



Release Notes



Release Notes

Note

Before using this information and the product it supports, read the information in "Notices" on page 71.

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Revision Log

Date	Revision
11/14/08	<ul style="list-style-type: none">▪ Initial release of P8 4.5

Introduction

This document provides release information about IBM® FileNet® P8 4.5 and has the following major topics:

- **What's new** – Describes new features.
- **Known issues** – Lists and describes known product and documentation issues.

This document includes information about the following FileNet P8 components:

- Application Engine 4.0.2
- Business Activity Monitor 4.5
- Content Engine 4.5
- FileNet Content Federation Services 4.5
- FileNet P8 Documentation 4.5
- Process Analyzer 4.5
- Process Engine 4.5
- Process Simulator 4.5
- Records Manager 4.5
- Rendition Engine 4.5
- Workplace XT 1.1.3

Access IBM FileNet documentation, compatibility matrices, and fix packs

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

1. Navigate to the Product Documentation for FileNet P8 Platform support page.
(<http://www-1.ibm.com/support/docview.wss?rs=3247&uid=swg27010422>).
2. Select a PDF or a Doc Link, whichever is appropriate.

Customer support

For information about contacting customer support:

1. Navigate to the FileNet Product Family support page:
(<http://www-01.ibm.com/software/data/content-management/filenet-product-family/support.html>).
2. Click **IBM FileNet Support Communications**, or search for a particular support topic under “Enter search terms”.

Feedback

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

What's New

This section lists the new and improved features contained in this release.

FileNet P8 Platform

Staged upgrades

If you are upgrading from IBM FileNet P8 Platform V4.0 components, including supported expansion products, you can choose to upgrade the components independently. This means that you can upgrade one component and still have a working configuration without upgrading all components during the same upgrade session. For more information, see “Upgrade Overview” in *Plan and Prepare Your Environment for IBM FileNet P8*.

Simplified application data deployment

The following features simplify the deployment of application data from one FileNet P8 environment to another.

- FileNet Deployment Manager

You use FileNet Deployment Manager to replace environment-specific data, such as user names and object store IDs, in application data that is extracted from a Content Engine object store. You can use this tool for Content Engine core objects, Process Engine workflow definitions, Workplace and Workplace XT objects, and eForms objects. You can run Deployment Manager from a command line or from a graphical user interface.

For more information about FileNet Deployment Manager, see [FileNet P8 Documentation > Application Deployment > Get started with FileNet Deployment Manager](#). For information about the command-line interface, see [FileNet P8 Documentation > Application Deployment > Use the command line utilities > Deployment command-line reference](#).

- Process Engine Export and Import Utilities

Process Engine includes the following new command-line utilities to assist in exporting and importing application data from one Process Engine instance to another:

- The object utilities consist of two scripts, `peObject_export` and `peObject_import`, which assist you with exporting and importing queues, rosters, logs, user preferences, and system properties.
- The server utilities consist of two scripts, `peServerConfig_export` and `peServerConfig_import`, which assist you with exporting and importing server configuration information.

For more information about these utilities, see [FileNet P8 Documentation > Application Deployment > Use the command line utilities > Process Engine Export/Import Utilities command-line reference](#).

- Application deployment help

Application deployment is documented in the FileNet P8 Help. Along with detailed procedures for deploying custom applications, the help includes deployment maps that identify the classes, objects, and other assets that you need to consider when deploying an application. For each asset, these deployment maps describe the deployment mechanism, any dependencies on other assets, and environment-specific data.

IBM Support Assistant

IBM Support Assistant (ISA) is a no-charge support tool that you can download and install on your local system. ISA helps you find information and resolve problems with IBM software products. ISA add-ons are available for a variety of IBM FileNet products, including the IBM FileNet P8 Business Process

Manager, Content Manager, and Application Engine products. An add-on enables ISA to display product-specific information (such as APARs and technotes).

Instructions for downloading and installing the ISA are on the ISA Web site: www.ibm.com/software/support/ISA/. After you have installed the ISA, you can download product add-ons. For instructions, see "Find new product add-ons" in the ISA online help.

Application Engine

Improved installation and configuration process

- Starting with fix pack AE-4.0.2-001, all Application Engine fix packs contain all of the software necessary to install Application Engine. You no longer need to install a base Application Engine release prior to installing a fix pack.
- Installation program panels have been updated to make choices clearer and to simplify the installation process.
- The Install and Upgrade Worksheet, new in the FileNet P8 Platform documentation release for 4.5, includes rows for Application Engine installation program values. You can use the worksheet when planning and preparing for your Application Engine installation as part of a FileNet P8 environment.
- The Application Engine installation program and the client installation programs for Process Engine and Content Engine allow you to defer creating a deployment file. By deferring this step, you can bypass creating the deployment file for each installation program. Instead, the last installation program can create the file, or you create the file manually before you deploy.

New access role

The new PWDiagram access role controls access to Diagram mode in Process Designer. Diagram mode provides an easy-to-use tool for business users to create layouts of workflow definitions, including documentation to describe business processes.

Removed root user restriction

Previous releases required that the user installing Application Engine have root permission. This requirement no longer exists.

Expanded single sign-on support

Application Engine supports Kerberos/SPNEGO Single Sign On (SSO) using BEA WebLogic Server 10 and IBM WebSphere® V 7.

Improved language support

Application Engine no longer requires language packs to provide a translated Workplace user interface. In addition to English, this release provides the Workplace user interface in the following languages:

Language	Locale	Language	Locale
Arabic	AR	Japanese	JA
Bulgarian	BG	Korean	KO
Catalan	CA	Polish	PL
Chinese (Simplified)	zh-CN	Portuguese (Iberian)	PT
Chinese	zh-TW	Portuguese	pt-BR

(Traditional)		(Brazilian)	
Croatian	HR	Romanian	RO
Czech	CS	Russian	RU
Dutch	NL	Swedish	SV
Finnish	FI	Slovak	SK
French	FR	Spanish	ES
German	DE	Thai	TH
Italian	IT		

NOTE Separate media are available for each language's Application Integration and File Tracker installation programs.

Business Activity Monitor

New location for installation instructions

The installation guide was removed from the IBM FileNet Business Activity Monitor (BAM) Projects. The new installation instructions are available in the BAM Quick Start Guide.

Application name changes

The following product names have been changed, and the product documentation is updated accordingly.

- FileNet Application Workbench is changed to IBM Cognos Now! Workbench.
- FileNet Business Activity Monitor is changed to IBM FileNet Business Activity Monitor.
- FileNet BAM software is changed to IBM FileNet BAM Projects.
- FileNet BAM Dashboard is changed to IBM Cognos Now! Dashboard.
- FileNet Operational Dashboard is changed to IBM Cognos Now! Dashboard.
- FileNet BAM Workbench is changed to IBM Cognos Now! Workbench.
- FileNet Application Workbench is changed to IBM Cognos Now! Workbench.
- FileNet BAM Server Reference is changed to IBM Cognos Now! Streaming Server Reference.
- FileNet BAM Web application is changed to IBM Cognos Now! Web application.
- FileNet Activity Suite is changed to IBM Cognos Now!
- FileNet Business Activity Monitor (BAM) Documentation CD is changed to IBM FileNet BAM Projects Documentation CD.

Changes to the "Import Out-of-the-box configuration project" topic

- The "Import the pre-configured Business Activity Monitor objects" topic is changed to "Import Out-of-the-box configuration project."
- The "Configure a context data source to access data from Process Analyzer" section is changed to "Configure a JDBC agent."
- "Configure a JDBC agent" includes SQL Server 2005 examples.
- The "Other application servers" and "Advanced IBM FileNet BAM functionality" sections have been added.

New upgrade procedure

A procedure for upgrading an existing IBM FileNet BAM Project installation has been added. For more information, see [FileNet P8 Documentation > Expansion Products > Business Activity Monitor > Upgrade an existing IBM FileNet BAM Projects installation](#).

Improved language support

In addition to English, BAM provides the user interface in the following languages:

Language	Locale
French	FR
German	DE

The French and German sample project files are located on the media in the following directories:

\Projects\DE

\Projects\FR

Content Engine

Improved configuration and deployment during installation

The new Configuration Manager tool is used to configure and deploy Content Engine on an application server. Configuration Manager can be run either from a command line or from a graphical user interface. It takes the place of manual configuration and deployment steps previously performed using the application server administrative interface.

Improved Enterprise Manager functionality

- Content Consistency Checker performance improved.
- Previously you created Index Areas using a dialog in Content Based Retrieval (CBR). The dialog has been replaced with the Create an Index Area wizard for greater consistency with other creation tasks.
- You can now use the Create Object Store wizard to revise the object store creation schema script. The AddOns installation process is more visible, giving you more flexibility in choosing which AddOns to install when the object store is created. Throughout Enterprise Manager, AddOns are now consistently listed by their new display names.
- You can now apply non-versioning security templates to documents, folders, and custom objects.
- You now can control whether to save the Original and Current snapshots (or none at all) when auditing events.
- You can restrict membership to configured realms.
- In the Directory Configuration properties, you now can restrict group lookups to configured realms only.

Removed root user restriction

Previous releases required that the user installing Content Engine have root permission. This requirement no longer exists.

Support for DITA Rendition Engine

The Darwin Information Typing Architecture (DITA) Rendition Engine, based on the DITA specification 1.1, uses the DITA Open Toolkit for rendering. The DITA Rendition Engine publishes DITA content (topics and maps) into PDF.

Improved language support

In addition to English, Content Engine provides the user interface for the Content Engine properties for Workplace and Workplace XT in the following languages:

Language	Locale	Language	Locale
* Arabic	AR	Japanese	JA
* Bulgarian	BG	Korean	KO
* Catalan	CA	* Polish	PL
Chinese (Simplified)	zh-CN	* Portuguese (Iberian)	PT
Chinese (Traditional)	zh-TW	Portuguese (Brazilian)	pt-BR
* Croatian	HR	* Romanian	RO
* Czech	CS	Russian	RU
Dutch	NL	* Swedish	SV
Finnish	FI	* Slovak	SK
French	FR	Spanish	ES
German	DE	* Thai	TH
Italian	IT		

* These languages are available only for Workplace.

FileNet Content Federation Services

Support for Content Manager OnDemand

Content Federation Services now supports Content Manager OnDemand as an external repository.

Integration with Content Engine

- Content Federation Services supports Image Services and Content Manager OnDemand as part of the FileNet P8 Platform installation. Note that CFS support for Content Services, IBM Content Integrator, and other supported external repositories requires a separate installation.
- Content Federation Services supports IBM Content Integrator® V8.5 (formerly Information Integrator Content Edition – IICE).

FileNet P8 Documentation

Improved planning, preparation, and installation instructions

- The IBM FileNet P8 documentation set provides a separate customer-oriented environment preparation guide, *Plan and Prepare your Environment for IBM FileNet P8*, which presents information that was previously included in the planning and preparation section of the *IBM FileNet P8 Platform Installation and Upgrade Guide*. The topics in this new guide are divided by

administrator roles, including Application Server Administrator, Database Administrator, IT Administrator, Security Administrator, and P8 Administrator. The guide provides tasks for these roles to perform in the customer environment to prepare for the installation or upgrade of IBM FileNet P8 components.

- The documentation set also includes the *Installation and Upgrade Worksheet* (p8_worksheet.xls). The content of this file can be customized to match the customer's installation parameters, and further customized by role, so that each administrator at a customer site can configure and collect the data needed to complete the installation programs. Each row in the worksheet provides an entry for an installation, upgrade, or configuration field or parameter. Using the worksheet in conjunction with the *Plan and Prepare Your Environment for IBM FileNet P8* guide can simplify the installation and upgrade process. The "Glossary" appendix at the end of the *Plan and Prepare Your Environment for IBM FileNet P8* guide provides definitions for each of the non-obvious properties or parameters listed in the worksheet.
- The *Plan and Prepare Your Environment for IBM FileNet P8* guide provides a section called "Upgrade Overview." This section presents staged upgrade scenarios in the form of flowcharts to help customers understand the ramifications of choosing a staged upgrade for their existing IBM FileNet P8 environment.
- The appendix "IBM FileNet P8 ports," in the *Plan and Prepare Your Environment for IBM FileNet P8* guide, has been improved with descriptions and explanations of the required or default ports.
- The *IBM FileNet P8 Installation and Upgrade Guide* has been re-architected to clarify the sequence of tasks necessary to install a specific core component. In addition, all necessary tasks are inline for both new installations and upgrades, to prevent the need to flip to different sections of the book to complete a task.
- The procedures in the *IBM FileNet P8 Installation and Upgrade Guide* have been streamlined to provide required independent software vendor settings, but not the detailed instructions for how to configure vendor software such as application servers and databases. This will result in fewer instances of confusing or outdated instructions specific to these applications.
- Procedures for installing the Content Engine Client files on the Process Engine and Application Engine servers have been added to the *IBM FileNet P8 Installation and Upgrade Guide*. This information was formerly available in the Content Engine fix pack readme file.
- To support the new Content Engine Configuration Management tool, the "Configuration Manager reference" appendix has been added to the *IBM FileNet P8 Installation and Upgrade Guide* to provide reference information for the graphical-user-interface and command-line versions of the tool. To augment this documentation, rollover context-sensitive help has been added to the tool's graphical user interface to explain screen elements.

New location for the upgrade instructions for custom applications

The "Upgrade Custom Applications" section of the *IBM FileNet P8 Platform Installation and Upgrade Guide* has been moved to the FileNet P8 Platform Help. See [FileNet P8 Documentation > Developer Help > Upgrade Custom Applications](#).

Process Analyzer

Improved language support

Process Analyzer no longer requires language packs to provide a translated user interface. In addition to English, this release provides the user interface in the following language:

Language	Locale
Japanese	JA

Support for separate database servers

The Analysis Services server and the Process Analyzer Database server can now reside on different database servers.

Improved event log processing

Process Analyzer server can be configured to process events from specific isolated regions or specific event logs.

Process Engine

Process Engine Export and Import Utilities

Process Engine includes the following new command-line utilities to assist in exporting and importing application data from one Process Engine instance to another:

- The object utilities consist of two scripts, `peObject_export` and `peObject_import`, which assist you with exporting and importing queues, rosters, logs, user preferences, and system properties.
- The server utilities consist of two scripts, `peServerConfig_export` and `peServerConfig_import`, which assist you with exporting and importing server configuration information.

For more information about these utilities, see [FileNet P8 Documentation > Application Deployment > Use the command line utilities > Process Engine Export/Import Utilities command-line reference](#).

New features for Process Designer

- Membership in the appropriate access role enables specific functionality in Process Designer, including access to Diagram mode, to configuration and administration features, and to simulation features.
- Diagram mode in Process Designer provides an easy-to-use tool for business users to create layouts of workflow definitions, including document to describe business processes. These diagrams provide the starting point for collaboration between the business user and the IT developer to create the fully functional workflow definition in Design mode.
- Configuration and administration tools are integrated into Process Designer to minimize steps and tools required to create solutions. You can make configuration changes, such as adding queues and rosters. After you launch a workflow, you can access work items using Personal Work Manager, and you can use Process Administrator to administer the running workflow.
- You can insert new or existing scenarios into the workflow collection. A scenario can include one or more of the workflow definitions in the collection. In Process Designer, you can launch the scenario to create the simulation, and you can use Simulation Console to manage the simulation.
- Process Designer has a tabbed interface to support multiple workflow definitions, scenario definitions, configuration, roles, and in-basket panels. You can switch between the workflow definitions, configuration settings, scenario definitions, and other options by clicking the appropriate tab.
- Support for Web 2.0 components (widgets) enables rapid development of BPM applications without coding. You can combine IBM ECM Widgets with industry and custom widgets to create process application interfaces. Use Process Designer and Process Configuration Console to define application spaces that specify security and roles, and in-baskets that provide a filtered view of tasks for users who fill a specific role in the process. This functionality is available as an optional expansion product.
- You can register step processors in Process Designer, as well as in Process Configuration Console.

- Menu items and locations have changed.
 - The File menu options apply to the workflow collection. Additionally, the Import Workflow option is no longer available; use the Insert command instead.
 - The Edit menu now contains the Change Step Type and Create Map options, which were previously in the Tools menu.
 - The View menu now supports the tabbed interface to enable you to select workflows, scenarios, the Configuration Console, Roles, and In-baskets.
 - The Action menu items apply to the individual workflow definition or scenario on the selected tab. It also contains Workflow Properties, and print options.
 - The Tools menu now provides access to Personal Work Manager, Process Administrator, and Simulation Console, if you are a member of the appropriate access roles. The tools that were previously on the Tools menu have been moved to the Edit, Action or Settings menus.
 - The Help menu provides access to the online help and the tutorials.
 - Options that were available in the Workflow Collection dialog box are now available on the View, File, and Actions menus or on the Workflow Properties > Advanced tab.

New features for Process Configuration Console

- You can export all Process Engine settings or select specific isolated regions, queues, rosters, and event logs to XML.
- Support for Web 2.0 components (widgets) enables rapid development of BPM applications without coding.
- You can specify application spaces, roles, and in-baskets in Process Configuration Console.

Improved accessibility

Process Administrator and Process Configuration Console options can now be accessed using the keyboard or assistive software, such as screen readers.

New Content Extended Operations

New Content Extended (CE) Operations methods are available to manipulate documents and folders in a repository.

Process Simulator

Improved language support

Process Simulator no longer requires language packs to provide a translated user interface. In addition to English, this release provides the user interface in the following languages:

Language	Locale	Language	Locale
Czech	CS	Italian	IT
French	FR	Japanese	JA
German	DE	Spanish	ES

Records Manager

New auto-destroy feature

Records Manager introduces the auto-destroy feature that, when configured, automatically deletes records at the end of their retention schedule without involving workflow functionality.

Container-managed authentication and single sign-on

Records Manager can now be deployed in a container-managed authentication environment and in a single sign-on (SSO) environment. For more information about supported SSO software, see *IBM FileNet P8 Hardware and Software Requirements*.

New Declassification Sweep utility

Declassification Sweep is a new Records Manager utility that alters the date on which a classified record will be declassified based on a pre-defined declassification timeframe.

New report for entities due for an interim transfer

Records Manager Disposition Sweep has a new parameter that generates a text file of entities that are due for an interim transfer by a specified date.

Improved language support

The Records Manager user interface is multilingual, and users can select a language based on the browser locale, which is now consistent with FileNet P8 Workplace and Workplace XT.

The language pack content is now included in the English installation program. This eliminates the need to download and run a separate language pack.

The installation and configuration instructions for non-English environments are now integrated into the *IBM FileNet Records Manager Installation and Upgrade Guide*.

The following table lists the available languages for the user interface.

Language	Locale	Language	Locale
Arabic	AR	German	DE
Catalan	CA	Italian	IT
Chinese (simplified)	ZH_CN	Japanese	JA
Chinese (traditional)	ZH-TW	Korean	KO
Czech	CS	Portuguese (Iberian)	PT
Dutch	NL	Portuguese (Brazilian)	PT-BR
Finnish	FI	Spanish	ES
French	FR		

Customizable report templates

Records Manager reports can be customized and translated. This can be accomplished in multilingual environments by customizing and translating the report templates so that the reports can be created in any of the available languages.

Improved multi-threading process control

You can now specify the number of simultaneous processing threads that Records Manager can use when running:

- Hold Sweep
- Disposition Sweep
- Auto-destroy

Improved object store configuration wizard

The Records Manager Configure tab now provides the capability to configure new object stores for Records Manager use, and make upgrades to existing Records Manager object stores.

New system-to-system transfers utility

The Records Manager Transfer Tool is a new Records Manager stand-alone utility that transfers active records and folders to an external system for permanent archiving.

New workflows with mapping

Records Manager has three new workflows that you can associate with a disposition action:

- Export transfer with mapping
- Interim transfer with mapping
- Two-step transfer with mapping

These new workflows allow you to select a transfer mapping that Records Manager uses during the disposition action.

Rendition Engine

Updated rendering engine

Rendition Engine is now based on Lquent Enterprise Services (LES) 3.0.

Expanded application support

Rendition Engine now supports Microsoft Office 2007.

Expanded platform support

Rendition Engine now supports installations on the following components:

- 64-bit Windows® 2003
- Oracle 11

Automated Vista Domain handling

The server on which the Rendition Engine is installed will automatically be added as a COM Repository to a new Vista domain if none exists in the database location specified, or else added to the existing Vista domain.

New default installation location

The default installation location is: C:\Program Files\FileNet\RenditionEngine\Lquent

Workplace XT

Improved user interfaces

- Entry templates and the Add Folder wizard have been updated with the same easy-to-use steps and controls as the Add Document wizard.
- Adding documents using drag-and-drop opens an entry template where appropriate.
- The folder Properties page has been updated with the same easy-to-use features as the document Properties page.
- The Advanced Search page uses improved folder and class selection interfaces.
- The Move, File, and Unfile actions have been updated to use the new Workplace XT look-and-feel.
- The current folder's contents can be easily refreshed directly from the toolbar.
- Bookmarked folders, stored searches, and search templates open using the standard Workplace XT interface.

Folder customizations

- An administrator can customize the displayed columns and default sort order for each folder.
- An administrator can associate entry templates with specific folders and specific document types.

Expanded support for other repositories

- Documents stored on a Content Manager OnDemand (CMOD) server can be viewed using CMOD viewers.
- Documents stored on a CM8 server can be viewed.

Improved integration with Office applications

- Application Integration BCS integrates Microsoft Office 2007 applications and Outlook with Workplace XT. Integrated Office applications and Outlook provide access to object stores and some of the Workplace XT features, allowing you to perform and complete your document management tasks without leaving the applications. New features include:
 - Add documents and e-mails using entry templates.
 - Browse and search for documents.
 - Add documents and folders to the Favorites folder.
 - View and modify document properties.
 - Open documents recently accessed from an object store.
 - Check documents in and out of an object store.
 - E-mail a link or copy of a document.
 - Access document management actions and tools from the familiar Microsoft Office 2007 Ribbon.
 - Control Application Integration BCS behavior using site preferences.
- Single sign-on (SSO) using Kerberos is supported with integrated Office applications.

Improved search capabilities

- The Advanced Search page has been improved to allow keyword searches in addition to property searches.
- Keyword search results can, in many cases, be resorted by columns in the search results.

Improved installation and configuration process

- Installation program panels have been updated to make choices clearer and to simplify the installation process.
- The *Installation and Upgrade Worksheet* (p8_worksheet.xls) includes rows for Workplace XT installation program values. You can use the worksheet when planning and preparing for your Workplace XT installation as part of a FileNet P8 environment.
- The Workplace XT installation program and the client installation programs for Process Engine and Content Engine allow you to defer creating a deployment file. Deferring this step allows you to bypass creating the deployment file for each installation program. Instead, the last installation program can create the file, or you create the file manually before you deploy.

Removed root user restriction

Previous releases required that the user installing Workplace XT have root permission. This requirement no longer exists.

New access role

The new PWDiagram access role controls access to Diagram mode in Process Designer. Diagram mode provides an easy-to-use tool for business users to create layouts of workflow definitions, including document to describe business processes.

Improved language support

In addition to the 11 languages already supported, Workplace XT provides a translated user interface for the following new languages:

Language	Locale
Finnish	FI
Russian	RU

NOTE Separate media are available for each language's Application Integration and File Tracker installation programs.

Other improvements

- The Send Mail action is integrated with the user's Lotus Notes or Microsoft Outlook e-mail client.
- The values of multi-valued properties are displayed in the list view.
- Improved error messages when configuring site preferences help administrators to resolve configuration errors more easily.
- Improved error messages in Application Integration BCS provide more assistance to the user when resolving errors.

Development Tools

Content Java™ API Compatibility Layer

Encryption Algorithm Change

The use of the Blowfish encryption algorithm for encrypting session tokens is replaced by the FIPS 140-compliant Advanced Encryption Standard (AES) algorithm.

When testing encryption of credentials tokens during application development, you can run the `MakeCryptoKeys` utility from a command line to manually generate one or more encryption keys. Under the Blowfish algorithm, the range of allowed key sizes was 8 to 448 in increments of 8 bits. Allowed key sizes for AES are 128 (the default), 192, or 256 bits. If you specify a size greater than 256 bits, the `MakeCryptoKeys` utility generates a warning and reduces the value to 256 bits. Values that are not exactly 128, 192, or 256 are rounded down.

See the Known Issues section of this Release Notes document for additional information, including updates to the `MakeCryptoKeys` class documentation (ecmdb00755693).

Content Engine Object Model Changes

This section lists the Content Engine classes, interfaces, and properties that have been added in this release as well as the properties that have been deprecated. Note that there are a number of new exposed interfaces and properties—primarily those that are replication-related—that currently are not supported. The replication-related interfaces and properties that are supported are those used for Content Federation Services (CFS) functionality.

New classes and interfaces

The following classes and interfaces have been added to the Content Engine object model.

Class/interface	Summary description
<code>CMODApplicationGroup</code>	Represents an IBM® Content Manager OnDemand (CMOD) application group that can be configured for content federation. An application group is a collection of one or more OnDemand applications with common indexing and storage management attributes.
<code>CMODApplicationGroupSet</code>	A collection interface that represents a collection of <code>CMODApplicationGroup</code> objects.
<code>CMODFixedContentDevice</code>	Represents the description of an IBM® Content Manager OnDemand (CMOD) external fixed content storage device.
<code>CMODFixedContentDeviceSet</code>	A collection interface that represents a collection of <code>CMODFixedContentDevice</code> objects.
<code>CMODRepository</code>	A replication interface that represents an IBM Content Manager OnDemand (CMOD) external repository that is capable of federating content.
<code>CMODRepositorySet</code>	A collection interface that represents a collection of <code>CMODRepository</code> objects.

ContainmentName	A constants class that provides a set of constants that specify illegal containment name characters.
ContentFederatingRepository	A replication interface that represents repositories that are external to the Content Engine server and are capable of federating content. This interface is the base for subinterfaces representing external repositories that are capable of federating content.
ContentFederatingRepositorySet	A collection interface that represents a collection of <code>ContentFederatingRepository</code> objects.
DirectoryConfigurationCA	Not supported.
DirectoryConfigurationCAList	Not supported.
DITARenditionEngineConnection	Represents site-specific connection data for a DITA Rendition Engine that is referenced by a publishing configuration. (A DITA Rendition Engine is one that uses a DITA Open Toolkit deployment for publishing documents.)
DITARenditionEngineConnectionSet	A collection interface that represents a collection of <code>DITARenditionEngineConnection</code> objects.
ExternalAlias	A replication interface that represents the mechanism for mapping an external class or property to a corresponding Content Engine class or property. This interface is the base for subinterfaces representing external class and property aliases.
ExternalAliasList	A collection interface that represents a collection of <code>ExternalAlias</code> objects.
ExternalClassAlias	A replication interface that represents the mechanism for mapping an external class to a corresponding Content Engine class.
ExternalClassAliasList	A collection interface that represents a collection of <code>ExternalClassAlias</code> objects.
ExternalClassDescription	A replication interface that represents the description of a class in an external repository of which an object instance can be replicated.
ExternalClassDescriptionSet	A collection interface that represents a collection of <code>ExternalClassDescription</code> objects.
ExternalIdentity	A replication interface that represents the identity of a replicated object in an external repository.
ExternalIdentityList	A collection interface that represents a collection of <code>ExternalIdentity</code> objects.
ExternalParticipant	Not supported.
ExternalParticipantList	Not supported.

ExternalPropertyAlias	A replication interface that represents the mechanism for mapping an external class property to a corresponding Content Engine class property.
ExternalPropertyAliasList	A collection interface that represents a collection of <code>ExternalPropertyAlias</code> objects.
ExternalPropertyDescription	A replication interface that represents the description of a class property in an external repository.
ExternalPropertyDescriptionList	A collection interface that represents a collection of <code>ExternalPropertyDescription</code> objects.
ExternalRepository	A replication interface that represents repositories that are external to the Content Engine server. This interface is the base for subinterfaces representing external repositories.
ExternalRepositorySet	A collection interface that represents a collection of <code>ExternalRepository</code> objects.
ImageServicesRepository	A replication interface that represents an IBM® FileNet® Image Services external repository that is capable of federating content.
ImageServicesRepositorySet	A collection interface that represents a collection of <code>ImageServicesRepository</code> objects.
ObjectStateRecordingLevel	A constants class that provides a set of constants that specify the audit recording level of the source object for an event of type <code>ObjectChangeEvent</code> .
ObjectStoreParticipant	A replication interface that represents an object store participant of a replication group.
ObjectStoreParticipantList	A collection interface that represents a collection of <code>ObjectStoreParticipant</code> objects.
Replicable	A replication interface that is the base for subinterfaces representing classes of which an object instance can be replicated.
ReplicableClassDefinition	Represents the class definition (mutable class metadata) of classes of which an object instance can be replicated.
ReplicableClassDefinitionSet	A collection interface that represents a collection of <code>ReplicableClassDefinition</code> objects.
ReplicableSet	A collection interface that represents a collection of <code>Replicable</code> objects.
ReplicationConfiguration	Represents configuration settings for the replication components of a server.
ReplicationConfigurationList	A collection interface that represents a collection of <code>ReplicationConfiguration</code> objects.

ReplicationDirection	A constants class that provides a set of constants that specify the direction in which instances of an external class, which is represented by an <code>ExternalClassDescription</code> object, can be replicated between a Content Engine object store and an external repository.
ReplicationGroup	Not supported.
ReplicationGroupSet	Not supported.
ReplicationJournalEntry	A replication interface that represents the journal record of an operation on a replicated object for outbound replication.
ReplicationJournalEntrySet	A collection interface that represents a collection of <code>ReplicationJournalEntry</code> objects.
ReplicationJournalStatus	Not supported.
ReplicationMode	Not supported.
ReplicationParticipant	A replication interface that is the base for subinterfaces representing external repository or object store participants in a replication group.
ReplicationParticipantList	A collection interface that represents a collection of <code>ReplicationParticipant</code> objects.
Repository	A replication interface that is the base for subinterfaces representing object stores and external repositories.
RepositorySet	A collection interface that represents a collection of <code>Repository</code> objects.
SystemAddOnId	A constants class that provides a set of GUID constants that identify the AddOns provided by the system.

New properties

The following properties have been added to the Content Engine object model.

Property	Applies to	Summary description
AliasDirection	ExternalAlias ExternalClassAlias ExternalPropertyAlias	A <code>ReplicationDirection</code> constant that indicates the direction in which the mapping applies for this class or property alias.
ApplicationGroupNumber	CMODApplicationGroup	The unique number identifying this IBM Content Manager OnDemand (CMOD) application group.
CMODApplicationGroups	CMODFixedContentDevice	A <code>CMODApplicationGroupSet</code>

		object containing the set collection of application groups defined in the IBM Content Manager OnDemand (CMOD) external repository associated with this CMOD fixed content device.
CMODLanguage	CMODFixedContentDevice	A value for the IBM® Content Manager OnDemand (CMOD) external repository associated with this CMOD fixed content device that indicates the language in which messages will be output.
CMODPassword	CMODFixedContentDevice	The password for the security principal identified by the CMODUserName property.
CMODPort	CMODFixedContentDevice	The port number on which the IBM® Content Manager OnDemand (CMOD) server associated with this CMOD fixed content device is listening.
CMODServerName	CMODFixedContentDevice	The name of the IBM® Content Manager OnDemand (CMOD) server with which this CMOD fixed content device is associated.
CMODTraceLevel	CMODFixedContentDevice	The amount of trace information that will be gathered by the IBM® Content Manager OnDemand (CMOD) external repository associated with this CMOD fixed content device.
CMODUserName	CMODFixedContentDevice	The name of the security principal for accessing the IBM Content Manager OnDemand (CMOD) server associated with this CMOD fixed content device.
ClassFamily	ExternalClassDescription	The symbolic name of the Content Engine root class (for example, "Document") to which the class described by this external class description corresponds.
ClassIdentity	ExternalClassAlias ExternalClassDescription ExternalPropertyAlias	The identity of the external class described by this external class description, external class alias, or external property alias.
DITADatabaseTimeout	DITARenditionEngineConnection	The database transaction timeout in seconds for DITA-specific publishing requests.
DITAHome	DITARenditionEngineConnection	The fully qualified path to the directory where the DITA Open Toolkit is installed.

DITAJVMArguments	DITARenditionEngineConnection	The optional Java™ Virtual Machine (JVM) arguments that will be used to invoke the DITA Open Toolkit when publishing DITA content.
DITARenditionEngineConnection	PublishingConfiguration	The <code>DITARenditionEngineConnection</code> object used by this publishing configuration.
DITARenditionEngineConnections	Domain	The <code>DITARenditionEngineConnectionSet</code> object that lists the DITA Rendition Engine connections for this domain.
DITAWorkingDirectory	DITARenditionEngineConnection	The fully qualified path to the working directory where DITA component documents will be downloaded from the Content Engine server for publishing via the DITA Open Toolkit.
DatabaseIndexStorageLocation	ObjectStore	The location within the database in which index information is to be created and referenced.
DatabaseLOBStorageLocation	ObjectStore	The location within the database in which Large Object (LOB) data is to be created and referenced.
DatabaseTableStorageLocation	ObjectStore	The location within the database in which new tables are to be created and referenced.
DateCheckedIn	CodeModule Document PublishTemplate Versionable WorkflowDefinition XMLPropertyMappingScript	The date and time that this document was checked in.
DestinationRepository	ReplicationJournalEntry	Not supported.
DuplicateSuppressionEnabled	DatabaseStorageArea FileStorageArea	Not supported.
DynamicGroupMemberAttribute	DirectoryConfigurationCA	Not supported.
DynamicGroupObjectClass	DirectoryConfigurationCA	Not supported.
DynamicGroupQueryAttribute	DirectoryConfigurationCA	Not supported.
ExternalAliases	DocumentClassDefinition PropertyDefinition	An <code>ExternalPropertyAliasList</code> collection of the external aliases defined for this property definition or replicable

	PropertyDefinitionBinary PropertyDefinitionBoolean PropertyDefinitionDateTime PropertyDefinitionFloat64 PropertyDefinitionId PropertyDefinitionInteger32 PropertyDefinitionObject PropertyDefinitionString ReplicableClassDefinition VersionableClassDefinition	class definition.
ExternalClassDescriptions	CMODRepository ContentFederatingRepository ExternalRepository ImageServicesRepository	An ExternalClassDescriptionSet object containing the set collection of ExternalClassDescription objects associated with this external repository.
ExternalObjectIdentity	ExternalIdentity	The unique identity of this external replica object, relative to the external repository in which it belongs.
ExternalPropertyDescriptions	ExternalClassDescription	An ExternalPropertyDescriptionSet object containing the set collection of ExternalPropertyDescription objects associated with this external class description.
ExternalReplicaIdentities	Action ActionConsumer Annotation ChoiceList ClassDefinition ClassSubscription ClassWorkflowSubscription CodeModule ComponentRelationship Containable ContainmentRelationship CustomObject Document DocumentClassDefinition	An ExternalIdentityList collection of the ExternalIdentity objects representing the identities of replicas of this object in external repositories.

	DocumentClassificationAction DocumentLifecycleAction DocumentLifecyclePolicy DynamicReferentialContainmentRelationship EventAction EventClassDefinition Folder InstanceSubscription InstanceWorkflowSubscription Link PropertyTemplate PropertyTemplateBinary PropertyTemplateBoolean PropertyTemplateDateTime PropertyTemplateFloat64 PropertyTemplateId PropertyTemplateInteger32 PropertyTemplateObject PropertyTemplateString PublishStyleTemplate PublishTemplate ReferentialContainmentRelationship Relationship Replicable ReplicableClassDefinition SecurityPolicy StoragePolicy SubscribableClassDefinition Subscription Versionable VersionableClassDefinition WorkflowDefinition WorkflowEventAction XMLPropertyMappingScript	
ExternalRepositories	Domain	An ExternalRepositorySet object

		containing the set collection of <code>ExternalRepository</code> objects associated with this domain.
<code>ExternalRepository</code>	<code>ExternalAlias</code> <code>ExternalClassAlias</code> <code>ExternalIdentity</code> <code>ExternalParticipant</code> <code>ExternalPropertyAlias</code>	The external repository associated with this replicated object, class or property alias, or external repository participant of a replication group.
<code>FcpPoolIdleTimeoutSeconds</code>	<code>CModFixedContentDevice</code> <code>CenteraFixedContentDevice</code> <code>FixedContentDevice</code> <code>GenericFixedContentDevice</code> <code>IICFixedContentDevice</code> <code>IMFixedContentDevice</code> <code>SnapLockFixedContentDevice</code>	The number of seconds an idle connection can remain in the pool before being eligible to be closed and removed from the pool.
<code>FcpPoolMaxInUse</code>	<code>CModFixedContentDevice</code> <code>CenteraFixedContentDevice</code> <code>FixedContentDevice</code> <code>GenericFixedContentDevice</code> <code>IICFixedContentDevice</code> <code>IMFixedContentDevice</code> <code>SnapLockFixedContentDevice</code>	The maximum number of concurrent connections to the fixed content device.
<code>FcpPoolMaxWaitSeconds</code>	<code>CModFixedContentDevice</code> <code>CenteraFixedContentDevice</code> <code>FixedContentDevice</code> <code>GenericFixedContentDevice</code> <code>IICFixedContentDevice</code> <code>IMFixedContentDevice</code> <code>SnapLockFixedContentDevice</code>	The maximum number of seconds to wait for a connection once the <code>FcpPoolMaxInUse</code> limit has been reached.
<code>FcpPoolPreferredSize</code>	<code>CModFixedContentDevice</code> <code>CenteraFixedContentDevice</code> <code>FixedContentDevice</code> <code>GenericFixedContentDevice</code> <code>IICFixedContentDevice</code> <code>IMFixedContentDevice</code>	The preferred size of the fixed provider pool.

	SnapLockFixedContentDevice	
GroupUniqueIDAttribute	DirectoryConfigurationCA	Not supported.
GroupUniqueIDAttributesBinary	DirectoryConfigurationCA	Not supported.
HeldUntilDate	ReplicationJournalEntry	Not supported.
IICEConfigurationServerURL	IICEFixedContentDevice	The URL that needs to be provided to the IBM Content Integrator API in order for it to locate the Configuration Server.
InboundBatchSize	ReplicationConfiguration	Not supported.
InboundBusyWaitInterval	ReplicationConfiguration	Not supported.
InboundDispatcherEnabled	ReplicationConfiguration	Not supported.
InboundIdleWaitInterval	ReplicationConfiguration	Not supported.
LastFailureReason	ReplicationConfiguration	Not supported.
MappableDirection	ExternalPropertyDescription	The direction in which the external property described by this external property description can be mapped for replication with respect to a Content Engine property.
MaxInboundWorkers	ReplicationConfiguration	Not supported.
MaxOutboundWorkers	ReplicationConfiguration	Not supported.
ObjectStateRecordingLevel	AuditDefinition	The audit recording level of the source object for an event of type ObjectChangeEvent. (The source object is the object on which the event is fired.)
ObjectStore	ObjectStoreParticipant	An object representing the object store in which the object resides.
ObjectStoreSchemaDB2	Domain	The default SQL script to use when creating object stores within a DB2 database.
ObjectStoreSchemaMSSQL	Domain	The default SQL script to use when creating object stores within a Microsoft SQL Server database.
ObjectStoreSchemaOracle	Domain	The default SQL script to use when creating object stores within an Oracle database.
OutboundBatchSize	ReplicationConfiguration	Not supported.
OutboundBusyWaitInterval	ReplicationConfiguration	Not supported.
OutboundDispatcherEnabled	ReplicationConfiguration	Not supported.
OutboundIdleWaitInterval	ReplicationConfiguration	Not supported.

PartnerObjectStore	ExternalParticipant	Not supported.
PropertyIdentity	ExternalPropertyAlias ExternalPropertyDescription	The identity of the external property described by this external property description or external property alias.
RegionKey	IsolatedRegion	The encryption key for this isolated region.
ReplicableDirection	ExternalClassDescription	The direction in which instances of the external class described by this external class description can be replicated.
ReplicationData	ExternalIdentity	Provider-specific data for this external replica object.
ReplicationGroup	Action ActionConsumer Annotation ChoiceList ClassDefinition ClassSubscription ClassWorkflowSubscription CodeModule ComponentRelationship Containable ContainmentRelationship CustomObject Document DocumentClassDefinition DocumentClassificationAction DocumentLifecycleAction DocumentLifecyclePolicy DynamicReferentialContainmentRelationship EventAction EventClassDefinition Folder InstanceSubscription InstanceWorkflowSubscription Link PropertyTemplate	A <code>ReplicationGroup</code> object representing the replication group to which this replicable object belongs.

	PropertyTemplateBinary PropertyTemplateBoolean PropertyTemplateDateTime PropertyTemplateFloat64 PropertyTemplateId PropertyTemplateInteger32 PropertyTemplateObject PropertyTemplateString PublishStyleTemplate PublishTemplate ReferentialContainmentRelationship Relationship Replicable ReplicableClassDefinition SecurityPolicy StoragePolicy SubscribableClassDefinition Subscription Versionable VersionableClassDefinition WorkflowDefinition WorkflowEventAction XMLPropertyMappingScript	
ReplicationGroups	Domain	Not supported.
ReplicationMode	ExternalParticipant ObjectStoreParticipant ReplicationParticipant	Not supported.
ReplicationOperation	ReplicationJournalEntry	Not supported.
ReplicationParticipants	ReplicationGroup	Not supported.
ReplicationStatus	ReplicationJournalEntry	Not supported.
ReplicationTraceFlags	TraceLoggingConfiguration	Not supported.
RestrictMembershipToConfiguredRealms	DirectoryConfiguration DirectoryConfigurationAD DirectoryConfigurationAdam	Restricts a group membership search to within the realms configured in FileNet Enterprise Manager.

	DirectoryConfigurationCA DirectoryConfigurationIBM DirectoryConfigurationNovell DirectoryConfigurationSunOne	
SearchDynamicGroup	DirectoryConfigurationCA	Not supported.
SuperclassIdentity	ExternalClassDescription	The identity of the immediate superclass of the class described by this external class description.
SupersededAddOnIds	AddOn UpgradeAddOn	The IDs of <code>AddOn</code> objects superseded by this <code>AddOn</code> .
TargetObjectStore	CMODApplicationGroup ExternalClassDescription	The name of the object store that will participate in content federation in this IBM® Content Manager OnDemand (CMOD) application group or to which this external class description belongs.
UserUniqueIDAttribute	DirectoryConfigurationCA	Not supported.
UserUniqueIDAttributelsBinary	DirectoryConfigurationCA	Not supported.

Deprecated properties

The following properties on the `IICEFixedContentDevice` interface have been deprecated in this release:

- `CFSNamingFactoryInitia`
- `CFSNamingProviderURL`
- `LockDownExceptionList`
- `LockDownPrincipal`
- `LockDownPrincipalType`

In the Content Engine Java™ API, the accessor methods (that is, the `get_<property>` and `set_<property>` methods) for these properties have been deprecated.

Content Engine Java and .NET APIs

Support for DITA Publishing

Support has been added for publishing Darwin Information Typing Architecture (DITA) documents using the DITA Open Toolkit as a rendition engine. To support this functionality, the following Content Engine API changes are introduced:

- A new class, `DITARenditionEngineConnection`, provides site-specific connection data used by the DITA Rendition Engine and includes the following DITA-specific properties: `DITADatabaseTimeout`, `DITAHome`, `DITAJVMArguments`, and `DITAWorkingDirectory`. For more information, see [FileNet P8 Documentation > Developer Help > Content Engine Development > Java API Reference > DITARenditionEngineConnection](#) or [FileNet P8 Documentation > Developer Help > Content Engine Development > .NET API Reference > IDITARenditionEngineConnection](#).
- A new property, `DitaRenditionEngineConnection`, has been added to the `PublishingConfiguration` class. For more information, see [FileNet P8 Documentation >](#)

[Developer Help > Content Engine Development > Java and .NET Developer's Guide > Reference > Properties by Class > PublishingConfiguration Properties.](#)

In addition, this release includes the new DITA Publishing Extension add-on, which does the following:

- Extends the `Document` class to represent DITA topics (`DitaTask`, `DitaConcept`, and so on), maps (`DitaMap` and `DitaBookMap`), and processing profiles (`DitaVal`).
- Extends the `ComponentRelationship` class to represent the relationships between files that make up a DITA project.
- Adds a document classifier (DITA classifier) that assigns the appropriate `Document` and `ComponentRelationship` subclasses when a DITA document is checked in. After all of the documents that make up a DITA project have been checked in and classified, the DITA project is represented as a FileNet P8 compound document.

Finally, the following items have been added to support DITA Publishing:

- DITA-specific publish style template transformation options that specify the output format, DITAVAL file and title (optional), and whether to do a "copy-only" operation (so that you can process the files outside of the FileNet P8 system).
- A DITA publish request handler that communicates with the DITA Open Toolkit to publish DITA documents.

For more information, see [FileNet P8 Documentation > Developer Help > Content Engine Development > Java and .NET Developer's Guide > DITA Publishing > Publishing Concepts](#) or [FileNet P8 Documentation > Developer Help > Content Engine Development > Java and .NET Developer's Guide > DITA Publishing > Publishing Concepts](#).

Support for separate database tablespaces during object store creation

Support has been added for creating separate tablespaces using a customized schema script when creating an object store. (ecmdb00669763)

A new factory method, `Factory.ObjectStore.createInstance(domain, admins, users, schemaScript)` is introduced. Using this method, you can submit a custom schema script that the server will use during object store creation. Use of a custom schema script overrides the values of the new `ObjectStore` properties that specify storage location of tables, indexes, and LOB columns within the database: `DatabaseTableStorageLocation`, `DatabaseIndexStorageLocation`, and `DatabaseLOBStorageLocation`. The custom script is derived from a factory-generated default script, which can be retrieved from a property on the `Domain` object. The property name corresponds to the database type: `ObjectStoreSchemaDB2`, `ObjectStoreSchemaMSSQL`, and `ObjectStoreSchemaOracle`. Typical modifications that a database administrator (DBA) might make to the script include the distribution of the various tables, indexes, and Large Object (LOB) columns across different tablespaces.

For more information, refer to "Working with ObjectStore Objects" in the Content Engine Java and .NET Developer's Guide (IBM FileNet P8 Documentation > Developer Help > Content Engine Development > Java and .NET Developer's Guide), and the Content Engine API reference help for Java or .NET (IBM FileNet P8 Documentation > Developer Help > Content Engine Development > Java [or .NET] API Reference).

Security and authentication

Enhanced flexibility in user/group lookup

The capability to restrict user and group lookups to only those in configured realms has been added. (ecmdb00750099)

The `RestrictMembershipToConfiguredRealms` property has been added to the `DirectoryConfiguration` class and its subclasses to specify whether or not to chase all group memberships during user and group lookup operations.

For more information, see the Content Engine Java and .NET API reference help and [FileNet P8 Documentation > Developer Help > Content Engine Development > Java and .NET Developer's Guide > Security Concepts > Role-Based Security](#).

Support for CMOD fixed content devices

This release provides support for IBM Content Manager OnDemand (CMOD) fixed content devices. As part of this support, the following new classes and collection classes are introduced:

- `CMODApplicationGroup`
- `CMODApplicationGroupSet`
- `CMODFixedContentDevice`
- `CMODFixedContentDeviceSet`
- `CMODRepository`
- `CMODRepositorySet`

The following properties are introduced:

- `CMODApplicationGroup.ApplicationGroupNumber`
- `CMODApplicationGroup.TargetObjectStore`
- `CMODFixedContentDevice.CMODApplicationGroups`
- `CMODFixedContentDevice.CMODLanguage`
- `CMODFixedContentDevice.CMODPassword`
- `CMODFixedContentDevice.CMODPort`
- `CMODFixedContentDevice.CMODServerName`
- `CMODFixedContentDevice.CMODTraceLevel`
- `CMODFixedContentDevice.CMODUserName`

For more information, see [FileNet P8 Documentation > Developer Help > Content Engine Development > Java API Reference](#) or [FileNet P8 Documentation > Developer Help > Content Engine Development > .NET API Reference](#).

New DateCheckedIn property

This release introduces a new property, `DateCheckedIn`, which has been added to the `Versionable` class. This property specifies the date and time that a document was last checked in. Settability of this property is read-only for most users. Users who have been granted privileged write access can set this property on a document while it is being checked in. Otherwise, the server sets this property automatically on a document when it is checked in.

For more information, see [FileNet P8 Documentation > Developer Help > Content Engine Development > Java API Reference](#) or [FileNet P8 Documentation > Developer Help > Content Engine Development > .NET API Reference](#).

New field for PersistenceType class

This release introduces a new field, `OWN_TABLE`, which has been added to the `PropertyPersistence` constant class. The `PropertyPersistence` class provides a set of constants that specify whether a property can be made persistent (that is, have its state stored in a database). The new `OWN_TABLE` field specifies that a property has a dedicated table in the database

and therefore can be made persistent. This setting applies only to multi-valued scalar (non-object) properties and causes the server to store a property's values into a custom table, which is generated by the server when its property template is first assigned to a class definition as a property definition.

For more information, refer to the Content Engine Java or .NET API reference help (IBM FileNet P8 Documentation > Developer Help > Content Engine Development > Java [or .NET] API Reference).

New auditing option

A new option is available to be able to audit with or without including object state snapshots. You can choose to record these snapshots so that you can review an object before and after an event occurs on that object. Snapshots are recorded in the audit log and written to the database. Storing the serialized object being audited consumes large object (LOB) storage in the database, so you might wish to reduce or eliminate snapshot recording, depending on your requirements. You can set the new `ObjectStateRecordingLevel` property on the `AuditDefinition` object to specify which objects are recorded when an event fires for a source object change. You can specify that combinations of the original, pre-event object and the modified, post-event object be recorded, or you can suppress all source object recording. (ecmdb00554270)

New constant class for illegal characters in containment and folder names

A new constant, `ContainmentName`, is exposed in the APIs that provides a list of illegal characters for containment names and folder names. You can use the `INVALID_CHARACTERS` string to validate explicit containment and folder names before calling methods such as `file` (to file an object into a folder) or `set_ContainmentName` (to set an object's containment name) or `set_FolderName` (to name a new folder). (ecmdb00760311)

Content Engine Web Service

In Content Engine 4.0.x, Content Engine Web Service applications were limited to using the 3.5 WSDL, which supported Microsoft® Visual Studio® .NET 2003 with Web Services Enhancements (WSE) 2.0 SP2 and IBM® Rational Application Developer 6.0. The 3.5 WSDL also supported DIME attachments and SOAP with inline, Base64 encoding for uploading and retrieving content data.

In Content Engine 4.5, Content Engine Web Service applications can also use the 4.0 WSDL, which supports Microsoft Visual Studio 2005 with WSE 3.0. The 4.0 WSDL also supports Message Transmission Optimization Mechanism (MTOM) and SOAP with inline, Base64 encoding for uploading and retrieving content data. The 4.0 WSDL does not support IBM Rational Application Developer Java clients.

In this release, the use of the Direct Internet Message Encapsulation (DIME) standard to upload and retrieve content is deprecated. Support for DIME attachments will be dropped in a future P8 release. Because DIME support is deprecated in this release, the `DIMEAttachmentReference` and `DIMEContent` elements in the 4.0 and 3.5 DIME endpoints are also deprecated. Therefore, any existing .NET client applications that use DIME should be ported to work with the 4.0 endpoints and use either MTOM or SOAP with inline, Base64 encoding for content upload and retrieval.

The 4.0 WSDL contains all of the elements, operations, enumerations, subelements, and attributes that are included in the 3.5 WSDL and introduces the following new elements:

- `ContentElementResponse`
- `ContentErrorResponse`
- `ContentRequestType`
- `ContentResponseType`
- `ElementSpecificationType`
- `GetContentRequest`

- `GetContentResponse`
- `TakeFederatedOwnershipAction`
- `UnevaluatedCollection`

The 4.0 WSDL introduces a new operation, `GetContent`.

The 4.0 WSDL introduces the following new enumerations:

- `CollectionType`
- `ListOfObjectListMode`
- `StringEncodingType`

In addition, new attributes and subelements have been added to existing elements in the 4.0 WSDL, as follows:

- `CheckoutAction`: `ReservationProperties` element and `reservationClass` attribute.
- `CreateAction`: `objectId` and `versionSeriesId` attributes.
- `EnumOfObject`: `ParentReference` attribute.
- `FilterElementType`: `levelDependents` attribute.
- `ListOfObject`: `listMode` attribute.
- `ListOfString`: `StringEncodingType` attribute.
- `PropertyFilterType`: `levelDependents` attribute.
- `ObjectSetResponse`: `collectionType` attribute.
- `SingletonString`: `StringEncodingType` attribute.
- `WithObjectIdentityType`: `serializationDuplicate` attribute.

For more information, see [FileNet P8 Documentation > Developer Help > Content Engine Development > Web Service Developer's Guide](#). The documentation for the 4.0 WSDL is part of the P8 Platform Help. Documentation for the 3.5 WSDL is available on the IBM documentation Web site. Also available on the IBM documentation Web site are two new stand-alone Visual Studio 2005 sample applications, written in C# and Visual Basic, which use the new features of the 4.0 WSDL (including the `GetContent` operation).

For more information about upgrading a 4.0.x application that uses the 3.5 WSDL to a 4.5 application that uses the 4.0 WSDL, see [FileNet P8 Documentation > Developer Help > Upgrade Custom Applications](#).

IBM Enterprise Content Management Widgets

IBM Enterprise Content Management Widgets is a collection of widgets for use in rapid development of user interfaces for IBM FileNet P8 applications, which can lower the cost of building solutions. Using a graphical, browser-based tool, a designer drags and drops Enterprise Content Management (ECM) widgets and third-party widgets onto a Web page, sets the widgets' attributes, and wires the widgets together, defining inter-widget communications through the widgets' published and handled events. Wiring is automatic between most ECM widgets: the designer simply drops the ECM widgets onto the page to connect them. To connect ECM widgets to third-party widgets, the designer relies on an easy-to-use wiring wizard.

For this release, IBM Enterprise Content Management Widgets brings Business Process Management (BPM) functionality to Web pages "mashed up" (assembled) from diverse Internet and enterprise data sources. For example, a UI designer can easily combine ECM widgets with third-party widgets, such as stock tickers, location finders, and revenue trackers, to enhance the information value of a workflow.

IBM Enterprise Content Management Widgets is tightly integrated with the IBM FileNet P8 platform, requiring the back end services of the Process Engine and Content Engine servers, and the middleware services of the Process Engine REST Service and Workplace XT. The Process Engine REST Service enables communications between Web clients and Process Engine, and Workplace XT provides access to documents and other content that can be incorporated into workflows.

Process Engine REST Service

The REST Service is implemented as a servlet in the IBM FileNet Workplace XT application. This is a general-purpose RESTful service, and is used by IBM Enterprise Content Management Widgets. For more information, see [FileNet P8 Documentation > Developer Help > Process Engine Development > Developer's Guide > Process Engine REST Service](#).

Content-Extended Operations for Component Integrator

The new `ContentOperations` class supports content-extended operations (CEOperations) for IBM Content Manager, as well as the IBM FileNet Content Engine. For more information, see [FileNet P8 Documentation > Developer Help > Process Engine Development > Component Integrator Reference](#).

Process Engine Java API

New classes

The `ContentOperations` class has been added to support content-extended operations for the Component Integrator:

The following classes have been added to support IBM Enterprise Content Management Widgets and the REST Service:

- `VWApplicationSpaceDefinition`
- `VWRoleDefinition`
- `VWRole`
- `VWRole.WorkBasketReference`
- `VWWorkBasketDefinition`
- `VWWorkBasketFilterDefinition`
- `VWWorkBasketColumnDefinition`
- `VWWorkBasketCollectionDefinition`
- `VWWorkBasket`
- `VWWorkBasket.Column`
- `VWWorkBasket.Filter`
- `VWWorkBasket.QueryResults`

New methods

The following methods have been added to existing classes to support IBM Enterprise Content Management Widgets and the REST Service:

- `VWRole.fetchMyRole`
- `VWRole.fetchMyRoles`
- `VWQueueDefinition.addWorkbasketDefinition`

- `VWQueueDefinition.createWorkbasketDefinition`
- `VWQueueDefinition.createWorkbasketDefinitions`
- `VWQueueDefinition.createCopyOfWorkbasketDefinition`
- `VWQueueDefinition.deleteWorkbasketDefinition`
- `VWQueueDefinition.getWorkbasketDefinition`
- `VWQueueDefinition.getWorkbasketDefinitions`
- `VWQueueDefinition.getDeletedWorkbasketDefinition`
- `VWSystemConfiguration.createApplicationSpaceDefinition`
- `VWSystemConfiguration.getApplicationSpaceDefinition`
- `VWSystemConfiguration.getApplicationSpaceDefinitions`
- `VWSystemConfiguration.updateApplicationSpaceDefinition`

Workplace Application Toolkit

The Workplace source code is no longer provided with the Application Engine software. However, it is available upon request. For information on how to obtain the Workplace source code, see [FileNet P8 Documentation > Developer Help > Workplace Development > Workplace Application Toolkit Developer's Guide](#).

Fixed APARs

IBM FileNet P8 4.5 incorporates the APAR fixes that were originally distributed in the following fix packs and interim fixes. For details, see the associated fix pack and interim fix readmes.

- P8AE-4.0.1-005
- P8CE-4.0.1-006
- P8CE-4.0.1-005.001
- P8PA-4.0.1-001
- P8PA-4.0.1-000.001
- P8PE-4.0.2-001
- P8PE-4.0.2-001.005
- P8PS-4.0.0-006
- P8RM-3.5.0-002
- P8RM-3.5.0-002.001
- P8RM-3.5.1-008
- P8RM-3.7.0-004
- P8RM-3.7.0-004.001
- P8RM-4.0.0-002
- P8RM-4.0.0-002.001
- SPDL 2.2.0.1-FP001
- SPWP 2.2.0.1-FP001
- XTFP 1.1.2.4 FP004

Fixes for the following APARs are also included in the 4.5 release. These reflect fixed defects that are not included in one of the fix packs or interim fixes listed above.

Content Engine

APAR Name Defect ID	Description
PJ32587 743435	Searches in Enterprise Manager Query Builder continue the query after the Maximum Results have already been reached.
PJ34127 745504	An Install Shield limitation requiring a root user for installation has been removed.
PJ34276 753081	The count for how many sub-folders and objects are in a folder is no longer available from the General tab of the Folder.
PJ34317 749262	Unable to log into Enterprise Manager if password contains Unicode characters.
PJ34333 759316	The P8 4.0 upgrade tool fails because it does not locate FNUPGRADE_40_TeamCollaborationManagerAddOn.xml.
742961	The Content Engine 4.0 installer does not find WebSphere Profiles if they are not located in the default location.
743670	The context root of a Content Engine cannot be changed on an application server.
746307	The 4.0.0b installer does not update the login-config.xml with FileNet security info when a DOCTYPE tag exists.
	Asynchronous Event Action Triggers can be slow on Content Creation Events.

APAR Name Defect ID	Description
748802	
771564	The BootstrapConfig JNDI change is not reflected in the GCD.
687032	Content Engine 4.0 Installer does not recognize the WAS profile if it is located other than default location.

Records Manager

APAR Name Defect ID	Description
PJ33216 PJ33306	A runtime exception occurs when navigating record categories
PJ33422	An error occurs when declaring a document as a record with Workplace XT 1.1.2

Known limitations

Content Engine

Limitation on deployment of event action handlers in code modules.

As documented in the *IBM FileNet P8 Content Engine Java and .NET API Developer's Guide* > Deploying Action Handlers, you can store an action handler as a `CodeModule` object in a Content Engine object store, or alternatively, you can specify the action handler in the Java Virtual Machine (JVM) classpath of the application server on which Content Engine is running. The referenced documentation provides guidelines for deploying event action handlers. In Release 4.5.0, the following additional guidelines and limitations are added for deploying event action handlers:

- For event handler code on the JVM classpath: the logic of Java™ classes that are referenced by the event action handler, and that are found in the classpath, can call into the Content Engine Java API.
- For event handler code in code modules: an event action handler in a code module can invoke Java classes that are on the JVM classpath as long as the logic of those classes in the classpath does not in turn call into the Content Engine Java API. Attempts to do so will fail. If you have designed such a deployment scenario, instead add the .class file that is making the API calls to the code module. The calls into the Content Engine Java API will then be supported. (ecmdb00761403)

CFS-CMOD

- Federated OnDemand extended mime type documents are not displayed in the Workplace XT CMOD Viewer. A Save dialog box is displayed instead. For viewing all issues through XT, please refer to the XT release notes and XT documentation.

Known Issues

This section describes:

- Independent software vendor issues related to P8
- P8-specific known issues

Where applicable, each issue includes an associated APAR name and defect ID for reference and tracking purposes.

For some entries, known issues might be cited in multiple sections. For instance, an installation problem involving Content Engine might appear in both the Installation and the Content Engine sections.

As these known issues are fixed, they will be moved to a corresponding section under Resolved Known Issues.

For an overview of the 4.5.0 known issues that have been fixed by a service pack, fix pack, or interim fix, see the associated readme.

Independent software vendor issues

Application servers

WebLogic

	Description
	<p>A custom client application is subject to a repeatable query failure under the following conditions:</p> <ul style="list-style-type: none"> • Content Engine is hosted by WebLogic 9.2 • The client application depends upon the Content Engine EJB Transport • You are using the WebLogic wlclient.jar file <p>If you encounter problems, restart the WebLogic server. This problem does not occur when using the weblogic.jar file.</p>
	<p>With WebLogic 9x, the Bulk Declare Service (BDS) can use either wlclient.jar or weblogic.jar. However, weblogic.jar is not compatible with Java™ Runtime Environment (JRE) 1.4. JRE 1.5.x is recommended.</p>

WebSphere

	Description
	<p>When you start WebSphere 5.x with Records Manager, you might see errors similar to the following:</p> <pre>[10/11/07 16:55:27:720 EDT] c42b5 WebGroup E SRVE0020E: [Servlet Error]-[AdminServlet]: Failed to load servlet: java.lang.ExceptionInInitializerError at org.apache.axis.transport.http.AxisServlet.<clinit>(AxisServlet.java:103) at java.lang.Class.forName0(Native Method) at java.lang.Class.forName(Class.java:141) at org.apache.axis.transport.http.AxisServletBase.class\$(AxisServletBase.java:95) at org.apache.axis.transport.http.AxisServletBase.<clinit>(AxisServletBase.java:9 4)</pre>

	Description
	<pre>at sun.reflect.NativeConstructorAccessorImpl.newInstance0(Native Method) at sun.reflect.NativeConstructorAccessorImpl.newInstance</pre> <p>These errors are internal to WebSphere and do not impact Records Manager or WebSphere functionality. They occur because a Records Manager setting causes incompatible JAR files due to the order in which the application files are loaded.</p>

Crystal Reports

	Description
	<p>When a report needs to query a large number of (for example, 12,000) folders or records, paginating the report, as well as exporting the report can take a long time (several minutes). This is due to the load on the Crystal Reports server.</p>

Java Virtual Machine

	Description
	<p>RecordsManagerSweep.sh requires the DISPLAY environment variable to be set in UNIX® environments.</p> <p>If RecordsManagerSweep.sh is executed in a UNIX environment without the DISPLAY environment variable set to a valid X Window display value, the Java Virtual Machine (JVM) throws java.lang.InternalError: "Cannot connect to X11 window server". This error is harmless and does not prevent the sweep from running.</p>

Workplace

	Description
	<p>When a file is saved to a mapped network drive, the file might not show as tracked when it is checked back in depending on the user's permissions to the share.</p>

Workplace XT

	Description
780538	<p>When using Mozilla Firefox 2, the CM8 Viewer locks up when trying to open a document for viewing. This problem does not occur when using Firefox 3 or when using FireFox 2 with JRE 1.6.0_10.</p> <p>To work around this problem, upgrade to the latest Firefox version or the most current supported version of JRE 1.6.</p>

Content Federation Services (CFS-CS and CFS-IICE)

	Description
779602	<p>During installation on Linux, when prompted for the JAVA HOME path, you must type in the path information; you cannot browse to the location This is an InstallAnywhere limitation.</p>

Content Engine Web Service

	Description
	<p>When running a Content Engine Web Service client application created in Visual Studio 2005 with Web Service Enhancements (WSE) 3.0 that uses the 4.0 Message Transmission Optimization Mechanism (MTOM) endpoint, you might experience high memory usage or an OutOfMemoryException exception when you stream large MTOM attachments. This problem occurs because WSE 3.0 buffers attachments before they are sent, potentially creating very large buffers. When using WSE 3.0, you cannot stream MTOM attachments without buffering.</p> <p>Microsoft has a WSE hotfix available that allows proper, non-buffered streaming of content uploaded over MTOM, which does not require the entire source content to be loaded into memory at once. For more information, see article 943508 on the Microsoft support site: http://support.microsoft.com/?id=943508. This hotfix is not available for general download; to obtain it, you must call 1-800-MICROSOFT.</p> <p>To stream MTOM attachments as they are sent from the client application to the Web server, you must modify the definition of the generated InlineContent class, applying techniques similar to those described in the following MSDN article: How to Stream Large Amounts of Data from a Web Service (http://msdn.microsoft.com/en-us/library/aa528818.aspx).</p>

Content Engine Java and .NET API

	Description
	<p>When running a .NET client application created in Visual Studio 2005 with Web Service Enhancements (WSE) 3.0, you might experience high memory usage or an OutOfMemoryException exception when you stream large Message Transmission Optimization Mechanism (MTOM) attachments. This problem occurs because WSE 3.0 buffers attachments before they are sent, potentially creating very large buffers. When using WSE 3.0, you cannot stream MTOM attachments without buffering.</p> <p>Microsoft has a WSE hotfix available that allows proper, non-buffered streaming of content uploaded over MTOM, which does not require the entire source content to be loaded into memory at once. For more information, see article 943508 on the Microsoft support site: http://support.microsoft.com/?id=943508. This hotfix is not available for general download; to obtain it, you must call 1-800-MICROSOFT.</p>

FileNet P8 Platform Installation, Uninstallation, and Upgrades

Content Engine

APAR Name Defect ID	Description
777894	The Content Engine and Content Engine Client installers do not generate silent response files for uninstalling, and the silent uninstall will remove all program components regardless of attempts to only uninstall a specific feature. This is a known issue with Install Anywhere, Issue# IOA-000034429.
785417	Before starting the Content Engine Client installation program on a machine that runs HP-UX, make sure that the PATH environment variable on the machine includes /usr/contrib/bin. Otherwise, the program will not find gzip and gunzip (located in /usr/contrib/bin) and will fail.

Content Search Engine

APAR Name Defect ID	Description
785816	In UNIX environments only, installing a Local Admin Server (other than the Master) creates k2adminstart/stop scripts with incorrect paths.

Process Engine

APAR Name Defect ID	Description
782145	<p>During Process Engine installation with a DB2 database, if an invalid BLOB tablespace name is entered, no error is returned. However, when saving security settings in Process Engine Task Manager, an error [Err=7900004c] is returned to the screen and is not written to any error log.</p> <p>Workaround:</p> <p>Assure that the BLOB tablespace name entered during Process Engine installation matches the actual BLOB tablespace name pre-defined by the database administrator.</p>

Application Engine

APAR Name Defect ID	Description
383070	<p>When Application Engine is configured to use 1-box SSL redirect and Internet Explorer as the browser, the browser fails to load the graphics of the login page and it also fails to login.</p> <p>A workaround is to use different machine names in the http and https URLs. For example, use the machine name in one and use the IP address in the other.</p>
PJ35070 661128	<p>Switching from WAR file to EAR file deployment.</p> <p>If you choose to deploy Application Engine as a WAR file and later decide to redeploy it as an EAR file, you must uninstall Application Engine and then reinstall the application, selecting EAR file deployment in order to add the required files to your setup. If this change of deployment type seems likely for your setup we suggest that you install Application Engine as if you would deploy an EAR file, which will create both WAR and EAR files, and then use the WAR file to deploy your web application.</p>
PJ35071 664389	<p>During Application Engine 4.0.1 uninstallation, the uninstaller prompts the user to select whether or not to preserve custom-modified files. On upgraded systems the response is not registered correctly and custom-modified files are always deleted. During uninstallation of freshly installed Application Engines the uninstaller works correctly and preserves the files if requested.</p> <p>Application Engine shared directories must be mapped drives, not Windows shares.</p> <p>The Application Engine installer prompts for locations for the following directories:</p>

APAR Name Defect ID	Description
	<ul style="list-style-type: none"> • Configuration Directory • Upload Location • Download Location • Logfile Location <p>On Windows, if these are shared directories you must map these locations to drives on the Application Engine server and enter the mapped drive information during installation.</p>
PJ35110 759003	When installing Application Engine on HP Itanium, finishing or cancelling the Application Engine installer program can result in a syntax error in the console. The error is harmless and can be ignored

Content Engine

APAR Name Defect ID	Description
747777	Importing lifecycle actions with a code module requires an automatic retry. If a lifecycle event action references a code module, and both are exported together, the lifecycle event action can fail to import. This is because the lifecycle event action appears before the code module in the exported data. To correct this problem, check the Retry Failed Imports option on the Import Helper (Import Options Tab). When the code module successfully imports, the lifecycle event action import is retried and will complete successfully.
PJ34144 780949	Files containing Portuguese characters cannot be indexed to a File Storage Area.
PJ34999 749735	A null pointer exception occurs when checking in a document using a security template.
PJ35002 784915	Enterprise Manager displays incorrect IS Data Type for F_DOCNUMBER.
PJ35003 753551	The stop word list does not function correctly for the uni/en (Universal English) locale.
782194	<p>BEA reports the following problem with WebLogic 10 MP1.</p> <p>When a request with invalid credentials is rejected, the request immediately following it is also rejected with an authentication error (E_NOT_AUTHENTICATED), even if the second request contains valid credentials, and even if it comes from a different user. Valid requests after the second request are fine, and the workaround is therefore to resend the valid request.</p> <p>This problem occurs regardless of which host operating system or directory server is being used.</p> <p>This problem does not exist in earlier releases (including the base WebLogic 10</p>

APAR Name Defect ID	Description
	release), nor in WebLogic 10 MP2 or later. You can request a patch for WebLogic 10 MP1 from BEA support by referencing Change Request number CR356815.

Content Federation Services (CFS-IS and CFS-CMOD)

APAR Name Defect ID	Description
PJ34875 782467	A document federation update fails when a user re-maps an existing external repository field to a new Content Engine property.

Content Search Engine

APAR Name Defect ID	Description
PJ34997 771529	Multiple version numbers for Verity might be seen in CSE.
PJ34998 747682	Performance problems occur when running CBR queries for exact matches.
PJ35000 777182	Verity 6.2.2 K2 online documentation for supported platforms and file types is not current.
PJ35001 781008	Performing the 'k2adminstop' operation does not function with Verity 6.2.1 on AIX 6.3.
PJ35004 773204	Verity sends index requests to the wrong index server.

IBM Enterprise Content Management Widgets

APAR Name Defect ID	Description
781723	The names of ECM widgets that are intended to be hidden, ECM Create Work Item and ECM Create Action, are distorted when viewed in the hidden widgets corral. The distortion varies depending on the language for which the browser is configured.
785473	<p>In the Step page with an ECM Step Complete widget, closing a work item with the close icon in the upper-right corner of the window might result in a lock-out condition if you later attempt to reopen the same work item. To avoid this issue, close the Step page window with the ECM Step Complete widget's Close button.</p> <p>This lock-out condition is accompanied by a "LockedByOthers" message, which is erroneous. The condition is, in fact, caused by a discrepancy between the way a user name is stored in LDAP and on the Process Engine server.</p> <p>Should you encounter this issue, you can unlock the work item using Process</p>

APAR Name Defect ID	Description
	Administrator.
LO33481 779752	There is a known issue with how Lotus Mashups 1.0 displays widgets in a multi-lingual environment. When editing a mashup page with Lotus Mashups, use the same browser language preference that is used to view the page. Otherwise, the page is likely to display incorrectly
LO34408 779110	When using Internet Explorer 7.x, you cannot use the mouse to select text within some input fields of the ECM Work Data widget. However, you can click within a field and then use the keyboard to edit data.
PJ35088 781661	In the ECM In-basket widget, when the last page is reached, the next-page button is erroneously enabled, and clicking this button navigates to a blank list in the in-basket. To return to the list of work items in the in-basket, click either the previous-page button or the first-page button.
PJ35089 781664	If you launch Workplace XT from an IBM Enterprise Content Management Widgets mashup page, and if you later encounter an error message dialog box as the result of a Workplace XT operation, the dialog box's "Close Window" link will not work. To close the dialog box, click the "X" button on the top-right corner of the dialog box.
PJ35090 783278	In the ECM Work Data widget, the edit window for adding or removing array data disappears if you click the window's vertical scroll bar. To avoid the problem, use the mouse's scroll wheel. Or, if your page permissions allow you to move widgets, move the ECM Work Data widget to the top or the bottom of the page so that the edit window displays completely, and then save the page setting.
PJ35092 786044	IBM Enterprise Content Management Widgets supports only the 6.1.0.13 version of WebSphere Application Server (WAS), which is the version bundled with IBM Mashup Center 1.0. If you upgrade to WAS 6.1.0.17, you will be unable to log on to IBM Enterprise Content Management Widgets.

Process Engine

APAR Name Defect ID	Description
756934	The 4.5.0 release supports Region Recovery for use with an Oracle database only. Microsoft SQL Server and IBM DB2 databases are not currently supported, but will be available in a future release
PJ35065 782220	File menu items are not aligned correctly when using Sun JRE 1.5.
783418 783515	The -L parameter purges event log records. If the Process Analyzer option has been enabled on the Process Engine server, the -L parameter only purges records that have been processed by Process Analyzer. All records will be purged regardless of the PA option if a PA server has not been configured for the event log (PA can be configured to process records from only a subset of the event logs).
PJ35064	Running the Process Engine client installer on HP/UX Itanium returns an error "No

APAR Name Defect ID	Description
771691	java runtime ENV (JRE). Workaround: Run the HPUNIX client installer with the following command: ./P8PE-CLIENT-4.5.0-HPUXI.BIN -is:jvmtimer 10 This gives the installer more time to complete JVM verification. The default value is 5.
PJ35109 786497	If special characters are used in the step name of a workflow, the event transformation information written in XML for the associated work class is invalid since the special characters are not escaped.

Application Engine

Workplace

APAR Name Defect ID	Description
383681	The Component Manager does not start on HP-UX systems running WebLogic. Workaround: Modify the routercmd.sh file to use the BEA-supplied JRE. Use a text editor to change <ae_install_path>/Router/JRE/bin/java to /opt/bea/jdk150_03/jre/bin/java The default value for <ae_install_path> is /opt/FileNet/AE
PJ35050 553411	When running Workplace File Tracker in Windows Vista, an error message appears and you cannot use the Delete local file option. To work around this issue, it is recommended you add the Application Engine(s) on which Workplace is running to the Trusted Sites list in Internet Explorer. You can access this list in Internet Explorer by doing the following: 1. In Internet Explorer, go to Tools > Internet Options. 2. Click the Security tab. 3. Click Trusted Sites and add the Application Engine(s) to the list of trusted sites.
PJ35051 554888	When using Advanced Search via the Quick Search portlet running on WebSphere Portal 6.0, selecting any search template results in a "404 file not found" error. You can avoid this error by setting the postThreshold parameter to -1 in the web.xml file, which is located in <install location>/Workplace/WEB-INF/web.xml. After making this change, re-pack the war file and re-deploy Workplace for the changes to take effect. Refer to Task 28a-c in the <i>IBM FileNet P8 Installation and Upgrade Guide</i> for more information on deploying Workplace and packaging the war file. Following is an example of the postThreshold setting in the web.xml file: <context-param> <param-name>postThreshold</param-name>

APAR Name Defect ID	Description
	<pre><param-value>-1</param-value> </context-param></pre>
PJ35052 555596	When you access Workplace from the Mozilla Firefox browser version 2.0.x, multi-select various documents that contain spaces in their document title, and then use the Download action, the Open with WinZip option is not available. The workaround is to use Internet Explorer.
PJ35053 381961	Errors can occur when saving a search template in the Search Designer. Work around this memory problem with the Java environment by using the following parameter for the JRE: -Xms 1024m -Xmx 1024m.
PJ35054 374956	McAfee Virus Scanner 8 has a default setting to block port 25 in order to stop Mass Mailing worms. This also blocks access to the exchange server and must be disabled or removed before the connection can be restored. (This issue also affects Process Engine DTS 183503 for information.)
PJ35055 383192	The Max number of search results is incorrect for simple search in Workplace and the Portlet Quick searches.
PJ35056 741802	<p>Firefox has a new feature in which you are prompted for the latest available JRE if no JRE is installed and not prompted for a JRE if any JRE is installed (even an older version). This is contrary to Internet Explorer behavior as well as legacy Firefox behavior (1.x), This is a designed function. Firefox might prompt you to get a JRE that is not supported by Workplace XT or might not prompt you to update your JRE at all. If this occurs, you need to manually pick up the supported JRE provided by Workplace XT. This affects both Workplace and Workplace XT.</p> <p>If the client has a JRE that is older than the supported JRE version (for example, 1.4.2_0), when the Workplace XT user launches an applet (such as Search Designer or Viewer) from within a Firefox browser, the user is not prompted to install the supported JRE that ships with Workplace XT. Instead, the applets are launched using the client's current JRE.</p> <p>The "Use Java Applets" topic needs to be updated to include the following instructions to download the JRE provided with Workplace XT before launching applets.</p> <ol style="list-style-type: none"> 1. Log in to Workplace XT. 2. Go to <a href="http://<servername:port>/WorkplaceXT/download/jre-1_5_0_11-windows-i586-p.exe">http://<servername:port>/WorkplaceXT/download/jre-1_5_0_11-windows-i586-p.exe, where <servername:port> is the name and port number of your server. 3. At the Firefox prompt, download and save the installer file for JRE 1.5.0_11 on your local hard drive. 4. Run the downloaded installer file to install JRE 1.5.0_11 on the client. 5. Restart Firefox and proceed as usual to launch the applets. <p>Note that these instructions are specific for JRE 1.5.</p>
PJ35057 742693	In Workplace, if you are using Internet Explorer 7.0, you may get a dialog box "The webpage you are viewing is trying to close the window? Do you want to close this window?" when you are attempting to close an Internet Explorer window. This is a new security feature for Internet Explorer 7.0 and cannot be disabled. Click OK to

APAR Name Defect ID	Description
	continue working.
PJ35058 779184 779188	When using P8 WebDAV integration with SSL, MS Office documents do not open.

Workplace XT

APAR Name Defect ID	Description
755620	When you open an Excel workbook in Excel 2007 by using a hyperlink that contains a query string as part of the URL, you are incorrectly prompted that the workbook that you are trying to open is in a different format than the file name extension specifies.

Application Integration BCS

APAR Name Defect ID	Description
784150	You can use an entry template to add and assign a specific document class to documents, and then check out the documents. However, if you modify that same entry template to assign a different document class, you cannot use that entry template to check in documents that were assigned the initial document class.
785150	When you upgrade to Workplace XT 1.1.3.0, the Application Integration BCS view site preference contain column name values that are blank.
786069	If you are using WebSphere and WorkplaceXT 1.1.3 is configured to use port 80, the Application Integration BCS download will fail with a 'Page Not Found' error. The workaround is to specify the WebSphere port, "WC_defaulthost," explicitly in the URL.
PJ35094 777762	When you open a .pps or .pps file in a Microsoft Office application integrated with Workplace XT using Application Integration BCS, the file opens up directly into a slide show mode without any editing capabilities. As a result, you cannot see the commands available under the IBM ECM tab on the Microsoft Office 2007 Ribbon. To work around this issue and edit the file, open the document from your local file system after downloading it.
PJ35095 781999	JAWS announces the incorrect number of items in a list view.
PJ35096 782001	JAWS announces the incorrect number of items in a list view for a version series.
PJ35097	During the installation process and after selecting Custom Setup, JAWS does not announce any of the static text in the Custom Setup dialog box. When you press

APAR Name Defect ID	Description
782006	Insert + B, JAWS does not announce any information about the dialog box.
PJ35098 782008	During the installation process and in the Custom Setup dialog box, the numerical positions of some of the features cannot be read in the feature tree view.
PJ35099 782340	When you are selecting an entry template, JAWS does not announce the numerical position of the object store or entry template you are selecting.
PJ35100 782757	When you open a new document in a new window in a Microsoft Office application integrated with Workplace XT using Application Integration BCS, the F6 key does not work if you want to move your focus from one window to another. The workaround for this issue is to press Shift + F6.
PJ35102 782782	When you cancel a checkout after closing the currently checked out document and the Delete after canceling checkout site preference is set to Yes, the local copy of the document is not deleted from the local file system.
PJ35103 783112	JAWS announces only the node name in an expanded tree view. It does not announce the additional levels and groups under a specific node.
PJ35104 783771	If you are working with properties and an error message is generated, the screen reader cannot announce and read the message because it is located at the bottom of the properties pane.
PJ35105 784148	During the installation process, if information is not entered in the Object Store name field or Preference name field, users cannot log into Application Integration BCS. There is no error message indicating information is missing and preventing users from logging in.
PJ35106 784887	When you upgrade from Workplace XT 1.1.2 to Workplace XT 1.1.3, the Application Integration BCS view site preference does not contain default values for Columns 1-3.

Records Manager

DoD Classified

APAR Name Defect ID	Description
PJ34538 368935	<p>Exceeding the string property maximum causes an error.</p> <p>Long string properties are limited to 256 characters. However, Records Manager does not monitor text input on every string property field for performance reasons. If you enter more than 256 characters, you can receive an error when sending the string. For example, in the DoD Classified data model, entering more than 256 characters in the Downgrade instructions field (Security Classification page) causes an error when you click Apply.</p> <p>To recover, click Return on the error message and modify the field to have no more than 256 characters.</p>

File Plan Import and Export Tool

APAR Name Defect ID	Description
PJ34539 747704	<p>When exporting categories with identical partial paths, the tool concatenates the paths in the exported XML file.</p> <p>When a user employs the -o option to export categories with identical partial paths, the tool concatenates the paths in the resulting exported XML file.</p> <p>To correct the problem, manually edit the ParentPath attribute value of the RecordFolder entity.</p>

Globalization

APAR Name Defect ID	Description
PJ34541 664158	<p>When changing the encoding to Right to Left view, some popup windows do not display correctly.</p>

High Availability environments

APAR Name Defect ID	Description
PJ34536 766617 766619	<p>In High Availability environments, Records Manager does not recognize the virtual server name so users must specify an active server name from the Configuration page of the Records Manager Transfer Tool, Records Manager Access Role Tool, Records Manager Creation Tool, and the Records Manager File Plan Import Export Tool.</p>

Record operations

APAR Name Defect ID	Description
PJ34542 769836	<p>When using container-managed authentication (CMA), and a user logs on using one of the following methods, and then logs off the application they first logged in to, the original connection remains valid.</p> <ul style="list-style-type: none"> Logs on to Records Manager from Workplace or Workplace XT using the Records Manager link Logs on to Workplace or Workplace XT, from Records Manager using the Workplace link <p>Consequently, if the user logs in again to the first browser session using a different user account, Records Manager adopts the user information of the first connection. This causes a credential conflict, and can cause a security violation when the user tries to declare physical records or perform some other similar action.</p> <p><i>Workaround:</i></p> <p>When logging off Workplace, Workplace XT, or RM, the user should close the browser window before logging back in.</p>

APAR Name Defect ID	Description
PJ34325 757291	The Records Manager SendEmailOnSupercede event does not work properly when Records Manager uses JBoss as the application server.
PJ34564 775910	<p>When E-mail Manager is configured to declare an e-mail as a record, the DocURI field is populated with references to the attachments of that e-mail that have been separated and declared as records. The attachment references ensure end users can retrieve any associated attachments for that e-mail with ease. However, for each reference, a little less than 100 characters is used. If e-mails have more than 15 attachments, E-mail Manager produces the following error due to the DocURI field exceeding 1333 characters:</p> <pre>10/02/2007 15:35:16 Error An error occurred while attempting to populate the Record properties for the target file 'C:\eMgr_temp\TA Numbers Requested for Fourth Quarter 07.1F29632C2329D4E085257362005E1AED.0000.20071002153501.dxl'. Reason: The value specified for property Document Location exceeds the maximum permitted length. (error 0x80040229)</pre>
PJ34557 663975	The Records Manager user interface has no mechanism to declare all parts of a compound document as a single record. However, users can declare individual child or parent documents as records. Documents that have already been declared as records can also become part of a compound document later. Certain compound document settings (such as "Prevent delete", or "Delete child when parent is deleted") can affect the normal disposition of a record. For this reason, Records Manager cannot support the disposition of records that are part of a compound document.
PJ34543 393090	<p>The Confirmation page does not display the copy name.</p> <p>When copying a record, the confirmation page displays only the name of the original record. It should display both the original name and the name of the copy.</p>
PJ34544 388575	Changing the display name of the record object store disables access to the content of records from RM. Do not change the ROS display name.
PJ34545 376949	<p>A search for "is null" or "is not null" incorrectly displays a drop-down choice list.</p> <p>In a Records Manager search for records where the user adds the Current Classification property and specifies a value of "is null" or "is not null", Records Manager displays a choice list of values, which should only be seen with other kinds of operators.</p>
PJ34546 376702	<p>Supersede property values are not visible.</p> <p>When you view the properties of a record as a user with read-only privileges, you will not be able to see the value for the Superseded Records field. Only users with Modify Properties access can see this information.</p>
PJ34547 376031	<p>The export and import of some internal events fail when imported to a different object store.</p> <p>An internal events export contains two parts:</p> <ul style="list-style-type: none"> • A list of all properties/operators/values (for example, Location = MyLocation) • A SQL statement for the query <p>When exporting an internal event with a condition such as Location = MyLocation, the first part of the trigger contains the name of the location (for example, MyLocation), and the second part (SQL statement) contains the GUID of the location from the exported object store.</p>

APAR Name Defect ID	Description
	<p>When reimporting the XML file into a new object store, the import tool recreates the location with a new GUID, but does not recalculate the SQL statement. (This is by design to enable the user to create more complex SQL statements than produced by the Records Manager UI).</p> <p>Therefore, the UI shows the appropriate value for the location (for example, MyLocation), but the sweep utility uses the SQL statement directly, and is unable to find any entity for this location (since sweep still uses the old GUID).</p>
PJ34565 366283	<p>Records Manager and Workplace have different functionality during record declaration. When completing the Supersede and ReceiptOf properties during record declaration, Workplace users will need to select the file plan when navigating to the record. For Records Manager users, the default file plan is already selected.</p>
PJ34548 365758	<p>An unnecessary blank window appears when viewing an Outlook record.</p> <p>After adding an email document to Workplace via Outlook Integration and declaring it as a record, an unnecessary blank window appears when you view the record in Records Manager.</p> <p><i>Workaround</i></p> <p>Close the extra blank window.</p>
PJ34549 365068	<p>"Receipt Of" info button causes error.</p> <p>With Retain Metadata enabled, destroying the record associated with a receipt leaves the link between the receipt and its associated record unchanged. The name of the associated record appears in the "ReceiptOf" property of the receipt along with an info button. Clicking the info button should display the associated record's properties in read-only mode. Instead, an error message informs you that the associated record was logically deleted.</p>

Reports

APAR Name Defect ID	Description
PJ34550 394513	<p>Printable view results are incomplete.</p> <p>The Printable View feature that is available in Search lists only the selected class. Even if you select "Include subclasses", the additional classes are not listed.</p>
PJ34551 394436	<p>The report titled "Electronic Records Viewed by a User within a specific period" report includes extra view events.</p> <p>This report lists all of the Get Content events captured by Content Engine, including view events that occurred on the document before it was declared as a record.</p>

Single sign-on

APAR Name Defect ID	Description
PJ34552 768478	<p>In an SSL-redirect environment, Records Manager 4.5 does not redirect users from the HTTPS URL to the HTTP URL.</p> <p>Because users are not sent to the HTTP URL, user sessions run in HTTPS mode and remain on the HTTPS server. As a result, the server hosting the HTTPS sessions has to handle more traffic than expected.</p>

APAR Name Defect ID	Description
	NOTE This problem applies to any container-managed authentication (CMA) configuration that has SSL-redirect configured.
PJ34553 775499	Records Manager 4.5 supports WebSEAL from IBM Tivoli® Access Manager (TAM) for single sign on (SSO) configurations; in this environment, Records Manager is supported with both Workplace and Workplace XT. Records Manager 4.5 is also supported with Netegrity SiteMinder Web Agent; in this environment, Records Manager is supported with Workplace only. Records Manager 4.5 currently does not support other SSO providers or configurations, including Kerberos.

User interface

APAR Name Defect ID	Description
PJ34554 384406	The GUID displays instead of the name in Alternate Retentions. When you select either Location or Record Type for an alternate retention, the GUID displays instead of the name. This problem occurs both in the detail of the alternate retention and in the list of alternate retentions on the Phase Properties page.

FileNet P8 Platform

Workplace

APAR Name Defect ID	Description
PJ34565 366283	Records Manager and Workplace have different functionality during record declaration. When completing the Supersede and ReceiptOf properties during record declaration, Workplace users are required to select the file plan when navigating to the record. For Records Manager users, the default file plan is already selected.
PJ34556 362429	The Records Manager base URL stored in Workplace site preferences is not updated if the Records Manager application URL changes. The Records Manager base URL is stored in the Workplace site preferences and is set automatically when Workplace receives the first log in. If you change the Application Engine URL, the Records Manager base URL is not updated automatically. To continue linking Records Manager with Workplace, you must manually refresh the Records Manager base URL information in the site preferences whenever you do the following: <ul style="list-style-type: none"> • Configure Workplace to share an existing preferences file with another Workplace application. • Configure the entire Workplace application to run (or not to run) under SSL. • Change the hostname or port number used to access Workplace. To update the Records Manager base URL <ol style="list-style-type: none"> 1. Determine the site preference name and the object store where the site

APAR Name Defect ID	Description
	<p>preferences are located.</p> <ol style="list-style-type: none"> Log in to Workplace. Select the Admin tab. Click the Site Preferences link. On the site preferences page, click the bootstrap link. On the bootstrap page, note the Object Store Location for the object store that holds the preference file and Preference (the name of the preference file) under the "Preference Settings". <ol style="list-style-type: none"> Log in to Enterprise Manager. Locate the object store that holds the preference file and expand it. Navigate to the Root Folder > Preferences folder. In the Preferences folder, locate the file called "Site Preferences for <preference name>," where <preference name> is the name of the preference file. Check out the "Site Preference for <preference name>" file. In the checked out file, search for the following string: <setting key="RMBaseURL"> Replace the value of this <setting> tag to reflect the new base URL of the Records Manager application.

P8 eforms

APAR Name Defect ID	Description
PJ34868 323303	The JAWS screen reader does not recognize fields with the title on the side.
PJ34871 381897	<p>For versions of P8 eForms 4.0 and later, any data returned to a date or time cell from a lookup must be entered in canonical format. Dates must be in YYYY-MM-DD format regardless of the format configured for the cell. Times must be in HH:MM:SS format (including the seconds) regardless of the format of the cell.</p> <p>NOTE: Non-canonical data will work with P8eForms 3.5, Desktop eForms and Forms Manager.</p>
PJ34872 381905	You cannot tab to a form button.
PJ34886 386173	The sample SQL code in the "Assessment" sample template that comes with eForms Designer 5.0.2 is incorrect.
PJ34874 387365	Clicking the small signature icon brings up two Signature Verification dialogs with Mac/Safari 2.0.3.

APAR Name Defect ID	Description
PJ34876 387996	In the eForms Designer help, the method described for changing the text style for a button label causes an "Object Required" error when the form is loaded in IBM FileNet P8 eForms and the button is disabled.
PJ34877 391743	When a signature locks a large number of cells, navigation through the signature cell slows.
PJ34878 392320	An error occurs when attempting to create a dynamic choice list in a table that provides the choices as values from other columns in the same row of the table. Two methods of creating this dynamic choice list are available: by referring to the column without reference to the row (<<Column1>>), and by referring to the column with the row specified using the Row function (<<Column1[Row]>>). Neither of these methods is currently working.
PJ34879 394352	After setting a page to not printable with the <code>Page.setPrintable</code> method set to false, the page is still printed.
PJ34870 686524	When opening an eForm directly by entering its URL in the Firefox 2.0 address field, the eForm will not close after clicking the Launch Workflow button or the Close button on the eForm. This behavior can be corrected by adjusting Firefox-2.0 settings in the following manner: <ol style="list-style-type: none"> 1. Open a Firefox browser window. 2. Type in "about:config" in the address bar. 3. Scroll down to the " dom.allow_scripts_to_close_windows" entry and double click on the entry to switch the boolean condition to true. 4. Close the browser window.

Desktop eForms 6.0.1

APAR Name Defect ID	Description
PJ34880 359276	The JAWS screen reader does not read page tabs.
PJ34881 365107	The JAWS screen reader disabled menu items are read as enabled.
PJ34882 367046	You cannot add documents with non-Latin1 characters in file names.
PJ34883 380330	A lookup that returns a large amount of data into a table can cause the program to crash.
661805	Desktop eForms 6.0.1 can open ITXs and IFXs that are compatible with previous versions of Desktop eForms. This feature is not documented in the help.

Internationalization

APAR Name Defect ID	Description
769201	You cannot open an object store using Microsoft WebDAV if the folder you are opening contains non-English characters.

IBM FileNet Connector for SharePoint Document Libraries 2.2.0

APAR Name Defect ID	Description
758748	During the post-processing task when documents are locked down, the crawling time increases for each query page.

Documentation

BAM

APAR Name Defect ID	Description
785853	<p>In the Cognos LAVA installation documentation, the links for Creating Application Servers for WebSphere 6.0 and 6.1 do not find the correct topics.</p> <p>Workaround: Use the following link to access the documentation for WebSphere 6.0: http://publib.boulder.ibm.com/infocenter/wasinfo/v6r0/index.jsp Search for "Creating application servers".</p> <p>Use the following link to access the documentation for WebSphere 6.1: http://publib.boulder.ibm.com/infocenter/wasinfo/v6r1/index.jsp Search for "Creating application servers".</p>
785930	<p>The BAM online help topic "Import the IBM FileNet BAM Projects for a new installation" is incorrect.</p> <p>The topic discusses using a URL-based connection when configuring the JDBC agent on WebSphere; however, you should use a datasource-based connection for all of the application servers. The updated Configure a JDBC Agent section should read:</p> <p>Configure a JDBC agent</p> <p>The VMAEDM_JDBC_AGENT is created after importing the OOTBConfiguration project, and is used to access data from the Process Analyzer database. The VMAE_JDBC_AGENT uses a datasource-based connection. By default, the JNDI name is com.celequest.context. Follow the IBM Cognos Now! documentation to configure a datasource for your particular application server type. The datasource created in this process should have a JNDI name that matches what is configured in the VMAE_JDBC_AGENT.</p>

Process Analyzer

APAR Name Defect ID	Description
780258	<p>Scenarios that were created with Simulation Designer v3.5.2 might experience the following error when the simulation is run:</p> <p>"Java.lang.IllegalArgumentException: Not participant field type F_Originator: int"</p> <p>Workaround:</p> <ol style="list-style-type: none"> 1. Make a copy of the scenario definition as backup. 2. Open the scenario definition in Simulation Designer and remove the workflow that has F_Originator assigned as a participant for a step. 3. Re-import the workflow and re-create any simulation properties that were previously set for the workflow.
784730	<p>Microsoft SQL Server 2000</p> <p>Although it is mentioned in the online help, Microsoft SQL Server 2000 is not supported in this release. Instead, Microsoft SQL Server 2005 is required for all new installations or upgrades.</p> <p>Because Microsoft SQL Server 2000 is no longer supported, the "Work around the Microsoft Analysis Services 2000 64K limitation" topic is no longer relevant. Disregard this topic and any other mentions of Microsoft SQL Server 2000.</p> <p>Move the Process Analyzer database files topic</p> <p>The "Move the Process Analyzer database files" steps should be amended as follows:</p> <ol style="list-style-type: none"> 1. Use the Process Task Manager to stop PA. Stop the Process Analyzer Services Manager. 2. In Microsoft SQL Server Management Studio (SQL Server 2005), detach the PA database. 3. Move the PA data files <PADBname>.mdf and <PADBname>.ldf from the default SQL Server data file location to your preferred location. The default SQL Server location is the Data folder in the SQL Server instance folder. 4. In Microsoft SQL Server Management Studio (SQL Server 2005), attach the database and reference the new file location. 5. Start the Process Analyzer Services Manager and use Process Task Manager to start PA. <p>Note that the .mdf and .ldf file names will be different in your configuration, as these names correspond to whatever you named your database. Previously, these files were called VMAEDM.mdf and VMAEDM.ldf.</p> <p>Compress the Process Analyzer database</p> <p>The Compress the Process Analyzer database topic should include the following information for Step 3 and its substeps:</p> <ol style="list-style-type: none"> 3. If the PA database is installed locally, select Compress Database from the Action menu to start the Compression Wizard. <p>If the database is not installed locally, you must run the compression wizard on the remote database server. To do so, perform the following steps on the remote</p>

APAR Name Defect ID	Description
	<p>database server.</p> <p>a. The first time:</p> <ul style="list-style-type: none"> i. Install the appropriate Microsoft SQL Server JDBC driver for SQL Server 2005. You can download it from http://www.microsoft.com. ii. Create an installation folder (for example, C:\Process Analyzer). iii. Copy the _java folder from the PA Engine to the installation folder. The java folder is located directly under the installation folder. iv. Copy the following files from PA Engine to the installation folder. The files are located in the java folder directly under the installation folder: <p>pa.jar</p> <p>paResources.jar</p> <p>pe.jar</p> <p>pe3pt.jar</p> <p>peResources.jar</p> <p>analyzer.properties</p> <p>b. Run the following command from the command line to start the compression wizard.</p> <p>For SQL Server 2005:</p> <pre><installDir>\java\bin\jre\bin\java.exe -Xms128m -Xmx300m -cp "<installDir>\pa.jar;<installDir>\paResources.jar; <installDir>\pe.jar; <installDir>\peResources.jar; <installDir>\pe3pt.jar;<MSSQL Driver Dir>\sqljdbc_1.2\enu\sqljdbc.jar" "Danalyzer.properties=<installDir>\analyzer.properties" filenet.pa.apps.rollup.RollupApplication -remote</pre>
785913	<p>After installing the PA Client software using the silent installer, the shortcut to the Process Analyzer User Guide online Help does not work from the Programs list.</p> <p>Workaround: In the Programs list, locate PA documentation and right-click Process Analyzer User Guide. Select Properties and enter the correct URL in the target: <ECM documentation URL>/pa_help/userguide.htm, where <ECM documentation URL> is the base URL you entered during the Process Analyzer Client installation.</p>

Desktop eForms 6.0.1

APAR Name Defect ID	Description
PJ34884 382803	<p>In the "Export records" and "Import records" topics, the Help does not say that users can export data in the XML File and eForms XML Data formats. In the "Export records" topic, the help does not say that the data for all cells will be exported even though users can select specific cells for exporting.</p>

Records Manager

User help

Browser language settings

APAR Name Defect ID	Description
PJ34392 772439	<p>The following information will be included in a future refresh of the Records Manager documentation:</p> <p>When Records Manager has FileNet P8 components deployed in a JBoss environment or a WebLogic environment, and the browser setting is updated, properties might not display according to the new browser language until the cache has been refreshed.</p> <p>Restarting JBoss or WebLogic also corrects this error.</p> <p>NOTE Other clients that change the language will experience the same behavior before the cache refresh.</p>
PJ34393 772425	<p>The following information will be included in a future refresh of the Records Manager documentation:</p> <p>Records Manager displays a localized interface according to the browser language setting. Tools that do not use a browser set the language according to the Records Manager server locale.</p> <p>NOTE If you change the browser locale when you are working in Records Manager 4.5, you must log out of your local Records Manager session, close the browser window, and log back in to Records Manager for the new locale setting to take effect.</p>

Hold Sweep and Disposition Sweep

APAR Name Defect ID	Description
PJ34540 775871	<p>The following information will be included in a future refresh of the Records Manager documentation:</p> <p>In the Preview Entities page that is used for reviewing the entities that match the hold criteria for executing Hold Sweep, the filter does not support the % or & characters.</p>

IBM Enterprise Content Management Widgets

APAR Name Defect ID	Description
784203	<p>In the IBM Enterprise Content Management Widgets Reference, the "Payload Types" topic is missing information. In the WorkItemField payload type description, the following information should be included:</p> <p>NOTE For the "value" attribute, the JavaScript data type must match the type of the data field, as shown in the table.</p>

APAR Name Defect ID	Description												
	<table> <tr> <th>Data Field Type</th><th>"value" JavaScript type</th></tr> <tr> <td>String</td><td>string (e.g. "ECM Widgets")</td></tr> <tr> <td>Integer</td><td>number with no decimal places (e.g. 100)</td></tr> <tr> <td>Float</td><td>number (e.g. 3.14159)</td></tr> <tr> <td>Boolean</td><td>boolean (e.g. true or false)</td></tr> <tr> <td>Time</td><td>JavaScript Date object (e.g. new Date()).</td></tr> </table>	Data Field Type	"value" JavaScript type	String	string (e.g. "ECM Widgets")	Integer	number with no decimal places (e.g. 100)	Float	number (e.g. 3.14159)	Boolean	boolean (e.g. true or false)	Time	JavaScript Date object (e.g. new Date()).
Data Field Type	"value" JavaScript type												
String	string (e.g. "ECM Widgets")												
Integer	number with no decimal places (e.g. 100)												
Float	number (e.g. 3.14159)												
Boolean	boolean (e.g. true or false)												
Time	JavaScript Date object (e.g. new Date()).												
785819	<p>A configuration procedure having to do with FileNet P8 eForms is missing from the IBM Enterprise Content Management Widgets Installation Guide. If you have installed FileNet P8 eForms in Workplace XT, and if you want to use the ECM Create Action widget to launch workflows associated with eForms, then you must enter the Workplace XT base server URL in the Process Configuration Console. This procedure is covered in the FileNet P8 Documentation online help. Using the table of contents in the left pane of the online help, navigate to the topic User Help > Integrating Workflow > Workflow applications > Process Configuration Console > VWServices > View or Modify VWServices properties > Set web application properties.</p>												

Content Java API Compatibility Layer

APAR Name Defect ID	Description
755691	<p>Issue: The use of the Blowfish encryption algorithm for encrypting session tokens is replaced by the FIPS 140-compliant Advanced Encryption Standard (AES) algorithm. The Content Java API Developer's Guide and Content Java API reference help are not updated for the switch from Blowfish to AES.</p> <p>Resolution: The Content Java API Compatibility Layer documentation is no longer being updated. The sections of that documentation affected by the change to AES are provided below with the necessary updates. Note that some sections have been removed, while others are modified with the pertinent information.</p> <p>Security Concepts > Encryption Schemes</p> <p>The following topic has been reduced from two paragraphs to one:</p> <p>Symmetric Encryption Protection Level</p> <p>For a protection level of <code>Session.SYMMETRIC</code>, credentials are encrypted. Encryption is based on the encryption keys created by running the <code>MakeCryptoKeys</code> utility on the Web Application server. The generated keys are used with the Advanced Encryption Standard (AES) algorithm. For procedural information about setting up your environment for symmetric encryption and for manually generating a cryptographic keys file, refer to "Setting up Symmetric Encryption" in the "Configuration and the Content Java API" section. For details on <code>MakeCryptoKeys</code> and its output, refer to "Creating Cryptographic Keys for Symmetric Encryption" below.</p>

APAR Name Defect ID	Description
	<p>Working with Security</p> <p>Creating Cryptographic Keys for Symmetric Encryption</p> <p>During Application Engine installation, the administrator can optionally select site-wide symmetric credentials protection. This option causes the setup program to generate a <code>CryptoKeyFile.properties</code> file containing cryptographic keys. (You can also create cryptographic keys outside of the installation process by running the <code>MakeCryptoKeys</code> utility.) The generated keys will be used with the Advanced Encryption Standard algorithm. If you install multiple Application Engine servers, you can just copy one of these generated files to all of the Application Engine servers. Otherwise, each of the Application Engine server s will have different key files. The setup program also updates the <code>WcmApiConfig.properties</code> file with the selected protection scheme and the path to the <code>CryptoKeyFile.properties</code> file.</p> <p>The setup program places the <code>CryptoKeyFile.properties</code> file in an authentication folder on the Application Engine server. (The installation documentation specifies the default location, which differs by operating system type. However, the administrator can choose to move the file to another location and can update the <code>WcmApiConfig.properties</code> with the new location.)</p> <p>When configuring Application Engine for symmetric encryption during installation, you can specify that you want to generate limited strength or maximum strength cryptographic keys. If you select "Create maximum strength keys", then 256-bit keys are generated; otherwise, limited strength (128-bit) keys are generated.</p> <p>Java™ Development Kit (JDK) 1.4 (and later) includes the Java™ Cryptography Extension (JCE) with jurisdiction policy files shipped with "strong" but limited cryptography, which limit key length. Your application might encounter an "unsupported keysize" <code>EncryptionException</code>.</p> <p>This exception occurs under the following circumstances:</p> <ul style="list-style-type: none"> • If you are using symmetric encryption with keys that are over a certain length. • If you are serializing Content Java API objects as parameters or return values of an EJB method and you have a <code>CryptoKeysFile</code> configured, even if you are not using symmetric encryption. (Internally, the serialization encrypts the credentials of the <code>Session</code> object that is contained in each <code>Document</code>, <code>Folder</code>, etc.) <p>The <code>EncryptionException</code> occurs because the JDK includes the Java Cryptography Extension (JCE) with jurisdiction policy files shipped with "strong" but limited cryptography, which limit key length. To resolve the problem, see the "Troubleshooting Encryption Exceptions" topic below.</p> <p>Running MakeCryptoKeys</p> <p>When testing encryption of credentials tokens during your application development, you can run <code>MakeCryptoKeys</code> from a command line to manually generate one or more encryption keys. (You can display usage information by running the utility with no arguments.) Specify the number of keys and the size (in bits) of the keys to be generated. We recommend that you keep the number of keys to the minimum that will satisfy your security requirements (the default is 3). The default key size is 128 bits. If you do not have the unlimited strength policy files, you should use keys of 128 bits. If you specify a size greater than 256 bits, the utility generates a warning and reduces the value to 256 bits. Due to initialization processing, a delay of several seconds is not unusual when <code>MakeCryptoKeys</code> starts. The utility writes its output to</p>

APAR Name Defect ID	Description
	<p>standard output (System.out); redirect the output to a CryptoKeyFile.properties file. Edit the WcmApiConfig.properties file to add an entry specifying the full path to the key file.</p> <p>The following command creates three 256-bit keys, and redirects the output to a file. (This example assumes that your classpath is already set up to include the Content Java API JAR files.)</p> <pre>java com.filenet.wcm.api.util.MakeCryptoKeys -n 3 -s 256 > CryptoKeyFile.properties</pre> <p>To test, instantiate a <code>Session</code> object, specifying symmetric credentials protection for the <code>credTag</code> parameter of the method call, as shown below. (You can specify either the string "Symmetric" or use the <code>Session.SYMMETRIC</code> constant.)</p> <pre>Session sess = ObjectFactory.getSession("com.example.apps.MyTestApp", Session.SYMMETRIC, "tester", "testpswd");</pre> <p>Refer to the online help for the <code>MakeCryptoKeys</code> class for additional information.</p> <h3>Configuring a Security Provider for a J2EE Application Server Environment</h3> <p>This section, including its subtopics "Configuring for the Sun JDK" and "Configuring for the IBM JDK", apply only to JDK 1.3.x and have been removed.</p> <h3>Troubleshooting Encryption Exceptions</h3> <p>This section provides information you can use to determine the cause of some frequently encountered <code>EncryptionException</code> messages. Note that the message text contains the location of the JRE, since a physical server can have multiple JREs installed. In addition, the message text contains additional information, where appropriate, for nested exceptions. The following exception text represents some of the common failures you might encounter that are related to misconfiguration of symmetric encryption or security providers, and pointers you can use to troubleshoot the problem.</p> <ul style="list-style-type: none"> <pre>com.filenet.wcm.api.EncryptionException: Problem creating JCE Cipher instance for AES/ECB/NoPadding algorithm. java.home=C:\java\jdk1.4.2\jre. Exception was java.lang.NoSuchAlgorithmException: Cannot find any provider supporting AES/ECB/NoPadding</pre> <p>This exception indicates that no provider supplies AES. Since most providers do provide AES, this is probably indicative of a problem in the static configuration of <code>java.security</code>, static configuration of <code>java.security</code> has not been done, or the <code>.jar</code> file for the provider is missing from the classpath.</p> <pre>com.filenet.wcm.api.EncryptionException: Problem creating JCE Cipher instance for AES/ECB/NoPadding algorithm. java.home=C:\j2sdk1.4.2\jre. Cause: java.lang.ExceptionInInitializerError; Caused by: java.lang.SecurityException: Cannot set up certs for trusted CAs; Caused by: java.lang.SecurityException: Cannot locate policy or framework files!</pre> <p>This exception, which traverses nested exception levels to get to the underlying failure, can be caused by a number of different problems, but generally means that there is a problem between the compatible levels of the JCE framework and</p>

APAR Name Defect ID	Description
	<p>a specific JCE provider. For example:</p> <ul style="list-style-type: none"> ○ Either the JCE provider is incompatible with the framework or vice versa. These components conduct mutual authentication checks of each other and will fail if found to be incompatible with each other. ○ JRE certifications (found in jre\lib\security\cacerts) might be expired. Consult your JDK vendor for the procedure to obtain new certifications. ○ Missing or misplaced policy files. Make sure that all policy files are available and in the proper locations. <ul style="list-style-type: none"> • <code>com.filenet.wcm.api.EncryptionException: Problem initializing encryption/decryption with keyId 8110f2b1, size 256 bits. java.home=C:\java\jdk1.4.2\jre. Exception was java.lang.SecurityException: Unsupported keysize or algorithm parameters</code> <p>This exception indicates a keysize problem and occurs under the following circumstances:</p> <ul style="list-style-type: none"> ○ If you are using symmetric encryption with AES keys that are longer than the keysize supported by your installed policy files. ○ If you are serializing Content Java API objects as parameters or return values of an EJB method and you have a <code>CryptoKeysFile</code> configured, even if you are not using symmetric encryption. (Internally, the serialization encrypts the credentials of the <code>Session</code> object that is contained in each <code>Document</code>, <code>Folder</code>, etc.) <p>To resolve the problem, upgrade to an "unlimited strength" version of the policy files. See "Downloading the 'Unlimited Strength' Jurisdiction Policy Files" in the Java Cryptography Extension (JCE) topic at java.sun.com or the equivalent documentation from your JDK vendor.</p> <h2>Content Java API Reference Help Updates</h2> <p>The description of the MakeCryptoKeys class is changed as follows:</p> <pre>public class MakeCryptoKeys extends java.lang.Object</pre> <p>This class generates cryptographic keys for use with Symmetric encryption of session credentials tokens. The encrypted keys are used by the Advanced Encryption Standard (AES) algorithm.</p> <p>A site administrator is usually responsible for configuring site-wide security. However, when testing encryption of credentials tokens during application development, an application programmer might wish to run this utility to generate keys for the test. After generating the test keys and installing them on the Application Engine server, call <code>getSession</code> on the <code>ObjectFactory</code> class to instantiate a <code>Session</code> object, specifying <code>Session.SYMMETRIC</code> for the <code>credTag</code> parameter.</p> <p>You can display usage information by running <code>MakeCryptoKeys</code> with no arguments from a terminal command window.</p>

APAR Name Defect ID	Description
	<p>Input to the utility is the number of keys to generate and the key size. Key size is specified as 128, 192, or 256 bits. The default key size is 128 bits. Specifying 192-bit or 256-bit key sizes requires use of unlimited strength security policy files. If you specify a key size greater than 256 bits, the utility generates a warning and then uses a key size of 256 bits. The utility's output is written to standard output (<code>System.out</code>), which you redirect to a file (for example, <code>CryptoKeyFile.properties</code>). A delay of several seconds is not unusual when the utility starts. The following command creates three keys that are 128 bits in length, and redirects the output to a file:</p> <pre>java com.filenet.wcm.api.util.MakeCryptoKeys -n 3 -s 128 > CryptoKeyFile.properties</pre> <p>The Application Engine installation process creates an entry in the <code>WcmApiConfig.properties</code> file that identifies the default location of the <code>CryptoKeyFile</code>. The location differs depending on the type of installation performed and the platform on which the installation occurs. Refer to your installation documentation for the specific location for your environment. If the location of your <code>CryptoKeyFile</code> is different, use a text editor to create an entry in the <code>WcmApiConfig.properties</code> file that points to the correct location of your <code>CryptoKeyFile.properties</code> file. The following are two examples of such an entry:</p> <pre>CryptoKeyFile = C:\\filenet\\CryptoKeyFile.properties CryptoKeyFile = CryptoKeyFile</pre> <p>Keywords are case insensitive. In the first example above, note the use of double backslashes (<code>\\</code>) in the path statement of the entry's value portion. <code>WcmApiConfig.properties</code> is read as a Java <code>PropertyResourceBundle</code>. If your operating system uses backslashes as directory separator characters, the syntax requires that you double any literal backslash character that you use in the value portion of a keyword/value entry. If slashes are not used, you can specify the value with or without the ".properties" extension, as shown in the second example.</p> <p>The Content Java API reads the <code>WcmApiConfig.properties</code> file at runtime. It locates the <code>CryptoKeyFile.properties</code> file in the following manner: If the value specified for the <code>CryptoKeyFile</code> keyword contains a forward slash (/) or backslash (\) character, the value is read as the full and complete path name to the file that contains the encryption keys. If no path is specified, the Content Java API attempts to open <code>CryptoKeyFile.properties</code> according to the search scheme described in the Java <code>ResourceBundle</code> class.</p> <p>For more information, refer to "Key Configuration Files and Logs" in the Application Engine Administrator's help and Creating Cryptographic Keys for Symmetric Encryption in the <i>Content Java API Developer's Guide</i>.</p> <p>Batching:</p> <p>Unless otherwise noted, the methods in this class are unaware of batching, and their behavior is undefined when a batch is active.</p> <p>Execution Venue:</p> <p>Unless otherwise noted, the methods in this class are executed locally. They do not make a network round-trip.</p> <p>See Also: Security Concepts in the <i>Content Java API Developer's Guide</i></p>

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Program Number: 5724-R76, 5724-R81, 5724-R74, 5724-R96, 5724-R81, 5724-R85,
5724-S13, 5724-S19, 5724-S17

Printed in USA

SC19-2719-00

