is 0, which indicates that object aggregation is not enabled. To enable object aggregation for this collection, set this field to 1.

4. After configuring your migration policy so that the last migration transition is to a storage class with a retention volume, enable each source volume that you want to use object aggregation while migrating. To enable a volume in a storage class to aggregate objects while migrating to a retention volume in the next storage class, update the VOL_AGGREGATESIZE in the RMVOLUMES database table for the source volume. Possible values are:

   0   Default. Object aggregation is not enabled.

   n   Maximum size of the aggregate object. If all objects in the migration candidate list do not meet this value, the size of the current list of objects is used for the aggregate size. For example, to aggregate object to a 5 Megabyte aggregate object, define VOL_AGGREGATESIZE=5000.

Fix Pack 9 eClient new functionality

Document Notes option added to the eClient search and worklist toolbars

A new option "Document Notes" is added to the eClient search toolbar and worklist toolbar. This option enables you to add notelogs to documents from search results and worklists without opening documents in viewers.

Chapter 10. Fix Pack 9 documentation updates

Important: For information about previous DB2 Content Manager Version 8.2 fix packs

For more information about previous DB2 Content Manager Version 8.2 fix packs, go to:
http://www.ibm.com/support/docview.wss?uid=swg27005891

Incorrect number of resource manager applications after the user lists the DB2 applications

The following table locates the documentation change.

Title	Chapter, if applicable	Section title
Planning and Installing Your Content Management System Version 8 Release 2	Verifying a successful installation of DB2-based Content Manager on AIX	Verify resource manager Web application deployment

Current, incorrect information

After the user lists the DB2 applications by running

```
# db2 list applications
```

Three resource manager applications are listed.

Correct information

After you run Fix Pack 8, there is only one resource manager application running.

Message ICM9812

Message ICM9812 was not included in the DB2 Content Manager Version 8 Release 2 *Messages and Codes*.

ICM9812 Remote replication failure, response code [nnn].

Explanation
> Replicate to the replica server failed.

Component
> Resource manager

Action
> Make sure that the target server is active, and check the resource manager icmrm.logfile for more information.

Clarification of changing administrative user passwords

The following table locates the documentation change.

Title	Chapter, if applicable	Section title
System Administration Guide	Logging on to the system administration client	Changing your password

Current®, incorrect information

The topic describes the behavior for systems using DB2 Universal Database™.

- It does not indicate that saved passwords must be update manually.
- It does not describe the behavior for systems that use Oracle.
- The topic indicates that you can change the password on Solaris using the system administration client. This is incorrect. You must use the tools provided by the operating system.

Correct information

Whenever you change an administrative user password, make sure to update the password wherever it is saved, such as:

- Server definitions
- Resource manager definition
- Text search user ID in the library server configuration

How you change the password for an administrator account depends on how the account was set up and what database you are using.

If you are using Oracle, an administrative user only needs to be a database user, not a system user. If a user ID is set up for the operating system and the same ID is identified for DB2® Content Manager or DB2 Information Integrator for Content, the ID owner must maintain both passwords.

In order to change the password on Solaris, you must use the tools provided the operating system. You cannot use system administration client.

User filters table changes for the LDAP import schedule

The following table locates the documentation change.

Title	Chapter, if applicable	Section title
System Administration Guide	Managing User Access	Filtering users

Current, incorrect information

The table listing the user filter criteria includes ">" and "<", which are not supported. In addition, the Not filter information was transposed in the table.

Correct information

Use the following table as a guideline for entering user filter criteria.

Table 11. User filters

Filter	Symbol	Description	Example
Approximate	~=	The LDAP attribute value can match the filter criterion exactly or match variations in spelling.	(sn~=Jones)
Equality	=	The LDAP attribute value must match the filter criterion exactly.	(sn=Jones)
Greater than or equal	>=	The LDAP attribute value must match or be greater than the filter criterion.	(sn>=Jones)
Less than or equal	<=	The LDAP attribute value must match or be less than the filter criterion.	(sn<=Jones)
Presence	=*	The LDAP attribute must exist, such as all entries with the surname attribute.	(sn=*)
Substring		The LDAP attribute value must contain, begin with, or end with the filter criterion.	(sn=J*) (sn=*on*) (sn=Jo*n*)
And	&	Joins two expressions. A user entry in the LDAP directory must meet both criteria.	(&(sn=Jones)(ou=People))
Or	|	Joins two expressions. A user entry in the LDAP directory can match either criterion.	(|(sn=Jones)(sn=Smith))
Not	!	The LDAP attribute value cannot match the filter criterion.	(!(sn=Jones))

Clarification of information in ″Planning and Installing Your Content Management System″ about updating the DB2 instance profile file

Symptom

Clarification of information in ″Planning and Installing Your Content Management System″ about updating the DB2 instance profile file.

Possible cause

Clarification is needed.

Action

Here is the clarification of information in Planning and Installing Your Content Management System about updating the DB2 instance profile file.

Add the following note to the section ″Update the DB2 instance profile.env file″ in each of the following chapters of GC27-1332-02:

* Chapter 18 Performing pre-installation steps on AIX
* Chapter 25 Performing pre-installation steps on Solaris
* Chapter 32 Performing pre-installation steps on Linux

Add the following information after the end of the section:

Important: When you have finished with this task, make sure that you have only one `DB2ENVLIST=` line in the file. When DB2 was installed, the `profile.env` file was created with the line

`DB2ENVLIST='EXTSHM'`

Make sure that you either modify this line with the environment variables that you want to have in your file (including EXTSHM), or delete it when you create the new line:

`DB2ENVLIST='LIBPATH ICMROOT ICMDLL ICMCOMP EXTSHM CMCOMMON'`

eClient does not support Windows Professional

The following table locates the documentation change.

Title	Chapter, if applicable	Section title
Installing, Configuring, and Managing the eClient	eClient Requirements	Software / Operating systems

Current, incorrect information

Microsoft Windows 2000 (Professional, Server, or Advanced Server)

Correct information

Microsoft Windows 2000 (Server or Advanced Server)

Chapter 11. Fix Pack 9 known problems and issues

Important: For information about previous DB2 Content Manager Version 8.2 fix packs

For more information about previous DB2 Content Manager Version 8.2 fix packs, go to:
http://www.ibm.com/support/docview.wss?uid=swg27005891

Resource manager update script updateRM.sh failed with return code 139

Symptom

While applying a Content Manager Version 8.2 fix pack on Redhat Linux, the resource manager update script updateRM.sh failed with return code 139.

Possible cause

A possible cause is that updateRM.sh is hard coded with IBMJava2-142 in the PATH definition statement as:

```
export PATH=/opt/IBMJava2-142/bin:/usr/IBMJava2-142/bin:/usr/local/IBMJava2-142/bin:
/opt/jre142/bin:/usr/jre142/bin:/usr/local/jre142/bin:/usr/bin:
/opt/IBMJava2-131/jre/bin:/opt/IBMJava2-131/bin:.:$PATH
```

Action

On Linux platform, before you install the fix pack for resource manager, a directory named IBMJava2-142 must exist in the /opt directory. This can be done by installing IBM JDK1.4.2 in /opt or creating a link that points to other JDK1.4.2 (such as JDK from WAS Version 5.1.1).

Alternatively, manually edit the export statement in the updateRM.sh file so that the export PATH statement points to the actual JDK location will solve the problem too.

No autolink between two item types in DB2 Content Manager Version 8.2

In DB2 Content Manager Version 8.2 system administration client, you cannot autolink between two item types based on attribute group. Instead, autolinking can only be done at the attribute level, that is, you need to go inside the attribute group, and select the attribute to link to.

Whether Fix pack directories can be deleted after installation

Fix pack directories (for example, the /usr/lpp/icm/fixpacks/ directory on AIX) are used as backup for code of the earlier fix pack level, that is, the fix pack level that you used before the new fix pack was applied. If you delete those directories, you cannot uninstall the earlier fix pack.

Conflict between IBM JRE and Linux SMP kernels

Symptom

You encountered the following scenario:

1. Set up a library server with two resource manager servers system model. Make sure that the two resource manager servers are accessible from the system administration client.

2. Bring up the system administration client, and expand the row 'Resource Manager'.

3. You can see that the two resource managers are listed under it. Click one of the resource manager server, the mouse pointer changes to the 'clock' icon.

4. Quickly click the other resource manager server before your mouse pointer changes back to the 'arrow' icon, the resource manager server that you selected first disappears

Note: This error only occurs on Linux system administration, not on Windows.

Possible cause

There might be some conflicts between the IBM JRE and Linux SMP kernels that have multi-processor installed.

Action

A workaround is to use the Sun JRE.

Known problems with multi-threaded applications that use the C++ APIs on AIX

Symptom

The DB2 Content Manager C++ APIs in Windows® and AIX® currently document support for a particular thread model where multiple threads, each with access to its own datastore, are allowed. There are some known problems when using this threading model on AIX that could manifest in different ways. For example, the application could see intermittent errors stating that cursors are not opened and in extreme cases can result in a core dump.

Action

Following are two options that you have to work around this problem:
- Change your application to use multiple processes instead of multiple threads.
- Add synchronization to your application code, to prevent concurrent access to all datastores, for those operations where you are experiencing problems.

-818 error on AIX while installing DB2 Content Manager fix packs

Symptom

In some environment, you received -818 error on AIX while installing DB2 Content Manager fix packs

Possible cause

AIX retains the old Content Manager library server library (ICMNLSSP) in memory, which causes a mismatch of code.

Action

Retry the installation, and perform the following steps prior to installation:

1. As the instance owner, run

   `db2stop`

2. As root, run

   `slibclean`

3. As instance owner, run

   `db2start`

VideoCharger server communication restrictions

While replicating streaming content from one resource manager/VideoCharger server combination to another, the two VideoCharger servers must be able to communicate, that is, stage between each other. Because of certain communication limitations in Version 8.2, the following VideoCharger server communication restrictions apply:

- Version 8.2 Linux VideoCharger servers can only communicate with other 8.2 Linux VideoCharger servers
- Version 8.2 Windows and AIX VideoCharger servers can communicate with other Version 8.2 and Version 8.1 Windows and AIX VideoCharger servers

Child value is not correctly displayed in the eClient search result set

Symptom

After pasting a fed item that contains a child component to a fed folder from the e-clipboard and then editing item attributes, you click '+' to add one more child. This child value never shows up in the search result set even though after you re-log in to the eClient, however, the child value can be seen at the original location of the fed item (outside the fed folder).

Possible cause

This issue only appears on AIX and Solaris.

Action

If a child value is not correctly displayed in a fed folder, select **Edit Attributes**, the correct child attributes will appear in Edit Attr page.

Re-configure the schedule after re-configuring the LDAP information inside the system administration client

After re-configure the LDAP information inside the system administration client, you should re-configure the schedule information inside the LDAP user import scheduler.

eClient fix pack should be applied to WebSphere Application Server Version 5.1.x

If both 5.0.x and 5.1.x versions of WebSphere Application Server (WAS) are on the same system, the eClient fix pack should be applied to WebSphere Application Server Version 5.1.x. If the eClient is not deployed on WebSphere Application Server Version 5.1.x, the fix pack installation fails.

By default, the eClient fix pack installation assumes that the fix pack is applied to the newer version of WebSphere Application Server. In order to apply the fix pack to the eClient that is deployed on WebSphere Application Server Version 5.0.x, run the following command:

```
java -DserverRoot=[WAS50x_HOME] -DwasEdition=BASE -DwasVersion=5.0.0
-DWAS_VER_TEST=true -cp .;setup.jar run -silent -W
GAProdCheck.version=8.2.0.801 -W WASCheck.active=false
```

Newly created itemType Subset appears incorrectly in the system administration client

After you create a new item type subset in the system administration client, it might not appear correctly in the client. In this situation, log off the system administration client and log on again, the new item subset should appear in the client.

If you delete a newly created item type subset, it will continue appearing in the system administration client after you delete until you log off and log on the client again.

Do not use Lithuanian or DEU native characters in password for the Windows client

Symptom

When password contains some Lithuanian or DEU native characters, the Windows Client logon might fail with this error:

```
DGL0394A: Error in : DKDatastoreICM.connect.
```

Workaround

Do not use Lithuanian or DEU native characters in password.

Cannot search ″+″ or ″-″ in a text search enabled attribute

Symptom

If search a text search enabled attribute with ″+″ or ″-″, an error message is displayed:

```
  An Error Has Occurred!
  com.ibm.mm.beans.CMBException: Server Error
  java.lang.StringIndexOutOfBoundsException
```

Workaround

Don't search a text search enabled attribute with ″+″ or ″-″.

Warning messages displayed in the installation log while updating the eClient to Fix Pack 9

Some warning messages might be displayed in the installation log file while updating the eClient to Fix Pack 9. For example, the following is from the eC_Fixpack.log:

```
Mar 28, 2005 3:03:51 PM), , com.ibm.wizard.platform.aix.AixProductServiceImpl,
msg1, installing Files (files1)
(Mar 28, 2005 3:03:52 PM), , com.ibm.wizard.platform.aix.AixProductServiceImpl,
dbg.install, JVM memory after installing Files (files1): free=3781408
total=10418688(Mar 28, 2005 3:03:54 PM), , com.ibm.wizard.platform.aix.AixProductS
erviceImpl, wrn,   - WARNING: Got invalid size of 0 for file:
```

```
/opt/IBM/CMeClient/IDMadminDefaults_source.properties:
(Mar 28, 2005 3:03:54 PM), , com.ibm.wizard.platform.aix.AixProductServiceImpl,
wrn,   - WARNING: Got invalid size of 0 for file:
/opt/IBM/CMeClient/IDMdefault.properties:
(Mar 28, 2005 3:03:54 PM), , com.ibm.wizard.platform.aix.AixProductServiceImpl,
wrn,   - WARNING: Got invalid size of 0 for file:
/opt/IBM/CMeClient/commonKeywords.txt:
(Mar 28, 2005 3:03:54 PM), , com.ibm.wizard.platform.aix.AixProductServiceImpl,
wrn,   - WARNING: Got invalid size of 0 for file:
/opt/IBM/CMeClient/languageMapping_source.properties:
(Mar 28, 2005 3:03:54 PM), , com.ibm.wizard.platform.aix.AixProductServiceImpl,
wrn,   - WARNING: Got invalid size of 0 for file:
/opt/IBM/CMeClient/IDMWasAe40.cleanApp.xml:
(Mar 28, 2005 3:03:54 PM), , com.ibm.wizard.platform.aix.AixProductServiceImpl,
wrn,   - WARNING: Got invalid size of 0 for file:
/opt/IBM/CMeClient/IDMWasAe40.cleanServer.xml:
(Mar 28, 2005 3:03:54 PM), , com.ibm.wizard.platform.aix.AixProductServiceImpl,
wrn,   - WARNING: Got invalid size of 0 for file:
/opt/IBM/CMeClient/IDMWasAe40.start.xml:
(Mar 28, 2005 3:03:54 PM), , com.ibm.wizard.platform.aix.AixProductServiceImpl,
wrn,   - WARNING: Got invalid size of 0 for file:
/opt/IBM/CMeClient/IDMWasAe40.stop.xml:
(Mar 28, 2005 3:03:54 PM), , com.ibm.wizard.platform.aix.AixProductServiceImpl,
wrn,   - WARNING: Got invalid size of 0 for file:
/opt/IBM/CMeClient/IDM_ICM_RMonly.xml:
(Mar 28, 2005 3:03:55 PM), , com.ibm.wizard.platform.aix.AixProductServiceImpl,
dbg.install, JVM memory before installing Files (bean221): free=959832
total=12253696
(Mar 28, 2005 3:03:55 PM), , com.ibm.wizard.platform.aix.AixProductServiceImpl,
msg1, installing Files (bean221)
(Mar 28, 2005 3:03:56 PM), , com.ibm.wizard.platform.aix.AixProductServiceImpl,
dbg.install, JVM memory after installing Files (bean221): free=859640
total=12253696
(Mar 28, 2005 3:03:57 PM), , com.ibm.wizard.platform.aix.AixRegistryServiceImpl,
dbg.registry, reading VPD from /usr/lib/objrepos/vpd.properties
(Mar 28, 2005 3:04:04 PM), , ProductFailCondition, msg1, Entering
evaluateTrueCondition
(Mar 28, 2005 3:04:04 PM), , ProductFailCondition, msg1, Entering searchOutput
```

These warning messages occur because the installer still keeps tabs of what files were installed during the GA installation in a specific component, and these files are not being updated during the fix pack (as designed), as a result, it throws a warning that the file size is 0. These warning messages do not cause any problem, and can be ignored.

The cardinality() function in DKResultSetCursorICM in DB2 Content Manager Version 8.2 library server on DB2 Version 7 results in ″Function sequence error″ exception

Symptom

While running against a DB2 Content Manager Version 8.2 library server on DB2 Version 7, the call to DKResultSetCursorICM.cardinality() might result in a ″Function sequence error″ exception. This problem does not happen if the library server is on DB2 Version 8.1 Fixpak 8. This problem might also surface through the federated connector if dkResultSetCursor.cardinality() is called on a cursor that is associated with a DB2 Content Manager Version 8.2 result set cursor.

Action

Take either one of the following two actions:
- Instead of calling DKResultSetCursorICM.cardinality(), use the DKDatastoreICM.executeCount() method to get an estimate of the number of results returned for a specific query.

- Upgrade to DB2 Version 8.1 Fixpak 8.

The 'Import' page in the eClient displays incorrect attributes

For Japanese systems, German Windows 2000 systems, and Lithuaniam Windows 2003 systems: The 'Import' page in the eClient might display incorrect attributes. Select any other item type from the drop-down list, and select back to the original item type.

Some particular queries that use the list operator for several text search conditions encounter problems with DB2 Version 8.1

Symptom

While running some particular xpath queries that use the list operator for several text search conditions against a DB2 Content Manager Version 8.x system on DB2 Version 8.1, you might see the following:

```
[IBM][CLI Driver][DB2/NT] SQL0443N  Routine "*INS_1K16" (specific name "")
has returned an error SQLSTATE with diagnostic text "CTE0129 NULL values are
not allowed to be passed as paramet".
SQLSTATE=38729
```

For example, while running the text search query below against DB2 Content Manager Version 8.2 on DB2 Version 8.1.8.762:

```
/Journal/Journal_Article[[contains-text(@Title, " 'Design' | 'System'  "),
contains-text(@Title, " 'Database' & 'research' ")] = 1]
```

You might see this message:

```
[IBM][CLI Driver][DB2/NT] SQL0443N  Routine "*INS_1K16" (specific name "")
has returned an error SQLSTATE with diagnostic text "CTE0129 NULL values
are not allowed to be passed as paramet".  SQLSTATE=38729
```

This problem does not happen if the library server is on DB2 Version 7.

Possible cause

This is a known issue with DB2 Version 8.

Action

Use the following workaround:

Instead of using the list operator, rewrite the query using OR. For example,

Old query:
```
"/Journal/Journal_Article[[contains-text(@Title, " 'Design' | 'System'  "),
contains-text(@Title, " 'Database' & 'research' ")] = 1]"
```

The above query can be rewritten as:
```
"/Journal/Journal_Article[(contains-text(@Title, \" 'Design' | 'System'
\") = 1) OR (contains-text(@Title, \" 'Database' & 'research' \") = 1)]"
```

Running this query on DB2 Version 7 gives exactly the same result as the old query.

Received library server return code 7064 SQL return code 141 while creating text searchable item type

Symptom

You attempted to create an item type with text search enabled, the library server returns a 7064 error with return code 141.

Possible cause

A possibility is that text search is not enabled after the database is installed.

Action

Complete the following steps to enable the text search after the database is installed:

1. Run

   ```
   db2text start
   ```

2. Run

   ```
   db2text enable database for text connect to "dbname" user "userid" using xxxxx
   ```

3. Enable the text search in the library server configuration in the system administration user interface.

Warning message ″Can't replicate at this time″ is not clear

Symptom

After replicating from the DB2 Content Manager Version 8.2 resource manager to DB2 Content Manager Version 8.3 resource manager, you received warning messages in the log file like the following:

```
 - sendCopy(RMReplicatableAsset.java:1601)
ICMRM:DEBUG   2005-03-28 16:53:56,141  [PoolWorker-0] - sendCopy:
target server: rmeserver01.cn.ibm.com target port :
9081 - sendCopy(RMReplicatableAsset.java:1609)
ICMRM:DEBUG   2005-03-28 16:53:56,141  [PoolWorker-0] - sendCopy:
getting output stream from socket
 - sendCopy(RMReplicatableAsset.java:1614)
ICMRM:DEBUG   2005-03-28 16:53:56,141  [PoolWorker-0] - sendCopy:
writing headers to outputstream
 - sendCopy(RMReplicatableAsset.java:1620)
ICMRM:DEBUG   2005-03-28 16:53:56,141  [PoolWorker-0] - sendCopyOrder:
streamcopier copying..
 - sendCopy(RMReplicatableAsset.java:1624)
ICMRM:DEBUG   2005-03-28 16:53:56,141  [PoolWorker-0] - STR_STRING:lbosdata
                              - getLBOSArea(ICMRMDBManager.java:540)
ICMRM:DEBUG   2005-03-28 16:53:56,141  [PoolWorker-0] - getInputStream:
dm getInputStream file :C:\\lbosdata\00008\54\L1.A1001001A05C28B65806H64302.V1 -
getInputStream(FixedDisk.java:555)
ICMRM:DEBUG   2005-03-28 16:53:56,141  [PoolWorker-0] - getInputStream:
file exists? true                 - getInputStream(FixedDisk.java:563)
ICMRM:TRACE   2005-03-28 16:53:56,156  [PoolWorker-1] - enter closeReplicate
                              - closeReplicate(ICMRMDBManager.java:12365)
ICMRM:WARN    2005-03-28 16:53:56,156  [PoolWorker-1] - Can't replicate at this
time                    - replicateToRemoteTarget(RMReplicatableAsset.java:1326)
ICMRM:DEBUG   2005-03-28 16:53:56,156  [PoolWorker-1] - disconnectLS
                       - disconnectLS(ICMRMDBManager.java:847)
ICMRM:DEBUG   2005-03-28 16:53:56,156  [PoolWorker-1] -
returning JDBC:DB2:ICMNLSDB, connection 18 from thread
PoolWorker-1 - releaseConnection(ICMRMConnectionPoolManager.java:590)
ICMRM:DEBUG   2005-03-28 16:53:56,156  [PoolWorker-1] - releaseConnection pool
size: 0 for JDBC:DB2:ICMNLSDB -
releaseConnection(ICMRMConnectionPoolManager.java:596)
```

```
ICMRM:DEBUG   2005-03-28 16:53:56,156  [PoolWorker-0] - readResponse...
                          - readResponse(RMMovableAsset.java:460)
ICMRM:DEBUG   2005-03-28 16:53:56,156  [PoolWorker-0] -    reading bytes at offset
0 length 2048 available 0 - readResponse(RMMovableAsset.java:475)
ICMRM:DEBUG   2005-03-28 16:53:56,156  [PoolWorker-1] - db connection returned to
pool                     - releaseConnection(ICMRMConnectionPoolManager.java:647)
ICMRM:TRACE   2005-03-28 16:53:56,156  [PoolWorker-1] - releaseConnection:
returning JDBC:DB2:ICMNLSDB connection to pool, free size  now:-> 1 connection
in use:-> 1 ! - releaseConnection(ICMRMConnectionPoolManager.java:659)
ICMRM:DEBUG   2005-03-28 16:53:56,156  [PoolWorker-1] - disconnect
                          - disconnect(ICMRMDBManager.java:887)
ICMRM:DEBUG   2005-03-28 16:53:56,172  [PoolWorker-1] - returning JDBC:DB2:RMDB2,
connection 14 from thread PoolWorker-1 -
releaseConnection(ICMRMConnectionPoolManager.java:590)
ICMRM:DEBUG   2005-03-28 16:53:56,172  [PoolWorker-1] -
releaseConnection pool size: 0 for JDBC:DB2:RMDB2  -
releaseConnection(ICMRMConnectionPoolManager.java:596)
ICMRM:DEBUG   2005-03-28 16:53:56,172  [PoolWorker-1] - db connection returned
to pool                     -
releaseConnection(ICMRMConnectionPoolManager.java:647)
ICMRM:TRACE   2005-03-28 16:53:56,172  [PoolWorker-1] - releaseConnection:
returning JDBC:DB2:RMDB2 connection to pool, free size  now:-> 1 connection in
use:-> 2 ! - releaseConnection(ICMRMConnectionPoolManager.java:659)
ICMRM:DEBUG   2005-03-28 16:53:56,172  [PoolWorker-1] -
disconnectLS       - disconnectLS(ICMRMDBManager.java:847)
ICMRM:TRACE   2005-03-28 16:53:56,172  [PoolWorker-1] - Completed executing task
task=[RMReplicatorTask(itemId=A1001001A05C28B65806H65217)] -
executeTask(RMReplicator.java:756)
ICMRM:TRACE   2005-03-28 16:53:56,172  [PoolWorker-1] - RMReplicatorDispatcher
received an RMReplicatorCompletedEvent=
[RMReplicatorCompletedEvent(itemId=A1001001A05C28B65806H65217, objectServerId=0]
- update(RMReplicatorDispatcher.java:65)
ICMRM:TRACE   2005-03-28 16:53:56,172  [PoolWorker-1] - PoolWorker-1 completed
execution of task=[RMReplicatorTask(itemId=A1001001A05C28B65806H65217)] -
run(RMReplicatorThreadPool.java:199)
ICMRM:TRACE   2005-03-28 16:53:56,172  [PoolWorker-1] - workQueue for
PoolWorker-1 is empty, waiting...    - run(RMReplicatorThreadPool.java:172)
ICMRM:DEBUG   2005-03-28 16:53:56,188  [PoolWorker-0] -
read 1622 bytes :HTTP/1.1 201 Created
Date: Mon, 28 Mar 2005 21:58:27 GMT
```

Possible cause

The replicator message Can't replicate at this time is not specific.

Action

The generic Can't local replicate at this time WARN level message is replaced by the following
messages:

- A TRACE level message

  Can't local replicate at this time, source out of date.

- A WARN level message

  Can't local replicate at this time, target offline.

- A WARN level message

  Can't local replicate at this time, checked out by other.

Database changes in Fix Pack 9

Library server changes

Fix Pack 9 contains the following library server changes:

- **APAR IO00267:** Fixed up an upgrade problem in the Fix Pack 7 upgrade
  - Removed the ORIGINAL Filename Column (ORIFNAME, attribute = 54) from the definitions of views and item types of child components. During upgrade of Fix Pack 7, the new ORIGINAL Filename was added to a child component of a resource item, which should not have been added. Other data model does not have this problem.

    ```
    DELETE FROM ICMSTCOMPVIEWATTRS V
                 WHERE V.ATTRIBUTEID=54 AND V.COMPONENTVIEWID IN
                 (SELECT C.COMPONENTVIEWID FROM ICMSTCOMPDEFS       A,
                                                ICMSTCOMPVIEWDEFS  B,
                                                ICMSTCOMPVIEWATTRS C
                     WHERE A.COMPONENTTYPEID  = B.COMPONENTTYPEID AND
                           B.COMPONENTVIEWID  = C.COMPONENTVIEWID AND
                           A.PARENTCOMPTYPEID > 0);
    ```
  - ```
    DELETE FROM ICMSTCOMPATTRS D
                 WHERE D.ATTRIBUTEID=54 AND D.COMPONENTTYPEID IN
                 (SELECT B.COMPONENTTYPEID FROM ICMSTCOMPDEFS       A,
                                                ICMSTCOMPATTRS     B
                     WHERE A.COMPONENTTYPEID  = B.COMPONENTTYPEID AND
                           A.PARENTCOMPTYPEID > 0);
    ```

- Added the descriptions for languages other than ENU for TIFF1STP mimetype, ItemDeletePart (131), and ItemAddPart (132), ItemUpdatePart (136) privileges to the ICMSTNLSKEYWORDS table.

- Added the privileges ItemUpdatePart(136) and ItemAddPart(132) to the ClientUSerEdit Privileges set (10).

Resource manager database changes

Database changes have been made to the Content Manager resource manager database to support object aggregation during migration from one storage class to another storage class that contains a Tivoli Storage Manager retention volume. Object aggregation during migration allows you to bundle objects from the source volume together as a large single object while migrating to a Tivoli Storage Manager retention volume.

Changes to the following tables have been made:

RMDEVMGR (Updated)

Updated values for DEV_PARAMETERS for Tivoli Storage Manager type device managers to:

```
mode=retention
mode=retention_aggregate
```

When mode=retention_aggregate is defined within the Content Manager system administration client for a Tivoli Storage Manager type device manager, you might use object aggregation.

Column name	Type schema	Type name	Length	Scale	Nulls
DEV_DEVMGRID	SYSIBM	SMALLINT	2	0	No
DEV_DEVMGRNAME	SYSIBM	CHARACTER	32	0	No
DEV_ENABLE	SYSIBM	CHARACTER	1	0	No
DEV_DESCRIPTION	SYSIBM	VARCHAR	80	0	No
DEV_PARAMETERS	SYSIBM	VARCHAR	254	0	No
DEV_CLASS	SYSIBM	VARCHAR	254	0	No

RMCOLLECTIONS (Updated)

New column COL_RETENTION has been added to RMCollection. This column is used by the Content Manager resource manager migrator to determine whether the collection has management class transitions that support object aggregation.

COL_RETENTION values:

0 Default. Object aggregation not enabled.

1 Object aggregation available for this collection and enabled.

Column name	Type schema	Type name	Length	Scale	Nulls
COL_COLLID	SYSIBM	INTEGER	4	0	No
COL_COLLNAME	SYSIBM	CHARACTER	44	0	No
COL_STGGROUPID	SYSIBM	SMALLINT	2	0	No
COL_MGTCLASSID	SYSIBM	SMALLINT	2	0	No
COL_RETENTION	SYSIBM	SMALLINT	2	0	No

RMVOLUMES (Updated)

New columns VOL_AGGREGATESIZE and VOL_AGGREGATESIZE are added to RMVolumes. Values are:

- VOL_AGGREGATESIZE

  0 Default. Object Aggregation on this volume not enabled.

  n Maximum size (in unit of KBytes) of the aggregate object. During aggregation, when total size of aggregate candidates reach this value, all candidates are aggregated into one aggregated object. If all objects in the aggregate candidate list do not meet this value, the size of the current list of objects is used for the aggregate size. For example, to define 5 Megabyte as the maximum size of an aggregate object, define `VOL_AGGREGATESIZE=5000000`.

- VOL_AGGREGATESTATUS

  0 Default. The volume is not currently being aggregated.

  1 Volume is currently being aggregated.

Column name	Type schema	Type name	Length	Scale	Nulls
VOL_VOLUMEID	SYSIBM	INTEGER	4	0	No
VOL_SERIAL	SYSIBM	INTEGER	4	0	No
VOL_STGCLASSID	SYSIBM	SMALLINT	2	0	No
VOL_ATTRIBUTES	SYSIBM	SMALLINT	2	0	No
VOL_MEDIATYPE	SYSIBM	SMALLINT	2	0	No
VOL_SERVERID	SYSIBM	SMALLINT	2	0	No
VOL_SIZE	SYSIBM	BIGINT	8	0	No
VOL_FREESPACE	SYSIBM	BIGINT	8	0	No
VOL_STATUS	SYSIBM	CHARACTER	1	0	No
VOL_THRESHOLD	SYSIBM	SMALLINT	2	0	No
VOL_NUMBUCKETS	SYSIBM	SMALLINT	2	0	No
VOL_REFERENCEDDATE	SYSIBM	DATE	4	0	No
VOL_LOGICALNAME	SYSIBM	CHARACTER	254	0	No
VOL_MOUNTPOINT	SYSIBM	VARCHAR	1023	0	No

Column name	Type schema	Type name	Length	Scale	Nulls
VOL_PATH	SYSIBM	VARCHAR	1023	0	No
VOL_OFFLINELOC	SYSIBM	VARCHAR	128	0	No
VOL_AGGREGATESIZE	SYSIBM	BIGINT	8	0	No
VOL_AGGREGATESTATUS	SYSIBM	SMALLINT	2	0	No

RMOBJECTS (Updated)

New column OBJ_OFFSET was added to RMobjects. This column contains the offset of the object in the Tivoli Storage Manager aggregate object.

OBJ_OFFSET values:

-1   Default. Object is not aggregated enabled.

n   Offset of the object in the Tivoli Storage Manager aggregate object.

Re-used column OBJ_OBJECTNAME. This column contains the name of the aggregate object in Tivoli Storage Manager.

New value for column OBJ_STATUS: A new status value ″I″ is used to indicate that the object is currently being aggregated.

Column name	Type schema	Type name	Length	Scale	Nulls
OBJ_LIBRARYID	SYSIBM	SMALLINT	2	0	No
OBJ_ITEMID	SYSIBM	CHARACTER	26	0	No
OBJ_VERSION	SYSIBM	SMALLINT	2	0	No
OBJ_COLLECTIONID	SYSIBM	INTEGER	4	0	No
OBJ_MGTCLASSID	SYSIBM	SMALLINT	2	0	No
OBJ_STGCLASSID	SYSIBM	SMALLINT	2	0	No
OBJ_ATTRIBUTES	SYSIBMSM	SMALLINT	2	0	No
OBJ_RETENTION	SYSIBM	INTEGER	4	0	No
OBJ_VOLUMEID	SYSIBM	INTEGER	4	0	No
OBJ_STAGEDVOLUMEID	SYSIBM	INTEGER	4	0	No
OBJ_PATH	SYSIBM	INTEGER	4	0	No
OBJ_STATUS	SYSIBM	CHARACTER	1	0	No
OBJ_SIZE	SYSIBM	BIGINT	8	0	No
OBJ_CREATEDATE	SYSIBM	TIMESTAMP	10	0	No
OBJ_UPDATEDATE	SYSIBM	TIMESTAMP	10	0	No
OBJ_REFERENCEDDATE	SYSIBM	TIMESTAMP	10	0	No
OBJ_ACTIONDATE	SYSIBM	DATE	4	0	No
OBJ_MGTCLASSDATE	SYSIBM	DATE	4	0	No
OBJ_STGCLASSDATE	SYSIBM	DATE	4	0	No
OBJ_PLAYSTATUS	SYSIBM	CHARACTER	1	0	No
OBJ_VOLSTATUS	SYSIBM	CHARACTER	1	0	No
OBJ_OBJECTNAME	SYSIBM	VARCHAR	128	0	Yes
OBJ_ORGFILENAME	SYSIBM	VARCHAR	1024	0	Yes
OBJ_FILENAME	SYSIBM	VARCHAR	128	0	Yes

Column name	Type schema	Type name	Length	Scale	Nulls
OBJ_MIMETYPE	SYSIBM	VARCHAR	128	0	No
OBJ_OFFSET	SYSIBM	BIGINT	8	0	No

RMAGGREGATE (New):
New tables:

AGG_NAME
Aggregate name

AGG_SIZE
Aggregate size

AGG_COUNT
Number of objects in aggregate

AGG_REFCOUNT
Reference count, when zero, aggregate can be deleted.

`Initial value=agg_count`

Column name	Type schema	Type name	Length	Scale	Nulls
AGG_NAME	SYSIBM	VARCHAR	128	0	No
AGG_SIZE	SYSIBM	BIGINT	8	0	No
AGG_COUNT	SYSIBM	BIGINT	8	0	No
AGG_REFCOUNT	SYSIBM	BIGINT	8	0	No

Auto-linking attributes should be required when added to the item type

When auto-linking attributes are added to the item type, they should be `required`. In the system administration client user interface, select the **required** check box while adding the attribute to the item type if the attribute is an auto-linking attribute.

Object aggregation during migration failed with ICM9850: dsmInit failed and return code 51 or 102

Symptom

While aggregating objects to Tivoli Storage Manager storage devices, the migrator failed with error message

`"ICM9850: dsmInit failed, return code: 51"`

or

`"ICM9850: dsmInit failed, return code: 102"`

Possible cause

A possible cause is that the migrator does not release the Tivoli Storage Manager session that it used to aggregate objects to Tivoli Storage Manager storage devices. After the total number of unclosed sessions exceed the maximum number of sessions that are allowed by the server, this error starts to shows up in the resource manager migrator log.

Action

Change the server configuration `maxsession` parameter to increase the maximum number of simultaneous client sessions, for example `setopt maxsession 100`. If applicable, decrease the maximum number of seconds that a server waits for a client response, for example, `setopt commtimeout 20`. Both server configuration parameters can also be changed directly in the server's configuration file, that is, (`dsmserv.opt`).

Search failed in the eClient after the eClient application was migrated from WebSphere Version 5.0.2 to WebSphere Version 5.1 on AIX and Solaris

If you migrated the eClient application while upgrading WebSphere from Version 5.0.2 to Version 5.1 on AIX and Solaris, the search function might fail in the eClient, and the error is logged in the eClient server `SystemOut.log` file:

```
Error]-[/IDMSearchResults.jsp(190,0) Attribute sortOrder
invalid according to the specified
TLD]: org.apache.jasper.compiler.CompileException:
/IDMSearchResults.jsp(190,0) Attribute sortOrder
invalid according to the specified TLD
      at
com.ibm.ws.webcontainer.jsp.compiler.BasicTagBeginGenerator.validate
(BasicTagBeginGenerator.java:122)
      at
com.ibm.ws.webcontainer.jsp.compiler.BasicTagBeginGenerator.init
(BasicTagBeginGenerator.java:69)
      at
org.apache.jasper.compiler.JspParseEventListener$GeneratorWrapper.init
(JspParseEventListener.java(Compiled Code))
```

Do not migrate the eClient application while upgrading WebSphere from Version 5.0.2 to Version 5.1 on AIX and Solaris. Re-install the eClient application after WebSphere is upgraded.

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