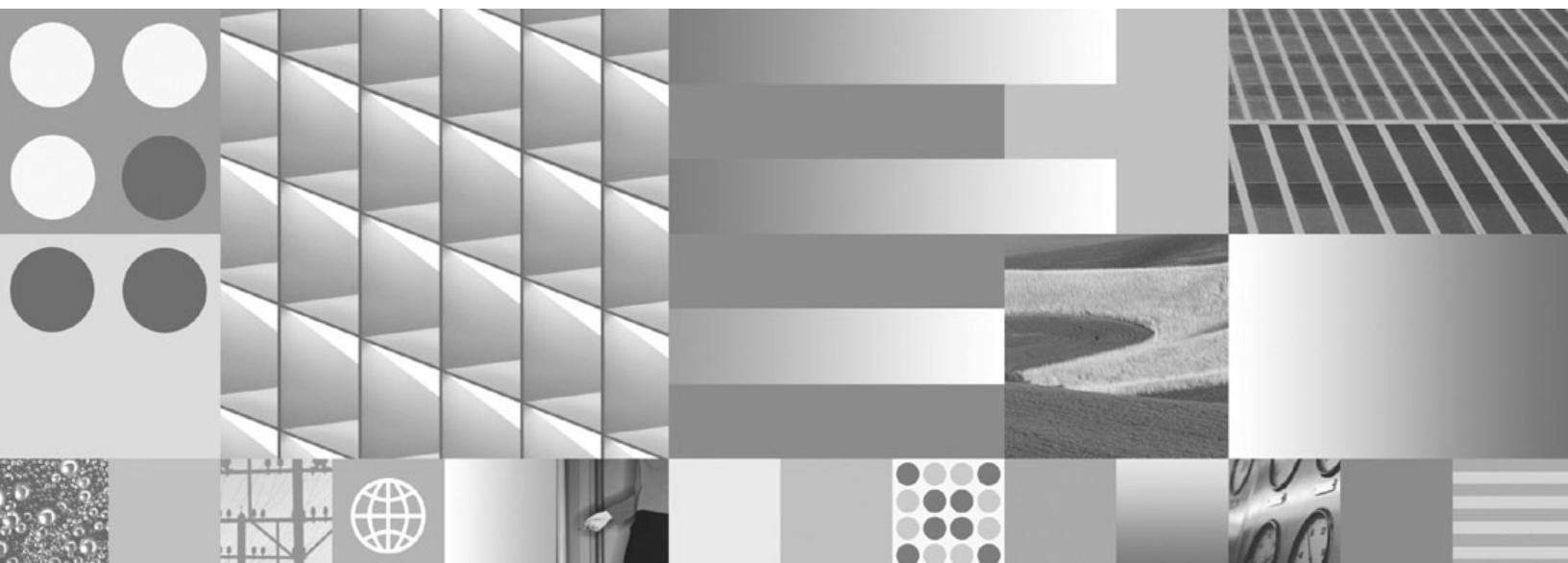
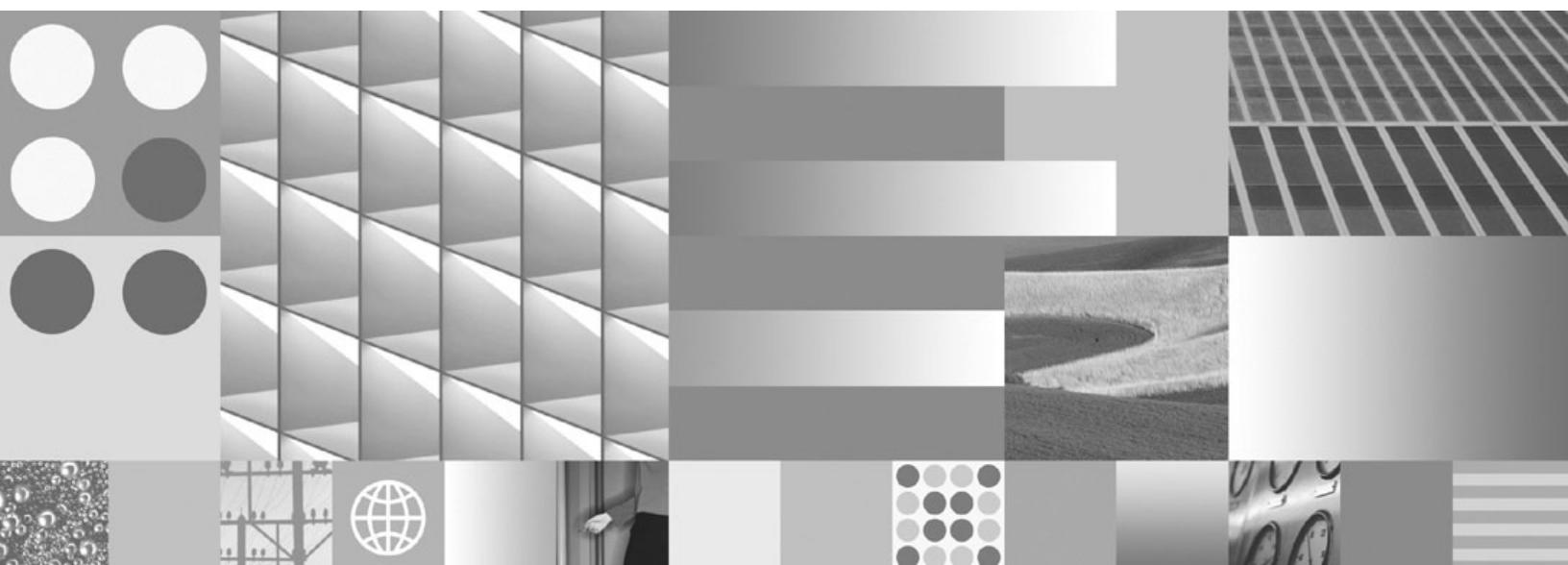


Version 4.5.1



Installation and Upgrade Guide

Version 4.5.1



Installation and Upgrade Guide

Note

Before using this information and the product it supports, read the information in "Notices" on page 51.

This edition applies to version 4.5.1 of IBM FileNet Rendition Engine (product number 5724-S17) and to all subsequent releases and modifications until otherwise indicated in new editions.

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ibm.com and related resources

Product support and documentation are available from ibm.com.

Support and assistance

Product support is available on the Web. Click Support from the product Web site at:

FileNet Content Manager Support

<http://www.ibm.com/software/data/content-management/filenet-content-manager/support.html>

Information center

You can view the product documentation in an Eclipse-based information center that you can install when you install the product. By default, the information center runs in a Web server mode that other Web browsers can access. You can also run it locally on your workstation. See the information center at <http://logos.svl.ibm.com:8092/help/index.jsp>.

PDF publications

You can view the PDF files online using the Adobe Acrobat Reader for your operating system. If you do not have the Acrobat Reader installed, you can download it from the Adobe Web site at <http://www.adobe.com>.

See the following PDF publications Web sites:

Product	Web site
Product Documentation for FileNet P8 Platform	http://www.ibm.com/support/docview.wss?rs=3278&uid=swg27010422

How to send your comments

Your feedback is important in helping to provide the most accurate and highest quality information.

Send your comments by using the online reader comment form at https://www14.software.ibm.com/webapp/iwm/web/signup.do?lang=en_US&source=swg-rcf.

Consumability survey

You are invited to tell IBM how to improve the consumability of software products. If you want to help IBM make IBM® FileNet® P8 easier to use, take the Consumability Survey at <http://www.ibm.com/software/data/info/consumability-survey/>.

Contacting IBM

To contact IBM customer service in the United States or Canada, call 1-800-IBM-SERV (1-800-426-7378).

To learn about available service options, call one of the following numbers:

- In the United States: 1-888-426-4343
- In Canada: 1-800-465-9600

For more information about how to contact IBM, see the Contact IBM Web site at <http://www.ibm.com/contact/us/>.

Planning and preparing for installation

This topic explains how to plan for an installation of IBM FileNet Rendition Engine software.

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 Lquent Enterprise Services (LES 3.1.1) product. To install and configure the Lquent components on the Rendition Engine server and Content Engine server follow the instructions in this document.

For more information about Lquent, see the IBM FileNet P8 Help topic **System Administration** → **Enterprise-wide Administration** → **Publishing** → **Publishing Overview** → **About Rendition Engine**.

For DITA Open Toolkit Rendition Engine installation and configuration information, see the IBM FileNet P8 Help topic **System Administration** → **Enterprise-wide Administration** → **Publishing**.

Planning the installation

This section lists details that will help you prepare your environment for the installation of IBM FileNet Rendition Engine. 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 “ibm.com and related resources” on page v.
- Read “Installing and configuring Rendition Engine” on page 27 to become familiar with the tasks you will perform when you set up your IBM FileNet Rendition Engine software.
- See “Using the installation and upgrade worksheet” on page 3 for more information on an available Worksheet to record information that will be needed during installation.

Important: Follow the planning, installing, and configuring 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 Troubleshooting Guide*. To download this document from the IBM support page, see “ibm.com and related resources” on page v.

Planning your deployment

Cluster deployment

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

Definition of installation roles

The tasks in this guide and the rows in the Installation and Upgrade Worksheet are organized by administrative roles. Your organization might have different roles, and some of the responsibilities of listed roles will vary from those assigned by default in this documentation.

Installation administrator

- Runs IBM FileNet P8 installers during initial setup.
- Runs the Configuration Manager tool during initial setup, followed by launching IBM FileNet Enterprise Manager.
- Runs IBM FileNet P8 Upgrade programs during upgrades.
- Abbreviated as IA. Responsible for coordinating the information described in this worksheet. The information itself will require the input from the other roles.

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

Information technology administrator

- Responsible for the networking and operating systems settings required by IBM FileNet P8.
- Responsible for performing certain security configurations.
- Abbreviated as ITA. Responsible for providing the information in the rows in the *Installation and Upgrade Worksheet* with a value of ITA in the Role column.

Security administrator

- Responsible for configuring the directory servers required by IBM FileNet P8 components, including Content Engine and Application Engine.
- Creates and maintains directory server user and group accounts.
- Abbreviated as SA. Responsible for providing the information in the rows in the *Installation and Upgrade Worksheet* with a value of SA in the Role column.

Database administrator

- Creates, configures, maintains database installations and database tablespaces.
- Responsible for creating database accounts needed by IBM FileNet P8.
- For purposes of this documentation, the database administrator is expected to have responsibilities regarding the JDBC data sources.
- Abbreviated as DBA. Responsible for providing the information in the rows in the *Installation and Upgrade Worksheet* with a value of DBA in the Role column.

Application server administrator

- Responsible for providing the application servers required by IBM FileNet P8.
- Responsible for application server administrative accounts.
- Abbreviated as ASA. Responsible for providing the information in the rows in the *Installation and Upgrade Worksheet* with a value of ASA in the Role column.

IBM FileNet P8 administrator

- This role designation actually refers to the administrator or administrators who perform regular maintenance of Content Engine, Process Engine Application Engine, / Workplace™ or Workplace XT™.
- The administrator who logs on to Enterprise Manager using the gcd_admin account or an object_store_admin account is considered an IBM FileNet P8 administrator.

- Abbreviated as P8A. Responsible for providing the information in the rows of the *Installation and Upgrade Worksheet* with a value of P8A in the Role column.

Email Administrator

- Creates an email account that will be used to configure the Notification Tab of the Process Task Manager so that Process Engine can send email notifications to end users. (Required only if you use this feature.)
- Abbreviated as EA.

Using the installation and upgrade worksheet

The Installation and Upgrade Worksheet is a Microsoft Excel spreadsheet (p8_worksheet.xls) that describes the properties and parameters required to complete IBM FileNet P8 installation, upgrade, and configuration programs, and provides a way to record the values you assign to these properties and parameters.

Administrators who are preparing the environment for installation or upgrade of IBM FileNet P8 components should use the worksheet during their preparation tasks to record the appropriate values and provide them to the Installation Administrator who will run the installation or upgrade programs.

Some of the features of the Installation and Upgrade Worksheet are:

- "Instructions": describes the worksheet and includes a button that runs the Customize Worksheet macro.
- The two highlighted columns, "Property or Parameter" and "ENTER YOUR VALUE HERE", provide the simplest view of the requirement. The others add identifying information and help you sort and filter the rows usefully.
- The Role column assigns each row to an administrator and uses the following acronyms:
 - ITA: Information Technology Administrator
 - ASA: Application Server Administrator
 - DBA: Database Administrator
 - SA: Security Administrator
 - P8A: IBM® FileNet® P8 Administrator
- Property definitions are contained in the column titled "Description".
- Some rows, though not all, contain a hyperlink in the PPG Links column. Click this hyperlink to run a query against the IBM Information Center, which opens with the Search Results pane showing the topics that contain the words in the query phrase. Browse the search results until you have enough information to be able to enter a value in the Worksheet row.

Running the Customize Worksheet macro

The Customize Worksheet macro lets you extract only those rows that describe your environment.

To run the Customize Worksheet macro:

1. Open the Installation and Upgrade Worksheet (p8_worksheet.xls) and click the **Instructions** worksheet (also called a tab).
2. Scroll down until you see the button representing the Customize Worksheet macro. Click the button.
3. Select the components and options that describe the environment you are preparing for IBM FileNet P8.
 - Installation or Upgrade

- FileNet P8 Components
 - Application Server type
 - Operating system
 - Database type
 - Directory Server type
 - Number of object stores (adds new sets of rows for creating additional data sources)
 - Name of customized sheet
4. Click **OK**. The macro copies the rows that fulfill your selection criteria into a new worksheet with the name you entered. Enter the values for your environment into this new worksheet.
 5. Click the name of the new worksheet at the bottom of the Excel window. Add your preparation values into this new worksheet.
 6. Notice that the new worksheet has buttons at the top titled **Show Installer View** and **Show Full View**, depending on its state. The **Show Installer View** displays only those columns that you need while running installation or configuration programs.

Autofiltering and sorting the Worksheet

There are several ways to organize the Worksheet to make finding properties and entering values easier.

AutoFiltering is a quick way to display only those rows that meet a certain criteria. To use AutoFilter:

1. Make sure AutoFiltering is enabled. (Select the entire row with the column headers, then click **Data > Filter > Autofilter**.) AutoFilter arrows will appear to the right of the column labels.
2. Click the **AutoFilter** arrow in the "Installation or Configuration Program" column header and select the program you are interested in (for example, PE installer).
3. Click the **AutoFilter** arrow in the "Setup Type" column header, select **Custom**, and specify **Setup Type contains Installation**.
4. For a custom AutoFilter, click the **AutoFilter** in any column header, select Custom, and specify Setup Type contains "Installation".
5. To turn off AutoFiltering in a column, click the column's **AutoFilter** arrow and select **(All)**.

To reorder rows alphabetically, do a Sort:

1. Click anywhere in a column, for example, Column A "Role".
The only possible values in the Role column are ASA, SA, DBA, ITA, and P8A. Sorting on Role therefore groups the rows by this attribute, in alphabetical order. Several other columns also have a limited number of possible values which means they can be usefully sorted.
2. Click the **Sort Ascending** icon in Excel's toolbar, or use the **Data > Sort** menu command. The rows sort on Role.
Sorting the Worksheet reassigned row numbers. Therefore, if you refer to rows by number, you should be aware that these numbers will likely change if you change the sort order.

Performing required preparation tasks

Important: 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* document for the components you are installing.

To prepare your environment for a Rendition Engine installation, perform the required preparation tasks for the components that you plan to install.

Installation administrator tasks

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

- Complete the installation worksheet for your environment

If you are using the Installation and Upgrade Worksheet for your environment, complete the worksheet with the relevant information as described in “Using the installation and upgrade worksheet” on page 3.

- Verify the contents of the installation package

The following is a brief description of the contents of the IBM FileNet Rendition Engine installation package:

Installer (folder)

Contains the P8RE451.exe file used to install Rendition Engine.

Resources (folder)

Contains the Oracle-repository.sql script and the IBMFileNetRenditionEngineLicense.xml file used during the installation.

Readme.htm

Contains information about the Rendition Engine documentation.

Planning for non-English environment installation

By default IBM FileNet 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 by 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.

Information technology administrator tasks

The Information Technology administrator must prepare the network and operating systems, and carry out certain security configurations to prepare your environment.

Rendition Engine server

- Ensure minimum required disk space and temporary space for installation See the *IBM FileNet P8 Hardware and Software Requirements* document.
- Microsoft Office locale

Before you install 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.

- Copy installation software to the Rendition Engine server. Access the IBM FileNet Rendition Engine installation package and copy the content to a location on the Rendition Engine server. For example, create the following directory, and copy the installation files to it: C:\RE_installation_software.

Operating system considerations

Install Microsoft .NET Framework version 2.0 for the Windows 2003 64-bit operating system

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

Network considerations

- Verify the TCP/IP configuration settings on the Rendition Engine server.
- Ensure communication. Make sure the Rendition Engine server can communicate with the database server and the Content Engine server, and that the Content Engine server can communicate with the Rendition Engine server.
- Ensure availability of required port numbers. Several port numbers are required by the various IBM FileNet P8 components. For a list, see "FileNet P8 port numbers," on page 49.

Collocation considerations

For performance reasons, unless you plan to install more than one Rendition Engine in your environment, you should install Rendition Engine and Content Engine on separate servers. This configuration 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 to be able to complete the task "Installing Rendition Engine" on page 27.

Lquent Vista Domain considerations

When you first run the Rendition Engine installation program, you create a new Lquent Vista domain--an administrative entity that is used to manage Rendition Engine services. For each subsequent execution of the Rendition Engine installation program on additional server machines, you can join an existing Lquent Vista domain or create another Lquent Vista domain.

Adding inbound rules to the Windows firewall (Windows):

On Windows 2003 and 2008 Server, you must configure inbound rules in the Windows firewall to allow the following Rendition Engine ports access.

Rendition Engine ports

Port description

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

Uninstalling Internet Explorer enhanced security configuration (Windows 2003 Server):

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. Click **Start** → **Settings** → **Control Panel**.
2. Double-click **Add and Remove Programs**.
3. Click **Add/Remove Windows Components**.
4. Uncheck **Internet Explorer Enhanced Security Configuration** and click **Next**. Follow the screen prompts to remove the software.
5. At the final screen, click **Finish**.
6. Close the Add and Remove Programs window.

Uninstalling Internet Explorer Enhanced Security Configuration (Windows 2008 Server):

On Windows 2008 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. Click **Start** → **Admin tools** → **Service Manager** → **Configure IE ESC link**.
2. Verify that the setting for Administrators and for Users is turned Off.
3. Click **OK**.
4. Close the Service Manager window.

Reducing data execution prevention:

Before you install IBM FileNet Rendition Engine on a server running Windows 2003 SP1 or 2008, 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.

To set the Data Execution Prevention performance option to Essential Windows programs and services only:

1. Click **Start** → **Control Panel** → **System**
2. Click the **Advanced System Settings** link and select the **Advanced** tab.
3. In the Performance group, click **Settings**.
4. Select the **Data Execution Prevention** tab.
5. Click **Turn on DEP for essential Windows programs and services only**.

6. Click **OK**.

Configuring the server's operating system to optimize programs:

To configure the server's operating system to optimize programs:

1. Click **Start** → **Control Panel** → **System**
2. Click the **Advanced System Settings** link and select the **Advanced** tab.
3. In the Performance group, click **Settings**.
4. Select the **Advanced** tab.
5. In the Processor Scheduling group, select **Programs**.
6. (Windows 2003) In the Memory Usage group, select **Programs**.
7. (Windows 2008) In the Adjust for best performance of group, select **Programs**.
8. Click **OK**.

Turning off user access control (Windows 2008):

On Windows 2008 Server, you must turn off User Access Control.

1. Click **Start** → **Administrative Tools** → **System Configuration**
2. On the Tools page, scroll down and select **Disable UAC/Disable User Access Control (requires reboot)**.
3. Click **Launch**, and then close the command prompt window.
4. Click **OK** to reboot the server.

Installing and configuring authoring applications

Before you install Microsoft Office:

- Copy the contents of the Microsoft Office CD-ROM to a local drive and install Microsoft Office from this location.
- If you set the Regional Option to non-US/English for your operating system, bookmark extraction will not work properly when rendering a document. Configure non-US/English Regional Option settings after you have installed Microsoft Office.

Before you install the IBM FileNet Rendition Engine 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 Rendition Engine server you plan to use. With the applications installed, the Rendition Engine installation wizard can copy Rendition Engine specific Microsoft Word and Corel WordPerfect macros to the appropriate locations.

Important: Use the FNRE_Admin account created in “Users required for Rendition Engine installation” on page 19 when installing the authoring applications.

Perform these steps on each Rendition Engine server.

1. Install Microsoft components.
2. Install Corel WordPerfect, Adobe FrameMaker, and any other rendering components. For a complete list of supported applications, see *IBM FileNet P8 Hardware and Software Requirements*.
3. Confirm that the authoring application launches and runs without user intervention.

To render documents accurately, Rendition Engine requires each authoring application to run cleanly, without problems, and without dialogs or prompts.

After you install each authoring application, start the application to confirm that it runs properly without dialogs opening, including the registration dialogs.

- a. Launch Microsoft Office components. When the Microsoft Office application has launched and registered itself, press **ALT+F11** to load and register the Microsoft Visual Basic for Applications (VBA) editor.
- b. Launch Corel WordPerfect, Adobe FrameMaker, and any other rendering components you have installed.

Enabling 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, and the Imaging plugin (included with IBM FileNet Rendition Engine) is specified for TIFF.

If you plan to publish TIF images to PDF you must do 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 for TIFF.

Configuring Microsoft Word 2007:

Before you install IBM FileNet Rendition Engine, ensure that 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 administrator\Application Data\Microsoft\Word\Startup

To configure Microsoft Word 2007:

1. Configure Microsoft Office hyperlinks:

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

- a. In Microsoft Word, click the **Microsoft Office** button.
- b. Click **Word Options**.
- c. Click **Advanced**.
- d. Scroll down to General tab, and click **Web Options**.
- e. Select the **Files** tab.
- f. Check the **Use long file names whenever possible** item.

Perform this on the IBM FileNet Rendition Engine server and on each client machine where Microsoft Office applications reside and from which source documents are added and rendering is initiated.

This setting is used to ensure that the Rendition Engine properly converts Microsoft Word and Excel documents containing hyperlinks, external links, image links, and other links. By default, Microsoft Office 2003 and Microsoft Office XP have it set.

- g. 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.

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

2. 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 **Print** 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 **When correcting spelling and grammar in Word** options:
 - 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 **Save documents** options:
 - 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:

Option category	Clear the following
Editing	<ul style="list-style-type: none">• 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	<ul style="list-style-type: none">• Show Paste Options buttons• Use smart cut and paste
Show document content	<ul style="list-style-type: none">• Show background colors and images in Print Layout view• Show text animation• Show Smart tags• Show field codes instead of their values
Display	<ul style="list-style-type: none">• Show all windows in the taskbar

Option category	Clear the following
Print	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Allow background saves
Preserve fidelity when sharing this document	<ul style="list-style-type: none"> • Embed Smart Tags
General	<ul style="list-style-type: none"> • Provide feedback with animation • Confirm file format conversion on open • Update automatic links at open

- h. Select the **Trust Center** tab.
 - 1) Under Microsoft Office Word Trust Center, click **Trust Center Settings**.
 - 2) Click **Privacy Options**, and then uncheck **Sign up for the Customer Experience Improvement Program**.

Configuring Microsoft Excel 2007:

To configure Microsoft Excel 2007:

1. Configure Microsoft Office hyperlinks:

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

- a. In Microsoft Excel, click the **Microsoft Office** button.
- b. Click **Excel Options**.
- c. Click **Advanced**.
- d. Scroll down to **General**, and click **Web Options**.
- e. Select the **Files** tab.
- f. Check the **Use long file names whenever possible** item.

Perform this on the IBM FileNet Rendition Engine server and on each client machine where Microsoft Office applications reside and from which source documents are added and rendering is initiated.

This setting is used to ensure that the Rendition Engine properly converts Microsoft Word and Excel documents containing hyperlinks, external links, image links, and other links. By default, Microsoft Office 2003 and Microsoft Office XP have it set.

- g. 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.

Important: 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:

Option category	Clear the following
Cut, copy and paste	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.
- 1) Under Microsoft Office Excel Trust Center, click **Trust Center Settings**.
- 2) Click **Privacy Options**, and then uncheck **Sign up for the Customer Experience Improvement Program**.

Configuring Microsoft PowerPoint 2007:

To configure Microsoft PowerPoint 2007:

1. Configure Microsoft Office hyperlinks:

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

- a. In Microsoft PowerPoint, click the **Microsoft Office** button.
- b. Click **PowerPoint Options**.
- c. Click **Advanced**.
- d. Scroll down to **General**, and click **Web Options**.
- e. Select the **Files** tab.
- f. Check the **Use long file names whenever possible** item.

Perform this on the IBM FileNet Rendition Engine server and on each client machine where Microsoft Office applications reside and from which source documents are added and rendering is initiated.

This setting is used to ensure that the Rendition Engine properly converts Microsoft Word and Excel documents containing hyperlinks, external links, image links, and other links. By default, Microsoft Office 2003 and Microsoft Office XP have it set.

- g. 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.

Important: 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:

Option category	Clear the following
Editing	When selecting, automatically select entire word Allow text to be dragged and dropped
Cut, copy and paste	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 and perform the following:
 - 1) Under Microsoft Office PowerPoint Trust Center, click **Trust Center Settings**.
 - 2) Click **Privacy Options**, and then uncheck **Sign up for the Customer Experience Improvement Program**.

Configuring earlier versions of Microsoft Word:

Before you install IBM FileNet Rendition Engine, ensure that the following folders contain no files:

- MS_Office_home\Microsoft Office\Office Version\Startup
- MS_Office_home\Microsoft Office\Office Version\XLStart

To configure earlier versions of Microsoft Word:

1. Configure Microsoft Office hyperlinks:

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

 - a. In Microsoft Word, navigate to **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 on the IBM FileNet Rendition Engine server and on each client machine where Microsoft Office applications reside and from which source documents are added and rendering is initiated.

This setting is used to ensure that the Rendition Engine properly converts Microsoft Word and Excel documents containing hyperlinks, external links, image links, and other links. By default Microsoft Office 2003 and Microsoft Office XP have it set.

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.

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

2. Configure Microsoft Word publishing requirements:

a. In Microsoft Word, navigate to **Tools** → **Options**.

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

- **Startup Task Pane**
- **Status Bar**
- **Screen Tips**
- **Smart Tags**
- **Animated Text**
- **Windows in Taskbar**
- **Field Codes**

c. Select the **View** tab and clear the following **Formatting Marks** options:

- **Hidden Text**
- **All**

d. Select the **View** tab and in the **Print and Web Layout** group, clear the **Background Colors and Images (2003)** option.

e. Select the **General** tab and clear the following options:

- **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)**

f. 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**

- g. Select the **Edit** tab and in the **Cut and paste options** group, clear the following **Smart cut and paste** option.
- h. Select the **Print** tab and clear the following **Printing** options:
 - **Update fields**
 - **Allow A4/Letter paper resizing**
 - **Background printing**
- i. Select the **Print** tab and clear the following **Include With Document** options:
 - **Field Codes**
 - **Hidden Text**
 - **XML Tags (2003)**
 - **Background Colors and Images (2003)**
- j. Select the **Save** tab and clear the following options:
 - **Allow fast saves**
 - **Allow background saves**
 - **Save AutoRecover info every**
 - **Embed smart tags**
- k. Select the **Spelling & Grammar** tab and clear the following options:
 - **Check spelling as you type**
 - **Always suggest corrections**
 - **Check grammar as you type**
 - **Check grammar with spelling**
- l. 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)

Configuring earlier versions of Microsoft Excel:

To configure earlier versions of Microsoft Excel:

1. Configure Microsoft Office hyperlinks:

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

- a. In Microsoft Excel, navigate to **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 on the IBM FileNet Rendition Engine server and on each client machine where Microsoft Office applications reside and from which source documents are added and rendering is initiated.

This setting is used to ensure that the Rendition Engine properly converts Microsoft Word and Excel documents containing hyperlinks, external links, image links, and other links. By default, Microsoft Office 2003 and Microsoft Office XP have it set.

- 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.

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

2. Configure Microsoft Excel publishing requirements:
 - a. In Microsoft Excel, navigate to **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 **Function tooltips** option.
 - 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 **Allow A4/Letter paper resizing** option.
 - f. Select the **Save** tab and clear the **Save AutoRecover info every** option.
 - g. Select the **Error Checking** tab and clear the following:
 - **Enable background error checking**
 - **List Data Validation (2003)**

Configuring earlier versions of Microsoft PowerPoint:

To configure earlier versions of Microsoft PowerPoint:

1. Configure Microsoft Office hyperlinks:

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

 - a. In Microsoft PowerPoint, navigate to **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 on the IBM FileNet Rendition Engine server and on each client machine where Microsoft Office applications reside and from which source documents are added and rendering is initiated.

This setting is used to ensure that the Rendition Engine properly converts Microsoft Word and Excel documents containing hyperlinks, external links, image links, and other links. By default, Microsoft Office 2003 and Microsoft Office XP have it set.
 - 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.
2. Configure Microsoft PowerPoint publishing requirements:
 - a. In Microsoft PowerPoint, navigate to **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 **Provide feedback with sound to screen elements** option.
- 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 **Background printing** option.
- 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

Configuring Microsoft Project:

To configure Microsoft Project:

1. In Microsoft Project, navigate to **Tools** → **Options**.
2. Select the **View** tab and clear the **Project ScreenTips** option.
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 **Ask to update automatic links** option.
5. Select the **Scheduling Options** tab and clear the **Show scheduling messages** option.
6. Select the **Spelling Options** tab and clear the **Always suggest** option.
7. For 2003, select **Help** → **Customer Feedback Options** and perform the following:
 - a. Select **No, I don't wish to participate**.
 - b. Click **OK**.

Configuring Microsoft Visio:

To configure Microsoft Visio

1. In Microsoft Visio, navigate to **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**.

Configuring Corel WordPerfect:

For information on these options, see your Corel WordPerfect documentation.

To configure Corel WordPerfect:

1. In Corel WordPerfect, navigate to **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:
 - a. Clear **Quick Tips**.
 - b. 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. Navigate to **Tools** → **Proofread** and clear the **Prompt-As-You-Go** option.
10. Navigate to **Tools** → **Proofread** and select the following: **Off**
11. Navigate to **Tools** → **Workplace Manager** and clear the **Show at Startup** option.

Disabling 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.

To disable the Corel Office DAD components:

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 IBM FileNet Rendition Engine, you must use specific user and group accounts with particular access privileges. See “Users required for Rendition Engine installation.”

Users required for Rendition Engine installation

Restriction: Under Windows Active Directory authentication, IBM 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 IBM FileNet Rendition Engine, including the minimum permissions required.

Role/Account	Description
FNRE_Admin	A local or domain user account that must be added directly to the local Administrators group on all Rendition Engine servers. 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 Content Engine. See “Configuring Rendition Engine connections on Content Engine” on page 29.
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 “Configuring Microsoft SQL login for Rendition Engine” on page 22.

Role/Account	Description
re_db_user (VISTAUSER)	(Oracle Server only) This user will be created when running the Oracle-Repository.sql script as part of the Oracle Server installation. See “Creating an Oracle database” on page 24.

For a complete list of the user and group roles, accounts, and responsibilities that are required to install, configure, and maintain a FileNet P8 system, see the IBM 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 options

If you plan to collocate the IBM FileNet Rendition Engine database with Content Engine or Process Engine 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 Rendition Engine, follow the instructions in this guide.

All platforms

- Determine your local or 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 Archive and Purge intervals for the Rendition Engine database.

By default, the Rendition Engine database is set to autogrow. To keep the database size down, Rendition Engine is set up to archive the content of the database daily and to purge the archived content weekly. These intervals can be modified by using the Domain Manager interface. See “Installing Rendition Engine” on page 27.

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.

Tip: 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 Server 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 Server 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 “Configuring Microsoft SQL login for Rendition Engine” on page 22.

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 P8 applications.
- Rendition Engine must have its own table space, separate from Content Engine and Process Engine. This table space will be created by executing an Oracle SQL script before you install the first Rendition Engine. See “Creating an Oracle database” on page 24.

Database client software requirements. For Rendition Engine, if the database is remote, you must install database client software on the Rendition Engine server. See “Preparing Oracle client” on page 24.

Tip: Even though Content Engine also requires installation of the database client software, that installation and configuration was completed during installation of the FileNet P8 system.

To create a valid user and table space for Rendition Engine, you will run the `Oracle-repository.sql` script on the database server as part of “Preparing Oracle server” on page 22 before you perform the installation tasks.

Preparing Microsoft SQL Server

If you plan to collocate the IBM FileNet Rendition Engine database with Content Engine or Process Engine 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 Rendition Engine, follow the instructions in this task.

Important:

- 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 Server 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 (for example, P8_inst).
 - TCP/IP port number assigned.

Installing and configuring Microsoft SQL Server:

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

Configuring Microsoft SQL login for Rendition Engine:

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

To configure Microsoft SQL Login for IBM FileNet Rendition Engine:

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 previous step 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. Use the SQL Query Analyzer to validate that you can successfully log on to the SQL database by using this user name and password.

Preparing Oracle server

If you plan to collocate the IBM FileNet Rendition Engine database with Content Engine or Process Engine 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 Rendition Engine, 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.

- 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 might 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 “Preparing Oracle client” on page 24 on each machine where you will install Rendition Engine.
- 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_SID)**
 - **Oracle temporary table space name**
 - **Oracle data table space name**
 - **Oracle index table space name (optional)**

Installing an Oracle database engine:

IBM 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 table space as part of the installation. This will be handled in “Creating a table space for Rendition Engine” on page 24.

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)

Creating 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

Tip: 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*.

Creating a table space for Rendition Engine:

Use the `Oracle-Repository.sql` script to create a table space for IBM FileNet Rendition Engine.

Important: The table spaces are for the exclusive use of Rendition Engine and should not be shared with any other FileNet P8 component.

To create a table space for Rendition Engine:

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.

You can modify several parameters in the script 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 and of the user name and the password that you assign when running the script. That user name and password must be supplied later when you install the Rendition Engine software.

Parameter	Default Value	(If modified) Actual Value Assigned
<code>data table space</code>	VISTADAT1	
<code>index table space</code>	VISTAIND1	
<code>user name</code>	<code>re_db_user</code> (VISTAUSER)	
<code>password</code>	none (assigned at runtime)	

5. Run the modified `Oracle-Repository.sql` script.
6. Supply the required password for the `re_db_user` when prompted.

Preparing Oracle client

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

Important:

- (Windows 2003 64-bit only) When installing Rendition Engine in a Windows 64-bit system 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.

Installing 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.

To install the Oracle client:

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

Recommendation: You should 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, you must add the IP address of the machine where the Oracle database is installed to the host file on the Oracle Client machine.
3. Start the Oracle Client installation.
4. From the Available Products dialog box, 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 the following from the list in the Available Product Components dialog box, then complete the installation.
 - **Network Utilities (same as oracle net)**
 - **SQL* Plus**
 - **JDBC/OCI Interfaces**
 - **Oracle Windows Interfaces**
8. Use the Oracle Net Configuration Assistant to create a Local Net Service Name configuration to the Oracle database. Then test the connection to the Oracle database server with the user name and password created in “Creating a table space for Rendition Engine” on page 24.

Tip: Enter the Oracle Service Name (Oracle 10g) or ORACLE_SID (Oracle 9i) when prompted.

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 “ibm.com and related resources” on page v.

Installing database drivers on the Content Engine server

Important: This task is only required if your IBM FileNet Content Engine and Rendition Engine are using different databases.

Rendition Engine might be configured to use a different database brand than the Content Engine object store. For example, Rendition Engine might use Microsoft SQL Server and Content Engine DB2®. In this case, you must configure Content

Engine with the corresponding JDBC driver for the Rendition Engine database to allow the Rendition Engine client software running on the Content Engine application server to access the Rendition Engine database.

The procedure for installing the JDBC driver for the Rendition Engine database is identical to the procedure for installing the JDBC for the Content Engine. 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.

Installing and configuring Rendition Engine

This topic explains how to install Rendition Engine.

Installing Rendition Engine

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

- This task covers installation of the first Rendition Engine in a Lquent Vista domain, and installation of a second and consecutive Rendition Engine 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 Rendition Engine is configured before you start the next installation. For more information about adding additional Rendition Engine servers to a Lquent Vista Domain, see the *IBM FileNet P8 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 “[Installing Rendition Engine](#).”
- After installing Rendition Engine you should confirm that the necessary macros are installed to the external applications you plan to use for rendering. For information and procedures, see “[Enabling word processing macros for rendering](#)” on page 30.
- If you install a word processing applications after you have installed Rendition Engine you must update the application with the required macro files. See “[Updating applications installed after Rendition Engine](#)” on page 31.

Installing Rendition Engine

Install the IBM FileNet Rendition Engine software.

Copy the IBM FileNet Rendition Engine installation files from the installation media to a local directory on the Rendition Engine server.

To install Rendition Engine:

1. To access the worksheet file, `p8 Worksheet.xls`, that contains the parameter values to specify in the Records Manager installation, see “[Using the installation and upgrade worksheet](#)” section. In the worksheet file, verify that the **Data** → **Filter** → **AutoFilter** command is enabled.
2. Log on to the Rendition Engine server as the `FNRE_Admin` user. Unless otherwise directed use the `FNRE_Admin` account to install and configure all the Publishing components.
3. If it is not already running, start the Print Spooler Windows service.
4. Run the Rendition Engine installer:
 - a. Access the IBM FileNet Rendition Engine installation files from the local directory on the Rendition Engine server.

- b. Start the installation program: \Installer\P8RE451.exe and complete the installation screens.

Tip: As part of the install 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 installation 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 then log back on using the FNRE_Admin account.

Important: Before rebooting, use the Windows Task Manager or the application bar to verify that the IBM FileNet Rendition Engine 4.5.1 InstallShield Wizard application has completed. This might take a few moments.

7. Hide rendering in the Domain Manager
 - a. On the Rendition Engine server, navigate to **Start** → **Programs** → **IBM FileNet P8 Platform** → **Domain Manager** to start the Domain Manager.
 - b. Select **File** → **Show/Hide Rendering**, and select **Hide**.
 - c. Enter the password and click **OK**, then click **Yes** in the confirmation window to verify that you intend to make these changes to the database.
8. 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
```

9. Create a Java™ Repository on the Content Engine server:

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

9. Create a Java™ Repository on the Content Engine server:
 - a. On the Rendition Engine server, navigate to **Start** → **Programs** → **IBM FileNet P8 Platform** → **Domain Manager** to start the Domain Manager.
 - b. Select **File** → **Add Repository**, and click **Yes** in the confirmation window to verify that you intend to add a repository to this domain.
 - c. Add the required information in the New Repository Properties dialog box.
 - d. Confirm the new repository by selecting **File** → **Save** and clicking **Yes** in the confirmation window to verify that you intend to make these changes to the database.
10. Optional: Set the Rendition Engine Purge and Archive Intervals:

To keep the size of your database down, you should configure Rendition Engine to regularly purge the Rendition Engine 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.

10. Optional: Set the Rendition Engine Purge and Archive Intervals:
 - a. On the Rendition Engine server, navigate to **Start** → **Programs** → **IBM FileNet P8 Platform** → **Domain Manager** to start 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.
11. Set security on the `VistaTempDir` shared folder:
- Perform this step on all Rendition Engine servers in each Lquent 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 window.
 - 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 screen, 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**.
12. If you have added a second or consecutive Rendition Engine to your Lquent Vista domain, restart the `BusinessServiceServer` service.

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

Configuring Rendition Engine connections on Content Engine

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

To create a Lquent Rendition Engine Connection:

1. To access the worksheet file, `p8 Worksheet.xls`, that contains the parameter values to specify in the Records Manager installation, see "Using the installation and upgrade worksheet" section. In the worksheet file, verify that the **Data → Filter → AutoFilter** command is enabled.
2. Set up Rendition Engine Connection (REC) on the Content Engine.
 - a. Start Enterprise Manager as a `GCD_admin`.
 - 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** and complete the Create Rendition Engine Connection wizard.

- f. In the Enterprise Manager [p8 domain] Properties screen, click **Apply** to save your changes. The newly created Rendition Engine Connection will now be listed in the **Select Rendition Engine Selection** list box.
- g. Click **Properties** next to the connection to set the password and Connection State.
- h. In the Rendition Engine Connection Properties screen, select **Set Password** and enter the password.
- i. Click **OK** twice to set the password.
- j. In the Rendition Engine Connection Properties screen, **Connection State** drop-down list, select **Enabled**.
- k. Click **Apply** and **OK** to save the changes, then click **OK** to close the Enterprise Manager [p8 domain] Properties screen.

Setting the site preferences on the Application Engine to use path-based URLs

(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 cannot 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-on to Workplace as a user assigned the IBM FileNet Application Engine Administrators access role.
2. Choose **Admin** → **Site Preferences**.
3. Under **General Settings** → **Application**, set **Use path based URLs** to **Yes**.
4. Click **Apply** to save the setting.
5. Click **Exit**.

Enabling word processing macros for rendering

In order to support Rendition Engine rendering functionality, such as bookmarking and preserving links Corel WordPerfect and Adobe® FrameMaker require additional macro files. Provided the applications are installed before you install Rendition Engine, the macro files are automatically copied to the appropriate directories by the Rendition Engine installer.

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

To enable word processing macros for rendering:

1. Confirm and enable Corel WordPerfect:
 - Perform this procedure on each Rendition Engine server.
 - a. In Windows Explorer, navigate to \Program Files\WordPerfect Office12\Macros\WPWin.
 - b. 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
2. Confirm and enable Adobe FrameMaker:
 - a. In Windows Explorer, navigate to \Program Files\Adobe\FrameMaker7.1.
 - b. Confirm that the esfmdde.dll macro file exists.

Updating applications installed after Rendition Engine

To update applications installed after IBM FileNet Rendition Engine:

1. In the Domain Manager application, navigate to **File** → **Configure Applications**.
The Configure Applications dialog box opens.
2. Select the check box next to the application and click **OK** to install the macros.

Tip: A selected check box means that the application has been updated with the required macro files, and no further action is required.
3. Select **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.

Installing Rendition Engine software updates

Perform the procedure in this topic for each IBM FileNet Rendition Engine instance to install software updates (modification 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 IBM service representative.

2. Open the readme files for the Rendition Engine software updates and perform the installation procedures in the readme files on each Rendition Engine instance.

Verifying Rendition Engine installation (Optional)

Successfully completing all the following steps confirms that the basic functionality of IBM FileNet Rendition Engine is working and that the application has been correctly installed and configured.

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

For a more extensive description of how to start using Rendition Engine past this simple functionality test, see the IBM FileNet P8 Help topic **System Administration** → **Enterprise-wide Administration** → **Publishing** and the Publishing Designer help located at **FileNet P8 Documentation** → **User Help** → **Actions, preferences, and tools** → **Tools** → **Publishing Designer**.

For more details on adding and publishing documents by using Workplace, refer to the Workplace help topic **FileNet P8 Documentation** → **User Help** → **Actions, preferences, and tools** → **Actions** → **Documents**.

To verify Rendition Engine installation:

1. Create Publishing Templates.

The IBM 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 IBM 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 IBM FileNet P8 Help topic **FileNet P8 Administration** → **Enterprise-wide Administration** → **Publishing** → **How to... Publish your first document**.

Planning and preparing for upgrade

This topic explains how to plan for an upgrade of your IBM FileNet Rendition Engine software.

Planning the upgrade

Information for upgrading the IBM FileNet 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 plug-in. This component is uninstalled as part of the Content Engine upgrade.

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 Release Notes*[®]. Many of the new features might apply to your implementation of IBM FileNet P8 Platform. To download this guide from the IBM support page, see “ibm.com and related resources” on page v.
- 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 IBM FileNet P8 Help topic **Enterprise-wide Administration** → **Back up and Restore FileNet P8**.

Performing required preparation tasks

In addition to the general requirements for IBM FileNet Rendition Engine 4.5.1 that are listed in “Planning and preparing for installation” on page 1, the following requirements apply when you upgrade an existing Rendition Engine system to version 4.5.1.

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 that you are installing.

To prepare your environment for a Rendition Engine installation, perform the required preparation tasks for the components you plan to install.

In addition, if you are using the P8 Worksheet for your environment, all administrators should complete the worksheet with the relevant information as described in “Using the installation and upgrade worksheet” on page 3.

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 IBM FileNet P8 system.
- Complete any pending publishing jobs.
- Disable scheduled automated backups.
- Disable virus scanning.

Requirements for upgrades

The upgrade procedures described in the guide are written with the assumption 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.

Information technology administrator tasks

The items below are the required tasks for the information technology administrator.

Network considerations

Ensure that the required port numbers are available. For a composite list of port numbers required for IBM FileNet P8 4.5, see “FileNet P8 port numbers,” on page 49.

Independent software vendor (ISV) applications

If you plan to upgrade the native applications used by IBM FileNet 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.

In Rendition Engine 4.5.1, publishing is configured per site rather than per object store. Object stores that will be used for publishing must be configured with the Publishing add-ons. By default, these are added when you create an object store; custom stores that aren't configured with these add-ons might exist. Manually add the add-ons by using the IBM FileNet Enterprise Manager if required.

- The publishing templates are upgraded as part of the Content Engine upgrade.

Important: If your current publishing templates use VBScript Event Actions, these must be rewritten in Java before they can be used for Rendition Engine 4.5.1. 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 Content Engine 3.5.x. The

rewrite must be done after the upgrade and before you start using Rendition Engine. For more information on how to rewrite the event actions in Java, see the IBM FileNet P8 Help topic **System 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.

IBM FileNet 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 19.
- 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 the appropriate database patches before you upgrade IBM FileNet Rendition Engine.

Oracle clients. Ensure that 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 “ibm.com and related resources” on page v.

Creating a new Rendition Engine database

When you upgrade, you cannot use an existing IBM FileNet Rendition Engine database. You will need to identify a new database (Microsoft SQL Server) or table space (Oracle) for use by the 4.5.1 version of Rendition Engine. You cannot use existing databases or table space after the upgrade.

- For Microsoft SQL Server, the database will be created by the installer.
- For Oracle, you must create an Oracle user and associated table spaces (includes temp) before you install Rendition Engine.

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

- Use the same name and administrative user as the previous version.
Delete the old database or table space 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 “Uninstalling previous version of Rendition Engine” on page 37 or (Oracle) “Creating an Oracle database” on page 24.
- Use a new name for the new database or table space.

If you use a new name for your database or table space you must reconfigure your Content Engine connection as part of the upgrade. See “Configuring Rendition Engine connections on Content Engine” on page 29.

- (Microsoft SQL Server) Configure the new database with a new name.

- (Oracle) Configure the new table space with a new name and a new user. See “Users required for Rendition Engine installation” on page 19.

Important: If you choose to create new databases that uses new names, you must modify the entries in the `0racle-Repository.sql` script with the new information. See “Creating an Oracle database” on page 24.

Upgrading and configuring Rendition Engine

This topic explains how to upgrade IBM FileNet Rendition Engine software.

Uninstalling previous version of Rendition Engine

If you are upgrading from IBM FileNet Rendition Engine version 3.5 or 4.0, before you can install IBM FileNet Rendition Engine version 4.5.1, you must uninstall the previous version of the software.

When upgrading from IBM FileNet Rendition Engine version 4.5, the installer uninstalls the existing IBM FileNet Rendition Engine software.

Removing Rendition Engine version 4.0 software

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

To remove version Rendition Engine 4.0 software:

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 IBM FileNet P8 Platform and Rendition Engine, you need only reinstall the previous version of the software.

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

2. Log on to the Rendition Engine server as FNRE_Admin.
3. Stop the BusinessServiceServer Windows service before 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 or Remove Programs**.
 - c. Select **FileNet P8 Rendition Engine 4.0.0** and click **Remove**.
 - d. Follow the screen prompts to remove the software. At the final screen, click **Finish**.
 - e. Close the Add or Remove Programs window.
5. Remove the printers:
 - a. Navigate to **Start** → **Settings** → **Control Panel**.
 - b. Double-click **Printers and Faxes**.
 - c. If the Lquent XML Printer is listed in the Printers and Faxes window, delete it.

- d. If the Lquent PDF Printer is listed in the Printers and Faxes window, delete it.
 - e. On the Printers and Faxes window, select **File** → **Server Properties**.
 - f. On the Print Server Properties dialog box, select the **Ports** tab and delete the local ports that point to:
 - Drive:\Program Files\Lquent\filenet\ESPS.PS
 - Drive:\Program Files\Lquent\filenet\lquent.xml
 - g. Select the **Drivers** tab and remove (if it exists) the printer driver **Lquent XML Printer**.
6. Verify removal of native application macros:
- a. If the Microsoft Word macro cdmacros.dot is present on the Rendition Engine server, remove it.
 - b. 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
 - espssrsym.wcm
 - espssrsym11.wcm
 - espssrsym12.wcm
 - espssrsym2k.wcm
 - espssrsym9.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 or Remove Programs**.
 - c. Verify that the IBM FileNet Rendition Engine 4.0.0 entry and the Vista entry have been removed.
 - d. If the Vista entry is still there, remove it:
 - 1) Select the Vista entry and click **Change/Remove**.
 - 2) Follow the screen prompts to remove the software.
 - 3) At the final screen, click **Finish**, and reboot the server.
 - e. Verify that all files are removed from C:\Program Files\Lquent and C:\Program Files\Common Files\Lquent. If there are files in these directories, delete them manually.
 - f. Verify that the LIQUENT key has been removed:
 - 1) Select **Start** → **Run**.
 - 2) Type Regedit.
 - 3) Navigate to HKEY_LOCAL_MACHINE\SOFTWARE.
 - 4) Verify that the LIQUENT key has been removed. If the LIQUENT key is there, delete it.

- g. Reboot the server.
9. Optional: Remove the existing Rendition Engine database.
If you want to use the same database name as with your previous installation, you must first remove the existing Rendition Engine database.
When you upgrade, you cannot use an existing Rendition Engine database or table space. Instead, identify a new database (Microsoft SQL Server) or table space (Oracle) with the same name or a different name for use by the 4.5 version of Rendition Engine. For information, see “Creating a new Rendition Engine database” on page 35.

Removing 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 IBM FileNet Rendition Engine servers before upgrading (re-installing) the publishing components for 4.5.1.

Tip: The publishing plug-in components are uninstalled as part of the Content Engine 4.5.1 upgrade and do not need to be removed.

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

1. If the Rendition Engine 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 Rendition Engine 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 IBM FileNet P8 Platform and Rendition Engine, you need only reinstall the previous version of the software.
Some Rendition Engine components such as publishing templates and publishing style templates are located on a Content Engine server and were backed up as part of the preparation for Content Engine upgrade.
3. Stop the BusinessServiceServer Windows service before 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 or 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 or Remove Programs window.
5. Remove the printers:
 - a. Navigate to **Start** → **Settings** → **Control Panel**.

- b. Double-click **Printers and Faxes**.
 - c. If the Lquent XML Printer is listed in the Printers and Faxes window, delete it.
 - d. If the Lquent PDF Printer is listed in the Printers and Faxes window, delete it.
 - e. On the Printers and Faxes window, select **File** → **Server Properties**.
 - f. On the Print Server Properties dialog box, select the **Ports** tab and delete the local ports that point to:
 - Drive:\Program Files\Lquent\filenet\ESPS.PS
 - Drive:\Program Files\Lquent\filenet\lquent.xml
 - g. Select the **Drivers** tab and remove (if it exists) the printer driver **Lquent XML Printer**.
6. Verify removal of native application macros:
- a. If the Microsoft Word macro cdmacros.dot is present on the Rendition Engine server, remove it.
 - b. 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 a Rendition Engine version before 3.0.0a/3.5.1, run the Vista cleanup tool.
- If the version of Rendition Engine you uninstalled in “Removing Rendition Engine version 4.0 software” on page 37 was before 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 Rendition Engine installation.
- a. Start the cleanup tool:
 - On your Rendition Engine installation media (versions before 3.0.0a/3.5.1): \Resources\Lquent\Unsupported Apps\Xtent2.0\VistaCleanUtility.exe
 - On your Rendition Engine 4.0.0 installation media: \Resources\Lquent\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 or Remove Programs**.
 - c. Verify that the IBM FileNet 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:
 - 1) Select the Vista entry and click **Change/Remove**.
 - 2) Follow the screen prompts to remove the software.
 - 3) 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. If there are files in these directories, delete them manually.
 - f. Verify that the LIQUENT key has been removed:
 - 1) Select **Start** → **Run**.
 - 2) Type Regedit.
 - 3) Navigate to HKEY_LOCAL_MACHINE\SOFTWARE.
 - 4) Verify that the LIQUENT key has been removed. If the LIQUENT key is there, delete it.
 - g. Reboot the server.
10. Optional: Remove the existing Rendition Engine database.
The Rendition Engine upgrade includes the creation of a new database for Rendition Engine use. If you want to use the same database name as your previous installation, you must first remove the existing Rendition Engine database.
(Oracle) If you choose to create new databases that uses new names, you must modify the entries in the Oracle-Repository.sql script with the new information. See “Creating an Oracle database” on page 24.

Upgrading native applications

Install the IBM FileNet Rendition Engine software.

If you plan to upgrade the native applications used by Rendition Engine, you must do this before you install Rendition Engine. See “Information technology administrator tasks” on page 34.

1. Install or upgrade your native applications.
2. Configure your newly upgraded native applications. Perform the task “Installing and configuring authoring applications” on page 8.

Upgrading Rendition Engine

Upgrade the IBM FileNet Rendition Engine software.

Copy the IBM FileNet Rendition Engine installation files from the installation media to a local directory on the Rendition Engine server.

To upgrade Rendition Engine:

1. To access the worksheet file, p8_worksheet.xls, that contains the parameter values to specify in the Records Manager installation, see “Using the installation and upgrade worksheet” section. In the worksheet file, verify that the **Data** → **Filter** → **AutoFilter** command is enabled.

2. Log on to the Rendition Engine server as the FNRE_Admin user. Unless otherwise directed use the FNRE_Admin account to install and configure all the Publishing components.
3. If it is not already running, start the Print Spooler Windows service.
4. Run the Rendition Engine installer:
 - a. Access the IBM FileNet Rendition Engine installation files from the local directory on the Rendition Engine server.
 - b. Start the installation program: \Installer\P8RE451.exe and complete the installation screens.

Tip: As part of the install 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 installation 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 then log back on using the FNRE_Admin account.

Important: Before rebooting, use the Windows Task Manager or the application bar to verify that the IBM FileNet Rendition Engine 4.5.1 InstallShield Wizard application has completed. This might take a few moments.

7. Hide rendering in the Domain Manager
 - a. On the Rendition Engine server, navigate to **Start** → **Programs** → **IBM FileNet P8 Platform** → **Domain Manager** to start the Domain Manager.
 - b. Select **File** → **Show/Hide Rendering**, and select **Hide**.
 - c. Enter the password and click **OK**, then click **Yes** in the confirmation window to verify that you intend to make these changes to the database.
8. 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
```
9. Create a Java Repository on the Content Engine server:

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

 - a. On the Rendition Engine server, navigate to **Start** → **Programs** → **IBM FileNet P8 Platform** → **Domain Manager** to start the Domain Manager.
 - b. Select **File** → **Add Repository**, and click **Yes** in the confirmation window to verify that you intend to add a repository to this domain.
 - c. Add the required information in the New Repository Properties dialog box.
 - d. Confirm the new repository by selecting **File** → **Save** and clicking **Yes** in the confirmation window to verify that you intend to make these changes to the database.
10. Optional: Set the Rendition Engine Purge and Archive Intervals:

To keep the size of your database down, you should configure Rendition Engine to regularly purge the Rendition Engine 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** → **IBM FileNet P8 Platform** → **Domain Manager** to start 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.
11. Set security on the **VistaTempDir** shared folder:
- Perform this step on all Rendition Engine servers in each Lquent 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 window.
 - 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 screen, 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**.
12. If you have added a second or consecutive Rendition Engine to your Lquent Vista domain, restart the **BusinessServiceServer** service.

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

Configuring Rendition Engine connections on Content Engine

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

Perform this if you have created a new database or table space with a new name and/or administrative user. See “Creating a new Rendition Engine database” on page 35.

To create a Lquent Rendition Engine Connection:

1. To access the worksheet file, **p8 Worksheet.xls**, that contains the parameter values to specify in the Records Manager installation, see “Using the

installation and upgrade worksheet" section. In the worksheet file, verify that the **Data** → **Filter** → **AutoFilter** command is enabled.

2. Set up Rendition Engine Connection (REC) on the Content Engine.
 - a. Start Enterprise Manager as a GCD_admin.
 - 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** and complete the Create Rendition Engine Connection wizard.
 - f. In the Enterprise Manager [p8 domain] Properties screen, click **Apply** to save your changes. The newly created Rendition Engine Connection will now be listed in the **Select Rendition Engine Selection** list box.
 - g. Click **Properties** next to the connection to set the password and Connection State.
 - h. In the Rendition Engine Connection Properties screen, select **Set Password** and enter the password.
 - i. Click **OK** twice to set the password.
 - j. In the Rendition Engine Connection Properties screen, **Connection State** drop-down list, select **Enabled**.
 - k. Click **Apply** and **OK** to save the changes, then click **OK** to close the Enterprise Manager [p8 domain] Properties screen.

Enabling word processing macros for rendering

In order to support Rendition Engine rendering functionality, such as bookmarking and preserving links Corel WordPerfect and Adobe FrameMaker require additional macro files. Provided the applications are installed before you install Rendition Engine, the macro files are automatically copied to the appropriate directories by the Rendition Engine installer.

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

To enable word processing macros for rendering:

1. Confirm and enable Corel WordPerfect:

Perform this procedure on each Rendition Engine server.

 - a. In Windows Explorer, navigate to \Program Files\WordPerfect Office12\Macros\WPWin.
 - b. 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
2. Confirm and enable Adobe FrameMaker:
 - a. In Windows Explorer, navigate to \Program Files\Adobe\FrameMaker7.1.
 - b. Confirm that the esfmdde.dll macro file exists.

Updating applications installed after Rendition Engine

To update applications installed after IBM FileNet Rendition Engine:

1. In the Domain Manager application, navigate to **File** → **Configure Applications**. The Configure Applications dialog box opens.
2. Select the check box next to the application and click **OK** to install the macros.

Tip: A selected check box means that the application has been updated with the required macro files, and no further action is required.

3. Select **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.

Installing Rendition Engine software updates

Perform the procedure in this topic for each IBM FileNet Rendition Engine instance to install software updates (modification 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 IBM service representative.
2. Open the readme files for the Rendition Engine software updates and perform the installation procedures in the readme files on each Rendition Engine instance.

Verifying Rendition Engine upgrade (Optional)

Successfully completing all the following steps confirms that the basic functionality of IBM FileNet Rendition Engine is working and that the application has been correctly upgraded and configured.

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

For a more extensive description of how to start using Rendition Engine past this simple functionality test, see the IBM 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 by using Workplace, refer to the Workplace help topic **FileNet P8 Documentation** → **Workplace** → **Workplace User Help** → **Manage Documents**.

To verify Rendition Engine installation:

1. Create Publishing Templates.

The IBM 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 IBM 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 IBM FileNet P8 Help topic **FileNet P8 Administration** → **Enterprise-wide Administration** → **Publishing** → **How to...** → **Publish your first document**.

Removing software

This topic explains how to remove IBM FileNet Rendition Engine software.

Removing a Rendition Engine from a Lquent Vista domain

To uninstall an existing IBM FileNet Rendition Engine 4.5.1, you must first remove the server from the Lquent Vista domain and then uninstall the software.

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

Removing Rendition Engine software from a Rendition Engine

To complete the uninstallation, you must uninstall the IBM FileNet 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 before 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 or Remove Programs**.
 - c. Select **FileNet P8 Rendition Engine 4.5.1** and click **Change/Remove**.
 - d. Follow the screen prompts to remove the software. At the final screen, click **Finish**.
 - e. Close the Add or Remove Programs window.
4. Remove the printers:
 - a. Navigate to **Start** → **Settings** → **Control Panel**.
 - b. Double-click **Printers and Faxes**.
 - c. If the Lquent PDF Creator is listed in the Printers and Faxes window, delete it.
 - d. If the Lquent PDF Printer is listed in the Printers and Faxes window, delete it.
 - e. On the Printers and Faxes window, select **File** → **Server Properties**.

- f. On the Print Server Properties dialog box, select the **Ports** tab and delete the local ports that point to: RE_install_path\ESPS.PS
 - g. Select the **Drivers** tab and remove (if it exists) the printer driver **Amyuni Document Converter 300**.
5. 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
 - espssrsym.wcm
 - espssrsym11.wcm
 - espssrsym12.wcm
 - espssrsym2k.wcm
 - espssrsym9.wcm
 - generate.wcm
 - removehf11.wcm
 - removehf12.wcm
 - removehf2k.wcm
6. Reboot the server.
7. Verify that the Lquent software has been removed:
 - a. Navigate to **Start** → **Settings** → **Control Panel**.
 - b. Double-click **Add or Remove Programs**.
 - c. Verify that the IBM FileNet Rendition Engine 4.5.1 entry and the Lquent entry have been removed.
 - d. If the Lquent services entry is still there, remove it.
8. Verify that all files are removed from RE_install_path and C:\Program Files\Common Files\Lquent. If there are files in these directories, delete them manually.
9. Verify that the LIQUENT key has been removed:
 - a. Select **Start** → **Run**.
 - b. Type Regedit.
 - c. Navigate to HKEY_LOCAL_MACHINE\SOFTWARE.
 - d. Verify that the LIQUENT key has been removed. If the LIQUENT key is there, delete it.
10. Reboot the server.

Appendix. FileNet P8 port numbers

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

Rendition Engine ports

Port description	
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

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