

CM/EIP/eClient Version 8.2 Fix Pack 8 readme file  
March 16, 2005

*IBM® DB2® Content Manager for Multiplatforms Version 8.2  
(Program Number 5724-B19)*

*IBM DB2 Information Integrator for Content Version 8.2  
(Formerly Enterprise Information Portal for Multiplatforms)  
(Program Number 5724-B43)*

*IBM Content Manager eClient Version 8.2*

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## 1 About this readme file

This readme file contains new information, known problems, and updates to the documentation in support of:

- IBM DB2 Content Manager Version 8.2
- Information Integrator for Content Version 8.2 (formerly Enterprise Information Portal)
- Content Manager eClient Version 8.2

Although Enterprise Information Portal (EIP) has been renamed to Information Integrator for Content, this readme file continues to use the former name to remain consistent with existing commands and documentation.

This fix pack contains APARs from previous fix packs, as well as new fixes that are only found in this fix pack.

The latest version of this readme file is available at this Web site:

[ftp://ftp.software.ibm.com/ps/products/content\\_manager/](ftp://ftp.software.ibm.com/ps/products/content_manager/)

### 1.1 Introduction

This readme file is the first document to read when setting up and installing fix packs for Content Manager Version 8.2, Enterprise Information Portal Version 8.2, and Content Manager eClient Version 8.2.

### 1.2 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](http://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](http://www.ibm.com/software/data/eip/support.html)

There you will be able to browse or search many technical documents, including Frequently Asked Questions (FAQs), Hints and Tips, defects (APARs), and other important information.

### 1.3 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(DB2 UDB Version 8.1 FixPak 7), with Net Search Extender (NSE) Version 8.2
- DB2 UDB Version 7.2 FixPak 12 or higher, with DB2 Text Search Extender V7.2 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 6a 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 8.2 or higher.

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](http://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. Type 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 8 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 indicates 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. **Restriction:** 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

## Operating systems

### 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 the Windows XP operating system. However, the eClient that end-users access through a browser can run on the Windows XP operating system.)

AIX® Version 5.1

AIX Version 5.2

Sun Solaris 8

Sun Solaris 9

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 1 kernel 2.4.21-9.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

## JDK/JRE

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

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
Solaris	Sun Forte C++ 6.0 update 2
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 5.1 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
- 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

Supported browsers are:

Windows:

Microsoft Internet Explorer Version 5.5 or higher

Netscape Version 4.7 or higher

Apple Macintosh Safari 1.2 or higher

## 1.4 Installation information for all CM Version 8.2 fix packs

The fix pack installation and removal (uninstall) instructions are organized by operating system and by product. 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.

**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.

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

Stop the WebSphere Application Server.

Stop all running resource manager processes.

Stop all library server processes.

Stop and restart the DB2 instance.

### **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 *icrm*.

### Windows operating system

The following information applies to installing fix packs on and removing them from Content Manager and EIP components on the Windows operating system. See [Content Manager installation information](#) for more information.

### AIX operating system

The following information applies to installing fix packs on and removing them from Content Manager and EIP components on the AIX operating system. See [Content Manager installation information](#) for more information.

### Solaris operating system

The following information applies to installing fix packs on and removing them from Content Manager and EIP components on the Solaris operating system. See [Content Manager installation information](#) for more information.

### Linux operating system

The following information applies to installing fix packs on and removing them from Content Manager and EIP components on the Linux operating system. See [Content Manager installation information](#) for more information.

### 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.

### **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

**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.

## 2 Documentation updates and corrections

### 2.1 Documentation fixes

APAR NUMBER: IR54975

APAR Description:

DB2 Information Integrator for Content (EIP) APIs cannot change an operating system password for VI400 if the password is expired.

Fix Description:

If the password for the VI400 back-end server expired, you cannot change your password using the federated database. The change password action cannot be used if you are an operating system user on the back-end server (for example, iSeries). The IBM Content Manager APIs cannot change an operating system password if it has expired. The password privileges are different on IBM Content Manager OS/400.

To change the password, the OS/400 system administrator must reset the password.

---

APAR NUMBER: IR53314

APAR Description:

Addition for the System Administration guide: File formats supported by Content Manager for text search

Fix Description:

DB2 Content Manager supports the file formats supported by Stellent. You can find the list of supported file formats at the following website:  
[http://www.stellent.com/stellent3/groups/mkt/documents/nativepage/outside\\_in\\_supported\\_platforms.pdf](http://www.stellent.com/stellent3/groups/mkt/documents/nativepage/outside_in_supported_platforms.pdf)

---

APAR NUMBER: IR50878

APAR Description:

Content Manager V8.2 with fix pack 1 can report a secondary return code to message DGL5162A System managed storage request to resource manager failed: (9876). The return code 9876 is not documented in the Messages and Codes manual, and should reflect that the Tivoli Storage Manager volume definition that is being made to the resource manager is not a valid definition in Tivoli Storage Manager.

Fix Description:

The return code, 9876, was added to the Messages and Codes book, SC27-1349-01:

**ICM9876 A Storage Management Subsystem (SMS) error occurred. SMSMsg: {0}**

**Explanation:** An error occurred while forming the SQL statement(s) to be applied to the database.

**Component:** Resource manager

**Action:** Examine the SMSMsg for details of the error. You might find that required parameters are missing, or values are not found using the supplied input. See the resource manager log for additional information.

---

APAR NUMBER IR50986

APAR Description:

When using the system administration client, you might receive message FRN8727a when creating a database index. The reason is because the value you entered for the database index name is invalid.

Fix Description:

Follow these guidelines when creating the database index name:

- Use a maximum of 15 characters (the product adds automatically three characters)

- Start the name with a letter

- You can include uppercase letters, numbers, and underscores

- You cannot use a reserved word

---

APAR NUMBER IR52891

APAR Description:

In *Installing, Configuring, and Managing the eClient public PDF*, in the "Configuring the eClient with WebSphere Application Server 4.0.5 AE or AEs," there should be a description of manual deployment, however there is none.

Fix Description:

To manually deploy the eClient with WebSphere Application Server 4.0.5 AE or AEs, run the following commands:

Windows specify 1. Run CMeClient\Save\idmwas.bat

AIX specify 1. Run CMeClient/Save/idmwas.bat

Solaris specify 1. Run CMeClient/Save/idmwas.bat

---

APAR NUMBER IR53077

APAR Description:

eClient help: description of OPEN state behavior inaccurate.

Fix Description:

The Open icon indicates that, at some point, the document was opened by another user who is logged on to the eClient. The Closed icon displays only after the user who originally opened the document logs off of the eClient, even if the original user closed the document during their session. You can still open the document.

---

APAR NUMBER IR53272

APAR Description:

Correction to "Active Directory (Windows 2000)" subsection in Chapter 1 of *DB2 Content Manager Planning and Installing Your Content Management System*.

Fix Description:

Following is the correct content:

Active Directory

Active Directory is the name of the LDAP directory used by Microsoft for Windows 2000. If you are running Windows 2000 Server, you can use the Active Directory feature as your LDAP method with DB2 Content Manager. Alternatively, you can configure a library server to import and authenticate users from an Active Directory server. This library server can run on any supported operating system, such as AIX.

If you plan to use the Active Directory feature, you must adhere to the following rules: There must be an Active Directory set up according to the procedures in the Microsoft Windows 2000 Server documentation. The system used for DB2 Content Manager must be able to physically access an Active Directory server. To verify this, open the command prompt window and enter:

```
ping ip address
```

---

APAR NUMBER IR53281

APAR Description:

Microsoft Active Directory authentication of users fails.

Fix Description:

The default user attribute for DB2 Content Manager LDAP configuration is *cn* (common name). However, within Active Directory the *cn* attribute entry can be different from the actual user ID, depending on the LDAP server configuration, and can cause the user authentication to fail.

Change the user attribute to *samaccountname* so that Active Directory verifies against the user ID instead of the common name.

To change the default value to *samaccountname*:

1. Log on to the system administration client.
  2. Go to **Tools --> LDAP Configuration --> Server**
  3. Change the user attribute from *cn* to *samaccountname*.
  4. Save the changes.
  5. Import the LDAP user and log on to the Client for Windows.
- 

APAR NUMBER IR53356

APAR Description:

Incorrect information about steps to install DB2 Universal Database as a prerequisite for installing DB2 Content Manager.

Fix Description:

Document: *Planning and Installing Your Content Management System*, GC27-1332-02, Chapter 24: "Installing and updating prerequisite programs (Solaris)," Section: "Installing IBM DB2 Universal Database," page: 252.

Replace step 2 with new information as follows:

\_\_ 2. Update your kernel parameter file based on recommendations generated by running the db2osconf command:

```
/opt/IBM/db2/V8.1/bin/db2osconf
```

See the IBM® DB2® Universal Database Command Reference, SC09-4828, for more information about the db2osconf utility.

Make changes to your kernel parameter file based on recommendations generated by the output of the db2osconf script.

Here is a sample of what the output might look like that is generated by running the db2osconf command:

```
set msgsys:msginfo_msgmax = 65535
set msgsys:msginfo_msgmb = 65535
set msgsys:msginfo_msgmni = 3584
set msgsys:msginfo_msgtql = 3584
set semsys:seminfo_semmni = 4096
set semsys:seminfo_semmns = 8602
set semsys:seminfo_semmnu = 4096
set semsys:seminfo_semume = 240
set shmsys:shminfo_shmmax = 3718110412
set shmsys:shminfo_shmmni = 4096
set shmsys:shminfo_shmseg = 240
set msgsys:msginfo_msgssz = 16
set msgsys:msginfo_msgseg = 32767
set semsys:seminfo_semmap = 1026
set semsys:seminfo_semopm = 200
```

---

APAR NUMBER IR53498

APAR Description:

The clone() method of DKItemTypeDefICM cannot be used to clone an existing DKItemTypeDefICM for the purposes of creating a new DKItemTypeDefICM. The clone() method creates an exact copy and contains meta data that will prevent the new copy from being stored in the library server as a new item type. Using the clone() method in this form can corrupt the original item type.

Fix Description:

If you want two item types to be similar, you must select similar attributes, that are not unique attributes, when creating a new item type.

---

APAR NUMBER IR53520

APAR Description:

In *Planning and Installing Information Integrator for Content* Version 8.2, GC27-1345-01, on page 11: "Administration server (Multiplatform configuration)," there is a paragraph that is

misleading in that it does not mention installing the database on a Windows workstation as well as AIX and Solaris.

#### Fix Description:

The information should be as follows:

#### Administration server (Multiplatform configuration)

To configure a Multiplatform administration server, you install the administration and federated database and connectors on AIX®, Solaris, or Windows® and install the system administration client on a separate Windows workstation. An RMI server or DB2 Universal Database Client Configuration Assistant is required to connect the EIP administration client to the database.

## 2.2 Resource Manager tables in the Programming Reference

The RMREPLICATION system control tables documentation for REP\_REPLICATETYPE provides the following status values: E, L, R, S, A. The meaning to each of the codes is as follows:

E = replicate existing.

L = update the library server; replication completed.

R = replicate item.

S = restore request from the validation utility.

A = pending restore from the validation utility; no action will be taken by the replicator.

## 2.3 Content Manager Version 8 Java™ APIs overview poster

The API Overview poster provides a high-level overview of the Content Manager classes and interfaces available for developing custom applications. To download the poster, go to the following Web site:

[http://www-1.ibm.com/support/docview.wss?rs=86&context=SSRS7Z&q=&uid=swg21113572&loc=en\\_US&cs=utf-8&lang=en+en](http://www-1.ibm.com/support/docview.wss?rs=86&context=SSRS7Z&q=&uid=swg21113572&loc=en_US&cs=utf-8&lang=en+en)

## 2.4 Migrator on Windows operating system

The resource manager does not start the migrator on the Windows operating system.

On Windows, you must start the migrator from the Services window. In the Services window, highlight ICM Migrator and click **Start**. Asynchronous recovery runs automatically after you start the migrator. It is not governed by a schedule specified in the system administration client.

For specific details about asynchronous recovery, see the "*Managing Resource Manager utilities and services*" section of the *System Administration Guide* Version 8.2. This information is also in the "Starting the migrator on Windows" document on the product support page.

## 2.5 Limited system administration attribute length

In the New Attribute and Copy Attribute windows in the system administration client, the help incorrectly states that you can type up to 32 characters in the Name fields. You can only type up to 15 characters in those fields.

In the New Item Type Definition window, the Name field also limits the character length to 15.

## 2.6 Defining ACLs with administrative domains enabled

When administrative domains are disabled in the system administration client, only super administrators can create access control lists and privilege sets.

If administrative domains are enabled in the system administration client, you must belong to the SuperDomain, where you can manage system objects for all domains, to define access control lists or privilege sets, or, you must assign the privilege to create access control lists or privilege sets to a domain. Access control lists and privilege sets can associate with multiple domains but they can not be managed by users in any subdomains.

If sub-administrator users log on, they cannot perform these actions.

For more information about administrative domains, see *System Administration Guide* Version 8.2.

This information is also provided in the "Users who can define access control lists when administrative domains are enabled" document on the product support page.

## 2.7 Search Template Properties online help

In the Search Template Properties online help, sentence 2 of Step 2 contains incorrect information:

Step 2. Right-click a search template and select **Properties**. The Search Template Properties window opens. You can view or modify all properties except for the name.

The following step contains the correct information:

Step 2. Right-click a search template and select Properties. The Search Template Properties window opens where you can view or modify some search template properties.

### **Restrictions:**

- 1) You cannot change the search template name
- 2) Each search template must have at least one criteria. You cannot remove the only search criteria in a search template

## 2.8 Information Integrator for Content online help

There is no support for DISPLAY VALUE FUNCTION from the system administration search template.

## 2.9 Information Integrator for Content information mining

### Installation

Windows NT™: Follow the additional steps below if the installation directory contains a blank.

**Problem:** On Windows, information mining fails with internal TAF error 5041 if Information Integrator for Content is installed into a directory that contains a blank space in the directory name.

**Solution:** Copy the directory %CMBROOT%\ikf\Taf\data to some location that does not contain a blank, for example, c:\tafdata. Edit the file InfoMining.properties in %CMBROOT%\ikf\lib as follows: Set the value of "tafDataDir" to the copied directory, for example, c:\tafdata.

### Information Structuring Tool

#### WebSphere Application Server Version 5: Calling ISTconfig on Windows NT

**Problem:** If the Websphere Application Server installation path contains blanks, the script fails.

**Solution:** Copy three files (applets.jar, clientTree.jar, and clientUploads.jar) manually from %CMBROOT%\ikf\IST to <WAS\_HOME>\installedApps\<machine>\IST\_war.ear\IST.war. Replace the .jar files that are already in the IST.war directory.

#### WebSphere Application Server Version 5: Deploying Information Structuring Tool and sample JavaServer Pages on the same server

**Problem:** When the Information Structuring Tool and the sample JavaServer Pages are installed on the same application server, the error DLL already loaded in another classloader can occur after logon, if both applications are used concurrently.

**Solution:**

Perform one of the following two alternatives:

1. Set the classloader policy of the application server from multiple to single. You can use the WebSphere Application Server administrative console to set the classloader policy: **Servers** → **Application Server** → *server name* in the Configuration tab under **Application classloader policy**. The server must be restarted for the revised settings to take effect.
2. Install the applications on two separate application servers. In this case, run the SetupIMEnv script for each server to add the shared library InformationMiningEnvironment to both servers.

#### WebSphere Application Server Version 5: Changing the Information Integrator for Content database name (Install instructions Step 8)

**Problem:** Step 8 of the installation instructions contains the wrong directory.

**Solution:**

Perform one of the following two alternatives:

1. As a temporary solution, change the database name in the web.xml file found under `WAS_HOME\config\cells\<machine>\applications\IST_war.ear\deployments\IST_war\IST_war\WEB-INF`
2. Update the IST.war file under `CMBROOT\ikf\IST` before deployment using the Application Assembly Tool (AAT). If you already deployed the IST, un-deploy it, apply the changes below, and re-deploy it. Perform the following steps:
  - a. Make a backup copy of your existing IST.war file.
  - b. Start the AAT. It can be found at `<WAS_HOME>\bin\assembly.bat` (Windows) or `<WAS_HOME>/bin/assembly.sh` (UNIX).
  - c. Select the Existing tab and navigate to `<CMBROOT>\ikf\IST\IST.war`. Click **OK**.
  - d. In the navigation tree, select **Context Parameters**.
  - e. In the right pane, select `COM.IBM.IKF.IST.EIP_DATABASE_NAME`.
  - f. Change the parameter value to your Information Integrator for Content database.
  - g. Click **Apply**.
  - h. Save the file as IST.war
  - i. Deploy the changed IST.war

## Information Mining Sample JavaServer Pages (JSPs)

### WebSphere Application Server Version 5: Deploying Information Structuring Tool and sample JavaServer Pages on same server

**Problem:** When the IST and the sample JSPs are installed on the same application server, the error message `DLL already loaded in another classloader` can occur after a logon, if both applications are used concurrently.

#### **Solutions:**

Perform one of the following two alternatives:

1. Set the classloader policy of the application server from multiple to single. You can use the WebSphere Application Server administrative console to set the classloader policy: **Servers** → **Application Server** → *server name* in the Configuration tab under **Application classloader policy**. The server must be restarted for the settings to take effect.
2. Install the applications on two separate application servers. If you select this alternative, run the `SetupIMEnv` script for both servers to add the shared library `InformationMiningEnvironment` to both servers.

#### **Solaris:**

##### **Wrong source directory**

On Solaris, the sample JSP is installed in `/opt/IBMcmb/samples/jsp/infomining/jsp/`.

## Current limitations

### Information Structuring Tool

The training document list might not be updated when adding just one document.

#### **Solution:**

Change to the tab **Upload Status** and back again. The document should appear on the document list.

## 2.10 Help information for viewing or modifying users

The help information for viewing or modifying users has incorrect information about the Grant Privilege Set field. (Item 11).

Below is the correct text:

For the Grant Privilege Set field, the selected privilege set is granted to any users that this user creates in the following situation:

If User1 creates a user named NewUser, and User1 does not have the privilege SystemGrantUserPrivs in their privilege set, then the Grant Privilege Set belonging to User1 will automatically be used as the Privilege set of user NewUser.

## 2.11 Application Programming Reference correction

The documentation for DKDatastoreDefICM lists constants as DKConstant. The correct constant is DKConstantICM.

## 2.12 EIP database name must be ICMNLSDB to start a workflow

**Problem:** We cannot start a workflow if the EIP database name is different than ICMNLSDB; we cannot run the file cmbwfstart if the EIP database name is not ICMNLSDB.

### **Solution:**

1. Edit the file cmbwfstart.bat.
2. Modify the file to add the following statement:

```
-d EIPdatabasename  
@call "%CMBROOT%" \cmbupes81.bat -u %CMBUPESUSER% -p %CMBUPESPASS% -d  
EIPdatabasename
```

For AIX, in the CMBWFAIXSTART.sh file, modify:

```
/usr/lpp/cmb/bin/cmbupes81.sh -d EIPdatabasename
```

For Solaris, in the CMBWFSUNSTART.sh file, modify:

```
/opt/IBMcmb/bin/cmbupes81.sh -d EIPdatabasename
```

## 2.13 Problem with icrm when saving a Freelance document

**Problem:** Encountering problems when retrieving a Lotus Freelance Graphics® file through the browser.

**Solution:** You need to save the document to a local file first, before you opening the document in a browser.

## 2.14 Additional eClient documentation

The following information was omitted from the eClient documentation.

The Content Manager eClient supports nine types of annotations: pen annotation, arrow, line, highlight, circle, rectangle, text, sticky note, and stamp annotations.

You can create most of these annotations by selecting the corresponding tool in the eClient toolbar and drawing on the document, or page view.

To create a pen annotation, however, you create the annotation one segment at a time. You can finish the creation of the entire annotation by using one of the following methods:

- Click once on the document (page view)
- Click the **Select/Move Annotations** tool
- Perform any other action on the toolbar

Make sure a black selection rectangle is drawn around the pen annotation. The black selection rectangle indicates that you have finished creating the pen annotation.

**Important:** If you close the viewer applet window while you are creating a pen annotation, but you have not finished the pen annotation, then you will not be prompted to save the annotation. You must first finish creating the pen annotation by selecting any action (for example, the Pointer action or Close document) before closing the window.

Also, if you are in the eraser mode and you want to erase the entire pen annotation, use **Delete**. If you use the mouse to erase the pen annotation, you will remove only one segment at a time. For other annotations, you can use the eraser to delete the entire annotation.

## 2.15 Content Manager Version 8.2 readme file

APAR Number IR51938. The Content Manager V8.2 readme file, section 4l), has an incorrect statement about Tivoli Storage Manager support.

The incorrect statement is:

Tivoli Storage Manager Version 5.1 setup: Tivoli Storage Manager V5.1 (64 bit API client) on UNIX does not work with resource manager.

**Workaround:** To enable the resource manager to use the 64 bit TSM API client on UNIX, copy the `../tivoli/tsm/client/api/bin64/libApiTSM64.a` file to `libApiDS.a` in the same directory.

Correction:

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 V5 32 bit API client package for AIX V5 is labeled as the 32 bit API client for AIX V4.3, but this packages works.

## 2.16 Updates to Messages and Codes

The following messages were missing from *Messages and Codes*, SC27-1349-03:

ICM7089: The length of the input value for this attribute is too long to store. Please see "SQL State" in error message for specific attribute ID

Component: Library server

Explanation: The length of the input value for this attribute is too long to store. Please see "SQL State" in error message for specific attribute.

Action: Reduce the length of the input value for this attribute.

ICM7653 An internal error occurred.

Component: Library server

Explanation: Unable to check out because the object on the source resource manager server is out of date.

Action: Run the application again with the library server trace set to Detail and Data. Save the server log and see your IBM service representative.

ICM7654 MFLAGS of RMCODE not found in ResourceMGR table for replication.

Component: Library server

Explanation: Invalid source replicator is specified; that is, the source resource manager server or collection cannot be found.

Action: Run the application again with the library server trace set to Detail and Data. Save the server log and see your IBM service representative.

ICM7655 Resource manager replication is not available.

Component: Library server

Explanation: Invalid target replicator is specified; that is, the target resource manager server or collection cannot be found.

Action: Run the application again with the library server trace set to Detail and Data. Save the server log and see your IBM service representative.

ICM7656 An internal error occurred.

Component: Library server

Explanation: Invalid source migrator is specified; that is, the source resource manager server or collection cannot be found.

Action: Run the application again with the library server trace set to Detail and Data. Save the server log and see your IBM service representative.

ICM7657: An internal error occurred.

Component: Library server  
Explanation: Invalid target migrator is specified; that is, the target resource manager server or collection cannot be found.  
Action: Run the application again with the library server trace set to Detail and Data. Save the server log and see your IBM service representative.

ICM7658 An internal error occurred.  
Component: Library server  
Explanation: Exceeded the maximum number of items allowed per replication or migration request.  
Action: Run the application again with the library server trace set to Detail and Data. Save the server log and see your IBM service representative.

ICM7659 An internal error occurred.  
Component: Library server  
Explanation: Target resource manager server is currently taken offline by system administrator, and therefore unable to check out.  
Action: Run the application again with the library server trace set to Detail and Data. Save the server log and see your IBM service representative.

ICM7660 An internal error occurred.  
Component: Library server  
Explanation: The source resource manager has the latest object so that it is alright to perform replication. However, because the target resource manager server has an existing object, the migrator ignores this request.  
Action: Run the application again with the library server trace set to Detail and Data. Save the server log and see your IBM service representative.

New message: ICM9937 was created for code delivered in fix pack 3:

ICM9937 Delete failed for file {0}  
Explanation An error occurred deleting the file.  
Action See the resource migrator log for more details. The name and path to the resource manager migrator log is defined in the icmrm\_migrator\_logging.xml configuration file.

## 2.17 Updated Javadoc for Java viewer toolkit packages

### **Problem:**

My documentation for the Java classes and APIs of the Java viewer toolkit do not match my level of code. Javadoc for new programmability APIs on CMBGenericDocViewer with fix pack 3 is not available.

### **Solution:**

Follow the URL below for instructions on how to receive the updated Javadoc. You can also search the WBTS support Web site; use the following reference number to find this information: #1177257.

<http://www.ibm.com/support/docview.wss?uid=swg21177257>

## 2.18 Updates to event log tables

The logging of the system administration events for ADD AUTO LINK, UPDATE AUTO LINK, and DELETE AUTO LINK have changed. The event code has changed as well as the table the events are stored in.

Event	Former event code	New event code
ADD AUTO LINK	402	85
UPDATE AUTO LINK	403	86
DELETE AUTO LINK	404	87

The events are now also logged in the ICMSTSYSADMEVENTS table and not in the ICMSTITEMEVENTS table.

## 2.19 Correction to system control tables

The following information was either incorrect or missing in the Content Manager V8.2 system control tables.

### **RMSYNCVOL**

Column Name	Data Type	Attribute
Table 85.		
SVL_SYNCVOLID	SMALLINT	NOT null
SVL_VOLUMEID	SMALLINT	NOT null

Primary key

( SVL\_SYNCVOLID )

Indexes

Unique Index

None

Index

None

Referential Constraints

FOREIGN KEY (SVL\_VOLUMEID) REFERENCES RMVOLUMES

ON DELETE RESTRICT

ON UPDATE RESTRICT

### **RMSYNCPARM**

Column Name	Data Type	Attribute
Table 86.		
SPM_SYNCPARAMID	SMALLINT	NOT null
SPM_SYNCMETHOD	INTEGER	NOT null
SPM_SYNCSTARTDATE	TIMESTAMP	NOT null
SPM_SYNCENDDATE	TIMESTAMP	NOT null

Primary key

( SPM\_SYNCPARAMID )

Indexes

Unique Index

None

Index

None

Referential Constraints

None

## RMBLOBS

This table holds small blobs in the database.

Column Name	Data Type	Attribute
Table 88.		
BLOB_LIBRARYID	SMALLINT	NOT null
BLOB_ITEMID	CHAR(26)	NOT null
BLOB_VERSION	SMALLINT	NOT null WITH DEFAULT 1
BLOB_COLLID	INTEGER	NOT null WITH DEFAULT 0
BLOB_DATA	BLOB (10 M) NOT LOGGED NOT COMPACT	

Primary key

(BLOB\_LIBRARYID,BLOB\_ITEMID,BLOB\_VERSION,BLOB\_COLLID)

Indexes

Unique Index

None

Index

None

Referential Constraints

None

Column Definitions

**BLOB\_LIBRARYID**

An ID that references a row in the RMSERVER table.

**BLOB\_ITEMID**

An item ID.

**BLOB\_VERSION**

A version number.

**BLOB\_COLLID**

An ID that references a row in the RMCOLLECTIONS table.

**BLOB\_DATA**

The BLOB (10 M).

## 2.20 Corrections to Planning and Installing Your CM System

Correction to Chapter 9, "Installing and updating prerequisite programs for Windows", in the section entitled "Installing IBM DB2 Universal Database client" on page 98.

Replace the incorrect information with the following:

### **Installing IBM DB2 Universal Database client**

If you are installing the system administration client on this system and are planning to administer your databases from this operating system and install your library server and resource manager on a remote system, you must have DB2 Application Development Client installed.

To obtain the DB2 Application Development Client, install DB2 Universal Database on this system. When you install DB2 Universal Database, the DB2 Application Development Client is installed automatically as part of DB2 Version 8.

-----  
**Problem**

DB2 Content Manager does not install properly on AIX.  
DB2 Universal Database is not set up properly as a prerequisite to install DB2 Content Manager, Version 8.2.

**Solution**

Add the following steps to *Planning and Installing Your Content Management System*, GC27-1332-02:

Chapter 19, page 207, Chapter 19: "Installing DB2-based Content Manager components on AIX," section: "Before you begin", after step \_\_ 3, insert a new step:

\_\_ 3a. Enter the command `java -version`, to make sure that your JRE Version 1.3 is in the PATH.  
You should see a return as in this example:

```
$JAVA_HOME/bin:$JAVA_HOME/jre/bin:$PATH
```

Where `JAVA_HOME` is the location of the java files, for example:

/usr/jdk131/

---

Corrections to *Planning and Installing Your Content Management System* , GC27-1332-02, as follows:

Chapter 25, page 277 under heading "Confirm the correct version of Java"

Change the 2nd paragraph to read:

Make sure that the Java version 1.3.0 or later is used.

```
java version "1.3.1.04"
```

Chapter 25, page 279 under "Update the DB2 instance profile.env file", change the 2nd line to read:

```
/export/home/db2inst1/sqlllib/profile.env file:
```

Chapter 26, page 293

"Software License Agreement windoe" should be changed to correct the mis-spelled word windoe, to read:

"Software License Agreement window"

Chapter 27, page 306 under "Verify library server access modules generated", there are two changes:

1. The 2nd line under \_\_ 1. is wrong. /home/db2fenc1/ICMNLSDDB/DLL should be:

```
/export/home/db2fenc1/ICMNLSDDB/DLL
```

2. In step \_\_ 2. "Look in /opt/IBMicm/logs/icm81install.log" is wrong. It should have icm82install.log, so that it should read:

\_\_ 2. Look in /opt/IBMicm/logs/icm82install.log

Chapter 27, page 308 under "Verify resource manager Web application deployment", there are two changes in step \_\_ 2.:

1. Before step \_\_2a., add a new step as follows:

Start the WAS Application server by entering:

```
/opt/WebSphere/AppServer/bin/startServer.sh server1
```

2. In step 2b., the directory `"/opt/WebSphere/AppServer/installedApps/icrm.ear/"` is wrong, It should read as follows:

```
/opt/WebSphere/AppServer/<nodename>/installedApps/icrm.ear/
```

## 2.21 Corrections to system administrative client online help

The following information is missing from the system administration client online help for creating attributes:

When creating folders or importing documents in a non-English national language environment, one of the following SQL errors might occur:

```
ICM7089: The length of the input value for this attribute is too long to store. Please see "SQL State" in error message for specific attribute ID. (STATE): [LS RC = 7089, SQL state = 20]
```

```
SQL0311N The length of string host variable number  
" <var-number> " is negative or greater than the maximum.
```

```
SQL0433N Value "<value>" is too long.
```

Depending on the language setting, the storage size needed for storing a national language character in DB2 could take up to three bytes in a DB2 database for Unicode (UTF-8) and up to two bytes in an MBCS locale database. For example, for a national language such as Chinese or Japanese, each national language character takes three-byte storage spaces in a DB2 database enabled for Unicode. However, the same Chinese or Japanese national language character takes only two bytes in a DB2 database enabled with the default Chinese or Japanese locale.

Content Manager attribute size is measured in the number of bytes, not in the number of national characters. When defining a Content Manager attribute that holds national characters, consider the possibility that the same national characters might require different storage size, depending on the code page of the database.

When defining character type of CHAR, VARCHAR, LOBs attributes in Content Manager, each character length specified is one byte in size.

**Important:** Calculate the correct length of bytes to allow for the possible expansion in a native or Unicode database code page.

## 2.22 Correction to the Content Manager product Web site

Information at <http://www-306.ibm.com/software/data/cm/cmgr/mp/requirements3.html> is incorrect. The Content Manager V8.2 eClient is not supported on the Windows XP operating system.

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

## 3 Content Manager

### 3.1 Content Manager installation information

Installation information on Windows

#### Preparing for the fix pack

\_\_\_ 1. Stop WebSphere Application Server.

##### **To stop WebSphere Advanced Edition Version 5:**

Run the command:

```
%WAS Home%\bin\stopServer.bat <App Server>
```

where

%WAS Home% is C:\WebSphere\AppServer by default, and App Server is 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 the command:

```
%WAS Home%\bin\stopServer.bat
```

where

%WAS Home% is 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 fix pack installation program

This section describes how to run the Content Manager and Enterprise Information Portal fix pack installation program.

Before applying the fix pack, remove the class file `CsaLSUgrade*.class`, if it exists. This file is located at `%ICMROOT%/config`.

### Running the Content Manager fix pack installation program

To run the Content Manager fix pack installation program, complete the following steps:

\_\_ 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**.

### **Running the EIP fix pack installation program**

To run the Enterprise Information Portal fix pack installation program, complete the following steps:

\_\_ 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**.

### **Running the fix pack uninstall program**

#### **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 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:\ProgramFiles\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

### Running the EIP 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 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 Content Manager Fix Pack 1:  
C:\ProgramFiles\IBM\CM82\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

#### System administration client

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.

<b>Platform</b>	<b>Product</b>	<b>Chapters from Planning and Installing Your Content Management System</b>
Windows	Content Manager Enterprise Information Portal	Chapter 11 Chapter 13

## Installation information 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
```

#### Restrictions:

- 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 `ls1pp` 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 5:**

Enter:

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

where *App Server* is *icrm* 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* is 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, enter 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 it 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  
db2stop
```

An example of *userID of the DB2 instance* is `db2inst1`.

\_\_ 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 radmin ) 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 fix pack installation program

This section describes how to run the Content Manager and Enterprise Information Portal fix pack installation program.

Before applying fix pack, remove class file `CsaLSUgrade*.class` if it exists. This file is located at `$ICMROOT/config`.

### Running the Content Manager fix pack installation program

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

To run the Content Manager fix pack installation program, complete the following steps:

\_\_ 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**.

### Running the EIP fix pack installation program

To run the Enterprise Information Portal fix pack installation program complete the following steps:

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

\_\_2. From the command line, enter (as a locale example):  
`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**.

### Running the 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 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 radmin) 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
```

### Running the Content Manager fix pack uninstall program

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

### Running the EIP fix pack uninstall program

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.

Platform	Product	Chapters from Planning and Installing Your Content Management System
AIX	Content Manager Enterprise Information Portal	Chapter 19 Chapter 21

### Installation information 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 5:

Enter:

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

where *App Server* is icrm by default.

#### 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* is 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, enter 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 it 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 fix pack installation program

This section describes how to run the Content Manager and Enterprise Information Portal fix pack installation program.

Before applying fix pack, remove class file `CsaLSUgrade*.class` if it exists. This file is located at `$ICMROOT/config`.

### Running the Content Manager fix pack installation program

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

To run the Content Manager fix pack installation program, complete the following steps:

\_\_ 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**.

### Running the EIP fix pack installation program

To run the Enterprise Information Portal fix pack installation program, complete the following steps:

\_\_ 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**.

### Running the 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

### Running the Content Manager fix pack uninstall program

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

### Running the EIP fix pack uninstall program

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 guide you through the verification process.

Platform	Product	Chapters from Planning and Installing Your Content Management System
Solaris	Content Manager Enterprise Information Portal	Chapter 26 Chapter 28

### Installation information 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 `rpm` 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 5:**

Enter:

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

where *App Server* is `icrm` 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 it 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 the 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 radmin ) 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 fix pack installation program

This section describes how to run the Content Manager and Enterprise Information Portal fix pack installation programs.

Before applying the fix pack, remove the class file `CsaLSUgrade*.class` if it exists. This file is located at `$ICMROOT/config`.

### Running the Content Manager fix pack installation program

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

To run the Content Manager fix pack installation program, complete the following steps:

\_\_ 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**.

### Running the EIP fix pack installation program

To run the Enterprise Information Portal fix pack installation program, complete the following steps:

\_\_ 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**.

### Running the 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 the location specified in UPDATEDIR. Example if UPDATEDIR set to /opt/Fixpack03: /opt/Fixpack03

### Running the Content Manager fix pack uninstall program

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

### Running the EIP fix pack uninstall program

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 guide you through the verification process.

Platform	Product	Chapters from Planning and Installing Your Content Management System
Linux	Content Manager Enterprise Information Portal	Chapter 33 Chapter 35

## Installation information for Content Manager on z/OS

### Library server

If you have the combination of Content Manager V8.2, EIP fix pack 2 , and the z/OS GA level code, you must update the LSCurrentVersion column in the ?CREATOR?.ICMSTSysControl table on z/OS to '8.2.0.20' as follows:

```
UPDATE ?CREATOR?.ICMSTSYSCONTROL SET LSCURRENTVERSION = '8.2.0.20';
```

### Resource manager

If you plan to install DB2 UDB V8.1 on your Content Manager client systems, you must also apply the companion PTF UQ72083 to DB2 V7.1 on your z/OS servers. Apply PTF UQ72083 is not applied in this to prevent the following error message is encountered:

```
[IBM][CLI Driver] CLI0150E Driver not capable. SQLSTATE=HYC00
```

## 3.2 Content Manager fixes and descriptions

### Fix pack 8 Content Manager fixes

APAR NUMBER: IR53951 IR53991

#### APAR Description:

Schema generation is incomplete because the ItemType ACL is not being created.

#### Fix Description:

As of fix pack 7, this problem is fixed.

-----  
APAR NUMBER: 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:

Added schema name so the correct CM\_SEQ\_ACL can be found.

---

APAR NUMBER: IR54715

APAR Description:

A system-assigned worklist didn't show up.

Fix Description:

Set RETURNSIZE = 1 in ICMUT00206001 table for Content Manager Version 7 system assigned workbasket.

---

APAR NUMBER: IR55078

APAR Description:

The migration81.jar and Cmbmig7\_2\_8.bat files are not included in Version 8.2 Windows fix packs.

Fix Description:

As of fix pack 8, these files are included in the fix packs.

---

APAR NUMBER IR54478

APAR Description:

Partial retrieve from Tivoli Storage Manager fails because it does not get the right range of data.

Fix Description:

Update the retrieveTSM.java file.

---

APAR NUMBER IR54522

APAR Description:

When a user migrates Content Manager from Version 7 to Version 8.2 Fixpack 6, the system administration client cannot show the properties of Content Manager Version 7 user-defined privilege set.

Fix Description:

This is a user interface cache related problem, which has been fixed.

---

APAR NUMBER IR54126

APAR Description:

After opening a document with the applet viewer and adding an annotation, the up and down arrow keys on the keyboard do not scroll anymore.

Fix Description:

Set focus to the page view so that page scrolling using keyboard works after an annotation is added.

---

APAR NUMBER IR54487

APAR Description:

The Client for Windows viewer cannot display certain TIFF documents with G3 (1D) compression.

Fix Description:

The viewer can now correctly handle G3 compressed TIFF documents.

---

APAR NUMBER IR54376

APAR Description:

MODCA document is displayed with blank pages.

Fix Description:

This problem has been fixed.

---

APAR NUMBER IR54470

APAR Description:

Deserialization of custom annotations does not work.

Fix Description:

Annotations can now be serialized and deserialized as java objects using Java serialization APIs. This now allows for annotations to be saved and loaded by annotation engines in a standard Java format independent of Content Manager annotation format .

---

APAR NUMBER IR54621

APAR Description:

While using CMBGenericDocViewer, an "out of memory" error is displayed in the Java console when printing documents with annotations and other documents open at the same time. If the other documents are closed, the "out of memory" error still occurs. If the viewer is restarted, and only one document is loaded, annotations are successfully printed.

Fix Description:

Improved memory use while printing with annotations. Removed memory leaks to prevent printing after other documents are closed. The system displays an error if memory is out in addition to an error in the Java console.

---

APAR NUMBER IR54669

APAR Description:

Removed the PageToolbar from the CMBViewerConfiguration.properties file, which causes a null pointer exception when the CMBGenericDocViewer.showDocument method is called.

Fix Description:

This is due to an internal logic testing for actions that did not exist since the PageToolbar was not in the configuration. The fix is to test for the existence of the actions prior to using them. Also, popup menu initialize is moved to the initialization of the viewer, in order for all actions to exist (and be testable by internal logic) after viewer initialization completes.

---

APAR NUMBER IR54759

APAR Description:

The module that cleans up the library server tracking table has a bug: When it counts the number of rows to be deleted, it uses a host variable that is a 'short', in other words, it can only hold up to 32767 rows. If a user has greater than this number of rows in their table, the number appears negative, and the stored procedure stops deleting rows. As a result, the table does not get cleaned up.

Fix Description:

The host variable has been changed to be 'long' integer value.

---

APAR NUMBER IR54798

APAR Description:

A call to CMBDocumentServices.dropAllDocuments() to an OD backend server starts to hang on certain user threads, forcing the system administration client to restart the application to recover.

Fix Description:

This problem has been fixed.

---

APAR NUMBER IR54245

APAR Description:

For each user, the active directory has two entries. This problem only happens when you are using Active Directory and has a special configuration.

One entry is defined as Computer category. In this entry, samaccount name is the same as name attribute and it does not contain invalid character for CM library server like ",", but the objectclass this "computer" is defined as both user and person. Therefore, the import imports this entry as user when you filter set as "objectclass=person".

The other entry is defined as Person category. In this entry, samaccount name is not the same as name, and some of them contain invalid character ",". Library server does not accept "," as part of user name. Therefore, the search function can find this users but creating user fails.

One sample user.

dn:

```
CN=Phelps\Larry,OU=Users,OU=Dublin,OU=OCLC,DC=oa,DC=oclc,DC=org
memberOf: CN=MetaFrame Users,OU=NoPolicy,DC=oa,DC=oclc,DC=org
memberOf: CN=OA3MetaFrameUsers,OU=NoPolicy,DC=oa,DC=oclc,DC=org
memberOf: CN=DevUsers,OU=Groups,DC=oa,DC=oclc,DC=org
memberOf: CN=TSS,OU=Groups,DC=oa,DC=oclc,DC=org
memberOf: CN=NetAdm,OU=Groups,DC=oa,DC=oclc,DC=org
memberOf: CN=fsdevuser,OU=Groups,DC=oa,DC=oclc,DC=org
memberOf: CN=DHCP Users,CN=Users,DC=oa,DC=oclc,DC=org
accountExpires: 0
```



whenCreated: 20000616221147.0Z

dn:

CN=PHELPS-L,OU=Computers,OU=Dublin,OU=OCLC,DC=oa,DC=oclc,DC=org

accountExpires: 9223372036854775807

badPasswordTime: 0

badPwdCount: 0

codePage: 0

cn: PHELPS-L

countryCode: 0

displayName: PHELPS-L\$

dNSHostName: PHELPS-L.oa.oclc.org

dSCorePropagationData: 20040601133513.0Z

dSCorePropagationData: 16010101000001.0Z

instanceType: 4

isCriticalSystemObject: FALSE

lastLogoff: 0

lastLogon: 127337716465391875

localPolicyFlags: 0

logonCount: 2524

distinguishedName:

CN=PHELPS-L,OU=Computers,OU=Dublin,OU=OCLC,DC=oa,DC=oclc,DC=org

objectCategory:

CN=Computer,CN=Schema,CN=Configuration,DC=oa,DC=oclc,DC=org

objectClass: top

objectClass: person

objectClass: organizationalPerson

objectClass: user

objectClass: computer

objectGUID:: BJZx8jFkREKKgkw3xBe88w==

objectSid:: AQUAAAAAAAAUVAAAAR38hfxSv1f3GDNkRUIAAA==

operatingSystem: Windows 2000 Professional

operatingSystemServicePack: Service Pack 4

operatingSystemVersion: 5.0 (2195)

primaryGroupID: 515

pwdLastSet: 127348273539376250

name: PHELPS-L

sAMAccountName: PHELPS-L\$

sAMAccountType: 805306369

servicePrincipalName: HOST/PHELPS-L

servicePrincipalName: HOST/PHELPS-L.oa.oclc.org

userAccountControl: 4096

uSNChanged: 23341232

uSNCreated: 12129

whenChanged: 20040720200233.0Z

whenCreated: 20010112184457.0Z

Fix Description:

LDAP import utility has been changed to handle the situation to import both entries mentioned above. Both entries are for the same user.

---

APAR NUMBER IR52433

APAR Description:

The system administration client allows you to change the delete rule for reference attributes in the Item Type panel, however, the changes are not persistent stored in the server.

Fix Description:

Since the server does not support this function, the system administration client GUI does not allow this update.

---

APAR NUMBER IR53957

APAR Description:

After moving a document's part to a different collection, the text search on the document does not return successfully.

Fix Description:

The text search column is fixed to enable text search.

---

APAR NUMBER IR54677

APAR Description:

After migrating from Content Manager Version 7 to Version 8, cannot store or migrate to Tivoli Storage Manager management class that was used in Content Manager Version 7.

Fix Description:

Passed correct information in updating Tivoli Storage Manager file space.

---

APAR NUMBER IR54794

APAR Description:

Memory problems might occur due to insufficient space allocated to the Item Type field during event logging (library Server events). This only happens if the Item Type name is longer than 10 characters.

Fix Description:

Fixed the Item Type field.

---

APAR NUMBER IR54846

APAR Description:

Unable to customize the print dialog magnification options.

Fix Description:

Use the printDialog.ZoomOptions.items property to configure which options are

in drop down list for print document. The default list includes: 500%, 200%, 100%, 75%, 50%, 25%, Fit to Page, Actual Size, Fit Height to Page, and Fit Width to Page.

---

APAR NUMBER IR54841

APAR Description:

Replicator does not release file handle after replicating.

Fix Description:

File handle (input stream) is getting closed only for Tivoli Storage Manager device manager in RMReplicable.sendCopy(  

---

APAR NUMBER IR54884

APAR Description:

After the customer migrated library server from Version 7 to Version 8, the following problems occurred in the system administration client GUI:

1. While creating an ACL, in the list of available privSets, the user defined privSets appear twice.

This also happens on the User panel that displays the list of available privSets to select.

2. While opening up these user defined privSets, the check boxes for the privileges should be checked if the privilege is in the privSet, but none of them are checked. However, the privileges are listed in the bottom of the panel.

3. New User Panel displays this message: "The null: Default item ACL is not in the domain"

Fix Description:

1. The migrated privilege set name contains some space, for example, "Mypiv ". This problem has been fixed.

2. This is an national language issue. Removing "\*" from description for the language before showing them in the user interface will fix this problem.

---

APAR NUMBER IR54855

APAR Description:

Encountered an "Unable to get rectangle size of text" error while opening a document that contains text annotation.

Fix Description:

This problem has been corrected, and the viewer should display text annotations correctly.

---

APAR NUMBER IR54751

APAR Description:

Out of memory problem on ISeries(VI400). An item does not have any displayable content while trying to view large documents

Fix Description:

This problem has been fixed.

---

APAR NUMBER IR54536

APAR Description:

The validation utility uses library server id = 1 in the code at all times.

If the library server ID is not 1, then the validation utility does not perform any validation.

---

Fix Description:

Enables validation utility support in cases where library server ID is not 1.

---

APAR NUMBER IR54481

APAR Description:

Using the java SampleClient, a user can log in to the Content Manager Version 7 server, and then try to change the password using another SampleClient instance. This behavior should not be permitted. If a user is already logged in, then the user should not be able to change his or her password from another instance.

---

Fix Description:

This problem has been fixed.

---

APAR NUMBER IR54688

APAR Description:

Customer MODCA document with form overlay was not rendered correctly.

---

Fix Description:

This issue has been resolved and now the viewer renders overlay documents correctly.

---

APAR NUMBER IR54864

APAR Description:

There are excessive callbacks to load background forms (overlays) during printing. This turns into calls to the server for the form's content.

---

Fix Description:

The callbacks occur to determine whether the document can be enhanced. Changed logic to only determine this once for a document.

---

APAR NUMBER IR54945

APAR Description:

In AIX, resource manager receives a signal 6 (sigabrt). javacore file that shows SIGABRT in /usr/lib/libpthread.a. The module at the top of the stack trace for the thread that gets the SIGABRT is:

at com.ibm.mm.icrmr.tivoli.DMAeJAdsmApi.dsmInitEx(Native Method)

The problem can also show up as a signal 11 (SIGSEGV).

Fix Description:

Use the thread-safe compile option.

---

APAR NUMBER IR54311

APAR Description:

After a new annotation is posted, it is located in the same position as the past annotations. This makes it difficult to see that the new annotation is.

Fix Description:

New property Annotation.pasteoffset allows an x and y offset to be specified for past annotations.

---

APAR NUMBER IR52686

APAR Description:

When paper jam happens while scanning, correcting the problem and retrying the scanning causes the client to crash.

Fix Description:

The problem has been fixed. Scanning continues to work properly after the paper jam problem has been corrected and user has selected the "retry" option.

---

APAR NUMBER IR53408

APAR Description:

For a MODCA document containing multiple overlays, only the first overlay is displayed.

Fix Description:

This problem has been fixed.

---

APAR NUMBER IR54242

APAR Description:

Updates to a large (text spanning multiple lines) sticky note annotations do not get saved if no other annotation updates are made.

Fix Description:

The problem has now been fixed. The viewer correctly saves the sticky note updates even if no other annotation changes are made.

---

APAR NUMBER IR54241

APAR Description:

After adding text annotation to a document containing other annotations and saving and re-opening the document, the viewer displayed a message indicating 'Unable to get text metrics'.

Fix Description:

The problem has now been fixed. The viewer can correctly display the customer document with added/new text annotation.

---

APAR NUMBER IR54243

APAR Description:

The last page of a customer TIFF document (JPEG compressed) did not display properly in embedded mode.

Fix Description:

The problem has now been fixed. The viewer correctly displays all the pages of the TIFF document when running embedded in the client.

---

APAR NUMBER IR53866

APAR Description:

G4 Monochrome Tiff files look fuzzy in the applet viewer. The text seems to loose it's sharpness.

Fix Description:

The conversion engine code was converting monochrome Tiff pages to Jpeg images. Due to the inherent lossy nature of the Jpeg compression, the converted image looked fuzzy. The engine is now fixed to convert such Tiff pages to gif resulting in a crisper image.

---

APAR NUMBER IR53862

APAR Description:

The ICMCREATELSDB.SH command ends with NULL pointer exception, and no error messages are available.

Fix Description:

Provided a description of the failure so that cause of the problem can be resolve.

---

APAR NUMBER IR54475

APAR Description:

It was not possible to view Office format documents on Windows 98 or Windows Millennium due to a problem in the conversion engine code.

Fix Description:

The conversion engine code is fixed to resolve the problem.

---

APAR NUMBER IR54476

APAR Description:

Saving the document to overflow file system volume the second time after adding the second annotation fails.

Fix Description:

Bad return code is sent incorrectly on replace of annotation.

---

APAR NUMBER IR54577

APAR Description:

Content Manager Version 7 used to have "Suspend" and "Activate" information on the work item history log. This information is not implemented in Content Manager Version 8.x.

Fix Description:

This problem has been fixed.

Data logged in ICMSTItemEvents is:

Event Code, Timestamp, UserID, Item ID of the Item/Document being routed, Process Name, Work Node name

---

APAR NUMBER IR54523

APAR Description:

This is a performance issue. Kofax generates a complex SQL using this view and does not perform well because the predicate was not pushed down to the table. By redefine this view to UNION ALL should be able to leverage the added future delivered in DB2 Version 8.1 Fix Pack 7 (Version 8.2)

Fix Description:

Redefine the ICMSTALLITEM001001 view with UNION ALL

---

APAR NUMBER IR54656

APAR Description:

When CMBPageAnnotation.setRotateWithImage(false) is called on newly created annotations (in a CMBAnnotationCreatedEvent listener), and the page is currently rotated, the following problems occur:

- The resize handles on all annotations do not work properly. The handles resize in the wrong directions.
- Newly created annotations appear in the wrong location (not where the user clicked)
- Arrow, circle, highlight, line, rectangle annotations cannot be swept to the correct size when creating, so they get created with minimum width and height
- Pen annotations rotate after being created

All of these problems do not occur if setRotateWithImage(false) is not performed.

Fix Description:

All problems described in the APAR description are fixed.

---

APAR NUMBER IR54685

APAR Description:

On ML-4 the customer experienced a problem with dlsym running out of handles.

Fix Description:

This problem has been fixed.

---

APAR NUMBER IR54753

APAR Description:

CM queries with != operator do not work for some DB2 on z/OS configurations.

Fix Description:

No user change is necessary. The internals of query API changed to generate a SQL statement with a "not equals" operator that would successfully execute on all database platforms (including DB2 on z/OS).

---

APAR NUMBER IR54799

APAR Description:

Printing at 'Actual Size' does not print at the correct size on paper.

Fix Description:

The code calculating the printscale for 'actual size' printing was using display graphics' DPI resolution resulting in incorrect print dimensions. This is now fixed by using the printer graphics' DPI resolution to calculate the scale.

---

APAR NUMBER IR54810

APAR Description:

Trying to perform a text search on a document that was created in the 950 code page into a text index with 950 code page on a database with codepage 1208 does not return the document when the search is on non-English characters.

Fix Description:

Set the ICMCCSID to 950 and library server will use 950.

---

APAR NUMBER IR54775

APAR Description:

After migration from CM Version 7 to CM Version 8, fails to store to Tivoli Storage Manager management class of more than 15 characters.

Fix Description:

Pass correct information in updating Tivoli Storage Manager file space.

---

APAR NUMBER IR54843

APAR Description:

Migration corrupts workpackage information.

Fix Description:

This problem has been fixed.

---

APAR NUMBER IR54847

APAR Description:

CMBConnectionPool class should not depend on WebSphere jars just to be loaded.

Fix Description:

This problem has been fixed.

---

APAR NUMBER IR54883

APAR Description:

Error in populating view cache causes the cache loading to abort.

Fix Description:

Any errors encountered during loading of views cache, is now logged but the populating of the cache proceeds for the rest of the data.

-----  
APAR NUMBER IR54931

APAR Description:

An OLE program failed to make a call to changeAttrs(). In a loop of about 350+ items, operation failed, and their automatic execution was stopped. The problem was determined to be in the area of locking mis-synchronization.

Fix Description:

The problem involved accidental deletion of the object that contained the 'checkout' lock information. The accidental deletion was prevented and locking behaves as it should.

-----  
APAR NUMBER IR54933

APAR Description:

Content Manager Version 7 used to have "Suspend" and "activate" information on the workitem history log. This information is not implemented in Content Manager Version 8.x.

Fix Description:

This problem has been fixed.

Data logged in ICMSTItemEvents is:

Event Code, Timestamp, UserID, Item ID of the Item/Document being routed, ?Process Name, Work Node name.

This APAR adds the following new event records:

**1. EventCode 616 - Event Name: DR SUSPEND WORKPACKAGE**

This event will be logged in the ItemEvents table when the user suspends a process by time, or by providing an item resume list.

When the user suspends a WP by time, data logged is:

Event Code, Timestamp, UserID, Item ID of the Item/Document being routed, Process Name, Work Node name, Expiration Time set by the user for this WorkPackage.

When the user suspends a WP by item resume list, data logged is:

Event Code, Timestamp, UserID, Item ID of the Item/Document being routed, Process Name, Work Node name.

**2. EventCode 617 - Event Name: DR RESUME WORKPACKAGE**

This event will be logged in the ItemEvents table when any of the events below happens:

- a) The user forces a process to resume.
- b) The criteria that is specified by the item resume list has been met.

Data logged in ICMSTItemEvents is:

Event Code, Timestamp, UserID, Item ID of the Item/Document being routed, Process Name, Work Node name.

### 3. EventCode 618 - Event Name: DR AUTOMATIC RESUME WORKPACKAGE

This event will be logged in ICMSTItemEvents table when a Work Package is automatically resumed by time. That is, when the resume time has expired. In this case the WP is resumed automatically by the Content Manager library server.

Data logged in ICMSTItemEvents is:

Event Code, Timestamp, UserID, Item ID of the Item/Document being routed, Process Name, Work Node name.

---

APAR NUMBER IR54488

APAR Description:

DKDatastoreExtICM.GetFoldersContainingDDO(DKDDO) can exhibit slow performance when the system has a complex data-model, due to the query being of a general purpose nature.

This method assumes the most general case possible, but in the case of

CMBItem.listRefFolders() a more specific query can be constructed that is optimized for the specific task at hand, which is returning folders containing the given item.

This fix consists of setting options on the DDO to control the query used during DKDDO.retrieve().

Fix Description:

DKDatastoreExtICM.getFoldersContainingDDO(DKDDO)

by setting various properties on the DDO that limit the scope of the query being generated. The original API call assumes a very general use-case, and therefore will generate a query that will perform inefficiently for the purposes of this method, which only needs to retrieve folders containing the given DDO. Functionality is unchanged, and performance is likely only to be affected for systems with very complex data models.

---

APAR NUMBER IR55028

APAR Description:

GetWorkList Stored Procedure throws sql error -911 reason 68 (timeout) through the eClient application.

This happened due to concurrency in a multi-user environment.

Fix Description:

Added SQL clause WITH UR to the sql query that retrieves work lists.

This improves concurrency, because it accesses data that has been updated and has not been committed.

It does not impact the application functionality because when the end user selects a work package from a WorkList to do some work, another stored procedure is invoked to verify whether that work package is available to that user.

---

APAR NUMBER IR54484

APAR Description:

This APAR is for DB2 only. The validation utility takes enormous amount of time while checking for date mismatch on a slow machine.

Fix Description:

The optimization level needs to be set to 1 prior to running the query.

---

APAR NUMBER IR54758

APAR Description:

The resource manager CPU can spin and the DB2 transaction log can fill up from long running object stores or updates. If communication to the resource manager is slow or is abruptly terminated while working with a Tivoli Storage Manager server, the resource manager servlet can

- 1) enter into a CPU spin
- 2) leave a database connection uncommitted. This uncommitted transaction can cause the DB2 transaction log to fill. If the store does not complete in the time it takes to fill the database logs with other store/update requests, a DB2 transaction log full condition will occur.

Fix Description:

The DB transaction is committed prior to handling the communication off the network or to the Tivoli Storage Manager server, thus alleviates the DB2 transaction log. Additional trace points were added around Tivoli Storage Manager store. A more sophisticated connection watchdog is started with the resource manager servlet in order to enable detection of uncommitted DB transactions.

In addition, the communication termination is detected and handled properly at the resource manager.

---

APAR NUMBER IR55050

APAR Description:

Implicit transactions to a DB2 Content Manager Version 8 server are sometimes not committed or rolled back. This can cause a long held lock on a library server database row, which can cause SQL -911 errors on the DB2 Content Manager Version 8 server.

Fix Description:

Removed unnecessary check in dkAbstractCRUDICM while delegating to transaction manager.

## Fix pack 7 Content Manager fixes

APAR NUMBER IR51679

APAR Description:

Garbled filename from DKLobICM.getOrgFileName

Fix Description:

The original file name support in the library server solves this problem. See the section, Support of original file name in library server, in the cm82FP7new\_functionality.pdf file of this fix pack.

---

APAR NUMBER IR52482

APAR Description:

The Content Manager library server monitor for the replicator service /etc/rc.cmlsproc failed to start /opt/IBMicm/bin/DB2/icmlsap from /etc/inittab during a reboot.

Fix Description:

The command `whoami` now uses the fully qualified path.

---

APAR NUMBER IR52976

APAR Description:

Long user/user group names do not appear in full under Available groups/users selection box. A scroll bar needs to be added so end user can see the full names of user/user group.

Fix Description

This problem is now fixed. You can scroll to see the entire long user/user group name.

---

APAR NUMBER IR53256

APAR Description:

Stellent (INSO) supports the Japanese format

[<http://www.stellent.com/groups/mkt/documents/nativepage/p31019225.pdf>] "JustSystems Ichitaro version 10(JTD files) Word Processing Doc."

But Content Manager Text Indexing fails to parse in INSO. A .lwp version of the same document can be parsed by INSO.

Fix Description:

Repackaged the INSO APIs with the new libraries.

---

APAR NUMBER IR53324

APAR Description:

When the target item of an auto-link rule is deleted, there is a user option to delete the links to the original item that was involved. If a user deletes the links to a source (folder) that is left empty, then the source (folder) is deleted.

Fix Description:

This problem is fixed. Empty folders are no longer deleted at re-indexing time.

---

APAR NUMBER IR53350

APAR Description:

In `db2diag.log`, there is an 803 (row duplication error) for delete document module.

Fix Description:

The fix is to not check out the item twice, if the user who is deleting the item is the same user who checked out the item.

---

APAR NUMBER IR53364

APAR Description:

Customer is unable to view a G3 TIFF image.

Fix Description:

This problem is fixed.

---

APAR NUMBER IR53407

APAR Description:

DB2 Content Manager Version 8.2 replication fails with ICM9798 rc=7015 ext RC=100.

Fix Description:

**Problem:** The scenario is as follows:

1. A resource manager (call it RM1) is defined with a replica rule to replicate to another resource manager (call it RM2).
2. A document item type is defined with RM1 as the location where its parts are stored.
3. A document is stored (with one part) to RM1.
4. It is successfully replicated to RM2.
5. Then, an annotation is stored for the same document, but RM1 is down, so it gets stored to RM2.
6. However, the annotation is not replicated to RM1 by RM2.

**Solution:** The replica flags are now properly set in the ICMSTReplicas table so that the annotation is replicated from RM2 to RM1.

---

APAR NUMBER IR53413

APAR Description:

Turning on replication for objects that have already been stored fails.

Fix Description:

This problem is fixed. The resource manager sends the correct information to the library server for the objects that have been stored.

---

APAR NUMBER IR53512

APAR Description:

ICMLISTUSERS should be called on every click on Users in the system administration client. To display over 10,000 users, this is a big hit to the user.

Fix Description:

The fix is to cache the listUserNames for the user object, so when a user clicks **User** for the first time, the ListUser stored procedure is called. After the first time, when a user clicks **User**, the user object goes to cache to get listUserName, and does not make any library server call.

Modified CsaUserDialog.java and CsaUserListModel.java.

---

APAR NUMBER IR53484, IR54313

APAR Description:

Content Manager V7 library server allows the use of a nullable column as a unique index of a user table, but Content Manager V8 library server does not allow this. We cannot migrate the Content Manager V7 user table unique index using a nullable column to Content Manager V8.

Fix Description:

Removed the restriction of using a nullable column as a unique index for a user table in Content Manager V8.

APAR NUMBER IR53600

APAR Description:  
Potential SQL -911 timeout problem.

Fix Description:

In fix pack 7, a value of 2 is introduced for the ICM\_RETRIEVE\_OPTION. The value 2 means that the retrieval of an item's data in the ICMget\_Item stored procedure (where left join is done on the checked-out items table) is done with an uncommitted read.

---

APAR NUMBER IR53634

APAR Description:  
Content Manager V8.2 ICMRM has database deadlock under stress test with SQL0911N reason code 2.

Fix Description:

This problem has been fixed. Retrieves were incorrectly locking the database row during data delivery.

---

APAR NUMBER IR53694

APAR Description:  
Missing library server database disconnect in Content Manager resource manager Centera support.

Fix Description:

This problem has been fixed.

---

APAR NUMBER IR53700

APAR Description:  
Improve name conversion routine in migration utility.

Fix Description:

Here are examples of the name conversion improvements:

If Content Manager V7 has following Keywordnames

Address  
ADDRESS  
address  
Address\_1  
Address 1  
Social Security Number  
social security number

they are migrated to Content Manager V8 with Keywordnames:

Address  
ADDRESS\_0001

address\_0002  
Address\_1  
Address\_1\_0001  
Social\_security  
social\_sec\_0001

---

APAR NUMBER IR53754

APAR Description:

The resource manager validation tool does not have its own XSL file but uses the icmrm.xml.

Fix Description:

This problem is fixed. A new XSL file (icmrmval.xml) was added, and corrections made in the icmrmval.dtd file. Added code (RMVolValidator.java and MValXML.java) to copy the DTD and XSL files from the deployed application location to the destination directory where the report file is generated.

---

APAR NUMBER IR53757

APAR Description:

When running ICMRMVOLVAL utility, I received a ICM9722 error code.

Fix Description:

The RMserver of RMVolValidator object was set to null for each of the resources stored in the Tivoli Storage Manager, which forced the resource manager to return error code ICM9722, because it encountered a null pointer exception on the null RMServer object. A new method was added to create an RMServer object for each of the resources stored in Tivoli Storage Manager, and the method is initialized with the results of the query for that object from the resource manager database. The resource manager is now able to get the file sizes of the stored resources in Tivoli Storage Manager and the validator test passes successfully.

---

APAR NUMBER IR53761

APAR Description:

A customer is experiencing a problem where the library server tracking table is not being completely cleared out. The problem occurs when the Content Manager for Multiplatforms resource manager sends a 'watermark tran ID' to clear out the table (i.e. telling the library server stored procedure to delete all tran IDs from the library server tracking table that have completed and are older than the watermark tran ID).

Fix Description:

**Problem:** The asynchronous recovery process is driven by transaction records in the resource manager tracking table. Records in that table that have exceeded a certain age (the maximum transaction duration as set in the library server control table) are examined by the asynchronous recovery process. The records are checked against the library server database to see if an action terminated abnormally, and if so, the resource manager update is rolled back so that the library server and resource manager are in synch.

The library server tracking table also contains records for transactions which completed normally, and which have a status of completed. After processing abnormally terminated the

transaction records, the asynchronous recovery process calls the library server one last time to delete the records which completed normally. It sends a timestamp as the criteria for deleting those records, and tells the library server to delete all records with a timestamp prior to that one. The problem was that the timestamp being passed in was being corrupted by the library server stored procedure. The result was a SQL -180 return code. The library server tracking table records remained in the table (were never deleted), and the table became quite large.

**Solution:** The library server stored procedure was changed to properly obtain the timestamp passed in by the resource manager, and then use that timestamp as the criteria for deleting records from the library server tracking table. This enabled the library server stored procedure to clean up the library server tracking table, and resolved the problem.

---

APAR NUMBER IR53813

APAR Description:

Update in privilege set is not refreshed automatically.

Fix Description:

This problem is fixed with a change to CsaPrivilegeSetModle.java.

---

APAR NUMBER IR53818

APAR Description:

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

Fix Description:

This problem is fixed. The calculation of the disk space required is now correct.

---

APAR NUMBER IR53822

APAR Description:

Improve the migration utility to handle bad data.

Fix Description:

The migration utility will verify that Content Manager V8 was installed properly, by checking to see if ITEMTYPE 1000 is defined. If ITEMTYPE 1000 is not defined, the utility displays error messages and stop its run.

In addition, the migration utility does the following to handle bad data:

1. Bypasses excess row(s) caused by duplicate AVT00005 row(s) for any view ID.
2. Adds joint table(s) in the SELECT SQL statements to filter out invalid data such as an item without valid ACL code, a user without valid privilege code, and so on, to avoid failure in subsequent step(s).
3. If the Content Manager V7 user table column is defined as nullable to DB2, but the value of AttrFlags in the Content Manager V7 table SBTCLASSATTRS indicates that it is not null, the migration utility will update the value of AttrFlags to force it as nullable to avoid failure in subsequent step(s).

---

APAR NUMBER IR53841

APAR Description:

The Content Manager migration utility MIMETYPE mapping is incorrect.

Fix Description:

Changed the library server stored procedure ICMDEFMIMETYPE parameter lMimeTypeId definition from IN to InOut.

---

APAR NUMBER IR53927

APAR Description:

The problem is related to dropping Net Search Extender (NSE)/Text Information Extender (TIE) indexes with feature Generate DDL ON. When Generate DDL feature is ON and a component has more than one attribute with NSE/TIE indexes, the NSE/TIE scripts contain only the command to drop the last NSE/TIE index.

Fix Description:

The script that contains commands to drop NSE/TIE indexes needs to be opened in append mode.

---

APAR NUMBER IR53937

APAR Description:

icrmval.sh begin/end date specification error. This is also causing a problem for FILENOTFOUND report generation.

Fix Description

Date format has been fixed to interpret time longer than 12 noon, as specified in the begin and end date format.

---

APAR NUMBER IR53949

APAR Description:

The new privileges ItemAddPart and ItemUpdatePart do not work as fully intended with the C++ drivers for IR52528. This means the fix for IR52528 did not work with the eClient or the Client for Windows.

Fix Description:

The ItemAddPart and ItemUpdatePart work as designed for C++ and Java APIs.

---

APAR NUMBER IR54008

APAR Description:

When the RMDB is down, the ICMRM application server will not return an exception in a long time.

Fix Description

The code will detect a null sqlState if the database is down, and will return an exception to the user with an appropriate message: ICM9735: Database connection failed.

---

APAR NUMBER IR54009

APAR Description:

During automatic import of users from LDAP database: Retrieves list of users from the LDAP directory, in a single call. It then does individual lookups on each of the names. If it receives an

error during this process, it then does a rollback, but seems to delete all users from the Content Manager user list.

To ignore the I/O Error and to continue processing: This would NOT delete the user being processed, but continue on with the Import program. For example, it would prevent deleting users when there is a loss of connection in the middle of the process. Any future occurrences of this error would also be ignored in the same fashion.

Fix Description:

The fix prevents the possibility of deleting users when there is an LDAP connection loss during an LDAP import process.

---

APAR NUMBER IR54038

APAR Description:

Content Manager V8.2 Fix Pack 3 and Fix Pack 6 do not create ICMDRFOLDERS item type.

Fix Description:

The fix is to create the ICMDRFOLDERS item type when it is not present in the system.

---

APAR NUMBER IR54170

APAR Description:

When trying to index plain text documents coming from a resource manager on z/OS, the data gets corrupted if it is not in English.

Fix Description:

The TIEREF column of the library server item tables have been changed to now carry the MIME type of the item. This is so that Net Search Extender UDFs can obtain the MIME type from the library server, and not rely on the resource manager to return the MIME type from the HTTP request. The resource manager for z/OS does not store MIME types for objects. Relying on the resource manager to return the MIME type works only for the Multiplatform product.

---

APAR NUMBER IR54174

APAR Description:

The Content Manager V7 library server allows using a nullable column as a unique index of a user table, but the Content Manager V8 library server does not. A Content Manager V7 user table unique index using a nullable column cannot be migrated to Content Manager V8.

Fix Description:

The fix is to print the fetchparts error return code into migration.log and standard output.

---

APAR NUMBER IR54179

APAR Description:

Data type mismatch within the database.

Fix Description:

Changed the size from getInt() to getLong to match the database description for the object size during the retrieving of the metadata from RMOBJECTS table.

---

APAR NUMBER IR54187

APAR Description:

We logged on to the system administration client, made some updates while in item types privilege sets, ACLs, users, and so on. We then looked at the user group tab. Even though there are about 20 user groups, none of the user groups are listed. If we re-start the system administration client, it sometimes corrects itself, and shows the user groups just fine. We do not know how to force the user groups to not show up.

One other aspect to this problem is that the user properties dialog also does not list the users groups when the system administration client is in this strange state. So, if your user is a member of one or more groups, and you make a change, the user gets removed from the groups.

Another strange thing that we noticed: Even when the user groups are not being listed, the ACL dialog still lists the user groups.

Fix Description:

This problem is fixed in PUserMgmtImpICM.java, in which the retrieveUserGroupNames now handles the situation if userGroup table is null.

---

APAR NUMBER IR54209

APAR Description:

Password fields in the resource manager configuration panels of the system administration client do not allow you to enter certain special characters.

Fix Description:

This problem is fixed to allow you to enter any character for the password fields in the system administration client.

---

APAR NUMBER IR54241

APAR Description:

After adding text annotation to a document containing other annotations, and then saving and re-opening the document, the viewer displayed a message indicating Unable to get text metrics.

Fix Description:

The problem is fixed. The viewer can correctly display the customer document with added and new text annotation.

---

APAR NUMBER IR54242

APAR Description:

Updates to a large (text spanning multiple lines) sticky note annotations do not get saved if no other annotation updates are made.

Fix Description:

The problem is fixed. The viewer correctly saves the sticky note updates, even if no other annotation changes are made.

---

APAR NUMBER IR54243

APAR Description:

The last page of a customer TIFF document (JPEG compressed) did not display properly in embedded mode.

Fix Description:

The problem is fixed. The viewer correctly displays all the pages of the TIFF document when running embedded in the client.

---

APAR NUMBER IR54286

APAR Description:

UpgradeRMFiles should support Windows 2003.

Fix Description:

This problem is fixed. The resource manager now supports Windows 2003.

---

APAR NUMBER IR54456

APAR Description:

Resource manager migrator leak to Tivoli Storage Manager volumes under error conditions.

Fix Description:

This problem is fixed so that the code will release the resource after dsmInitEx call.

---

APAR NUMBER IR54716

APAR Description:

After installing Content Manager V8.2 Fix Pack7, retrieval of documents using the Client for Windows fails.

Error:

```
[MSG]: DGL3729A: Attribut ORIFNAME nicht im System vorhanden.
```

Fix Description:

This APAR applies only to Content Manager servers that have more than one language defined. If you have only English (ENU) defined, you will not encounter this problem. To verify how many languages are defined in Content Manager, see the system administration client Languages panel.

The library server upgrade utility was fixed to insert a new system attribute to all languages (other than 'ENU') defined in the Content Manager server.

You can also manually apply this fix, by performing the following steps:

1. Run the command:

```
db2 connect to < CM LS db > user <icmadmin> using <password>
```

2. Run the command:

```
db2 select * from icmstnlslanguages
```

This command shows you the language codes defined on your Content Manager server.

3. For each language code other than 'ENU', run the following command:

```
db2 insert into icmstnlskeywords values (1,<Language  
Code>,54,'ORIFNAME','*ORIGFILENAME')
```

where Language Code is the language code returned by Step 2. The language code must be in single quotes. For example:

```
insert into icmadmin.icmstnlskeywords values  
(1,'DEU',54,'ORIFNAME','*ORIGFILENAME')
```

---

## Fix pack 6 Content Manager fixes

APAR NUMBER IR50874

APAR Description:

The Messages and Codes book is missing messages DGL0582A, DGL0583A, DGL0585A

Fix Description:

DGL0582A: Missing one or more required input values for adding/updating user

Component: Java or C++ APIs

Explanation: Name, password, privilege code, resource manager, collection and item access list are required input values.

Action: Make sure all of the required input values (listed in the explanation) are specified.

DGL0583A: Invalid password length

Component: Java or C++ APIs

Explanation: The length of the specified password is out of the valid range. The password should be less than 32 characters.

Action: Choose a password in the valid range, less than 32 characters.

DGL0585A: The password expiration day cannot exceed 65535 days

Component: Java or C++ APIs

Explanation: The password expiration specified is out of the valid range. The valid range of the password expiration is 0 - 65535 days.

Action: Choose a valid range for expiring passwords, between 0 - 65535 days.

---

APAR NUMBER IR51325

APAR Description:

Content Manager V8.1 text update of an item fails with error details in the icmplsud.log.

Fix Description:

This problem was fixed in Content Manager V8.2.

---

APAR NUMBER IR52455

APAR Description:

While calling DKLOBICM.setContentFromClientFile(), if file name length is less than 128, it works. However, if the file name length is  $\geq 128$ , we received the following error message:DGL5410A.

Fix Description:

This fix changed the RMOBJECTS table, and the OBJ\_FILENAME column size from VARCHAR(128) to VARCHAR(1024).

---

APAR NUMBER IR52469

APAR Description:

Cannot search using ICMfetchFilter on plain text documents in other languages.

Fix Description:

Based on the MIME type, if the document is plain text, the fix is to not call fetchFilter. The fix is to call fetchContent instead.

---

APAR NUMBER IR52511

APAR Description:

Batch job icmpacl throws an error. If PublicReadACL does not have a rule for group CMPUBLIC, when running the icmxocl program(icmpacl on Win, icmsocl on Sun), the following error is thrown: ProcessPubAccessCapability(): Error: 100

LOCAL FIX:

To fix this, run the following DB2 commands:

```
db2 connect to ICMNLSDB
db2 INSERT INTO ICMSTAccessLists VALUES (3, 'ICMPUBLIC', 2, 6)
db2 terminate
```

Fix Description:

The fix is to have the batch program icmpacl continue normal execution if there is no ACL rule for ICMPUBLIC. No error will be thrown.

---

APAR NUMBER IR52528

APAR Description:

Previously, in order for a user to add or update a part on an existing document the ItemSetUserAttr privilege was required. However, having this privilege allows a user to modify the document itself. There needs to be a way for a user to add, update, or delete parts on a document without having the ItemSetUserAttr privilege.

Fix Description:

Added the ItemAddPart and ItemUpdate part privileges. Using ItemAddPart or ItemUpdatePart will allow users to add or update a part on an existing document without requiring the ItemSetUserAttr privilege. However, in order to update the document itself, users still need the ItemSetUserAttr privilege.

---

APAR NUMBER IR52548

APAR Description:

Epson fix to get more information about a folder on the first pass.

Fix Description:

The fix includes two options. With option 1, we will get the count of the children of the child. With option 2, we will get all of the information of the children of the child.

---

APAR NUMBER IR52721

APAR Description:

Define a user or view a user property takes too long if the Content Manager system has a large number of ACLs.

Fix Description:

The fix is to use the cache mechanism to improve the performance for creating and updating a user with a large number of ACLs in the system.

---

APAR NUMBER IR52753

APAR Description:

Cannot delete a child component type if there are rows in the root component table for the item type.

Fix Description:

The fix removed the check for rows in the root component table, and will now check for rows in the component's table.

---

APAR NUMBER IR52761

APAR Description:

Text index update fails because the encryption key has a pound sign (#) in the first 8 characters.

Fix Description:

The fix is to add a check for the pound sign (#) in key parts.

---

APAR NUMBER IR52765

APAR Description:

The utility to rebuild library server access modules (TRebuildCompTypeICM) fails with a return code 7022 when Deferred DDL Execution is turned on. The cause of this is that the library server did not create the UserDDL directory to deploy the script necessary for GenerateDDL. Error messages will look like this: Generating access module for view with ID: 200  
Error generating access module: IRC = 7022 IReason = 0 IExtRC =0 IExtReason = 0  
Additional symptom: Fix Pack install script (updateLS.sh) may fail with return code 203. (TRebuildCompTypeICM is executed during Fix Pack install).

LOCAL FIX:

Manually create the UserDDL directory.

Fix Description:

TRebuildCompTypeICM, when running with GenerateDDL feature on, will create the UserDDL directory, if it does not exist.

---

APAR NUMBER IR52781

APAR Description:

Lock wait when inserting new ACLs and list ACLs are happening. Stmt holding lock is:

Select MAX(KeyWordCode) from ICMSTNLsKeyWords.

Fix Description:

The fix is to have a new table to continue tracking the max of keyword code to avoid this select max.

---

APAR NUMBER IR52809

APAR Description:

When an item type has versioning on, if the ACL of the item is updated, the change is not made on the new version. The new version keeps the original ACL.

Fix Description:

This problem is fixed. When an item is updated by changing the ACL, the new version will have the new ACL.

---

APAR NUMBER IR52811

APAR Description:

Currently, we have a check to make sure there is at least one user who has privSet AllPrivs. The reason we have this kind of restriction is to prevent the customers to damage their system without powerful a user ID to recover. However, the user with allprivs is going to have lots of records in the ICMSTCompiledACL table.

Fix Description:

The fix is to change to any privilege sets that contains privilege SysAdminSuper (200).

---

APAR NUMBER IR52812

APAR Description:

The resource flag for the initial item was not being updated with 'replicas exist' in import replicas.

Fix Description:

The fix is to set the replicas exist bit of the resource flag of the item ID and version ID in the icmut table.

---

APAR NUMBER IR52836

APAR Description:

Excessive growth in icmstsysadmevent table.

Fix Description:

The fix is to reduce the number of resource manager logons to the library server.

---

APAR NUMBER IR52848

APAR Description:

Stale database connections are used after database shutdown/restart.

Fix Description:

The fix is for the connection pool manager to validate the connections to the database before the connections are given to worker threads.

---

APAR NUMBER IR52878

APAR Description:

Changes to the input parameters to ICMACLPPrivExit() User Exit function provided with the code samples.

Fix Description:

The null indicator for pszHostname was missing.

---

APAR NUMBER IR52879, IR53600

APAR Description:

During the retrieval of an item, if the item is checked out, the information pertaining to the checkout, such as checkedout userId and timestamp, is returned back to the caller. Gathering this information is expensive and can cause error LS 7015, reason code -911, or can affect scalability.

Fix Description:

The retrieve item behavior has changed in fix pack 7. By default, if an item is checked out, the retrieve methods fetch the checked-out information. For more information, see the section, Retrieve item behavior change, in the New Functionality file (cm82FP7new\_functionality.pdf).

The following code example (in C++) shows how to print checked out information given a DDO:

```
const char DK_ICM_TEST_PROPERTY_NAME_CHECKEDOUT_USERID[] = "Checked_Out_UserID";
const char DK_ICM_TEST_PROPERTY_NAME_CHECKEDOUT_TS[] = "Checked_Out_TS";
```

```
short propertyCount = ddo->propertyCount();
for (short propertyid = 1; propertyid <= propertyCount; propertyid++)
{
    DKString name = ddo ->getPropertyName(propertyid);
    DKAny value = ddo ->getProperty(propertyid);

    if (!value.isNull())
    {
        if (name == DK_ICM_TEST_PROPERTY_NAME_CHECKEDOUT_USERID)
        {
            userId = value;
        }
        else if (name == DK_ICM_TEST_PROPERTY_NAME_CHECKEDOUT_TS)
        {
            timestamp = ((DKTimestamp)value).asString(NULL);
        }
    }
}
```

Note that the two properties named Checked\_Out\_UserID and Checked\_Out\_TS are always present in the properties list, even if an item is not checked out. If an item is not checked out, the value for Checked\_Out\_UserID is an empty string and for Checked\_Out\_TS the value is NULL.

In many situations, an application might not be interested in the checked-out information that is retrieved. There are two ways by which an application can instruct the library server not to fetch and send the checked-out information to the API.

### Option 1

On the library server machine, set an environment variable ICM\_RETRIEVE\_OPTION to be equal to 1 (ICM\_RETRIEVE\_OPTION=1).

- On the Windows operating system, set it as an environment variable.
- On UNIX operating systems, set it in the <instance\_home>/sqllib/profile.env and userprofile file in the same way as other Content Manager variables, such as ICMROOT.

### Option 2

The retrieve methods of both the Java and C++ APIs now support a new bitmask, DK\_CM\_CONTENT\_RETRIEVE\_IGNORE\_CHECKEDOUT\_INFO (defined in com.ibm.mm.sdk.common.DKConstant.java and DKConstant2.h). You can logically OR the new bitmask with the option argument. If the bitmask is set in the option argument, the checked-out information is empty, even if an item is checked out. Note that the two properties named Checked\_Out\_UserID and Checked\_Out\_TS will still be present in the property list. The value for Checked\_Out\_UserID is an empty string and for Checked\_Out\_TS the value is NULL.

By default, if an item is checked out, the retrieve methods fetch the checked-out information. If an application is not interested in fetching the checked out information, it can use the DK\_CM\_CONTENT\_RETRIEVE\_IGNORE\_CHECKEDOUT\_INFO bitmask to indicate the same.

The following example (in C++) shows how to use the new DK\_CM\_CONTENT\_RETRIEVE\_IGNORE\_CHECKEDOUT\_INFO bit-mask:

```
// Given a datastore and ddo, check out an item and retrieve an item.
// Get the items attributes only, and ignore fetching checked out
information.
dsICM.checkOut(ddo);
ddo->retrieve(DK_CM_CONTENT_ATTRONLY |
DK_CM_CONTENT_RETRIEVE_IGNORE_CHECKEDOUT_INFO);
```

The checked out user ID alone can be retrieved as follows:

```
DKString coUserId = dsICM->checkedOutUserid(ddo);
```

Note that there is no API to retrieve only the checked-out timestamp.

### Option 3

If you are experiencing -911 timeouts, and check-out information must be returned to the API, there is a third option.

On the library server machine, set an environment variable ICM\_RETRIEVE\_OPTION to be equal to 2 (ICM\_RETRIEVE\_OPTION=2).

- On Windows, set it as an environment variable.
- On UNIX, set it in the <instance\_home>/sqllib/profile.env and userprofile in the same manner as other Content Manager variables, such as ICMROOT.

Setting ICM\_RETRIEVE\_OPTION=2 causes the library server to return both item and check-out information to the calling API, but the join of item and checkout tables will be performed with an uncommitted read.

The exposure for performing an uncommitted read in this situation is very small; that is, it might result in a user viewing partially-committed data for a document in a multi-level item type, but only if the retrieval is done while another update to the exact same item is in progress by another user.

---

APAR NUMBER IR52880

APAR Description:

RetrieveAccessControlLists always makes two ListACL codes to the library server. Therefore, the performance is slow.

Fix Description:

1. The system administration client will now make only two calls when there is a NO ACL rules for the requested ACL.
2. The library server will not join ICMSTAccessLists table when there is a NO ACL rules for the requested ACL.

---

APAR NUMBER IR52892

APAR Description:

The ICMRM script, rc.cmrmproc should only return after the process has been stopped. The script should also return immediately when the process has been stopped and not wait an arbitrary amount of time.

Fix Description:

Modified the rc.cmrmproc script shutdown behavior.

---

APAR NUMBER IR52910

APAR Description:

When running Content Manager V8.2, users might encounter a problem with using up the DB2 file descriptors, and users must restart DB2 to make Content Manager V8.2 work properly. The cause for this problem is our user exit (icmxlslg.dll), which opens two file descriptors, but only closes one for each access to the user exit.

Fix Description:

This problem is fixed.

---

APAR NUMBER IR52911

APAR Description:

Lock wait when inserting new ACLs and list keywords after retrieve item.

Fix Description:

This problem is fixed to allow "dirty" read when listKeyword and listACL.

---

APAR NUMBER IR52928

APAR Description:

The eClient V8.2 Fix Pack 3 did not install correctly on Windows system. Fix pack 3 installation completes quickly and states that the installation is successful. However, eClient files were not updated.

Fix Description:

The eClient now installs correctly.

---

APAR NUMBER IR52934

APAR Description:

When a version of a document is deleted, the rest of the versions are kept, but the link between the document and the folder is gone.

Fix Description:

The code will not remove the link to the folder if other versions of the document exist.

---

APAR NUMBER IR52939

APAR Description:

Long running update operation can cause other updates to synchronize with a DB2 database.

Fix Description:

Use a non-locking query to the RMTracking table.

Special Instructions:

This is a DB2 only fix.

---

APAR NUMBER IR52940

APAR Description:

During the retrieve of a PDF file, Adobe closes the connection and the resource manager throws an I/O exception, but does not close the input and output streams.

Fix Description:

The code will handle the I/O exception for the retrieve to close the input and output stream.

---

APAR NUMBER IR52960

APAR Description:

The time to create a user group for the first time takes too long.

Fix Description:

The problem is fixed; the time to create a user group for the first time has been reduced.

---

APAR NUMBER IR52965

APAR Description:

Content Manager V8.2 ItemDeletePart privilege is not created when fix pack 3 is applied to V8.2.0 or V8.2.1.

Fix Description:

Content Manager V8.2 fix packs are cumulative. When you apply a fix pack, all previous fix packs are also applied.

---

APAR NUMBER IR53059

APAR Description:

Performance degradation when adding users to a group if the group already has more than 5000 users.

Fix Description:

The fix includes optimized SQL statements in the library server stored procedures.

---

APAR NUMBER IR53060

APAR Description:

Fix pack 3 installation doesn't support updating the resource manager with an Oracle backend.

Fix Description:

The fix enables the Oracle DBMS for Content Manager V8.2 Fix Pack 3 and later. Also changes have been made to return appropriate return codes.

---

APAR NUMBER IR53090

APAR Description:

Resource manager processes are unable to obtain Library Server ID from Oracle database.

Fix Description:

Changed the datatype for RMSERVER.SVR\_SERVERTYPE column from char(4) to VARCHAR(4).

---

APAR NUMBER IR53121

APAR Description:

Full Text Indexing failed with Content Manager for Multiplatforms library server and Content Manager for z/OS resource manager.

Fix Description:

This problem is now fixed.

---

APAR NUMBER IR53143

APAR Description:

Previously, the replicator would not attempt to replicate objects to resource managers that are marked offline in the system administration client. However, the replicator would still attempt to replicate to resource managers marked unavailable by the library server monitor.

Fix Description:

The replicator will no longer try to replicate objects to resource managers that are found to be offline by the library server monitor.

---

APAR NUMBER IR53147

APAR Description:

If the Windows Tivoli® Storage Manager node has both backup data and the Content Manager resource manager application, you will see the following behavior in the resource manager:

1. The resource manager retrieves fail with error object does not exist. There is no error code from the Tivoli Storage Manager API client or server.

2. The resource manager stores fail and logs ICM9850 with dsmInit rc=57 and rc=400 in sequence.

The Tivoli Storage Manager API with trace enabled logs dsmInitEx rc=57 and rc=400 in sequence.

The Tivoli Storage Manager server posts an ANR0428W Sessions xxxx for node RMDB (ICMRM) refused - client is down-level with this server version.

Fix Description:

Changed the dsmInitEx connection flag for Multiplatform to false, so the code behaves like Content Manager V8.2 Fix Pack 2.

---

APAR NUMBER IR53163

APAR Description:

The non-administrator user gets an invalid parameter (LS RC 7123) when adding a user to a user group.

Fix Description:

Users from User Domain are now allowed to add users to a user group in the Public Domain.

---

APAR NUMBER IR53177

APAR Description:

DefineACL is serialized and takes too long to create a new ACL.

Fix Description:

An environment variable was added: ICMKEYWORDCOMMIT. If this environment variable is set to 1, a commit will be issued right after the new ID is generated.

---

APAR NUMBER IR53178

APAR Description:

RetrieveAccessControlLists always makes two ListACL codes to the library server. Therefore, the performance is slow.

Fix Description:

1. The system administration client now makes only two calls when there is a NO ACL rules for requested ACL.

2. ListACL to get the ACL, and ACL rules will return the ACL domain information instead of user domain information.

If a logged-on user is from User Domain:

3. ListACL to get the ACL, and the EMPTY ACL rule will return all domain information.

---

APAR NUMBER IR53179

APAR Description:

Caching ACL on demand to improve the performance.

Fix Description:

Performance is improved.

---

APAR NUMBER IR53180

APAR Description:

RetrievePrivSet always call listNLSKeyword with domainid = -1 and listPrivilegeSet always

1. Call the library server to get All privilege set.
2. Call listPrivInset to get privileges in this priv set.
3. Call to get the all the privileges in this privilege set.

There are too many library server calls, so the performance is slow.

Fix Description:

1. The system administration API now makes only two library server calls: listPrivilegeSet and listPrivInSet.
2. The system administration API creates four hashmaps: privilege sets, privileges, privSet ID and name mapping, and privilege's ID and name mapping.
3. All the information for privileges and privilege set to be retrieved from cache to reduce the library server call, and improves the performance.

---

APAR NUMBER IR53254

APAR Description:

Attempts to search for documents using the File Tab search criteria failed to return any results.

Fix Description:

Code now passes a numeric rather than a character value to the server for the File Tab search criteria.

---

APAR NUMBER IR53265

APAR Description:

List modules take a long lock-wait time.

Fix Description:

Added WITH UR for list modules, so that no lock requests are generated for reading data from DB2.

---

APAR NUMBER IR53269

APAR Description:

Upgrading from Content Manager V8.2 to fix pack 3 followed by a Test Fix fails to add the ItemDeletePart privilege.

Fix Description:

Added ItemDeletePart privilege, even if Content Manager is at fix pack 3 level.

---

APAR NUMBER IR53282

APAR Description:

The original query privilege error (7211) or invalid parameter (7123) is too confusing in the case when item ID is not found in the system.

Fix Description:

Changed the error code to 7402 (specified item ID cannot be found) when retrieving ACL by item ID and receiving an empty result in the privilege checking function.

---

APAR NUMBER IR53304

APAR Description:

Empty result set is not taken care in ICMPLSDD so that -305 is shown in DB2dump.

Fix Description:

Added a NULL indicator to catch the NULL value, so that -305 does not show in a DB2 dump.

---

APAR NUMBER IR53305

APAR Description:

There are too many library server calls of ListPrivInSet and ListPrivileges from the API. The system administration client should cache it and the library server should return data at one time.

Fix Description:

1. Return all IDs and names for privilegeSet and privileges in the set in the library server.
  2. Cache privileges and privilegeInSet by ID and Name in the API.
- 

APAR NUMBER IR53325

APAR Description:

During migration, the customer migrated data corresponding to Content Class 14. Because a corresponding MIMETYPE did not exist in Content Manager V8, one of the user tables was not getting out of check pending state.

Fix Description

The Content Class 14 does not have a corresponding MIMETYPE in Content Manager V8. The fix creates a new MIMETYPE.

---

APAR NUMBER IR53348

APAR Description

ORA-0100: maximum open cursors exceeded error occurs when resource manager failed to update the administrator ID.

Fix Description

The fix is to close open cursors after an ERROR condition.

---

APAR NUMBER: IR50878

APAR Description:

Content Manager V8 Fix Pack1 can report a secondary return code to message DGL5162A System managed storage request to resource manager failed: (9876). The return code 9876 is not documented in the Messages and Codes manual, and should reflect that the Tivoli Storage Manager volume definition that is being made to the resource manager is not a valid definition in Tivoli Storage Manager.

**Fix Description:**

If you use the system administration client to define a Tivoli Storage Manager volume that is not a valid definition in the Tivoli Storage Manager server, then a message, with return code 9950, displays to indicate that such a volume name is not a valid definition in the Tivoli Storage Manager server.

The Messages and Codes book will be updated in the next release:

**ICM9950 Undefined Tivoli Storage Manager management class: {0}**

**Explanation:** The Tivoli Storage Manager management class is not defined in the Tivoli Storage Manager server.

**Component:** Resource manager

**Action:** Check the log for further information. Check the Tivoli Storage Manager server to ensure that the Tivoli Storage Manager management class has a valid definition.

---

APAR NUMBER: IR53061

**APAR Description:**

The resource manager database fix pack installation on a remote machine for Content Manager V8.2: You must use the procedures in this section to apply the fix pack on a remote resource manager database. A remote resource manager database resides on a database server machine that is different from the machine where the resource manager application under WebSphere Application Server resides.

**What do I need to do?**

You must invoke the fix pack installation program from the machine on which the resource manager is installed under WebSphere Application Server.

**Prerequisites:**

Make sure that the Content Manager V8.2 resource manager application is installed and has connectivity to the resource manager database residing on a remote database server machine. Because the database server is remote, you need to turn the prerequisite check off for the installation program to continue.

**How do I disable the prerequisite check?**

The parameter `-W exitSequence.active=false` can be specified on the command line to ignore the prerequisite check.

For example,

```
Update_CM_aix_ENU -W exitSequence.active=false
```

Note that disabling the prerequisite check will ignore all prerequisite checks done during installation of the fix pack. This includes checks for the Content Manager version as well as the database version. For example, with this parameter, it is possible to install fix pack 2 on top of fix pack 3. Therefore, be careful using this parameter.

Important:

1. On all Content Manager V8.2 fix packs for the resource manager through fix pack 3, there is a known problem that the database update does not happen if the database resides on a remote database server. The workaround for that is to always select that the resource manager database is ?Local?, when providing information about the resource manager database during the fix pack installation.
2. All Content Manager V8.2 fix packs for the resource manager through fix pack 3, there is a known limitation that if the resource manager database is an Oracle database, then no fix pack changes will be applied.
3. Beginning with Content Manager V8.2 Fix Pack 6, support for Oracle DBMS is included.
4. Beginning with Content Manager V8.2 Fix Pack 6, no workarounds for a remote database is required.

---

APAR NUMBER: IR53416

APAR Description:

Running the replicator on large numbers of objects can cause a java.lang.OutOfMemory exception.

Fix Description:

A modification was made to the replicator so that the task queue is not allowed to grow unboundedly when large numbers of objects are scheduled for replication.

---

APAR NUMBER: IR53599

APAR Description:

DGL3804: Error occurred while updating user. ICM7123... When a user is trying to edit their own user definition, they receive a DGL3804 error.

Fix Description:

Users cannot change their own user definitions. Users can only change the user definitions for other users, provided that their privilege set contains the following privileges:

- SystemDefineUser
- SystemDomainQuery
- SystemQueryUserPrivs

An administrator ID can also be used to change the user definitions for another user.

## Fix pack 5 Content Manager fixes

Fix pack 5 is superseded by fix pack 6.

## Fix pack 4 Content Manager fixes

Fix pack 4 is superseded by fix pack 6.

## Fix pack 3 Content Manager fixes

APAR NUMBER IR51327

APAR Description:

The LOGGEDON value for a user in the ICMSTUSERS table is never updated back to 0 after a user logs off. Once a user logs on, it will appear to the system that the user is logged on forever.

Fix Description:

This problem was fixed in Content Manager V8.2 Fix Pack 1.

---

APAR NUMBER IR51514

APAR Description:

With Trusted Logon, Content Manager V8.2 is requiring a password for the Client for Windows.

Fix Description:

This problem was fixed in both the Client for Windows (a password is no longer mandatory) and the library server components, and was included in Content Manager V8.2 Fix Pack 1.

---

APAR NUMBER IR51652

APAR Description:

Content Manager V8.1 system administration client creates unique database index on item type.

Fix Description:

This problem was fixed and included in Content Manager V8.2 Fix Pack 1.

---

APAR NUMBER IR52182

APAR Description:

Customer did an auto-link with an attribute that was not set. Subsequently, they were having problems using the linking function. The attribute for linking should be required, and it should be checked during the creation of the auto-link.

Fix Description:

The fix is to validate user input, and if the attribute inside the auto-linking object is not provided, display an error message.

---

APAR NUMBER IR52216

APAR Description:

When setting the password expiration to 0 to indicate that it never expires using the APIs, it always sets to the system default duration, for example, 180 days.

Fix Description:

Corrected the problem so that 0 indicates To never expire, and -2 indicates to use the system default duration.

---

APAR NUMBER IR52224

APAR Description:

Unable to add a new file system volume to a Content Manager V8.2 Windows-based resource manager. The following error message is displayed: `setSelectedIndex: 0 out of bounds`. It should display a message indicating the file volume is empty, and not set the index default to 0.

Fix Description:

If there are no available file volumes in the system, the system administration client FileVolume combo box will not set the default selected item to 0. The changes were made in `CsaResourceManagerFileSystemNTDialog.java`.

---

APAR NUMBER IR52243

APAR Description:

Migrator will not run if WebSphere Application Server is installed under Program Files. directory.

Fix Description:

Modified the code to handle the blank character in the directory name.

---

APAR NUMBER IR52264

APAR Description:

User privileges are not checked against item type views' ACL codes when the library server binding level is 'mixed' (item type and item), and the item type's ACL binding level is 'item'.

Fix Description:

The Get item type stored procedure was modified to check a user's privileges against the item type views' ACL codes, regardless of the binding level of the library server.

---

APAR NUMBER IR52267

APAR Description:

Customer migrating from Content Manager V6.1 to Content Manager V8.2 discovered five tables in the object server database that the migration utility is looking for, but apparently the tables do not exist in a V6.1 system.

Fix Description:

In the PrepareOSDB function, added code that will create the missing five tables in the object server database before importing the data into the V8 resource manager database.

---

APAR NUMBER IR52280

APAR Description:

Compiled ACL table is not being clean up correctly when a user that belongs to a Group rule ACL rule is removed from that group. The user is still showing in the Compiled ACL table.

Fix Description:

Corrected an SQLstatement, which fixes the CompiledACL table when a user, who belongs to a user group, is deleted. If the user group belongs to any ACL rule, the user should be removed from the ACL rule.

---

APAR NUMBER IR52384

**APAR Description:**

Text Search of Russian documents using ICMFetchFilter() UDF Fails for certain codepages when the documents to be indexed are in different codepages. This happens for documents using the ANSI1251 format. This APAR also fixes documents in ISO8859-5 codepage.

**Fix Description:**

To install this fix on a UNIX Content Manager system, perform the following steps:

1. In the file /home/db2inst1/sqllib/userprofile, make sure the following lines are included in the order listed. (If you have documents in 8859-5 codepage, replace 1251 with 88595 below.)

```
ICMCCSID=1251
export ICMROOT ICMDLL ICMCOMP CMCOMMON EXTSHM PATH LIBPATH DB2INSTANCE
ICMCCSID
```

2. In the file /home/db2inst1/sqllib/profile.env, make sure the following lines are included:

```
DB2LIBPATH=/usr/lpp/icm/lib
DB2ENVLIST='LIBPATH ICMROOT ICMDLL ICMCOMP EXTSHM CMCOMMON DB2LIBPATH
ICMCCSID'
```

3. Recycle the DB2 instance, by entering:

```
db2stop force
db2start
```

---

APAR NUMBER IR52402

**APAR Description:**

In the ACL Dialog, some of the User --> Privilege Set mappings are missing.

**Fix Description:**

Changed the files CsaACLModel.java,CsaCacheManager.java, PUserMgmtImpICM.java to fix the problem.

---

APAR NUMBER IR52410

**APAR Description:**

When performing a Content Manager V8 system migration (same version of Content Manager, migrate to different machine), if you enabled Text Search and created text indexes on the original system, you must follow the steps in Fix Description.

**Important:** You need to do this only when the original system and new system hostnames are different.

**Fix Description:**

Perform the following steps:

1. Plan the migration: for each resource manager that is migrated, write down the INetAddr (hostname) by running the following query on the library server:

```
db2 select INETADDR from ICMSTRESOURCEMGR
```

This is the <oldhostname>

2. After migrating each resource manager to a new machine, write down each corresponding new INETADDR (hostname).

This is the <newhostname>

3. Save the following query in the shell script, TIEReplace.sh:

```
db2 connect to $1 user $2 using $3
```

```
db2 "select 'update ICMADMIN.ICMUT0' ||  
ltrim(rtrim(char(componenttypeid))) || '001 set TIREF = REPLACE  
(TIREF, value1, value2);' from icmstcompattrs where attributeid = 20  
and componenttypeid < 999" | grep TIREF > TIEReplace.sql
```

```
db2 "select 'update ICMADMIN.ICMUT0' ||  
ltrim(rtrim(char(componenttypeid))) || '001 set TIREF = REPLACE  
(TIREF, value1, value2);' from icmstcompattrs where attributeid = 20  
and componenttypeid > 999" | grep TIREF >> TIEReplace.sql
```

4. Run the shell script:

```
TIEReplace.sh <databaseName> <userid> <password>
```

5. Edit the resulting TIEReplace.sql file, and using information from Steps 1 and 2, replace

```
value1 = <oldhostname>  
value2 = <newhostname>
```

Save the file.

6. Run the SQL file:

```
db2 -tvf TIEReplace.sql
```

---

APAR NUMBER IR52417

APAR Description:

In the past, when calls were made to retrieve a list of item types for which a user was authorized, all item types were returned if the library server's ACL binding level was either "item" or "library server."

Fix Description:

The user is now validated against the ACL for each item type, regardless of the binding level.

---

APAR NUMBER IR52464

APAR Description:

Text Search of Thai documents using ICMFetchFilter() UDF fails for certain codepages when the documents to be indexed are in different codepages. This happens for documents using the ANSI874 format.

**Fix Description:**

To install this fix on a UNIX Content Manager system, perform the following steps:

1. In the file /home/db2inst1/sqllib/userprofile, make sure the following lines are included in the order listed.

```
ICMCCSID=874
export ICMROOT ICMDLL ICMCOMP CMCOMMON EXTSHM PATH LIBPATH DB2INSTANCE
ICMCCSID
```

2. In the file /home/db2inst1/sqllib/profile.env, make sure the following lines are included:

```
DB2LIBPATH=/usr/lpp/icm/lib
DB2ENVLIST='LIBPATH ICMROOT ICMDLL ICMCOMP EXTSHM CMCOMMON DB2LIBPATH
ICMCCSID'
```

3. Recycle DB2 instance by entering:

```
db2stop force
db2start
```

---

APAR NUMBER IR52465

**APAR Description:**

Text Search of Thai (codepage 874) PDF documents created using Adobe Distiller 5.0 fails for certain vowels and tonal characters. This happens for documents using the ANSI874 format.

**Fix Description:**

To install this fix on a UNIX Content Manager system, perform the following steps:

1. In the file /home/db2inst1/sqllib/userprofile, make sure the following lines are included in the order listed.

```
ICMCCSID=874
export ICMROOT ICMDLL ICMCOMP CMCOMMON EXTSHM PATH LIBPATH DB2INSTANCE
ICMCCSID
```

2. In the file /home/db2inst1/sqllib/profile.env, make sure the following lines are included:

```
DB2LIBPATH=/usr/lpp/icm/lib
DB2ENVLIST='LIBPATH ICMROOT ICMDLL ICMCOMP EXTSHM CMCOMMON DB2LIBPATH
ICMCCSID'
```

3. Recycle DB2 instance by entering:

```
db2stop force
db2start
```

---

APAR NUMBER IR52468

APAR Description:

Text Search of Turkish documents using ICMFetchFilter() UDF Fails for certain codepages when the documents to be indexed are in different codepages. This happens for documents using the ANSI1254 format.

Fix Description:

To install this fix on a UNIX Content Manager system, perform the following steps:

1. In the file /home/db2inst1/sqllib/userprofile, make sure the following lines are included in the order listed.

```
ICMCCSID=1254
export ICMROOT ICMDDL ICMCOMP CMCOMMON EXTSHM PATH LIBPATH DB2INSTANCE
ICMCCSID
```

2. In the file /home/db2inst1/sqllib/profile.env, make sure the following lines are included:

```
DB2LIBPATH=/usr/lpp/icm/lib
DB2ENVLIST='LIBPATH ICMROOT ICMDDL ICMCOMP EXTSHM CMCOMMON DB2LIBPATH
ICMCCSID'
```

3. Recycle DB2 instance by entering:

```
db2stop force
db2start
```

---

APAR NUMBER IR52477

APAR Description:

The Content Manager clients stop when the asynchronous recovery process is cleaning up the library server tracking table. This is because the asynchronous recovery process is deleting thousands of records without doing a commit.

Fix Description:

The asynchronous recovery stored procedure has been changed to delete rows in one hour intervals, and then commit.

---

APAR NUMBER IR52483

APAR Description:

When a document is created, two event records are added if the event flag of document item type is ON.

Fix Description:

The fix is to use the resource part event flag instead of the document event flag.

---

APAR NUMBER IR52559

APAR Description:

Content Manager V8.2 Direct HTTP retrieve of PDFs fails.

Fix Description:

Corrected the boundary parameter in the content type information in the HTTP request.

---

APAR NUMBER IR52563

APAR Description:

The Content Manager application can stop if add/update operations with replication are performed.

Fix Description:

Synchronization blocks in the transaction commit path of the resource manager were modified in order to avoid thread deadlocks.

---

APAR NUMBER IR52565

APAR Description:

With the GenerateDDL feature on, and there is more than one Language Code defined in the Content Manager library server, creating an item type results in an error: rc=7015 reason=0 extrc=-811

Fix Description:

The Language Code must be added to the query that retrieves that item type name against the ICMSTNLSKeywords table.

---

APAR NUMBER IR52602

APAR Description:

Memory over-write problem with the buffer length being too small. Query causes SQL1131.

Fix Description:

The fix is to increase the size of szSqlCursorStmt2 to 65000.

---

APAR NUMBER IR52790

APAR Description:

When updating an existing ACL to include a new mapping consisting of a group in a sub-domain and a privSet in the same sub-domain, and also when updating this ACL to include the same sub-domain, you will get the following error:

```
DGL4170A: Failed to add domain privilege set; ICM7123: This is an internal error.
```

Run the application again with server trace set to Detail and Data. Save the server log and see your IBM representative.

Fix Description:

The system administration APIs now call the update ACL stored procedures instead of the update Privilege Set stored procedures.

---

APAR NUMBER IR52801

APAR Description:

If you create new item types after running the migration utility, there is a possibility that you will receive an error that corresponds to duplicate child component names. This eventually prevents you from creating new item types.

Fix Description:

The logic in the migration utility to create names for child component has been changed. The logic is now the same as the logic in the system administration client; namely, it uses the itemtypeid in the child component name generation.

---

APAR NUMBER IR52807

APAR Description:

During migration of system data, some customers, depending on their data, experience no response from the migration utility, typically called "a hang".

Fix Description:

This problem is fixed by increasing the keywordstring array to an appropriate value.

---

APAR NUMBER IR52867

APAR Description:

Logon User without SystemSuperDomainAdmin privilege, can only create usergroup in Public Domain. This causes a conflict, because logon user domain belongs to Default Domain.

Fix Description:

The Logon User without SystemSuperDomainAdmin privilege now allows the creation of usergroup in DefaultDomain as well.

## Fix pack 2 Content Manager fixes

APAR NUMBER IR50937

APAR Description:

Customer would like the freespace to be updated when documents are added.

Fix Description:

The current resource manager implementation did not account for the actual space needed to store the object on disk. It assumed the disk space cost for the object would be the size of the object. The freespace in the database was updated based on object size and not the object size on disk. This fix causes the database to be updated based on object size and additional overhead for the object stored on disk. The algorithm used is proportional to disk characteristics, file system, and operating system on which the object is stored.

---

APAR NUMBER IR51134

APAR Description:

Customer is having a problem with the text search on the library server side. They are using CM8.1 server fix pack 2 for AIX.

Fix Description:

This problem occurred because of a missing external object name. By design, the resource manager never returns the external object name. The API must take the file name returned by resource manager as an external object name and update the library server.

---

APAR NUMBER IR51549

APAR Description:

Certain TIFF images when displayed thru HTML viewer had a slightly gray background.

Fix Description:

This conversion issue is resolved.

---

APAR NUMBER IR51543

APAR Description:

In the Content Manager system administration client GUI we selected the Foreign key tab, then tried to add a new foreign key using a child item attribute as source and a root item type attribute as target. The Add function works fine, but when we click Ok or Apply to submit the changes, we get an error message and the key is not created. It works fine for a root to root foreign key.

Fix Description:

Fixed an error in the processing of attributes in child components or attribute groups, which caused the system to attempt to create the key using the root component.

---

APAR NUMBER IR51611

APAR Description:

Memory leak when retrieving multiple reference attributes.

Fix Description:

Deleted all DKString objects that were allocated during reference attribute retrieve loops. Also fixed a loop control error to make sure all entries of these DKStrings are deleted in the internal PVector object: vGroupNames.

---

APAR NUMBER IR51638

APAR Description:

Library server bind program has a hard-coded value for the Library Server ID.

Fix Description:

Replaced the hardcoded value for a variable that represents the Library Server ID.

---

APAR NUMBER IR51644

APAR Description:

Not enough information in exception text when invalid date detected during a retrieve.

Fix Description:

Added invalid date to exception text.

---

APAR NUMBER IR51674

APAR Description:

Content Manager V8.1 document routing user exit fails to fire properly.

Fix Description:

Added code to itemroute() to execute user exit when entering or leaving a work node.

---

APAR NUMBER IR51724

APAR Description:

KLobICM's getOrgFileName() method does not work in C++ API's.

Fix Description:

Two changes were made:

1. After returning from the resource manager, fixed a defect in pHTTPStreamICM::getObjectInfo(), so that the original file name is parsed properly and stored into the DKLob object.
2. Changed update() and update(int option) methods and \_versionDisabledHandler() to make sure that if the content is not changed, the API does not go to the resource manager.

---

APAR NUMBER IR51727

APAR Description:

Detailed steps to recreate the problem:

1. Create a group called ZurichGroup.
2. Create a user PMR25006 and assign it to ZurichGroup on the same Create user dialog.
3. Now delete user PMR25006, and if you go to ZurichGroup's Properties, you will still see user PMR25006 there.
4. Restart the system administration client, and go back to ZurichGroup, then PMR25006 will not be there. So, this looks like there is a cache associated with the Group object, and when the user is deleted, the Group object cache is not cleaned up accordingly.
5. From step 3, create the user PMR25006 again, and try to assign it to ZurichGroup in the same Create user dialog, you'll receive an error: User already exists.

When you return Users list you do not see user PMR25006. However, if you try to do a refresh now, you will see the user show up.

Fix Description:

A change was made in the file DKDatastoreExtICM.java. A new function called setDefaultCommonPrivileges was created. The default authorization objects are set to NO for all the common privileges related to ICM, while others are left as UNKNOWN.

The new methods are called getCommonPrivilege and getCommonItemPrivilege, with the purpose to set default authorization to NO, before they are set to YES for each privilege.

---

APAR NUMBER IR51864

APAR Description:

NullPointerException when calling the KAdminDomainsMgmtICM.listGroupNames() method with the following stack trace:

```
java.lang.NullPointerException at
com.ibm.mm.sdk.common.DKUserMgmtICM.listUserGroupNames(DKUserMgmtICM.java:1248) at
com.ibm.mm.sdk.common.DKAdminDomainsMgmtICM.listGroupNames(DKAdminDomain sMgmtICM.java:298)
at
com.ibm.mjb.tools.DumpSecurity.DisplayAdminDomainsMgmtData(DumpSecurity.java:209) at
com.ibm.mjb.tools.DumpSecurity.main(DumpSecurity.java:147)
```

Fix Description:

The correct error message is thrown if there is no user group in the domain.

---

APAR NUMBER IR51886

APAR Description:

Content Manager V8.2 system administration client performance is slow during user queries, if there is a large number of users and user groups.

Fix Description:

Used the hashtable to save the user and usergroup, privSet, and ACL data in memory to improve the performance of the system administration client. Made changes to csaCacheManager.java and PuserMgmtImpICM to fix this problem.

---

APAR NUMBER IR51893

APAR Description:

Local migration and local replication chose the storage group from the storage class instead of the collection definition, which can result in objects being stored to the wrong volume.

Fix Description:

The code was fixed to choose the storage group from the collection definition, not from the storage class.

---

APAR NUMBER IR51925

APAR Description:

When using ACL user exits with document routing, customers might encounter the library server error rc=7015 extRC=0433 (UNEXPECTED\_SQL\_ERROR) and the following error in the library server log:

```
<SQL0433N Value "ICMADMIN.ICMGETWORKLIST" is too long. SQLSTATE=22001>
```

Fix Description:

Fix the function name value passed to the ACL user exit from the document routing APIs.

---

APAR NUMBER IR51941

APAR Description:

Content Manager V8 API determines item privilege by ACL at the item level, even if ACL checking at the item type level is enabled.

Fix Description:

API now checks ACLLevelFlag, and classifies whether item is item type or item only.

---

APAR NUMBER IR51945

APAR Description:

If the library server is running in a locale that uses a comma as the decimal separator (for example, 1,234 vs 1.234), then retrieving resource items (XDOs) will fail with a java.lang.NumberFormatException. This is due to the way that floating point numbers are passed between the library server and APIs in some situations.

Fix Description:

The API does a check on floating point values it receives and accounts for the fact that the decimal point might be represented by a comma.

---

APAR NUMBER IR51972

APAR Description:

Since upgrading to fix pack 1 for Content Manager V8.2 (on DB2 UDB 7.2 FP 9/10), the customer is no longer able to update user passwords through the system administration client.

Fix Description:

Modified the UpdateUser method in PUserMgmtImpICM.java and PUserMgmtImpFed.java.

---

APAR NUMBER IR52097

APAR Description:

There is a problem with removing the last annotation from a document. The Client for Windows simply stores the "empty" annotation back to the resource manager. The eClient decides the object should be deleted; however, this requires ItemDelete privilege. We don't want most users to be able to delete the document, so a different ACL is needed for the document parts. If customers already have a large number of ACLs, they might have concerns if they need to double the number of their ACLs. This situation can also lead to problems with the size of the compiled ACL table.

Fix Description:

Created a new privilege called DeletePart. This new privilege can be used for deleting individual parts from a document, but the ItemDelete privilege is still required to delete the entire document and all its parts.

---

APAR NUMBER IR52115

APAR Description:

When the password for the Content Manager administrator user ID expires at the operating system level, the password cannot be changed for this Content Manager administrator user ID through the Change Password button on the system administration client.

Fix Description:

The change password function was added at the operating system level.

---

APAR NUMBER IR52116

APAR Description:

On a database with 750 groups and 710 users, it takes about 35 seconds to display the users.

Fix Description:

Used the hashtable to save user and user group information in the local memory and reduce the extra library server calls and improve the performance. Modified PUserMgmtImpICM.java and PUserMgmtImpFed.java to fix this problem.

---

APAR NUMBER IR52124

APAR Description:

The retrieveAccessControlList function in DKAuthorizationMgmt class returns the access control list object given the name of the ACL. The actual implementation retrieves all the access control lists in the system and then returns the one that is required. Our system is designed to create dynamic access control list objects resulting in the creation of a large number of access control lists. As a result, this call is very expensive and the retrieval time increases as the number of access control list objects increase in the system. The function is used to check if the user has access to a particular object and hence most of our frequently used operations have slowed down. For example, creating a folder takes more than a minute when there are approximately 500 ACL objects in the system. The retrieveAccessControlList call itself takes one minute. It is very crucial for us that this call be optimized.

Fix Description:

To populate the cache incrementally, perform the following steps:

1. Check if local cache has the requested ACL.
2. If yes, return with the local copy.
3. If no, go to the database to retrieve the requested ACL, save it to the local cache, and return with it.

This behavior assumes that the cache option is on. If the cache option is off, then Content Manager always goes to the database to retrieve the requested ACL.

---

APAR NUMBER IR52155

APAR Description:

With Sun patch 20 and above, one customer scenario will trap reliably. We haven't determined whether the real problem is in DB2, Content Manager, or the operating system, but diagnosis is continuing.

Fix Description:

We have proven that removing the call to dlclose, which is failing, solves the problem. A test build has been used at the customer site with no problems, and we have run the performance test program to create 1 million documents with no memory growth or functional problems.

---

APAR NUMBER IR52157

APAR Description:

When trying to update any data in the TextSearch Options window in the system administration client, the OK button is never enabled.

Fix Description:

This problem is now fixed to enable the OK button when any value is changed in the system administration client GUI.

---

APAR NUMBER IR52159

APAR Description:

Cannot use special characters in a password for servers in the resource manager server Definitions.

Fix Description:

Special characters are now allowed in a password field for a server definition in the Resource Manager server definition window. Modified CsaResourceManagerServerDefinitionDialog.java to fix this problem.

---

APAR NUMBER IR51635

APAR Description:

Idle resource manager consumes more db connections than it should.

Fix Description:

The resource manager now returns the database connection to pool at the end of the request.

### Fix pack 1 Content Manager fixes

APAR NUMBER IR50943

APAR Description:

IR50943: Trailing zero (0) decimal digits are truncated for decimal.

Fix Description:

Retrieved decimal attributes now have the scale property set in the java.lang.BigDecimal (java) or DKDecimal (C++) objects. The scale controls default toString() operations that could appear on the API level or could be shown through the graphical user interface.

---

APAR NUMBER IR51105

APAR Description:

On a Sun Solaris machine, update has bad performance.

Fix Description:

Removed the system attributes from update statements to improve the performance.

Special Instructions: TRebuildCompTypeICM is required.

---

APAR NUMBER IR51113

APAR Description:

Parsing error during attribute update.

Fix Description:

Set the length of the default attribute to actual, and not max.

---

APAR NUMBER IR51169

APAR Description:

Content Manager V7.1 system administration client GUI focus is in the wrong place when initially navigating attributes.

Fix Description:

This problem has been fixed. The system administration client does not setAll for the nameEdit field on the FR keyfield dialog panel.

---

APAR NUMBER IR51192

APAR Description:

Deletion of component types is restricted if root component type has items.

Fix Description:

When attempting to delete a child component type of an item type data model, the delete is no longer allowed if the root component has items. This action avoids a possible problem where the item type can become corrupted in the event of a failure.

---

APAR NUMBER IR51194

APAR Description:

Item links are retrieved when option is set to CONTENT\_ATTRONLY.

Fix Description:

PRetrieveCollItemICM has been modified so that the option in object is reinitialized with the correct values.

---

APAR NUMBER IR51233

APAR Description:

Need to document that the migrator on Windows is not started by the resource manager and that asynchronous recovery runs automatically after you start the migrator.

Fix Description:

On Windows, you must start the migrator from the Services window. In the Services window, highlight ICM Migrator and click **Start**. Asynchronous recovery runs automatically after you start the migrator. It is not governed by a schedule specified in the system administration client. For specific details about asynchronous recovery, see the "Managing resource manager utilities and services" section of the *System Administration Guide Version 8 Release 2*, SC27-1335-04. This information is also in the "Starting the migrator on Windows" document on the product support page.

---

APAR NUMBER IR51322

APAR Description:

The item type item Level ACL flag fails to be updated on modification of the definition related to item level ACL flag.

Fix Description:

The API was modified to trigger a stored procedure to update the modified information.

---

APAR NUMBER IR51335

APAR Description:

The filename to be cataloged is not sent to resource manager as part of catalog request.

Fix Description:

DKLobICM::catalogContent() was changed to send filename and filepath as part of catalog order to the resource manager.

---

APAR NUMBER IR51366

APAR Description:

When running complex queries that contain many UNIONS (around 90), the generated SQL used to execute the query on the server is longer than the 64K limit of DB2.

Fix Description:

This fix has two parts. Both parts rewrite the generated SQL string to make an equivalent string that is shorter. This allows queries with more UNIONS to be executed. The first part reduces the length of the generated SQL for Content Manager servers are using library access ACL binding level. This fix allowed for up to 50% more UNIONS.

The second part of the fix combines UNIONS that access the same component to reduce the number of joins and thus the SQL length. This improvement allows for around 100% more UNIONS in complex queries.

---

APAR NUMBER IR51377

APAR Description:

Invalid parameter error message for date attribute value.

Fix Description:

This problem is fixed; reset the delimiter for each date attribute value.

---

APAR NUMBER IR51395

APAR Description:

Num\_buckets always reset to 1 after update the volume status.

Fix Description:

This problem is fixed; do not reset the value of numsubdirs to 1 for update action.

---

APAR NUMBER IR51408

APAR Description:

Cannot search any Japanese string on full text search function using ICMfetchFilter.

Fix Description:

ICMfetchFilter user-defined function (UDF) uses INSO filter to extract text portion from documents stored in the resource manager so the text can be indexed. The codepage of the output will be the codepage of the operating system unless we tell INSO explicitly what codepage we want. If the codepage of the machine is not Japanese but the documents and text index codepage are Japanese, users will not be able to search correctly. The fix is to provide the Japanese codepage information to ICMfetchFilter through a new environment variable called ICMCCSID so that this UDF can tell INSO what codepage of the output it should produce. Since we use environment variable to communicate to ICMfetchFilter, it will make this UDF work with only one codepage set by ICMCCSID. Users will not be able to use ICMfetchFilter for any text index that has a different codepage.

Special Instructions:

We need to export an environment called ICMCCSID. Currently, there are only several values of ICMCCSID supported for Japanese:

932 or 943 (Japanese Shift-JIS)  
954 (Japanese EUC)  
1200 (UCS2 Unicode)

Note: 1208 (UTF8) is not support by INSO, therefore it is not support by ICMfetchFilter.

Here is how to export ICMCCSID=943 (or you can choose any supported value above)

Under the db2 instance ID that owns library server database (for example, db2inst1)

1. Enter the command `db2stop`.
2. Modify `~db2inst1/sqllib/profile.env` to add ICMCCSID to DB2ENVLIST as follows:

```
DB2ENVLIST='LIBPATH ICMROOT ICMDDL ICMCOMP CMCOMMON ICMCCSID'
```

3. Save this file.
4. Modify `~db2inst1/sqllib/userprofile` to add ICMCCSID=943 as in this example (if the file does not exist, create one).

```
ICMCCSID=943  
export ICMCCSID
```

5. Save this file.
6. Copy the fix file (ICMNLSUF) to `~db2inst1/sqllib/function` (backup the old one if needed).
7. Enter `db2start`.

When creating a text index using the system administration client, if you choose to use ICMfetchFilter as the UDF name, then you MUST select CCSID = 943 for that text index (or the value assigned to ICMCCSID in step 4).

---

APAR NUMBER IR51560  
APAR Description:  
SQL package grant incomplete.

Fix Description:

The following statement was missing from icmnlsbd.ddl file: grant execute on package ICMADMIN.icmpdrit to public.

---

APAR NUMBER IR51571  
APAR Description:

A user, who does not have access to the base view, could see performance issues, resulting in a defect when trying to retrieve active views.

Fix Description:

This problem is fixed to avoid additional library server calls by using the item type definition, instead of trying to retrieve item type view definition (to which the user is not allowed access). Users have access to the base definition as long as they have access to at least one view.

---

APAR NUMBER IR51589

APAR Description:

If the item type is text searchable and the user defined function (UDF) selected for the search is ICMfetchFilter, the size of objects that can be processed is limited to 8 MB. This has been fixed to handle objects up to 25 MB.

Fix Description:

You need to follow the instructions below to apply this fix in existing databases.

Special Instructions:

In cases where documents greater than 8 MB need to be handled using the Text Search UDF ICMfetchFilter, you need to manually perform the following steps:

1. Copy the following into a file <file.sql>:

```
drop function ICMfetchFilter;
create function ICMfetchFilter
(
  VARCHAR(512)
)
RETURNS CLOB(25M)
EXTERNAL NAME 'ICM-NLSUF!ICMfetch_Filter'
LANGUAGE C
PARAMETER STYLE DB2SQL
FENCED
NO SQL;
```

```
drop function ICMfilter;
create function ICMfilter
(
  CLOB(25M)
)
RETURNS CLOB(25M)
EXTERNAL NAME 'ICM-NLSUF!ICM_filter'
LANGUAGE C
PARAMETER STYLE DB2SQL
FENCED
NO SQL;
```

2. Open a DB2 Command Window.

3. Connect to the database: db2 connect to <dbname> user <adminUser> using <password>

4. Execute the db2 ddl script:

```
db2 -tvf <file.sql>
```

5. Terminate the connection by entering: db2 connect reset

---

APAR NUMBER IR51624

APAR Description:

Library server migration from Content Manager V7.1 to Content Manager V8.2 fails with SQL return code 181.

Fix Description:

Modified the migration utility to use CURRENT DATE + 100 years as the password expiration date, instead of using the hard-coded value 12/31/2099.

APAR NUMBER IR51635 or 57884

APAR Description:

Idle resource manager consumes more db connections than it should.

Fix Description:

The resource manager now returns the database connection to pool at the end of the request.

### 3.3 Content Manager new functionality

Fix pack 8 Content Manager new functionality

#### **RHEL 3.0 support in VideoCharger Version 8.2**

Fix pack 8 delivers support for RHEL 3.0 in VideoCharger.

#### **DB2 UDB Version 8.2 support in Content Manager Version 8.2**

Fix pack 8 delivers support for DB2 UDB Version 8.2.

#### **DB2 z/OS Version 8 support in Content Manager Version 8.2**

Fix pack 8 delivers support for DB2 z/OS Version 8 support.

#### **Active Directory support in Windows Server 2003**

Fix pack 8 delivers support for Active Directory in Windows Server 2003.

#### **NSEUDFExit**

##### **Format**

ICMTextDecryptExit(short \*psTIEFLAG, void \*pvInputObject, long \*plInputObjectLength, void \*ppvOutputObject, long \*plOutputObjectLength, void \*malloc, long \*plRC)

##### **Purpose**

This exit provides the option of changing text that is retrieved from the resource manager before it is passed to the service for full-text indexing. Conversion might include decryption, adding "tags" to create a structured document, or selection of only a subset of the object for indexing.

The object retrieved for full-text indexing is provided as input. This exit can transform the object in any way required, returning the new content in the input field if the length was not increased. If the output length is unknown at the start of the processing, or will be increased, the exit code should allocate the necessary space using the address of the *malloc* function that is passed. This

is required to avoid problems when the DB2 Content Manager code is built with one compiler but the exit is built with a different compiler.

Note that if the library server attempts to load the user exit and it is not found, the exits will continue normal operation, and will not provide an error when exiting out.

To use the exit, you must compile the exit in the following location:

**Windows:**

```
<fencID home>/<CM_DBname>/DLL/icmdecxt.DLL
```

**UNIX:**

```
<fencID home>/<CM_DBname>/DLL/icmdecxt
```

**Example:**

```
/home/db2fenc1/ICMNLSDB/DLL/icmdecxt.DLL
```

If the exit exists, it will be automatically loaded. However, for performance reasons, the exit should only be loaded once, so run a `db2stop/start` command before attempting to load exit.

You have the flexibility to customize the user exit in the following ways:

1. The user exit function allocates memory for the decrypted object before sending it back to the text search user-defined function. In this case, the library server receives the object in the `char ** pszDeObj` buffer.
2. The user exit function uses inplace decryption, which is where the decrypted object is contained in the same buffer as the input object. In this case, the library server receives the object in the original `pszEnObj` buffer.

**Return codes**

0 - Object was converted in-place or not converted.

The input field should be returned for full text indexing.

1 - Object was converted. Return the data in the output field for full text indexing, then free the memory.

2 - Error in conversion. If `plOutputObjectLength` is not zero,

`ppvOutputObject` contains message text to write to the DB2 Content Manager server log.

**Sample Code**

The sample user exit routine and associated .mak files are located in the samples/server/exit directory of the product CD-ROM.

Source: icmdecxt.c

Following is a list of .mak files to help you build a sample user exit routine that is provided for you:

<b>Platform</b>	<b>Makefile</b>	<b>Additional files</b>
Windows	icmndecxt	icmdecxt.def
AIX	icmxdecxt	icmdecxt.exp
SUN	icmsdecxt	icmdecxt.exp
Linux	icmldecxt	icmdecxt.exp

## Fix pack 7 Content Manager new functionality

### **WebSphere® MQ Workflow (formerly MQSeries® Workflow)**

Fix pack 7 delivers support for WebSphere MQ Workflow (formerly MQSeries Workflow) Version 3.5.

### **Red Hat Enterprise Linux™ (EL) 3 support**

Fix pack 7 delivers support for Red Hat Enterprise Linux 3 update 1. **Important:** You must use the IBM JDK level 1.4.2.

### **Microsoft Windows XP Service Pack 2 support**

Fix pack 7 delivers support for Windows XP Service Pack 2 for the Content Manager system administration client.

### **WebSphere Application Server V5.1.1 support**

Beginning in fix pack 7, Content Manager supports WebSphere Application Server V5.1.1.

### **Content Manager V8.2 GA installation**

The Content Manager server V8.2 GA-level code does not detect WebSphere Application Server V5.1.1, and therefore, the resource manager application server is not deployed. After you install Content Manager, you must manually deploy the resource manager application server, by performing the following steps:

Start the HTTP server and WebSphere Application Server (server1).

Verify that WebSphere Application Server is running by starting the WebSphere administrative console. On Windows systems, use the Start menu.

Run the WAS50DeployRM command-line Java program provided by Content Manager Version 8. On Windows this file is usually found in %ICMROOT%\Config\WAS50DeployRM.class. On UNIX, this file is usually found in \$ICMROOT/config/WAS50DeployRM.class. Type java WAS50DeployRM and press Enter.

You are prompted to answer some questions, and then the resource manager should successfully deploy.

Restart the HTTP server.

Restart resource manager application server.

### **Integrating Content Manager in a Tivoli environment**

You can monitor each Content Manager resource manager application by using the WebSphere Application Server Tivoli Performance Viewer. By using this utility, you can quickly configure a basic monitor for the Content Manager resource manager. See the WebSphere information center for more information on how to enable and configure this monitor your WebSphere applications.

For more information on improvements to integrating Content Manager in a Tivoli environment, see Integrating Content Manager in a Tivoli Environment, located in the file tivoli/readme.html.

### **Tivoli Storage Manager archive API support**

New to fix pack 7, you can now migrate data into a Content Manager Storage class containing a Tivoli Storage volume under retention control. See section 1.3.4.2 **Compliance mode (retention protection)** for more information.

### **Network Attached Storage support for LBOSDATA**

Fix pack 7 delivers Network Attached Storage (NAS) support for IBM Content Manager resource manager for Linux, Solaris, and Windows operating systems. For information on NAS support for the Linux and Solaris, see the information in fix pack 6, **0 Network Attached Storage support for LBOSDATA**.

The NAS device used as the Content Manager storage repository is expected to be highly reliable, redundant, and always available. The Windows server running the resource manager should be connected to the NAS device using a dedicated Gigabit Ethernet connection. The NAS volumes are mounted through the Common Internet File System (CIFS). CIFS is the native file-sharing protocol on Windows. The NAS device must support CIFS in order to connect storage volumes to the Windows system running the resource manager.

The Content Manager NAS support was tested with Network Appliance NAS devices (Data ONTAP v. 6.4.2). However, the Content Manager NAS support should be compatible with other NAS devices accessible through CIFS.

The following configuration steps guide you through the NAS support setup for your Content Manager system.

**Important:** Pay close attention to Steps 10, 11, and 12 because the resource manager and the resource manager services must be started differently when using NAS devices on Windows.

**Configuration:**

This section describes the configuration steps necessary to use NAS devices within IBM Content Manager.

### **NAS configuration**

1. Create volumes on NAS device
2. Setup NAS volumes for CIFS access

### **System configuration**

3. Map CIFS drives to your Windows system

### **Content Manager configuration**

4. Create a new Device Manager
5. Create a new Storage class
6. Create a new Storage group
7. Create a new Storage system
8. Create a new Migration policy
9. Create a new Workstation collection

### **Starting the Resource Manager and the RM Services when using Network Attached Storage devices**

10. Starting the resource manager from the command line
11. Configuring the tool to start the resource manager services
12. Starting the resource manager services from the command line

The configuration steps focus on Content Manager NAS support setup. For more detailed information about configuring your Content Manager System, see *System Administration Guide*, SC27-1335, and *Planning and Installing Your Content Management System*, GC27-1332.

### **NAS configuration**

#### **Step 1: Create volumes on NAS device**

Follow the instructions provided with your Network Attached Storage System on how to perform this step.

#### **Step 2: Set up NAS volumes for CIFS access**

Follow the instructions provided with your Network Attached Storage System on how to perform this step.

### **System configuration**

#### **Step 3: Map CIFS drives to your Windows system**

Map the CIFS drives configured in steps 1 and 2 to your Windows system running the resource manager. (**Windows Explorer -> Tools -> Map Network Drives**).

Some NAS systems require a Windows Domain Controller to perform access control to the NAS volumes. See the documentation of your Network Attached Storage System for more information.

**Important:** Content Manager does not map drives. Therefore, make sure that your NAS drives are mapped to the Windows system *before* starting the resource manager. Ensure that the drives are always available when the resource manager is started.

The Windows system running the resource manager should be connected to the NAS device using a dedicated Gigabit Ethernet connection

The mounted CIFS volumes are not intended to be extremely remote volumes. They are supposed to be within the local infrastructure and *always available*.

### **Content Manager configuration**

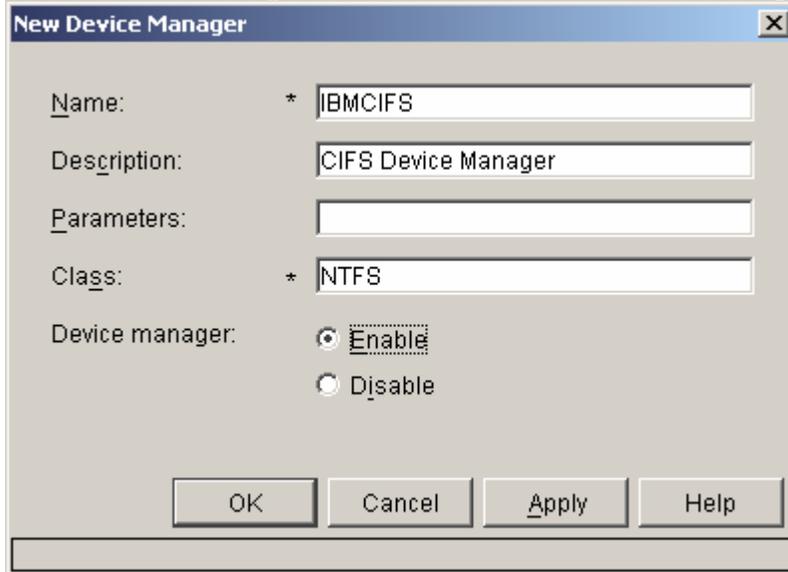
Step 4: Create a new Device Manager

Open the Content Manager system administration client.

Highlight and expand the **Resource Managers** section.

Expand the Resource Manager you want to configure for NAS support.

Select **Device manager** and create a new CIFS device manager.



The screenshot shows a dialog box titled "New Device Manager". It has the following fields and options:

- Name:** \* IBMCIFS
- Description:** CIFS Device Manager
- Parameters:** (empty text box)
- Class:** \* NTFS
- Device manager:**  Enable,  Disable

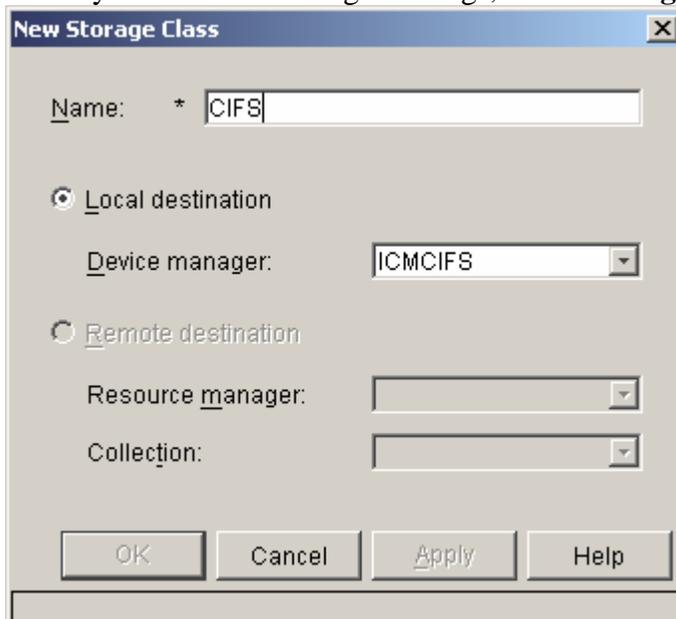
At the bottom, there are four buttons: OK, Cancel, Apply, and Help.

Make sure that no **Parameters** are set, the **Class** is NTFS and the Device manager is **enabled**. You can use your own settings for **Name** and **Description**.

4. Click **OK** to create the new device manager.

Step: 5 Create a new Storage class

Under your resource manager settings, select **Storage Classes** and create a new Storage Class.



The screenshot shows a dialog box titled "New Storage Class". It has the following fields and options:

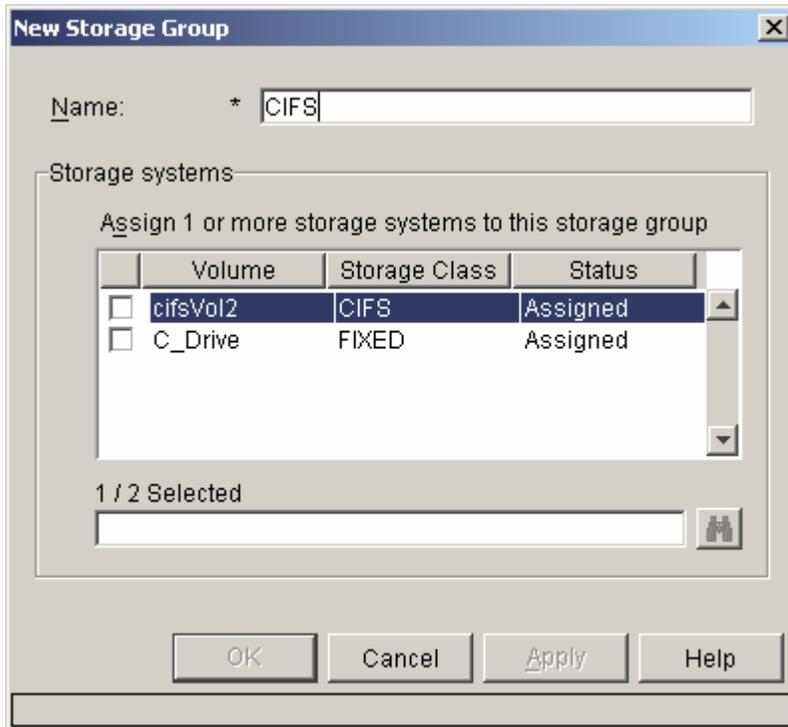
- Name:** \* CIFS
- Local destination:**  Local destination,  Remote destination
- Device manager:** ICMCIFS (dropdown menu)
- Resource manager:** (empty dropdown menu)
- Collection:** (empty dropdown menu)

At the bottom, there are four buttons: OK, Cancel, Apply, and Help.

Provide a name to your Storage Class and select the Device manager created in Step 4.

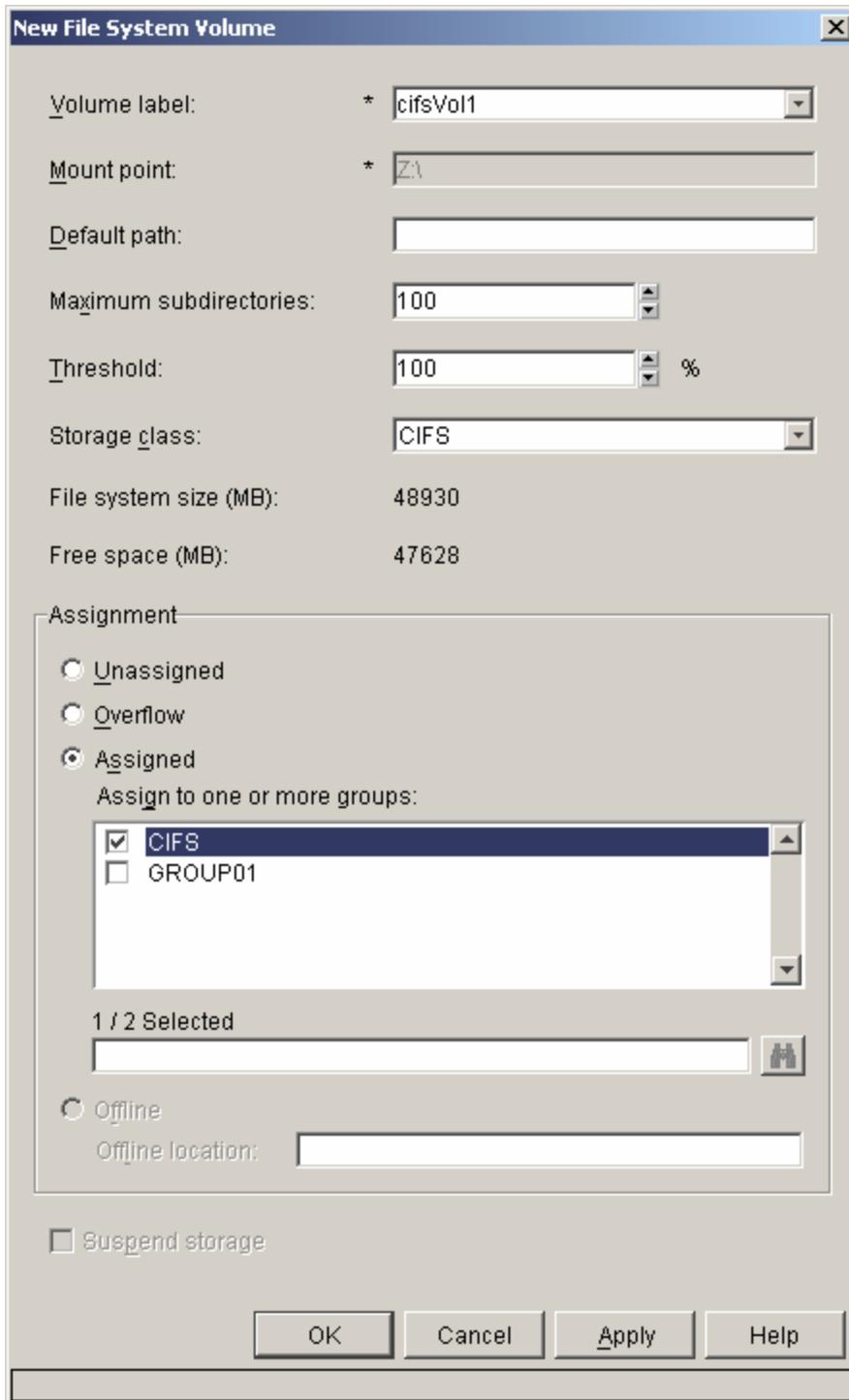
Step: 6 Create a new Storage group

Under your resource manager settings, select **Storage Group** and create a new Storage Group. Do not assign it yet to a storage group.



Step: 7 Create a new Storage system

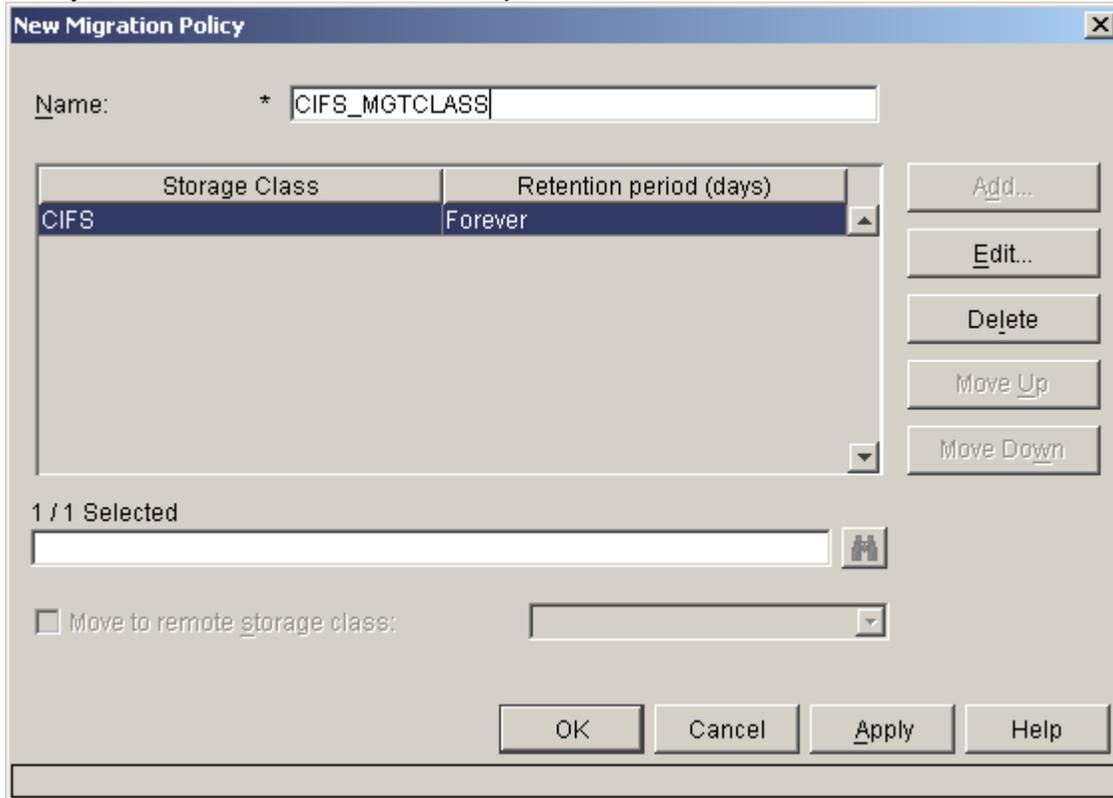
Under your resource manager settings, select **Storage System**. In Storage System select **File System Volumes** and create a new volume.



Select the drive mapped in Step 3 as your volume. Choose the Storage class created in Step 5 as your storage class and assign the volume to the storage group created in Step 6.

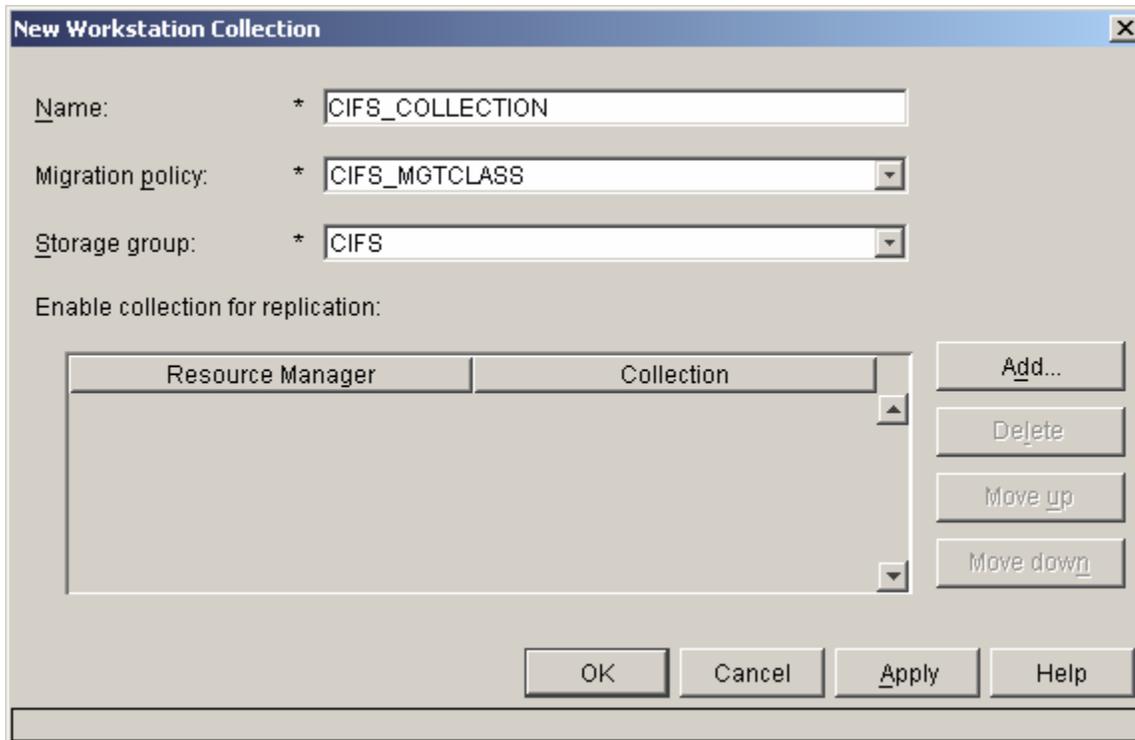
### Step 8: Create a new Migration Policy

Under your resource manager settings, highlight **Migration Policy** and create a new Migration Policy. For more information, see the *System Administration Guide*.



**Step 9: Create a new Workstation Collection**

Under your resource manager settings, highlight **Workstation Collections** and create a new Collection with the newly created Migration policy (Step 8) and the new Storage group (created in Step 6).



All objects imported to the new collection will be stored on the Network Attached Storage device.

**Starting the resource manager and the resource manager services when using Network Attached Storage devices**

Using NAS devices, the resource manager and the resource manager services (replicator, migrator, stager, and purger) must be started from a Windows command prompt and cannot be started by way of Windows Services.

Windows Services cannot access NAS drives mapped through CIFS. This is a Windows operating system restriction. Windows does not allow services to access network attached drives. NAS drives are visible to Windows as network attached drives and therefore, not accessible from Windows Services.

The following steps describe how to start the resource manager and the resource manager services (replicator, migrator, stager, and purger) from the command line.

**Step 10: Starting the resource manager from the command line**

Open a command window and change to the %WASHOME%\AppServer\bin directory (for example, C:\Program Files\WebSphere\AppServer)

Start the resource manager using the following command:

```
startserver <your resource manager application server name>
(for example, startserver icrm)
```

You should see a message, such as

```
" .....
ADMU3200I: Server launched. Waiting for initialization status.
ADMU3000I: Server icrm open for e-business; process id is 3772"
```

If you do not see a similar message, check the startServer.log and the icrmr.logfile for more information. They are located in the WebSphere log directory. (for example, C:\Program Files\WebSphere\AppServer\logs\

**Step 11: Configuring the tool to start the resource manager services**

Before the first use, you must create and configure the tool to start and stop the resource manager services (migrator, replicator, stager, and purger):

Open a command window and change to the %ICMROOT%\BIN directory, where ICMROOT is the install directory of Content Manager (the default is C:\Program Files\IBM\CM82\BIN).

Create a copy of the rmservices\_sample.bat file. We suggest naming the file as follows:

```

    rmservices_<your resource manager database name>.bat
    (for example: rmservices_rmdb.bat).
    
```

This copy later reflects your configuration and is used to start and stop your resource manager services from the command line.

After copying the file, update the following parameters to reflect your configuration:

<b>set dbname=</b>	< Resource manager database name> For example, rmdb
<b>set rmapname=</b>	<Resource Manager Application Name> For example, icrmr
<b>set WAS_HOME=</b>	<WebSphere Application Server home installation directory> For example, C:\Program Files\WebSphere\AppServer Note: Do not use " " around the directory path
<b>set nodename=</b>	<WebSphere Application Server nodename> By default, this is the hostname. The following directory shows the node name: C:\Program Files\WebSphere\AppServer\installed Apps\ <node name="">\.... This setting is required only if you are using WebSphere Application Server V5.x</node>
<b>set hostname=</b>	<hostname of the machine running the resource manager>
<b>set db2_jdbc_path=</b>	<path to the DB2 JDBC driver> For example, C:\Program Files\ibm\sqllib\java\db2java.zip
<b>set ora_jdbc_path=</b>	<path to the Oracle JDBC driver> For example, C:\Oracle\jdbc\lib\classes12.zip (Needed only if Oracle is used.)
<b>set migratorPortNumber=</b>	<PortNumber used from the migrator> For example, 7500

<b>set purgerPortNumber=</b>	<PortNumber used from the purger> For example, 7501
<b>set replicatorPortNumber=</b>	<PortNumber used from the replicator> For example, 7502
<b>set stagerPortNumber=</b>	<PortNumber used from the stager> For example, 7503

You can get the port number from the Windows services file located at C:\WINNT\system32\drivers\etc.

Open the “service” file and look for the following lines:

```
RMMigrator_<your rm database name> <Migrator Port Number>/tcp
RMPurger_<your rm database name> <Purger Port Number>/tcp
RMReplicator_<your rm database name><Replicator Port Number>/tcp
RMStager_<your rm database name> <Stager Port Number>/tcp
```

These lines contain the port numbers for each resource manager service.

For correct logging:

Ensure that the log file location is defined in the icrm\_<process>\_logging.xml files.

You can find the log configuration files in the following directory: C:\Program Files WebSphere\AppServer\installedApps\< node name>\< rm application name> \icrm.war

Also, ensure that the log directories exist.

Repeat Step 11 for each resource manager in your system using NAS devices.

**Step 12. Starting the resource manager services from the command line:**

To start the resource manager services from the command line:

Open a command window and change to the %ICMROOT%\BIN directory, where ICMROOT is the installed directory of Content Manager (default is C:\Program Files \IBM \CM82 \BIN ).

Use the tool you created and configured in the Step 11 with one of the following syntax:

```
rmservices_<rm db name> -act <start | stop>
```

This command starts or stops all resource manager services.

```
rmservices_<rm db name> -act <start | stop> -proc
<RMMigrator | RMPurger | RMReplicator |
RMStager>
```

This command starts or stops only the specified resource manager service.

**Examples:**

```
rmservices_rmdb -act start
```

Starts all resource manager services.

```
rmservices_rmdb -act stop
```

Stops all resource manager services.

```
rmservices_rmdb -act start -proc RMMigrator
```

Starts the migrator.

```
rmservices_rmdb -act stop -proc RMReplicator
```

Stops the replicator.

**Restrictions:**

The command line tool runs the resource manager services in the background. A system-wide event, such as a user logoff stops the resource manager services.

Only use the command line tool to start and stop the resource manager services if NAS devices are used. If you are not using NAS devices, use the Windows Services to start and stop the resource manager services.

**Support of original file name in library server**

To improve performance, the original file name of a resource item or document-part is now stored in the library server as an attribute of the resource item or document-part. You can get the original file name by retrieving the meta data of the resource item. To get the meta data of the resource item, call the retrieve(DKConstant.DK\_CM\_CONTENT\_NO) method of DKLobICM.

Note that the original file name of a resource item is the file name of the item before it is stored in the DB2 Content Manager system.

Before fix pack 7, the original file name of an item was stored in the resource manager, which you could get by calling retrieve() or retrieve(DKConstant.DK\_CM\_CONTENT\_YES) of DKLobICM, which also retrieved the entire item contents.

With fix pack 7, you do not have to retrieve the content to get the original file name associated with an item. You can still get the original file name using retrieve(DK\_CM\_CONTENT\_YES), but because the content is also retrieved, it is faster to use retrieve(DK\_CM\_CONTENT\_NO).

To take advantage of this performance improvement to retrieve the original file name, you must run the original file name transfer utility so that original file name information for any existing resource items gets moved from the resource manager to the library server. **Important:** There is a 128-character limit for the file name; the limit is 64 characters for DBCS languages.

To run the original file name transfer utility, run the following commands from the command line:

Windows: ICMROOT/dbutil/icmupdrmf.bat  
UNIX: ICMROOT/dbutil/icmupdrmf.sh

**New library server error code**

A new library server error code has been added in fix pack 7:

ICM7326 A link cannot be added between these two item types, because a link already exists between them.

Explanation: Creating a new link between a source and target item type when a link already exists is no longer allowed.

Component: Library server

## Error ID: RC\_AUTOFOLDER\_LINK\_ALREADY\_EXISTS

Action: Do not create a link between a source and target item type when a link already exists. For example, you have two item types, Book and BookFolder. Both item types have Author and Title attributes. You can create a link between Book and BookFolder on the attribute Author, but you cannot then create another new link between Book and BookFolder on the attribute Title. You can, however, update the link between Book and BookFolder and add the Title attribute to this existing link so that you would then have one link between Book and BookFolder with two attributes.

### Retrieve item behavior change

Beginning with fix pack 7 of DB2 Content Manager V8.2, retrieval of an item is performed using uncommitted reads by default. Before fix pack 7, Content Manager used committed reads when retrieving an item.

**Attention:** The exposure for performing an uncommitted read in this situation is very small, that is, it might result in a user viewing partially committed data for a document in a multi-level item type, but only if the retrieval is done while another update to the exact same item is in progress by another user.

If you want to revert back to the behavior that was available before fix pack 7 when performing retrieve operations, follow one of these two methods:

Use the new API flag `DK_CM_CONTENT_RETRIEVE_USING_COMMITTED_READ`  
Set the environment variable `ICM_RETRIEVE_OPTION`

### Use the new API flag `DK_CM_CONTENT_RETRIEVE_USING_COMMITTED_READ`

In the API, a new flag called

`DK_CM_CONTENT_RETRIEVE_USING_COMMITTED_READ` is now available. You can use this flag with the retrieve APIs to indicate that committed reads should be performed by the library server when retrieving an item. If this flag is passed (as a bit mask) as part the option argument, the library server performs committed reads when performing the retrieve operation. Using this option, applications can get the same behavior that is available before Content Manager V8.2 fix pack when performing retrieve operations.

### Set the environment variable `ICM_RETRIEVE_OPTION`

The second method involves setting the environment variable `ICM_RETRIEVE_OPTION` on the library server machine.

On the Windows operating system, set the `ICM_RETRIEVE_OPTION` as an environment variable.

On UNIX operating systems, set the `ICM_RETRIEVE_OPTION` in the `<instance_home>/sqllib/profile.env` and `userprofile` file in the same manner as other Content Manager variables, such as `ICMROOT`.

Before fix pack 7, bit 2 of this environment variable was set to specify the library server to perform uncommitted reads during retrieve (for example, `ICM_RETRIEVE_OPTION=2`). The behavior change in fix pack 7 allows the library server to perform uncommitted reads during retrieve by default. This makes usage of bit 2 of `ICM_RETRIEVE_OPTION` obsolete.

Now, if you want Content Manager to behave as it did before fix pack 7, you can set bit 3 of the `ICM_RETRIEVE_OPTION` environment variable (for example,

ICM\_RETRIEVE\_OPTION=4). This will cause the library server to perform committed reads during item retrieval.

### **Additional information**

See the information in the Fixes and descriptions file (cm82FP7fixes\_descriptions.pdf) for APARs, IR52879 and IR53600.

### **Option to not fetch ACL name during retrieve operations**

A new flag called DK\_CM\_CONTENT\_RETRIEVE\_IGNORE\_ACL\_NAME is now supported with the retrieve APIs. If this flag is passed (as a bit mask) as part the option argument, retrieve APIs will not attempt to fetch the ACL name associated with an item being retrieved. The DK\_ICM\_PROPERTY\_ACL property associated with the retrieved DDO object will be an empty string.

Using this option can improve performance in situations where the ACL name associated with an item is not important to an application. The performance benefit is applicable only in situations where the ACL name has already not been fetched and cached. Not having to fetch the ACL name (if it already is not cached) will reduce a stored procedure call to the library server. Applications can fetch the ACL name associated with an item (at a later time, if you want) by using the projection mechanism to retrieve system attributes only (using DKConstantICM.DK\_ICM\_SYSTEM\_ATTRS).

### **Update methods behavior change**

Programmers should be aware that the behavior of Update methods in DKDatastoreICM might change in the future to correct for some unexpected behavior related to document/part versioning. Specifically, for document items, if versioning is always set on for the document, but the parts are set to never be versioned, and if the option DK\_CM\_VERSION\_NEW is passed to the API, the Content Manager system currently creates a new version of the document even when nothing in the document changes. This is not the expected behavior and should be ignored in this specific case. This implies that a new version of the document will NOT be created when there are no changes to the document. The document will be versioned only in the case when there are some changes to the document.

### **Confidential retrieval of documents and resources**

In fix pack 7, Content Manager supports Secure Sockets Layer (SSL) through the Java APIs for communications between thin client or applet applications and the resource manager. You should use SSL if your application accesses resource manager objects and runs outside of a secure boundary, like a firewall.

**Important:** Before you use your application to communicate with the resource manager through SSL, ensure that the HTTP server on the resource manager is enabled for SSL. For the eClient viewer applet, ensure that the eClient Server is configured to use an HTTPS connection.

When you call the DKLobICM.getContentURLs Java API within your application, it returns a URL. If the URL returned by DKLobICM.getContentURLs is an HTTPS URL, SSL is enabled.

If the URL is an HTTP URL, SSL is not enabled. To enable SSL, go to the cmbrm.ini file, which you can find in the same directory as other properties files. You can also find the cmbrm.ini file by checking the cmbrmenv.properties file, which contains an entry called CMCFGDIR that points to the location of cmbrm.ini file. Open the cmbrm.ini file and set the RM\_SSL\_FOR\_URL\_RETRIEVE setting to 1. If the setting does not exist, add it.

Once you have verified that the RM\_SSL\_FOR\_URL\_RETRIEVE setting is correct, your application can use the HTTPS URL to securely communicate with the resource manager (or LAN cache). Note that RM\_SSL\_FOR\_URL\_RETRIEVES is a global setting, and that once it is set to 1, all URL-based retrieves with all resource managers in the system will use SSL. That means that if your system is setup to work with multiple resource managers, all the resource managers must support SSL.

If your resource manager is running on OS/390 or z/OS, see the instructions for setting up SSL in *HTTP Server Planning, Installing and Using Guide*, SC31-8690.

### **Get count of query results without getting the results**

A new feature has been added to the OO API that gets the count of query results without getting the results themselves. This surfaces in two ways. First, in DKDatastoreICM, a method was added called executeCount(). This method takes in a query string and options and gives back the estimated count of the results of the query.

Note that when actually running the query and getting results, the number can vary. This is because the count is only accurate at an instant in time. Items might be added or deleted between the time the count is retrieved and when the results are retrieved. There are also a few cases, for which query might return the ID of an item, but retrieve cannot access that item. In these cases the count will also be inaccurate. Also, note that to get the count, a server call must be made to evaluate the query. This means that if you want the count and then the results, you need to make two trips to the server.

The second place this surfaces is that the cardinality() method in dkResultSetCursor is implemented in the Content Manager V8 connector. This allows the count to be retrieved when you already have a dkResultSetCursor. Remember that this call still requires another trip to the server to evaluate the count. Documentation for these new methods is shown below.

### **Java**

```
/**
 * Gets the count of the number of results that a query string
 * <code>command</code> would produce if it were executed.
 * This issues a count query to the datastore to get the number of results.
 * Note that this count is only an estimate and only accurate at the exact
 * instant it is called. When the sample query is executed to get results,
 * the size of the result set may differ from the count.
 * <p>
 * Most of the query options do not impact the value returned by this
 * method. For example, the number of returned results from this method is
```

## CM/EIP/eClient Version 8 Release 2 Fix Pack 8 readme file

```
* not affected by the <code>DKConstant.DK_CM_PARM_MAX_RESULTS</code> query
* option. Because no data is retrieved, most of the retrieve options are
* also ignored when evaluating the count. The one exception is the
* <code>DKConstant.DK_CM_VERSION_LATEST</code> retrieve option.
* <p>
* For details on query syntax, refer to the Application Programming Guide.
* <p>
* Example:
* <code><pre>
* String query = "/Journal[@NumPages > 50]";
*
* //..These options will be ignored when getting the count
* DKNVPair options[] = new DKNVPair[3];
* options[0] = new DKNVPair(DKConstant.DK_CM_PARM_MAX_RESULTS, "100");
* options[1] = new DKNVPair(DKConstant.DK_CM_PARM_RETRIEVE,
*     new Integer(DKConstant.DK_CM_CONTENT_CHILDREN));
* options[2] = new DKNVPair(DKConstant.DK_CM_PARM_END, null);
*
* //..Get the count
* long count = dsICM.executeCount(query,
*     DKConstant.DK_CM_XQPE_QL_TYPE,
*     options);
*
* System.out.println(" Number of Results: " + count);
* </pre></code>
* <p>
*
* @param command a query string
* @param commandLangType a type of query
*     (must be <code>DKConstant.DK_CM_XQPE_QL_TYPE</code>)
* @param params additional query options in the form of name/value pairs
* (refer to the <code>execute</code> method for more details)
* @return the count of results that match the query string
* @exception DKException if a problem is encountered
* @see #execute(String, short, DKNVPair[])
*/
public long executeCount(String command,
                        short commandLangType,
                        DKNVPair params[]) throws DKException, Exception
```

### C++:

```
/**
 * Gets the count of the number of results that a query string
 * <code>command</code> would produce if it were executed.
 * This issues a count query to the datastore to get the number of results.
 * Ordering can not be specified for a count query string.
 * <p>
 * Most of the query options do not impact the value returned by this
 * method.
 * For example, the number of returned results from this method is not
 * affected by the <code>DK_CM_PARM_MAX_RESULTS</code> query option.
 * Since no data is retrieved, most of the retrieve options are also
 * ignored when evaluating the count. The one exception is the
```

```

* <code>DK_CM_VERSION_LATEST</code> retrieve option.
* <p>
* For details on query syntax, refer to the Application Programming Guide.
* <p>
* Example:
* <code><pre>
*
* DKString query = "/Journal[@NumPages > 50]";
*
* //..These options will be ignored when getting the count
* DKNVPair options[3];
* options[0].setName (DK_CM_PARM_MAX_RESULTS);
* options[0].setValue(DKAny (DKString ("100")));
* options[1].setName (DK_CM_PARM_RETRIEVE);
* options[1].setValue(DKAny(DK_CM_CONTENT_CHILDREN) );
* options[2].setName (DK_CM_PARM_END);
*
* //..Get the count
* unsigned long count = dsICM->executeCount(query, DK_CM_XQPE_QL_TYPE,
* options);
*
* cout << "  Count: " << count << endl;
*
* </pre></code>
* <p>
*
* @param command a query string
* @param commandLangType a type of query
* (must be <code>DK_CM_XQPE_QL_TYPE</code>)
* @param params additional query options in the form of name/value pairs
* (refer to the <code>execute</code> method for more details)
* @return the count of results that match the query string
* @exception DKException if a problem is encountered
* @see #execute(const char* command, const short commandLangType, const DKNVPair
*  params)
*/
DKEXPORT unsigned long executeCount( const char* command,
                                     const short commandLangType =
DK_CM_XQPE_QL_TYPE,
                                     const DKNVPair* params = 0);

```

### Transaction behavior change

Beginning with fix pack 7 of DB2 Content Manager Version 8.2, two types of transaction behaviors are possible. The default behavior is to always automatically roll back and end the explicit transaction that is in progress when the system detects an error during a persistent operation. This is the behavior for versions before V8.2 fix pack 7.

The system can be configured to use a different behavior where the system will mark the transaction as failed when it detects an error during a persistent operation, but it will not automatically end the transaction that was in progress. Persistently, the entire transaction is still internally rolled back in the datastore, but the behavior for subsequent operation has changed. The explicit transaction is considered open, but remains in a failed state. There is no way to

recover from the failure other than to roll back the entire transaction. Subsequent operations, commit requests, and new start transaction requests fail until you explicitly roll back the transaction state.

**Do not roll back transaction if user deleted from a group**

By default, if a user being deleted from a group does not exist (or belong) in the group, the `DKUserMgmt::update` method rolls back the transaction. Situations exist when you might not want this behavior in your application. For these applications, a user not belonging to a group is the same as the user being deleted from the group.

To support this behavior, a new overloaded method with the following signature has been added to the class `DKUserMgmt`:

```
public void update(dkUserGroupDef userGroup, Vector v, int action, int option)
    throws DKNotExistException, DKException, Exception
```

A new constant, `DK_ICM_DO_NOT_ROLLBACK_ON_ERROR`, has been added to `DKConstantICM.java` to support the above described new behavior. If the value for the action argument is `ACTION_DELETE` and zero is passed as the value for the option argument, this method behaves the same as the current update method, which has the following signature:

```
public void update(dkUserGroupDef userGroup, Vector v, int action)
    throws DKNotExistException, DKException, Exception
```

If the value for the action argument is `ACTION_DELETE`, and the value for option argument is `DK_ICM_DO_NOT_ROLLBACK_ON_ERROR`, the new update method does not roll back the transaction, if user being deleted from the group does not belong to the group. The default behavior (if user does not belong to the group) is to throw a `DKNotExistException` exception.

The comments associated with the new update method in the file `DKUserMgmtICM.java` file are given below:

```
/**
 * Updates an user group object in the datastore. If cache is enabled, it also updated
 * in the cache. This API does not perform any comparison with the existing users
 * in the group. It is based on the action and vector of user objects to update the
 * user group. If action == ACTION_ADD, then a vector of users is added to the group.
 * But if users already exist in the group, then the error message "user
 * already exists in the group" will be returned.
 *
 * @param usrGrp: a dkUserGroupDef object to be updated in the datastore
 * @param v      : a Vector of user objects that to be added or remove from the
 *                  group
 * @param action: The valid action type is "ACTION_ADD" or
 *                  "ACTION_DELETE"
 * @param option: The valid option (bitmask) is
 *                  "DK_CM_DO_NOT_ROLLBACK_ON_ERROR".
 * This option is applicable only with action "ACTION_DELETE". If
```

```

*           the option "DK_CM_DO_NOT_ROLLBACK_ON_ERROR" is passed,
*           the method will not rollback a transaction if a user being deleted
*           is not found in the group. The method will continue deleting other
*           users in the group. However, an exception (DKNotExistException)
*           will be thrown. Default behavior is to throw an exception immediately
*           as soon as one user is not found in the group. So, if no option is
*           passed (that is a value of zero is passed), this method is equivalent
*           to the following method -
*           update(dkUserGroupDef userGroup, Vector v, int action)
*           This option will be supported from CM82 Fix Pack 7 onwards
*           @exception DKNotExistException if the specified user group object does not
*           exist
*           @exception DKException if error occurs
*           @exception Exception if error occurs
*/
public void update(dkUserGroupDef userGroup, Vector v, int action, int option)
                throws DKNotExistException, DKException, Exception

```

### OnDemand Application Group Query with Segment Dates Support

**Problem:** When searching against an OnDemand application group with a very large number of indexes, the search can take a very long time. The same problem does not exist when searching against an OnDemand folder since the folder search supports the segment dates. Because the customer was using the ActiveX API, the folder search support is not available.

**Solution:** Enhance application group query by adding the segment dates parameters support in the OnDemand connector C++ API. To take advantage of this function, add three additional parameters to your ActiveX application group search criteria. The identical function is also implemented in the OnDemand connector Java API.

The new parameters are:

SEG\_START\_DATE a string that defines the start date to search for the indexes  
 SEG\_END\_DATE a string that defines the end date to search for the indexes  
 SEG\_DATE\_FMT a string that defines the format of the date

Note that the OnDemand connector does not perform any additional processing or parsing on those strings other than passing them to the server in the same fashion as the way the OnDemand stand-alone data query tool ARSDOC works. For more information about how ARSDOC works, see *IBM Content Manager OnDemand for Multiplatforms Version 7.1 Administrator's Guide, SC27-0840*.

The following sample code fragments show you how to use this new feature.

ActiveX	<pre> Dim myQuery As String Dim parm(1 To 5) As New DXNVPairOD parm(1).Set "APPL_GROUP", "load-db2-CRD-segments" parm(2).Set "SEG_START_DATE", "03/03/95" parm(3).Set "SEG_STOP_DATE", "03/03/95" parm(4).Set "SEG_DATE_FMT", "%m/%d/%y" parm(5).setName DX_OD_PARM_END </pre>
---------	--

	<pre>Dim i As Long i = VarType(parm) myQuery = "WHERE ( name LIKE '%' )" QueryString.Text = myQuery Dim rsCursor As DXResultSetCursorOD Set rsCursor = dsod.Execute(myQuery, DX_OD_SQL_TYPE, parm)</pre>
<b>C++</b>	<pre>DKDatastoreOD* dsOD = new DKDatastoreOD(); dkResultSetCursor* pCur = 0; DKNVPair parms[7];  parms[0] = DKNVPair("APPL_GROUP", "load-db2-CRD-segments"); parms[1] = DKNVPair("MAX_RESULTS", DKString("5")); parms[2] = DKNVPair("CONTENT", DKString("ATTRONLY")); parms[3] = DKNVPair("SEG_START_DATE", DKString("03/03/95") ); parms[4] = DKNVPair("SEG_STOP_DATE", DKString("03/03/95") ); parms[5] = DKNVPair("SEG_DATE_FMT", DKString("%m/%d/%y") ); parms[6] = DKNVPair( DK_CM_PARM_END, DKAny((long)0) );  dsOD-&gt;connect(libsrv,userid,pw,connect_string); pCur = dsOD-&gt;execute("WHERE (name LIKE '%')",DK_CM_SQL_QL_TYPE,parms); while (pCur-&gt;isValid()) {     ... } dsOD-&gt;disconnect();</pre>
<b>Java</b>	<pre>DKDatastoreOD dsOD = new DKDatastoreOD(); dkResultSetCursor pCur = null; DKNVPair[] parms;  parms[0] = new DKNVPair("APPL_GROUP", "load-db2-CRD-segments"); parms[1] = new DKNVPair("MAX_RESULTS",new String("5")); parms[2] = new DKNVPair("CONTENT", new String("ATTRONLY")); parms[3] = new DKNVPair("SEG_START_DATE", new String("03/03/95")); parms[4] = new DKNVPair("SEG_STOP_DATE", new String("03/03/95")); parms[5] = new DKNVPair("SEG_DATE_FMT", new String("%m/%d/%y"));  dsOD.connect(libSrv,userid,pw,connect_string); pCur = dsOD.execute("WHERE (name LIKE '%')",DK_CM_SQL_QL_TYPE,parms); while (pCur.isValid()) {     ... } dsOD.disconnect();</pre>

## Fix pack 6 Content Manager new functionality

### **Fix pack 6 notice**

This version supersedes Content Manager V8.2 fix pack 4 and fix pack 5 shipped in April 2004. Please note the Content Manager V8.2 fix pack 6 shipped versions below:

- Content Manager fix pack 6
- Enterprise Information Portal fix pack 6
- eClient fix pack 6
- Client for Windows fix pack 6
- Readme files fix pack 6

### **Support for SunOne Directory Server (LDAP)**

Fix pack 6 includes support for SunOne Directory Server. This does not include support for Secure Sockets Layer (SSL) with SunOne Directory Server at this point.

Configuration for a SunOne LDAP server is similar to other LDAP servers. When you open the system administration LDAP configuration dialog, make sure you choose LDAP and note Active Directory in the server tab.

When you use import function inside the system administration client, the import function operates as before. The LDAP server type is transparent to you.

When you use the LDAP user import scheduler, the default values shown in the dialog for the LDAP object class for groups and the LDAP attribute for group members are for IBM Directory server. If you want to use the SunOne LDAP server, the default values are: `groupofuniquenames` and `uniquemember`. If the SunOne administrator did not use a default value, you need to ask the administrator for those two values.

Configuration for a data source function is the same as for other LDAP servers. When creating the attributes on the LDAP server for data sources, you must assign the attributes a syntax. Testing was performed assigning the attributes of syntax type DirectoryString.

Configuration for user authentication (user exit) is the same as other LDAP servers.

### **Domino.Doc V3.5 support**

Fix pack 6 includes Domino.Doc V3.5 support. Previous fix pack releases used Domino.Doc V3.0 support.

### **Network Attached Storage support for LBOSDATA**

Fix pack 6 delivers Network Attached Storage (NAS) support for IBM Content Manager on the AIX operating system.

Support for Linux and Solaris was added in fix pack 7. Use these instructions also for Linux and Solaris.

NAS support allows attaching NAS devices as storage repositories to IBM Content Manager. The NAS device used as a Content Manager storage repository is expected to be a highly reliable, redundant, and always available. The AIX server running the resource manager should be connected to the NAS device using a dedicated Gigabit Ethernet connection. The NAS volumes are mounted by way of NFS. NFS version 3 and 4 are supported. It is important that the NFS version used on the AIX server running the resource manager is identical to the version used on the NAS device.

The Content Manager NAS support was tested with Network Appliance NAS devices (Data ONTAP v. 6.4.2). However the Content Manager NAS support should be compatible with other NAS devices accessible through NFS.

The following configuration steps guide you through the NAS support setup for your Content Manager system.

Configuring the NAS support for Content Manager

This section describes the configuration steps necessary to use NAS devices within IBM Content Manager.

### **NAS configuration**

Create volumes on the NAS device  
Set up NAS volumes for NFS access

### **System configuration**

1. Create a file system to contain the NFS mount point
2. Mount the NFS file system

### **Content Manager configuration**

3. Create a new Device Manager
4. Create a new Storage class
5. Create a new Storage group
6. Create a new Storage system
7. Create a new Migration policy
8. Create a new Workstation collection

The configuration steps focus on Content Manager NAS support setup. For more detailed information about configuring your DB2 Content Manager System, see the *System Administration Guide*, SC27-1335, and *Planning and Installing Your Content Management System*, GC27-1332.

### **NAS configuration**

#### **Step 1: Create volumes on NAS device**

Follow the instructions provided with your Network Attached Storage System to perform this step.

#### **Step 2: Set up NAS volumes for NFS access**

Follow the instructions provided with your Network Attached Storage System to perform this step.

#### **Step 3: Create a file system to contain the NFS mount point**

Create a small file system on the AIX server running the resource manager that will hold the mount point for the NFS volumes.

For example,

```

/dev/lv06          65536      63436      4%      17      1%
/nas/

```

Creating a separate file system for the NFS mount points will avoid filling up important system file systems, in case the NFS mount should be lost and data is still ingested.

**Step 4: Mount the NFS file system**

Mount the NFS volumes configured in Steps 1 and 2 to a directory in the newly created file system (Step 3) on the AIX server running the resource manager.

For example,

```

mount cmsan1.svl.ibm.com:/vol/vol1 /nas/nas1
mount <you NAS device>:<you NAS volume> /<newly created
fs>/<mount point directory>

```

**Important:**

Content Manager does not mount file systems. Therefore, make sure that your file systems are mounted at system startup or *before* starting the resource manager.

The AIX server running the resource manager should be connected to the NAS device using a dedicated Gigabit Ethernet connection.

The mounted NFS volumes are not intended to be extremely remote volumes. Mounted NFS volumes are intended to be within the local infrastructure and *always available*.

**Step 5: Create a new device manager**

Start the DB2 Content Manager system administration client.

Highlight and expand the **resource managers** section.

Expand the resource manager you want to configure for NAS support.

Select **Device Manager** and create a new NFS device manager.

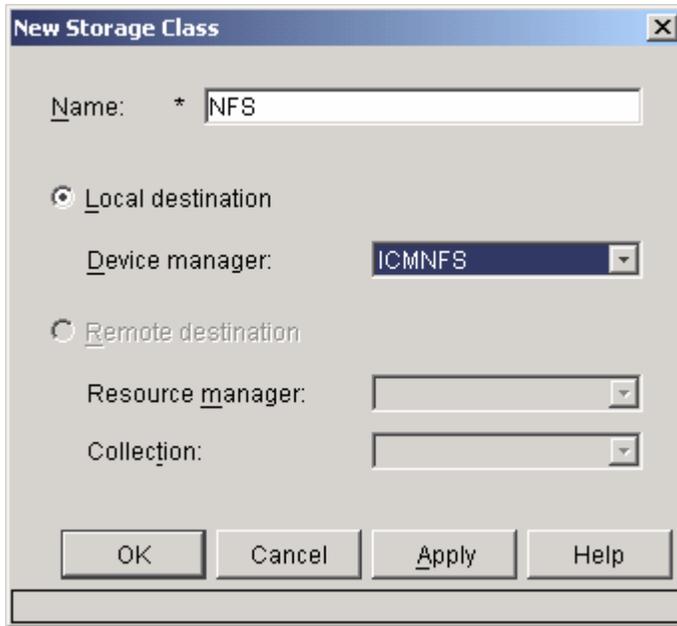


Make sure that no **Parameters** are set, the **Class** is NFS and the device manager is **enabled**. You can use your own settings for **Name** and **Description**.

Click **OK** to create the new device manager.

**Step: 6 Create a new storage class**

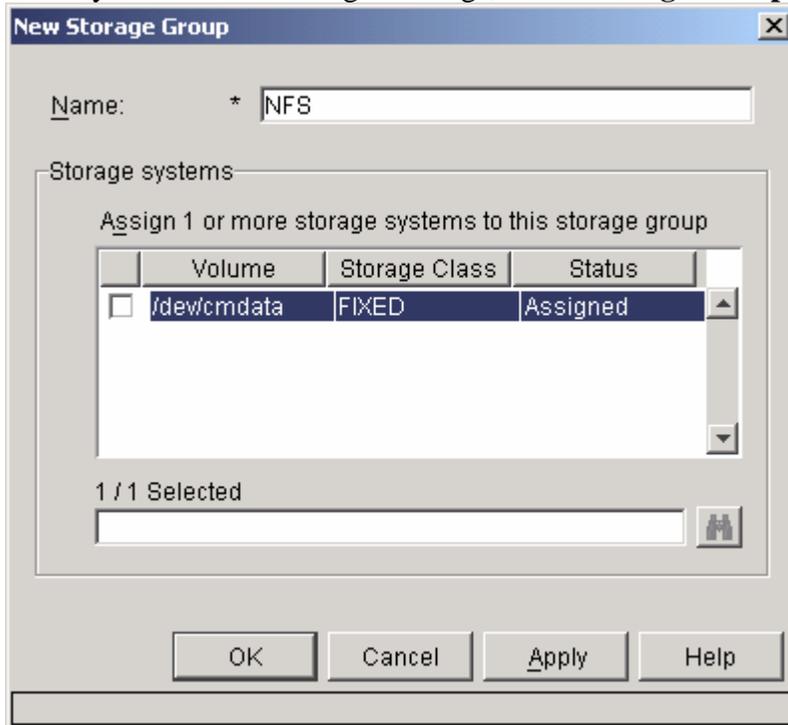
Under your resource manager settings, select **Storage Classes** and create a new storage class.



Give a name to your storage class and select the device manager created in Step 5.

**Step: 7 Create a new storage group**

Under your resource manager settings, select **Storage Group** and create a new storage group.



**Step: 8 Create a new storage system**

Under your resource manager settings, select **Storage System**. In Storage System select **File System Volumes** and create a new volume.

**New File System Volume**

Device: \* /dev/lv06

Default path:

Mount point: /nas/nas1

Maximum subdirectories: 100

Threshold: 100 %

Storage class: NFS

File system size (MB): 24465

Free space (MB): 24059

Assignment

Unassigned

Overflow

Assigned

Assign to one or more groups:

GROUP01

NFS

1 / 2 Selected

Offline

Offline location:

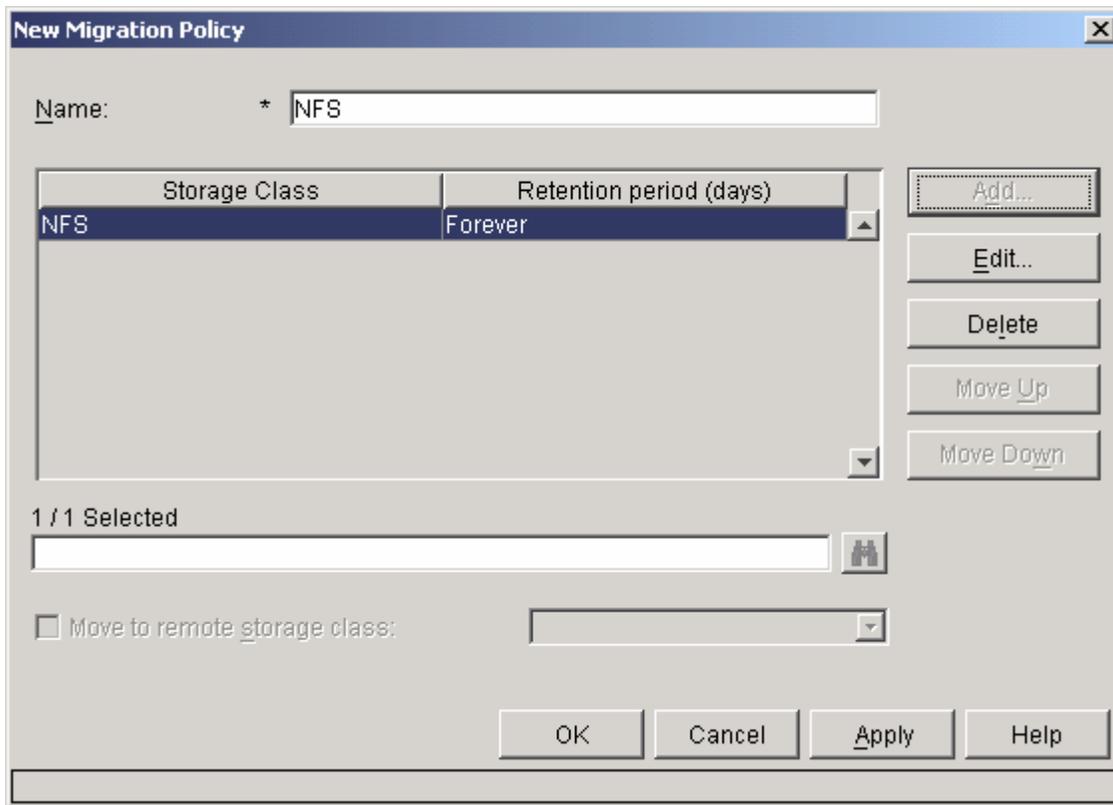
Suspend storage

OK Cancel Apply Help

Select the in Step 3 created file system as your device. Choose the storage class created in Step 6 as your storage class and assign the volume to the storage group created in Step 7.

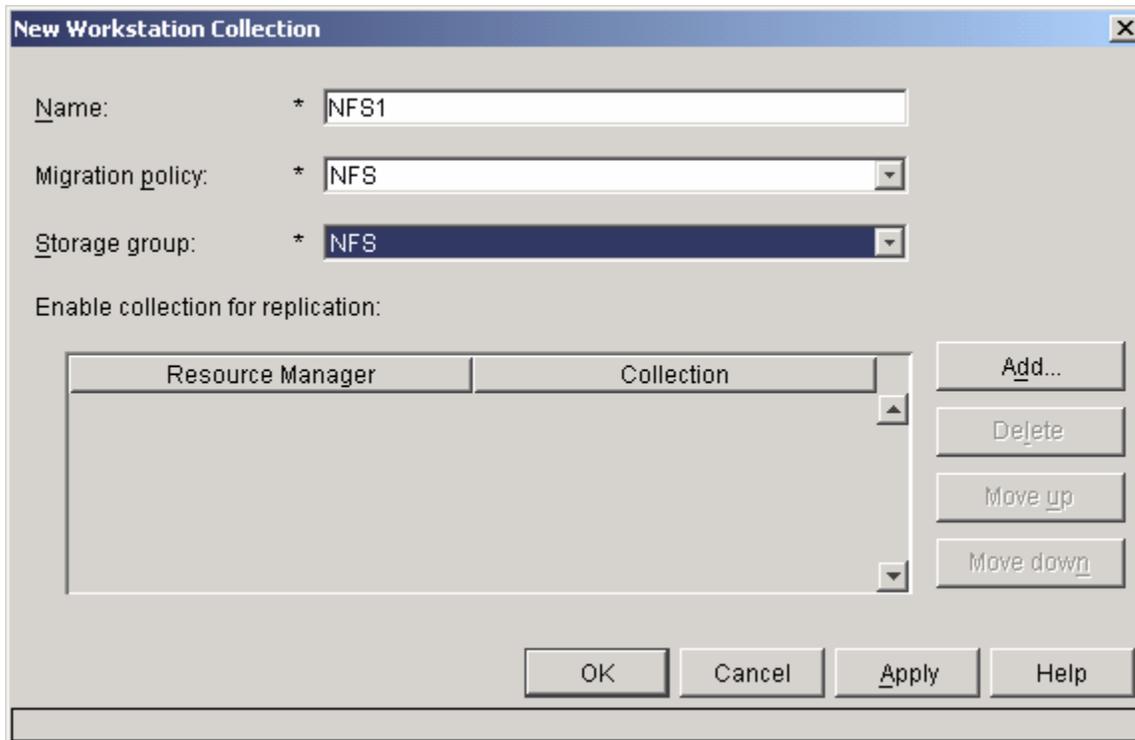
**Step 9: Create a new migration policy**

Under your resource manager settings, highlight **Migration Policy** and create a new migration policy. For more information, see *System Administration Guide*, SC27-1335.



**Step 10: Create a new workstation collection**

Under your resource manager settings, highlight **Workstation Collections** and create a new collection with the newly created migration policy (Step 9) and the new storage group (created in Step 7).



All objects imported to the new collection will be stored on the NAS device.

### Support for new versions of XML parsers

Users were not previously allowed to use a new version of XML parser. Information Integrator for Content now uses the JAXP API. This allows you to use your own version of the XML parser. IBM still ships the current version of the XML parser, which is shipped with the product today for backward compatibility.

To use a newer version of the Xerces XML parser, you should download the new parser and make sure the .jar files associated with this parser are in the CLASSPATH. You should also remove the XML parser (xerces.jar) shipped with the product from the CLASSPATH.

### Page filtering

The class, CMBGenericDocViewer, of the Java Viewer Toolkit now contains function to filter, or show, only certain pages of a document within the viewer. When used, the thumbnails show only a subset of the document's pages and page navigation actions ignore hidden pages.

The methods added to CMBGenericDocViewre for page filtering are:

```
public void setViewablePageNumbers(int[] pages)
public int[] getViewablePageNumbers()
```

Also, a new version of the showDocument method is provided to indicate the viewable pages immediately upon displaying a document in the viewer:

```
public void showDocument(CMBDocument document, CMBAnnotationSet annoSet,  
String docName, int[] viewablePages)
```

In addition, a new non-visual print method has been added to CMBDocument that takes a set of pages to print:

```
public void print(PrinterJob printerJob, boolean withAnnotations, int[] pages)
```

Page filtering is only available through methods on the Java Viewer Toolkit classes and is not exploited by the eClient viewer applet or visual beans.

### **New library server system control table**

This table maintains the maximum number of every keyword code(ID).

#### ICMSTMAXKEYWORD

<b>Column name</b>	<b>Data type</b>	<b>Attribute</b>
KeywordClass	SMALLINT	NOT null
LanguageCode	CHAR(3)	NOT null
MAXKeyword	INTEGER	NOT null

#### Primary Key

KeywordClass, LanguageCode

#### Indexes

None.

#### Referential Constraints

None.

#### Column Definitions

##### KeywordClass

The type of keyword. The classification types are defined by the content manager. The following values have been defined in the section of ICMSTNLSKeywords table.

##### LanguageCode

The three-character language code assigned to each written language. The language codes are assigned to the written languages of the world by IBM. The language codes are documented in the IBM National Language Design Guide: National Language Support Reference Manual, Volume 2.

##### MAXKeyword

The maximum number of keyword code for each KeywordClass.

Fix pack 5 superseded by fix pack 6

Fix pack 4 superseded by fix pack 6

Fix pack 3 Content Manager new functionality

### **Access to the CMBGenericDocViewer user interface**

To improve the programmability for the Java Viewer for writing custom applications, the following changes to the API have been made:

### **New public methods have been added to class com.ibm.mm.viewer.CMBGenericDocViewer:**

```
void fireCMBDocStateChangedEvent(CMBDocument document, int changeType)
void showDocument(CMBDocument document, CMBAnnotationSet annoSet, String
docName, boolean select)
boolean canFirstDocument()
void firstDocument()
boolean canPrevDocument()
void prevDocument()
boolean canNextDocument()
void nextDocument()
boolean canLastDocument()
void lastDocument()
boolean canEnhance()
boolean canInvert()
void setEnhance(boolean enhance)
boolean isEnhanced()
void setInvert(boolean invert)
boolean isInverted()
boolean canPaginate()
boolean canFirstPage()
void firstPage()
boolean canLastPage()
void lastPage()
boolean canPrevPage()
void prevPage()
boolean canNextPage()
void nextPage()
boolean canUndo()
void undo()
boolean canRedo()
void redo()
void genericDocStateChanged(CMBGenericDocStateChangedEvent evt)
int getPageCount()
boolean canScale()
boolean canFitHeight()
void fitHeight()
boolean canFitWidth()
void fitWidth()
boolean canFitInWindow()
void fitInWindow()
boolean canFitActualSize()
```

```
void fitActualSize()
boolean canZoomIn()
void zoomIn()
boolean canZoomOut()
void zoomOut()
void setZoomFactor(double newZoomFactor)
double getZoomFactor()
int getRotation()
boolean canRotate()
void setRotation(int newRotation)
int getPageRotation(int pageNumber)
void setPageRotation(int newRotation, int pageNumber)
void rotatePages(int newRotation, int startPage, int endPage)
Dimension getImageSize()
double getScale()
void setScale(double newScale)
Rectangle getCurrentViewRectangle()
void moveCurrentViewRectangle(int x, int y)
void setSelectedAnnotationTool(int tool)
void setSelectedAnnotation(CMBPageAnnotation a)
CMBPageAnnotation getSelectedAnnotation()
void deleteSelectedAnnotation()
void addAnnotation(CMBPageAnnotation a)
void showAnnotations(boolean show)
void moveAnnotationFront()
void sendAnnotationBack()
void changeAnnotationProperties()
int getSelectedAnnotationTool()
```

### **New public class**

**com.ibm.mm.viewer.annotation.CMBSelectedAnnotationToolChangedEvent has been added:**

```
class CMBSelectedAnnotationToolChangedEvent extends EventObject

CMBSelectedAnnotationToolChangedEvent(Object source, int tool,
CMBAnnotationSet m, CMBAnnotationView v)
int getAnnotationTool()
CMBAnnotationSet getAnnoModel()
CMBAnnotationView getAnnoView()
```

### **New public interface**

**com.ibm.mm.viewer.annotation.CMBSelectedAnnotationTypeChangeListener has been added:**

```
interface CMBSelectedAnnotationToolChangedListener extends EventListener

void annotationToolChanged(CMBSelectedAnnotationToolChangedEvent e)
```

### **New public methods have been added on class**

**com.ibm.mm.viewer.annotation.CMBAnnotationServices:**

```
void
removeAnnotationToolListener(CMBSelectedAnnotationToolChangedListener
listener)
void addAnnotationToolListener(CMBSelectedAnnotationToolChangedListener
listener)
int getSelectedAnnotationTool()
void setSelectedAnnotation(CMBPageAnnotation a)
```

## **New public methods have been added on class**

### **com.ibm.mm.viewer.CMBGenericDocStateChangedEvent:**

```
CMBGenericDocStateChangedEvent(java.lang.Object source, CMBDocument
document, int[] pageNumbers, int changeType)
int[] getPageNumbers()
int getChangeType()
```

## **Windows 2003 support**

Content Manager Version V8.2 now supports Windows 2003. A new Content Manager installation base is required. Contact your IBM sales representative. After you install the new Content Manager installation base, you must install Content Manager V8.2 fix pack 3 or later. Content Manager V8.2 on Windows 2003 requires DB2 UDB V8.1 FixPak 5 and Net Search Extender Fix Pack 5.

## **Tivoli® Storage Manager archive API support**

The Content Manager resource manager relies on Tivoli Storage Manager for accessing secondary storage devices other than local file systems. Beginning with Tivoli Storage Manager V5.2.2, Tivoli Storage Manager supports EMC Centera in three modes:

### **Basic mode** (or non-retention protection)

This mode is available with the current Tivoli Storage Manager client API set. Basic mode is the default.

### **Compliance mode**

This mode, which is new with fix pack 3, is only available through the Tivoli Storage Manager V5.2.2 client archive APIs.

### **Compliance plus mode**

Beginning with Content Manager V8.2 fix pack 3, the Content Manager resource manager provides Centera support in compliance mode using the Tivoli Storage Manager archive APIs. The Content Manager resource manager already provides Centera basic mode support as a default when Tivoli Storage Manager V5.2.2 server is configured in basic mode. Also in fix pack 3, a single Content Manager resource manager can now manage volumes from two different Tivoli Storage Manager servers. This function allows existing customer to have Tivoli Storage Manager volumes with and without retention protection on the same resource manager.

### **Basic mode** (or non-retention protection)

In this mode, EMC Centera looks like any other Tivoli Storage Manager managed device. No change is required to Content Manager to support this mode of operation because the resource manager accesses Centera through the Tivoli Storage Manager APIs using BACKUP/RESTORE, which is the current method of Tivoli Storage Manager API support.

### **Compliance mode** (retention protection)

In this mode, Tivoli Storage Manager provides an archive retention protection enabled Tivoli Storage Manager server. Active retention protection ensures availability of objects, such as files, for a period of time, which can be determined by the user. For example, a user can set retention protection for a year. In that case, if an object is marked for deletion, it will not be deleted for a year. Unless the object is marked for deletion, it will never be deleted.

The programming involved in this function is called event-based object deletion. Specifically, a delete initiates a Tivoli Storage Manager event that starts the clock for the retention and eventual deletion. For instance, if a delete is issued to Content Manager for a 1 year retention object, the clock will start and 1 year later the object will be expired.

The Tivoli Storage Manager server can only be set to Archive Retention Protection mode ON if NO DATA exists on the Tivoli Storage Manager server. The Tivoli Storage Manager archive API client can use this feature by configuring the TSM API options file and adding the option ENABLEARCHIVERETENTIONPROTECTION ON.

To support compliance mode the Content Manager resource manager requires:

The Tivoli Storage Manager V5.2.2 or later archive API client.

Content Manager Object deletion for will be Tivoli Storage Manager event based.

The new Content Manager resource manager includes functional controls for resource manager migration and replication when data resides on Tivoli Storage Manager server in compliance mode.

To enable the compliance mode, you need to define a unique Content Manager storage group for Content Manager volumes that correspond to Tivoli Storage Manager volumes under retention control. (See the example below where this is called out.)

**Important:**

If the first Content Manager storage class you have defined in your migration policy contains a Tivoli Storage Manager volume under retention control, you cannot add any other storage classes to your migration policy. This behavior is restricted by the Content Manager system administration client and does not allow you to migrate data from a volume under retention control to other storage classes.

**New to fix pack 7:** If the first Content Manager storage class in the Content Manager migration policy does not contain a Tivoli Storage Manager volume under retention control, you can: Have other storage classes, but the storage class with a Tivoli Storage Manager volume under retention control must be the last storage class. To enable this migration path, you need to make sure all volumes assigned to storage classes in this migration policy are assigned to the same storage group. This new behavior in fix pack 7 allows you to migrate data into a Content Manager Storage class containing a Tivoli Storage volume under retention control. Have a remote storage class that contains a Tivoli Storage Manager volume under retention control.

There are no restrictions on Content Manager replication, since the source or target collections can have migration policies with a Tivoli Storage Manager volume under retention control.

**Setting up compliance mode**

Follow this procedure to define a Content Manager resource manager Tivoli Storage Manager volume that uses this new mode of Tivoli Storage Manager support.

Define a Tivoli Storage Manager archive copy group that has the Retention set to Event and associate a Tivoli Storage Manager management class with this. (This is the only configuration that Content Manager V8.2 fix pack 3 supports for Tivoli Storage Manager when Archive Retention mode is ON.) See the Tivoli Storage Manager archive copy group example below:

**Tivoli Storage Manager archive copy groups: CONTENT CONTENT DISKEB STANDARD**

<b>Policy Domain Name</b>	CONTENT
<b>Policy Set Name</b>	CONTENT
<b>Mgmt Class Name</b>	DISKEB
<b>Copy Group Name</b>	STANDARD
<b>Retain Version</b>	365
<b>Copy Serialization</b>	SHRSTATIC
<b>Copy Destination</b>	ARCHIVECONTENT
<b>Last Update Date/Time</b>	2003-08-19 12:39:41.000000
<b>Last Update by (administrator)</b>	PSANCHEZ
<b>Managing profile</b>	-
<b>Retention Initiation</b>	EVENT
<b>Retain Minimum Days</b>	0

Configure the resource manager from the Content Manager system administration client:

**Step 1:** In the Server Definition Properties window, define your Tivoli Storage Manager server. In this example, the Tivoli Storage Manager server supporting retention protection resides on CMAIX12, and the authorized TSM client node is ERIN. You can specify the Tivoli Storage Manager client API options file in the **Path** field. This is a new feature in fix pack 3.

**Server Definition Properties - cmaix12**

Name: \* cmaix12

Server type: Tivoli Storage Manager

Hostname: \* cmaix12.svl.ibm.com

Platform: \* AIX

User ID: \* rmregress

Password: \* \*\*\*\*\*

Protocol: ftp

Port number: \* 777

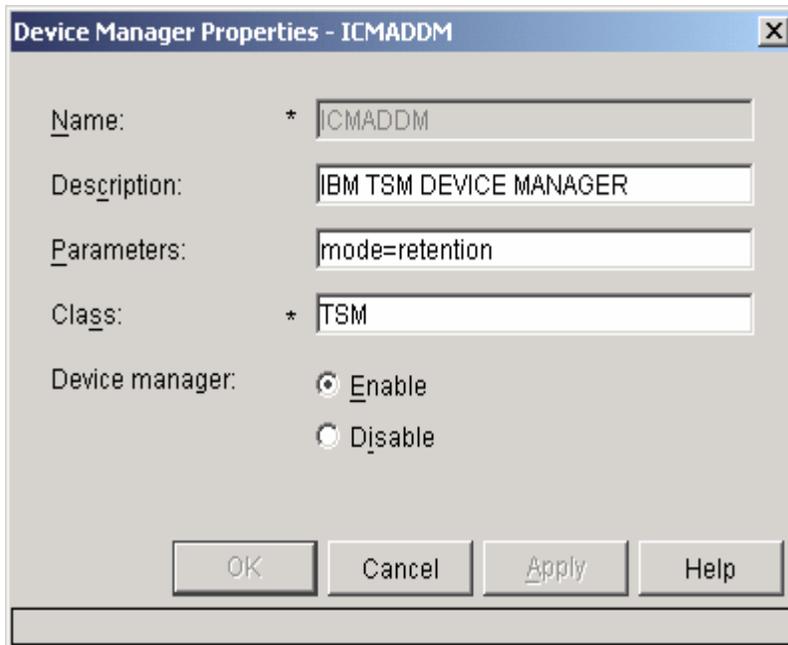
Schema:

Path: /usr/tivoli/tsm/client/api/bin/cmaix12.opt

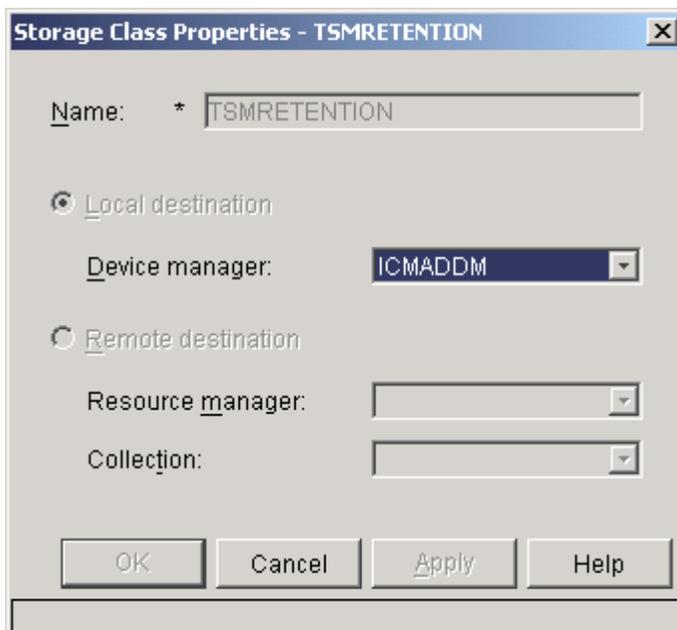
OK Cancel Apply Help

**Step 2:** In the Device Manager Properties window, configure your Tivoli Storage Manager device manager, ICMADDM, and set **Parameters** to: **mode=retention**.

Tip: By using this configuration you do not have to configure the Tivoli Storage Manager API options file with: ENABLEARCHIVERETENTIONPROTECTION ON.

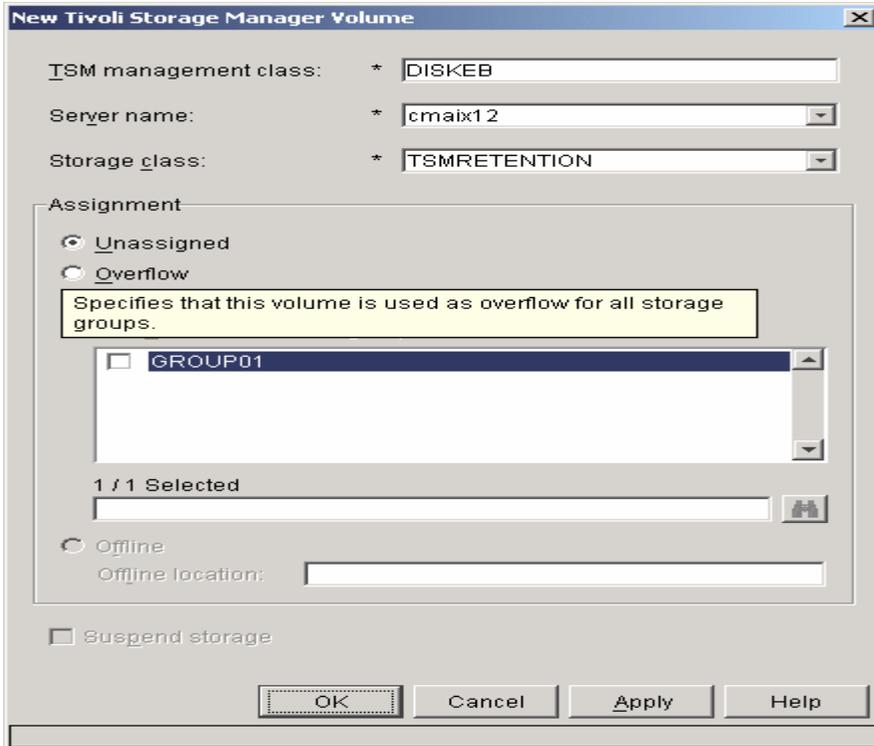


**Step 3:** In the Storage Class Properties window, define a storage class unique to the Tivoli Storage Manager device manager, ICMADDM. In the example below, the name TSMRETENTION is used for the Storage Class.



**Step 4:** In New Tivoli Storage Manager Volume window, define your Tivoli Storage Manager volume, but do not assign at this time. This volume is the Tivoli Storage Manager Management class that is assigned to an Event Based TSM Archive Copy group.

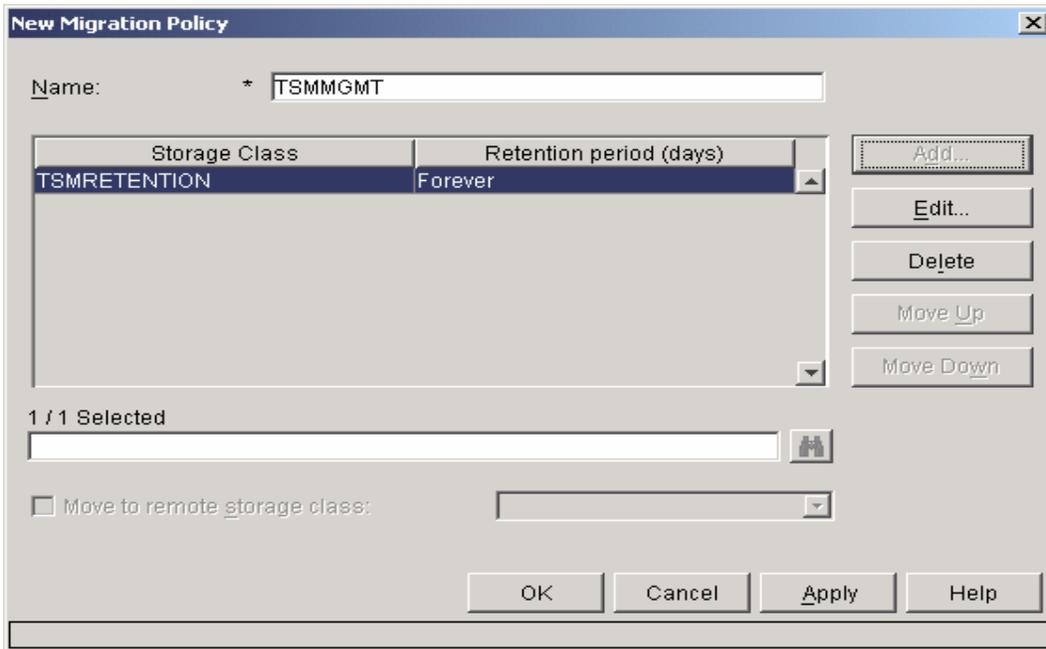
**Important:** Always type your Tivoli Storage Manager Management class in uppercase.



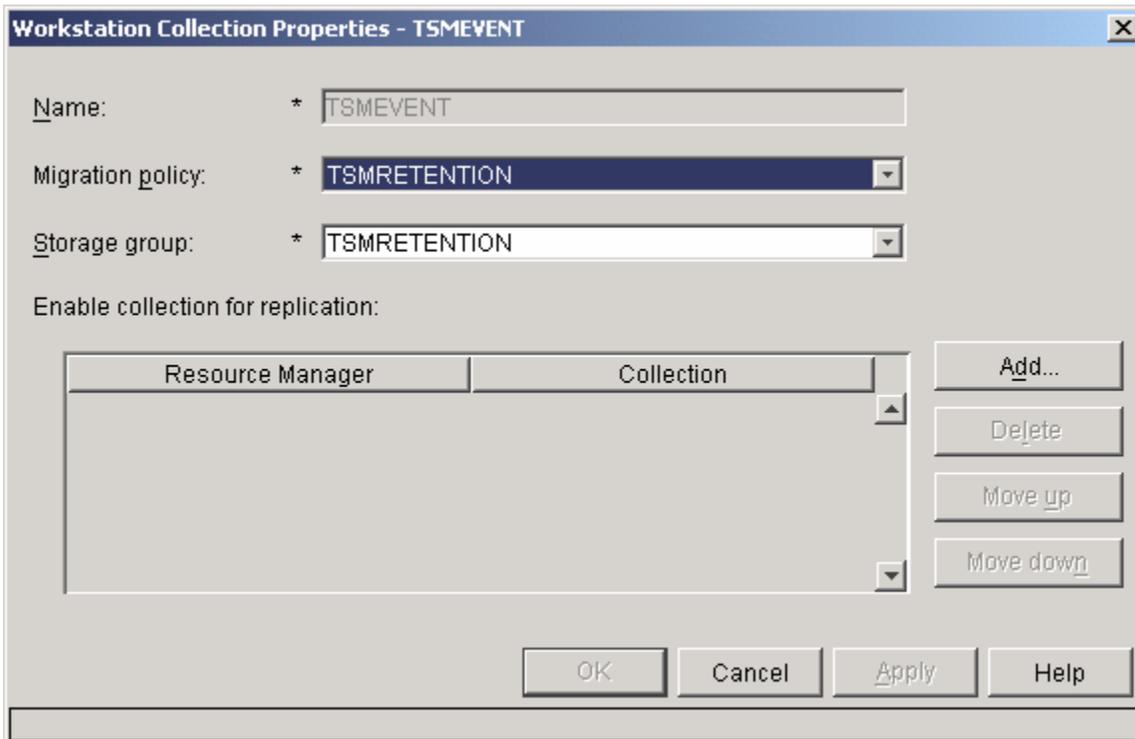
**Step 5:** In the New Storage Group Window, assign your Tivoli Storage Manager storage System to a new storage group for Tivoli Storage Manager. In this example, the new storage group is named TSMRETENTION.



**Step 6:** In the New Migration Policy window, assign your Tivoli Storage Manager storage system to a new migration policy. In this example, the new storage group is named TSMRETENTION.



**Step 7:** As an option, in the Workstation Collection Properties window, you can define a unique collection for this Tivoli Storage Manager storage System. In this example, the new collection is named TSMEVENT.



Follow this procedure to define a second Tivoli Storage Manager volume on Content Manager resource manager from a different Tivoli Storage Manager server.

To enable this function, you can take the previously defined Content Manager Tivoli Storage Manager configuration and add a second Tivoli Storage Manager server as follows. Please note that the steps listed below match to the detail steps listed above. In the following example below, cmaix10 is an existing Tivoli Storage Manager V5.1.7 server.

Step 1:

The screenshot shows a dialog box titled "Server Definition Properties - cmaix10". It contains the following fields and values:

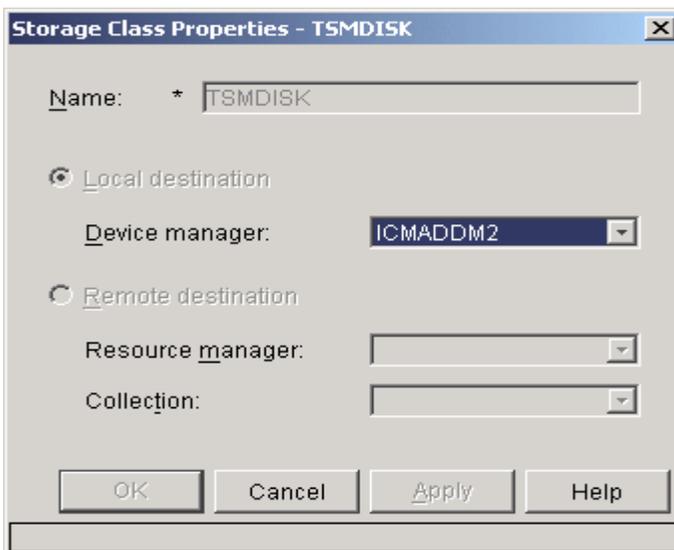
- Name: \* cmaix10
- Server type: Tivoli Storage Manager
- Hostname: \* cmaix10.svl.ibm.com
- Platform: \* AIX
- User ID: \* rmregress
- Password: \* \*\*\*\*\*
- Protocol: ftp
- Port number: \* 1234
- Schema: (empty)
- Path: /tivoli/tsm/client/api/bin/rmx10a.cmaix10

Buttons at the bottom: OK, Cancel, Apply, Help.

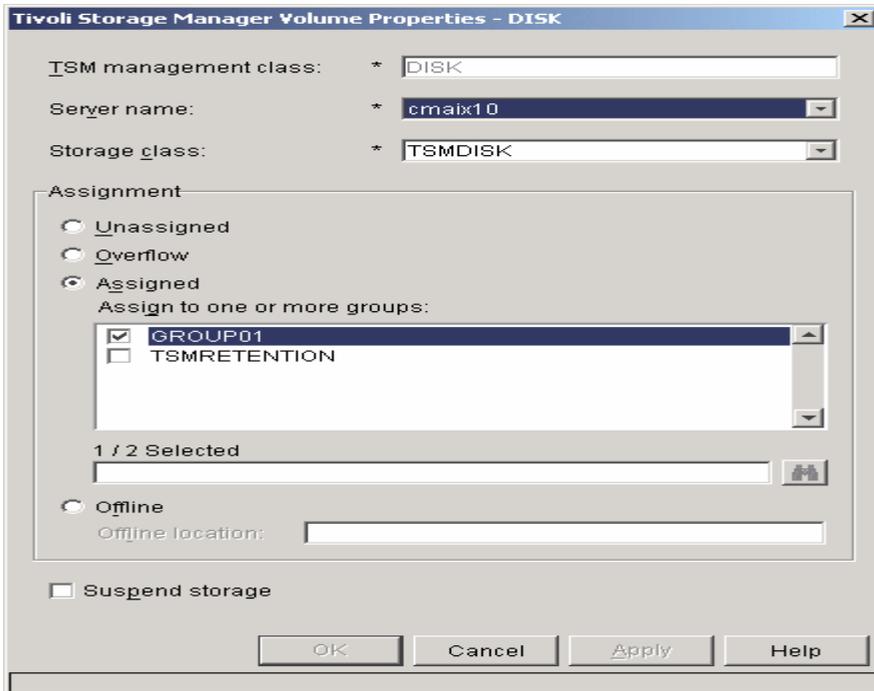
Step 2: In the example below, we have defined a new Tivoli Storage Manager Device Manager, CMADDM2 that has the same properties as the original Tivoli Storage Manager Device Manager.



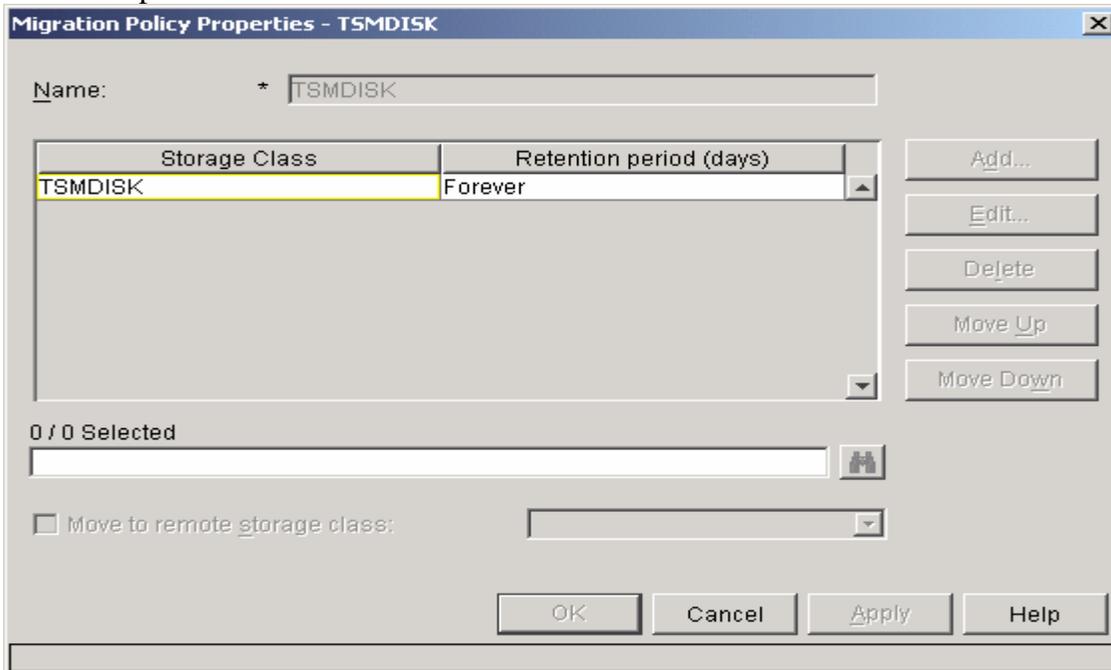
Step 3:



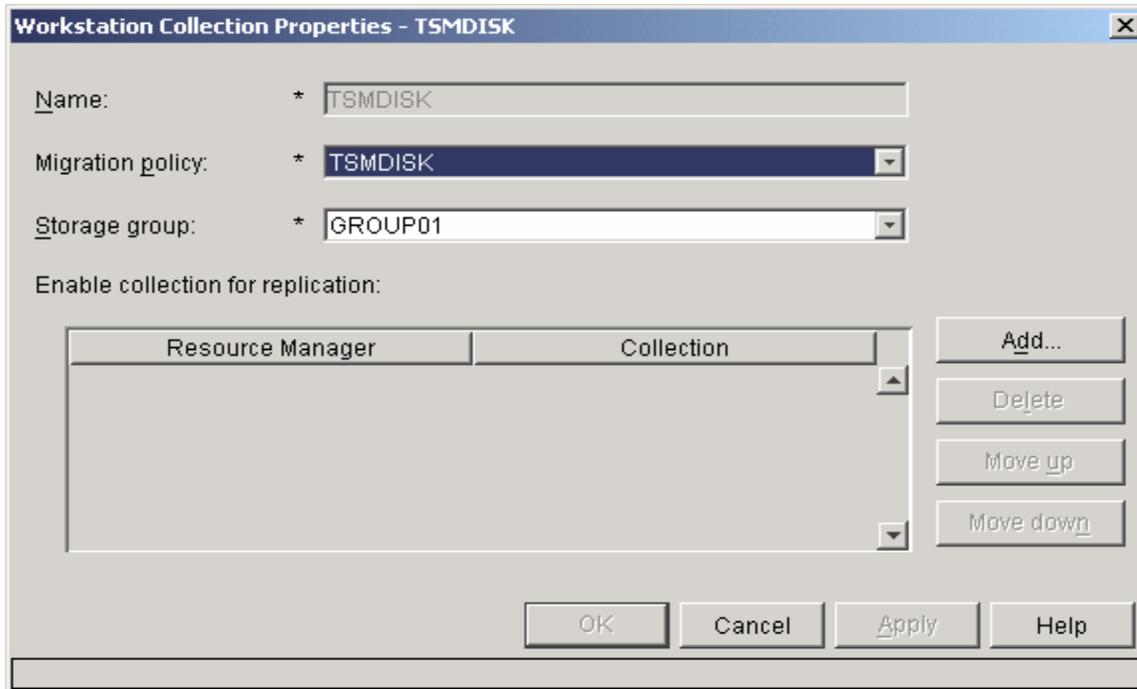
Steps 4 and 5 (assigned):



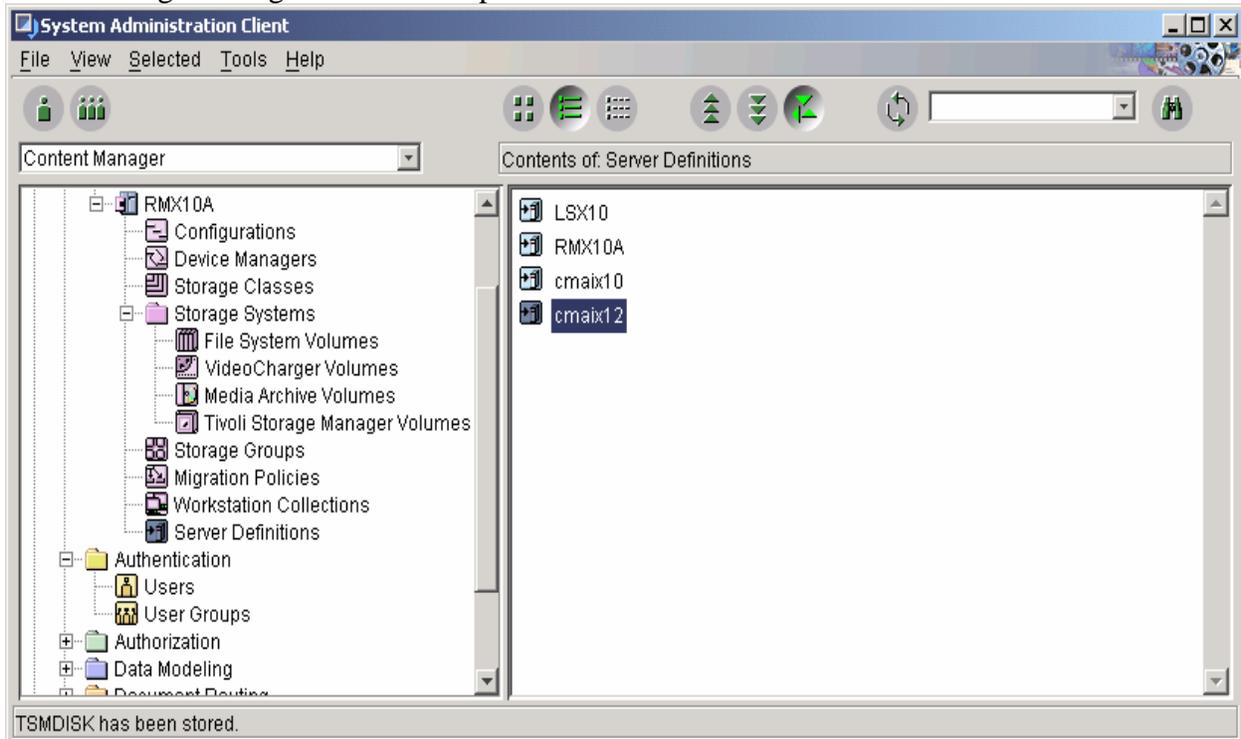
Step 6:



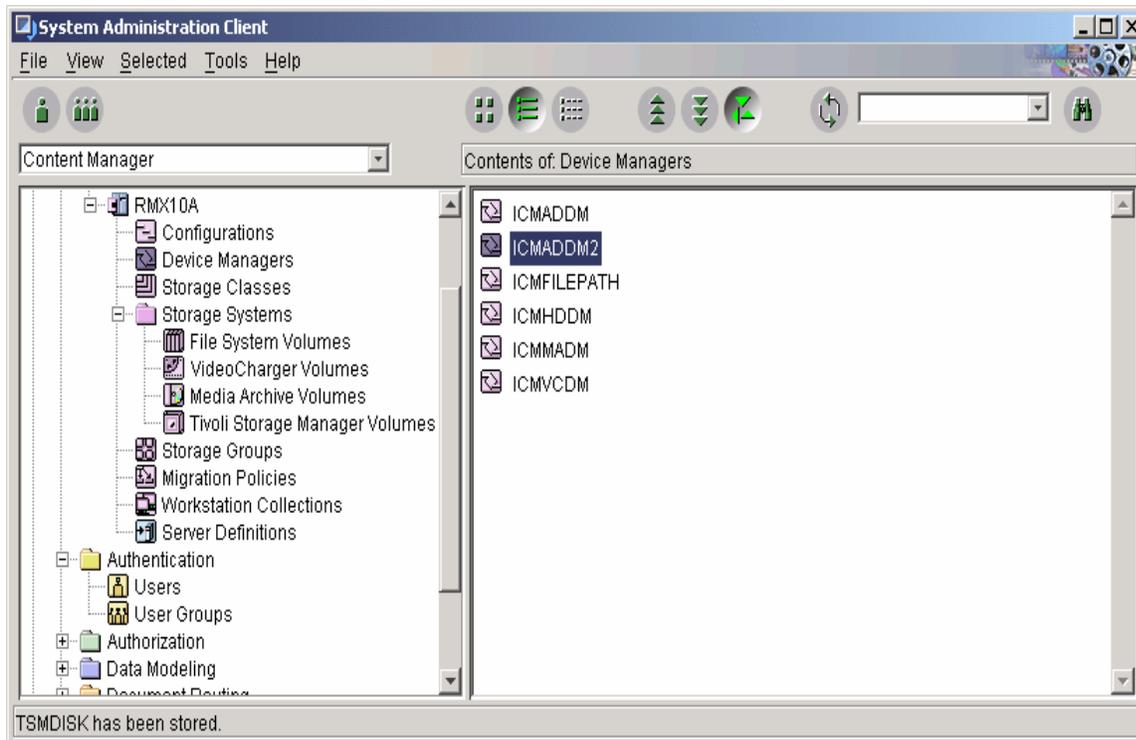
Step 7:



In the above examples, cmaix10 is a regular Tivoli Storage Manager server, and cmaix12 is a Tivoli Storage Manager Centra compliance server.



Two Tivoli Storage Manager Device managers defined. ICMADDM is for Tivoli Storage Manager server cmaix12, ICMADDM2 is for Tivoli Storage Manager server cmaix10.



## Summary

Beginning with Content Manager V8.2 fix pack 3, the Content Manager resource manager support for Tivoli Storage Manager as follows:

1. Use the Tivoli Storage Manager backup APIs to access a Tivoli Storage Manager V5.2.2 Server with Centera in **basic mode**. This is the current mode of support for Content Manager resource manager.
2. Use the Tivoli Storage Manager V5.2.2 archive APIs to access a Tivoli Storage Manager V5.2.2 server with Centera in **compliance mode**.
3. Use the Tivoli Storage Manager backup APIs to access a Tivoli Storage Manager server that is earlier than V5.2.2. This access mode to a Tivoli Storage Manager server is the current behavior for resource manager and provides backward compatibility.
4. Provide changes to the Content Manager system manager support to restrict misbehavior with resource manager migration and replication when data resides on Tivoli Storage Manager server in compliance mode.

A single Content Manager resource manager can now manage volumes from two different Tivoli Storage Manager servers.

## **z/OS® prefetch feature**

### ***Overview of the z/OS prefetch feature***

The prefetch feature allows users to move contents located on a slower media (like optical or tape) to a faster media (hard disks). This is useful in cases when the administrator of the Content Manager system knows that the content(s) to be accessed is present on a slower media and wants to prepare the system by prefetching the content to a faster media.

The user of the Content Manager system uses Information Integrator for Content APIs to specify that the particular item or in the case of batch operations or a collection of items need to be prefetched. The Information Integrator for Content APIs send a request to the resource manager to prefetch this content from the collection it resides in to the collection specified as the prefetch collection at define time.

### ***z/OS resource manager prefetch***

#### **Asynchronous Processing: ICMOSAP**

The current implementation of the prefetch function within the z/OS resource manager is asynchronous. Therefore, the successful completion of a prefetch transaction consists of two parts:

1. The client application calls the z/OS resource manager with a prefetch order. This prefetch order is then processed by the z/OS resource manager, inserting an entry into the ICMRMPREFETCH table. If this table insert is successful, a 0 return code is sent back to the calling application. At this stage, the object only exists in its original location or source collection. The table update process is as follows:
  - a. An entry is inserted into the ICMRMPREFETCH table.
  - b. The requesttimestamp and statimestamp are set to the current timestamp.
  - c. The prefetchstate is set to INITIATED.
2. The processing (copying of an object from the source to the prefetch collection) is done by the ICMOSAP asynchronous process. This process performs a select on the ICMRMCONTROL table for PREFETCHENABLED. If this value is set to 1, ICMOSAP proceeds to process the entries in the ICMRMPREFETCH table if any exist. This process is as follows:
  - a. The prefetchstate is updated to WORKING and the statimestamp is updated with the current timestamp.
  - b. An OAM\_Query is performed for the object's existence within OAM by its extobjname and source collection name.
  - c. If the object exists within OAM, an OAM\_Retrieve operation is performed.
  - d. Once retrieved, an OAM\_Store under the existing extobjname within OAM at the prefetch collection name is performed.
  - e. If the OAM\_Store is successful, the prefetchstate is updated to COMPLETE and the statimestamp is updated with the current timestamp.
  - f. If a failure occurs
    - i. Oamreturncode and oamreasoncode are update with error from OAM.
    - ii. The prefetchstate is updated to FAILED.

## Relevant Table Definitions

### ICMRMCONTROL

...  
PREFETCHENABLED SMALLINT NOT NULL ,  
...

### ICMRMPREFETCH

ITEMID CHAR(26) NOT NULL ,  
VERSIONID SMALLINT ,  
EXTOBJNAME CHAR(44) NOT NULL ,  
SOURCECOLLNAME CHAR(44) NOT NULL ,  
PREFETCHCOLLNAME CHAR(44) NOT NULL ,  
REQUESTTIMESTAMP TIMESTAMP NOT NULL ,  
STATETIMESTAMP TIMESTAMP NOT NULL ,  
OAMRETURNCODE SMALLINT ,  
OAMREASONCODE CHAR(8) ,  
VOLSER CHAR(6) ,  
OPERATION VARCHAR(128) NOT NULL ,  
PREFETCHSTATE VARCHAR(128) NOT NULL ,

PRIMARY KEY (EXTOBJNAME)

**ITEMID:** (for example, A1001001A03L09B64813I92553)  
Value is that generated by the library server during the object store transaction.

**VERSIONID:** (for example, 1)  
In the case where versioning is enabled, this value denotes a given instance of an object.

**EXTOBJNAME:** (for example, A1001001.A03L09.B64813.I92553.V001)  
The extobjname is the ITEMID and VERSIONID combined and "." delimited and represents a unique Content Manager object locator within Object Access Method (OAM).

**SOURCECOLLNAME:** (for example, CLLCT001)  
The sourcecollname is the collection under which the object was originally stored and is the source of the prefetch operation.

**PREFETCHCOLLNAME:** (for example, CLLCT002)  
The prefetchcollame generally represents a collection backed by a fast access medium such as DASD and is the target of a prefetch operation.

**REQUESTTIMESTAMP:** (for example, 2003-12-09 21:48:22.778167000)  
Currently prefetch operations are performed asynchronously. The requesttimestamp reflects the time a given object was requested to be prefetch. Or more correctly, the time at which the entry for the request was inserted into the ICMRMPREFETCH table.

**STATETIMESTAMP:** (for example, 2003-12-09 21:48:22.778167000)

The statetimestamp reflects the time the prefetchstate was modified. For example, when an object is initially requested to be prefetch, the requesttimestamp and the statetimestamp are equal and the prefetchstate is INITIATED. Once actual processing of the prefetch request begins, the prefetchstate is updated to WORKING. The statetimestamp is also updated to reflect the time the prefetch processing began. If the prefetch processing completes successfully, the prefetchstate is updated to COMPLETE, then if there is a failure the prefetchstate is updated to FAILED. In either case, the statetimestamp is also updated with the current timestamp.

**OAMRETURNCODE:** (for example, 8)

This is an integer value that represents the return code from an OAM operation. To prefetch an object requires multiple calls to the OAM interface. Therefore, the return code from OAM indicates the success or failure of a given prefetch operation. Because the prefetch function currently runs asynchronously, the calling application has no way of knowing the status of a given prefetch operation, therefore it becomes important to store this status information persistently for later status query.

**OAMREASONCODE:** (for example, 2C040100)

The oamreasoncode provide detailed information about the oamreturncode failure and is the character representation of the hexadecimal value used to locate the reason code description in the *DFSMSdfp Diagnosis Reference Guide*, GY27-7618-03.

**VOLSER:** (for future use)

This value represents the tape volume on which a given object can be stored. This value is included for the purpose of grouping prefetch request according to the tape volume where they reside to prevent thrashing of the tape drives.

**OPERATION:** (for example, PREFETCH)

This value indicates the operation to be performed. Currently, the only valid value for this column is PREFETCH. The operation column was included for future extendibility, and might contain other values in the future.

**PREFETCHSTATE:** (for example, INITIATED)

This value indicates the progress of a prefetch transaction. Valid values for this column are: INITIATED

The initial state when a prefetch request is inserted into the ICMRMPREFETCH table.

WORKING

The updated state indicating the prefetch process has begun actual processing of the given object's prefetch request.

COMPLETE

The updated state indicating the prefetch process has ended successfully.

FAILED

The updated state indicating the prefetch process returned with non-zero error condition.

**z/OS Information Integrator for Content prefetch API description**

The support for prefetch API is limited to Java APIs only. Following are the Java APIs that you can use to specify if you want your application to prefetch an object:

**ClassName : DKDatastoreICM**

public dkCollection prefetchObjects(dkCollection prefetchColl,DKNVPair[] nvPairs) throws DKException,Exception

**ClassName : DKLobICM**

1)public boolean prefetchContent() throws DKException, java.lang.Exception

2)public boolean prefetchContent(DKNVPair[] nvPairs) throws DKException, java.lang.Exception

For more information on the APIs above, see the [\*Application Programming Reference, SC27-1347\*](#).

## Fix pack 2 Content Manager new functionality

### Irrecoverable delete of resource content

With Content Manager 8.2 fix pack 2, it is now possible to irrecoverably destroy the content associated with a resource item, at the time its content is being deleted. This new function is only supported in the Content Manager Version 8 connector for objects stored on fixed disk within a Multiplatform resource manager (Windows, AIX, Solaris). This function requires the Content Manager Version 8 connector, library server, and resource manager be at the Content Manager 8.2 fix pack level or later. If any of the Content Manager components are at previous level, irrecoverable destroy is processed as a normal delete.

- A new DKConstant option DK\_CM\_DESTROY\_DELETE has been introduced, which can be specified during a number of operations that result in a delete of an object. These operations include:
  - When delete is called on a resource item or document.
  - When an update is called for a document with the purpose of deleting a part or when updating a resource item from content to no-content.
  - When an update is called for a resource item with versioning enabled. In this case, when the maximum number of stored version is exceeded, and the earliest version is to be deleted, the earliest version is also destroyed.
  - When an item is being reindexed into a new item type, the item from the original item type is destroyed.

### Methods supporting this option:

DKDatastoreICM:

updateObject(dkDataObject ddo, int option)

deleteObject(dkDataObject ddo, int option)

moveObject(dkDataObject sourceDDO, dkDataObject destinationDDO, int options)

**DKLobICM:**

```
del(int option)          (New method)
update(InputStream is,long length,int option)
update(DKThirdPartyServerDef thirdpartyObject, int option)
update(int option)
update(String aFullFileName,int option)
update(int option,DKRMSMSPairDefICM[] rmsmspairs)
updateFrom( String hostname, String userid, String passwd, String protocol,
int port, String filename,int option)
updateFrom(int option)
updateFromAsync( String hostname, String userid, String passwd, String
protocol, int port, String filename,int option)
updateFromAsync(int option)
```

**DKDDO:**

```
update(int option)
update(DKNVPair[] option)
del(int option)
del(DKNVPair[] option)
```

**Note:** In most cases the DK\_CM\_DESTROY\_DELETE can be combined with other options, except in the case of a delete. For delete operations, this flag must be specified exclusively. When the content associated with all versions of a resource item needs to be destroyed, the DK\_CM\_DESTROY\_DELETE option must be substituted with the DK\_ICM\_DESTROY\_ALL\_VERSIONS option. The option DK\_ICM\_DESTROY\_ALL\_VERSIONS is available only for delete operations.

**New item type – ICMDRFOLDERS**

In fix pack 2, you can add one or more work packages to a folder in a pre-defined item type only. The pre-defined item type, ICMDRFOLDERS, is automatically created during the installation of Content Manager.

The item type has three attributes:

```
ICMFOLDER_NAME      VARCHAR
ICMFOLDER_DESC      VARCHAR
ICMFOLDER_TIME      TIMESTAMP
```

To use this item type, add the following property to the IDM.properties file:

```
automaticRoutingFoldersEnabled=true
```

End users see the new item type in the Start Process: Create Folder panel in the eClient. All items are added to the new folder in this pre-defined item type (ICMDRFOLDERS), and the folder is routed on the process. A JavaBeans sample program, IDMDeleteRoutingFolders.java, is provided to delete all routing folders that are older than a specified time and that are not actively running on a process. You can periodically run this sample program to clean old folders. The sample program deletes all

folders from the ICMDFOLDERS item type. The sample program (IDM.jar) is packaged with the eClient, and is located in the eClient directory structure.

Enter the following command to run the sample program:

```
java IDMDeleteRoutingFolders <server> <userid> <password> <days>
where
```

<server> is the name of the Content Manager V8 server  
<userid> is the user ID  
<password> is the password  
<days> is the number of days

### Support for access control into Records Manager

Filtering of special user-defined authorization objects:

All authorization objects (access control lists, privileges, privilege groups, privilege sets) with names prefixed with \$ICM are special user-defined authorization objects. You can hide or not hide the special user-defined authorization objects from the Content Manager system administration client view(s). In addition, you can use APIs to filter the special user-defined authorization objects for custom applications. By default, special user-defined authorization objects are viewable and enabled for query.

**Important:** It is highly recommended that special authorization objects are assigned only to other special authorization objects. It is not recommended to assign special authorization objects to regular authorization objects.

If you want to use this new feature in fix pack 2, you need to manually add one variable FilterOpt in the cmadmin.properties file under %cmsysadmin%.

Set the FilterOpt variable to one of the following values:

- 0 Shows all of the authorization objects, for example, with and without \$
- 1 Shows only the authorization objects without \$
- 2 Shows only the authorization objects with the \$

## Fix pack 1 Content Manager new functionality

### Deferred DDL execution

#### Overview

The deferred DDL execution feature provides full flexibility to a database administrator (DBA) or Content Manager administrator to defer executing data modeling modifications made in the Content Manager library server. This deferral includes:

Creating, altering, or deleting an item type or component type

Defining, updating, dropping indexes and text search indexes, foreign keys, and views

When you enable this feature, you can tailor the DBA aspects of Content Manager data modeling operations, such as defining in which table space user component tables, indexes, or views should be created.

If the Content Manager administrator chooses to save the DDLs for later execution, Content Manager data modeling operation behaves as follows:

The Content Manager administrator creates an item type or component type using the system administration client or the Java APIs.

The definition, or metadata, of the item type and component type is stored in the system tables of Content Manager.

Content Manager generates three scripts that contain all database operations for that item type or component type. The scripts are named after the item type name.

**<ItemType>.sh/bat:** Primary script, which connects to the database, and invokes two additional scripts: one with SQL DDL commands and the other with Text Search commands of the Text Information Extender (TIE).

**<ItemType>.DDL:** Contains DDL statements to create the user component tables, corresponding indexes and views in the database.

**<ItemType>\_TIE.bat/sh:** Contains with Text Search drop indexes commands.

**<ItemType>.log:** A log that is created after the scripts are run. It contains the output of the database operations.

After running the scripts, the item type or component type is ready for create, retrieve, update, and delete operations.

This feature applies to Content Manager library server with DB2 UDB on the workstation (Windows®, AIX®, and Sun Solaris).

### Scripts/Utilities

This section describes how you enable this feature and the scripts used by Content Manager for this feature.

#### *Enabling the deferred DDL execution feature*

You run the following script in the <%ICMROOT%>/config directory, and the script enables or disables the deferred DDL execution feature. By default, this feature is disabled.

GenerateDDL.sh/bat <dbname> <userid> <password> <schema> < [Option:] 1/0>

Where

<dbname>: Content Manager library server database name  
<userid>: User ID with DB2 administrator authority for this database  
<password>: Password of the User ID  
<schema>: Content Manager library server database schema  
<1/0>: 1 enables and 0 disables the feature

Example: GenerateDDL.sh icmnsdb icmadmin password icmadmin 1

You can enable or disable this feature at any time. After the feature is enabled, all data modeling operations for new and existing item types will be saved in scripts. When the feature is disabled, data modeling operations for new and existing item types are applied “on the fly”.

*Scenario for using scripts to create an item type or component type*

In this scenario, a Content Manager administrator issues a Content Manager data modeling operation, such as creating an item type MyBook, using either the system administration client or calling an API. When the deferred DDL execution feature is enabled, the following scripts are created as a result of a data modeling operation:

MyBook.bat /sh

This script runs the following operations:

Connect to the database.

Invoke the TIE script to drop TIE indexes.

Invoke the DDL script.

Rename the DDL script to <ItemType>.DDL.SAVE and delete the DDL script.

Call RebuildCompTypeForDDL for each component that was modified or created.

Invoke DB2 Text Search commands to add and alter text search indexes.

MyBook.DDL: Contains the DDL commands. It is invoked by MyBook.bat/sh.

MyBook\_TIE.bat/sh: Contains the text search drop index command. It is invoked by MyBook.bat/sh.

RebuildCompTypeForDDL.class

This class file is deployed in <%ICMROOT%>/config directory and is called by the item type or component type main script to generate the access modules. The input parameters are passed by the calling script.

Usage: java RebuildCompTypeForDDL <dbname> <userid> <password> <schema>  
<COMPTYPEID> <err.txt>

**Scripts directory location:**

All scripts created as a result of DDL deferred execution feature are placed in <%ICMDLL%>/<dbname>/UserDDL.

Where:

<%ICMDLL%>

On AIX and SUN <%ICMDLL%> is the DB2 fence location.

On Windows, ICMDLL% is the same as %ICMROOT%.

<dbname> Content Manager library server database name.

UserDDL Directory is created by Content Manager when the deferred DDL execution feature is enabled.

**How to run the scripts:**

In the scenario, consider a hypothetical item type named MyBook, the script created will be:  
MyBook.bat (Windows)  
MyBook.sh (UNIX)

Usage: MyBook.sh/bat <dbname> <userid> <password> <schema>

Where:

- <dbname> Content Manager library server database name.
- <userid> User ID that connects to the database and runs the DDL file. This user must be defined in the operating system and must have DB2 administrator privileges in the database to run the DDL commands.
- <password> User ID password.
- <schema> Content Manager library server database schema.

The script can be run after each data modeling operation. For example:

- a. Define an item type or component type.
- b. Run the script for this item type or component type.
- c. The item type or component type is now ready for create, retrieve, update, and delete operations.

OR

The Content Manager administrator can run an *n* number of data modeling operations. Each data modeling operation is appended to the script /DDL files and all the operations are applied to the database when the script is run. For example:

- a. Define an item type or component type.
- b. Modify the component by adding a new attribute.
- c. Modify the component by setting it to be text searchable.
- d. Add a new index to the component.
- e. Creating a new view on the component, and so on
- f. Run the script.
- g. The item type or component type is now ready for create, retrieve, update, and delete operations.

After the script is run, the DDL file is automatically deleted (a copy is saved as script.DDL.SAVE).

When a new data modeling operation is applied on that item type or component type, a new set of script files is created.

**Important:** After a script has been run, we recommend deleting <ItemType>.bat/sh and <ItemType\_TIE>.bat/sh.

### **Examining the logs:**

After running the script, a log file is created with the output of the DDL and text search commands. Some SQL DDL drop statements are expected to throw an error. For example, the drop command of a VIEW that proceeds the CREATE statement of the same VIEW.

**Re-running the script:**

If the script needs to be run again, you must first rename the saved copy of the DDL to its original name, that is: rename <ItemType>.DDL.SAVE to <ItemType>.DDL.

**Changing library server configurations when DDL deferred execution feature is enabled:**

Updating the following library server configuration parameters causes Content Manager to drop and re-create the Views and re-generate the access modules for all component types defined in Content Manager, including the system-defined components, such as document parts:

Public Access Enabled

ACL binding level

Library ACL name

When changing any of these settings with the DDL deferred execution feature enabled, Content Manager generates a script for each item type currently defined in the Content Manager database. This includes user-defined and system-defined item types.

Make sure you run all the scripts that were generated as a result of changing the library server settings, or create, retrieve, update, and delete operations will fail. The running of the scripts does not need to follow any particular order.

*Allowing Content Manager administrators without DB2 dbadm privilege to create the definition of data modeling objects:*

The deferred DDL execution feature allows Content Manager users without DB2 dbadm privilege to create the definition of data modeling objects. This is possible because with this feature you first define the data modeling objects, and save these definitions into a file. Note that the actual execution of the scripts requires a user ID with DB2 dbadm privilege.

To take advantage of this feature, perform the following steps:

In the server where the library server is installed, navigate to the directory %ICMROOT%\bind. Connect to the library server database as a DB2 administrator.

Run the commands below, replacing %ICMCRLSDBSCHEMA with the library server schema name:

```
db2 bind icmplscp.bnd QUALIFIER %ICMCRLSDBSCHEMA% DYNAMICRULES BIND  
DATETIME ISO BLOCKING ALL
```

```
db2 bind icmplsti.bnd QUALIFIER %ICMCRLSDBSCHEMA% DYNAMICRULES BIND  
DATETIME ISO BLOCKING ALL
```

```
db2 bind icmplsiv.bnd QUALIFIER %ICMCRLSDBSCHEMA% DYNAMICRULES BIND  
DATETIME ISO BLOCKING ALL
```

```
db2 bind icmplscv.bnd QUALIFIER %ICMCRLSDBSCHEMA% DYNAMICRULES BIND  
DATETIME ISO BLOCKING ALL
```

```
db2 bind icmplssc.bnd QUALIFIER %ICMCRLSDBSCHEMA% DYNAMICRULES BIND  
DATETIME ISO BLOCKING ALL
```

Also, ensure that Content Manager user running a data modeling operation using the system administration client is a system user.

As describe in section, How to run the scripts, the user running the DDL script must have dbadm privilege.

This scenario works only when the deferred DDL execution feature is enabled.

When disabling the deferred DDL execution feature, the following sequence of commands must be run:

In the server where the library server is installed, navigate the directory %ICMROOT%\bind.

Connect to the library server database as a DB2 administrator.

Run the commands below, replacing %ICMCRLSDBSCHEMA with the library server schema name:

```
db2 bind icmplscp.bnd QUALIFIER %ICMCRLSDBSCHEMA% DATETIME ISO
BLOCKING ALL
db2 bind icmplsti.bnd QUALIFIER %ICMCRLSDBSCHEMA% DATETIME ISO
BLOCKING ALL
db2 bind icmplsiv.bnd QUALIFIER %ICMCRLSDBSCHEMA% DATETIME ISO
BLOCKING ALL
db2 bind icmplscv.bnd QUALIFIER %ICMCRLSDBSCHEMA% DATETIME ISO
BLOCKING ALL
      db2 bind icmplssc.bnd QUALIFIER %ICMCRLSDBSCHEMA% DATETIME ISO
BLOCKING ALL
```

## **Content Manager ACL user exits**

### **ACL user exit routines**

Content Manager provides two access control user exit routines that override the built-in access control mechanism:

For general privilege access control, Content Manager checks the privileges of the current user to determine whether the user has authority to perform the requested operation. For item or view level access control, Content Manager dynamically checks for the required privileges during the action being performed using SQL.

Each of these privilege checks has an exit routine to override Content Manager's access control:

```
ICMGenPrivExit()
ICMACLPrivExit()
```

### **ICMACLPrivExit**

Use this exit routine to determine whether the user has authority to perform the requested function on a particular item or view. The member name for this exit is ICMACLXT. The following is the UDF declaration for the ACL privilege exit:

```
void SQL_API_FN ICMACLPrivExit (
char *pszUserID,
char *pszApplicationID,
char*APIAction,
char *pszProcedureName,
char *InfoType,
char *ItemID,
char *ViewID,
long *plGenPrivCode,
short *pszUserID _ind,
short *pszApplicationID _ind,
short *APIAction _ind,
short *pszProcedureName _ind,
short *InfoType _ind,
short *ItemID _ind,
short *ViewID _ind,
short *plGenPrivCode _ind,
char *sqlstate,/*SQL STATE */
char *funcname,/*function name */
char *specname,/*specific function name */
char *mesgtext /*message text insert */
)
```

Input parameters:

<b>pszUserID</b>	User ID (32 characters)
<b>pszApplicationID</b>	Application ID (32667 characters - reserved)
<b>pszHostname</b>	Host name of client (128 characters; API will pass in maximum 151 characters)
<b>APIAction</b>	API action: <b>0</b> Retrieve <b>2</b> Update <b>3</b> Delete <b>4</b> Not available
<b>pszProcedureName</b>	Library server stored procedure name (20 characters)
<b>InfoType</b>	<b>1</b> Item related <b>2</b> View related <b>3</b> Item type or item type view related
<b>ItemID</b>	Item ID (26 characters)
<b>ViewID</b>	Item type ID, item type view ID, or view ID (might not be available for retrieve spanning multiple views)
<b>pIGenPrivCode</b>	General Privilege required for the action

Output parameters:

**pIRC** Pointer to return code

Return codes:

**0** RC\_OK, validation passes. ICMACLPrivExit grants the ACL to query.

Any other return code declines access to the ACL query.

### **ICMGenPrivExit**

Use this exit routine to determine whether the user has the general privilege to perform the requested function. The member name for this exit is ICMGENXT.

The following is the GenPrivExit function. The listed parameters provide information available for use in your security access logic:

```
extern long ICMGenPrivExit(  
char *pszUserID,  
char *pszApplicationID,  
long *plGenPrivCode,  
char *pszProcedureName,  
long *plCMDecision,  
long *plCMDecReason,  
long *pIRC)
```

Input parameters:

<b>pszUserID</b>	User ID (32 characters)
<b>pszApplicationID</b>	Application ID (32667 characters - reserved)
<b>pszHostname</b>	Host name of client (128 characters; API passes in maximum 151 characters)
<b>plGenPrivCode</b>	General privilege required for the action
<b>pszProcedureName</b>	Library server stored procedure name (20 characters)
<b>pICMDecision</b>	Library server decision <b>0</b> Grant access Look up any other return code
<b>pICMDecReason</b>	Extended return code if available

Output parameters:

**pIRC** Pointer to return code

Return codes:

**0** RC\_OK, validation passes. ICMGenPrivExit grants general privilege for the API action.

To enable ACL user exit checking, use the system administration client to open the library server Configuration dialog box. Click the Features tab, and select the **Enable ACL User Exit** check box.

**Important:**

1. Do not turn on the flag unless the exits have been compiled and linked.
2. In ICMACLPPrivExit() the ViewID parameter might not be available in queries involving multiple active views. In these situations, a negative number is instead sent to the user exit.

Usage:

1. Enable ACL exits:
  - a. To turn on ACL user exit checking, use the system administration client and select the appropriate library server. Bring up the library server Configuration dialog box. Click the Features tab, and check the Enable ACL user exits check box.
  - b. **Important:** Do not turn on the flag unless the exit DLLs have been copied in the right locations (see Step 2).
2. Compile ACL exit routines:
  - a. For AIX and Solaris:
    - i. Copy <%ICMROOT%>/samples/server/exit/\* to your working directory.
    - ii. Use the sample exit program to implement your own authentication logic.
    - iii. Modify the make file to reflect your environment:
      - o Set LIBDIR (<db2path>\function).
      - o Set DB2\_HOME (db2 install path).
      - o Set OBJDIR (object file directory).
      - o Set SRCDIR (working directory with source files).
  - b. For Windows:
    - i. Copy <%ICMROOT%>\samples\server\exit\* to your working directory
    - ii. Use the sample exit program to implement your own authentication logic.
    - iii. Modify the make file to reflect your environment:
      - o Set LIBDIR (<db2path>\function).
      - o Set DB2\_HOME (db2 install path).
      - o Set OBJDIR (object file directory).
      - o Set SRCDIR (working directory with source files).
    - iv. Run the nmake -f makefilename from the working directory.
3. Copy DLL
  - a. After you have compiled your two user exit routines, you need to copy them from the working directory so that Content Manager can use them. Copy the DLLs to these locations:
    - i. icmgenxt.dll --> PATHICMDLL from Library Server Configuration dialog box
    - ii. icmaclxt.dll --> <db2instance\_home>/sqllib/function

Naming conventions:

icmgenxt.c	General Privilege Exit Program
icmaclxt.c	ACL Privilege Exit Program
icmn*mak	Windows operating system make file
icmx*mak	AIX operating system make file

icms\*mak      SUN operating system make file

## 4 Information Integrator for Content (formerly EIP)

### 4.1 Installation information

See section 3.2 for installation information for Content Manager and Information Integrator for Content.

### 4.2 Information Integrator for Content fixes and description

Fix pack 8 Information Integrator for Content fixes

APAR NUMBER      IR53605

APAR Description:

Added option to reclaim free connection in DKDatastorePool.

Fix Description:

Added the option to reclaim free connection in DKDatastorePool.

-----  
APAR NUMBER      IR54521

APAR Description:

Transactions are not completed for SQL Queries that occur during the federated search.

Fix Description:

Complete transactions for SQL Queries that occur during the federated search.

-----  
APAR NUMBER      IR54871

APAR Description:

Information Integrator for Content Version 8.2 Fix Pack 7 installation fails with return code 204 while upgrading the Information Integrator for Content server if the Information Integrator for Content database is not shared with a Content Manager database.

Fix Description:

Document routing item type will not be created when the Information Integrator for Content server is not shared with the Content Manager server.

-----  
Fix pack 7 Information Integrator for Content fixes

APAR NUMBER      IR52244

APAR Description:

Many classes in the Information Integrator for Content beans keep an internal reference to the CMBCConnection object.

These classes are:

- CMBAnnotation
- CMBAttribute
- CMBDataManagement
- CMBEntity
- CMBItem
- CMBOject
- CMBQueryService
- CMBSchemaManagement
- CMBSearchResults
- CMBSearchTemplate
- CMBUserManagement

These classes are not thread safe. For example if you do a query and delete operation using same connection object, there will be a function sequence error.

It can also cause stack corruption. Typical symptoms included Java.exe exception. Stack dumps will be corrupted because the stack has been corrupted.

Fix Description:

The classes CMBItem, CMBQueryService, CMBDataManagement, and so on, need to be synchronized/mutexed on the CMBCConnection object that they share.

These classes have a reference to the CMBCConnection object. But the reference can be null, so a null check was added before synchronizing on the \_connBean object.

Special Instructions:

When developing a multi-threaded application for increased throughput, each processing thread should use its own connection instead of sharing a connection. If a connection is shared across multiple threads, performance can be adversely affected.

---

APAR NUMBER IR52913

APAR Description:

When I right-clicked on the document surface, the resulting popup menu does not have a Paste option.

Fix Description:

This problem is fixed. A **Paste** option has been added to the page menu.

---

APAR NUMBER IR52914

APAR Description:

Sticky note appears with one or more borders missing. Moving the annotation regenerates borders.

Fix Description:

This problem is fixed. The code changes the ordering of a drawing so the border is drawn last and it is not overdrawn by the fill inside the note.

---

APAR NUMBER IR52916

APAR Description:

Key combination Shift+Up arrow sizes the annotation down instead of up and Shift+Down arrow sizes the annotation up instead of down.

Fix Description:

This problem is fixed. The behavior of the Shift+Up and Shift+Down arrow keys was changed to be more intuitive.

---

APAR NUMBER IR52927

APAR Description:

Unable to type the capital letters for F, A, W, H in the text annotation.

Fix Description:

The shortcut keys used for Fit to Width, Fit to Window, Fit to Height, and Fit to Actual Size also triggered the action when typing these capital letters in the text annotation. Modified the shortcuts keys to avoid this problem.

---

APAR NUMBER IR53118

APAR Description:

When using the eraser tool, some portions of pen annotations are not erased.

Fix Description:

This problem is fixed. Fixed the faulty logic that determined the intersection of pen annotation line segments with the eraser.

---

APAR NUMBER IR53129

APAR Description:

Subsequent call to listComponentTypeIndexes returns no data.

Fix Description:

This problem is fixed. The listComponentTypeIndexes(String) was changed to handle retrieval and caching of ComponentTypeIndexes for multiple calls to the same method.

---

APAR NUMBER IR53133

APAR Description:

When you try to export a resource item to an XML file and specify that the content is to be written to a separate file, a null pointer exception might occur while determining the file extension for the separate file. If the mime type of the content is not listed in the API (see the Javadoc for DKXMLUtil.xmlExport() for a static list of supported mime types and file extensions), then the file extension will be a null value. Therefore, any manipulation of the file extension causes a null pointer exception.

Fix Description:

When you try to export a resource item to an XML file and specify that the content is to be written to a separate file, the API determines the file extension in the following order:

1. If the original file name is available, the original file name's file extension is used. If the original file name contains multiple period characters (.), the last period character is used to determine the file extension.
2. If the datastore set in the data object is connected, one of the file extensions associated with the content's MIME type as defined in the library server is used.
3. If the datastore set in the data object is disconnected, the file extension associated with the content's MIME type that is available in the API is used.

---

APAR NUMBER IR53144

APAR Description:

Overlay resources are checked out when viewing MO:DCA documents. This should not occur.

Fix Description:

This problem is fixed. The method `CMXObject.getDataURL()` was changed so that the resource item is not checked out.

---

APAR NUMBER IR53286

APAR Description:

I ran the migration utility to migrate the EIP database from V7 to V8, and the following error occurs:

```
[EXC]: 02/09/2004 at 10:17:50.559 EST @ hocontent01 (10.155.100.155);
com.ibm.mm.sdk.common.DKUsageError #
com.ibm.mm.sdk.logtool.DKLogManagerFactory_default
[USR]: icmadmin (C:\Documents and Settings\icmadmin) @ D:\temp
[THD]: main ( 29b54548 )
[THG]: main = { main }
[LOC]: com.ibm.mm.sdk.server.PSchemaMappingExtImpFed.addToRegularTable
[MSG]: DGL2409A: Schema mapping already exists in the system at
com.ibm.mm.sdk.server.PSchemaMappingExtImpFed.addToRegularTable(PSchemaMa
ppingExtImpFed.java:432) at
com.ibm.mm.sdk.server.PSchemaMappingExtImpFed.add(PSchemaMappingExtImpFed
..java:180)at
com.ibm.mm.sdk.common.DKSchemaMappingFed.add(DKSchemaMappingFed.java:380)
    at EIPProcEntity.createSchemaMapping(EIPProcEntity.java:879)
    at EIPProcEntity.<init>(EIPProcEntity.java:92)
    at EIPMigMain.main(EIPMigMain.java:834)
```

Fix Description:

Modified the migration utility from EIP V7 to EIP V8 to fix the migration for a search template that has a predefined value.

---

APAR NUMBER IR53292

APAR Description:

When a filter condition fails for a block of results, the next block of results that did pass the filter condition is not retrieved.

Fix Description:

If a filter condition fails for a block of results, the concurrent block of results that do pass the filter, is still retrieved.

---

APAR NUMBER IR53323

APAR Description:

Created the federated entity and enabled native folder, and the length of decimal attribute is always 5.

Fix Description:

The SQL statement for creating a table to store the federated folder is incorrect. The length of the attribute should be set up based on the attribute type.

---

APAR NUMBER IR53408

APAR Description:

For a MO:DCA document containing multiple overlays, only the first overlay is displayed.

Fix Description:

This problem is fixed. MO:DCA documents with multiple overlays are handled correctly.

---

APAR NUMBER IR53476

APAR Description:

Overlay for MO:DCA documents is rendered incorrectly. The image rendered by the engine misplaces the various data elements as well as introduces unwanted lines.

Fix Description:

This problem is fixed. The overlays are handled correctly for all the pages.

---

APAR NUMBER IR53477

APAR Description:

Certain MO:DCA documents generated null pointer exception during conversion.

Fix Description:

This problem is fixed. The MO:DCA document conversion is handled correctly.

---

APAR NUMBER IR53480

APAR Description:

Memory Leak in DKLobICM::copyData(const dkXDO &adkXDO).

A customer reported a problem using DKLobICM::copyData(dkXDO) where three times the memory of the original document is consumed in total, but after deleting the original and copy, they can only clear two times the original memory, leaving one times the original content size unaccounted for.

Fix Description:

In the PLobResourceICM.cpp's copyData() method, when it called the constructor of DKByteArray, it passed only two parameters, and the third parameter was left out to use the default, which has the value of 0. An extra copy of the DKLobICM content then was created.

To avoid this extra copy, the code in copyData() was changed to pass the number 1 as the third parameter, and the extra copy is not produced, and the memory leak is gone.

---

APAR NUMBER IR53495

APAR Description:

All the pages of a MO:DCA document are not being displayed.

Fix Description:

This problem is fixed. The engine now checks a new engine property IWPM\_STOPAT\_EDT, which is by default false and decodes all the BDT-EDT tag sets that are present in the stream. To achieve IWPM compatibility, this property is set to true. In this case, the engine stops decoding at the first EDT tag and ignores the rest of the data.

---

APAR NUMBER IR53497

APAR Description:

Line wrap of strings occur during DDO to XML export.

Fix Description:

The output format option needed to be set to no line wrap while exporting DDO to XML.

---

APAR NUMBER IR53498

APAR Description:

The clone() method of DKItemTypeDefICM cannot be used to clone an existing DKItemTypeDefICM for the purposes of creating a new DKItemTypeDefICM. The clone() method creates an exact copy and contains meta data that will prevent the new copy from being stored in the library server as a new item type. Using the clone() method in this form can corrupt the original item type.

Fix Description:

If you want two item types to be similar, you must select similar attributes that are not unique attributes, when creating a new item type.

---

APAR NUMBER IR53569

APAR Description:

Print action applies scale of the current page to all pages.

Fix Description:

The implementation of the Print APIs was fixed to use the scale of each page during its printing, instead of relying on the scale of the first page.

---

APAR NUMBER IR53597

APAR Description:

ChangeSMS function is not changing the object collection to the target collection specified by the user. When the user issues a changeSMS request, object is not changed to target collection.

Fix Description:

The fix was to the ChangeSMS function so that it changes to the target collection specified by the user.

---

APAR NUMBER IR53607

APAR Description:

Save not enabled when erasing a pen annotation.

Fix Description:

When a pen segment is erased, a property changed event is fired and the generic document viewer enables the save action.

---

APAR NUMBER IR53617

APAR Description:

TIFF document conversion problem.

Fix Description:

This problem is fixed.

---

APAR NUMBER IR53630

APAR Description:

The shortcut keys for annotation selection (CTRL+F2) and unselection (CTRL+D) are not working.

Fix Description:

This problem is fixed. The logic was changed to handle these actions in the annotation controller.

---

APAR NUMBER IR53707

APAR Description:

In the system administration client, the resource manager Staging Area dialog's maximum size field would accept certain values but disable the OK and Apply button so that they could not be saved.

Fix Description:

In the system administration client, corrected the calculation of the resource manager Staging Area dialog's maximum size field, which would otherwise result in the dialog being unable to store the desired value, or the incorrect value being stored in the resource manager. Also corrected the Maximum cached file size field's maximum permitted value on the dialog to match API restriction.

Special Instructions:

After installing fix pack 7, use the system administration client to verify that the Staging Area properties are set correctly.

---

APAR NUMBER IR53716

APAR Description:

CMBConnectionPool.getConnection() is called to get connection to a data store, and freeConnection() is called to release the connection. After using the application for a while,

CMBNoConnectionException is thrown, and the only way to resolve the exception is to restart the application.

This happens in Content Manager V7 fix packs 12, 13, and 14, as well as Content Manager V8.

**Fix Description:**

This problem happens because a closed connection is being added back into the connection pool. When this closed connection comes to the head of the free pool and a new connection is requested from the pool, it returns the disconnected connection to the user.

To fix this problem, added a check in the code before adding a free connection back to the connection pool.

---

APAR NUMBER IR53777

**APAR Description:**

Previously could drop a part from a document definition even if there were existing parts. This resulted in errors if a document with the dropped part was later deleted.

**Fix Description:**

The fix is to for the code to verify that there are no existing items for that part related to the document, which is dropping the part.

---

APAR NUMBER IR53814

**APAR Description:**

MO:DCA documents with two or more overlays on a page are not converted correctly.

**Fix Description:**

This problem is fixed. Documents with multiple overlays per page and multiple overlays per document are handled correctly.

---

APAR NUMBER IR53815

**APAR Description:**

FetchFilter on AIX with following configuration does not work:

db codeage 1386

OS codepage 936

NSE CCSID when they defined the item type (going into the system administration client, when we look at the item type - text searchable options, print screen of that dialog box) 1386.

**Fix Description:**

Set the ICMCCSID to 1386, and force INSO to use the 936 codepage.

**Special Instructions:**

Under the DB2 instance ID that owns the library server database (for example, db2inst1):

1. Enter `db2stop`

2. Modify `~db2inst1/sqlib/profile.env` to add ICMCCSID to DB2ENVLIST as follows:

```
DB2ENVLIST='LIBPATH ICMROOT ICMDDL ICMCOMP CMCOMMON ICMCCSID'
```

3. Save the file.
4. Modify `~db2inst1/sqllib/userprofile` to add `ICMCCSID=1386` as in the example below (if the file does not exist, create one):

```
ICMCCSID=1386
export ICMCCSID
```

5. Save the file.
6. Enter `db2start`

When you create a text index using the system administration client, if a user chooses to use `ICMfetchFilter` as the UDF, then the user MUST select `CCSID = 1386` for that text index (or select the value assigned to `ICMCCSID` in Step 4).

---

APAR NUMBER:       IR53831

APAR Description:

Method `CMBEntity.getNameAttrName()` always throws an exception with error message ID `DGL0409A` in the non-English environment. This happens only with Content Manager V7 servers.

Fix Description:

Modified the method `CMBEntity.getNameAttrName()` so it can create the SQL query string with the correct index class names in the non-English language environment. The changes were made only to the portion related to the Content Manager V7 server. This method is not a public API, so it does not affect users' code.

---

APAR NUMBER       IR53876

APAR Description:

On some `MO:DCA` files, the images are displayed as gray lines across the viewer screen, but displays fine in `IWPM`.

Fix Description:

This problem is fixed.

---

APAR NUMBER       IR53934

APAR Description:

`z/OS` retrieve fails with return code `-8`.

Fix Description:

Added a fix to the Content Manager V8 (ICM) connector API to send the `objectname` only when non-null.

---

APAR NUMBER       IR53943

APAR Description:

The Java viewer hangs in `document.getAnnotationPosition` when trying to display a corrupted document.

Fix Description:

The Java viewer no longer stops when displaying a corrupt document; but will throw an exception, CMBDocumentEngineException.

---

APAR NUMBER IR53994

APAR Description:

When creating an item type, we selected the option text search, selected UDF name as ICMfetchFilter, entered a time value as the frequency of updating text search index. Clicked OK to finish.

After that, if you change the frequency of updating text search index, UDF is automatically changed to ICMfetchContent.

Fix Description:

The system administration client GUI is fixed for resetting the UDF field.

---

APAR NUMBER IR54103

APAR Description:

Search templates are not working after migration of EIP V7.1.

Fix Description:

Part of the query for schema mapping was missing and has been fixed.

---

APAR NUMBER IR54107

APAR Description:

If we create a federated entity that maps a native DB2 attribute with a name that starts with FROM (for example, FROM\_TIMESTAMP\_TS), then the following error occurs during search/retrieve: DGL0303A: Invalid parameter \_TIMESTAMP\_TS.

Fix Description:

The problem is fixed in the parser for situations when attribute names begin with FROM.

---

APAR NUMBER IR54018

APAR Description:

Customer encounters an end-transaction error from the resource manager because of the lack of transaction token information in the following scenario:

1. After logging onto a Content Manager V8.2 library server, start an explicit transaction.
2. Create a folder using any document model item type. Then add it to the library server.
3. Create a document with one or more parts, regardless of MIME type; then add it to the library server.
4. Check out the folder.
5. Add the document created in step 3 to the folder.
6. Update the folder to the library server.
7. Check in the folder.
8. Commit the explicit transaction.

Fix Description:

In Transaction Manager's setTxToken() method, changed the code so that a reset is not done, unless the input token string is neither a blank character nor a NULL string. Before this fix, the code did not do the reset if input token string is a blank character. This causes a problem, because in a transaction, except the first document/folder to be created, all subsequent document/folder will not have the transaction token from the library server.

---

APAR NUMBER IR54215

APAR Description:

Performance enhancements for API cache in retrieving process.

Fix Description:

The cache logic of the retrieveProcess and listProcessNames methods in DKDocRoutingServiceMgmtICM.java was modified to improve the performance.

### Fix pack 6 Information Integrator for Content fixes

APAR NUMBER IR52595

APAR Description:

Users can modify the subview read-only attributes in the eClient.

Fix Description:

Clients based on the beans (eClient, sample client) should check CMBAttribute.isUpdatable() for each attribute when they show the edit attribute dialog. Currently, only the read/write privilege at the temtype level is checked, meaning that read-only attributes can be updated. In the beans, CMBAttribute.isUpdatable() will check DKAttrDefICM.isWriteable() for ICM itemtypes, instead of isUpdatable().

---

APAR NUMBER IR52716

APAR Description:

Customer has a problem creating/modifying/deleting federated entity or federated search template containing apostrophe in the name.

Fix Description:

The fix is to make sure the apostrophe contains an escape character (an extra apostrophe) when it is needed.

---

APAR NUMBER IR52747

APAR Description:

When searching against an OnDemand server, if an attribute is associated with a BIGINT data type and the value is greater than a 32 bit integer can hold, the output value will be incorrect.

Fix Description:

If the native attribute type is a 64 bit integer (BIGINT), then the code will output its value as a string type.

---

APAR NUMBER IR52786

APAR Description:

PMR47381-> 48420,379,000 EIP/MQWF connection issue Error 13.

Fix Description:

In a multi-threaded execution environment (such as a Web application or Java™) in which threads are connecting and disconnecting to the EIP workflow service, users might receive RC=13 errors. Subsequently the process can no longer connect to the EIP workflow service. The problem is shown as MQWF libraries not releasing resources to MQ, while MQWF libraries are unloaded and reloaded concurrently by multiple JVM threads.

The solution is for EIP to not explicitly manage MQWF libraries unloading and reloading, and instead delegate libraries loading and unloading responsibilities to JVM by way of a static code block

---

APAR NUMBER IR52826

APAR Description:

When using the non-visual Java beans and when the Content Manager server is stopped, all of the connections in the connection pool are no good unless the pool is destroyed and recreated. For example, when the library server goes down, the customer has to restart WebSphere to destroy and recreate a connection pool.

Fix Description:

When a connection is taken out of the connection pool, it will be checked if it is valid or not. If it is not valid, then an attempt will be made to reconnect.

---

APAR NUMBER IR52866

APAR Description:

getDocViewPanel() api in CMBGenericDocViewer throws a ClassCastException.

Fix Description:

Return value of this method has been changed from JPanel to JComponent to fix the class cast problem.

---

APAR NUMBER IR52925

APAR Description:

The C++ APIs do not perform min/max check for short, long, and varchar attributes for values (for short and long) or attribute length (for varchar) outside the min/max range of attribute definition. As a result, the item creation/update still occurs when they should not.

Fix Description:

In the PCreatAttributeValueStructICM class, a new private data member, \_bDoMinMaxCheck, has been added, and initialized to TRUE. For resource system attributes, the flag is set to FALSE. In min/max check for short, long, and varChar, the code will check for any attribute whose bDoMinMaxCheck flag is set to TRUE, instead of only non-nullable fields. Fix char variables are also checked for > length.

---

APAR NUMBER IR52932

APAR Description:

Failed explicit transaction is not maintaining its state.

All of the API calls made between the startTransaction() and either commit() or rollback(), are treated as one transaction. When you catch an error thrown by the API in the middle of an explicit transaction, then you are obligated to call rollback to end the explicit transaction in progress. As soon as the operation fails, the transaction switches to Failed Explicit Transaction mode. This means that any operation after the exception (including startTransaction and commit) will fail.

Fix Description:

To work with an explicit transaction during a failed operation, perform the following steps:

1. Start an explicit transaction.
2. Try to delete DDO x2. Assume that it will fail because it violates the FK. You can catch and ignore the exception. This causes the transaction to move into a failed state.
3. Try to delete DDO x1. This fails as it is an operation within a failed explicit transaction.
4. Try to start an explicit transaction. This fails as it is an operation within a failed explicit transaction.
5. Commit the current explicit transaction. This fails as it is an operation within a failed explicit transaction.
6. Rollback the current explicit transaction. This succeeds and would end the state of the current failed explicit transaction.

Ensure that the DKDDO x1 and x2 exist. Both will exist as the transaction was successfully rolled back.

See additional documentation at: [http://www-1.ibm.com/support/docview.wss?rs=75&context=SSRTM7&q1=Transaction&uid=swg21161524&loc=en\\_US&cs=utf-8&lang=en+en](http://www-1.ibm.com/support/docview.wss?rs=75&context=SSRTM7&q1=Transaction&uid=swg21161524&loc=en_US&cs=utf-8&lang=en+en)

---

APAR NUMBER IR52942

APAR Description:

In the Client for Windows, NULL attributes with the Date type are considered to be the earliest dates when sorted, but in the eClient, they are considered the latest dates. NULL attributes with the Date type should be treated consistently by both the Client for Windows and the eClient.

Fix Description:

Made changes in the beans to make the NULL attributes appear earliest.

---

APAR NUMBER IR52952

APAR Description:

The API DKFolderOD.setParametricOp() sets the flag so all search criteria are ORed together during the search. By default, all search criteria are ANDed together. The problem is that the

following API call does not change the search type from AND to OR:  
DKFolderOD.setParametricOp( DK\_CM\_OP\_ALL\_OR );

Fix Description:

Added support to set the search mode to OR when the following API call has been performed before the search: DKFolderOD.setParametricOp(DK\_CM\_OP\_ALL\_OR);

---

APAR NUMBER IR52972

APAR Description:

Exception in WebSphere Application Server; the error was traced back to a free call in ip390 code

Fix Description:

Fixed the free call to release the correct pointer.

---

APAR NUMBER IR53042

APAR Description:

This APAR is specific to ImagePlus OS/390 customers using IMS Connect . Customers using IMS Connect were not able to log on to the eClient after fix pack 2.

Fix Description:

This problem has been fixed.

---

APAR NUMBER IR53045

APAR Description:

Allowing sortby queries in C++ on more than one sort parameter.

Fix Description:

Made use of any existing C++ class that will allow sortby on more than one parameter.

---

APAR NUMBER IR53048

APAR Description:

setMimeType function is not available; receive an exception when importing to a VI400 server using the eClient or beans TImport sample.

Fix Description:

The setMimeType call removed in the beans when connecting to a VisualInfo® 400 server.

---

APAR NUMBER IR53067

APAR Description:

VI400 connector API does not initiate the optical store request.

Fix Description:

Fixed defect in DkStorageManagementInfoV4.java to initiate the change SMS call to server.

---

APAR NUMBER IR53091

APAR Description:

Views not becoming text searchable if base IT is.

Fix Description:

This problem is fixed.

---

APAR NUMBER IR53181

APAR Description:

After items were migrated from Content Manager V7 to Content Manager V8, item IDs and component IDs were padded with trailing blanks to conform to the Content Manager V8 item ID and component ID size restriction. When listing workpackages using the Java API, the API internally trims trailing blanks of component IDs and item IDs. This means no items can be retrieved in the worklist, and thus, the eClient cannot display items in the worklist properly.

Fix Description:

The fix is to relax the trimming of component IDs and item IDs in the Java API layer. The C++ API is not affected by this.

Special Instructions:

This is a DB2 only fix.

---

APAR NUMBER IR53291

APAR Description:

Null pointer exception will be thrown when a user tries to update SMS information for the DKImageICM object.

Fix Description:

This problem is fixed.

---

APAR NUMBER IR53264

APAR Description:

When CMBGenericDocViewer.showDocument is called with the selected=false option, the thumbnails were not generated until the user clicked on the tab for the document.

Fix Description:

The fix is to generate the thumbnails in the background, so that they are immediately available when the user clicks the tab for the document in the viewer.

---

APAR NUMBER IR53313

APAR Description:

Need an update to the information about working with notelogs in the Application Programming Guide.

Fix Description:

Addendum to working with Notelogs in the *Application Programming Guide*, SC27-1347. When creating notelogs, you should set the proper codepage for compatibility with other DB2 Content Manager client applications (particularly for double-byte or multibyte character sets). You can set the codepage using the setCCSID method.

For Windows in C++, use the Windows API GetACP() method to determine the codepage. Note that this method does not work in other operating systems such as UNIX.

In addition, you must also set the part number correctly by using a "parts.cardinality()+1" argument to setPartNumber.

**Example:**

```
notelogPart = (DKTextICM) dsICM.createDDO("ICMNOTELOG",
DKConstantICM.DK_ICM_SEMANTIC_TYPE_NOTE);
notelogPart.setCCSID(1252); <=== needed in Java code for pClient to handle
code page conversion
notelogPart.setMimeType("text/plain");
int anzahlParts = parts.cardinality();
System.out.println("Parts Cardinality: "+anzahlParts);
notelogPart.setPartNumber(parts.cardinality()+1); <==== +1 is needed
because Notelog is the second part
```

```
byte[] notelogContent = createByteArray(createNotelogEntry(text).toString());
```

---

APAR NUMBER IR53497AW

APAR Description:

Line wrap of strings occur during DDO to XML export.

Fix Description:

The output format option needed to be set to no line wrap while exporting DDO to XML.

Fix pack 5 superseded by fix pack 6

Fix pack 4 superseded by fix pack 6

Fix pack 3 EIP fixes

APAR NUMBER IR51542

APAR Description:

Allow user to use a datastore option to force query results to be returned in the active view. This will allow the handling of active views to behave consistently across all components.

Fix Description:

Changed the query and API in both C++ and Java to add a new datastore option that allows consistent handling of active views.

---

APAR NUMBER IR51865

APAR Description:

When copying and pasting the text and stamp annotations in the Java viewer, the pasted annotation object will get a different size when saved.

Fix Description:

Fixed the annotations rendering and annotation engine problem of incrementing the font size whenever the annotations are saved.

---

APAR NUMBER IR51869

APAR Description:

In the event that a user defines a data model using view or attribute names that are the same as keywords in query grammar, some eClient, Client for Windows, and federated queries might fail.

Fix Description:

XQPE queries sent from the Client for Windows will have single quotes around entity and attribute names to denote its usage as an entity or attribute name.

---

APAR NUMBER IR51903

APAR Description:

In some European locales, such as Germany, if a user enters a decimal value using a comma (,) as the decimal point, the data after the decimal point is truncated.

Fix Description:

Changed the DKDecimal.cpp's valueOf() method by saving the current locale of the machine, then changing the locale to the target of "C" before calling atof(). Then reset the locale back to the original one. The result is that no matter what locale is used, atof() will always be able to function properly without data truncation.

---

APAR NUMBER IR52100

APAR Description:

When using the EIP V7 JavaBeans connection pool with thread queue enabled, the pool can sometimes return an invalid connection. The symptom is the user receives an error when trying to use the connection. It can look like the server has timed out, or the communication to the server has been lost.

Fix Description:

Additional logic was added to the connection pool to ensure that connections that have been destroyed (disconnected) are never added back into the pool of available connections.

---

APAR NUMBER IR52109

APAR Description:

Exception encountered while converting a large multi-part MO:DCA document to GIF.

Fix Description:

The fix correctly handles conversion of multipart MO:DCA documents.

---

APAR NUMBER IR52110

APAR Description:

C++ API do not allow storing time 00:00:00.

Fix Description:

C++ API is fixed to allow the storing of 00:00:00 time value.

---

APAR NUMBER IR52128

APAR Description:

In an explicit transaction, if an ACL is created successfully but a subsequent Content Manager operation fails, the transaction is rolled back implicitly by the Content Manager APIs. After a subsequent successful ACL creation, the call to return the ACL name of the newly created ACL code returns the ACL name created in the explicit transaction bracket.

Fix Description:

The cache that maintains the ACL code and the ACL name was not being updated on a rollback. The fix updates the cache properly.

---

APAR NUMBER IR52151

APAR Description:

Some characters appear to overlap or display incorrectly for some AFP documents.

Fix Description:

This problem is fixed.

---

APAR NUMBER IR52199

APAR Description:

Save button not enabled when editing the text properties for Sticky Note and Text annotations in the eClient viewer applet.

Fix Description:

This problem is fixed.

---

APAR NUMBER IR52210

APAR Description:

When Content Manager V7 leaves a bad DFLTITEMOWNER in the database(SBPATRON table) while a user is deleted, the EIP DL connector will get a NULL privilege name for that user and cause a Java crash thru JNI.

Fix Description:

To prevent the Java crash, the DL connector will do extra checking for NULL before calling the JNI.

Special Instructions:

This fix prevents the Java crash when the library server database patrons table has not been updated following the instructions in IR42669.

---

APAR NUMBER IR52211

APAR Description:

CMBDocumentViewer.addDocumentSelectedListener() does not exist in the Java viewer applet, but exists in the generic document viewer. This function needs to be in Java viewer.

Fix Description:

Added a new event, `CMBDocumentSelectedEvent`, fired by the `CMBDocumentViewer` visual bean when a document is selected in the viewer. Added new methods, `add/removeDocumentSelectedListener`, to `CMBDocumentViewer` for applications to register to receive these events. Also added a new method, `getGenericDocViewer`, to the `CMBDocumentViewer` visual bean to get access to the `CMBGenericDocViewer` instance, for access to the additional programmability provided by `CMBGenericDocViewer`.

---

APAR NUMBER IR52215

APAR Description:

The order of federated attribute mappings is not retained between step 3 and step 5, when creating a new federated entity using the wizard. For example, in step 3 of the wizard, the order of the federated attribute in the mapping is `FormNumber`, `FolderId`, `ReceiveDate` & `DocId`. Whereas at step 5, the order has switched to `FolderId`, `DocId`, `ReceiveDate` & `FormNumber`.

This is a problem when using the eClient viewer applet. The viewer applet displays a document and attaches a tab to the document identifying the name of the document. If the document is returned from a federated search, the eClient gets the value of the first federated attribute of the federated entity and use it as the document name. Document name can be only controlled by specifying the first federated attribute to be the one that is used as document name.

Fix Description:

Modified the `FeWizFedEntityMappingModel.java` to fix this problem.

---

APAR NUMBER IR52223

APAR Description:

When using IIS instead of IHS, Content Manager V8 does not know how to handle the messaging protocol. Thus, users are not able to import with the C++ API.

Fix Description:

C++ API was fixed to handle spurious 100-continue response code from a server.

---

APAR NUMBER IR52244

APAR Description:

Many classes in the beans keep an internal reference to the `CMBConnection` object.

These classes are:

- `CMBAnnotation`
- `CMBAttribute`
- `[CMBDataManagement]`
- `CMBEntity`
- `[CMBItem]`
- `CMBObject`
- `[CMBQueryService]`
- `CMBSchemaManagement`
- `CMBSearchResults`
- `CMBSearchTemplate`
- `CMBUserManagement`

When these classes are not thread safe, (for example, if you do query and delete operations using the same connection object), there is a function sequence error. It can also cause stack corruptions. Typical symptoms included Java.exe exception. Stack dumps will be corrupted as the stack has been corrupted.

Fix Description:

CMBItem, CMBQueryService, CMBDataManagement, and so on, need to be synchronized or mutually excluded on the CMBCConnection object that they share. These classes have a reference to the CMBCConnection object, but the reference can be null. An approach is needed where we can synchronize conditionally. This is done by locking on the connection object.

Special Instructions:

When developing multithreaded application for increased throughput, each processing thread should use its own connection instead of sharing a connection. If a connection is shared across multiple threads, performance can be adversely affected.

---

APAR NUMBER IR52375

APAR Description:

On the CMBLogonPanel, after changing password, clicking OK takes you back to the original logon panel. However, the OK button remains disabled, preventing a user from logging on. The OK button should be enabled if logon information is present.

Fix Description:

The fix is to trigger a CMBLogonCompletedEvent when the change password dialog is closed. This signals to the application that the logon has completed and that the dialog displaying the logon panel should be closed.

---

APAR NUMBER IR52377

APAR Description:

Running sample TExecQryStrExprFed.cpp with an OnDemand backend server causes a memory leak.

Fix Description:

DKResultSetCursorOD.cpp setDDO method and DKDatastoreFed.cpp execute method have been changed to correct an object deletion problem.

---

APAR NUMBER IR52395

APAR Description:

The CMBLogonPanel bean incorrectly reports that the system is not available. This happens for various error conditions. Exceeding the number of allowed logon attempts and being signed on at another PC are two cases the wrong message is reported.

Fix Description:

Provided correct and more detailed messages for various error conditions during logon and change password.

---

APAR NUMBER IR52398

APAR Description:

When viewing text and note annotations that extend outside the visible portion of the document page using the CMBGenericDocViewer, if one scrolls the scrollbar the annotation text will appear painted on top of the scroll bar.

Fix Description:

Fixed painting of text and note annotations to clip within the visible portion of the page.

---

APAR NUMBER IR52405

APAR Description:

Exception occurs in the following situation. Create two item types, IT01 and IT02. Create Child attributes in both, namely CHILD and CHIL1. Translate both values to Child. When importing IT01, an exception occurs:

```
com.ibm.mm.beans.CMBException: DGL0495A: Subentity not found: PMR01675_CHILD1
com.ibm.mm.sdk.common.DKUsageError: DGL0495A: Subentity not found:
PMR01675_CHILD1
```

such that the eClient is looking for the child component belonging to the OTHER item type.

Fix Description:

The code will use the root entity name and the subentity name to get the child component known display name.

---

APAR NUMBER IR52407

APAR Description:

There are problems viewing certain MO:DCA documents containing overlays.

Fix Description:

This problem is fixed.

---

APAR NUMBER IR52437

APAR Description:

Annotation keys do not work on existing annotations within the same eClient session in the viewer applet.

Fix Description:

Keyboard actions are handled correctly with each instance of the viewer applet across the same eClient session.

---

APAR NUMBER IR52484

APAR Description:

Deactivating CHKDBPOOL with "new DKDatastoreICM("CHKDBPOOL=NO")" results in a null pointer exception.

Fix Description:

The code has been corrected to check the pool manager instance before checking the pool type.

---

APAR NUMBER IR52499

APAR Description:

User account will be locked out when user has different password from the Windows logon password with ICMSEVERREPTYPE set to DB2CON.

Fix Description:

A fix was made both in library server and API. With ICMSEVERREPTYPE set to DB2CON, even though the user has a different password on Content Manager from the Windows operating system, the user should not be locked out.

Special Instructions:

Make sure in the above case that the ICMSEVERREPTYPE is set to DB2CON.

---

APAR NUMBER IR52504

APAR Description:

The PTOCA text in MO:DCA documents with 'mapped fonts' was rendered incorrectly with a very large font size.

Fix Description:

This problem is fixed.

---

APAR NUMBER IR52514

APAR Description:

Searching documents in ImagePlus OS/390 fails with the error DGL0303A Invalid parameter.

Fix Description:

This problem occurred when any date attribute for a document was an empty string (no value). The ImagePlus® connector API was fixed to handle this scenario.

---

APAR NUMBER IR52525

APAR Description:

When creating a federated entity, using the character "/" in the attribute name fails with error DGL2689A.

Fix Description:

The OK button is disabled if the character "/" is used in the federated entity name or attribute name.

---

APAR NUMBER IR52533

APAR Description:

Wrong timestamp format when retrieving a federated item.

Fix Description:

The fix is to set the property before setData() on the DDO for an attribute.

---

APAR NUMBER IR52534

APAR Description:

The viewer fails to fall back on the default resource bundle in the absence of a message in the specific bundle. This results in messages not being translated.

Fix Description:

This problem is now fixed.

---

APAR NUMBER: IR52558

APAR Description:

The thumbnails scroll pane scrolling increment is too small. The scroll unit is one pixel. A more reasonable scroll amount would be a thumbnails width/height.

Fix Description:

Changed the scroll units to the width and height of one thumbnail.

---

APAR NUMBER: IR52560

APAR Description:

When searching against an OnDemand OS/390 V2 server in the folder mode, if more than one folder is opened per session, the previously opened folders will be closed by the OnDemand OS/390 V2 server, but not on the client (the OnDemand connector) side. The result is that the subsequent searches against previously opened folders will fail. The one open folder per session is a hard limit on the OnDemand OS/390 V2 server side.

Fix Description:

A new keyword, OD390V2\_FOLDER, has been added for the connect string. When the connect string contains the string, OD390V2\_FOLDER=1, the OnDemand connector will only keep one folder open per session during the search.

Special Instructions:

Add OD390V2\_FOLDER=1 to the connect string.

Known issues:

See the section in this readme, **Known problems and restrictions / eClient**, for information about configuring the eClient to connect to OnDemand OS/390 V2 servers.

---

APAR NUMBER: IR52575

APAR Description:

If the user only changes a document's properties, such as ACL, but makes no other changes, the property changes will be ignored and are not updated in the library server database.

Fix Description:

In PCreateUpdateDocICM's setDocumentAndPartVersion() methods, added code to check if the document's (not the part's) properties are changed also. Then added one more condition (property changed) to set callSP, so property changes are not ignored.

---

APAR NUMBER: IR52587

APAR Description:

Method CMBSearchResults.sort(String attribute, boolean ascending) fails to sort the items based on a numeric attribute if one of the items has empty value with this attribute.

Fix Description:

Fixed class CMBItemComparator, so the sorting will work even if some numeric attributes have empty values.

---

APAR NUMBER: IR52590

APAR Description:

When using the eClient to view documents with overlays in Content Manager V8 server, a CMBMethodNotSupportedException occurred.

Fix Description:

A new interface DKDatastoreExtICM.retrieveFormOverlay(String id) was added. An application client will now get the correct information after calling datastoreExt.isSupported("retrieveFormOverlay").

---

APAR NUMBER: IR52600

APAR Description:

The eClient cannot find the MIME type from an OnDemand DDO object returned from a previous folder search. This causes the eClient to launch a full document retrieval from the OnDemand server, thereby causing performance problems.

Fix Description:

The MIME type information is now stored in the OnDemand DDO object returned from the search.

---

APAR NUMBER: IR52606

APAR Description:

PMR 63263,311,758--MODCA:IODCA file error DGL0390A

Fix Description:

The fix is to check for PID on content object (xdo). If PID = "", this implies a background overlay image, and will not treat as streaming content.

---

APAR NUMBER: IR52676

APAR Description:

When user attributes are modified through the system administration client, the FDL created to update MQWF does not contain MQWF group membership information.

Fix Description:

AdduserDef and UpdateUserDef in the CS package of PUserMgmtImpICM.java and PUserMgmtImpFed.java have been modified to fix this problem.

---

APAR NUMBER: IR52685

APAR Description:

JVM crash when wrong password is entered with connection pooling turned on and ICMSEVERREPTYPE variable for the Content Manager V8 server in cmbicmsrvs.ini file is set to DB2CON.

Fix Description:

The fix was made in the Java API for this problem.

---

APAR NUMBER IR52732

APAR Description:

The pointer for the Line annotation tool contains a set of cross-hairs. Users expect the center point of the cross to be the beginning point of a line drawn; however, the line drawn actually begins significantly to the upper left of the cross-hairs' center point. A user can't tell this is the case until after he has begun drawing the line and therefore it is too late, requiring the user to delete the line and start over.

Fix Description:

Changed the initial size of annotations to 0,0 so that the upper-left corner of the annotation begins at the point where the user clicked to begin drawing an annotation.

---

APAR NUMBER IR52746

APAR Description:

In C++, if the user only changes a document part's test searchable flag from true to false, and makes no content changes, the text searchable flag change is ignored and is not updated in the library server database. Also, by default the test searchable flag was being set to true for non-text parts such as ICMBASE. This caused these parts to be text indexed, when they should not have been.

Fix Description:

Changed DKTextICM to include the text searchable flag in the list of attributes that should be updated. This causes the updates to be sent to the server and updated. Also changed the processing of the text searchable flag so that non-text parts will not be text-indexed.

---

APAR NUMBER IR52750

APAR Description:

Certain annotations could not be read and rendered by the MSTechDocument engine, and therefore did not show up in the HTML viewer.

Fix Description:

This problem is fixed.

---

APAR NUMBER IR52779

APAR Description:

An attempt to retrieve more than 40 documents from a folder results in either a hang or a memory exception.

Fix Description:

This was caused by an incorrect size of memory being copied to the callback pointer after the second call to FindFold. The fix was to copy the correct amount of memory.

## Fix pack 2 EIP fixes

APAR NUMBER IR51142

### APAR Description:

Value nodes in the workflow definition are considered work nodes on DBCS systems. Thus, when double-clicking on value nodes in the workflow definition edit window, no properties window appears.

### Fix Description:

The indexOf method, which was used to compare the strings, was changed to the compareTo method. The compareTo method compares the entire string.

---

APAR NUMBER IR51388

### APAR Description:

When a federated user logs on to the EIP system administration client with workflow enabled, the user cannot change his/her user property. They receive the following error message:

DGL2619A: Fail to update the user -Test com.ibm.mm.sdk.common.DKUserGroupDataFed

### Fix Description:

ClassCasting error on DKUserGroupDataFed.java. Modified the DKUserGroupDataFed.java to fix this problem.

---

APAR NUMBER IR51513

### APAR Description:

ICMXLSLG.DLL LDAP User-exit DLL missing after an EIP installation on Windows. This file was only installed if the user selected LDAP during the installation, which prevents the user from manually enabling LDAP at a later time.

### Fix Description:

ICMXLSLG.DLL will always be installed to %CMBROOT%\LDAP, even if the user did not select LDAP during the installation. To use LDAP, you can copy ICMXLSLG.DLL file to %CMBROOT%\<db name>\dll, where <db name> is the name of the EIP database.

---

APAR NUMBER IR51616

### APAR Description:

The customer created Item Type Subset with the ability for some users to modify attributes. However, when performing this action on the eClient (Client for Windows had no problem), this failed with a null pointer exception.

### Fix Description:

Modified PRetrieveFedItemICM::setAttributePropertiesInDDO() to make it work for both basic item type and item type view.

---

APAR NUMBER IR51848

APAR Description:

When attempting to migrate the EIP V7 database to V8 using the procedures outlined on page 209 of the Planning and Installing Information Integrator for Content guide, I received the following message:

```
About to migrate privilege sets. Please wait ...
begin to add to v8 UserPrivileges
Exception in thread "main" com.ibm.mm.sdk.common.DKException: [IBM][CLI
Driver] CLI0123E SQL data type out of range. SQLSTATE=HY004
    at com.ibm.mm.sdk.server.PACLMgmtImpFed.defineDomainPrivilegeSet
(PACLMgmtImpFed.java:2057)
    at com.ibm.mm.sdk.server.PACLMgmtImpFed.addPrivilegeSet
(PACLMgmtImpFed.java:796)
    at com.ibm.mm.sdk.common.DKACLMgmtFed.add(DKACLMgmtFed.java:592)
    at EIPProcUsers.loadPrivSets(EIPProcUsers.java(Compiled Code))
    at EIPProcUsers.<init>(EIPProcUsers.java:83)
    at EIPMigMain.main(EIPMigMain.java:832)
```

Fix Description:

The JDBC level was not correct for AIX and Sun Solaris. The shell script was modified to point to the correct level of JDBC.

---

APAR NUMBER IR51868

APAR Description:

If the part type is user-defined and trying to update part attributes, attributes are not being updated when an update on document is called. But the update is successful.

Fix Description:

The fix is to undo the reset of the state of DDO before updatedocpartSP is called.

---

APAR NUMBER IR51874

APAR Description:

Due to a restriction with Microsoft VC++ 6.0 compiler, the min value for INT data type was considered as:

```
#define DK_ICM_MINIMUM_VALUE_FOR_INT -2147483647
```

This is inconsistent with the Java APIs.

Fix Description:

To bypass the Microsoft pre-processor restriction, the constant was modified to:

```
#define DK_ICM_MINIMUM_VALUE_FOR_INT -2147483647 -1
```

---

APAR NUMBER IR51883

APAR Description:

When customer runs an application written in C++ that contains a query against OnDemand, if the application group specified is invalid, the application should throw an exception, but it does not.

Fix Description:

The fix is to rethrow the internally caught exceptions during the search.

---

APAR NUMBER IR51955

APAR Description:

When connection parameter REFRESH is specified in an OnDemand connection string, the OnDemand connector spawns a refresh thread to keep the connection alive. When calling KDatastoreOD.disconnect(), the OnDemand connector appears to hang for the amount of time specified in the refresh interval. After the time specified in the refresh interval passes, the disconnection completes. This problem is only with C++ version of the OnDemand connector.

Fix Description:

The fix is to alter the refresh thread sleep algorithm so that it sleeps in one (1) second increments, and check for the thread termination request in between. The result is that the maximum wait time would only be one second.

---

APAR NUMBER IR52103

APAR Description:

The customer experienced function sequence error during stress test of their application based on the servlet/taglib toolkit.

Fix Description:

The fix is to remove the binding of the connection listener from the connection pool in the controller servlet.

---

APAR NUMBER IR52168

APAR Description:

Customer reported NullPointerException on updates to items with child components.

Fix Description:

The fix is, in the data management bean, to check the display names property before retrieving a non-display name of child components.

## Fix pack 1 EIP fixes

APAR NUMBER IR51527

APAR Description:

Reindex on federated always fails.

Fix Description:

This failure occurred because the correct native datastore was needed, but was not provided. This problem is now fixed.

---

APAR NUMBER IR51849

APAR Description:

When retrieving a document from the OnDemand OS/390 server, if the API DKDatastoreOD.listEntities() has been called to get ALL the entities prior to the document

retrieval call, the annotations are not retrieved, even if there are annotations associated with the document. The problem is caused by the annotation flag being set incorrectly to indicate there are no annotations.

**Fix Description:**

This problem is fixed. The annotation flag is reset so that the OnDemand OS/390® server is contacted to retrieve annotations, if any are available during the document retrieval.

## 4.3 Information Integrator for Content new functionality

Fix pack 7 new functionality

### **WebSphere Application Server V5.1.1 support**

Beginning in fix pack 7, EIP components support WebSphere Application Server V5.1.1.

### **Transaction behavior change**

Beginning with fix pack 7 of DB2 Content Manager and DB2 Information Integrator for Content V8.2, two types of transaction behaviors are possible. The default behavior is to always automatically roll back and end the explicit transaction that is in progress when the system detects an error during a persistent operation. This is the behavior for versions before V8.2 fix pack 7.

The system can be configured to use a different behavior where the system will mark the transaction as failed when it detects an error during a persistent operation, but it will not automatically end the transaction that was in progress. Persistently, the entire transaction is still internally rolled back in the datastore, but the behavior for subsequent operation has changed. The explicit transaction is considered open, but remains in a failed state. There is no way to recover from the failure other than to roll back the entire transaction. Subsequent operations, commit requests, and new start transaction requests fail until you explicitly roll back the transaction state.

Fix pack 5 superseded by fix pack 6

Fix pack 4 superseded by fix pack 6

Fix pack 3 new functionality

### **VisualAge® C++ V6 support**

Content Manager V8.2 Fix Pack 3 adds support of the VisualAge V6 compiler on AIX for the Information Integrator for Content (formerly EIP) C++ connectors. Before fix pack 3, the Information Integrator for Content connectors cannot be compiled with the VisualAge V6

compiler on AIX, because of the removal of support of the IBM Open Class Libraries (IOCL), which the Information Integrator for Content C++ connectors relied on.

Fix pack 3 contains a set of shared libraries that end with a 816.a suffix, along with libcmbvacbase6.a (the Information Integrator for Content implementation of the IBM Open Class Libraries) and the related include files that allow applications to be compiled with the VisualAge V6 compiler on AIX. The libcmbvacbase6.a is a new file (does not exist in the previous fix packs) and must be linked in with the other Information Integrator for Content libraries only when using VisualAge V6 compiler. The IOCL header files that Information Integrator for Content relied on to be shipped with the compiler is now shipped with the Content Manager header files.

## Fix pack 2 new functionality

### **Running the EIP advanced workflow collection point monitor**

Follow the password-protected URL for scripts and instructions to enable the above feature for the AIX/SUN operating systems. Use the following reference number to find this information: #1138954.

<http://www.ibm.com/support/docview.wss?uid=swg21138954>

### **Enabling EIP advanced workflow collection point monitor**

Follow the password-protected URL for instructions to enable the above feature for the Windows/AIX/SUN operating systems. Use the following reference number to find this information: #1139454.

<http://www.ibm.com/support/docview.wss?uid=swg21139454>

### **Undo for checkout**

Undo for checkout is a new feature that is only applicable to Information Integrator for Content (formerly, EIP) advanced workflow. A cancelCheckOut() method is provided in the DKWorkItemFed class for the Java API only. This method cancels the checkout operation of the workitem. After the operation, a DKWorkItemFed object in the checked out state (DK\_FED\_FMC\_IS\_CHECKEDOUT) is reset to the ready state (DK\_FED\_FMC\_IS\_READY).

### **EIP ImagePlus® OS/390® connector ported to AIX**

The Java version of the EIP IP/390 connector can now be used in either server or client (using Remote Method Invocation) modes on AIX. Before this update, only client (RMI) mode was available.

## 5 eClient

### 5.1 eClient installation information

## Installation information for eClient on Windows

### Installing the fix pack

1. Start or stop WebSphere Application Server as indicated:

**WebSphere Application Server V5.0:** 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 V4.0:** 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 is the windows code page for your language).

C. Change the console font to Lucida:

- i. Right-click the title bar of the DOS windows and select **Properties**.

- ii. Select the Font tab.

- iii. 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

### **Install:**

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
```

**Uninstall:**

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

For fix pack 2:

The eClient hangs on the logon page for WebSphere Application Server 5.0 SP1 or SP2. As a 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

**Install:**

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
```

**Uninstall:**

For both WebSphere Advanced Edition Version 4 and Version 5, make sure the administration server is running. 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

### Install:

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`

### Uninstall:

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.

## 5.2 eClient fixes and description

### Fix pack 8 eClient fixes

APAR NUMBER IR54444

APAR Description:

The sorting of the creation time and date on the View Annotations page should be done on the time and date. However, it appears to be just time in the current release.

Fix Description:

The sort function for the CMBAnnotation timestamp in IDMODAnnotations.java was working as designed, and it was sorting the string. However, the string was sorted as is. The hours and minutes are sorted first, and the string is sorted based on just that. The correct way to sort on the timestamp, of course, is to actually sort on the time and date. In order to accomplish this, the string data is massaged back into a timestamp, and the sort is done on the whole date and time.

-----  
APAR NUMBER IR54453

APAR Description:

The previous eClient supports document routing priority from 1 to 999. Per the customer's request, it has been changed from 0 to 999.

Fix Description:

Changed the eClient to support priority starting from 0 to 999 in Content Manager Version 8 document routing.

-----  
APAR NUMBER IR54585

APAR Description:

Fixes memory leak condition when a user views multiple worklist without logging off.

Fix Description:

Clears \_workpackages hashmap when opening a new worklist

-----  
APAR NUMBER     IR54686

APAR Description:

Sorting order of work items is not preserved after moving to the next page of a worklist.

Fix Description:

This problem has been fixed.

-----  
APAR NUMBER     IR54269

APAR Description:

Change Password failed when a connection string was provided because the string was not parsed accurately. The wrong information was passed on to the CMB code, which caught the exception.

Fix Description:

The parsing of the OD connection string has been fixed. Also, comments are added to the IDM.properties file to better define the syntax of the connection string.

-----  
APAR NUMBER     IR53142

APAR Description:

A JavaScript error occurs while trying to open a document in the Folder contents and work items page if there are multiple pages of documents under the same entry tab, and there is only one document in the last page.

Fix Description:

This problem has been fixed.

-----  
APAR NUMBER     IR54713

APAR Description:

Re-index failed with federated server.

Fix Description:

For re-indexing, set the changed entity name for the item using item.setEntityName() after all the attributes were removed for that item.

-----  
APAR NUMBER     IR54749

APAR Description:

Re-size of the OD View Annotations page should not re-select the first annotation and display it.

Fix Description:

The onResize function call has been removed from the <BODY> statement. This way, the page is reloaded without affecting its content.

---

APAR NUMBER IR53992

APAR Description:

In the eClient, the applet viewer hangs while using the Page.fit property.

Fix Description:

This problem has been fixed.

---

APAR NUMBER IR54937

APAR Description:

Plain text documents with UNIX style line return indicators cannot be viewed correctly in the eClient viewer applet.

Fix Description:

Java viewer component is modified to correctly interpret the line return.

---

APAR NUMBER IR54520

APAR Description:

In the eClient applet viewer, the icons are greyed out for printing and editing of annotations, only for subview users.

Users therefore cannot edit annotations or print. Users cannot edit attributes either, and permission is denied.

Fix Description:

This problem has been fixed.

---

APAR NUMBER IR54678

APAR Description:

When trying to bring up the eClient logon page in traditional Chinese locale, some Javascript errors occurred.

Fix Description:

A missing character in the translated resource file caused additional line wrap on the logon page and thus breaks the Javascript syntax on the page.

This problem has been fixed.

---

APAR NUMBER IR54822

APAR Description:

When a document search in the eClient returns more than one document, only the first document's user data appears in the eClient results.

Fix Description:

Fix corrected the way the userdata was moved from return structure to internal structure so all userdata now appears in eClient.

---

APAR NUMBER IR54496

APAR Description:

Deadlocks occurred while using the eClient. This can cause the eClient to hang.

eClient can hang when deadlock occurs. Threads can be directly and indirectly blocked on the deadlock, which leads to the max thread pool size being reached.

Fix Description:

The fix for this problem makes sure that synchronization happens only on the connection OR only on 'this', but not both.

---

APAR NUMBER IR53897

APAR Description:

During the search against an OnDemand folder, if one of folder attributes is of the integer type, it was returned as a string type which can lead to sorting problems.

Fix Description:

This APAR corrects the above problem by returning the attribute as the integer type so it can be sorted correctly.

---

APAR NUMBER IR55051

APAR Description:

The old version of the lineDataViewer remembers the bad printing range that is specified by the user. This information is stored in ODLineDataViewer.props. If the bad information corrupts that file, that file cannot be "repaired", even after restarting the server. This corrupted property file can cause problems, for example, it might disable the print button.

Fix Description:

This happened because the eClient does not use the most recent version of the lineDataViewer jar file.

In the newest version of lineDataViewer, bad print range is not accepted, which prevents the problem from happening.

---

## Fix pack 7 eClient fixes

APAR NUMBER IR52805

APAR Description:

In the eClient, when the user tries to add text into a notelog that had been previously saved as an empty notelog, the following error is reported:

```
com.ibm.mm.beans.CMBException: com.ibm.mm.beans.CMBException: DGL7177A: The specified MIMETYPE was not found in the content management datastore.
```

Fix Description:

To fix this problem, the eClient will always set the MIMETYPE of notelog object.

---

APAR NUMBER IR53100

APAR Description:

Reset in the search template page should reset to default values.

Fix Description:

This problem is fixed. When you click **Reset** on the search template page, the values are reset to the default values. The resetSearchForm() method in IDMSearchTemplate.jsp was changed to reset to default operators and values when you click **Reset** on the federated search page.

---

APAR NUMBER IR53283

APAR Description:

Users sorting multi-valued attributes in the eClient noticed that columns are sorted independently of each other. For example, if you click the column header for attr1 to sort by attr1, the corresponding rows for the sorted attributes no longer line up.

Fix Description:

This problem is fixed. You can now sort on the desired attribute, and the corresponding rows of the desired attribute line up.

---

APAR NUMBER IR53298

APAR Description:

In the eClient viewer applet, you might find that a MO:DCA document shows up with an overlay that is NOT associated with the document. If you close the viewer applet and open the same document again, it shows fine without the overlay.

Fix Description:

This problem is fixed. The fix improves the synchronization in IDMObjectServlet to prevent a race condition amongst multiple threads.

---

APAR NUMBER IR53316

APAR Description:

The eClient uses tags <> and </> within the URL that leaves the application open to cross-site scripting vulnerabilities.

Fix Description:

In order to prevent user input or URL parameters from running JavaScript functions, the characters of "<>&"+()\";%;" will be converted to corresponding HTML escape characters in most JSP pages.

---

APAR NUMBER IR53327

APAR Description:

Enter key in search template causes error.

Fix Description:

This problem is fixed, and resolves the problem for all data types and operators; it not limited to date field or BETWEEN operators.

---

APAR NUMBER IR53335

APAR Description:

The eClient does not enforce ACLs, such as ClientReadBasePart.

Fix Description:

Added additional user level privilege checking to enforce client privileges.

---

APAR NUMBER IR53336

APAR Description:

When sticky note annotations are used with the eClient viewer applet, the user cannot enter more than 256 characters.

Fix Description:

Sticky note annotations now allow end users to enter more than 256 characters. However, the text is wrapped to a new line after 255 characters.

---

APAR NUMBER IR53381

APAR Description:

Allow input validation of character strings on import and edit attributes.

Fix Description:

To fix this problem, input validation on character strings has been enabled.

You can request character string validation by turning on a new flag in the IDM.properties file. This new flag is validateCharacterStrings. If the flag is not in the file, it defaults to false.

This flag is used in conjunction with the enhancedValidationEnabled flag. The enhancedValidationEnabled flag must be turned on in order for the validateCharacterStrings flag to be used. This means that if the enhancedValidationEnabled flag is not set, no character string validation will be done regardless of its flag setting.

If the enhancedValidationEnabled flag is on, the validation of the character strings is done if the validateCharacterStrings flag is set to true. If the flag is set to true, then the Fixed and Variable Character attribute types are tested for appropriate input values: Numeric, Alphabetic, Alphanumeric, and Extended Alphanumeric strings. "Other" strings are not validated. (These data types are defined using the system administration client.)

When input validation of character strings is set to true, character strings that are input during an import or for edit attributes are validated, and the user will be warned with a message of any illegal strings. The user can correct the string to proceed.

Table 1. shows the list of invalid characters per string type for Content Manager. Input is validated in the IDMInputValidation.jsp (JavaScript) to be consistent with this list. The validation is done for both new imports and for the edit attributes of an existing document.

### **Invalid Characters**

The Ascent 6.05 Release Script for Content Manager will not allow the following characters at validation. Content Manager data types are validated during release setup and release.

Table 1. Invalid characters

Content Manager CHAR and VARCHAR Data Types Invalid Characters

Alphabetic:

0 . 9

Accent circumflex (^)

Accent grave (`)

Ampersand (&)

Apostrophe (')

Asterisk (\*)

At sign (@)

Backslash (\)

Braces ({ })

Brackets ([ ])

Colon (:)

Comma (,)

Question mark (?)

Quotation mark (.)

Semicolon (;)

Dash (-)

Dollar sign (\$)

Equal sign (=)

Exclamation point (!)

Forward slash (/)

Greater than sign (>)

Less than sign (<)

Number sign (#)

Parentheses ()

Percentage sign (%)

Pipe sign (|)

Plus sign (+)

Period (.)

Space character ( )

Tilde (~)

Underscore (\_)

Numeric:

Any character outside of 0 . 9.

Alphanumeric:

Accent circumflex (^)

Accent grave (`)

Ampersand (&)

Apostrophe (‘)  
Asterisk (\*)  
At sign (@)  
Backslash (\)  
Braces ({})  
Brackets ([])  
Colon (:)  
Comma (,)  
Dash (-)  
Dollar sign (\$)  
Equal sign (=)  
Exclamation point (!)  
Forward slash (/)  
Greater than sign (>)  
Less than sign (<)  
Number sign (#)  
Parentheses ()  
Percent sign (%)  
Pipe sign (|)  
Plus sign (+)  
Period (.)  
Question mark (?)  
Quotation mark (")  
Semicolon (;)  
Space character ( )  
Tilde (~)  
Underscore (\_)

Extended Alphanumeric:

Accent grave (`)  
Backslash (\)  
Braces ({})  
Brackets ([])  
Tilde (~)

Other:

No data type validation is performed.

---

APAR NUMBER      IR53515

APAR Description:

Session timeout would not always bring the user back to the logon page.

Fix Description:

Added additional parent checking to SessionErrorPage.jsp for cases where a dialog exists (for example, All document viewing, Editing, Import, Export, and so on).

---

APAR NUMBER      IR53568

APAR Description:

Search does not work with t, d, and x characters.

Fix Description:

Made changes to the IDMBasicSearch.jsp so that t, x, d, and p inputs to the string attribute field do not generate the error.

---

APAR NUMBER IR53573

APAR Description:

There is a JavaScript error on the Send e-mail page, if the subject field is empty; additionally, the e-mail is still sent, which is incorrect behavior.

Fix Description:

Updated IDMEmail.jsp to fix a JavaScript error that was allowing e-mail to be sent when the mandatory Subject field was left blank.

---

APAR NUMBER IR53638

APAR Description:

Content Manager V7 and V8 servers can create a Long attribute with min length 1, but is mapped to a federated entity that has min length 0 and is nullable. Both the Content Manager server and federated entity do NOT indicate that the attribute is required; however, an exception is thrown.

Fix Description:

The fix is to now use the ItemInfo to get the ServerType. Previously, this information (DsType) was retrieved from the connection. This effectively uses the native server for import and edit for the federated entity.

---

APAR NUMBER IR53718

APAR Description:

When the eClient main window is closed without doing a logoff (user does click the logoff button), the next time the user logs on to the eClient and views a document, he might get the CMBNOCONNECTIONEXCEPTION intermittently.

Fix Description:

When a user logs on to the eClient, new logic is introduced to remove staled session objects that are related to the connection (for example, schemaManagement, docService, and so on).

---

APAR NUMBER IR53857

APAR Description:

When using the eClient to retrieve large TIFF documents, the performance is slow, compared to the OnDemand Windows 'thick' client.

Fix Description:

Implemented a "smart caching" algorithm for the eClient document retrieval scenario.

---

APAR NUMBER IR53933

APAR Description:

Adding the name parameter (=fileName) in IDMDocViewer (which was a workaround for Microsoft Internet Explorer 5.5) is breaking this particular customer when loading PDFs using Adobe Acrobat 6.

Fix Description:

Added a check for IE V5.5 in IDMDocViewer.java to add only fileName (in setting content type) after V5.5 is verified. All other browser versions and levels default to setting the writeMimeType to set the content type.

---

APAR NUMBER IR53996

APAR Description:

The eclient makes an additional connection to the resource manager if the viewing document is a single-part document, whose MIME type is set to launch in the IDMadmindefaults.properties file, and directRetrievalEnabled=True.

Fix Description:

The fix is to avoid the call of docservices.loadDocument(), if the viewing document is a single-part document, whose MIME type is set to launch and directRetrievalEnabled=True.

Special Instructions:

If the document MIME type is set to not launch in the IDMadmindefaults.properties file, but there is no document engine that can paginate the document, the document will fall back to be opened in the launch mode. Also, in this case, the loadDocument call cannot be avoided.

---

APAR NUMBER IR53997

APAR Description:

Connection problems during a logoff results in no memory cleanup.

Fix Description:

This problem is fixed by adding try/catch/finally clauses to cleanSession() in IDMServletUtils.java to catch any thrown errors and still be able to completely clean the session.

---

APAR NUMBER IR54255

APAR Description:

Clicking logoff might deadlock in the servlet.

Fix Description:

Added the synchronization during disconnect to avoid potential deadlock amongst servlet threads.

---

APAR NUMBER IR54167

APAR Description:

The Java connector API does not obey the limit of maximum quantity of workpackages can be returned by a worklist. For example, the worklist "Quantity to Return" is set to maximum 1 and there are 3 workpackages in the system for this worklist; the error is that all 3 work packages are returned.

Fix Description:

Fixed the Java API internal workpackage fetching logic to follow the maximum quantity limit set by a worklist.

Fix pack 6 eClient fixes

APAR NUMBER IR51952

APAR Description:

Annotation privileges such as update, delete, and view are not honored by the Java viewer.

Fix Description:

All annotation privileges are now checked when user programmatically or interactively tries to perform the corresponding action, such as create, update, delete, or view annotations.

---

APAR NUMBER IR52526

APAR Description:

No save confirmation when pen is created and viewer is closed.

Fix Description:

The fix is to commit the pen annotation when a document is closed.

---

APAR NUMBER IR52718

APAR Description:

Grayscale TIFFs when converted with enhance mode on, had gray areas around the text.

Fix Description:

These gray areas were the result of the lossy nature of the JPEG compression. Lossy compression technologies try to eliminate redundant information, and can result in the problem seen by the customer. The problem was fixed by changing the conversion engine to convert such documents to GIF instead of JPEG.

---

APAR NUMBER IR52722

APAR Description:

Customer cannot open the converted PDF document in Acrobat Reader if the afp2pdf transform engine is enabled on the server side.

Fix Description:

In the eClient, a fix was added to set Content Length for PDF documents with IR50945. It is a workaround for an Internet Explorer (IE) problem. For more information, see <http://support.microsoft.com/?kbid=305153>. This fix is to set a reader buffer, count the document size for small documents, as a solution for a known problem with viewing PDF documents in IE.

---

APAR NUMBER IR52762

APAR Description:

When viewing a document through the viewer applet, the CTRL +/- keys are supposed to zoom in and out of a document. Sometimes the shortcut keys do not work.

Fix Description:

The shortcut keys defined in cmbviewerconfiguration\_en.properties have been changed to:

```
zoom_in.key=control ADD  
zoom_out.key=control SUBTRACT
```

---

APAR NUMBER IR52763

APAR Description:

Shortcut keys CTRL-PAGEUP, CTRL-PAGEDOWN, home, and end do not always perform the appropriate page navigation action.

Fix Description:

If the tabbed pane or scroll pane had focus, the default key binding for the component was being performed. The key bindings for these components will be updated, if they already exist.

---

APAR NUMBER IR52783

APAR Description:

A particular 19MB single page TIFF from customer comes up black when viewed.

Fix Description:

The conversion engine was fixed to resolve this problem.

---

APAR NUMBER IR52784

APAR Description:

Viewer hangs when attempting to display certain TIFF documents.

Fix Description:

The document engine used to convert TIFF documents was fixed to avoid this problem.

---

APAR NUMBER IR52785

APAR Description:

Additional space in the zoom % string in CMBViewerMessages\_da.properties.

Fix Description:

Fixed the code to trim the string parsed from the properties file.

---

APAR NUMBER IR52794

APAR Description:

A particular MO:DCA with overlay from customer was not rendered correctly.

Fix Description:

The conversion engine was fixed to resolve this problem.

---

APAR NUMBER IR52838

APAR Description:

Search on child attribute date value throws a JavaScript invalid search criteria error.

Fix Description:

Changed the hidden attribute value checking in submitSearch() from 'd' to 't' for attribute of type timestamp in AdvancedSearch.jsp.

---

APAR NUMBER IR52907

APAR Description:

Blank sticky notes (notes with no text) can be created in the eClient viewer applet (Java viewer toolkit) and are corrupting the saved annotation stream, causing exceptions or hangs when viewing the documents with the (corrupted) annotations.

Fix Description:

The code was fixed to prevent blank sticky notes from being created. For blank notes that already exist, the code will not stop or throw exceptions in the viewer. However, because of corruption, annotations created after the (corrupt) blank sticky note are lost.

---

APAR NUMBER IR52912

APAR Description:

A slash character (/) in the attribute display name considered as child components.

Fix Description:

Added support for slash character (/) in subentity name.

---

APAR NUMBER IR52933

APAR Description:

When the user opens a document in viewer applet within the eClient worklist page, unloads the page by clicking **Refresh**, changes to different entity tabs, navigates to another worklist or home page, these actions will close the opened viewer applet window. The customer opened PMR to request keeping the opened viewer applet window on when unloading the worklist page.

Fix Description:

The fix uses different JavaScript code as the unload event handler in the worklist HTML page, so that opened viewer applet will not be closed when the unload event occurs.

---

APAR NUMBER IR52938

APAR Description:

The annotation engine threw exceptions while converting certain annotation streams.

Fix Description:

A defect in the annotation engine is now fixed.

---

APAR NUMBER IR52966

APAR Description:

RightFax generated TIFF images were not converted correctly.

Fix Description:

This problem is fixed.

---

APAR NUMBER IR53065

APAR Description:

When iterating over items, if a folder already has the attribute changed, then the code skipped the contents of that folder, without checking to see if any items required modification.

Fix Description:

Even if a folder does not require modification, the code will iterate into its contents.

---

APAR NUMBER IR53073

APAR Description:

User with append only privileges was able to edit the notelog history.

Fix Description:

For users with append only privileges, made existing text area read-only and added new text area below. The new text will be appended to the history. For the new function to work in V8.2, you must add the following line to the IDM.properties file:

```
enhancedNotelogPrivilegeChecks=true
```

---

APAR NUMBER IR53075

APAR Description:

Cannot do IS NULL search on date attribute.

Fix Description:

Added support to query for null values for date, time, and timestamp in DMAdvancedSearch.jsp for Content Manager V7 as well as for Content Manager V8 connections.

---

APAR NUMBER IR53112

APAR Description:

ICMADMIN cannot cancel another user's check out.

Fix Description:

The fix allows a user with item super check in privilege to check in documents that are checked out by other users.

---

APAR NUMBER IR53142

APAR Description:

In folder contents and work items page, if there are multiple pages of document under the same entity tab and there is only one document in the last page, trying to open the last document by clicking on the document icon causes a JavaScript error. It is because the count of items of the current is not calculated correctly.

Fix Description:

Code added to calculate a correct count of items in the current page.

---

APAR NUMBER IR53162

APAR Description:

Certain TIFF images cannot be viewed by viewer applet after being imported. The same image can be viewed by the Client for Windows and Microsoft Imaging. The original TIFF before going through the import process can be viewed by viewer applet.

Fix Description:

The file in question contained one less byte than specified by the Number of Bytes in the file, and the FileDownload Thread was waiting for the last byte. Changes were made to handle such files.

---

APAR NUMBER      IR53175

APAR Description:

MO:DCA document appears with inverted background form.

Fix Description:

This problem is fixed.

---

APAR NUMBER      IR53266

APAR Description:

MO:DCA conversion produces "washed-out" images.

Fix Description:

This problem is fixed.

---

APAR NUMBER:      IR53629

APAR Description:

Clarification needed in the eClient online help keyboard shortcut descriptions for the viewer applet.

Fix Description:

The documentation that needs the clarification is access through the eClient viewer applet online help icon (?) on the upper right corner. Select Contents → Shortcut keys.

<u>Current description</u>	<u>Description update</u>
Scroll down	Scroll down towards the end of the page
Scroll left	Scroll to the left of the page
Scroll right	Scroll to the right of the page
Scroll up	Scroll down towards the beginning of the page
Last page	Last page of the document
Delete	Delete annotation
Scroll to top	Scroll to the top of document
Scroll to bottom	Scroll to the bottom of the document

Fix pack 5 superseded by fix pack 6

Fix pack 4 superseded by fix pack 6

Fix pack 3 eClient fixes

APAR NUMBER      IR51875

**APAR Description:**

Customer cannot open/view certain file formats, if the value of the document attributes contains special characters, such as / \ : ?.

**Fix Description:**

Characters of “\ / : \* ? " < > |” in the temporary file name are replaced by "-" because they are invalid in most file systems.

---

APAR NUMBER IR51937

**APAR Description:**

If the display name of an attribute contains a # character, clicking on this name in the search results page to sort the column causes a Java exception.

**Fix Description:**

The JavaScript code converted '%23' to #. It ItemTableHeader.jsp and SRItemTableHeader.jsp, the change replaces the JavaScript code in header href tag with a direct URL string.

---

APAR NUMBER IR51946

**APAR Description:**

The eClient viewer applet prompts the user to save document if a modification has been made to the document, for example, add/remove annotations. In some cases, the user can select other windows such as the Search-Result screen so that the Save-Document Yes/No dialog box becomes hidden. If the user tries to bring up another document, thus launching the viewer applet, the viewer applet might not respond to mouse clicks, because it is still waiting on the user to answer the first Save-Document Yes/No dialog box.

**Fix Description:**

In the Client, the viewer applet displays a browser JavaScript dialog box, to which the user must respond before he/she can try other operations in the eClient search results window.

**Special Instructions:**

Because JavaScript to Java scripting is not supported in Netscape 4 with Java plug-in, this fix works only with Microsoft Internet Explorer and Netscape 6+ versions. It does not work with Netscape 4.x browsers. Customers who are using Netscape 4.x browsers must answer the Java Save-Document dialog box before trying to open other documents.

---

APAR NUMBER IR52120

**APAR Description:**

CMBInvalidQueryException occurs when a comma is included in a search value for federated search.

**Fix Description:**

Removed the code in the doFedSearch method in the IDMSearch servlet that split the value string based on a comma as a delimiter. Also changed the separator of multiple values for IN and NOTIN operators from comma (,) to semicolon (;) for federated and Content Manager V8 connections.

Special Instructions:

Use the semicolon (;), instead of comma (,), to separate multiple values of the IN and NOTIN operators in the Advanced Search screen for Content Manager V8 connections and in the search panel for federated connections.

---

APAR NUMBER IR52214

APAR Description:

Modify import and edit to enhance the input validation.

Fix Description:

Modified import and edit JSPs to enhance the input validation. Added new flag, enhancedValidationEnabled, to the IDM.properties file to allow enhanced validation to be enabled.

Special Instructions: To use this feature, update the new flag, enhancedValidationEnabled, in the IDM.properties file. The default is to disable enhanced validation.

---

APAR NUMBER IR52272

APAR Description:

At Import, if item type display name has accentuated characters, and has child attributes, when user clicks the plus (+) sign to add attributes, the user receives a:

java.lang.IllegalArgumentException: The entity "xxxxxx" is not defined in on server "ICMNLSDB"

Fix Description:

The fix is to use com.ibm.idm.util.URLUTF8Encoder to encode or decode some strings transferred between browser and servlet.

---

APAR NUMBER IR52293

APAR Description:

This APAR affects advanced workflow in eClient. An additional Description field needs to be added for each workitem. Users can use this field input for some descriptive information for a workflow instance when they create it. Later, the Description field can be displayed in workitems page and workflow information page as a column.

Users will also have the opportunities to change the Description field when they change workflow.

Fix Description:

Changed code in some of the JSPs to display the Description field and accept user's input.

---

APAR NUMBER IR52440

APAR Description:

Email creates temp files that are added as attachments to the email.

Fix Description:

The temp files were not being deleted when the email completed. The problem is fixed.

---

APAR NUMBER IR52449

APAR Description:

If federated entity contains DBCS characters, federated search will fail.

Fix Description:

This problem is fixed by proper encoding and decoding of the federated entity name.

---

APAR NUMBER IR52481

APAR Description:

URLEncoder does not correctly encode the parameter.

Fix Description:

Switching URLEncoder usage to URLUTF8Encoder.

---

APAR NUMBER IR52492

APAR Description:

If a user logs in to Fed from the eClient and the Content Manger user who is mapped to the federated user has their password expired, the exception is not caught, and the eClient user is not presented with a dialog asking them to change their password. Instead, a dialog appears saying the username/password is invalid and no exception is caught in the eClient\_stderr, but an exception is caught in dklog.log.

Fix Description:

When the ErrorPage.jsp catches a user ID/password expiration exception, it forwards the request to a new dialog, asking the user to input a new password. If the new password is confirmed, the user is able to log on. Otherwise, a user ID/password error message is displayed.

---

APAR NUMBER IR52505

APAR Description:

Because of the way the OnDemand connector creates pidstrings, if the eClient uses '%' to do wildcard search from OnDemand, the pidstrings in search results will contain the '%' character. This type of pidstrings causes exceptions in the eClient viewer.

Fix Description:

This problem is fixed by using proper URLUTF8 encoding and decoding.

---

APAR NUMBER IR52564

APAR Description:

Email address parsing in IDMEmail.jsp does not allow single quote character.

Fix Description:

Modified the regular expression that parses the email address.

---

APAR NUMBER IR52570

APAR Description:

If the parent item attribute was not modified, then that attribute values will not cascade.

Fix Description:

Removed the condition that the attribute value must change before cascading. If an item is encountered in which the attributes do not change, then that item is not updated again.

## Fix pack 2 eClient fixes

APAR NUMBER IR51372

### APAR Description:

Content Manager V7 connection: After a user reindexes an item and again tries to launch the Change attributes dialog on the same pidstring, the user receives an error when submitting.

### Fix Description:

When users try to change the attribute of an item, but the pidstring of the item has already been deleted, the eClient displays a message, assuming it can catch an appropriate exception from the beans.

---

APAR NUMBER IR51421

### APAR Description:

The eClient V7.1 fails to change the password on Content Manager for OS/390 with RACF enabled.

### Fix Description:

The problem is fixed by embedding the new password into the appropriate internal argument. When connecting to Content Manager for OS/390, the user's password is now updated.

---

APAR NUMBER IR51535

### APAR Description:

Some parameters in IDM.properties are not being logged out to the eClient log.

### Fix Description:

This problem is fixed by ensuring that all parameters are logged to the eClient log if the appropriate trace level is enabled.

---

APAR NUMBER IR51620

### APAR Description:

In the eClient viewer applet, the annotation properties dialog does not respond to user input during subsequent re-runs of the applet.

### Fix Description:

This problem is fixed by resetting the static JPanel created for the properties dialog every time the viewer applet is re-run.

---

APAR NUMBER IR51660

### APAR Description:

If you close the viewer applet window by clicking the X button, annotation changes are not saved, even when you click Yes in the dialog that asks to save changes to the document.

### Fix Description:

This problem is fixed by moving the javaviewer terminate call ahead, before the applet removes all documents from the queue.

---

APAR NUMBER IR51662

APAR Description:

When displaying a document in the eClient, the wrong attribute value is displayed in the title of the viewer applet window. This occurs for an item type when its Represents Item checkbox for a specific attribute included in the item type definition is selected. This checkbox is in the system administration client in the Attributes tab of the Item Type properties window. The value of that specific attribute should be displayed, instead of the value of the first attribute.

Fix Description:

The CMBItem.getName() method that the eClient code calls has been changed to correctly return the value of the attribute selected as the Represents Item attribute.

---

APAR NUMBER IR51673

APAR Description:

If a user-defined action is launched from the work items toolbar, a new browser window is opened. The URL calling this new window has redundant parameters and causes errors.

Fix Description:

The related JSPs have been changed to pass in correct parameters into the URL calling the user-defined JSP/servlet.

---

APAR NUMBER IR51676

APAR Description:

When a user views a MO:DCA document with an overlay from ImagPlus OS/390 server, there is a quality problem with the image display using an HTML viewer.

Fix Description:

This fix addresses the display quality problem by making PTOCA text improvements and converting the output image to 8bit pixel depth to display more gray shades.

---

APAR NUMBER IR51876

APAR Description:

Attr containing a slash (/) gives error when searching.

Fix Description:

Previously, attr displaynames containing a slash were considered invalid. However, the system administration client allows a slash (/) to be added. The eClient considered any attr with a slash to be a child component.

---

APAR NUMBER IR51889

APAR Description:

PDF Viewer is downloading the entire file before presenting the first page to user.

Fix Description:

The resource manager has been enhanced to support byte range support in the manner that the PDF Viewer expects. This allows the PDF viewer to access the table of contents and other information required to present the first page quickly. Subsequent page viewing performance is also enhanced.

---

APAR NUMBER IR51898

APAR Description:

For documents with large number of pages (more than 20 to 25), the Loading Thumbnails message on the thumbnail toolbar does not go away, even after all the thumbnails are loaded. This happens only when viewing for the first time through the viewer applet.

Fix Description:

A call to get the pageCount at the end of thumbnail building operation creates the correct state and removes the message after all thumbnails are built.

---

APAR NUMBER IR51900

APAR Description:

There are performance problems with viewer applet when displaying TIFF documents.

Fix Description:

This problem is fixed. The new driver improves viewer applet performance for TIFF documents.

---

APAR NUMBER IR51902

APAR Description:

Opened the document twice in the viewer applet, and was unable to save the annotations. The log shows that the document is not checked out.

Fix Description:

The viewer applet now compares the pidstring and does not check in the document if the same document was opened twice.

---

APAR NUMBER IR51932

APAR Description:

If an empty folder is opened in a worklist, selecting View Note Log in the second dropdown in the toolbar does not launch the View Note Log window. This works if there are some items in the folder.

Fix Description:

Some actions in the dropdown menu do not rely on items being present in the menu. The eClient distinguishes these types of actions from those that need items to exist in the folder in order to be launched. Even if an empty folder exists, the eClient allows the first category of actions to be launched.

---

APAR NUMBER IR51933

APAR Description:

The problem is in federated connection. When an item has been started on workflow from the eClient search results and later it has been deleted, or if the item can no longer be retrieved from content server for any reason, users cannot see this item in workitems page anymore, because the

eClient just simply skips displaying this item in the workitems page (it's called unloaded workitem).

This causes confusion. When users click on the workflow icon on the eClient home page and worklists are being listed, users can see the numbers of workitems in each worklist. But if they open a worklist and unloaded workitems exist, they will find there are fewer workitems listed inside the worklist.

**Fix Description:**

The fix adds an Unloaded Workitems tab on the Workitems page. Unloaded workitems are listed on this page so that they are now visible through the eClient. The only allowed action on those unloaded workitems is to remove them from the workflow database.

**Special Instructions:**

No installation or configuration is required.

---

APAR NUMBER IR51949

**APAR Description:**

The eClient failed to add items to folder with an @ character in the pid string on a Content Manager V7 server.

**Fix Description:**

IDMAddItemToFolder servlet was truncating the pid string after the @ character. It has been modified to not truncate the string.

---

APAR NUMBER IR51961

**APAR Description:**

Print spooling for large page TIFF documents is very slow. If the user closes a document before the spooling is done, there was no warning given to the user and the print job was cancelled, resulting in some pages not being printed.

**Fix Description:**

There are multiple factors affecting the printing of images from Java. Printing images is especially slow for large images being printed to PCL/Postscript printers because of the rasterization by the Java Print API. IBM has provide some optimizations to improve this, though the optimization does not match the print spooling speed of native applications.

The viewer now checks to see if printing is occurring in the background when user closes a document or the viewer applet. If printing is occurring, then a warning message dialog is displayed to the user. Based upon user's response to the dialog, the close operation is canceled and printing continues, or printing is canceled and the document or viewer is closed.

---

APAR NUMBER IR51970

**APAR Description:**

In advanced workflow, when a user creates a workflow process instance using the workflow beans API:

```
public java.lang.String createProcessInstance(java.lang.String workflowName,  
                                             java.lang.String workFlowTemplateName,
```

```
java.lang.String description)  
throws CMBException
```

and specifies null for the workflowName, the system generates a unique workflowname. When the user performs workflow actions such as Accept, Change workflow, and so on, from the eClient, error messages are thrown.

Fix Description:

The workid generated by the system had special characters that needed to be decoded. The fix for this involves decoding the individual workids in the WF\_Checkout() method of IDMWorkFlowServlet.java and also decoding the workid in IDMWorkflowChange.jsp.

---

APAR NUMBER IR52104

APAR Description:

TotalMaxResults not honored for sorting on column headers.

Fix Description:

The fix is to set the maxResults parameter before running the Content Manager V8 query for sorting on attributes in SearchResultsTag.java.

---

APAR NUMBER IR52106

APAR Description:

When a workitem is at disabled state and users perform any actions, such as Accept or Continue on this workitem, the eClient will corrupt.

Fix Description:

The fix is to check if the workitem is at disabled state; then show only View Workflow Information and View Workflow Variables in the workflow toolbar menu.

---

APAR NUMBER IR52125

APAR Description:

Query on time throws an exception.

Fix Description:

Quotation marks (“ ”) have been added around the time value when sending the query string.

---

APAR NUMBER IR52212

APAR Description:

On the Import page, the eClient does not validate the required field if the attribute type is Decimal, Double, LongInteger, or ShortInteger. However, if an attribute type is Character and is defined as required, then the eClient prompts the user to enter a value.

Fix Description:

Changed IDMItemInfo to check for all required fields.

---

APAR NUMBER IR52225

APAR Description:

If there are more than two users trying to open image documents in the eClient viewer applet simultaneously, they might get the wrong document displayed in viewer applet.

This does not happen with connection to Content Manager V8(ICM) servers.

Fix Description:

Made the IDMObjectServlet code thread safer.

---

APAR NUMBER IR52236

APAR Description:

When opening a document with the viewer applet, WebSphere generates File Not Found entries of cmbViewerConfiguration\_en.properties and cmbViewerConfiguration\_en.class files in the SystemErr.log. It does not have an impact on functionality.

Fix Description:

The viewer applet now implements its own method to load the viewer configuration files.

### Fix pack 1 eClient fixes

APAR NUMBER IR50815

APAR Description:

Support for display width.

Fix Description:

The beans provide new methods to the eClient as part of the APAR fix. In the eClient using a federated connection, the length of the values displayed for string attributes in the Search Results page will depend on the display width that is set for that string attribute in the search template. This feature affects only the search results display in the eClient.

---

APAR NUMBER IR50922

APAR Description:

When the AFP2WEB tool is used with the eClient to view OnDemand AFP documents through the eClient HTML viewer, clicking the Print button on the HTML viewer toolbar prints a blank page.

Fix Description:

The eClient HTML viewer will now test the MIMETYPE of the first page of the current document. If the MIMETYPE is HTML/TEXT, then only **Print current page** in the print control dialog is enabled. The other two options, **Print all pages** and **Select print scope** are grayed out. Otherwise, all three options are enabled.

---

APAR NUMBER IR50925

APAR Description:

Printing documents with annotations from the Java Viewer runs into out of memory problems.

Fix Description:

Reduce the possibilities of running into out of memory problems during printing.

Special Instructions:

Increase the heap size settings for the JVM to avoid out of memory problems. Heap sizes of 128MB to 160MB will avoid out of memory problems in documents with typical image sizes.

---

APAR NUMBER IR51058

APAR Description:

When deleting 22 or more documents from the eClient, a nullpointer is received

Fix Description:

This fix solves the failure of operations on large data for operations listed in the drop down list of Search Result, Folder Contents, and Work Items page in the eClient. The operations are as follows:

Items operations: Delete Items, Remove items from folder

Workflow operations: Start process, Change priority, Suspend, Resume, Continue, Remove process, and checkout.

---

APAR NUMBER IR51086

APAR Description:

The V8 eClient print button does not always show in the eClient viewer applet. There is a timing issue in the viewer applet that is causing the print button not to show up.

Fix Description:

This problem is fixed.

---

APAR NUMBER IR51136

APAR Description:

Modify the eClient to add and display child items in same behavior as the Client for Windows.

Fix Description:

Modified IDMChangeAttributes and IDMItemInfo to hardcode the child item display parameter to 0 instead of 1. Made additional changes, including having obvious display results when tested, because no child items will appear until the user selects the + icon.

---

APAR NUMBER IR51159

APAR Description:

In the eClient environment during a retrieve of a large object, the memory buffer might get several copies (multiple users retrieve large objects), and the system might receive an out of memory exception. When this happened in JNI, the Java won't return back to us that our program cannot clean the partial created memory buffer, and the system became very slow and eventually received a java.exe crash.

Fix Description:

To prevent this, the fix was to move the allocating memory statement to the Java layer code so that the out of memory exception will be caught and the memory buffer in JNI layer can be freed.

---

APAR NUMBER IR51195

APAR Description:

Certain GIF documents were not enhanced and hence the quality of the GIF documents viewed was poor.

Fix Description:

The document engine handling GIF was improved to provide enhanced capability for 4-bit GIF documents.

---

APAR NUMBER IR51350

APAR Description:

The eClient is sending date field in the format of mm/dd/yyyy.

Fix Description:

Changed the format of date from yyyy/mm/dd to yyyy-mm-dd in IDMSearch.java.

---

APAR NUMBER IR51378

APAR Description:

Federated servers are not listed in change password panel.

Fix Description:

All enabled servers that support the change password function are now listed on the Change Password dialog.

---

APAR NUMBER IR51402

APAR Description:

Currently the minimum length value has precedence over the required flag in determining if an attribute is required. The customer has asked that the required field take precedence.

Fix Description:

The code uses the required flag to determine if a field is required and ignores the min value until validation time. If the min value is > 0, then the minimum length of input is that value, if any value is entered into the field. For example, a scenario could be that SSN is not required and has min and max values of 11 (max=11). In this case, the user needs to enter 11 characters or leave the field blank.

Special Instructions:

Set the new flag to TRUE.

---

APAR NUMBER IR51407

APAR Description:

Number of characters per line for a plain text document was not customizable in the viewer. Hence, text would appear wrapped if the text file had more than 80 characters per line.

Fix Description:

The number of characters per line as well as number of lines per page can now be customized using properties in the cmbviewerengine.properties.

---

APAR NUMBER IR51420

APAR Description:

The Edit Attribute window does not have the scroll bar if it is opened through the eClient viewer applet, and hence not all of the attributes are visible, if there are many of them.

Fix Description:

The Edit Attribute window now opens with scroll bar enabled.

---

APAR NUMBER IR51422

APAR Description:

Two users are accessing same worklist at the same time. If one user checks in or checks out items, and the second user clicks the Refresh button on his window, the check in/out status is not being reflected in the second user's window.

Fix Description:

This problem is fixed. When a user clicks **Refresh**, the entire results set is retrieved completely in a worklist.

---

APAR NUMBER IR51428

APAR Description:

The Cancel button on Zoom Custom and Go to Page is not working properly. The action is being performed as if OK was selected.

Fix Description:

This problem is fixed.

---

APAR NUMBER IR51430

APAR Description:

Change the sequence of the JSPs loading to resolve JavaScript error.

Fix Description:

Modified the sequence so that the pages load in the results frame.

---

APAR NUMBER IR51435

APAR Description:

When printing documents from the viewer applet, the page format settings are not persistent during each viewer applet session. Users must set the print margin in the page setup dialog every time they print.

Fix Description:

The PageSetup dialog settings are persistent across several print invocations during each viewer applet session.

---

APAR NUMBER IR51442

APAR Description:

When changing the scale of the coded data with overlay in the eClient HTML viewer, for some scale values (like 99%) the document will get skewed.

Fix Description:

The scale value was doubled for width and height calculation and float for actual stretching in the MO:DCA conversion path. The scale is now fixed to use double in all places.

---

APAR NUMBER IR51529

APAR Description:

A date search against Content Manager V7 fails to return results.

Fix Description:

Changed the format of date from yyyy/mm/dd to yyyy-mm-dd in IDMSearch.java, and also fixed the problem of searching date with the BETWEEN operator.

---

APAR NUMBER IR51540

APAR Description:

getCurrentPageNumber public API was not returning the currentPageNumber of the currently selected document.

Fix Description:

This problem is fixed to return the currentPageNumber of the currently selected document.

## 5.3 eClient new functionality

### Fix pack 7 eClient new functionality

#### **WebSphere Application Server V5.1.1 support**

Beginning in fix pack 7, the Content Manager and EIP components and the eClient support WebSphere Application Server V5.1.1.

#### **eClient V8.2 GA installation**

To install the eClient V8.2 GA-level code with WebSphere Application Server Version 5.1.1, perform the following steps:

1. Extract the setup.jar file from the binary driver. Copy the setup binary to the system temporary location. From a shell prompt where the setup binary resides, run the following commands:

Windows	setup.exe -is:extract
Solaris	setup.sh -is:extract
AIX	setup -is:extract
Linux	setuplnx.bin -is:extract

Running this command extracts the setup.jar and miscellaneous files to the current directory.

2. From the same prompt, run the jar file using the following parameters:

```
java -DserverRoot=${WASHOME} -DwasEdition=BASE -DwasVersion=5.0.0 -  
DWAS_VER_TEST=true -jar setup.jar -W bean38.active=false
```

Substitute {\$WASHOME} with actual install location of WebSphere (for example, /opt/WebSphere/AppServer).

## Fix pack 6 eClient new functionality

### **eClient support for Macintosh**

The eClient now supports the Apple Safari browser on Macintosh operating system. On the client side you can use the Safari browser to access the eClient server and navigate through the entire eClient application. The eClient on Macintosh requires Macintosh OS X 10.3 and the Safari browser 1.2 with Java 1.4.2 installed. At a minimum, the client machine needs to be a 500MHZ G3 with 128MB memory installed.

Some issues have been identified with the Safari browser:

- The JavaScript find function is not supported with the Safari browser. The text find button has been removed from the OnDemand annotation page. You can use the browser **Edit->Find** menu to search text inside OnDemand annotations.
- The OnDemand AFP plug-in does not support Macintosh operating system. You can set up server side conversion for AFP document.
- You might notice that the converted document image in the HTML viewer is not aligned with the viewer toolbar, but is left aligned to the browser window. This is a known Safari defect.
- The export document function is disabled in this release. We will evaluate the LiveConnect feature with Safari browser and might add the support in future release.
- The Safari browser uses Desktop as the default location to save all downloaded files. In the eClient, all viewing documents launched by browser, such as PDF or PCX document, are saved on the Desktop. To change this behavior, open the preference dialog box in the Safari browser. In the General tab, select a different directory for the option "Save downloaded files to."

### **Java limitation for eClient viewer applet:**

If the Solaris Java plug-in version in Microsoft Internet Explorer and Netscape is 1.4.2, users will experience problem with the Sticky Notes annotation in the eClient viewer applet. When a document is being opened in the viewer applet, users can click the Sticky Notes icon on the left sidebar. Secondly, users can click any area of the document to place a Sticky Notes on the document. Users must then click the Sticky Notes again to set focus on it so that text can be entered.

### **Fix Description:**

Upgrading the Java plug-in version in browsers to 1.4.2 and above can fix this problem.

Java SDK and JRE downloads can be found on Solaris Java Web site:

<http://java.sun.com/j2se/1.4.2/download.html>

Fix pack 3 eClient new functionality

### **Windows 2003 support**

Customers using the eClient on Windows 2003 server might experience Java application access violations. Customers who see java.exe access violations while running eClient on Windows 2003 server with WebSphere® V5.x might consider applying a temporary workaround in the WebSphere administrative console. To set the following Environment Entries from the administrative console:

1. Select **Servers --> Application Servers --> <eClient\_Server> --> Process Definition --> Environment Entries --> New.**
2. Add the following Name/Value pairs

Name

JITC\_COMPILEOPT

Value

NINLINING{com/ibm/mm/sdk/server/PItemTypeDefImpICM}{listItemTypes};

Make sure that you save changes to the master configuration.

Fix pack 2 eClient new functionality

### **eClient support for ascending/descending sort**

You can use this feature to sort attribute values in ascending as well as in descending order. The first time an end user clicks on the attribute hyperlink, the unsorted attribute values are sorted in the ascending order. Double clicking the same attribute link sorts the list in descending order. After that, clicking on the attribute hyperlink sorts the sorted list in the reverse direction; that is, if the list before the click was in ascending order, then the list is sorted in descending order. If the list before the click was in descending order, then the list is sorted in ascending order.

### **eClient export function**

The eClient allows users to export documents from Content Manager servers to the local file system. The end user is able to find the export option in the search results toolbar, if the logon server is a Content Manager server and the user has been granted client export privilege.

The exported file name conforms to the name convention of EntityName\_ItemName.extension. File extensions are defined in eClient IDMindefaults.properties file to match with the document mime type. Typical settings are:

```
application/pdf.extension=pdf
application/postscript.extension=eps
application/rft.extension=rtf
application/vnd.framemaker.extension=frm
application/vnd.ibm.modcap.extension=mda
application/vnd.lotus-1-2-3.extension=123
application/vnd.lotus-freelance.extension=prz
application/vnd.lotus-wordpro.extension=lwp
application/vnd.ms-excel.extension=xls
application/vnd.ms-powerpoint.extension=ppt
application/wordperfect5.1.extension=wp5
audio/basic.extension=wav
audio/mpeg.extension=mp3
image/bmp.extension=bmp
image/gif.extension=gif
image/jpeg.extension=jpg
image/jpg.extension=jpg
image/pcx.extension=pcx
image/tif.extension=tif
image/tiff.extension=tif
text/enriched.extension=rtf
text/html.extension=htm
text/plain.extension=txt
text/richtext.extension=rtf
text/xml.extension=xml
video/mpeg.extension=mpg
video/quicktime.extension=mov
video/x-ibm-ivs.extension=ivs
```

If the extension of document's MIME type is not listed in the IDMindefaults.properties file, *xxx* is adopted for the file extension.

In order to resolve conflicting file name, that is, selected multiple items have the same entity name and item name, a sequence number is appended to the exported file name.

The characters of \/:\*?"<>| in the file name are replaced by (-), because they are invalid in most file systems.

Fix pack 1 eClient new functionality

### **Office document support in eClient viewer applet**

The eClient viewer applet now supports viewing office format document on Windows operating system.

You can modify IDAdminDefaults.properties file to allow viewing office format document through the eClient viewer applet. Typical settings are:

```
application/msword=applet
application/vnd.ms-excel=applet
application/vnd.ms-powerpoint=applet
application/vnd.lotus-1-2-3=applet
application/vnd.lotus-freelance=applet
Application/vnd.lotus-wordpro=applet
```

```
application/msword.extension=doc
application/vnd.ms-excel.extension=xls
application/vnd.ms-powerpoint.extension=ppt
application/vnd.lotus-1-2-3.extension=123
application/vnd.lotus-freelance.extension=prz
application/vnd.lotus-wordpro.extension=lwp
```

After you define these settings in IDAdminDefaults.properties, when the end user client uses the viewer applet to open an office format document the first time, the eClient viewer applet install library files into the [jre]\bin directory on the client machine. In order to use this function, you need to keep a minimum 50MB free hard disk space on each client machine.

### **eClient support for OnDemand folders**

This section describes three eClient enhancements for the display of OnDemand documents:

- OnDemand folder support
- OnDemand Line Data Viewer Java™ applet support
- Advanced Function Presentation™ (AFP™) Viewer large object support

**Prerequisite:** To run the enhancements that are provided in this fix pack, you need to have the latest fix pack level for Enterprise Information Portal (EIP) installed.

### **OnDemand folder support**

With the OnDemand folder support, eClient end users can search across Content Manager OnDemand servers. When end users access a Content Manager OnDemand server, they see a list of OnDemand folders for which they have authority. This matches the functionality that is present within the OnDemand native Windows client and the OnDemand Web Enablement Kit (ODWEK).

The eClient support for native OnDemand application group access has been removed. When end users log on to an OnDemand server from the eClient, they can see OnDemand folders for which they have authority, but not application groups.

No configuration is required to enable this function.

### **OnDemand Line Data Viewer Java applet support**

eClient end users can now use the OnDemand Web Enablement Kit (ODWEK) Line Data Viewer Java applet to view OnDemand line data documents.

**Prerequisite:** To use the ODWEK Line Data Viewer Java applet, you must have Java 2 Runtime Environment (JRE) 1.4.1 on the end user client. This level of the Java plug-in is the same plug-in currently required by the eClient viewer applet.

See the Working with search results section of the eClient online help for more information about how to install the Java plug-in.

### **Enabling the Line Data Viewer Java applet**

To enable the Line Data Viewer Java applet, you must modify the IDM.properties file. To modify the IDM.properties file, open the file in a text editor, set viewerAppletEnabled to true, and save the file.

**Note:** If you have previously installed the eClient and used the eClient viewer applet, viewerAppletEnabled might already be set to true.

If you installed the eClient before and you are upgrading it, you also need to modify IDAdminDefaults.properties file. If this is the first time that you install the eClient, you do not need to modify IDAdminDefaults.properties file.

To modify IDAdminDefaults.properties file, open the file in a text editor, set the MIME type application/lin to applet, and save the file. The following values are valid for this MIME type setting:

**Applet**                      Use Line Data Viewer Java applet

    Typical settings are:

        application/lin=applet

        application/lin.extension=lin

**Do not launch**            Convert line data to ASCII to be displayed in the browser

    Typical settings are:

        application/lin=don't launch

        application/lin.extension=lin

### **AFP Viewer large object support**

eClient end users can now use the AFP Viewer to view large object AFP documents from a Web browser.

The AFP Viewer is shipped with the eClient. To enable your end users to download the AFP Viewer, you must copy one or more of the viewer packages from the plug-ins directory where

your eClient is installed to your Web servers document root directory. After you copy the files over, you need to run the .exe file to install the viewer. If it is a .zip file, you need to first extract the file then run the .exe file to install the viewer. After successful installation, you will be able to view AFP in its native format.

### **afpplgin.exe**

An InstallShield executable that includes both a Netscape plug-in and an Internet Explorer Active/X control. This package contains support for all supported languages.

### **afpplgin.zip**

Allows you to build your own InstallShield executable with support for custom AFP resources. See ODWEK documentation for additional information.

### **afpplgus.exe**

An InstallShield executable that contains both a Netscape plug-in and an Internet Explorer Active/X control. This package only supports US English.

## **Creating federated entities mapping to OnDemand folders**

When creating an EIP federated entity, which maps to an OnDemand Folder, you must define one federated attribute for each OnDemand folder field that requires a search value, and create a mapping between them.

You can find out if an OnDemand folder field requires a search value by using the OnDemand V7 Administration client. From the View a Folder or Update a Folder window:

1. Go to the Field Information page.
2. Under **Defaults**, if the check box **Required** is selected, then a value is required for that field during the search. You must create a federate attribute and map to that OnDemand folder field.

If any of the fields requires a search value that is not mapped to a federated attribute and receives a value during the search, you receive an error from the eClient as follows:

```
At least one search criteria was invalid. com.ibm.mm.beans.CMBInvalidQueryException:  
DGL2013A: Unsupported search criteria "". (DK_OD_MSG_NO_VALUES_SPECIFIED)  
[RC=5(DK_OD_RC_INVALID_SEARCH),ExtRC=38(DK_OD_MSG_NO_VALUES_SPECIF  
IED)]  
com.ibm.mm.sdk.common.DKUsageError: DGL2013A: Unsupported search criteria "".  
(DK_OD_MSG_NO_VALUES_SPECIFIED)  
[RC=5(DK_OD_RC_INVALID_SEARCH),ExtRC=38(DK_OD_MSG_NO_VALUES_SPECIF  
IED)]
```

## **Creating federated search templates mapping to OD folders**

When creating an EIP Federated Search Template, which maps to an OnDemand Folder, you must define only the OnDemand operator(s) supported by the OnDemand field that is mapped to the federated attribute.

You can find out OnDemand folder field list of supported operators for each field by using the OnDemand V7 Administration client. From the View a Folder or Update a Folder window:

1. Go to the Field Information page.
2. Under **Operators**, if the check box next to an operator is selected, then that operator is supported for that field during the search. If you want, you can create a federated attribute and use this OnDemand folder field support operator.

If any of the operators for the OnDemand fields that are not supported is being used in a search, you receive an error from the eClient as follows:

```
At least one search criteria was invalid. com.ibm.mm.beans.CMBInvalidQueryException:  
DGL2013A: Unsupported search criteria "<criteria_name>". DGL2012A: Invalid search  
operator: <operator_name>  
[RC=5(DK_OD_RC_INVALID_SEARCH),ExtRC=78(DK_OD_MSG_INVALID_OPERATOR)]
```

```
com.ibm.mm.sdk.common.DKUsageError: DGL2013A: Unsupported search criteria  
"<criteria_name>". DGL2012A: Invalid search operator: <operator_name>  
[RC=5(DK_OD_RC_INVALID_SEARCH),ExtRC=78(DK_OD_MSG_INVALID_OPERATOR)]
```

## 6 Known problems and restrictions

### 6.1 Uninstall FP 8 installed on a previous fix pack test fix

If you attempt to uninstall Content Manager Version 8.2 Fix Pack 8 that was installed on a test fix on top of a previous Fix Pack level, it fails. Before you plan to uninstall, contact IBM support.

### 6.2 Linux: Using LDAP user import and authentication

If the library server is on Linux and you want to use the LDAP user import and authentication function, you should not enable SSL during the LDAP configuration. SSL function for LDAP on Linux is not supported in Content Manager Version 8.2.

Open `cmbcmenv.properties` and make sure that `LDAP_SECURITY_PROTOCOL=none`, not `"ssl"`.

### 6.3 Modifying the access type data in resource manager

On the resource manager Properties dialog, if you modify the 'Access types' data and click **Cancel**, some of these changes appear when you re-open the dialog within the same system administration session. The changes are not saved in the resource manager. To confirm the

current access type data, close and restart the system administration client, and open the resource manager Properties dialog again.

## 6.4 Linux: Use Standard LDAP to connect to Active Directory

If you use LDAP user import and authentication function, and if the library server is on Linux and it was configured to connect to Active Directory, you need to choose Standard LDAP instead of Active Directory. Otherwise, the LDAP user authentication will fail.

If you use the system administrative client to do LDAP configuration, you need to choose "LDAP" on the LDAP configuration dialog.

If you copy the configuration file from Windows to Linux system, you need to check \$CMCOMMON/cmbcmenv.properties, and make sure that "LDAP\_SERVER\_TYPE=STANDARD\_LDAP".

## 6.5 Setting up DB2 to run LDAP user import utility on Linux

On Linux environment, you need to set up the DB2 environment correctly in order to run the LDAP user import utility. To set up DB2 environment, source the db2profile before running the import utility.

If you are running the utility in a cron job environment, you also need to make sure that the DB2 environment is set up within the cron job. The following is an example of setting up such environment:

Modify the LDAP user import utility script to source the db2profile by editing the /opt/IBMicm/admin/common/cmldapimpusers81.sh file, and add the following line in the beginning right after the comments:

```
. <DB2HOME>/db2profile
```

where DB2HOME is the DB2 instance home directory.

## 6.6 Retrieve item requests when using the eClient

When 20 or more concurrent users are using the eClient to issue multiple search (query) and retrieve item requests to the Content Manager server, some retrieve item requests might fail in the library server with rc=7360 (RC\_ITEMTYPECLASS\_NOT\_FOUND).

Reissue the request to resolve the problem.

This condition occurs under high stress scenarios where there is a lot of activity on the library server database.

## 6.7 Need JSSE 102 or higher for resource manager

On UNIX and Linux: In order to run the resource manager related system administrative APIs with JRE Version 1.3.1, make sure that you have installed the IBM Java Secure Socket Extension (JSSE) 102 or higher. To install JSSR 102, copy the `ibmjss.jar` to `<JAVA_HOME>/jre/lib/ext` directory.

## 6.8 Global Security Kit V7.0 not supported for IDS 5.1

Global Security Kit Version 7.0 is not supported for IDS Version 5.1.

## 6.9 Resource manager application log file location

After the resource manager application is migrated from WebSphere Application Server Version 5.0 to WebSphere Application Server Version 5.1.1, the resource manager application log file (`icmrm.logfile`) remains at the old location under WebSphere Application Server Version 5.0.2. This file monitors the messages from the `icmrm` server.

To correct this problem, manually modify the `<WAS51_HOME>\installedApps\<node name>\icmrm.ear\icmrm.war\icmrm_logging.xml` file to reflect the correct path to `<WAS51_HOME>\logs\icmrm\icmrm.logfile`, where `<WAS51_HOME>` is the home directory for WebSphere Version 5.1.1.

## 6.10 Formatting searches of OnDemand federated entities

When developing a DB2 Information Integrator for Content application performing a federated search, you typically map a DB2 Content Manager OD/390 V2 folder to a federated entity after refreshing the server inventory with all the folders on the OD/390 V2 server.

A typical folder on an OD/390 V2 server has two query-only fields: FROM and TO ("from date" and "to date"). From the OD/390 V2 server point of view, these fields are required in a folder query (search) but cannot be used as display fields. These two fields are usually mapped to `from_date` and `to_date` attributes of a federated entity.

The "from\_date" and "to\_date" federate attributes are also query-only, so they can only be used during a folder query. Because DB2 Information Integrator for Content does not have the concept of query-only attributes, it is the application developer's responsibility to make sure that the application does not attempt to retrieve values from the "from\_date" and "to\_date" federated attributes when going through the list of attributes of a federated entity after the search.

## 6.11 Library server code 7015 and reason code -670

The error `SQL0670N` is returned from either DB2 Universal Database or the DB2 zOS database server where the library server resides. This error means that the row length of the table

corresponding to the item type has exceeded the limit of the maximum size of the table space ICMLFQ32. The row length of the table includes the size of both the user defined attributes and the library server system columns. This DB2 tablespace is created during the installation of Content Manager and has a default limit row size of 32677 bytes.

To fix this problem, you can either:

- 1) Decrease the size of the attributes, or
- 2) Increase the buffer pool size of the tablespace ICMLFQ32 using DB2 manuals.

and then try to recreate the item type.

## 6.12 Installing CM V8.2 GA with WAS Version 5.1.1

The Content Manager server V8.2 GA-level code does not detect WebSphere Application Server V5.1.1, and therefore, the resource manager application server is not deployed. After you install Content Manager, you must manually deploy the resource manager application server, by performing the following steps:

1. Start the HTTP server and WebSphere Application Server (server1).
2. Verify that Websphere Application Server is running by starting the WebSphere administrative console. On Windows systems, use the Start menu.
3. Run the WAS50DeployRM command-line Java program provided by Content Manager Version 8. On Windows, this file is usually found in %ICMROOT%\Config\WAS50DeployRM.class. On UNIX, this file is usually found in \$ICMROOT/config/WAS50DeployRM.class. Type `java WAS50DeployRM` and press Enter.
4. You are prompted to answer some questions, and then the resource manager should successfully deploy.
5. Restart the HTTP server.
6. Restart resource manager application server.

## 6.13 Installing Content Manager before EIP for all fix packs

Installation of the EIP V8.2 fix pack fails with the ERROR message, if Content Manager and EIP share the library server database and Content Manager was not updated with the same fix pack level first.

The Content Manager and EIP V8.2 fix pack update must be done in the following order:

1. Content Manager

## 2. EIP

This issue will be resolved in a future release.

## 6.14 Uninstalling fix packs

After you have uninstalled Content Manager fix packs, if you experience an SQL -818 or any other error in accessing the content of the Content Management system, follow these steps:

### 1. Stop and start DB2:

```
db2stop force
```

```
db2start
```

### 2. Bind the library server database.

On Windows®:

a. Start a DB2 command window by entering: `db2cmd`

b. Navigate to `%ICMROOT%\config`

c. Run the following two commands:

```
icmprepbd.bat DBNAME USERID PASSWD DBSCHEMA
```

```
icmbdlsbd.bat
```

On UNIX/Linux:

a. Navigate to `$ICMROOT/config`

b. Run the following commands as the Content Manager library server administrator:

```
./icmprepbd.sh DBNAME USERID PASSWD DBSCHEMA
```

```
./icmbdlsdb.sh
```

3. Rebuild the access modules.

On Windows:

- a. Start a DB2 command window by entering db2cmd
- b. Navigate to %ICMROOT%\bin
- c. Run the following command:

```
icmpcacl DBNAME USERID PASSWD
```

On AIX:

- a. Navigate to \$ICMROOT/bin/DB2
- b. Run the following command:

```
icmxcaccl DBNAME USERID PASSWD
```

On Solaris:

- a. Navigate to \$ICMROOT/bin/DB2
- b. Run the following command:

```
icmscaccl DBNAME USERID PASSWD
```

On Linux:

- a. Navigate to \$ICMROOT/bin/DB2
- b. Run the following command:

```
icmlcaccl DBNAME USERID PASSWD
```

4. Rebuild all component types.

On Windows:

- a. Navigate to %ICMROOT%\config
- b. SET CLASSPATH=.;%CLASSPATH%

On UNIX/Linux:

- a. Navigate to \$ICMROOT/config
- b. Export CLASSPATH=.:\$CLASSPATH

All operating systems:

```
java TRBuildCompTypeICM DBNAME USERID PASSWD DBSCHEMA comerr.log
```

THIS APPLIES TO ALL COMMANDS ABOVE.

Where:

DBNAME	Content Manager library server database
USERID	Library server administrator ID
PASSWORD	Library server administrator's password
DBSCHEMA	Library server database schema

## 6.15 Oracle setup needed before installing CM Fix Pack 8

Before installing Content Manager V8.2 Fix Pack 8 on a Content Manager V8.2 system with 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	indicates the oracle domain name use 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. (Do NOT add the Domain Name.)

2. Place this file under the default temp directory.
  - On Windows it is indicated by the environment variable %TMP%.
  - On UNIX (SunOS/AIX), the default temp directory must be /tmp.

## 6.16 No support using RMI with the CM V8 connector

EIP V8 does not support using RMI with the Content Manager V8 (ICM) connector. Therefore, only the Server Java package is available for use through the EIP APIs. CS and Client Java packages are not available. See Chapter 33, "Configuring an RMI Server," in the *Planning and Installing Your Content Management System* for more information on available connectors and RMI.

## 6.17 Auto-linking restriction in Content Manager V8.2

Content Manager V8.2 supports auto-linking between a target item type (a document) and a source item type (a folder) using one attribute. This feature might be extended in future releases to support multiple attributes. During development, we have found that the code did not block the ability to define multiple rules between one target-source pair with different attributes. The result of this type of definition creates multiple folders in the same item type, each with only one attribute value set and the other attributes left as null. This functionality might change to create only one folder with all the attribute values set. Content Manager continues to support the ability to define multiple auto-linking rules from one target item type to multiple source item types.

## 6.18 Registering updated Client for Windows viewer for FP7

If your system contains multiple copies of the Client for Windows viewer, there might be a problem registering the updated viewer contained in fix pack 7. This registration problem can potentially cause such problems as the inability to use the new default zoom feature in fix pack 7, or the inability to view documents at all.

### **Action**

The solution is:

1. Search for and delete all other copies of the viewer executable: ICMViewer.exe.
2. Register the new ICMViewer.exe contained in fix pack 7 by running ICMViewer.exe from the Client for Windows directory.

## 6.19 Current viewer applet certificate expires 2004/11

### **Problem**

The current viewer applet certificate expires in November, 2004.

If the certificate expires, a security warning will show that the certificate has expired.

### **Solution**

If the end user clicks **Yes**, the viewer applet continues works and there is no impact of the functionality of the viewer applet.

## **6.20 Linux support: DB2 SQL1224A errors**

For supported Linux operating systems, if you have the resource manager database and the resource manager application on the same machine, DB2 SQL1224A errors can appear in the resource manager services log files and in the resource manager application log file. This is a known DB2 problem.

### **Solution**

Increase the maximum heap size for the resource manager services, create a DB2 loopback connection to resource manager database, and modify the resource manager properties file to use the connection.

### **Procedure**

1. Stop the resource manager application and resource manager services.
2. Edit `/opt/IBMicm/config/setprocenv.sh` and

```
replace:      maxjavaheap=256m
with:         maxjavaheap=512m
```

3. Run the following command:

```
db2 CATALOG TCPIP NODE loopback  REMOTE rmdb_hostname SERVER 50000
OSTYPE LINUX
```

Where

`rmdb_hostname` is the resource manager database hostname  
`50000` is the DB2 instance TCP/IP port

4. Run the following command:

```
db2 CATALOG DB rmdb AS  rmdbloop AT NODE loopback
```

Where

`rmdb` is the resource manager database name

5. Edit `/opt/WebSphere/AppServer/installedApps/<nodename>/<rmapp>.ear/icrmr.war/WEB-INF/classes/com/ibm/mm/icrmr/ICMRM.properties` and

```
replace:      DBUrl=JDBC\ :DB2\ :RMDB
with:         DBUrl=JDBC\ :DB2\ :RMDBLOOP
```

## **6.21 Installing the eClient V8.2 GA with WAS Version 5.1.1**

### **eClient V8.2 GA-level code**

### Installation

To install the eClient V8.2 GA-level code with WebSphere Application Server Version 5.1.1, perform the following steps:

1. Make a local copy of the driver if you are installing from CD.
2. Extract the setup.jar file from the binary driver. From a shell prompt where the setup binary resides, run the following commands:

Windows	setup.exe -is:extract
Solaris	setup.sh -is:extract
AIX	setup -is:extract
Linux	setuplnx.bin -is:extract

Running this command extracts the setup.jar and miscellaneous files to the current directory.

3. From the same prompt, run the jar file using the following parameters:

```
java -DserverRoot="{ $WASHOME}" -DwasEdition=BASE -DwasVersion=5.0.0 -  
DWAS_VER_TEST=true -jar setup.jar -W bean38.active=false
```

Substitute { \$WASHOME } with actual install location of WebSphere Application Server (for example, /opt/WebSphere/AppServer). Please note the double quotes which are needed for WebSphere install locations which contain spaces.

### Uninstall

To uninstall the eClient V8.2 GA-level code with WebSphere Application Server Version 5.1.1, perform the following steps:

1. From the CMeClient\\_uninst directory, run the uninstall program using the following parameters:

```
java -DserverRoot="{ $WASHOME}" -DwasEdition=BASE -DwasVersion=5.0.0 -  
DWAS_VER_TEST=true -jar uninstall.jar -W bean4.active=false
```

Substitute { \$WASHOME } with actual install location of WebSphere Application Server (for example, /opt/WebSphere/AppServer). Note that the double quotes are needed for WebSphere Application Server installation locations, which contain spaces.

## 6.22 Memory conflict between JRE and CM shared memory

There is a potential memory conflict between JRE and Content Manager shared memory. This conflict can occur on Windows machines that have large physical memory, where the JRE reserves a certain region of memory and prevents Content Manager from using that region of memory. When running a Java program (for example DTapp from Information Integrator for Content), and if the conflict occurs, users will see a message similar to the one shown below:

FRN9255A: Cp=14; Fc=FrnSysInitSharedMem; Tr=5; MC=9256; Fi=slpplint.cpp; Ln=1115;  
LA=(null); RC=-2538

The appropriate workaround for this problem is to limit the Java runtime heap size to less than 256M (use the flag -Xmx256M). For example, modify the DTapp.bat file to add the flag -Xmx256M as shown below:

```
start "Content Manager DTApp" /b %JREHOME%\bin\java -cp %CLASSPATH% -Xmx256M  
  
DTApp laf=WINDOWS conf=%CMBROOT% help=%CMBROOT%\html\ browser=null  
%DTAppLang%  
  
%DTAppRegion%
```

If you cannot add this flag to run the Java program, you can try to set FRNADDRON=YES inside a DOS window and run the Java program from that DOS window. However, this method does not always work. Setting this as system or user variable globally might cause initialization problems in other Content Manager programs. Therefore, never set this environment variable as a system or user variable; only set this variable inside a DOS window when needed.

## 6.23 Display of Office format documents

We do not guarantee 100% fidelity for display of non-image or Office formats, such as rich text format (RTF), Microsoft<sup>(R)</sup> Office formats, and Lotus<sup>®</sup> formats.

## 6.24 Display of Microsoft Works format documents

We do not support the display of Microsoft Works formatted documents.

## 6.25 Display and printing of Lotus Word Pro<sup>®</sup> documents

Only one Lotus Word Pro(.lwp) document can be displayed or printed at a time.

## 6.26 Search on document contents not supported

Search on document contents is not supported in eClient for federated connections.

## 6.27 Configure the eClient to connect to OnDemand OS/390<sup>®</sup> V2

Customers who need to set up eClient to connect to the OD390 V2 server must append the connection string "OD390V2\_FOLDER=1" with a ':' after the port number and server name in eClient IDM.properties file. The syntax is:

```
Datastore.OD.0=alias:(ip or hostname):port:OD390V2_FOLDER=1
```

## 6.28 Saving annotations in the viewer applet of the eClient

### Problem

1. Open a document (such as .lwp or .doc) using the viewer applet of the eClient.
2. Add an annotation on it.
3. Do not save the document, but reopen the same document from search results.
4. A dialog window opens to remind you if you need save this document.
5. Click **OK** to save.
6. The new document shows, but without the annotation that you just added.
7. If you add new information to the annotation, and save the newer annotation. The older document with the annotation is gone.

### Action

After you save the document, click **Refresh** on the Search results to see your changes. This is normal HTML behavior.

## 6.29 Active C++ compiler requirements

AIX	Requires Visual Age C++ license
Solaris	Requires Sun Forte compiler license
WIN	Requires Microsoft Visual C++ 6.0 or Microsoft .NET VC++ 2000

Content Manager uses TRebuild to regenerate the access modules as part of post install configuration step. If you installed a trial copy of a compiler to get the system up and running and then removed the compiler, TRebuild will fail. To avoid failure, either remove the fix pack (and then manually update a table to set a flag) or install the compiler.

## 6.30 eClient and resource manager servers on same machine

If you have eClient server and Content Manager resource manager server installed on the same machine, you need to change the session tracking cookie name under the eClient server.

Perform the following steps.

1. Start WebSphere Application Server administrative console.
2. Select eClient\_server from the application servers list; if you have manually deployed eClient into a different application server, select the server which eClient is running on.
3. Click **Services** tab and select Session Manager Service.
4. Click **Edit Properties**.
5. Click the **Cookies** tab and select the entry of the cookie name. Set the value to ECLIENTJSESSIONID.
6. Click **Apply**.
7. Stop the eClient\_server.
8. Start the eClient\_server.
9. Exit the WebSphere Application Server Console.

### 6.31 TCreateItem does not work for CM with CMB\_TYPE\_ITEM

When using TCreateItem to create items on Content Manager, users need to change the line

```
Item.setItemType(CMBBaseConstant.CMB_TYPE_ITEM);
```

to

```
item.setItemType(CMBBaseConstant.CMB_TYPE_DOCUMENT);
```

This is required because Content Manager only supports CMB\_TYPE\_DOCUMENT type.

### 6.32 Connection pool: Beans sample client logon fails

If your application is not running under WebSphere Application Server and you want to use the WebSphere connection pool, you might get error messages such as:

Exception message Caught exception when resolving initial reference=NameService

javax.naming.ServiceUnavailableException: Caught exception when resolving initial reference=NameService. Root exception is org.omg.CORBA.TRANSIENT: Connection refused

In this case, you need to use the WebSphere Application Server supplied JVM to run your application. For example:

On Windows:

```
c:\websphere\appserver\java\bin\java MyApp
```

On AIX:

```
] /usr/WebSphere/AppServer/java/bin/java MyApp
```

On Solaris:

```
] /opt/WebSphere/AppServer/java/bin/java MyApp
```

### 6.33 OnDemand native connector terminates the eClient

When running IBM Content Manager eClient V8.2 Fix Pack 1 under WebSphere Application Server 4.0.6 on AIX 5.1, you might experience continuous memory increases with the JVM process that the eClient is running under, while searching and retrieving documents from a back end content server, such as a Content Manager OnDemand server. The problem is with a memory leak issue related to the JDK associated with WebSphere Application Server Version 4.0.6. If you have experienced this problem, we recommend that you upgrade to WebSphere Application Server version 5.0.1 on AIX. This setup has been tested by IBM with a small increase in memory usage.

### 6.34 Incorrect file set version on UNIX

After the installation of Content Manager and EIP fix pack on UNIX (AIX and Solaris), the Content Manager and EIP file sets do not reflect the current version of the product. For example, after Content Manager V8.2 Fix Pack 1 installation, entering the `lspp` command on the system shows the product version at 8.2.0.0 instead of 8.2.0.10.

## **Solution**

Enter the command `cmlevel` to retrieve the correct Content Manager and EIP product level.

For Content Manager\AIX: `cmlevel` is located at `/usr/lpp/icm/bin/cmlevel`

For Content Manager\Solaris: `cmlevel` is located at `/opt/IBMicm/bin/cmlevel`

For EIP\AIX: `cmlevel` is located at `/usr/lpp/cmb/bin/cmlevel`

For EIP\Solaris: `cmlevel` is located at `/opt/IBMcmb/bin/cmlevel`

## 6.35 Intermittent TIE encryption key problem

To use the Text Search capability of Content Manager, first ensure that the encryption key is refreshed. Refreshing the encryption key will avoid potential problems with Updating Text Indexes. To refresh the encryption keys, go to **Library Server Configuration -> Definition tab -> Refresh Encryption Key**. Click **Refresh Encryption Key** twice to refresh the Encryption Key.

## 6.36 API returns DB2 error SQL01131N

### **Symptom**

The API returns DB2 error SQL01131N: DARI process has been abnormally terminated

### **Explanation**

The problem happens during a Content Manager logon if:

- There are approximately 150-200 item types defined
- DB2 level is DB2 V8.1 FixPak 3 or DB2 V7.2 FixPak 10

### **Action**

This is a DB2 problem. You need to download the fix for:

APAR IY47992 for DB2 V8.1 FixPak 3

or

APAR IY48209 for DB2 V7.2 FixPak 10

## 6.37 Library server RC = 7015, extended RC = -911

An anomaly exists in the Content Manager V8 library server. If you are attempting to retrieve an item at the exact moment another user is deleting it, it is possible that a deadlock will occur. In this case, you receive a return code of 7015 (unexpected SQL error), with an extended return code of -911 (SQL code for deadlock or timeout).

## **Solution**

If this error occurs while using the Content Manager Version 8 eClient or Client for Windows, a dialog box displays the return code and reason code. You should retry the operation. If you are using a customer-developed application, you should also retry the operation.

## 6.38 EIPUser2WF.bat fails with large number of users

When using the EIPUser2WF.bat to sync up user information from EIP to MQWF, users might encounter importation failure if they have large number of users (for example, 5000+) in the EIP system. The importation log (temp.log) of the FDL (temp.fdl) could be found in the %CMBROOT% directory (for Windows) or the HOME directory (for UNIX). In the temp.log, users will find the MQWF error message similar to the following example:

```
9/2/2003 1:29:18 PM FMC25100I CREATE PERSON 'CMB_U656' finished.
```

```
9/2/2003 1:29:18 PM FMC25100I CREATE PERSON 'CMB_U6560' finished.
```

```
9/2/2003 1:29:18 PM Assertion failed: 0 <= yy_ref_stack_ix && yy_ref_stack_ix <
yy_ref_stack_max, file e:\v340\src\yy_ref.h, line 354
```

Because the above error occurred, all changes made to the MQWF database (during this user synchronization process) were rolled back. As a result, no user synchronization can be done.

### **Solution**

To workaroud the limitation of MQWF handling the large size of an FDL file, you need to divide the large FDL file into smaller files and manually perform the user synchronization process for each divided FDL. Additional editing work of the divided FDL file is also required. The following step-by-step scenario assumes the complete temp.FDL is divided into two parts: part1.fdl and part2.fdl.

1. Locate the last entry that you supposed to be imported successfully by the temp.fdl. In the above example, the last successful entry is user 'CMB\_U6560'.

2. Open up the temp.fdl and locate the section that deals with importing CMB\_U6560. Delete everything else after that CMB\_U6560 section. Save the edited file as part1.fdl.

For example, the end of the part1.fdl would look like the following:

```
PERSON 'CMB_U6560'  
DESCRIPTION " Updated by EIPUser2WF EIP utility user CMB_U6560 "  
PERSON_ID 'CMB_U6560'  
AUTHORIZED_FOR STAFF  
AUTHORIZED_FOR PROCESS_CATEGORY 'EIPMQSWF'  
PASSWORD 'DOEaV8872'  
GROUP 'FMCGRP'  
SYSTEM 'FMCSYS'  
IS_NOT_ABSENT  
DO NOT RESET_ABSENT  
END 'CMB_U6560'
```

3. Open the original temp.fdl again. This time, delete those sections already covered by the part1.fdl and save the rest as part2.fdl. When deleting sections covered by part1, delete everything from the beginning of file to the end of CMB\_U6560 section, with the exception of leaving the first three lines intact.

For example, this is what the part2.fdl would look like:

```
//Generated by EIP  
CODEPAGE 1252  
FM_RELEASE V3R4 0  
  
PERSON 'CMB_U6561'  
DESCRIPTION " Updated by EIPUser2WF EIP utility user CMB_U6561 "
```

CM/EIP/eClient Version 8 Release 2 Fix Pack 8 readme file

```
PERSON_ID 'CMB_U6561'  
AUTHORIZED_FOR STAFF  
AUTHORIZED_FOR PROCESS_CATEGORY 'EIPMQSWF'  
PASSWORD 'DOEaV8873'  
GROUP 'FMCGRP'  
SYSTEM 'FMCSYS'  
IS_NOT_ABSENT  
DO NOT RESET_ABSENT  
END 'CMB_U6561'
```

...

NOTE: If your MQWF installation uses MQWF 3.3.2, you need to manually adjust the MQWF release level signature in the FDL file from FM\_RELEASE V3R4 0 to FM\_RELEASE V3R3 0.

4. Run the following command manually for each file of the divided FDL file. The following example assumes the MQWF system administrator (ADMIN) password is password.

```
* fmcibie -i part1.fdl -u admin -p password -o -l part1.log
```

```
* fmcibie -i part2.fdl -u admin -p password -o -l part2.log
```

5. Examine the log files for each FDL import to ensure there are no errors.

## 6.39 Double-byte character set support limitations

-----

### **Problem**

Some characters in the log file of LDAP was corrupted.

### **Symptom**

After you run import users by using the utility on JPN machine, if you check the log file, some characters corrupted. The executable is not correctly translated to JPN.

### **Possible causes**

When you use outputstream to write log file, some characters in the translated properties (JPN) are changed to other characters.

### **Action**

The problem can be fixed by changing the code to filewriter instead of outputstream.

-----

### **Problem**

The default font for stamp annotation in the Japanese Client for Windows viewer is not supported on Sun Solaris.

### **Symptom**

When you create a stamp annotation using the Client for Windows viewer on a Japanese locale, the default font chosen is a Japanese Windows-specific font. When such a document is opened in the eClient HTML viewer, where the eClient server is running on a Solaris OS, the characters in the stamp annotation may show up garbled.

### **Possible causes**

The default font chosen for the stamp annotations is a Windows-specific font and is not correctly mapped in Java on the Sun Solaris operating system. The existing versions of Java on Solaris map this font to a non-DBCS font and hence the characters show up garbled.

### **Action**

Until a fix is developed, this kind of cross-platform compatibility is not supported.

### **Problem**

In a double-byte character set (DBCS) language environment, the SResourceMgrDefSetDefaultICM C++ API Education Sample might fail with error DGL5111A with a garbled message. Some DBCS environments have not had a problem with this sample.

### **Symptom**

SResourceMgrDefSetDefaultICM C++ API Education Sample returns with error DGL5111A with a garbled message in a DBCS language environment.

### **Possible cause**

This issue is under investigation.

### **Action**

Until this issue is resolved, use the Java copy of this sample to complete the desired behavior. The garbled message is also under investigation.

---

### **Problem**

Some error messages sent from the C++ connector APIs in a double-byte character set language (DBCS) environment might result in a garbled error message.

### **Symptom**

Error message is garbled in a DBCS language environment.

### **Possible cause**

This issue occurs for some error messages in a DBCS language environment. This issue is under investigation.

### **Action**

Until this issue is resolved, use the API error ID to look up the message in *Messages and Codes*. Access to the error ID through the API is shown in the SConnectDisconnectICM API Education Sample. Check for fix packs and additional releases as they become available.

---

### **Problem**

The DKLobICM::getOrgFileName() API method returns garbled file name in a double-byte character set (DBCS) environment.

### **Symptom**

Garbled file name returned from DKLobICM::getOrgFileName() Java or C++ API.

### **Possible causes**

Use of double-byte character set (DBCS) language characters causes this issue.

### **Action**

This issue is under investigation. Single-byte character set (SBCS) characters do not cause this problem. If possible, use SBCS characters when specifying the DKLobICM::setOrgFileName() value.

---

### **Problem**

The eClient cannot open a worklist that is defined in Japanese.

### **Action**

Create a worklist without spaces in its name or try to use SBCS characters when defining a worklist.

---

### **Problem**

Opening a federated folder in a double-byte character set language (DBCS) environment results in error CMBException: Server error: null.

## Symptom

Error CMBException: Server error: null when opening a federated folder. Note that this symptom can occur under other scenarios using this method in the case of other server errors.

```
com.ibm.mm.beans.CMBException: Server error: null
```

```
java.lang.NullPointerException
```

```
at com.ibm.mm.sdk.server.PFolderMgmtImpFed.retrieveFolder(PFolderMgmtImpFed.java:709)
```

```
at com.ibm.mm.sdk.server.DKDatastoreFed.retrieveObject(DKDatastoreFed.java:7189)
```

```
at com.ibm.mm.sdk.common.DKDDO.retrieve(DKDDO.java:444)
```

```
at
```

```
com.ibm.mm.beans.CMBDataManagement._retrieveAndSortParts(CMBDataManagement.java:4368)
```

```
at com.ibm.mm.beans.CMBDataManagement.retrieveItem(CMBDataManagement.java:1087)
```

```
at com.ibm.mm.beans.CMBDataManagement.retrieveItem(CMBDataManagement.java:1049)
```

```
at _IDMFolderContents_jsp_0._jspService(_IDMFolderContents_jsp_0.java:455)
```

## Possible cause

This issue is under investigation.

## Action

Until this issue is resolved, this feature might not be available in a DBCS environment.

Check for fix packs and additional releases as they become available. If this is a severe issue, please contact your IBM support representative.

---

## Problem

The eClient viewer fails to open a document if federated entity and search template are defined in Japanese.

## Action

If possible, create federated entity and search template in SBCS character.

-----

## Problem

Cannot view the output files from validation utilities.

## Symptom

After running validation utilities, the user is not able to view the content of the output files generated by the utilities.

## Possible cause

Output from validation utilities cannot be parsed by XML parser.

## Action

1. Copy %WAS\_HOME%/installedApps\icmrm.ear\icmrm.war\icmrm.xsl file to output directory.

2. Edit the icmrm.xsl file as follows:

Change line25 from

```
<xsl:for-each select="/icmrm">
```

to

```
<xsl:for-each select="/icrmval">
```

3. Edit output xml file (ex, icrmmlsval20030612094027\_NOTINRM.xml) as follows:

Change line 1 from

```
<?xml version="1.0" encoding="UTF-8"?>
```

to

```
<?xml version="1.0" encoding="Shift-JIS"?>
```

Step 3 is required only for Japanese.

---

### **Problem**

DBCS(UTF-8) text, such as Japanese, is corrupted.

### **Action**

Configure the eClient to support DBCS.

eClient uses UTF-8 as the default character encoding, which means that all the characters entered in the HTML form or displayed on the HTML page are encoded as UTF-8. Take the following steps to double check within the WebSphere Application Server administrator console. If the value is not set or set to something other than UTF-8, please reset it to UTF-8.

1. Start WebSphere Application Server administrator console.
2. Select eClient\_server from the application servers list; if you have manually deployed eClient into a different application server, select the server which the eClient is running on.
3. If using WebSphere Application Server 5.0, click on process definition; skip step 3 if you are using WebSphere Application Server 4.0.x version.
4. Click **JVM settings**.
5. If using WebSphere Application Server 5.0, click **Custom properties**; select **System properties** if using WebSphere Application Server 4.0.x version
6. Check the entry of client.encoding.override, set the value to UTF-8.

If you have imported data from other sources, for example, import a text file, create a text annotation through Client for Windows, and make sure that the codepage of the operating system where the eClient server is running matches with the encoding for the text.

---

### **Problem**

The Start menu on the Japanese version of the EIP product states Enterprise Information Portal for Multiplatforms MIME type, where the word type is in Japanese. The Start menu should state Enterprise Information Portal for Multiplatforms 8.2.

### **Action**

None.

---

## Problem

eClient hangs when viewing a JPEG or text document on AIX platform using X Window session.

## Action

Before starting the eClient on AIX using X Window session, you must export the DISPLAY environment variable to a machine that has a graphics card installed on it. Use the DISPLAY=<hostname>:0.0 command.

---

## 6.40 Disregard RefreshEncKey from error message

---

Refreshing the Encryption Key by using the library server configuration parameters in the system administration client, the following error might occur:

DGL3920A: Error occurred while updating library server control parameters; ICM7015: During an SQL operation in the library server, an unexpected error occurred. For details on the error, refer to the database document. (STATE):[LS RC = 7015, SQL RC = 7970]

Please disregard this error message.

---

## 6.41 CM fails to start after upgrade to DB2 UDB V8

---

## Problem

After installing Content Manager V8.2 on a DB2 Universal Database™ (UDB) Version 7 system, and then later upgrading to DB2 UDB Version 8, the DB2 Content Manager system administration client fails to start. The following message appears during the startup procedure: Entry point sqloGetCpFromLocal could not be located in the dynamic link library db2locale.dll.

## Cause

The DLLs db2locale.dll and db2jcc.dll are installed in the ADMIN\COMMON subdirectory as part of the Content Manager installation. These two DB2 DLLs are required by the Content Manager system administration client, but they are not available in DB2 UDB Version 7. These DLLs are shipped with DB2 UDB Version 8, but DB2 UDB Version 8 was not released when Content Manager Version 8 was released. After you upgrade to DB2 UDB Version 8, the Content Manager system administration client might fail to start as described above, because the db2locale.dll and db2jcc.dll shipped with Content Manager V8 are not compatible with the new versions of those DLLs shipped with DB2 UDB V8.

### **Solution**

Back up and remove, or rename, the db2locale.dll and db2jcc.dll DLLs located in the ADMIN\COMMON subdirectory of the Content Manager installation.

## **6.42 Miscellaneous limitations**

### **Problem**

On UNIX, the resource manager Web Application points to wrong location /logs for the icrmr\_logging.xml instead of \$WAS\_HOME/logs.

### **Symptom**

The log files for icrmr app. are created in the /logs folder.

### **Possible cause**

The installation did not pass the WAS\_HOME value to the icrmrcfg.sh script.

### **Action**

You must edit the icrmr\_logging.xml file located at \$WAS\_HOME/installedApps/icrmr.ear/icrmr.war/

and change the

```
<param name="File" value="/logs/icrmr.logfile"/>
```

(approximately line no. 12)

to

```
<param name="File" value="$WAS_HOME/logs/icmrm.logfile"/>
```

where, \$WAS\_HOME=Home directory of WebSphere Application Server (e.g. /usr/WebSphere/AppServer)

---

## Problem

Cannot start or stop a resource manager process selectively.

## Symptom

On UNIX (AIX / Solaris), you are not able to start or stop a resource manager process selectively. For example, to start the resource manager migrator: /etc/rc.cmrmproc -act start -db RMDB -app icmrm -proc RMMigrator

## Possible cause

The resource manager database name (RMDB in the example, above) should match the registered entry in the /etc/services file. **Attention:** The database name is case-sensitive.

## Action

Start or stop the process by using the correct case of resource manager database as registered in the /etc/services file. For example,

```
/etc/rc.cmrmproc -act start -db rmdb -app icmrm -proc RMMigrator
```

---

## Problem

If user specifies a maximum length of varchar attribute, an error message displays.

## Symptom

1. Right-click **Attribute** on the system administration client, and select **New**.
2. Select Varchar as attribute type, and click the downward triangle of **Maximum length field** once after zero appears. The maximum length is set to 32672.

3. Complete the **Name** and **Display Name** field and click **OK**.

5. Error occurs.

### **Possible cause**

The library server only accepts a maximum length up to 32647.

### **Action**

The max length for attribute is 32647.

---

### **Problem**

Highlight and Note annotations are not compatible between the Client for Windows viewer and the eClient viewers for JPEG files.

### **Symptom**

When a user creates a highlight or note annotation using the Client for Windows, and then tries to view it with the eClient HTML or viewer applet, the size and positions do not match that of the original.

### **Possible cause**

JPEG files do not have a resolution value in the file data. The Client for Windows viewer is using the wrong default resolution value for JPEG files, resulting in incorrect position and size values being set for the highlight and note annotations. These values cause the incorrect display in the eClient viewer.

### **Action**

Currently there is no workaround for this problem.

---

### **Problem:**

Invalid character is displayed on Import document window in eClient.

## Action

The problem is in the following lines in IDMAddItem.jsp. An empty space could be causing the problem.

Please change the following lines:

```
<td width="80" class="TitleBar">Â </td>
```

```
<td width="60%" nowrap class="TitleBar"><%= title %></td>
```

```
<td width="20%" class="TitleBar">Â </td>
```

to:

```
<td width="80" class="TitleBar"></td>
```

```
<td width="60%" nowrap class="TitleBar"><%= title %></td>
```

```
<td width="20%" class="TitleBar"></td>
```

---

## Problem

The API method DKLobICM::getContentURLs(-1,-1,-1,DK\_ICM\_GETINITIALRMURL) used with a document part display an error message: DGL0303A: Invalid parameter.

## Symptom

Error message DGL0303A: invalid parameter displays when calling DKLobICM::getContentURLs(-1,-1,-1,DK\_ICM\_GETINITIALRMURL). Note that this symptom can occur under other usage error scenarios that also pass invalid options to this method.

## Possible cause

This issue is under investigation.

## Action

Until this issue is resolved, use an alternative option such as `DK_CM_VERSION_LATEST` (DKConstant) to obtain resource content from a `DKLobICM` object if there is only one version or if the latest version is desired. Otherwise, use an alternative method of obtaining resource content from a `DKLobICM` object, as shown in the `SResourceItemRetrievalICM` API Education Sample, such as retrieving the content into memory or file.

---

## Problem

In some languages, a misleading error message displays when starting the LaunchPad.

## Symptom

The following message is sometimes displayed in the launchpad command window:

```
X:\WIN\Launchpad>java com.ibm.cm.install.launchpad.LaunchPad
```

```
Directory not found: %s.
```

## Possible causes

The user's locale is set to an unsupported language/country code. The user made a local copy of the launchpad directory without copying over the actual driver.

## Action

This is an intermittent problem that does not affect functionality. Given this, the error message can be ignored, and the installation continued.

---

## Problem

When the API methods `DKLobICM::getContentURL()` and `DKLobICM::getContentURLs()` are used on a document part with the `DK_CM_CHECKOUT` option, the API displays an error message: "DGL0314A Unexpected option value". The *Application Programming Reference* does not explicitly call this scenario out as not supported in this case in V8.2.

### **Symptom**

Error message "DGL0314A Unexpected option value" displays when calling `DKLobICM::getContentURL()` or `DKLobICM::getContentURLs()`. Note that this symptom can occur under other usage error scenarios that also pass invalid options to this method.

### **Possible cause**

`DK_CM_CHECKOUT` option used.

### **Action**

You cannot check out document parts individually. This is not a valid option in this case. Check out the parent document in order to check out the entire item, including all parts.

---

### **Problem**

eClient V8.2 installation is failing in some cases.

### **Symptom**

For eClient V8.2 installations on Windows systems, if the `C:\Temp` directory does not exist, then the installation displays an error message and exits.

### **Possible causes**

On Windows systems, the eClient installation incorrectly has the location of the log files hard coded to `C:\Temp`.

### **Action**

Create the `C:\Temp` directory and rerun the installation.

### **Problem**

The password cannot be updated from the system administrator client.

### **Symptom**

If you click **Change Password** from the system administrator client and update the password, an error message displays:

The password for this user can only be changed manually, because the user ID is both a system user ID and a Content Manager user ID.

### **Action**

The **Change Password** button will be disabled.

---

### **Problem**

Extraneous information in EIP menu name.

### **Symptom**

EIP startup menu name is incorrect. This is what the menu name is: "Enterprise Information Portal for Multiplatforms MIME type". This is what the menu name should be: "Enterprise Information Portal for Multiplatforms."

### **Possible cause**

This occurs when you click **Start** and EIP is installed.

### **Action**

Ignore the extraneous text MIME type.

---

### **Problem**

Problem creating an EIP database on Windows.

### **Symptom**

If you select the EIP server to install, and set the directory to c:\Program Files\CMBROOT, then you might have a problem creating the database.

### **Action**

Change the system environment variable value for CMBROOT:

From: c:\program files\cmbroot

To: c:\progra~1\cmbroot

Then run the database post-installation utility program to successfully create the database.

---

### **Problem/Symptom**

The Client for Windows no longer automatically checks out folders on an open/explore.

### **Cause**

A new option, AutoCheckoutOnFolderOpen, has been added to control checkout while opening/exploring folders. The option is automatically added to ICMClient.ini with the default value of 0 (NO) the first time that the new client is run.

### **Action**

To return to the previous behavior of always checking out a folder on an open/explore, change the value of the option in ICMClient.ini to 1 (YES).

---

### **Problem**

Problems with sample client URL in First Steps, Step 3.

## Symptom

The provided URL is a sample. The sample assumes the local HTTP server runs on port 8080 and is configured to route this request to the application server, where the context root for the JSP sample is configured to be 'imsample'.

## Action

You need to provide the correct URL according to your installation. The application server configuration is described in the information center:

**Enterprise Information Portal -> Planning and Install -> Configuring Enterprise Information Portal components -> Installing and configuring Information Mining -> Configuring the Web Application Server for the JSP sample.**

---

## Problem

Installing the eClient on Windows 2003 cannot detect WebSphere Application Server.

## Cause

The use of the Windows Terminal Services has been discovered to cause a problem for the eClient installation in some cases. This problem is related to the placement of .ini files during different modes of operation (execute/install). In order for the eClient to locate WebSphere Application Server V5 installations the machine needs to be running in install mode.

## Action

To check the mode your machine is running issue the following command from a DOS prompt:

**change user /query**

If this reports that you are running in execute mode then it is necessary to switch the mode to install by performing the following command from a DOS prompt:

**change user /install**

When the installation is complete, enter the following command from a DOS prompt:

**change user /execute**

**Attention:** It is also important to note the assumption is that the machine was running in install mode when the WebSphere Application Server was installed as well.

---

**Problem**

How to configure eClient to use the latest Java plug-in version.

**Action**

Users who want to use the latest Java plug-in version for the eClient viewer applet must update the Java plug-in auto-download URL in the eClient configuration. To update the URL, open the IDM.properties file and update the following entry to be:

```
plugin_exe=http://java.sun.com/products/plugin/autodl/jinstall-1_4-windows-i586.cab#Version=1,4,0,0
```

---

**Problem**

Retrieving documents from a Content Manager for OS/390 resource manager.

**Action**

In order to retrieve documents from a Content Manager for OS/390 resource manager, you must disable the Client for Windows URL-based part retrieval. To do this, make sure the following line appears in the "[Options]" section of the ICMClient.ini file, which is located in the Windows directory:

```
DisableURLCode=yes
```

The default value for this option is no.

-----

## **Problem**

The utility to rebuild the library server access modules (TRebuildCompTypeICM) fails with a return code 7022 when deferred DDL execution is turned on.

## **Symptom**

Error messages might be as follows:

```
Generating access module for view with ID: 200
```

```
Error generating access module: IRC = 7022 IReason = 0 IExtRC = 0 IExtReason = 0
```

Additional symptom: fix pack installation script (updateLS.sh) might fail with return code 203. (TRebuildCompTypeICM is executed during fix pack install). The error messages might be as follows:

Upgrading and re-binding the server are successful, but re-generating the access modules failed.

```
UpdateLS completed with exit code 203
```

```
2003/10/29 14:01:09> ERROR: /opt/IBMicm/config/updateLS.sh script failed with RC=203
```

```
/tmp/cmfp2/updateCMcfg: /opt/IBMicm/config/updateLS.sh script failed with RC=203 (203)
```

## **Possible causes**

The library server did not create the UserDDL directory to deploy the script necessary for GenerateDDL.

## **Actions**

After the fix pack installation finishes, perform the following steps:

1. Manually create the directory <DatabaseName>/UserDDL under the fence ID directory.

Example on Solaris: /export/home/lcbuildf/ICMNLSDDB/UserDDL

On Windows, the fence directory is the same directory where Content Manager is installed. Example: Program Files\IBM\CM82\ICMNLSDDB\UserDDL

2. Navigate to <%ICMROOT%>/config and manually run:

```
TRebuildCompTypeICM <DBName> <userid> <pwd> <schema> <err.txt>
```

---

## Problem

Inability to connect to a DL server using an AIX client.

## Action

Delete the DAEMON.pass file in the \$FRNLOCAL/temp directory.  
Set environment variable FRNSINGLEPROCESSCLIENT=0.

Once the user does this, the FRNXDAMN daemon will start and the user will be able to connect.

---

## Problem

### Extraneous system administration client error when deleting a resource manager workstation collection.

DGL5162A: System Managed Storage (SMS) request to resource manager failed:  
'ICM9876: A Storage Management Subsystem (SMS) error occurred. SMSMsg: method  
getCollectionID for collection aaa failed.'

## Action

When deleting a resource manager workstation collection from the Content Manager system administration client, you see a error message:

Exception message: DGL5162A: System Managed Storage (SMS) request to resource manager failed: 'ICM9876: A Storage Management Subsystem (SMS) error occurred. SMSMsg: method  
getCollectionID for collection <xyz> failed...'

This is because an extra call is made in the system administration client to specifically delete the collections from the resource manager database after an API has already deleted the collection from both the library server and resource manager databases. This error does not affect data in the databases, and can be safely ignored. This will be corrected in future fix pack.

---

**Problem**

Using icmconct user ID when configuring WebSphere Application Server connection pooling.

**Action**

With connection pooling, we recommend you use the icmconct (the DB2 connect user ID specified during Content Manager or EIP installation) as the user when you configure the WebSphere Application Server connection pooling. Also, use the user ID other than the administration ID to log on from the eClient. If you use the icmadmin (the administration ID) as the user, it might allow the logon from the eClient by using the icmadmin user ID with different password. This is because the database connection is using the Connection object from the WebSphere Application Server connection pool, which has the correct password predefined in it.

---

**Problem**

Unable to view document in URL mode on Windows ME. Documents are retrieved in URL mode by default in the production client.

**Action**

The workaround for this is to do the file mode retrieval of the documents in the Windows ME platform for Client for Windows. To do the file mode retrieval, the user needs to change following entry in image/part icmclient.ini file from DisableURLCode=no to DisableURLCode=yes .

After the user changes this entry, the documents can be viewed.

---

**Problem**

The cause of the problem is due to a translation of a registry entry in DB2 Net Search Extender for V8.1 and V7.

During installation of DB2 Net Search Extender (NSE), a set of registry entries is created for all languages under the key:

HKEY\_LOCAL\_MACHINES\SOFTWARE\IBM\DB2 Net Search Extender\CurrentVersion

On French systems the key created is translated:

HKEY\_LOCAL\_MACHINES\SOFTWARE\IBM\DB2 Extension Net Search\CurrentVersion

During Content Manager 8.2 install, registry entries of NSE are checked if Text Search is enabled. Because the registry created on French system is translated, the installation does not allow text search to be enabled.

**Action**

To work around this problem, the registry entry for DB2 NSE on French system needs to be updated.

Before installing, change the key from

HKEY\_LOCAL\_MACHINES\SOFTWARE\IBM\DB2 Extension Net Search\CurrentVersion

to

HKEY\_LOCAL\_MACHINES\SOFTWARE\IBM\DB2 Net Search Extender\CurrentVersion

After installation, change the key back from

HKEY\_LOCAL\_MACHINES\SOFTWARE\IBM\DB2 Net Search Extender\CurrentVersion

to

HKEY\_LOCAL\_MACHINES\SOFTWARE\IBM\DB2 Extension Net Search\CurrentVersion

---

**Problem**

The EIP Desktop Client or EIP Server machine type options in the EIP V8.2 GA installation have file installation and configuration problems.

**Action**

When installing the EIP V8.2 GA level code, select EIP Development Workstation on the Select Machine Type panel. After selecting EIP Development Workstation, select the components that are appropriate for the system you are setting up on the Component Selection panel.

---

**Problem**

Cannot correctly view a .123 file with viewer applet if the spreadsheet is too wide.

**Action**

We are investigating this problem.

-----

**Problem**

In some undetermined situations when Client for Windows users check out an item, extraneous error messages are logged in the icmrm.replicator.logfile.

**Action**

We are investigating this problem.

-----

**Problem**

On the DB2 V8 z/OS, the library server received the following error (basic data model creation) - resource unavailable, correlation id = java.exe, reason 00C900D2 - space for LOB locators has been exceeded.

**Action**

Update the LOBVALS parameter in DSNZPARM to a larger number; the default is 2048.

-----

**Problem**

EIP visual beans: Cannot edit annotations when using a federated connection to Content Manager V8.

When using the CMBDocumentViewer visual bean or the sample Java client (a visual beans sample), and connected to EIP (federated), and viewing documents on Content Manager V8 servers, annotations cannot be created or modified and saved successfully.

When clicking the save icon, an error occurs and displays on the console; the first line reads:  
com.ibm.mm.viewer.annotation.CMBAnnotationEngineException:  
com.ibm.mm.viewer.annotation.CMBAnnotationEngineException:  
com.ibm.mm.beans.CMBException: com.ibm.mm.beans.CMBException: DGL5251A:  
Feature is not supported

**Action**

We are investigating this problem. In the meantime, do not use a federated connection. Use a direct connection to Content Manager V8.

-----

### Problem

The eClient viewer applet might stop if you try to save the document before you are finished creating a pen annotation.

### Symptom:

In the eClient viewer applet, if you switch between documents before you are finished creating a pen annotation, the **Save** icon is enabled for the wrong document. Clicking **Save** stops the viewer applet.

### Action

Finish creating the pen annotation using one of the following methods:

- Click once on the document (page view).
- Click the **Select/Move Annotations** tool.
- Perform any other action on the toolbar.

Do not click the document tabs to navigate to other documents if you are not finished creating the pen annotation. Make sure a black selection rectangle is drawn around the pen annotation. The black selection rectangle indicates that the creation of the pen annotation is complete. You can then switch to other documents.

-----

### Problem

**Using fix pack 4, when we search for 40,000 documents, we received the Error:5000. We searched for everything from the eClient, which connected to VisualInfo® 400. We received the following error:**

**com.ibm.mm.beans.CMBCConnectFailedException: DGL0394A: Error in ::SimLibSearch [FRN=5000,ExtRC=0] (STATE) : 0**

### Action

After installation, the eClient uses default configuration properties that you can edit in the IDM.properties file. The IDM.properties file resides in the root directory where the eClient is installed. Most aspects of managing the eClient application are controlled by the parameters in this file.

You can limit the number of items that are returned from a particular content server on the TotalMaxResults parameter. This limit improves performance on the middle tier and prevents the browser from timing out when it processes a large number of hits that are found for a query. If you set this parameter to 100, the eClient returns the 100 most recent items even if there are more search results. If you set the parameter to the default value of -1, the eClient returns all search results.

Be aware that servers might have their own maximum results values, so make sure that the values that you specify do not exceed the servers' own maximum values.

---

**Problem**

Several graphics in the EIP installation graphical user interface have not been translated into supported languages.

**Action**

None.

---

**Problem**

The eClient viewer applet could not open a document if the resource manager server is configured to use SSL connection.

**Symptom:**

If the resource manager server is configured with an SSL connection, but the eClient server is not configured to use SSL connection, and direct retrieval is enabled in eClient IDM.properties file, the viewer applet will throw an error message, The server returned empty document, while opening the document from the Content Manager server.

**Action**

This is a third party software limitation.

The Java plug-in supports only HTTP or HTTPS redirect as long as the redirection occurs with the same protocol, that is, HTTP to HTTP or HTTPS to HTTPS. The Java plug-in does not automatically follow redirect from one protocol to another, for instance, from HTTP to HTTPS and HTTPS to HTTP. Doing so might adversely affect security.

The administrator should configure the eClient server and resource manager server to use the same protocol.

---

**Problem**

If you make changes to a reference attribute value in an existing item, the C++ update operation, (DKDDO::update() or DKDatastoreICM::updateObject()), does not recognize that the reference attribute value has changed and will ignore the update request.

The update operation returns successfully without error and the reference attribute value appears to be set correctly in the DKDDO object in memory. However, when you refresh or re-retrieve the DKDDO, the reference attribute reverts back to NULL.

The reference attribute change was never made persistent during the update call, because the change was not recognized.

This issue potentially affects all item type classifications, but is known to be an issue with document-classified item types. This issue affects all Version 8 releases and fix packs as of the time of this article, which includes Version 8.2 fix pack 7.

**Action**

We are investigating this issue to be corrected in a future fix pack or release. The solution, in the meantime, is to modify another attribute in the same DKDDO of a standard primitive type, for example a variable-length character string (VARCHAR), fixed-length character string (CHAR), integer, short, double, decimal, date, time, or timestamp. As long as another change is seen in the same DKDDO object that the reference attribute changed in, the reference attribute change should be recognized.

The problem occurs primarily when the reference attribute change is the only change to appear in the particular DKDDO for the update operation. Check subsequent fix packs and releases after Version 8.2 fix pack 7 as they become available for a correction to the C++ update behavior.

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END OF README FILE  
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