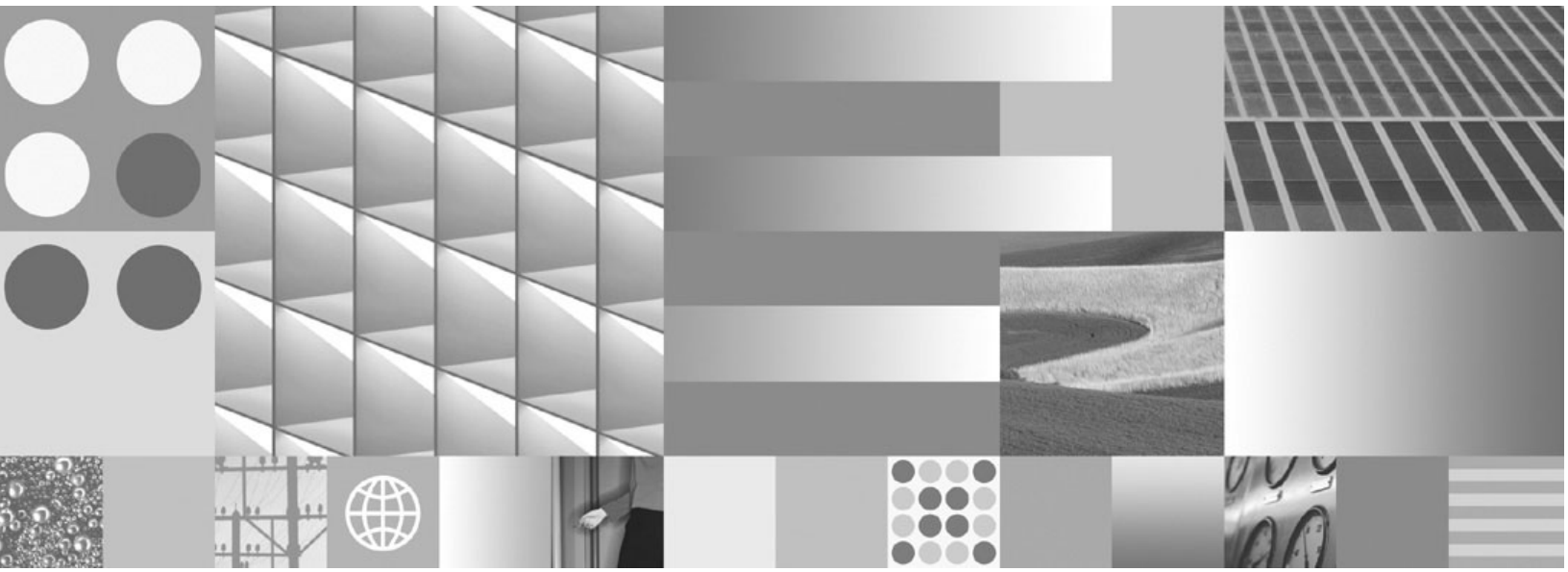
IBM FileNet Rendition Engine

Version 4.5

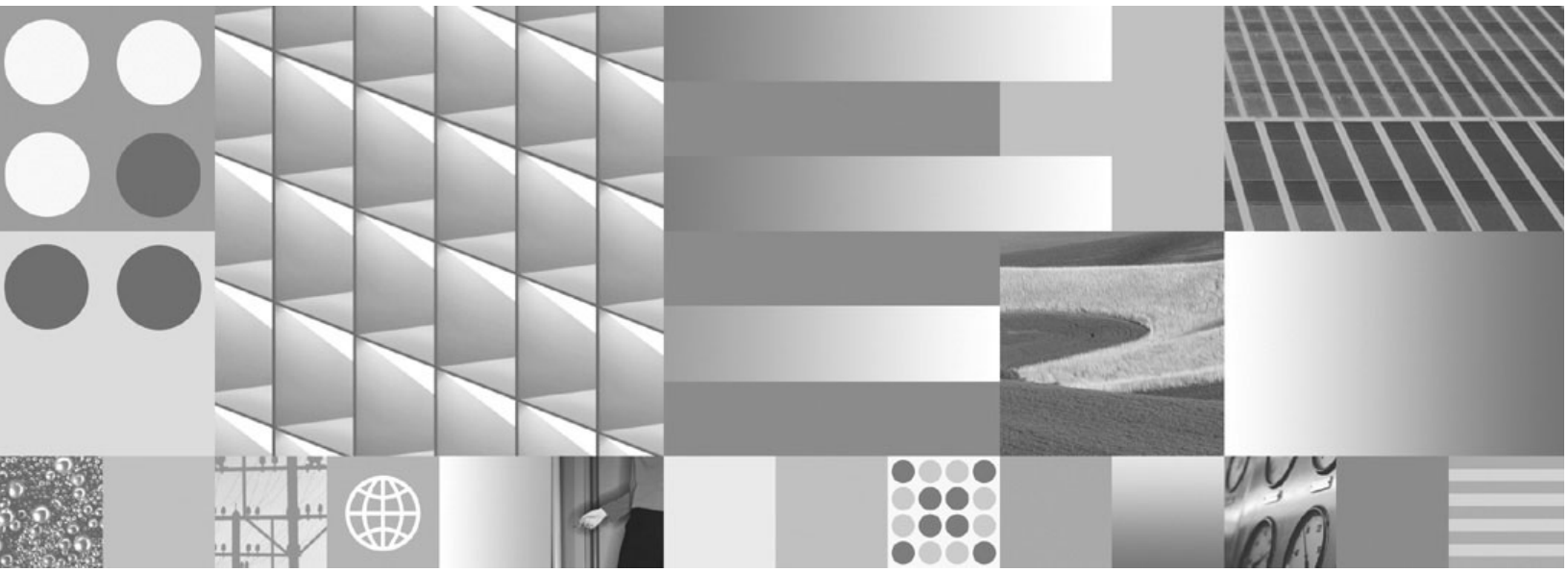


Installation and Upgrade Guide

GC31-5614-02

IBM FileNet Rendition Engine

Version 4.5



Installation and Upgrade Guide

GC31-5614-02

Note
Before using this information and the product it supports, read the information in "Notices" on page 93.

This edition applies to version 4.5.0 of IBM FileNet Rendition Engine (product number 5724-S17) and to all subsequent releases and modifications until otherwise indicated in new editions.

© Copyright International Business Machines Corporation 2001, 2009.
US Government Users Restricted Rights – Use, duplication or disclosure restricted by GSA ADP Schedule Contract with IBM Corp.

Table of contents

Revision log 8

About this document 9
Intended audience 9
Typographical conventions 10
Acronyms 11
About IBM FileNet documentation 12
Copy Web documents into the help system and make them searchable 12
Links to additional information 12
Gather reference documentation 13
Installation reference documents 13
Other available documentation 14
Autonomy K2 software documentation for configuring the FileNet P8 Content Search Engine . . 16
Access IBM FileNet documentation, compatibility matrices, and fix packs 16
Customer support 17
Feedback 17

Plan and prepare for installation 18

Plan the installation 18
Plan your deployment 19
Cluster deployment 19
Definition of roles 20
Installation administrator (IA) 20
IT administrator (ITA) 20
Security administrator (SA) 20
Database administrator (DBA) 20
Use the installation worksheet 21

Perform Required Preparation Tasks 22
Installation Administrator tasks 23
Complete the installation worksheet for your environment 23
Verify the contents of the installation package 23
Plan for non-English environment installation 23
Authoring in other languages 23
IT Administrator tasks 24
Rendition Engine server 24
Ensure minimum required disk space and temp space for installation 24
Microsoft Office locale 24
Operating system considerations 24
(Windows 2003 64-bit only) Install Microsoft .NET Framework version 2.0 for 64-bit operating systems 24
Network considerations 24
Collocation considerations 24

Hard drive considerations 24
Liquent Vista Domain considerations 24
(Windows 2003 Server) Uninstall Internet Explorer Enhanced Security Configuration. 25
(Windows 2003 SP1) Set the Data Execution Prevention performance option to essential Windows programs and services only. 25
Configure the server's operating system to optimize programs. 25
Install and configure authoring applications 26
Security Administrator tasks 41
Security authentication considerations 41
Users required for Rendition Engine installation 42
Database Administrator tasks 44
Database considerations 44
All platforms 44
Microsoft SQL Server 44
Oracle 45
Prepare Microsoft SQL Server 46
Prepare Oracle Server 48
Prepare Oracle Client 51
Install database drivers on Content Engine 52

Install and configure Rendition Engine 53
Task 1: Install Rendition Engine 54
Task 2: Configure Rendition Engine connections on Content Engine 60
Task 3: Set the site preferences on the Application Engine to use path-based URLs 62
Task 4: Enable word processing macros for rendering 63
Task 5: Install Rendition Engine software updates 65
Task 6: (Optional) Verify installation 66

Plan and prepare for upgrade 67

Plan the Upgrade 67
Before you begin the upgrade 67

Perform required preparation tasks 68
Installation Administrator tasks 69
Database or directory services migration 69
Before you begin the upgrade 69
Requirements for upgrades 69
IT Administrator tasks 70
Network considerations 70
Independent software vendor (ISV) applications 70
Content Engine considerations 70
Security Administrator tasks 71
Rendition Engine 71
Database Administrator Tasks 72
Updating database software 72
Oracle clients 72
Create a new Rendition Engine database 72

Upgrade and configure Rendition Engine 73
Task 1: Uninstall previous version of Rendition Engine 74
Task 2: Upgrade Rendition Engine 80

Remove software 81
Remove a Rendition Engine from a Liquent Vista domain 82
Remove Rendition Engine software from a Rendition Engine 83

Appendixes. 86

Installation and upgrade worksheet 87

FileNet P8 port numbers 89

Index 90

Notices 93
Trademarks 95

Revision log

The following table identifies changes made to this document since the IBM FileNet Rendition Engine 4.5.0 release.

	Revision
01/09	Added task to “Ensure minimum required disk space and temp space for installation” on page 24. Added installation verification step in “When the Rendition Engine installation has completed, check the install log files to verify that no errors occurred.” on page 57. Updated worksheet filtering instructions in “Optimizing the worksheet” on page 88.
12/08	Updated user requirements for installing authoring applications in “Install and configure authoring applications” on page 26 and “Users required for Rendition Engine installation” on page 42. Updated information about default install path in “Choose Destination Location” on page 55.
11/08	Initial revision.

About this document

This document provides installation and upgrade information about IBM FileNet Rendition Engine (RE).

Topics in this document apply specifically to FileNet P8 Rendition Engine installation tasks. Information about preparing the FileNet P8 Platform environment before you start these installation tasks is in the *Plan and Prepare Your Environment for IBM FileNet P8* document.

To download these documents from the IBM FileNet support Web site, see “Access IBM FileNet documentation, compatibility matrices, and fix packs” on page 16.

Intended audience

This document is intended for software professionals who install IBM FileNet P8 Platform components. IBM recommends that an IBM FileNet Certified Professional (FCP) perform the installation. For more information about the FCP program, contact your IBM service representative.

Typographical conventions

This document uses the following typographical conventions:

Convention	Usage	Example
Bold	Platform-specific headings	Start the application server. **WebSphere** Refer to IBM WebSphere documentation for more information. **WebLogic** Refer to BEA WebLogic documentation for more information.
Gray bold	Clickable items, such buttons, and tabs.	Click **OK**.
	Menu paths or breadcrumb trails.	Select **Start > Settings > Control Panels > Display > Screen Saver**.
Italics	Variables that require user-supplied values	The calculation is: *number of object stores* * 16 + *number of concurrent users*.
	Document titles	You are reading the *IBM FileNet P8 Platform Installation and Upgrade Guide*.
`Monospace`	Text that has to be typed by the user	Copy the file by entering the following command: `COPY filename`
	Code samples	Find the following text in the web.xml file: `<context-param><param-name>uploadDir</ param-name><param-value>/opt/FileNet/AE/ Upload1</param-value> </context-param>`
	Display text, such as prompts and error messages	`Are you sure you want to delete this object?` `You do not have permission to delete this object.`
	Elements such as filenames, properties, classes and so on, whose meaning might get confused in regular text.	Open the `filed` file. Enter a value for the `new` property. Select the `senior` class.

Convention	Usage	Example
“Text with quotation marks”	User-interface fields that do not use initial capitalization and document headings referenced within a document	See the “Part number” field for the part number. For more information, see “Typographical conventions” on page 10.
UPPERCASE	Case-sensitive text, where uppercase text is required.	Copy the file by entering the following command: `COPY filename`

Acronyms

This document uses the following IBM FileNet product names and acronyms.

	Acronyms
Application Engine	AE
Content Engine	CE
Content Search Engine	CSE
Enterprise Manager	EM
Global Configuration Data	GCD
Image Services Resource Adapter	ISRA
Process Engine	PE
Rendition Engine	RE

About IBM FileNet documentation

By default, this document is distributed as part of the *IBM FileNet P8* help system, but it is also available as a downloadable document from the IBM support Web site. Newer versions of *IBM FileNet P8* documentation are sometimes re-released with other events, such as fix pack releases or documentation refreshes. To ensure that you have the latest revision of a document, compare the document part number of your document to the document part number of the document that is posted on the support Web site:

www.ibm.com/support/docview.wss?rs=3278&uid=swg27010422

For example, the last two digits of “GC31-5585-05” indicate that the specified document has been revised five times after the original publishing, which is designated by 00.

Copy Web documents into the help system and make them searchable

The IBM FileNet P8 help system is designed so that you can download updated copies of this document and copies of other IBM FileNet documents into the *IBM FileNet P8* help system and index them so that they can be retrieved by a search in the help system. However, to search the *IBM FileNet P8* help system, it must be installed as a Web site on a Web server that supports Java™ applications.

For more information, see the following topics in the *IBM FileNet P8 Platform Installation and Upgrade Guide*:

- “IBM FileNet Web site documents.”
- “Install IBM FileNet P8 Platform documentation.”
- “Update Documentation Search Index.”

Links to additional information

To help you locate additional information about a topic, this document includes links to:

- Other locations in this document
- External Web sites
- Topics in the FileNet P8 help system

Because this document is included in the default FileNet P8 help system, the links to the FileNet P8 help topics work only when you view this document from within the help system. If you view this document from outside of the help system, the links to FileNet P8 help topics do not work.

Gather reference documentation

Following are two tables with information about the IBM FileNet P8 documents that are available as part of the FileNet P8 release. To download these documents from the IBM FileNet support Web site, see "Access IBM FileNet documentation, compatibility matrices, and fix packs" on page 16.

Installation reference documents

Consider having one or more of the following documents (or help topics) nearby for reference purposes during the installation of IBM FileNet P8 Platform.

Document or help topic name...	Refer to this document...
IBM FileNet P8 Platform Installation and Upgrade Guide	For information about how to install IBM FileNet P8 Platform in your environment.
Plan and Prepare Your Environment for IBM FileNet P8	To confirm the target environment is ready for a FileNet P8 installation or upgrade.
IBM FileNet Workplace XT Installation and Upgrade Guide	For information about how to install and upgrade Workplace XT in a FileNet P8 environment.
IBM FileNet P8 Hardware and Software Requirements	To confirm that the target environment has at least the minimum supported levels of software from independent software providers.
IBM FileNet P8 Compatibility Matrix	To confirm that the version of FileNet P8 to be installed is compatible with at least the minimum supported levels of other FileNet products that are or will be used with FileNet P8.
IBM FileNet P8 Release Notes	To familiarize yourself with the new features and known issues associated with the FileNet P8 release.
IBM FileNet P8 Non-English Support Guide	For information about how FileNet P8 supports non-English environments.
IBM FileNet P8 High Availability Technical Notice	For information about how to set up FileNet P8 using clusters, farms and other high-availability software and hardware.
IBM FileNet P8 Performance Tuning Guide	For critical tuning information required to make deployments of all sizes and levels of complexity work efficiently before going into production. **Attention** This guide provides many specific recommendations for making performance-related choices that are either difficult or impossible to change once the system goes into production.
IBM FileNet P8 Troubleshooting Guide	For troubleshooting tips associated with a FileNet P8 Installation.

Document or help topic name...	Refer to this document...
IBM FileNet P8 help topic: **Administration > Enterprise-wide Administration > FileNet P8 Security > Users and Groups**	For a complete list of the user and group roles, accounts, and responsibilities required to install, configure, and maintain a FileNet P8 system.
IBM FileNet P8 help topic: **Administration > Enterprise-wide Administration > Shutdown and Startup**	For information about how to shut down and start up FileNet P8 and any expansion products.

Other available documentation

Review the list of remaining FileNet P8 documents that you can download from the FileNet support Web site.

Document name	Refer to this document...
IBM FileNet P8 System Overview	For a technical summary of the FileNet P8 architecture, including a overview of features and capabilities.
IBM FileNet P8 Disaster Recovery Technical Notice	For information about potential options and solutions involved in a FileNet P8 disaster recovery plan.
IBM FileNet P8 Process Task Manager Advanced Usage Technical Notice	For information about properties found under the **Advanced** tab in Process Task Manager.
IBM FileNet P8 Version Tools Technical Notice	For information about the set of versions tools that are installed with FileNet P8 Platform and that identify the levels of Application Engine, Content Engine, and Process Engine in a FileNet P8 environment.
IBM FileNet P8 Security Help Extract	For security-related information from the FileNet P8 help system in PDF format.
IBM FileNet Rendition Engine Installation and Upgrade Guide	For information about how to install and upgrade Rendition Engine in a FileNet P8 environment.
IBM FileNet P8 eForms Installation and Upgrade Guide	For information about how to install and upgrade eForms in a FileNet P8 environment.
IBM FileNet Connector for SharePoint Web Parts Installation and Upgrade Guide	For information about how to install and upgrade IBM FileNet Connectors for SharePoint Web Parts in a FileNet P8 environment.
IBM FileNet Connector for SharePoint Document Libraries Installation and Upgrade Guide	For information about how to install and upgrade IBM FileNet Connectors for SharePoint Document Libraries in a FileNet P8 environment.

Document name	Refer to this document...
IBM FileNet P8 Portlets for WebSphere Installation and Upgrade Guide	For information about how to install and upgrade FileNet P8 Portlets for WebSphere in a FileNet P8 environment.
IBM FileNet Process Analyzer Installation and Upgrade Guide	For information about how to install and upgrade Process Analyzer in a FileNet P8 environment.
IBM FileNet Process Simulator Installation and Upgrade Guide	For information about how to install and upgrade Process Simulator in a FileNet P8 environment.
IBM FileNet Records Manager Installation and Upgrade Guide	For information about how to install and upgrade Records Manager in a FileNet P8 environment.
IBM FileNet Business Activity Monitor Installation and Configuration Guide	For information about how to install and configure Business Activity Monitor in a FileNet P8 environment.
IBM FileNet Content Federation Services Installation and Upgrade Guide	For information about how to install and upgrade Content Federation Services in a FileNet P8 environment.
IBM FileNet Content Federation Services for Image Services Planning and Configuration Guide	For information about how to configure Image Services for document federation.
IBM FileNet Content Federation Services for Content Manager OnDemand Planning and Configuration Guide	For information about how to configure Content Manager for OnDemand for document federation.
IBM FileNet Content Management Widgets Installation Guide	For information about how to install Content Management Widgets in a FileNet P8 environment.

Autonomy K2 software documentation for configuring the FileNet P8 Content Search Engine

Autonomy (formerly Verity) K2 software, which underlies the optional CSE component, installs with a large body of documentation that is not included in the general FileNet P8 documentation. For details on how to access this documentation, see the "Configure Content Engine for Content-Based Retrieval" topic in the *IBM FileNet P8 Platform Installation and Upgrade Guide*.

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.

   (www.ibm.com/support/docview.wss?rs=3247&uid=swg27010422).

2. Select a PDF file or click a Document Link icon, whichever is appropriate.

Customer support

For information about contacting customer support:

1. Navigate to the FileNet Product Family support page:

   (http://www.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).

Plan and prepare for installation

The topics in this section explain the process for planning for and performing the required prerequisite tasks for a FileNet Rendition Engine installation. Review all of the topics in the following sections carefully before you begin.

Rendition Engine is a software server responsible for transforming documents into another format, such as PDF or HTML. The Rendition Engine software is based on the Liquent product. To install and configure the Liquent components on the Rendition Engine server and Content Engine server follow the instructions in this document.

For more information about Liquent, see the *FileNet P8 Help* topic FileNet P8 Administration > Enterprise-wide Administration > Publishing > Publishing Overview > About Rendition Engine.

NOTE For DITA Open Toolkit rendition engine installation and configuration information, see the *FileNet P8 Help* topic FileNet P8 Administration > Enterprise-wide Administration > Publishing.

Plan the installation

This section lists details that will help you prepare your environment for the installation of Rendition Engine. In many cases, the items you see listed are links to more detailed information. Please review this information thoroughly before you start to set up a Rendition Engine or required third-party software.

Before you begin to install IBM FileNet Rendition Engine, perform the following planning activities:

- Retrieve updates to IBM FileNet P8 documentation and software, see “Access IBM FileNet documentation, compatibility matrices, and fix packs” on page 16.
- Read “Install and configure Rendition Engine” on page 53 to become familiar with the tasks you will perform when you set up your IBM FileNet Rendition Engine software.
- See “Use the installation worksheet” on page 21 for more information on an available Worksheet to record information that will be needed during installation.

NOTE Follow the planning, installation, and configuration tasks in the order presented in these topics. If you do otherwise, or you install FileNet P8 components on machines containing components for existing FileNet P8 systems, you might encounter unforeseen problems or be required to perform additional installation steps. See the *IBM FileNet P8 Platform Troubleshooting Guide.* To download this document from the IBM support page, see “Access IBM FileNet documentation, compatibility matrices, and fix packs” on page 16.

Plan your deployment

Cluster deployment

Cluster deployments can be used for load balancing or to provide high availability. Refer to the *IBM FileNet P8 Platform High Availability Technical Notice* for details on how to set up your IBM FileNet RE system using clusters, farms, and other high availability software and hardware.

Definition of roles

The tasks in this guide as well as the rows in the “Installation and upgrade worksheet” referenced in “Use the installation worksheet” on page 21 are organized by administrative roles, listed below.

Your organization may have different roles, and some of the responsibilities of listed roles will vary from those assigned by default in this documentation.

Installation administrator (IA)

- Responsible for coordinating the information described in this worksheet. The information itself will require the input from the other roles. See “Use the installation worksheet” on page 21.
- Runs IBM FileNet installation programs during initial installation.
- Runs the Domain Manager tool during initial installation.
- Launches Enterprise Manager during initial installation.
- Runs IBM FileNet Upgrade programs during upgrades.

The role of IA is usually filled by an IBM FileNet Certified Professional (FCP).

For tasks assigned to the IA, see“Installation Administrator tasks” on page 23.

IT administrator (ITA)

- Responsible for the networking and operating systems issues required by IBM FileNet P8.
- Responsible for those security configurations not assigned to the SA.
- Responsible for providing the information in the rows in the Installation and Upgrade Worksheet with a value of ITA in the Role column.

For tasks assigned to the ITA, see “IT Administrator tasks” on page 24.

Security administrator (SA)

- Responsible for configuring the directory servers required by IBM FileNet P8, including Content Engine, Application Engine, CFS Federation Administration application.
- Creates and maintains directory server user and group accounts
- Decides on configuration parameters required to connect
- Responsible for providing the information in the rows in the Installation and Upgrade Worksheet with a value of SA in the Role column.

For tasks assigned to the Security Administrator, see “Security Administrator tasks” on page 41.

Database administrator (DBA)

- Creates, configures, maintains database installations and database/tablespaces.

- Responsible for creating database accounts needed by FileNet P8.
- Might have responsibilities regarding the JDBC datasources
- Responsible for providing the information in the rows in the Installation and Upgrade Worksheet with a value of DBA in the Role column.

For tasks assigned to the Database Administrator, see “Database Administrator tasks” on page 44.

Use the installation worksheet

This planning and preparation guide includes a link to an associated Installation and Upgrade Worksheet, which is a spreadsheet file. You can enter information into the worksheet while you perform the preparation tasks for your FileNet P8 Platform environment. Information you collect in the worksheet will be used to complete various FileNet P8 installation, upgrade, and configuration tasks.

For more information, see “Installation and upgrade worksheet” on page 87.

Here are some things to know about the worksheet:

- The rows in the worksheet correspond to field names, properties, and parameters that must be entered in the course of installing or upgrading FileNet P8 Platform components.
- Each row of the worksheet is designated for a particular administrator role. Review the rows in the worksheet before you begin your preparation tasks.
- The Installation and Upgrade Worksheet is designed to be customized. You can sort the worksheet by different columns to get a specific view of the information that each administrator is expected to provide. Note that only some of the rows assigned to each administrator will apply for a particular installation. For example, some rows are specific to platform type, application server vendor type, database type, and so forth. Each row is also specific to a FileNet P8 component or add-on product. Work with your installation administrator or IBM services representative to determine the rows that are relevant for your installation. If these individuals provide you with variations of this table, use such variations instead to collect your data.

Perform Required Preparation Tasks

ATTENTION In addition to the preparation tasks listed below, follow the plan and prepare instructions in the *Plan and Prepare your Environment for IBM FileNet P8* guide for the component you are installing.

To prepare your environment for a Rendition Engine installation

Perform the required preparation tasks:

- “Installation Administrator tasks” on page 23
- “IT Administrator tasks” on page 24
- “Security Administrator tasks” on page 41
- “Database Administrator tasks” on page 44

Installation Administrator tasks

The items below are the required tasks for the Application Installer Administrator.

Complete the installation worksheet for your environment

If you are using the Installation and Upgrade Worksheet for your environment, fill out the worksheet with the relevant information as described in “Installation and upgrade worksheet” on page 87.

Verify the contents of the installation package

The following is a brief description of the contents of the RE installation package:

- Installer (folder) - Contains the setup.exe file used to install RE.
- Resources (folder) - Contains the Oracle-repository.sql script and the IBMFileNetRenditionEngineLicense.xml file used during the installation.
- Readme.htm - Contains information about the RE documentation.

Plan for non-English environment installation

By default Rendition Engine supports English and Japanese Windows operating systems.

Authoring in other languages

In order to publish documents that are authored in other languages, you must add support for the language on the Rendition Engine server using the "Regional and Language Options" control panel application. This adds language fonts and support to allow Rendition Engine to correctly render PDF and HTML documents.

See Microsoft Windows operating system help for further information on adding additional language support.

IT Administrator tasks

The items below are the required tasks for the Information Technology (IT) administrator.

Rendition Engine server

Ensure minimum required disk space and temp space for installation

See the IBM FileNet P8 4.5 Hardware and Software Requirements.

Microsoft Office locale

Before installing Microsoft Office, if you set the Regional Option to non-US/English for your operating system, bookmark extraction will not work properly when rendering a document. Any non-US/English Regional Option settings should be made after Microsoft Office has been installed.

Operating system considerations

(Windows 2003 64-bit only) Install Microsoft .NET Framework version 2.0 for 64-bit operating systems

If you are installing Rendition Engine on a 64-bit Windows machine you must install .NET Framework version 2.0 for 64-bit operating systems before installing Rendition Engine. See your Windows documentation for more information.

Network considerations

- Ensure TCP/IP settings. Verify TCP/IP configuration settings on the RE server.
- Ensure communication. Make sure the RE server can communicate with the database server and the Content Engine (CE) server, and that the CE server can communicate with the RE server.
- Ensure availability of required port numbers. Several port numbers are required by the various FileNet P8 components. For a list, see “FileNet P8 port numbers” on page 89.

Collocation considerations

- For performance reasons, unless you plan to install more than one Rendition Engine in your environment, FileNet recommends that you install Rendition Engine and Content Engine on separate servers. This will spread the performance load between the publishing servers.

Hard drive considerations

- You must install Rendition Engine on a server that has an NTFS drive partition.

  If you don’t install RE on an NTFS partition you won’t be able to complete the task “Set security on the VistaTempDir shared folder.” on page 59.

Liquent Vista Domain considerations

- When you first run the Rendition Engine installation program, you create a new Liquent Vista domain—an administrative entity that’s used to manage Rendition Engine services. For each

subsequent execution of the Rendition Engine installation program on a machine, you can join an existing Liquent Vista domain or create another Liquent Vista domain.

(Windows 2003 Server) Uninstall Internet Explorer Enhanced Security Configuration.

On Windows 2003 Server you must uninstall the Internet Explorer Enhanced Security Configuration to be able to use the Jobs tab in Domain Manager to monitor jobs.

1. Navigate to **Start > Settings > Control Panel**.
2. Double-click **Add/Remove Programs**.
3. Select **Internet Explorer Enhanced Security Configuration** and click **Change/Remove**.
4. Follow the screen prompts to remove the software. At the final screen, click **Finish**.
5. Close the Add/Remove Programs Window.

(Windows 2003 SP1) Set the Data Execution Prevention performance option to essential Windows programs and services only.

Before installing Rendition Engine on a server running Windows 2003 SP1, you must log on to the server with the default administrator account and set the Data Execution Prevention performance option to essential Windows programs and services only.

1. Right-click My Computer and choose **Properties**.
2. Select the Advanced tab.
3. Under Performance, click **Settings**.
4. Select the Data Execution Prevention tab.
5. Click **Turn on essential Windows programs and services only**.

Configure the server's operating system to optimize programs.

1. On the Desktop, right-click **My Computer** and choose Properties.
2. Select the Advanced tab
3. Under Performance, click **Settings**.
4. Select the Advanced tab.
5. Choose **Programs** for both best performance settings.

Install and configure authoring applications

Before you install the Rendition Engine (RE) software you should install all supported authoring applications that will be used to create and render publication documents. Install and configure these applications on each RE server you plan to use. With the applications installed, the RE installation wizard can copy RE specific Word and WordPerfect macros to the appropriate locations.

CAUTION Use the *FNRE_Admin* account created in "Users required for Rendition Engine installation" on page 42 when installing the authoring applications.

To render documents accurately, RE requires each authoring application to run cleanly, without problems, and without dialogs or prompts. Therefore, after you install each authoring application, start the application to confirm that it runs properly without dialogs opening, including the registration dialogs. In addition, a number of these applications require configuration before the software can use them for IBM FileNet publishing.

These applications require configuration:

- Microsoft® Word
- Microsoft Excel
- Microsoft Power Point
- Microsoft Visio
- Microsoft Project
- WordPerfect

CAUTION Before installing Microsoft Office, if you set the Regional Option to non-US/English for your operating system, bookmark extraction will not work properly when rendering a document. Any non-US/English Regional Option settings should be made after Microsoft Office has been installed.

NOTE For a complete list of supported applications, see *IBM FileNet P8 Hardware and Software Requirements*.

Perform these steps on each Rendition Engine server. See the steps below for any of the applications that apply to your environment.

To enable TIF to PDF conversion

By default, TIF and TIFF files are configured to use different rendering plugins. The MS Doc Imaging plugin (for Microsoft Office Document Imaging) is specified for TIF, while the Imaging plugin (included with Rendition Engine) is specified for TIFF.

If you plan to publish TIF images to PDF you must perform either of the following:

- Install the Microsoft Office Document Imaging office tool. This is not installed by default for Office 2007.
- Change the TIF content type plugin specified in the Domain Manager to use the one specified by for TIFF.

To configure Microsoft Word 2007

1. Before you install Rendition Engine, ensure the following folders contain no files:

   MS_Office_home\Microsoft Office*Office Version*\Startup

   MS_Office_home\Microsoft Office*Office Version*\XLStart

   \Documents and Settings*local adminstrator*\Application Data\Microsoft\Word\Startup

2. Configure Microsoft Office hyperlinks.

   Perform these changes to ensure that hyperlinks are treated correctly on publishing.

   a. Access the Web Options configuration.

      MS Word 2003

      i. In Microsoft Word, choose **Tools > Options.**

      ii. On the **General** tab click **Web Options**.

      MS Word 2007

      iii. In Microsoft Word, click the Microsoft Office Button.

      iv. Click **Word Options**.

      v. Click **Advanced**.

      vi. Scroll down to General, and click **Web Options**.

   b. Select the **Files** tab.

   c. Check the **Use long file names whenever possible** item.

      Perform this wherever the MS Office applications reside — on the Rendition Engine server *and* on each client machine from which source documents are added and rendering is initiated. By default, MS Office 2003 and MS Office XP have it set.

      This setting is used to ensure that the Liquent-based Rendition Engine properly converts MS Word and MS Excel documents containing hyperlinks, external links, image links, etc.

   d. Clear the **Update links on save** item.

      This ensures that hyperlinks are not updated but kept relative. If this is not done, a document with an HTML link would point to the location where the source document was copied during publishing.

      NOTE This change will take effect on all installed Microsoft Office applications.

3. Configure Microsoft Word publishing requirements.

   a. In Microsoft Word, click the Microsoft Office Button, and then click **Word Options**.

   b. Click **Popular**.

   c. Under Top options for working with Word, set ScreenTip style to Don’t show ScreenTips.

d. Select the **Display** tab and clear the following options:
   - Printing options
     - Print background colors and images
     - Print hidden text
     - Update fields before printing
     - Update linked data before printing

e. Select the **Proofing** tab and clear the following options:
   - When correcting spelling and grammar in Word
     - Check spelling as you type
     - Use contextual spelling
     - Mark grammar as you type
     - Check grammar with spelling

f. Select the **Save** tab and clear the following options:
   - Save documents
     - Set Save files in this format to Word 97-2003 Document (*.doc)
     - Uncheck Save AutoRecover info every:

g. Select the **Advanced** tab and clear the following options:
   - Editing options
     - Typing replaces selected text
     - When selecting, automatically select entire word
     - Allow text to be dragged and dropped
     - Use CTRL + Click to follow hyperlink
     - Automatically create drawing canvas when inserting AutoShapes
     - Use smart paragraph selection
     - Use smart cursoring
     - Keep track of formatting
   - Cut, copy and paste options
     - Show Paste Options buttons
     - Use smart cut and paste
   - Show document content
     - Show background colors and images in Print Layout view

- Show text animation
- Show Smart tags
- Show field codes instead of their values

- Display
  - Show all windows in the taskbar
- Print
  - Print in background
  - Print XML tags
  - Print field codes instead of their values
  - Scale content for A4 or 8.5 x 11" paper sizes
- Save
  - Allow background saves
- Preserve fidelity when sharing this document
  - Embed Smart Tags
- General
  - Provide feedback with animation
  - Confirm file format conversion on open
  - Update automatic links at open

h. Select the **Trust Center** tab.

i. Under Microsoft Office Word Trust Center, click **Trust Center Settings**.

ii. Click **Privacy Options**, and then uncheck Sign up for the Customer Experience Improvement Program.

To configure Microsoft Excel 2007

1. Configure Microsoft Office hyperlinks.

   Perform these changes to ensure that hyperlinks are treated correctly on publishing.

   a. Access the Web Options configuration.

      MS Excel 2003

      i. In Microsoft Excel, choose **Tools > Options.**

      ii. On the **General** tab click **Web Options**.

      MS Excel 2007

      i. In Microsoft Excel, click the Microsoft Office Button.

ii. Click **Excel Options**.

iii. Click **Advanced**.

iv. Scroll down to General, and click **Web Options**.

b. Select the **Files** tab.

c. Check the **Use long file names whenever possible** item.

Perform this wherever the MS Office applications reside — on the Rendition Engine server *and* on each client machine from which source documents are added and rendering is initiated. By default, MS Office 2003 and MS Office XP have it set.

This setting is used to ensure that the Liquent-based Rendition Engine properly converts MS Word and MS Excel documents containing hyperlinks, external links, image links, etc.

d. Clear the **Update links on save** item.

This ensures that hyperlinks are not updated but kept relative. If this is not done, a document with an HTML link would point to the location where the source document was copied during publishing.

NOTE This change will take effect on all installed Microsoft Office applications.

2. Configure Microsoft Excel publishing requirements.

a. In Microsoft Excel, click the Microsoft Office Button, and then click **Excel Options**.

b. Select the **Formula** tab and clear the following options:

- Error Checking
  - Enable background error checking

c. Select the **Save** tab and perform the following:

- Save workbooks
  - Set Save files in this format to Excel 97-2003 Workbook (*.xls)
  - Uncheck Save AutoRecover info every:

d. Select the **Advanced** tab and clear the following options:

- Cut, copy and paste options
  - Show Paste Options buttons
  - Show Insert Options buttons
- Display
  - Show all windows in the Taskbar
  - Show function ScreenTips
- General
  - Provide feedback with animation

- Ask to update automatic links
- Scale content for A4 or 8.5 x 11" paper sizes

e. Select the **Trust Center** tab.

i. Under Microsoft Office Excel Trust Center, click **Trust Center Settings**.

ii. Click **Privacy Options**, and then uncheck Sign up for the Customer Experience Improvement Program.

To configure Microsoft PowerPoint 2007

1. Configure Microsoft Office hyperlinks.

   Perform these changes to ensure that hyperlinks are treated correctly on publishing.

   a. Access the Web Options configuration.

   MS PowerPoint 2003

   i. In Microsoft PowerPoint, choose **Tools > Options.**

   ii. On the **General** tab click **Web Options**.

   MS PowerPoint 2007

   iii. In Microsoft powerPoint, click the Microsoft Office Button.

   iv. Click **PowerPoint Options**.

   v. Click **Advanced**.

   vi. Scroll down to General, and click **Web Options**.

   b. Select the **Files** tab.

   c. Check the **Use long file names whenever possible** item.

   Perform this wherever the MS Office applications reside — on the Rendition Engine server *and* on each client machine from which source documents are added and rendering is initiated. By default, MS Office 2003 and MS Office XP have it set.

   This setting is used to ensure that the Liquent-based Rendition Engine properly converts MS Word and MS Excel documents containing hyperlinks, external links, image links, etc.

   d. Clear the **Update links on save** item.

   This ensures that hyperlinks are not updated but kept relative. If this is not done, a document with an HTML link would point to the location where the source document was copied during publishing.

   NOTE This change will take effect on all installed Microsoft Office applications.

2. Configure Microsoft PowerPoint publishing requirements.

   a. In Microsoft PowerPoint, click the Microsoft Office Button, and then click **PowerPoint Options**.

b. Select the **Proofing** tab and clear the following options:
   - When correcting spelling and grammar in PowerPoint
     - Check spelling as you type
     - Use contextual spelling

c. Select the **Save** tab and perform the following:
   - Save presentations
     - Set Save files in this format to PowerPoint Presentation 97-2003
     - Uncheck Save AutoRecover info every:

d. Select the **Advanced** tab and clear the following options:
   - Editing options
     - When selecting, automatically select entire word
     - Allow text to be dragged and dropped
   - Cut, copy and paste options
     - Use smart cut and paste
     - Show Paste Options buttons
   - Display
     - Show all windows in the Taskbar
   - Slide Show
     - Show menu on right mouse click
     - Show popup toolbar
     - Prompt to keep ink annotations when exiting
     - End with black slide
   - Print
     - Print in background
   - General
     - Provide feedback with sound

e. Select the **Trust Center** tab.
   i. Under Microsoft Office PowerPoint Trust Center, click **Trust Center Settings**.
   ii. Click **Privacy Options**, and then uncheck Sign up for the Customer Experience Improvement Program.

To configure Microsoft Word 2003 or earlier

1. Before you install Rendition Engine, ensure the following folders contain no files:

   MS_Office_home\Microsoft Office*Office Version*\Startup

   MS_Office_home\Microsoft Office*Office Version*\XLStart

2. Configure Microsoft Office hyperlinks.

   Perform these changes to ensure that hyperlinks are treated correctly on publishing.

   a. In Microsoft Word, choose **Tools > Options**.

   b. On the **General** tab click **Web Options**.

   c. Select the **Files** tab.

   d. Check the **Use long file names whenever possible** item.

      Perform this wherever the MS Office applications reside — on the Rendition Engine server *and* on each client machine from which source documents are added and rendering is initiated. By default, MS Office 2000 has this Web Options check box cleared, while MS Office 2003 and MS Office XP have it set.

      Be aware that under MS Office 2000, if you open an MS Word document that has this Web Options check box cleared, that setting will be used during the publishing operation even if the Web Options check box in your client Office 2000 application is set by default. This override does not occur with MS Office 2003 or MS Office XP.

      This setting is used to ensure that the Liquent-based Rendition Engine properly converts MS Word and MS Excel documents containing hyperlinks, external links, image links, etc.

   e. Clear the **Update links on save** item.

      This ensures that hyperlinks are not updated but kept relative. If this is not done, a document with an HTML link would point to the location where the source document was copied during publishing.

      NOTE This change will take effect on all installed Microsoft Office applications.

3. Configure Microsoft Word publishing requirements.

   a. In Microsoft Word, choose **Tools > Options**

   b. Select the **View** tab and clear the following options:

      - Show
        - **Startup Task Pane**
        - **Status Bar**
        - **Screen Tips**
        - **Smart Tags**
        - **Animated Text**

  - **Windows in Taskbar**
  - **Field Codes**
- Formatting Marks
  - **Hidden Text**
  - **All**
- Print and Web Layout Options
  - **Background Colors and Images** (2003)

c. Select the **General** tab and clear the following:
- **Provide feedback with animation**
- **Confirm conversion at Open**
- **Update automatic links at Open**
- **Mail as attachment**
- **Automatically create drawing canvas when inserting AutoShapes**
- **Allow starting in reading layout** (2003)

d. Select the **Edit** tab and clear the following:
- Editing options
  - **Typing replaces selection**
  - **Drag-and-drop text editing**
  - **Use smart cursoring** (2003)
  - **Use smart paragraph selection**
  - **Use CTRL + Click to follow hyperlink**
  - **When selecting, automatically select entire word**
  - **Keep track of formatting**
  - **Show paste Options buttons**
- Cut and paste options
  - **Smart cut and paste**

e. Select the **Print** tab and clear the following:
- Printing Options
  - **Update fields**
  - **Allow A4/Letter paper resizing**
  - **Background printing**

- Include With Document
  - **Field Codes**
  - **Hidden Text**
  - **XML Tags** (2003)
  - **Background Colors and Images** (2003)

f. Select the **Save** tab and clear the following:

- **Allow fast saves**
- **Allow background saves**
- **Save AutoRecover info every:**
- **Embed smart tags**

g. Select the **Spelling & Grammar** tab and clear the following:

- Spelling
  - **Check spelling as you type**
  - **Always suggest corrections**
- Grammar
  - **Check grammar as you type**
  - **Check grammar with spelling**

h. Select the **Track Changes** tab and perform the following:

- Set **Use Balloons (Print and Web Layout)** to **Never**. (2003)
- Clear **Use Balloons in Print and Web Layout.** (XP)

To configure Microsoft Excel 2003 or earlier

1. Configure Microsoft Office hyperlinks.

   Perform these changes to ensure that hyperlinks are treated correctly on publishing.

   a. In Microsoft Excel, choose **Tools > Options**.

   b. In the **General** tab click **Web Options**.

   c. Select the **Files** tab.

   d. Check the **Use long file names whenever possible** item.

      Perform this wherever the MS Office applications reside — on the Rendition Engine server *and* on each client machine from which source documents are added and rendering is initiated. By default, MS Office 2000 has this Web Options check box cleared, while MS Office 2003 and MS Office XP have it set.

Be aware that under MS Office 2000, if you open an MS Word document that has this Web Options check box cleared, that setting will be used during the publishing operation even if the Web Options check box in your client Office 2000 application is set by default. This override does not occur under MS Office 2003 or MS Office XP.

This setting is used to ensure that the Liquent-based Rendition Engine properly converts MS Word and MS Excel documents containing hyperlinks, external links, image links, etc.

e. Clear the **Update links on save** item.

This ensures that hyperlinks are not updated but kept relative. If this is not done, a document with an HTML link would point to the location where the source document was copied during publishing.

NOTE This change will take effect on all installed Microsoft Office applications.

2. Configure Microsoft Excel publishing requirements.

a. In Microsoft Excel, choose **Tools > Options**.

b. Select the **View** tab and clear the following options:

- **Startup Task Pane**
- **Status Bar**
- **Windows in Taskbar**

c. Select the **General** tab and clear the following:

- **Function tooltips**

d. Select the **Edit** tab and clear the following:

- **Show Paste Options buttons**
- **Show Insert Options buttons**
- **Ask to update automatic links**
- **Provide feedback with Animation**

e. Select the **International** tab and clear the following:

- **Allow A4/Letter paper resizing**

f. Select the **Save** tab and clear the following:

- **Save AutoRecover info every:**

g. Select the **Error Checking** tab and clear the following:

- **Enable background error checking**
- **List Data Validation** (2003)

To configure Microsoft PowerPoint 2003 or earlier

1. Configure Microsoft Office hyperlinks.

   Perform these changes to ensure that hyperlinks are treated correctly on publishing.

   a. In Microsoft PowerPoint, choose **Tools > Options**.

   b. In the **General** tab click **Web Options**.

   c. Select the **Files** tab.

   d. Check the **Use long file names whenever possible** item.

      Perform this wherever the MS Office applications reside — on the Rendition Engine server *and* on each client machine from which source documents are added and rendering is initiated. By default, MS Office 2000 has this Web Options check box cleared, while MS Office 2003 and MS Office XP have it set.

      Be aware that under MS Office 2000, if you open an MS Word document that has this Web Options check box cleared, that setting will be used during the publishing operation even if the Web Options check box in your client Office 2000 application is set by default. This override does not occur under MS Office 2003 or MS Office XP.

      This setting is used to ensure that the Liquent-based Rendition Engine properly converts MS Word and MS Excel documents containing hyperlinks, external links, image links, etc.

   e. Clear the **Update links on save** item.

      This ensures that hyperlinks are not updated but kept relative. If this is not done, a document with an HTML link would point to the location where the source document was copied during publishing.

      NOTE This change will take effect on all installed Microsoft Office applications.

2. Configure Microsoft PowerPoint publishing requirements.

   a. In Microsoft PowerPoint, choose **Tools > Options**.

   b. Select the **View** tab and clear the following options:

      - **Startup Task Pane**
      - **Slide Layout task pane when inserting new slides**
      - **Status Bar**
      - **Windows in Taskbar**
      - **Prompt to keep ink annotations when exiting** (2003)
      - **Popup menu on right mouse click** (2000)
      - **Show menu on right mouse click** (2003)
      - **Show popup menu button** (2000)
      - **Show popup toolbar** (2003)

- **End with blank slide**

c. Select the **General** tab and clear the following:

- **Provide feedback with sound to screen elements**

d. Select the **Edit** tab and clear the following:

- **Show Paste Options buttons**
- **Use smart cut and paste**
- **When selecting, automatically select entire word**
- **Drag-and-drop text editing**

e. Select the **Print** tab and clear the following:

- **Background printing**

f. Select the **Save** tab and clear the following:

- **Allow fast saves**
- **Save AutoRecover info every:**

g. Select the **Spelling and Style** tab and clear the following:

- **Check spelling as you type**
- **Always suggest corrections**

To configure Microsoft Project

1. In Microsoft Project, choose **Tools > Options**.
2. Select the **View** tab and clear the following options:
   - **Project Screentips**
3. Select the **General** tab and clear the following:
   - **Show startup Task Pane**
   - **Advice from Planning Wizard**
   - **Automatically add new resources and tasks**
4. Select the **Edit** tab and clear the following:
   - **Ask to update automatic links**
5. Select the **Scheduling Options** tab and clear the following:
   - **Show scheduling messages**
6. Select the **Spelling Options** tab and clear the following:
   - **Always suggest**

7. For 2003, select **Help > Customer Feedback Options** and perform the following:
   a. Select No, I don't wish to participate.
   b. Click **OK**.

To configure Microsoft Visio

1. In Microsoft Visio, choose **Tools > Options**.
2. Select the **Save** tab and clear the following options:
   - **Prompt for document properties**
   - **Save preview with file**
   - **Show XML file save warnings** (XP)
   - **Show file save warnings** (2003)
   - **Show XML file open warnings** (XP)
   - **Show file open warnings** (2003)
3. Select the **Spelling** tab and clear the following:
   - **Check spelling as you type**
   - **Ignore words with number should be checked**
4. For 2003, select **Help > Customer Feedback Options** and perform the following:
   a. Select No, I don't wish to participate.
   b. Click **OK**.

To configure WordPerfect

For information on these options, see your WordPerfect documentation.

1. In Corel WordPerfect, choose **Tools > Settings**.
2. Click **Environment**.
3. In the Environment Settings screen select the **Prompts** tab and clear the following:
   - **Confirm deletion of table formulas**
   - [Beep] **On hyphenation**
4. Select the **Interface** tab and perform the following:
   - Clear **Quick Tips**
   - Check [Save workspace (documents and windows layout)] **Never**
5. Click **OK**.
6. Click **Files**.

7. In the Files Settings screen, select the **Document** tab and clear the following:
   - **Timed document backup every**
   - **Use enhanced file dialogs**
8. Click **OK** and **Close** to close the Settings dialog box.
9. Clear the following:
   - **Tools > Proofread** > **Prompt-As-You-Go**
10. Select the following:
   - **Tools > Proofread** > **Off**
11. Choose **Tools > Workplace Manager...** and clear the following:
   - **Show at Startup**

To disable the Corel Office DAD components

For WordPerfect Office, you must disable the Corel Office DAD system tray icons and remove CorelCentral from the Startup folder.

1. In the Windows System tray, right-click any of the DAD icons.
2. Clear **Display DAD on Startup**.
3. Select **Exit DAD**.

Security Administrator tasks

The items below are the required tasks for the Security Administrator.

Security authentication considerations

Check required user account privileges. For installing, configuring, and running Rendition Engine, you must use specific user and group accounts with particular access privileges. See “Users required for Rendition Engine installation” on page 42.

Users required for Rendition Engine installation

NOTE Under Windows® Active Directory authentication, FileNet P8 supports only security groups, not distribution groups. Supported groups can have a scope of domain local (as long as they are in the same domain as Content Engine), global, or universal.

The following table lists the user accounts needed for installing Rendition Engine, including the minimum permissions required..

	Description
FNRE_Admin	A local or domain user account that must be added directly to the local Administrators group on all Rendition Engine servers. **NOTE** Use this account both when installing Rendition Engine and when installing and configuring the authoring applications used to render documents. Permissions: Local administrator privileges on the machine where Rendition Engine is installed.
GCD_admin	GCD administrator user. A FileNet P8 Platform user that is part of the GCD administrators. You will need this user when you configure the Rendition Engine Connection on CE. See "Configure Rendition Engine connections on Content Engine" on page 60.
re_db_user (SQL_login)	(Microsoft SQL Server only) Any SQL Server user with SQL Server's "Database Creators" server role. This user will be created as part of the Microsoft SQL Server installation and is a safer alternative to using SQL Server's SA or SYS users, which will also satisfy the configuration requirements. See "To configure Microsoft SQL Login for Rendition Engine" on page 46.
re_db_user (VISTAUSER)	(Oracle Server only) This user will be created as part of the Oracle Server installation. See "To create an Oracle database" on page 49.

For a complete list of the user and group roles, accounts, and responsibilities required to install, configure, and maintain a FileNet P8 system, see the *FileNet P8 Help* topic FileNet P8 Administration > Enterprise-wide Administration > Security > Users and groups > FileNet P8 Platform user

and group security help and the *Plan and Prepare your Environment for IBM FileNet P8* guide topic “Create Directory Server Accounts.”

Database Administrator tasks

The items below are the required tasks for the database administrator.

Database considerations

For a checklist version of these considerations, see “Database Considerations” on page 93.

If you plan to collocate the RE database with CE or PE databases, you should use the supplied database instance (Microsoft SQL Server) or database (Oracle) for these components. For more information, see *IBM FileNet P8 Platform Installation and Upgrade Guide* and the tasks *Install Microsoft SQL Server for FileNet P8* or *Install Oracle Server for FileNet P8*.

If you plan to install and configure a standalone database instance (Microsoft SQL Server) or database (Oracle) for RE, follow the instructions in this guide.

All platforms

- Determine your local vs. remote database engine preference. The database engine is local if it is installed on a server where you will also be installing Content Engine, Process Engine and/or Rendition Engine software. The database is remote if it is on a server where no Content Engine, Process Engine or Rendition Engine software is installed.
- Determine what type of database engine you want to use. Rendition Engine supports only Microsoft SQL Server and Oracle.
- Determine the Purge and Archive intervals for the RE database.

  By default, the RE database is set to autogrow. To keep the database size down, RE is set up to archive the content of the database daily and to purge the archived content weekly. These intervals can be modified using the Domain Manager interface. See “(Optional) Set the Rendition Engine Purge and Archive Intervals.” on page 58.

Microsoft SQL Server

- Determine whether you want to use a dedicated or shared database.
  - You can assign Rendition Engine a dedicated instance. You can use the default instance or a named instance of your choice.
  - Rendition Engine can share a Microsoft SQL Server instance with Content Engine or Process Engine.
  - Rendition Engine must have its own database, separate from Content Engine and Process Engine.

    NOTE There is no need to create an SQL database before you install Rendition Engine software. The Rendition Engine installer will prompt for appropriate database information and will create the necessary database.
  - Remote Microsoft SQL connections for Rendition Engine are handled by Microsoft Data Access Components, which is installed by default on Rendition Engine servers. There is no need to install the Microsoft SQL client software on the Rendition Engine server.

- Create a SQL Login account for Rendition Engine purposes. Under Microsoft SQL Server, you must ensure that an SQL Login account exists before you install the first Rendition Engine. See “To configure Microsoft SQL Login for Rendition Engine” on page 46.

Oracle

- Determine whether you want to use a dedicated or shared database.
  - Rendition Engine can have a dedicated Oracle database service or share a database service with Content Engine, Process Engine, or non-FileNet applications.
  - Rendition Engine must have its own tablespace, separate from Content Engine and Process Engine.

    NOTE This tablespace will be created by executing an Oracle SQL script prior to installing the first Rendition Engine. See “To create an Oracle database” on page 49.
- Database client software requirements. For Rendition Engine, if the database is remote, you must install database client software on the Rendition Engine server. See “Prepare Oracle Client” on page 51.

  NOTE While the Content Engine also requires installation of the database client software, that installation and configuration will have already been completed during installation of the FileNet P8 system.
- To create a valid user and tablespace for RE, you will run the Oracle-repository.sql script on the database server as part of “Prepare Oracle Server” on page 48 before you perform the installation tasks.

Prepare Microsoft SQL Server

If you plan to collocate the RE database with CE or PE databases, you should use the existing database instance for these components. For more information, see the *Plan and Prepare Your Environment for IBM FileNet P8*, task *Prepare Microsoft SQL Server*.

If you plan to install and configure a standalone database instance for RE, follow the instructions in this task.

NOTES

- Install Microsoft SQL Server on the server where Rendition Engine software will be installed as a local database or on a separate server as a remote database.
- Database creation for Rendition Engine will be handled automatically when you install and configure Rendition Engine.
- You do not need to install Microsoft SQL client software on the Rendition Engine server.
- (Microsoft SQL Server 2000) Verify that the required Microsoft SQL Server 2000 Service Pack is available. See the *IBM FileNet P8 Hardware and Software Requirements*.
- Record the values for the following settings as you work through the database installation. This information must be entered during subsequent installations.
  - Server name.
  - Instance (e.g., P8_inst).
  - TCP/IP port number assigned.

To install and configure Microsoft SQL Server

FileNet Rendition Engine does not require any specific configuration settings when you install Microsoft SQL Server. Refer to the Microsoft SQL Server 2000/2005 installation instructions.

To configure Microsoft SQL Login for Rendition Engine

On the Microsoft SQL database computer, use Microsoft SQL Server Enterprise Manager to create a Microsoft SQL Login (*re_db_user (SQL_login)*).

1. Start the Microsoft SQL Enterprise Manager.
2. Expand the Microsoft SQL Server *Server name[\Instance name]* node.
3. Expand the Security folder, right-click **Logins** and select **New Login...**.
4. In the SQL Server Login Properties screen, under the **General** tab, perform the following:
   a. In the Name field, enter a name for the *re_db_user (SQL_login)* user.
   b. In the Password field, enter a password for the new SQL user.
   c. Verify that the default database for the login is “master.”

5. Grant the SQL login created in the step above the Database Creators server role.
   a. In the SQL Server Login Properties screen, select the **Server Roles** tab.
   b. Under Server Roles, check **Database Creators**.
6. Using the SQL Query Analyzer, validate that you can successfully log on to the SQL database using this user name and password.

Prepare Oracle Server

If you plan to collocate the RE database with CE or PE databases, you should use the existing database for these components. For more information, see the *Plan and Prepare Your Environment for IBM FileNet P8*, task *Prepare Oracle Server*.

If you plan to install and configure a standalone database for RE, follow the instructions in this task.

A database is *local* if it is on a machine where you will also be installing Rendition Engine. A database is *remote* if it is on a machine where no Rendition Engine is installed.

NOTES

- Perform this task on the UNIX®, Linux®, or Windows server that will host the Oracle database to be used by the Rendition Engine.
- Make sure that the server that will host the database satisfies all pre-installation requirements specified in the Oracle installation documentation.
- If the server where you install the Oracle database will also host an installation of Rendition Engine, the machine must meet the Rendition Engine requirements listed in *IBM FileNet P8 Hardware and Software Requirements*.
- Refer to *IBM FileNet P8 Hardware and Software Requirements* for operating-system service pack and Oracle version and patch set requirements. The Oracle patch-installation procedure may be less complicated if you do it before you create any databases.
- If your Oracle database will be remote, after you complete the procedures in this topic, you must also complete the procedures in "Prepare Oracle Client" on page 51 on each machine where you will install Rendition Engine.
- FileNet suggests that you record the values for the following settings as you work through the database installation. This information must be entered during subsequent installations.
  - Global Database Service Name
  - Oracle temporary tablespace name
  - Oracle data tablespace name
  - Oracle index tablespace name (optional)

To install an Oracle database engine

FileNet Rendition Engine does not require any specific configuration settings when you install Oracle. Refer to Oracle installation instructions.

You do not need to create a tablespace as part of the installation. This will be handled in "To create a tablespace for Rendition Engine" on page 50.

During installation, select **Enterprise Edition** or **Custom** to install the necessary components (if you don't need all the components in the Enterprise Edition).

If you selected **Custom** you must, at a minimum, install the following components:

- Oracle 10g
  - Oracle 10g Server
  - Oracle Net Services
    - Oracle Net Listener
  - Oracle 10g Development Kit
    - Oracle Call Interface (OCI)
  - (Windows) Oracle Windows Interfaces
    - Oracle Services for Microsoft Transaction Server
  - Oracle 10g Documentation (recommended)
- Oracle 11g
  - Oracle 11g Server
  - Oracle Net Services
    - Oracle Net Listener
  - Oracle 11g Development Kit
    - Oracle Call Interface (OCI)
  - (Windows) Oracle Windows Interfaces
    - Oracle Services for Microsoft Transaction Server
  - Oracle 11g Documentation (recommended)

To create an Oracle database

Oracle documentation describes several ways to create a database, for example the Database Configuration Assistant (DBCA).

When you create the database, specify the following settings:

- Server process type

  NOTE “Dedicated Server Mode” offers better performance than “Shared Server Mode.”

- Database character set

  Choose a database character set as specified in “IBM FileNet P8 Database Character Sets” in the *Plan and Prepare Your Environment for IBM FileNet P8*.

To create a tablespace for Rendition Engine

You will use the Oracle-Repository.sql script to create a user and tablespaces for use by Rendition Engine. The tablespaces are for the exclusive use of Rendition Engine and should not be shared with any other FileNet P8 component.

1. Log on to the Oracle server as an Oracle administrative user.
2. Access the IBM FileNet Rendition Engine installation package.
3. Navigate to \Resources.
4. Copy the Oracle-Repository.sql script locally, and open it for editing.

   Several parameters in the script can be modified to meet specific business requirements. The following table shows those parameters and the default values. Make a note of the actual values that are assigned.

   Specifically, note the user name and the password that is assigned when the script is run. That user name and password must be supplied later when you install the Rendition Engine software.

	Default Value	(If modified) Actual Value Assigned
data tablespace	VISTADAT1	
index tablespace	VISTAIND1	
user name	re_db_user (VISTAUSER)	
password	none (assigned at runtime)	

5. Run the modified Oracle-Repository.sql script.

   Supply the required password for the *re_db_user (VISTAUSER)* when prompted.

Prepare Oracle Client

The procedure in this task describes how to install the Oracle Client software to prepare for the installation of Rendition Engine.

NOTES

- (Windows 2003 64-bit only) If you are using Windows 64-bit system for your Rendition Engine you must install the 32-bit Oracle Client, not the 64-bit client.
- Install Oracle Client on servers that will host Rendition Engine if the database will be remote from the Rendition Engine server.
- Make sure that the machine where you will install Oracle Client satisfies all the pre-installation requirements specified in the Oracle installation documentation.
- Refer to *IBM FileNet P8 Hardware and Software Requirements* for operating-system service pack and Oracle version and patch set requirements.

To install the Oracle client

The following procedure describes the minimum options for installing Oracle Client. Consult the Oracle installation documentation for complete instructions and pre-installation requirements.

1. Log on with an appropriate local account to install and configure the Oracle Client software.

   NOTE FileNet strongly recommends that you log on to the machine locally (not through a Windows domain) to install the Oracle Client software.

2. If the machine where you are installing Oracle Client does not use DNS to resolve host names, place in its hosts file the IP address of the machine where the Oracle database is installed.
3. Launch the Oracle Client installation.
4. From the Available Products dialog, click **Oracle Client**.
5. From the Installation Types dialog box, click **Runtime**, and proceed with the installation.
6. After the installation completes, click **Next Installation**.
7. On the Installation Types dialog box, click **Custom** and select **Oracle Windows Interfaces** from the list in the Available Product Components Dialog box, then proceed with and complete the installation.
8. Using Oracle Net Configuration Assistant, test the connection to the Oracle database server with the user name and password created in “To create a tablespace for Rendition Engine” on page 50.
9. Install all required Oracle patches, as specified in the *IBM FileNet P8 Hardware and Software Requirements*. To download this guide from the IBM support page, see “Access IBM FileNet documentation, compatibility matrices, and fix packs” on page 16.

Install database drivers on Content Engine

CAUTION This task is *only* required if your CE and RE are using different databases.

Rendition Engine might be configured to use a different database brand than the CE/object store (i.e. MS SQL Server versus DB2). In this case you must configure CE with the corresponding JDBC driver for the RE database such that the RE client software running on the CE application server can access the RE database.

The procedure for installing the JDBC driver for the RE database is identical to the procedure for installing the JDBC for the CE. Use the steps specified in the “Configure WebSphere for Content Engine,” “Configure WebLogic for Content Engine,” or “Configure JBoss for Content Engine” tasks of the *Plan and Prepare Your Environment for IBM FileNet P8* document.

Install and configure Rendition Engine

This installation section contains the following major topics:

- Task 1 “Install Rendition Engine” on page 54.
- Task 2 “Configure Rendition Engine connections on Content Engine” on page 60.
- Task 3 “Set the site preferences on the Application Engine to use path-based URLs” on page 62.
- Task 4 “Enable word processing macros for rendering” on page 63.
- Task 5 “Install Rendition Engine software updates” on page 65.
- Task 6 “(Optional) Verify installation” on page 66.

Task 1: Install Rendition Engine

This procedure covers the installation and initial configuration of the Rendition Engine.

WARNING If you enter invalid database user credentials and complete the Rendition Engine installation, you must correct these using the Domain Manager before you attempt to use Rendition Engine. For more information, see the *FileNet P8 Help* topic FileNet P8 Administration > Enterprise-wide Administration > Publishing > How to... > Change the Rendition Engine database password.

CAUTION If this is an upgrade you can't use a database that was used for an earlier version of the Rendition Engine software. You must create and identify a new database.

NOTES

- This task covers installation of the first RE in a Liquent Vista domain, and installation of a second and consecutive RE in the same domain to increase publishing throughput. If you intend to install more than one Rendition Engine in your environment, make sure that each installation is completed and that RE is configured before you start the next installation.For more information about adding additional RE servers to a Liquent Vista Domain, see the *FileNet P8 Platform Performance Tuning Guide*.
- During the installation, you might be prompted to install additional Microsoft software. Specifically, if the .NET Framework 1.1 or XML Parser 4.0 software is not already on your server, the Rendition Engine installer will do that installation. See "Setup Status" on page 57.
- After installing RE you should confirm that the necessary macros have been installed to the external applications you plan to use for rendering. For information and procedures, see "Enable word processing macros for rendering" on page 63.

  NOTE If you install a word processing applications after you have installed Rendition Engine you must update the application with the required macro files. See "To update applications installed after Rendition Engine" on page 64.

To install Rendition Engine

1. Log on to the Rendition Engine server as the *FNRE_Admin* user.

   NOTE Unless otherwise directed use this *FNRE_Admin* account to install and configure all the Publishing components.

2. If it isn't already running, start the `Print Spooler` Windows service.
3. Start the Rendition Engine installation wizard.

   a. Access the IBM FileNet Rendition Engine installation package.

   b. Launch the installation program (\Installer\setup.exe).

4. Complete the installation screens as follows:

   For information on parameter values, see "Installation and upgrade worksheet" on page 87.

HINT With the **Data > Filter > AutoFilter** command enabled, as it is by default in the shipping worksheet file (p8_worksheet.xls), perform the following steps to quickly see only the installation properties you must specify for the Rendition Engine installation program:

- Click the **AutoFilter** drop-down arrow in the "Installation or Configuration Program" column header and select RE installer.
- Click the **AutoFilter** drop-down arrow in the "Setup Type" column header, select Custom, and specify: Setup Type contains "Installation."

  NOTE If you are performing an upgrade, make sure the Setup Type contains “Upgrade.”

In this screen...	Perform this action...
Customer Information	Enter a value in the User Name and Company Name fields, select the **Anyone who uses this computer (all users)** option.
License Agreement	Review and accept the license agreement.
Choose Destination Location	Accept the default installation location or click **Browse** to select another location (*RE_install_path*). Default: C:\Program Files\FileNet\RenditionEngine\Liquent **NOTES** • The installation program creates a directory at the selected location and installs the Rendition Engine software in this directory. • In addition to the directory above, the installer will create the following folder and install a few components in there: C:\Program Files\Common Files\Liquent
RPS License File	Browse to and select the RPS license file. **NOTE** The license file IBMFileNetRenditionEngineLicense.xml is located on the IBM FileNet Rendition Engine installation package in the \Resources folder.
RPS User Information	Enter the required information for the RPS User (*FNRE_Admin)*. • **Domain**: This field defaults to the domain your server is a member of or to the server name of a standalone machine. • **User**: Enter the name of the *FNRE_Admin* user. **NOTE** The User field defaults to the user account with which you logged in to the server. • **Password**: Enter the *FNRE_Admin* password in the password field. • **Confirm Password**: Confirm the *FNRE_Admin* password.

In this screen...	Perform this action...
RPS Database Type	Choose **SQL Server** or **Oracle**. Depending on your choice, you will be prompted for additional information appropriate on that database type. **NOTE** MSDE and MS Access are not supported for Rendition Engine even though they are available in the installer interface.
(SQL Server) SQL Server Database Information	**WARNING** If you enter invalid database user credentials and complete the Rendition Engine installation, you must correct these using the Domain Manager before you attempt to use Rendition Engine. For more information, see the *FileNet P8 Help* topic FileNet P8 Administration > Enterprise-wide Administration > Publishing > How to... > Change the Rendition Engine database password. Enter the database information: • **Machine**: Enter or browse for the machine name where the SQL Server database will be created. If you plan to use a named instance rather than the default instance, you must enter this value: `db server name\instance name` • **Catalog (Database)**: Enter the database name to be created for Rendition Engine use. **CAUTION** If this is an upgrade, you cannot use a database that was used for an earlier version of Rendition Engine software. You must identify a new database. • **User**: Enter the *re_db_user (SQL_login)* user name. • **Password**: This is the *re_db_user (SQL_login)* user's password.

In this screen...	Perform this action...
(Oracle) Oracle Database Information	**WARNING** If you enter invalid database user credentials and complete the Rendition Engine installation, you must correct these using the Domain Manager before you attempt to use Rendition Engine. For more information, see the *FileNet P8 Help* topic FileNet P8 Administration > Enterprise-wide Administration > Publishing > How to... > Change the Rendition Engine database password. **NOTE** There is a warning on this screen that you must already have the Vista database tables created. All necessary tables were created when you executed the Oracle-repository.sql script earlier. See "To create a tablespace for Rendition Engine" on page 50. The user name and password requested here are the ones you assigned when you ran that script. Enter the database information: • **Service**: Enter the Oracle service name to use with Rendition Engine. **CAUTION** If this is an upgrade, you cannot use a database that was used for an earlier version of Rendition Engine software. You must identify a new database. • **User**: Enter the name of the *re_db_user (VISTAUSER)*. • **Password**: Enter the password of the *re_db_user (VISTAUSER)*.
Start Copying Files	Confirm your selections.
Setup Status	The progress bar indicates the status of your installation. **NOTE** At this stage the installer will check for required Microsoft software (.NET Framework 1.1 or XML Parser 4.0). If the required software is not installed, the Rendition Engine installer will perform the necessary installations. Follow the instructions in the installation wizards that the Rendition Engine installer launches.

5. When the Rendition Engine installation has completed, check the install log files to verify that no errors occurred.

   The log files are available at:

   C:\Temp\LiquentServicesInstall.log

   C:\Temp\VistaInstall.log

6. Reboot your server and, log back on using the *FNRE_Admin* account.

   CAUTION Before rebooting, use the Windows Task Manager or the application bar to verify that the IBM FileNet Rendition Engine 4.5.0 - InstallShield Wizard application has exited. This might take a few moments.

7. (Windows 2003 64-bit only) Manually register the CDIntf300.dll.

   For rendering on a Windows 2003 64-bit system to work, you must manually register the printer driver by executing the following from a command line:

   ```
   cd C:\WINDOWS\SysWOW64
   regsvr32 CDIntf300.dll
   ```

8. Create a Java Repository on the Content Engine server.

   NOTE Perform this step on the first Rendition Engine server in each Liquent Vista domain only. Additional RE servers will use the settings of the Liquent Vista domain they connect to.

   a. On the Rendition Engine server, navigate to **Start > Programs > Liquent > Domain Manager** to launch the Domain Manager.

   b. Select **File > Add Repository…** menu, and click **Yes** in the confirmation pop-up to verify that you intend to add a repository to this domain.

   c. In the "New Repository Properties" dialog box, complete the following fields:

      - Machine: Enter the CE Machine name in the "machine" entry field.
      - Platform (drop-down): Select "java" in the "Platform" drop-down list.
      - Notify Port: Keep the default value or type in a new value.
      - Event Port: Keep the default value or type in a new value.
      - Admin Port: Keep the default value or type in a new value.
      - File Transfer Port: Keep the default value or type in a new value.
      - Job Queue Port: Keep the default value or type in a new value.

      CAUTION Make sure the port numbers are unique and are not clashing with existing CE ports. These ports are used by the publishing handler on the CE. For a list of the default values, see “FileNet P8 port numbers” on page 89.

   d. Confirm the new repository by selecting **File > Save** and clicking **Yes** in the confirmation pop-up to verify that you intend to make these changes to the database.

9. (Optional) Set the Rendition Engine Purge and Archive Intervals.

   To keep the size of your database down, you should configure RE to regularly purge the RE database of old data. You can also keep the default values to archive data once a day, and purge the archived data once a week.

   a. On the Rendition Engine server, navigate to **Start > Programs > Liquent > Domain Manager** to launch the Domain Manager.

   b. In the Configuration tab, right-click the **Domain** node and select **Properties**.

c. In the **General** tab of the Domain Properties dialog box, set the Purge Age (Default: 7 days) and Archive Age (Default: 1 day) intervals to suit your environment.

10. Set security on the VistaTempDir shared folder.

    NOTE Perform this step on all Rendition Engine servers in each Liquent Vista domain.

    a. On the Rendition Engine server, use Windows Explorer to navigate to:

       RE_install_path\SharedTemp

    b. Right-click the \SharedTemp folder and select **Properties**.

    c. In the SharedTemp Properties screen, verify that the \SharedTemp folder is shared using the share name “VistaTempDir.” If not, select the **Sharing** tab and select **Share this folder**.

    d. Select the **Security** tab and click **Advanced.**

    e. In the Access Control Settings for SharedTemp screen, clear **Allow inheritance permissions**, and then click **Remove** in the security confirmation pop-up.

    f. In the Access Control Settings for SharedTemp screen, click **Add**.

    g. In the Select User or Group screen, for the Look in field, keep the local server name or select the correct domain.

    h. Select the proper Rendition Engine user account (*FNRE_Admin*).

    i. In the Permission Entry for SharedTemp, give the account all access rights.

    j. In the Access Control Settings for SharedTemp screen, click **OK**.

    k. In the SharedTemp Properties screen, click **OK**.

11. (If you have added a second or consecutive Rendition Engine to your Liquent Vista domain) Restart the BusinessServiceServer service.

    Every time a Rendition Engine is added to the FileNet P8 Platform domain, you must manually restart the BusinessServiceServer services on every Rendition Engine connected to the Liquent Vista domain.

Task 2: Configure Rendition Engine connections on Content Engine

This topic covers the required configuration steps to enable publishing on the Content Engine.

NOTE (Upgrades) Perform this if you have created a new database or tablespace with a new name and/or administrative user. See "Create a new Rendition Engine database" on page 72.

To create a Liquent Rendition Engine Connection

Creating a Liquent Rendition Engine connection is accomplished using Enterprise Manager.

1. Set up Rendition Engine Connection (REC) on the Content Engine.
   a. Launch Enterprise Manager as a *GCD_admin*. See "Authentication Requirements" on page 94.
   b. Right-click the Enterprise Manager [*p8 domain*] node and select **Properties**.
   c. In the Enterprise Manager [*p8 domain*] Properties screen, select the **Publishing** tab.
   d. Verify that the **Enable Dispatcher** checkbox is checked.
   e. In the Select Rendition Engine Connection Field, click **New**.

      The Create Rendition Engine Connection wizard opens.

	Perform this action...
Specify the Site	Select the site you want to associate with this connection.
Name and Describe the Rendition Engine Connection	Enter a name and description for your new connection.
Configure the Database	Enter the specifics for connecting to the Rendition Engine Database. MSSQL default port address is 1433. Username is the database connection username. Database Type: Select MSSQL or Oracle Database Server Name: Enter the name of the database server. Database Name: Enter the database name (Microsoft SQL Server) or the Service name (Oracle). Database Server Port: Enter the server port used by the database. For default ports, see "FileNet P8 port numbers" on page 89. Username: Type in the *re_db_user (SQL_login)* (Microsoft SQL Server) or *re_db_user (VISTAUSER)* name (Oracle). See "To create an Oracle database" on page 49. Click **Create**.

f. In the Enterprise Manager [*p8 domain*] Properties screen, click **Apply** to save your changes.

g. The newly created *Rendition Engine Connection* will now be listed in the "Select Rendition Engine Selection" list box.

h. Click **Properties** next to the connection to set the password and Connection State.

i. In the *Rendition Engine Connection* Properties screen, select **Set Password** and enter the password. Click **OK**, and **OK** again to set it.

j. In the *Rendition Engine Connection* Properties screen, Connection State drop-down list, select **Enabled**.

k. Click **Apply**, and then click **OK** to save the changes, and click **OK** to close the Enterprise Manager [*p8 domain*] Properties screen.

Task 3: Set the site preferences on the Application Engine to use path-based URLs

NOTE (Upgrades) This task is not required on an upgrade. However, you should verify that your settings are valid.

In order to view HTML publication documents, you must first configure the path-based URL parameter.

When Publishing a document to HTML, the resulting HTML publication document will in most cases contain references to graphics or other files that are required to correctly display the document. If you choose not to use path-based URLs the references in the HTML code can not be resolved and the HTML publication documents will not display correctly.

PDF publication documents are self contained and do not require the use of path-based URLs.

To configure the path-based URL parameter

1. Sign in to Workplace as a user assigned the Application Engine Administrators access role.
2. Choose **Admin > Site Preferences**.
3. Under General Settings > Application section, set **Use path based URLs** to **Yes**.
4. Click **Apply** to save the setting.
5. Click **Exit**.

Task 4: Enable word processing macros for rendering

To enable word processing macros for rendering

In order to support Liquent rendering functionality, such as bookmarking and preserving links, Microsoft Word, Corel WordPerfect and Adobe FrameMaker require additional macro files. Provided the applications are installed prior to installing Liquent, the macro files are automatically copied to the appropriate directories by the Liquent installer.

Complete this section to confirm, and if necessary, enable the macro files. Also, if you install a word processing applications after Liquent has been installed, this section describes the process for updating the application with the required macro files.

1. Confirm and enable the Microsoft Word macro
   a. Open Microsoft Word.

      NOTE Perform this procedure on each Rendition Engine server.

      When Word opens, you receive a security warning about the file cdmacros.dot.

      Word 2003

      i. Select the option **Always Trust macros from this publisher**.

      ii. Click **Enable Macros** to allow the macro to run when Word opens.

      iii. Choose **Tools > Templates and Add-Ins**.

      iv. Under Global templates and add-ins, click **cdmacros.dot** and at the bottom of the dialog box, confirm that the full path for the template is

      root:\Program Files\Microsoft Office*Office version*\STARTUP

      v. If the path is incorrect, click **Remove** to remove the currently loaded cdmacros.dot template, and then click **Add** to add the cdmacros.dot template with the correct directory path.

      Word 2007

      i. Click the **Options** button.

      ii. Select the option **Trust all documents from this publisher**, and click **OK**.

      iii. Click the **Microsoft Office Button**, click **Word Options**, and then click **Add-Ins**.

      iv. Click **cdmacros.dot** and at the bottom of the dialog box, confirm that the full path for the template is

      root:\Program Files\Microsoft Office*Office version*\STARTUP

      v. If the path is incorrect, consult with Microsoft documentation on how to correct it.

   b. Close Microsoft Word.

2. Confirm and enable Corel WordPerfect

   NOTE Perform this procedure on each Rendition Engine server.

   In Windows Explorer, navigate to \Program Files\WordPerfect Office12\Macros\WPWin and confirm that the following macro files exist:

   - espsdtoc.wcm
   - espsdtoc11.wcm
   - espsdtoc12.wcm
   - espsdtoc2k.wcm
   - espsdtoc9.wcm
   - espsrsym.wcm
   - espsrsym11.wcm
   - espsrsym12.wcm
   - espsrsym2k.wcm
   - espsrsym9.wcm
   - generate.wcm
   - removehf11.wcm
   - removehf12.wcm
   - removehf2k.wcm

3. Confirm and enable Adobe FrameMaker

   In Windows Explorer, navigate to \Program Files\Adobe\FrameMaker7.1 and confirm that the following macro file exists:

   - esfmdde.dll

To update applications installed after Rendition Engine

1. In the Domain Manager application, choose **File > Configure Applications**.

   The Configure Applications dialog box opens.

   NOTE A check mark to the left of the check box indicates that the application has been updated with the required macro files, and no further action is required.

2. If the box isn't checked (the macro(s) isn't installed), check the check box next to the application and click **OK**.
3. Choose **File > Save** to save your changes.
4. Reopen the dialog box and confirm that a check mark appears to the left of the check box of the application you updated.

Task 5: Install Rendition Engine software updates

Perform the procedure in this topic for each Rendition Engine instance to install software updates (mod release, fix pack, or interim fix).

To install the Rendition Engine software updates

1. To obtain the latest Rendition Engine software updates, and to determine whether additional interim fixes are needed, contact your service representative.
2. Open the readmes for the Rendition Engine software updates and perform the installation procedures in the readmes on each Rendition Engine instance.

Task 6: (Optional) Verify installation

Successfully completing all the steps below confirms that the basic functionality of RE is working and that the application has been correctly installed and configured.

For more information about the RE user interface and the procedures you are working on, use the Help links in the RE user interface to access context-sensitive help.

For a more extensive description of how to start using RE past this simple functionality test. See the FileNet P8 Help topic FileNet P8 Administration > Enterprise-wide Administration > Publishing and the Publishing Designer help located at Workplace > Advanced Author Tools > Publishing Designer.

For more details on adding and publishing documents using Workplace, refer to the Workplace help topic FileNet P8 Documentation > Workplace > Workplace User Help > Manage Documents.

To verify RE installation

1. Create Publishing Templates.

   The FileNet P8 Platform publishing feature is delivered with default style templates for both PDF and HTML renditions. You will use those default style templates for this procedure.

   For more information, see the *FileNet P8 Help* topic FileNet P8 Administration > Enterprise-wide Administration > Publishing > How to... > Create publishing templates.

2. Add and publish a test document.

   This procedure shows you how to add and publish a test document to verify that you have correctly installed and configured the publishing components.

   For more information, see the *FileNet P8 Help* topic FileNet P8 Administration > Enterprise-wide Administration > Publishing > How to... > Publish your first document.

Plan and prepare for upgrade

This section, Plan and prepare for upgrade, provides instructions for preparing your system to upgrade IBM FileNet Rendition Engine.

Plan the Upgrade

Information for upgrading the Rendition Engine from the 3.5.x release to the 4.5 release is covered in this topic. The upgrade involves uninstalling and reinstalling the software.

- You will reinstall Rendition Engine on the existing Rendition Engine servers.
- Rendition Engine 4.5 and later does not use the publishing plugin. This component is uninstalled as part of the CE upgrade.

NOTES You should plan and test the upgrade on a test system first. Verify the upgrade is successful by running functionality and stress tests. After successful verification, perform the production upgrade.

Before you begin the upgrade

- Be sure to read the “What’s New” topic in the *IBM FileNet P8 Platform Release Notes*. Many of the new features may be interesting for your implementation of FileNet P8 Platform. To download this guide from the IBM support page, see “Access IBM FileNet documentation, compatibility matrices, and fix packs” on page 16.
- Make sure the site has restorable backups of system and data, in case you need to back out of the upgrade. For details on what to back up for FileNet P8 components, see the *FileNet P8 Help* topic Enterprise-wide Administration > Back up and Restore FileNet P8.

Perform required preparation tasks

In addition to the general requirements for FileNet Rendition Engine 4.5 that are listed in “Plan and prepare for installation” on page 18, the following requirements apply when you upgrade an existing RE 4.0 system to version 4.5.

ATTENTION In addition to the preparation tasks listed below, follow the plan and prepare instructions in the *Plan and Prepare your Environment for IBM FileNet P8* guide for the components you are installing.

To prepare your environment for a Rendition Engine installation

Perform the required preparation tasks for the components you plan to install:

- “Installation Administrator tasks” on page 69
- “IT Administrator tasks” on page 70
- “Security Administrator tasks” on page 71
- “Database Administrator Tasks” on page 72

In addition, if you are using the Installation and Upgrade Worksheet for your environment, all administrators should fill out the worksheet with the relevant information as described in.“Installation and upgrade worksheet” on page 69.

Installation Administrator tasks

The items below are the required tasks for the Application Installer Administrator.

Database or directory services migration

This guide does *not* address migrations to different databases or directory services. To migrate from one database to another (for example, from a Microsoft SQL Server database engine to Oracle), you must contact your service representative.

Before you begin the upgrade

- Make sure no users or processes are accessing the FileNet P8 system.
- Complete any pending publishing jobs.
- Disable scheduled automated backups.
- Disable virus scanning.

Requirements for upgrades

The upgrades described in the guide assume that you will:

- retain your basic platform configuration from the previous release.
- make no changes to user or group definitions during the upgrade.
- apply only the necessary supported software updates and patches, as noted in this guide and in the *IBM FileNet P8 Hardware and Software Requirements* document.

IT Administrator tasks

The items below are the required tasks for the Information Technology (IT) administrator.

Network considerations

Ensure the availability of required port numbers. For a composite list of port numbers required for FileNet P8 4.5, see “FileNet P8 port numbers” on page 89.

Independent software vendor (ISV) applications

If you plan to upgrade the native applications used by Rendition Engine, you must do this before you reinstall Rendition Engine.

Content Engine considerations

- Ensure that you have the necessary local administrator user accounts and passwords to perform configuration tasks on the Content Engine server.
- Verify that all object stores you want to use for publishing are configured with the publishing add-ons.

  NOTE In RE 4.5, publishing is configured per site rather than per object store. Object stores that will be used for publishing must be configured with the Publishing addons. By default, these are added when you create an object store, custom stores that aren't configured with these add-ons may exist. If necessary you can manually add the add-ons using FileNet Enterprise Manager.
- The publishing templates are upgraded as part of the CE upgrade.

  CAUTION If your current publishing templates use VBScript Event Actions, these must be rewritten in Java before they can be used for RE 4.5. Furthermore, the Java class must be located on the server; it cannot be on a client and streamed to the server for execution as for CE 3.5.x. The rewrite must be done after the upgrade and before you start using RE. For more information on how to rewrite the event actions in Java, see the FileNet P8 Help topic FileNet P8 Administration > Content Engine Administration > Events and subscriptions > How to... > Work with event actions.

Security Administrator tasks

The items below are the required tasks for the Security Administrator.

Rendition Engine

- Ensure that you have the necessary local administrator user accounts and passwords to run the upgrade program on the Rendition Engine. See “Users required for Rendition Engine installation” on page 42.
- Verify the security settings for the Rendition Engine temporary directory.

Database Administrator Tasks

The items below are the required tasks for the database administrator.

Updating database software

Update to the appropriate database patches before you upgrade Rendition Engine.

Oracle clients

Ensure you have applied appropriate Oracle patches to Oracle clients and servers. Be sure that clients remote to an Oracle database engine have the same patches as the database server. Oracle clients include any machines remote from the Oracle database server where Rendition Engine software is installed. Install all required Oracle patches, as specified in the *IBM FileNet P8 Hardware and Software Requirements*. To download this guide from the IBM support page, see "Access IBM FileNet documentation, compatibility matrices, and fix packs" on page 16.

Create a new Rendition Engine database

When you upgrade, you cannot use an existing Rendition Engine database. You will need to identify a new database (SQL Server) or tablespace (Oracle) for use by the 4.5 version of Rendition Engine. You cannot use existing databases or tablespace after the upgrade.

To create your new database or tablespace

- For Microsoft SQL server, the database will be created by the installer.
- For Oracle, you must create an Oracle user and associated tablespaces (includes temp) before you install RE.

When creating your new database or tablespace you have the following options:

- Use the same name and administrative user as the previous version.

  Delete the old database or tablespace before you run the installer and create a new one with the same name and administrative user as part of the upgrade procedure. For information, see "(Optional) Remove the existing RE database." on page 76 and (Oracle) "To create an Oracle database" on page 49.

- Use a new name for the new database or tablespace.

  NOTE If you use a new name for your database or tablespace you must reconfigure your Content Engine connection as part of the upgrade. See Task 2 "Configure Rendition Engine connections on Content Engine" on page 60.

  – (Microsoft SQL Server) Configure the new database using a new name.

  – (Oracle) Configure the new tablespace with a new name and a new *re_db_user (VISTAUSER)* user.

    CAUTION If you choose to create new databases using new names, you must modify the entries in the Oracle-Repository.sql script with the new information. See "To create an Oracle database" on page 49.

Upgrade and configure Rendition Engine

This upgrade section contains the following major topics:

- Task 1 “Uninstall previous version of Rendition Engine” on page 74.
- Task 2 “Upgrade Rendition Engine” on page 80.

Task 1: Uninstall previous version of Rendition Engine

Before you can install the 4.5 version of Rendition Engine, you must uninstall the previous version of the software.

Depending on your currently installed version of Rendition Engine, perform one of the following:

- "To remove Rendition Engine version 4.0 software" on page 74.
- "To remove Rendition Engine version 3.5 software from a Rendition Engine or Publishing Plug-in server" on page 77.

To remove Rendition Engine version 4.0 software

You must uninstall the Rendition Engine software, remove the local printer ports, and remove native application macros before upgrading (re-installing) the publishing components for 4.5.

1. Back up your existing installation.

   Rendition Engine does not require backup. In case you need to roll back to the previous version of the FileNet P8 Platform and Rendition Engine, you need only reinstall the previous version of the software.

   NOTE Some Rendition components such as publishing templates and publishing style templates are located on a Content Engine (CE) server and were backed up as part of the preparation for CE upgrade.

2. Log on to the Rendition Engine server as *FNRE_Admin***.**
3. Stop the BusinessServiceServer Windows service prior to uninstalling the software.
   a. Navigate to **Start > Settings > Control Panel**.
   b. Double-click **Administrative Tools**.
   c. Double-click **Services**.
   d. Double-click **BusinessServiceServer**.
   e. Click the **Stop** button.
4. Remove the Rendition Engine software.
   a. Navigate to **Start > Settings > Control Panel**.
   b. Double-click **Add/Remove Programs**.
   c. Select **FileNet P8 Rendition Engine 4.0.0** and click **Change/Remove**.
   d. Follow the screen prompts to remove the software. At the final screen, click **Finish**.
   e. Close the Add/Remove Programs Window.
5. Remove the printers.
   a. Navigate to **Start > Settings > Control Panel**. Double-click **Printers and Faxes**.
   b. If the Liquent XML Printer is listed in the Printers and Faxes window, delete it.

c. If the Liquent PDF Printer is listed in the Printers and Faxes window, delete it.

d. On the Printers and Faxes window, select **File > Server Properties**.

e. On the Print Server Properties dialog box, select the **Ports** tab and delete the local ports that point to:

Drive:\Program Files\Liquent\filenet\liquent.xml

Drive:\Program Files\Liquent\filenet\ESPS.PS

f. Select the **Drivers** tab and remove (if it exists) the printer driver Liquent XML Printer.

6. Verify removal of native application macros.

If the following Microsoft Word macro is present on the Rendition Engine server, remove it:

- cdmacros.dot

If any of the following Word Perfect macros are present on the Rendition Engine server, remove them:

- espsdtoc.wcm
- espsdtoc11.wcm
- espsdtoc12.wcm
- espsdtoc2k.wcm
- espsdtoc9.wcm
- espsrsym.wcm
- espsrsym11.wcm
- espsrsym12.wcm
- espsrsym2k.wcm
- espsrsym9.wcm
- generate.wcm
- removehf11.wcm
- removehf12.wcm
- removehf2k.wcm

7. Reboot the server.

8. Verify that the Vista software has been removed.

a. Navigate to **Start > Settings > Control Panel**.

b. Double-click **Add/Remove Programs**.

c. Verify that the FileNet P8 Rendition Engine 4.0.0 entry and the Vista entry have been removed.

d. If the Vista entry is still there, remove it.

   i. Select the Vista entry and click **Change/Remove**.

   ii. Follow the screen prompts to remove the software.

   iii. At the final screen, click **Finish**, and reboot the server.

e. Verify that all files are removed from C:\Program Files\Liquent and C:\Program Files\Common Files\Liquent.

   NOTE If there are files in these directories, delete them manually.

f. Verify that the LIQUENT key has been removed.

   i. Select Start > Run.

   ii. Type `Regedit`.

   iii. Navigate to HKEY_LOCAL_MACHINE\SOFTWARE.

   iv. Verify that the LIQUENT key has been removed.

   NOTE If the LIQUENT key is there, delete it.

g. Reboot the server.

9. (Optional) Remove the existing RE database.

   If you want to use the same database name as with your previous installation, you must first remove the existing RE database.

   When you upgrade, you cannot use an existing Rendition Engine database or tablespace. You will need to identify a new database (SQL Server) or tablespace (Oracle) using the same name or a different name for use by the 4.5 version of Rendition Engine. For information, see "Create a new Rendition Engine database" on page 72.

To remove Rendition Engine version 3.5 software from a Rendition Engine or Publishing Plug-in server

You must uninstall the existing Liquent RenderPerfect software, remove the local printer ports, and remove native application macros from all Rendition Engine servers before upgrading (re-installing) the publishing components for 4.5.

NOTE The publishing plug-in components are uninstalled as part of the CE 4.5 upgrade and do not need to be removed.

1. If the RE server has SQL Server or SQL Server Client software installed, to prevent it from loosing SQL Server and SQL Server Client files when running the RE uninstallation, apply patch P8RE-3.5.1-000.001 before continuing.
2. Back up your existing installation.

   Rendition Engine does not require backup. In case you need to roll back to the previous version of the FileNet P8 Platform and Rendition Engine, you need only reinstall the previous version of the software.

   NOTE Some Rendition components such as publishing templates and publishing style templates are located on a Content Engine (CE) server and were backed up as part of the preparation for CE upgrade.
3. Stop the BusinessServiceServer Windows service prior to uninstalling the software.
   a. Navigate to **Start > Settings > Control Panel**.
   b. Double-click **Administrative Tools**.
   c. Double-click **Services**.
   d. Double-click **BusinessServiceServer**.
   e. Click the **Stop** button.
4. Remove the Rendition Engine software.
   a. Navigate to **Start > Settings > Control Panel**.
   b. Double-click **Add/Remove Programs**.
   c. Select FileNet P8 Rendition Engine 3.0.0a/3.5.1 and click **Change/Remove**.
   d. Follow the screen prompts to remove the software. At the final screen, click **Finish**.
   e. Close the Add/Remove Programs Window.
5. Remove the printers.
   a. Navigate to **Start > Settings > Control Panel**. Double-click **Printers and Faxes**.
   b. If the Liquent XML Printer is listed in the Printers and Faxes window, delete it.
   c. If the Liquent PDF Printer is listed in the Printers and Faxes window, delete it.
   d. On the Printers and Faxes window, select File > Server Properties.

e. On the Print Server Properties dialog box, select the Ports tab and delete the local ports that point to:

Drive:\Program Files\Liquent\filenet\liquent.xml

Drive:\Program Files\Liquent\filenet\ESPS.PS

f. Select the Drivers tab and remove the printer driver Liquent XML Printer.

6. Verify removal of native application macros.

If the following Microsoft Word macro is present on the Rendition Engine server, remove it:

- cdmacros.dot

If any of the following Word Perfect macros are present on the Rendition Engine server, remove them:

- espsdtoc.wcm
- espsdtoc11.wcm
- espsdtoc12.wcm
- espsdtoc2k.wcm
- espsdtoc9.wcm
- espsrsym.wcm
- espsrsym11.wcm
- espsrsym12.wcm
- espsrsym2k.wcm
- espsrsym9.wcm
- generate.wcm
- removehf11.wcm
- removehf12.wcm
- removehf2k.wcm

7. (If you uninstalled an RE version prior to 3.0.0a/3.5.1) Run the Vista cleanup tool.

If the version of RE you uninstalled in Step 4 above was prior to 3.0.0a/3.5.1, you must run the cleanup tool provided with the IBM FileNet Rendition Engine installation package to prepare your environment for a new RE installation.

a. Launch the cleanup tool.

On your RE installation media (versions prior to 3.0.0a/3.5.1):

\Resources\Liquent\Unsupported Apps\Xtent2.0\VistaCleanUtility.exe

On your RE 4.0.0 installation media:

\Resources\Liquent\Unsupported Apps\Vista2.x\VistaClean.exe

b. Click the **Cleanup** button.

c. Click **OK** to close the program when it has completed.

8. Reboot the server.

9. Verify that the Vista software has been removed.

   a. Navigate to **Start > Settings > Control Panel**.

   b. Double-click **Add/Remove Programs**.

   c. Verify that the FileNet P8 Rendition Engine 3.0.0a/3.5.1 entry and the Vista entry have been removed.

   d. If the Vista entry is still there, remove it.

      i. Select the Vista entry and click **Change/Remove**.

      ii. Follow the screen prompts to remove the software.

      iii. At the final screen, click **Finish**, and reboot the server.

   e. Verify that all files are removed from C:\Program Files\Liquent and C:\Program Files\Common Files\Liquent.

      NOTE If there are files in these directories, delete them manually.

   f. Verify that the LIQUENT key has been removed.

      i. Select Start > Run.

      ii. Type `Regedit`.

      iii. Navigate to HKEY_LOCAL_MACHINE\SOFTWARE.

      iv. Verify that the LIQUENT key has been removed.

         NOTE If the LIQUENT key is there, delete it.

   g. Reboot the server.

10. (Optional) Remove the existing RE database.

    The RE upgrade includes the creation of a new database for RE use. If you want to use the same database name as your previous installation, you must first remove the existing RE database.

    CAUTION (Oracle) If you choose to create new databases using new names, you must modify the entries in the Oracle-Repository.sql script with the new information. See "To create an Oracle database" on page 49.

Task 2: Upgrade Rendition Engine

1. Verify that all requirements in “Plan the Upgrade” on page 67 and its sub tasks have been met.

   Make sure you complete all required database tasks in “Database Administrator Tasks” on page 72. Of special interest is “Create a new Rendition Engine database” on page 72.

2. (Optional) Upgrade native applications.

   If you plan to upgrade the native applications used by Rendition Engine, you must do this before you install Rendition Engine. See “Independent software vendor (ISV) applications” on page 70.

   a. Install or upgrade your native applications.

   b. Configure your newly upgraded native applications. Perform “Install and configure authoring applications” on page 26.

3. Install the 4.5 version of Rendition Engine.

   Complete the following tasks listed in “Install and configure Rendition Engine” on page 53 to install Rendition Engine.

   - Task 1 “Install Rendition Engine” on page 54.
   - Task 2 “Configure Rendition Engine connections on Content Engine” on page 60.

     NOTE Perform this if you have created a new database or tablespace with a new name and/or administrative user. See “Create a new Rendition Engine database” on page 72.

   - Task 3 “Set the site preferences on the Application Engine to use path-based URLs” on page 62.

     NOTE This task is not required on an upgrade. However, you should verify that your settings are valid.

   - Task 4 “Enable word processing macros for rendering” on page 63.
   - Task 5 “Install Rendition Engine software updates” on page 65.
   - Task 6 “(Optional) Verify installation” on page 66.

Remove software

This topic includes:

- “Remove a Rendition Engine from a Liquent Vista domain” on page 82
- “Remove Rendition Engine software from a Rendition Engine” on page 83.

Remove a Rendition Engine from a Liquent Vista domain

To uninstall an existing Rendition Engine 4.5.0, you must first remove the server from the Liquent Vista domain and then uninstall the software.

1. Log on to the Rendition Engine server as *FNRE_Admin*.
2. Launch the Domain Manager application.
3. Select the **Configuration** tab in the left navigation pane. Then expand **Domain** and **Repositories** to view the server machines in the domain.
4. Click the machine name to be removed from the Liquent Vista domain.
5. Select **Delete** from the **Edit** menu.
6. Confirm the deletion and select **Save** from the **File** menu.

Remove Rendition Engine software from a Rendition Engine

To complete the uninstallation, you must uninstall the Rendition Engine software, remove the local printer ports, and remove native application macros.

1. Log on to the Rendition Engine server as *FNRE_Admin***.**
2. Stop the BusinessServiceServer Windows service prior to uninstalling the software.
   a. Navigate to **Start > Settings > Control Panel**.
   b. Double-click **Administrative Tools**.
   c. Double-click **Services**.
   d. Double-click **BusinessServiceServer**.
   e. Click the **Stop** button.
3. Remove the Rendition Engine software.
   a. Navigate to **Start > Settings > Control Panel**.
   b. Double-click **Add/Remove Programs**.
   c. Select **FileNet P8 Rendition Engine 4.5.0** and click **Change/Remove**.
   d. Follow the screen prompts to remove the software. At the final screen, click **Finish**.
   e. Close the Add/Remove Programs Window
4. Remove the printers.
   a. Navigate to **Start > Settings > Control Panel**. Double-click **Printers and Faxes**.
   b. If the Liquent PDF Creator is listed in the Printers and Faxes window, delete it.
   c. If the Liquent PDF Printer is listed in the Printers and Faxes window, delete it
   d. On the Printers window, select **File > Server Properties**.
   e. On the Print Server Properties dialog box, select the **Ports** tab and, if present, delete the local port that points to:

      RE_install_path\ESPS.PS

   f. Select the **Drivers** tab and remove the printer driver Amyuni Document Converter 300, if present.
5. Verify removal of native application macros.

   If the following Microsoft Word macro is present on the Rendition Engine server, remove it:

   - cdmacros.dot

If any of the following Word Perfect macros are present on the Rendition Engine server, remove them:

- espsdtoc.wcm
- espsdtoc11.wcm
- espsdtoc12.wcm
- espsdtoc2k.wcm
- espsdtoc9.wcm
- espsrsym.wcm
- espsrsym11.wcm
- espsrsym12.wcm
- espsrsym2k.wcm
- espsrsym9.wcm
- generate.wcm
- removehf11.wcm
- removehf12.wcm
- removehf2k.wcm

6. Reboot the server.
7. Verify that the Liquent services software has been removed.
   a. Navigate to **Start > Settings > Control Panel**.
   b. Double-click **Add/Remove Programs**.
   c. Verify that the FileNet P8 Rendition Engine 4.5.0 entry and the Liquent services entry have been removed.
   d. If the Liquent services entry is still there, remove it.
      i. Select the Liquent services entry and click **Change/Remove**.
      ii. Follow the screen prompts to remove the software.
      iii. At the final screen, click **Finish**, and reboot the server.
   e. Verify that all files are removed from *RE_install_path* and C:\Program Files\Common Files\Liquent.

      NOTE If there are files in these directories, delete them manually.
   f. Verify that the LIQUENT key has been removed.
      i. Select Start > Run.
      ii. Type `Regedit`.

iii. Navigate to HKEY_LOCAL_MACHINE\SOFTWARE.

iv. Verify that the LIQUENT key has been removed.

NOTE If the LIQUENT key is there, delete it.

g. Reboot the server.

Appendixes

The appendixes section contains the following major topics:

- “Installation and upgrade worksheet” on page 87.
- “FileNet P8 port numbers” on page 89.

Installation and upgrade worksheet

The *Installation and Upgrade Worksheet* is a comprehensive spreadsheet that contains properties, parameters, and field names for installation, upgrade, and initial configuration of P8 Platform components and add-on products. Administrators who are preparing the environment for installation or upgrade of IBM FileNet P8 Platform can use the worksheet during their preparation tasks to record the appropriate values and provide them to the administrator who will run the installation or upgrade.

You can access the worksheet through the following link:

Installation and Upgrade Worksheet

or on the IBM product documentation page. To download this and other IBM FileNet product documentation from the IBM web site, see “Access IBM FileNet documentation, compatibility matrices, and fix packs” on page 16.

Worksheet organization

Review the following considerations about the organization of the worksheet:

- The two highlighted columns, “Property or Parameter” and “ENTER YOUR VALUE HERE”, provide the simplest view of the requirement. The others add clarifying information and help you sort the rows usefully.
- For descriptions of the non-obvious properties and parameters in the worksheet, see the installation glossary in the *Plan and Prepare Your Environment for IBM FileNet P8* document.
- The “Role” column uses the following acronyms for Administrator roles:
  - TA: Information Technology Administrator
  - ASA: Application Server Administrator
  - DBA: Database Administrator
  - SA: Security Administrator

Optimizing the worksheet

The worksheet provides all possible properties, parameters, and field names for installation, upgrade, and initial configuration of P8 Platform components as well as add-on products. Only a small subset of these rows will apply to a particular installation or administrator role as part of that installation. For example, a database administrator who is only working with DB2 can receive a smaller spreadsheet with rows that have been sorted for the Admin Role of DBA, and the independent software vendor of DB2.

You may receive a simplified or more focused variation of this spreadsheet that is appropriate to your environment or role. Work with your install team and your IBM services representative to make the best use of this tool.

HINT With the **Data > Filter > AutoFilter** command enabled, as it is by default in the shipping worksheet file (p8_worksheet.xls), perform the following actions to quickly see only the installation properties you must specify for a given installer or configuration program:

- Click the **AutoFilter** drop-down arrow in the "Installation or Configuration Program" column header and select the program you are interested in (for example, RE installer).
- Click the **AutoFilter** drop-down arrow in the "Setup Type" column header, select Custom, and specify: Setup Type contains "Installation."
- Click the AutoFilter drop-down arrow in all other column headers and select (All).

FileNet P8 port numbers

The table below lists the default port numbers used by Rendition Engine.

Liquent notify port	2868
Liquent event port	2869
Liquent admin port	2870
Liquent file transfer port	2871
Liquent job queue port	2872
Microsoft SQL Server	1433
Oracle	1521

Index

C
configuration
- Java repository 58
- Rendition Engine connection 60
- SQL login 46
- VistaTempDir 59

D
database
- local 46
- Microsoft SQL Server 46
- Oracle 49
- remote 46

database client software 45
database considerations 44
DITA Open Toolkit rendition engine 18

F
fix packs 65

I
installation 18
- installation media 23
- license 55
- Liquent Vista domain 54
- Microsoft SQL Server 46
- Oracle client 51
- Oracle database 49
- order of installation 18
- port numbers 89
- Rendition Engine tablespace 50
- Service Packs and fix packs 65
- user requirements 42
- verify 66

J
Java Repository 58

L
Liquent Vista domain 54
- remove RE server 82

local database 46

M
Microsoft SQL Login 46
Microsoft SQL Server 44, 46

N
network security considerations 24

O
Oracle 45
Oracle client 51

P
plan installation 18
planning 18
ports 89

R
remote database 46
remove
- RE from Liquent Vista domain 82
- Rendition Engine 74, 83

Rendition Engine connection 60
requirements
- database 44
- database client 45
- Microsoft SQL Server 44
- network security 24
- Oracle 45
- security authentication 41
- users 42

RPS license file 55

S
security authentication considerations 41
Service Packs 65

T
tablespace 50

U
uninstall
- previous version 74
- Rendition Engine 74, 83

upgrade
- database software 72
- planning 67
- remove existing database 76, 79
- Rendition Engine 80
- uninstall previous version 74

V
verify installation 66

VistaTempDir 59

Notices

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

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

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

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

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

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

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

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

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

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

Licensees of this program who wish to have information about it for the purpose of enabling: (i) the exchange of information between independently created programs and other programs (including this one) and (ii) the mutual use of the information which has been exchanged, should contact:

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

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

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

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

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

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

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

COPYRIGHT LICENSE:

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

Trademarks

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

Java and all Java-based trademarks are trademarks of Sun Microsystems, Inc. in the United States, other countries, or both.

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

Linux is a trademark of Linus Torvalds in the United States, other countries, or both.

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

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

Program Number: 5724-S17

Printed in USA

GC31-5614-02