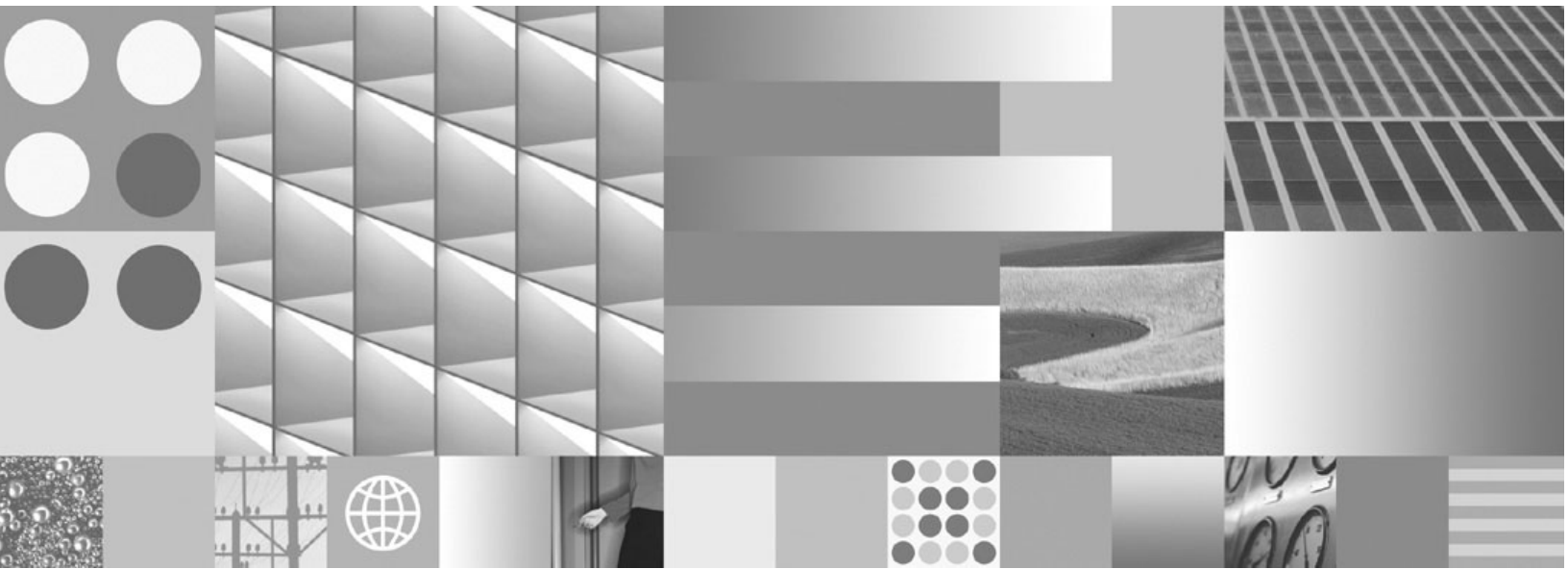


## Installation and Upgrade Guide





## Installation and Upgrade Guide

**Note**

Before using this information and the product it supports, read the information in "Notices" on page 77.

This edition applies to version 4.0.1 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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# Typographical Conventions

This document uses the conventions in the following table to distinguish elements of text.

Convention	Usage
UPPERCASE	Environment variables, status codes, utility names.
<b>Bold</b>	Program names and selected terms such as command parameters or environment variables that require emphasis.
<b>Bold Gray</b>	Clickable user-interface elements (such as buttons).
<b>Bold Olive</b>	Paths and file names.
<i>Italic</i>	User-supplied variables and new terms introduced in text, names of additional documents (such as <i>IBM FileNet P8 Platform Installation and Upgrade Guide</i> ).
<italic>	User-supplied variables that replace everything between and including the angle bracket delimiters (< and >).
Monospace	Code samples, examples, display text, and error messages.

**NOTE** Some pathnames in this document that are identical (except for the directory-separator character) on both UNIX and Windows platforms are specified in UNIX syntax only (that is, with forward-slash directory separators).

**WARNING** This document contains examples of text to be typed on a command line. Be sure to manually type the command, rather than copying and pasting it from this document. Otherwise, your command line may contain unrecognized characters and will not execute properly.

## Revision Log

The following table identifies changes made to this document since the IBM FileNet P8 Rendition Engine 4.0.0 release.

Date	Revision
07/08	Updated <a href="#">“Access IBM FileNet Documentation, Compatibility Matrices, and Fix Packs” on page 12.</a> Updated <a href="#">Step 3 “Configure Microsoft Word publishing requirements.” on page 29.</a> Updated <a href="#">“Remove Rendition Engine Software from a Rendition Engine” on page 71.</a>
11/07	Updated web-site locations for IBM FileNet product information, documentation, and software updates. Added <a href="#">“Access IBM FileNet Documentation, Compatibility Matrices, and Fix Packs” on page 12</a> to clarify how to find product documentation on the IBM web site.
09/07	Version 4.0.1. Added <a href="#">“To install Database Drivers on Content Engine (JBoss)” on page 41.</a>
06/07	Added <a href="#">Task 6 “Set the site preferences on the Application Engine to use path-based URLs” on page 54.</a>
03/07	Minor updates.
12/06	Initial revision.

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## About this Document

Installation by a FileNet® Certified Professional (FCP) Recommended. For more information on the FCP program, refer to the IBM® web site (<http://www.ibm.com/us>), Products > Software > Information Management > Training and certification > Professional Certification > FileNet Certified Professional Program (FCP).

Every effort has been made to provide you with complete installation instructions. If information becomes available after the creation of the documentation release from which you accessed this guide, we will provide an updated version of the guide. To download this guide from the IBM support page, see “[Access IBM FileNet Documentation, Compatibility Matrices, and Fix Packs](#)” on [page 12](#).

Send your comments by e-mail to [comments@us.ibm.com](mailto:comments@us.ibm.com). Be sure to include the name of the product, the version number of the product, and the name and part number of the book (if applicable). If you are commenting on specific text, include the location of the text (for example, a chapter and section title, a table number, a page number, or a help topic title).

This guide provides instructions for installing and/or upgrading the IBM FileNet Rendition Engine to its current released version. Be aware that each release of a IBM FileNet P8 component or expansion product may have multiple service packs, fix packs or interim fixes available for installation, each with potentially different dependencies and installation requirements. Therefore, before you attempt to install or upgrade IBM FileNet Rendition Engine, review the list of releases and their associated dependencies in the *IBM FileNet Compatibility Matrix* on the IBM support page ([www.ibm.com/software/data/support/](http://www.ibm.com/software/data/support/)). See “[Access IBM FileNet Documentation, Compatibility Matrices, and Fix Packs](#)” on [page 12](#).

## *Installation Planning and Procedures*

This installation section contains the following major topics:

- [“Plan the Installation” on page 11](#)
- [“Prerequisite Tasks” on page 22](#)
- [“Installation Tasks” on page 43](#)

## Plan the Installation

Before you begin to install IBM FileNet P8 Rendition Engine:

- Retrieve updates to IBM FileNet P8 documentation and software, see [“Access IBM FileNet Documentation, Compatibility Matrices, and Fix Packs” on page 12](#).
- Review the [“Installation Planning Considerations” on page 12](#) for a list of auxiliary documentation you should gather and a list of tasks you should perform before you install IBM FileNet Rendition Engine software.
- Read [“Prerequisite Tasks” on page 22](#) and [“Installation Tasks” on page 43](#) to become familiar with the tasks you will perform when you set up your IBM FileNet Rendition Engine software.

**NOTE** FileNet recommends you follow the planning, installation, and configuration tasks in the order presented in these topics. If you do otherwise, or you install FileNet P8 components on machines containing components for existing FileNet P8 systems, you may encounter unforeseen problems or be required to perform additional setup steps. See the *IBM FileNet P8 Platform Troubleshooting Guide*. To download this document from the IBM support page, see [“Access IBM FileNet Documentation, Compatibility Matrices, and Fix Packs” on page 12](#).

## Installation Planning Considerations

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

### General Requirements

Before you install Rendition Engine, you must first install and configure the IBM FileNet P8 4.0.0 platform. Then follow the procedures in this guide to install Rendition Engine.

#### *About Rendition Engine*

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 Lipient RenderPerfect product. To install and configure the RenderPerfect components on the Rendition Engine server and Content Engine server follow the instructions in this document.

For more information about RenderPerfect, see the *FileNet P8 Help* topic [FileNet P8 Administration > Enterprise-wide Administration > Publishing > Publishing Overview > About Rendition Engine](#).

#### ***Access IBM FileNet Documentation, Compatibility Matrices, and Fix Packs***

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##### **To access documentation for IBM FileNet products**

1. Access the [Product Documentation for FileNet P8 Platform](#) support page ([www.ibm.com/support/docview.wss?rs=3247&uid=swg27010422](http://www.ibm.com/support/docview.wss?rs=3247&uid=swg27010422)).
2. Select the appropriate product link.

---

##### **To access compatibility matrices and fix packs for IBM FileNet products**

1. Access the [Fix Packs for FileNet P8 Platform](#) support page ([www.ibm.com/support/docview.wss?&uid=swg27010146](http://www.ibm.com/support/docview.wss?&uid=swg27010146)).
2. From the Fix Pack page:
  - To access the compatibility matrix, under FileNet P8 Compatibility Matrices, click **Matrix**.
  - To access the fix pack you need, under a specific product name, click the release number.

#### ***Gather auxiliary documentation***

**NOTE** For general instructions on how to navigate to this and other IBM FileNet product documentation on the IBM web site, see [“Access IBM FileNet Documentation, Compatibility Matrices, and Fix Packs”](#) on page 12.

Before you begin installing the software, retrieve the following documents:

- *IBM FileNet Rendition Engine Installation and Upgrade Guide* (This document). This document provides details on how to install and upgrade Rendition Engine components.
- *IBM FileNet P8 Hardware and Software Requirements*. This document provides details for all FileNet P8 system components, as well as the minimum supported levels of third-party software components. The information throughout the IBM FileNet P8 Platform Installation and Upgrade Guide assumes you have met all applicable requirements listed in that document.
- *IBM FileNet P8 Platform Release Notes*. This document provides details on new features, known issues, and resolved problems.
- *IBM FileNet P8 Platform Installation and Upgrade Guide*. This document provides details for installation, upgrade, and configuration of the core components for the FileNet P8 system.
- [FileNet P8 Platform user and group security help](#).

This help topic provides a complete list of the user and group roles, accounts, and responsibilities required to install, configure, and maintain a FileNet P8 system. For more information, see the FileNet P8 Help topic [FileNet P8 Administration > Enterprise-wide Administration > Security > Users and groups](#).

- [FileNet P8 Platform Shutdown and Startup](#).

This help topic describes how to shut down and restart FileNet P8 Platform components and some expansion products. Manual, command line, and some sample batch file procedures are provided. For more information, see the *FileNet P8 Help* topic [FileNet P8 Administration > Enterprise-wide Administration > Shutdown and Startup](#).

- *Installing IBM FileNet P8 Platform in a Non-English Environment Technical Notice*. This document will help you set up the product if your environment is not English-language based.
- *IBM FileNet P8 Platform Deployment Guide*. This document provides details on how to deploy a FileNet P8 system from a staging environment into a full production environment.
- *IBM FileNet P8 Platform Troubleshooting Guide*. This document provides troubleshooting information on all aspects of the product.
- *IBM FileNet P8 Platform Performance Tuning Guide*. This document provides performance tuning information on all aspects of the product.

## Installation Checklist

A consolidated checklist of the requirements and planning considerations for installing RE is available in [“Installation Checklist” on page 18](#). This checklist identifies information you will need to supply during the installation and configuration process.

**NOTE** We strongly recommend that you print and fill out this form before you begin the RE installation and configuration process.

## The Installation Package

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

- **Installer (folder)** - Contains the **setup.exe** file used to install RE.
- **Resources (folder)** - Contains the **Oracle-repository.sql** script and the **FileNetP8RenditionEngineLicense.xml** file used during the installation.
- **Readme.htm** - Contains information about the RE documentation.

## Operating System Considerations

### *Network Considerations*

- **Ensure TCP/IP settings.** Verify TCP/IP configuration settings on the RE server.
- **Ensure communication.** Make sure the RE server can communicate with the database server and the Content Engine server, and that the Content Engine server can communicate with the RE server.
- **Ensure availability of required port numbers.** Several port numbers are required by the various FileNet P8 components. For a list, see [“FileNet P8 Port Numbers” on page 74](#).

### *Content Engine and Rendition Engine*

- For performance reasons, unless you plan to install more than one Rendition Engine in your environment, FileNet recommends that you install Rendition Engine and Content Engine on separate servers. This will spread the performance load between the publishing servers.
- You must install Rendition Engine on a server that has an NTFS drive partition.  
If you don't install RE on an NTFS partition you won't be able to complete the task [“Set security on the VistaTempDir shared folder.” on page 50](#).
- When you first run the Rendition Engine setup program, you create a new Ligent Vista domain—an administrative entity that's used to manage Rendition Engine services. For each subsequent execution of the Rendition Engine setup program on a machine, you can join an existing Ligent Vista domain or create another Ligent Vista domain.

### *Third-Party Native Applications*

Before you install Rendition Engine, to ensure proper MIME type recognition, you must install all applications that your users will run to create and render publication documents on the Rendition Engine server(s). In addition, a number of these applications require configuration before you can use them for FileNet publishing. See [“Configure Native Applications” on page 29](#).

These applications require configuration:

- Microsoft® Word

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

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

## Security Authentication Considerations

**Check required user account privileges.** For installing, configuring, and running Rendition Engine, you must use specific user and group accounts with particular access privileges. See [“Users Required for Rendition Engine Installation” on page 17](#).

## Database Considerations

For a checklist version of these considerations, see [“Database Considerations” on page 19](#).

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

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

### All platforms

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

**NOTE** Rendition Engines and Content Engines in a Lquent Vista domain must use the same database.

- Determine the Purge and Archive intervals for the RE database.

By default, the RE database is set to autogrow. To keep the database size down, RE is set up to archive the content of the database daily and to purge the archived content weekly. These intervals can be modified using the Domain Manager interface. See [“\(Optional\) Set the Rendition Engine Purge and Archive Intervals.” on page 49](#).

## Microsoft SQL Server

- **Determine whether you want to use a dedicated or shared database.**
  - You can assign Rendition Engine a dedicated instance. You can use the default instance or a named instance of your choice.
  - Rendition Engine can share a Microsoft SQL Server instance with Content Engine or Process Engine.
  - Rendition Engine must have its own database, separate from Content Engine and Process Engine.  
**NOTE** There is no need to create an SQL database before you install Rendition Engine software. The Rendition Engine installer will prompt for appropriate database information and will create the necessary database.
  - Remote Microsoft SQL connections for Rendition Engine are handled by Microsoft Data Access Components, which is installed by default on Rendition Engine servers. There is no need to install the Microsoft SQL client software on the Rendition Engine server.
- **An SQL Login is required for Rendition Engine purposes.** Under Microsoft SQL Server, you must ensure that an SQL Login account exists before you install the first Rendition Engine. See [“To configure Microsoft SQL Login for Rendition Engine” on page 23.](#)

## Oracle

- **Determine whether you want to use a dedicated or shared database.**
  - Rendition Engine can have a dedicated Oracle database service or share a database service with Content Engine, Process Engine, or non-FileNet applications.
  - Rendition Engine must have its own tablespace, separate from Content Engine and Process Engine.  
**NOTE** This tablespace will be created by executing an Oracle SQL script prior to installing the first Rendition Engine. See [“To create an Oracle database” on page 26.](#)
- **Database client software requirements.** For Rendition Engine, if the database is remote, you must install database client software on the Rendition Engine server. See [“Install Oracle Client for Rendition Engine” on page 28.](#)  
**NOTE** While the Content Engine also requires installation of the database client software, that installation and configuration will have already been completed during installation of the FileNet P8 system.
- To create a valid user and tablespace for RE, you will run the **Oracle-repository.sql** script on the database server as part of [“Install Oracle Server for Rendition Engine” on page 25](#) before you perform the installation tasks.



## Users Required for Rendition Engine Installation

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

The following table lists the user accounts needed for installing Rendition Engine, including the minimum permissions required. For a checklist version of this listing, see [“Installation Checklist” on page 18](#).

### Users required to install and configure Rendition Engine

Role/Account	Description
<FNRE_Admin>	<p>A local or domain user account that must be added directly to the local Administrators group on all Rendition Engine servers.</p> <p>Permissions: Local administrator privileges on the machine where Rendition Engine is installed.</p>
<GCD administrator user>	<p>A FileNet P8 Platform user that is part of the GCD administrators.</p> <p>You will need this user when you configure the Rendition Engine Connection on CE. See <a href="#">“Set up Rendition Engine Connection (REC) on the Content Engine.” on page 52</a>.</p>
<SQL Login>	<p>(Microsoft SQL Server only) Any SQL Server user with SQL Server's "Database Creators" server role.</p> <p>This user will be created as part of the Microsoft SQL Server installation and is a safer alternative to using SQL Server's <b>SA</b> or <b>SYS</b> users, which will also satisfy the configuration requirements.</p> <p>See <a href="#">“To configure Microsoft SQL Login for Rendition Engine” on page 23</a>.</p>
<VISTAUSER>	<p>(Oracle Server only) This user will be created as part of the Oracle Server installation. See <a href="#">“To create an Oracle database” on page 26</a>.</p>

For a complete list of the user and group roles, accounts, and responsibilities required to install, configure, and maintain a FileNet P8 system, see the *FileNet P8 Help* topic [FileNet P8 Administration > Enterprise-wide Administration > Security > Users and groups > FileNet P8 Platform user and group security help](#) and the *IBM FileNet P8 Platform Installation and Upgrade Guide* task [“Specify FileNet P8 Accounts.”](#)

## Installation Checklist

For a successful installation or upgrade of FileNet Rendition Engine, please use the following checklists.

You can print these lists and record the information as you perform the prerequisite and installation tasks.

### ***FileNet P8 Platform Environment Prerequisites***

- The core components of the FileNet P8 suite of products—Content Engine (CE), Process Engine (PE), and Application Engine (AE)—must be installed and configured before you start the RE installation.
- The Content Engine, Application Engine, and Process Engine must be updated to the latest fix pack and interim fix levels that are compatible with Rendition Engine before you start the RE installation.
- Refer to the "Hotfix Pack and Patch Dependencies" document ([p840xPatchDependency.xls](#)). To download this guide from the IBM support page, see ["Access IBM FileNet Documentation, Compatibility Matrices, and Fix Packs" on page 12.](#)
- FileNet P8 Workplace must be installed and deployed.

**FileNet P8 Workplace URL:** \_\_\_\_\_

- Object stores that will be used for publishing must be configured with the Publishing AddOns.  
**NOTE** The publishing add-ons are added to an object store by default.
- The environment must meet all applicable requirements listed in the *FileNet P8 Hardware and Software Requirements* document. To download this guide from the IBM support page, see ["Access IBM FileNet Documentation, Compatibility Matrices, and Fix Packs" on page 12.](#)
- Verify that you can access the Content Engine and database servers from the servers on which you will be installing the RE components.
- Verify that Content Engine can access the rendition Engine server(s).

### ***Documentation***

- Make sure that you have updated copies of all relevant documentation as listed in ["Gather auxiliary documentation" on page 12.](#)

### ***Native Applications***

- Verify that you have installed all native applications you plan to use for publishing.
- (Upgrade only) Do you plan to upgrade or add native applications to your setup?
  - Yes. You must perform these upgrades or additions before you reinstall Rendition Engine. See ["\(Optional\) Upgrade native applications." on page 68.](#)
  - No.

## Database Considerations

- Identify the type of database used by Rendition Engine.
  - Oracle.
  - Microsoft SQL Server.
- Will the database be remote or local to the Rendition Engine?
  - Remote.
  - Local.

### Microsoft SQL Server

- Microsoft SQL Server server name:  
**Server name:** \_\_\_\_\_
- Will the Microsoft SQL Server instance be shared or dedicated?
  - Shared.
  - Dedicated.**Instance name:** \_\_\_\_\_
- Microsoft SQL Server port:  
**Port Number:** \_\_\_\_\_
- Verify that a SQL Login exists for Rendition Engine purposes.  
 See "[<SQL Login>](#)" on page 20.

### Oracle

- Will the Oracle database service be shared or dedicated?
  - Shared.
  - Dedicated.**Service name:** \_\_\_\_\_

- Oracle port:

**Port Number:** \_\_\_\_\_

- Oracle tablespace parameters.

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

**NOTE** If you plan to use different settings for your database tablespace, you must reconfigure the script prior to running it.

You will need these values when you run the **Oracle-Repository.sql** script and when you install Rendition engine. See:

- [“To create a tablespace for Rendition Engine” on page 26.](#)

**NOTE** If you plan to use different settings for your database tablespace, you must reconfigure the script before you run it.

- [“\(Oracle 9/10\) Oracle Database Information” on page 47.](#)

## Authentication Requirements

The following are the privileges for which you will need a user name and password.

- <SQL Login>

**User Name:** \_\_\_\_\_ **Password:** \_\_\_\_\_

You will need this user when you configure the Microsoft SQL login. See [“To configure Microsoft SQL Login for Rendition Engine” on page 23.](#)

The user selected:

- Must exist before you configure the Microsoft SQL login.
- Will be given SQL Server's "Database Creators" server role.

- <FNRE\_Admin>

**User Name:** \_\_\_\_\_ **Password:** \_\_\_\_\_

You will need this user when you install RE. See [“Log on to the Rendition Engine server as the <FNRE\\_Admin> user.” on page 44.](#)

The user selected:

- Must be added to the local Administrators group on all Rendition Engine servers.

<GCD administrator user>

**User Name:** \_\_\_\_\_ **Password:** \_\_\_\_\_

You will need this user when you configure the Rendition Engine Connection on CE. See [“Set up Rendition Engine Connection \(REC\) on the Content Engine.”](#) on page 52.

For more information, see the *FileNet P8 Help* topic [FileNet P8 Administration > Enterprise-wide Administration > Security > Users and groups](#).

The user selected:

- Must be a GCD administrator.

# Prerequisite Tasks

## To set up and configure prerequisite software for Rendition Engine

---

1. Configure database software:
  - For Microsoft SQL Server, do [Task 1a “Install Microsoft SQL Server for Rendition Engine” on page 23](#).
  - For Oracle, do:
    - i. [Task 1b “Install Oracle Server for Rendition Engine” on page 25](#).
    - ii. [Task 1c “Install Oracle Client for Rendition Engine” on page 28](#).
2. Configure native applications for Rendition Engine. Do [Task 2 “Configure Native Applications” on page 29](#).

## Task 1a: Install Microsoft SQL Server for Rendition Engine

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

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

### NOTES

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

**NOTE** A checklist entry for this information can be found at [“Microsoft SQL Server” on page 19](#).

### To install and configure Microsoft SQL Server

---

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

### To configure Microsoft SQL Login for Rendition Engine

---

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

1. Start the **Microsoft SQL Enterprise Manager**.
2. Expand the Microsoft SQL Server <Server name>[<Instance name>] node.
3. Expand the Security folder, right-click **Logins** and select **New Login...**
4. In the SQL Server Login Properties screen, under the **General** tab, do the following:
  - a. In the Name field, enter a name for the <SQL Login> user.
  - b. In the Password field, enter a password for the new SQL user.

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



## Task 1b: Install Oracle Server for Rendition Engine

If you plan to collocate the RE database with CE or PE databases, you should use the existing database for these components. For more information, see the *FileNet P8 Platform Installation and Upgrade Guide*, task *Install Oracle Server for FileNet P8*.

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

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

### NOTES

- Perform this task on the UNIX®, Linux®, or Windows server that will host the Oracle database to be used by the Rendition Engine.
- Make sure that the server that will host the database satisfies all pre-installation requirements specified in the Oracle installation documentation.
- If the server where you install the Oracle database will also host an installation of Rendition Engine, the machine must meet the Rendition Engine requirements listed in *FileNet P8 Hardware and Software Requirements*.
- Refer to *FileNet P8 Hardware and Software Requirements* for operating-system service pack and Oracle version and patch set requirements. The Oracle patch-installation procedure may be less complicated if you do it before you create any databases.
- If your Oracle database will be remote, after you complete the procedures in this topic, you must also complete the procedures in [“Install Oracle Client for Rendition Engine” on page 28](#) on each machine where you will install Rendition Engine.
- FileNet suggests that you record the values for the following settings as you work through the database installation. This information must be entered during subsequent installations.
  - Global Database Service Name
  - Oracle temporary tablespace name
  - Oracle data tablespace name
  - Oracle index tablespace name (optional)

**NOTE** A checklist entry for this information can be found at [“Oracle” on page 19](#).

### To install an Oracle database engine

---

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

You do not need to create a tablespace as part of the installation. This will be handled in [“To create a tablespace for Rendition Engine” on page 26](#).

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** the following minimum components must be installed:

- Oracle 9i
  - Oracle 9i Server
  - Oracle Net Services
    - Oracle Net Listener
  - Oracle 9i Development Kit
    - Oracle Call Interface (OCI)
  - (Windows) Oracle Windows Interfaces
    - Oracle Services for Microsoft Transaction Server
  - Oracle 9i Documentation (recommended)
- 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)

### **To create an Oracle database**

---

Oracle documentation describes several ways to create a database. FileNet recommends you use the Database Configuration Assistant (DBCA).

When you create the database, specify the following settings:

- Server process type
  - NOTE** “Dedicated Server Mode” offers better performance than “Shared Server Mode.”
- Database character set
  - Choose a database character set as specified in “FileNet P8 Database Character Sets” in the *FileNet P8 Platform Installation and Upgrade Guide*.

### **To create a tablespace for Rendition Engine**

---

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

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

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

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

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

5. Run the modified **Oracle-Repository.sql** script.  
 Supply the required password for the <VISTAUSER> when prompted.

## Task 1c: Install Oracle Client for Rendition Engine

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

### NOTES

- 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 *FileNet P8 Hardware and Software Requirements* for operating-system service pack and Oracle version and patch set requirements.

### To install the Oracle client

---

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

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

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

2. If the machine where you are installing Oracle Client does not use DNS to resolve host names, place in its hosts file the IP address of the machine where the Oracle database is installed.
3. Launch the Oracle Client installation.
4. From the Available Products dialog, click **Oracle Client**.
5. From the Installation Types dialog box, click **Runtime**, and proceed with the installation.
6. After the installation completes, click **Next Installation**.
7. On the Installation Types dialog box, click **Custom** and select **Oracle Windows Interfaces** from the list in the Available Product Components Dialog box, then proceed with and complete the installation.
8. Using **Oracle Net Configuration Assistant**, test the connection to the Oracle database server with the user name and password created in [“To create a tablespace for Rendition Engine” on page 26](#).
9. Install all required Oracle patches, as specified in the *FileNet P8 Hardware and Software Requirements*. To download this guide from the IBM support page, see [“Access IBM FileNet Documentation, Compatibility Matrices, and Fix Packs” on page 12](#).

## Task 2: Configure Native Applications

Before you install and configure the Rendition Engine software, you must install and configure the native applications that are used to publish and convert documents. Do these steps on each Rendition Engine server. See the steps below for any of the applications that apply to your environment.

### To configure Microsoft Word

---

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

<MS\_Office\_home>\Microsoft Office\Office\Startup

<MS\_Office\_home>\Microsoft Office\Office\XLStart

2. Configure Microsoft Office hyperlinks.

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

- a. In Microsoft Word, choose **Tools > Options**.
- b. On the **General** tab click **Web Options**.
- c. Select the **Files** tab.
- d. Check the **Use long file names whenever possible** item.

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

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

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

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

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

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

3. Configure Microsoft Word publishing requirements.
  - a. In Microsoft Word, choose **Tools > Options**
  - b. Select the **View** tab and clear the following options:
    - Show
      - **Startup Task Pane**

- **Status Bar**
  - **Screen Tips**
  - **Smart Tags**
  - **Animated Text**
  - **Windows in Taskbar**
  - **Field Codes**
  - **Formatting Marks**
    - **Hidden Text**
    - **All**
  - **Print and Web Layout Options**
    - **Background Colors and Images (2003)**
- c. Select the **General** tab and clear the following:
- **Provide feedback with animation**
  - **Confirm conversion at Open**
  - **Update automatic links at Open**
  - **Mail as attachment**
  - **Automatically create drawing canvas when inserting AutoShapes**
  - **Allow starting in reading layout (2003)**
- d. Select the **Edit** tab and clear the following:
- **Editing options**
    - **Typing replaces selection**
    - **Drag-and-drop text editing**
    - **Use smart cursoring (2003)**
    - **Use smart paragraph selection**
    - **Use CTRL + Click to follow hyperlink**
    - **When selecting, automatically select entire word**
    - **Keep track of formatting**
    - **Show paste Options buttons**
  - **Cut and paste options**
    - **Smart cut and paste**

- e. Select the **Print** tab and clear the following:
  - **Printing Options**
    - **Update fields**
    - **Allow A4/Letter paper resizing**
    - **Background printing**
  - **Include With Document**
    - **Field Codes**
    - **Hidden Text**
    - **XML Tags (2003)**
    - **Background Colors and Images (2003)**
- f. Select the **Save** tab and clear the following:
  - **Allow fast saves**
  - **Allow background saves**
  - **Save AutoRecover info every:**
  - **Embed smart tags**
- g. Select the **Spelling & Grammar** tab and clear the following:
  - **Spelling**
    - **Check spelling as you type**
    - **Always suggest corrections**
  - **Grammar**
    - **Check grammar as you type**
    - **Check grammar with spelling**
- h. Select the **Track Changes** tab and do the following:
  - **Set Use Balloons (Print and Web Layout) to Never. (2003)**
  - **Clear Use Balloons in Print and Web Layout. (XP)**

### **To configure Microsoft Excel**

---

1. Configure Microsoft Office hyperlinks.

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

  - a. In Microsoft Excel, choose **Tools > Options**.
  - b. In the **General** tab click **Web Options**.
  - c. Select the **Files** tab.

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

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

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

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

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

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

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

2. Configure Microsoft Excel publishing requirements.
- a. In Microsoft Excel, choose **Tools > Options**.
- b. Select the **View** tab and clear the following options:
- **Startup Task Pane**
  - **Status Bar**
  - **Windows in Taskbar**
  - **List Data Validation (2003)**
- c. Select the **General** tab and clear the following:
- **Function tooltips**
- d. Select the **Edit** tab and clear the following:
- **Show Paste Options buttons**
  - **Show Insert Options buttons**
  - **Ask to update automatic links**
  - **Provide feedback with Animation**
- e. Select the **International** tab and clear the following:
- **Allow A4/Letter paper resizing**
- f. Select the **Save** tab and clear the following:
- **Save AutoRecover info every:**



- g. Select the **Error Checking** tab and clear the following:
- **Enable background error checking**
  - **List Data Validation (2003)**

### To configure Microsoft PowerPoint

---

1. Configure Microsoft Office hyperlinks.

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

- In Microsoft PowerPoint, choose **Tools > Options**.
- In the **General** tab click **Web Options**.
- Select the **Files** tab.
- Check the **Use long file names whenever possible** item.

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

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

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

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

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

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

2. Configure Microsoft PowerPoint publishing requirements.

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

- Show menu on right mouse click (2003)
  - Show popup menu button
  - Show popup toolbar (2003)
  - End with blank slide
- c. Select the **General** tab and clear the following:
- Provide feedback with sound to screen elements
- d. Select the **Edit** tab and clear the following:
- Show Paste Options buttons
  - Use smart cut and paste
  - When selecting, automatically select entire word
  - Drag-and-drop text editing
- e. Select the **Print** tab and clear the following:
- Background printing
- f. Select the **Save** tab and clear the following:
- Allow fast saves
  - Save AutoRecover info every:
- g. Select the **Spelling and Style** tab and clear the following:
- Check spelling as you type
  - Always suggest corrections

### To configure Microsoft Project

---

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

6. Select the **Spelling Options** tab and clear the following:
  - **Always suggest**

#### **To configure Microsoft Visio**

---

1. In Microsoft Visio, choose **Tools > Options**.
2. Select the **Save** tab and clear the following options:
  - **Prompt for document properties**
  - **Save preview with file**
  - **Show XML file save warnings (XP)**
  - **Show file save warnings (2003)**
  - **Show XML file open warnings (XP)**
  - **Show file open warnings (2003)**
3. Select the **Spelling** tab and clear the following:
  - **Check spelling as you type**
  - **Ignore words with number should be checked**

#### **To configure WordPerfect**

---

For information on these options, see your WordPerfect documentation.

1. In Corel WordPerfect, choose **Tools > Settings**.
2. Click **Environment**.
3. In the Environment Settings screen select the **Prompts** tab and clear the following:
  - **Confirm deletion of table formulas**
  - **[Beep] On hyphenation**
4. Select the **Interface** tab and do the following:
  - **Clear Quick Tips**
  - **Check [Save workspace (documents and windows layout)] **Never****
5. Click **OK**.
6. Click **Files**.
7. In the Files Settings screen, select the **Document** tab and clear the following:
  - **Timed document backup every**
  - **Use enhanced file dialogs**
8. Click **OK** and **Close** to close the Settings dialog box.

9. Clear the following:
  - **Tools > Proofread > Prompt-As-You-Go**
10. Select the following:
  - **Tools > Proofread > Off**
11. Choose **Tools > Workplace Manager...** and clear the following:
  - **Show at Startup**

#### **To disable the Corel Office DAD components**

---

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

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

## Task 3: Install Database Drivers on Content Engine

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

Rendition Engine may be configured to use a different database brand (i.e. MS SQL Server versus Oracle) than the CE/object store. In this case you must configure CE with the corresponding JDBC driver.

Depending on the Content Engine application server, do one of the following:

- “To install Database Drivers on Content Engine (WebSphere)” on page 37.
- “To install Database Drivers on Content Engine (WebLogic)” on page 40.
- “To install Database Drivers on Content Engine (JBoss)” on page 41.

### **To install Database Drivers on Content Engine (WebSphere)**

---

1. Install the JDBC driver for the RE database on Content Engine.
  - a. Designate an existing profile for Content Engine.
  - b. Navigate to Application servers > server1 > Java™ and Process Management > Java Virtual Machine.
  - c. Depending on your database, copy one of the following JDBC driver files to a directory on the WebSphere® machine:
    - (SQL Server) Obtain **sqljdbc\_1.1.1501.100\_enu.exe** from the Microsoft Download Center web site.
    - (Oracle) Obtain **ojdbc14.jar** from Oracle Software Downloads web site.

For example, you can copy the JDBC driver file to one of the following locations:

- (UNIX) **/opt/jars**
- (Windows) **C:\jars**

**CAUTION** Do not copy the JDBC driver file to either of the following directories.

- (UNIX) **...WebSphere/AppServer/lib/ext** (ensure that this directory is empty)
  - (Windows) **...WebSphere\AppServer\lib\ext** (ensure that this directory is empty)
- d. Start the WebSphere Administrative Console and log on to your profile.
  - e. Navigate to Environment > WebSphere Variables, and click **Cell**.
  - f. Depending on your database and the operating system of the WebSphere machine, create a JDBC parameter environment variable and set its value to the location you specified in

Step c, as shown in the following table (the JDBC parameter values shown in the table are only suggestions):

Database	Operating System	JDBC Parameter Name	Value
SQL Server	UNIX	MSSQLSERVER_JDBC_DRIVER_PATH	/opt/jars
SQL Server	Windows	MSSQLSERVER_JDBC_DRIVER_PATH	C:\jars
Oracle	UNIX	ORACLE_JDBC_DRIVER_PATH	/opt/jars
Oracle	Windows	ORACLE_JDBC_DRIVER_PATH	C:\jars

g. Save your changes to the master configuration, and then stop and start WebSphere Application Server.

2. Add the JDBC driver to the classpath.

**NOTE** The following procedure is written for WebSphere 6.0.x. Steps for the WebSphere 5.1.1 environment will be similar. Please consult your WebSphere 5.1.1 documentation for guidance.

- RE database is SQL Server
  - i. Start WebSphere Administrative Console.
  - ii. Expand the Resources node in the left-hand pane of the console, and click **JDBC Providers**.
  - iii. In the JDBC Providers screen, specify a node and server and then click **New**.
  - iv. In the General Properties section, specify the values in the following table and then click **Apply**:

Parameter	Value
Database type	User-defined
Provider type	User-defined JDBC Provider

Parameter	Value
Implementation type	User-defined
Name	A descriptive name for the JDBC provider (e.g. RE database JDBC provider)
Class path	\${MSSQLSERVER_JDBC_DRIVERPATH}/sqljdbc.jar
Implementation class name	com.microsoft.sqlserver.jdbc.SQLServerConnectionPoolDataSource
Statement Cache Size	0

- RE database is Oracle
  - i. Start WebSphere Administrative Console.
  - ii. In the JDBC Providers screen, specify a node and server and then click **New**.
  - iii. In the General Properties section, specify the values in the following table and then click **Apply**:

Parameter	Value
Database type	User-defined
Provider type	User-defined JDBC Provider
Implementation type	User-defined
Name	A descriptive name for the JDBC provider (e.g. RE database JDBC provider)
Class path	\${ORACLE_JDBC_DRIVER_PATH}/ojdbc14.jar
Implementation class name	oracle.jdbc.pool.OracleConnectionPoolDataSource
Statement Cache Size	0

3. Restart WebSphere.

## To install Database Drivers on Content Engine (WebLogic)

---

### 1. Install the JDBC driver for the RE database on Content Engine.

- RE database is SQL Server

Download Microsoft SQL Server Driver 2005 JDBC Driver from the Microsoft Download Center (<http://msdn.microsoft.com/data/ref/jdbc/>) to a directory *<jdbc\_path>* on your application server machine, such as:

- (UNIX) */opt/jars*
- (Windows) *C:\jars*

- RE database is Oracle

- Check to see if the Oracle JDBC Driver file is already on your WebLogic machine by searching for *ojdbc##.jar* in the *<wls\_install\_path>/server/lib* directory, where *<wls\_install\_path>* is the WebLogic Server installation path, such as *C:\bea\weblogic92*.
- If no Oracle JDBC Driver file is present, download the file (the one that matches the version of the JDK on your WebLogic machine) from the Oracle JDBC Driver Downloads web site ([http://www.oracle.com/technology/software/tech/java/sqlj\\_jdbc/index.html](http://www.oracle.com/technology/software/tech/java/sqlj_jdbc/index.html)) to a directory on the WebLogic machine.

**NOTE** If you intend to install AddOns (extensions to FileNet P8 core components), and your Content Engine database will be Oracle, your Oracle JDBC Driver file requirements may be more restrictive. For the required version and patch number, see the *IBM FileNet P8 Hardware and Software Requirements*. To download this document from the IBM support page, see [“Access IBM FileNet Documentation, Compatibility Matrices, and Fix Packs” on page 12](#).

### 2. Add the JDBC driver to the classpath.

- RE database is SQL Server

(Windows) Edit the file *startWebLogic.cmd* for the CE WebLogic domain, as follows:

- (WebLogic 8.1.5) Insert the following lines immediately after the JDBC information you added for the CE Oracle JDBC driver during CE installation:

```
set JDBC_MSSQL_PATH=<jdbc_path>\sqljdbc_1.0\enu\sqljdbc.jar
set CLASSPATH=%JDBC_MSSQL_PATH%;%LDAP_JAR%;%CLASSPATH%
```

- (WebLogic 9.2.x) Insert the following lines immediately after the JDBC information you added for the CE Oracle JDBC driver during CE installation:

```
set JDBC_MSSQL_PATH=<jdbc_path>\sqljdbc_1.0\enu\sqljdbc.jar
set CLASSPATH=%JDBC_MSSQL_PATH%;%CLASSPATH%
```

(UNIX) Edit the file *startWebLogic.sh* by inserting the following lines immediately after the JDBC information you added for the CE Oracle JDBC driver during CE installation:

```
JDBC_MSSQL_PATH=<jdbc_path>/sqljdbc_1.0/enu/sqljdbc.jar
CLASSPATH=$JDBC_MSSQL_PATH:$CLASSPATH
```



- RE database is Oracle.

Edit the file **startWebLogic.cmd** for the CE WebLogic domain by adding the following line immediately JDBC information you added for the CE MS SQL Server JDBC driver during CE installation.

(Windows)

```
set JDBC_PATH=<jdbc_path>\ojdbc##.jar
set CLASSPATH=%JDBC_PATH;%CLASSPATH%;
```

(UNIX)

```
set JDBC_PATH=<jdbc_path>/ojdbc##.jar
set CLASSPATH=%JDBC_PATH;%CLASSPATH%;
```

3. Restart WebLogic.

### To install Database Drivers on Content Engine (JBoss)

---

1. Install the JDBC driver for the RE database on Content Engine.

- RE database is SQL Server

Download Microsoft SQL Server Driver 2005 JDBC Driver from the Microsoft Download Center (<http://msdn.microsoft.com/data/ref/jdbc/>) to a directory **<jdbc\_path>** on your application server machine, such as:

- (UNIX) **/opt/jars**
- (Windows) **C:\jars**

- RE database is Oracle

Download the **ojdbc##.jar** file (the one that matches the version of the JDK on your JBoss machine) from the Oracle JDBC Driver Downloads web site ([http://www.oracle.com/technology/software/tech/java/sqlj\\_jdbc/index.html](http://www.oracle.com/technology/software/tech/java/sqlj_jdbc/index.html)) to a directory on the WebLogic machine, such as:

- (UNIX) **/opt/jars**
- (Windows) **C:\jars**

**NOTE** If you intend to install AddOns (extensions to FileNet P8 core components), and your Content Engine database will be Oracle, your Oracle JDBC Driver file requirements might be more restrictive. For the required version and patch number, see the *IBM FileNet P8 Hardware and Software Requirements*. To download this document from the IBM support page, see [“Access IBM FileNet Documentation, Compatibility Matrices, and Fix Packs” on page 12.](#)

2. Add the JDBC driver to the JBoss class loading architecture.

- RE database is SQL Server

Copy the **sqljdbc.jar** file from the installed location:

**<jdbc\_path>/Microsoft SQL Server 2005 JDBC Driver/sqljdbc\_1.1/enu/**

to the JBoss server lib directory:

***<jboss-dir>/server/myserver/lib***

- RE database is Oracle.

Copy the Oracle type 4 thin driver jar file (**ojdbc14.jar**) from the installed location:

***<jdbc\_path>***

to the JBoss server lib directory:

***<jboss-dir>/server/myserver/lib***

3. Restart JBoss.

# Installation Tasks

## To install Rendition Engine

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1. Install the RE software. Do [Task 4 “Install Rendition Engine”](#) on page 44.
2. Configure the publishing environment.
  - Do [Task 5 “Configure Rendition Engine Connection on Content Engine”](#) on page 52.
  - Do [Task 6 “Set the site preferences on the Application Engine to use path-based URLs”](#) on page 54.
  - Do [Task 7 “Enable word processing macros for rendering”](#) on page 55.
3. Verify the installation. Do [Task 8 “\(Optional\) Verify Installation”](#) on page 57.
4. Install RE service packs and fix packs. Do [Task 9 “Install Service Packs, Fix Packs and Interim Fixes for Rendition Engine”](#) on page 58.

## Task 4: Install Rendition Engine

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

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

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

### NOTES

- This task covers installation of the first RE in a Lipient Vista domain, and installation of a second and consecutive RE in the same domain to increase publishing throughput. If you intend to install more than one Rendition Engine in your environment, make sure that each installation is completed and that RE is configured before you start the next installation. For more information about adding additional RE servers to a Lipient Vista Domain, see the *FileNet P8 Platform Performance Tuning Guide*.
- During the installation, you might be prompted to install additional Microsoft software. Specifically, if the .NET Framework 1.1 or XML Parser 4.0 software is not already on your server, the Rendition Engine installer will do that installation. See ["Setup Status" on page 47](#).
- After installing RE you should confirm that the necessary macros have been installed to the external applications you plan to use for rendering. For information and procedures, see ["Enable word processing macros for rendering" on page 55](#).

**NOTE** If you install a word processing applications after you have installed Rendition Engine you must update the application with the required macro files. See ["To update applications installed after Rendition Engine" on page 56](#).

### To install Rendition Engine

---

1. Log on to the Rendition Engine server as the `<FNRE_Admin>` user.

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

2. If it isn't already running, start the `Print Spooler` Windows service.
3. Start the Rendition Engine setup wizard.
  - a. Access the IBM FileNet Rendition Engine installation package.
  - b. Launch the setup program (`\\installer\setup.exe`).

4. Complete the Setup screens as follows:

In this screen...	Perform this action...
Customer Information	Enter a value in the User Name and Company Name fields, select the <b>Anyone who uses this computer (all users)</b> option.
License Agreement	Review and accept the license agreement.
Choose Destination Location	Accept the default installation location or click <b>Browse</b> to select another location.  <b>NOTE</b> The installation program creates a Liquent directory at the selected location and installs the Records Manager software in this directory:  <b>&lt;RE_install_path&gt;\Liquent\</b>
Select the feature you want to install	Choose both <b>Administrative Tools</b> and <b>Framework</b> .
Vista License File	Browse to and select the Rendition Engine license file.  <b>NOTE</b> The license file <b>FileNetP8RenditionEngineLicense.xml</b> is located on the IBM FileNet Rendition Engine installation package in the <b>\Resources</b> folder.
Vista User Information	Enter the required information for the Vista User (<FNRE_Admin>).  <ul style="list-style-type: none"> <li>• <b>Domain:</b> This field defaults to the domain your server is a member of or to the server name of a standalone machine.</li> <li>• <b>User:</b> Enter the name of the &lt;FNRE_Admin&gt; user.  <b>NOTE</b> The User field defaults to the user account with which you logged in to the server.</li> <li>• <b>Password:</b> Enter the &lt;FNRE_Admin&gt; password in the password field.</li> <li>• <b>Confirm Password:</b> Confirm the &lt;FNRE_Admin&gt; password.</li> </ul>

In this screen...	Perform this action...
Add Server to an Existing Vista Domain	<p>Choose to leave the server as a stand alone device and create a new Lipient Vista domain or to add the server to an existing Lipient Vista domain.</p> <ul style="list-style-type: none"> <li>If this is the first Rendition Engine, choose <b>Leave as a stand alone Server</b>.</li> </ul> <p><b>NOTE</b> This will create a new Lipient Vista domain. Any additional Rendition Engine servers can later be joined to this Lipient Vista domain.</p> <ul style="list-style-type: none"> <li>If you are installing a second or consecutive Rendition Engine to use an already existing Lipient Vista domain, choose <b>Add to an Existing Vista domain</b>. Continue with <a href="#">“Start Copying Files” on page 47</a>.</li> </ul>
Vista Database Type	<p>Choose <b>SQL Server</b> or <b>Oracle 9/10</b>.</p> <p>Depending on your choice, you will be prompted for additional information appropriate on that database type.</p> <p><b>NOTE</b> MSDE and MS Access are not supported for Rendition Engine even though they are available in the installer interface.</p>
(SQL Server) SQL Server Database Information	<p><b>WARNING</b> If you enter invalid database user credentials and complete the Rendition Engine installation, you must correct these using the Domain Manager before you attempt to use Rendition Engine. For more information, see the <i>FileNet P8 Help</i> topic <a href="#">FileNet P8 Administration &gt; Enterprise-wide Administration &gt; Publishing &gt; How to... &gt; Change the Rendition Engine database password</a>.</p> <p>Enter the database information:</p> <ul style="list-style-type: none"> <li><b>Machine:</b> Enter or browse for the machine name where the SQL Server database will be created. If you plan to use a named instance rather than the default instance, you must enter this value: <code>&lt;db server name&gt;\&lt;instance name&gt;</code></li> <li><b>Database:</b> Enter the database name to be created for Rendition Engine use.</li> </ul> <p><b>CAUTION</b> If this is an upgrade, you cannot use a database that was used for an earlier version of Rendition Engine software. You must identify a new database.</p> <ul style="list-style-type: none"> <li><b>User:</b> Enter the <code>&lt;SQL Login&gt;</code> user name.</li> <li><b>Password:</b> This is the <code>&lt;SQL Login&gt;</code> user’s password.</li> </ul>

In this screen...	Perform this action...
(Oracle 9/10) Oracle Database Information	<p><b>WARNING</b> If you enter invalid database user credentials and complete the Rendition Engine installation, you must correct these using the Domain Manager before you attempt to use Rendition Engine. For more information, see the <i>FileNet P8 Help</i> topic <a href="#">FileNet P8 Administration &gt; Enterprise-wide Administration &gt; Publishing &gt; How to... &gt; Change the Rendition Engine database password</a>.</p> <p><b>NOTE</b> There is a warning on this screen that you must already have the Vista database tables created. All necessary tables were created when you executed the <b>Oracle-repository.sql</b> script earlier. See <a href="#">“To create a tablespace for Rendition Engine” on page 26</a>.</p> <p>The user name and password requested here are the ones you assigned when you ran that script.</p> <p>Enter the database information:</p> <ul style="list-style-type: none"> <li>• <b>Service:</b> Enter the Oracle service name to use with Rendition Engine.</li> </ul> <p><b>CAUTION</b> If this is an upgrade, you cannot use a database that was used for an earlier version of Rendition Engine software. You must identify a new database.</p> <ul style="list-style-type: none"> <li>• <b>User:</b> Enter the name of the &lt;VISTAUSER&gt;.</li> <li>• <b>Password:</b> Enter the password of the &lt;VISTAUSER&gt;.</li> </ul>
Start Copying Files	Confirm your selections.
Setup Status	<p>The progress bar indicates the status of your installation.</p> <p><b>NOTE</b> At this stage the installer will check for required Microsoft software (.NET Framework 1.1 or XML Parser 4.0). If the required software is not installed, the Rendition Engine installer will perform the necessary installations.</p> <p>Follow the instructions in the installation wizards that the Rendition Engine installer launches.</p>

In this screen...	Perform this action...
<p>(Add to an Existing Vista Domain only) Move Repository to another domain</p>	<p>If you selected Add to an Existing Vista Domain in “<a href="#">Add Server to an Existing Vista Domain</a>” on page 46, the installer prompts you for information about the existing Ligent Vista domain.</p> <p>Specify the machine or the database that hosts the Ligent Vista domain that the Rendition Engine will connect to.</p> <ul style="list-style-type: none"> <li>• Machine                     <p><b>Name:</b> Select the machine name of the existing Rendition Engine that hosts the existing Ligent Vista domain, or browse to find the server on the network.</p> </li> <li>• Database                     <p><b>Database Type:</b> Select the database type used by the existing Ligent Vista domain.</p> <ul style="list-style-type: none"> <li>– SQL Server/MSDE:                             <ul style="list-style-type: none"> <li>• <b>Machine:</b> Enter or browse for the machine name hosting the SQL Server database for the existing Ligent Vista domain.</li> <li>• <b>Database:</b> Enter the database name of the existing Ligent Vista domain.</li> <li>• <b>User:</b> Enter the &lt;SQL Login&gt; user name.</li> <li>• <b>Password:</b> This is the &lt;SQL Login&gt; user’s password.</li> </ul> </li> <li>– Oracle:                             <ul style="list-style-type: none"> <li>• <b>Oracle Service Name:</b> Enter the Oracle service name to use with Rendition Engine.</li> <li>• <b>Oracle user name:</b> Enter the &lt;VISTAUSER&gt; user name.</li> <li>• <b>Oracle user’s password:</b> Enter the password of the &lt;VISTAUSER&gt; user.</li> </ul> </li> </ul> <p><b>Test Database:</b> Click to test the connection to the database.</p> <p><b>Create Tables:</b> (Do not use this option) The database has already been created.</p> <p><b>NOTE</b> The information you enter here must be the same as the information you entered when you installed the first Rendition Engine.</p> </li> </ul>
<p>Reboot Request</p>	<p>When the file-copy process has completed, select <b>Yes, I want to restart my computer now</b>, and click <b>Finish</b>.</p>



5. When the Rendition Engine server has restarted, log on using the <FNRE\_Admin> account.
6. Create a Java Repository on the Content Engine server.

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

- a. On the Rendition Engine server, navigate to Start > Programs > Liquent > Domain Manager to launch the Domain Manager.
- b. Select **File > Add Repository...** menu, and click **Yes** in the confirmation pop-up to verify that you intend to add a repository to this domain.
- c. In the "New Repository Properties" dialog box, complete the following fields:
  - **Machine:** Enter the CE Machine name in the "machine" entry field.
  - **Platform (drop-down):** Select "java" in the "Platform" drop-down list.
  - **Notify Port:** Keep the default value or type in a new value.
  - **Event Port:** Keep the default value or type in a new value.
  - **Admin Port:** Keep the default value or type in a new value.
  - **File Transfer Port:** Keep the default value or type in a new value.

**NOTE** Use the default values in the port fields unless you are collocating RE and CE, in which case you must make sure these ports are unique and are not clashing with existing CE ports. For a list of the default values, see ["FileNet P8 Port Numbers" on page 74](#).

- d. Confirm the new repository by selecting **File > Save** and clicking **Yes** in the confirmation pop-up to verify that you intend to make these changes to the database.
7. (Optional) Set the Rendition Engine Purge and Archive Intervals.

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

- a. On the Rendition Engine server, navigate to Start > Programs > Liquent > Domain Manager to launch the Domain Manager.
- b. In the Configuration tab, right-click the **Domain** node and select **Properties**.
- c. In the **General** tab of the Domain Properties dialog box, set the Purge (Default: 7 days) and Archive (Default: 1 day) intervals to suit your environment.

8. Configure the BusinessServiceServer service.

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

- a. Navigate to Start > All Programs > Administrative Tools > Services.
- b. Right-click **BusinessServiceServer** and select **Properties**.
- c. Verify that the Startup type is set to **Automatic**, and then **Stop** the service if it is running.
- d. Select the **Log On** tab.

- e. Select **This account** and click **Browse**.
- f. For the “Look in” field, leave it at the local server or select the correct domain.
- g. Select the proper Rendition Engine user account (<FNRE\_Admin>).

**NOTE** Windows cannot set the XML Printer for Rendition Engine as the default printer unless you set the Rendition user account (<FNRE\_Admin>) for the BusinessServiceServer service.

- h. Enter and confirm the <FNRE\_Admin> user password, and click **Apply**.

**NOTE** Confirm that the account has been granted the *Log On As A Service* right.

- i. Select the **General** tab, and click **Start** to start the service.
- j. Click **OK** to close the BusinessServiceServer Properties window.
- k. **Close** the **Services** application.

9. Set security on the VistaTempDir shared folder.

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

- a. On the Rendition Engine server, use Windows Explorer to navigate to the temp folder defined for the server (typically **drive:\WINDOWS\Temp** on Windows 2003).

**NOTE** Rendition Engine uses a standard Windows call to check, in order, the environment variables *TMP*, *TEMP*, and *USERPROFILE* for the correct value for the Windows temp folder, and places the VistaTempDir folder in this directory.

If no temp folder is set, Rendition Engine will use the Windows program directory.

- b. Right-click the \VistaTempDir folder and select **Properties**.
- c. In the VistaTempDir Properties screen, verify that the \VistaTempDir folder is shared. If not, select the **Sharing** tab and select **Share this folder**.
- d. Select the **Security** tab and click **Advanced**.

**NOTE** A missing Security tab usually means that the drive where the \VistaTempDir folder is located is not a Windows NTFS partition. See [“You must install Rendition Engine on a server that has an NTFS drive partition.” on page 14.](#)

- e. In the Access Control Settings for VistaTempDir screen, clear **Allow inheritance permissions**, and then click **Remove** in the security confirmation pop-up.
- f. In the Access Control Settings for VistaTempDir screen, click **Add**.
- g. In the Select User or Group screen, leave the “Look in” at the local server or select the correct domain.
- h. Select the proper Rendition Engine user account (<FNRE\_Admin>).
- i. In the Permission Entry for VistaTempDir, give the account all access rights.
- j. In the Access Control Settings for VistaTempDir screen, click **OK**.
- k. In the VistaTempDir Properties screen, click **OK**.

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

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

## Task 5: Configure Rendition Engine Connection on Content Engine

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

1. Set up Rendition Engine Connection (REC) on the Content Engine.
  - a. Launch Enterprise Manager as a <GCD administrator user>. See [“Authentication Requirements” on page 20](#).
  - b. Right-click the **Enterprise Manager [<p8 domain>]** node and select **Properties**.
  - c. In the Enterprise Manager [<p8 domain>] Properties screen, select the **Publishing** tab.
  - d. Verify that the **Enable Dispatcher** checkbox is checked.
  - e. In the Select Rendition Engine Connection Field, click **New**.

The Create Rendition Engine Connection wizard opens.

In this screen...	Perform this action...
Specify the Site	Select the site you want to associate with this connection.
Name and Describe the Rendition Engine Connection	Enter a name and description for your new connection.
Configure the Database	<p>Enter the specifics for connecting to the Rendition Engine Database. MSSQL default port address is 1433. Username is the database connection username.</p> <p><b>Database Type:</b> Select MSSQL or Oracle</p> <p><b>Database Server Name:</b> Enter the name of the database server.</p> <p><b>Database Name:</b> Enter the database name (Microsoft SQL Server) or the Service name (Oracle).</p> <p><b>Database Server Port:</b> Enter the server port used by the database. For default ports, see <a href="#">“FileNet P8 Port Numbers” on page 74</a>.</p> <p><b>Username:</b> Type in the &lt;SQL Login&gt; (Microsoft SQL Server) or Oracle user name (Oracle). See <a href="#">“To create an Oracle database” on page 26</a>.</p> <p>Click <b>Create</b>.</p>

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

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

## Task 6: Set the site preferences on the Application Engine to use path-based URLs

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

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

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

### To configure the path-based URL parameter

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

## Task 7: Enable word processing macros for rendering

### To enable word processing macros for rendering

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

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

#### 1. Confirm and enable the Microsoft Word macro

- a. Open Microsoft Word.

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

- b. Select the option **Always Trust macros from this publisher**.

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

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

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

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

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

- g. Close Microsoft Word.

#### 2. Confirm and enable Corel WordPerfect

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

- espsdtoc.wcm
- espsdtoc11.wcm
- espsdtoc12.wcm
- espsdtoc2k.wcm
- espsdtoc9.wcm
- espsrsym.wcm
- espsrsym11.wcm
- espsrsym12.wcm
- espsrsym2k.wcm

- espsrsym9.wcm
- generate.wcm
- removehf11.wcm
- removehf12.wcm
- removehf2k.wcm

**NOTE** Perform these procedure on each repository in a domain.

3. Confirm and enable Adobe FrameMaker

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

- esfmdde.dll

**To update applications installed after Rendition Engine**

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

The Configure Applications dialog box opens.

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

2. If the box isn't checked (the macro(s) isn't installed), check the check box next to the application and click **OK**.
3. Choose **File > Save** to save your changes.
4. Reopen the dialog box and confirm that a check mark appears to the left of the check box of the application you updated.
5. Continue with ["Enable word processing macros for rendering" on page 55](#) for your application.



## Task 8: (Optional) Verify Installation

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

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

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

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

### To verify RE installation

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#### 1. Create Publishing Templates.

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

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

#### 2. Add and publish a test document.

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

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

## Task 9: Install Service Packs, Fix Packs and Interim Fixes for Rendition Engine

Install any Service Packs, Fix Packs, and/or Test Fixes required for Rendition Engine.

### **To install the Rendition Engine software updates**

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1. To download the latest software updates, and to determine which of these updates might be required for use with other components and expansion products, review the list of releases and their associated dependencies in the *IBM FileNet Compatibility Matrix* on the Information Management support page ([www.ibm.com/software/data/support/](http://www.ibm.com/software/data/support/)). See “[Access IBM FileNet Documentation, Compatibility Matrices, and Fix Packs](#)” on page 12.
2. Open the readmes for the following software updates and perform the installation procedures provided:
  - a. P8RE-4.0.1 Service Pack (or later)
  - b. Any subsequent Test Fixes (typically optional)

## *Upgrade Planning and Procedures*

This upgrade section contains the following major tasks:

- [“Plan the Upgrade” on page 60.](#)
- [“Upgrade Tasks” on page 63.](#)

## Plan the Upgrade

Information for upgrading the Rendition Engine from the 3.5.x release to the 4.0.0 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 4.0.0 does not use the publishing plugin. This component is uninstalled as part of the CE upgrade.

**NOTES** FileNet recommends that you 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.

## General Requirements

In addition to the general requirements for FileNet P8 RE 4.0.0 that are listed in [“Installation Planning Considerations” on page 12](#), the following requirements apply when you upgrade an existing RE 3.5.x system to version 4.0.0.

## Third-Party Native Applications

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

## Network Considerations

Ensure the availability of required port numbers. For a composite list of port numbers required for FileNet P8 4.0.0, see [“FileNet P8 Port Numbers” on page 74](#).

## Database Considerations

### *Updating Database Software*

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

### **Oracle Clients**

Ensure you have applied appropriate Oracle patches to Oracle clients and servers. Be sure that clients remote to an Oracle database engine have the same patches as the database server. Oracle clients include any machines remote from the Oracle database server where Rendition Engine software is installed. Install all required Oracle patches, as specified in the *FileNet P8 Hardware and Software Requirements*. To download this guide from the IBM support page, see [“Access IBM FileNet Documentation, Compatibility Matrices, and Fix Packs” on page 12](#).

## ***RE Database***

You will need to identify a new database for use by the 4.0.0 version of Rendition Engine. You cannot use existing databases after the upgrade. FileNet recommends that you delete the old database and create a new one as part of the upgrade procedure. See [“Uninstall Previous Version of Rendition Engine” on page 66](#) and [“Upgrade Rendition Engine” on page 68](#).

**NOTE** If you decide to not delete the old database you must:

- (Microsoft SQL Server) Configure the new database using a new name.
- (Oracle) Configure the new tablespace with a new name and a new <VISTAUSER> user.

## Upgrade Overview

This section provides details that will help you prepare your environment for the upgrade of Rendition Engine. In many cases, the items you see are links to more detailed information, which will help you plan a system upgrade. Please review this information thoroughly before you start to upgrade FileNet P8 components or required third-party software.

### NOTE

- 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 to arrange a possible Professional Services engagement.
- The upgrades described in the guide assume that you will:
  - retain your basic platform configuration from the previous release.
  - make no changes to user or group definitions during the upgrade.
  - apply only the necessary supported software updates and patches, as noted in this guide and in the *FileNet P8 Hardware and Software Requirements* document.

# Upgrade Tasks

## To upgrade the Rendition Engine components

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1. Gather required information. Do [Task 1 “Gather Pre-upgrade Information”](#) on page 64.
2. Prepare your servers for upgrade. Do [Task 2 “Uninstall Previous Version of Rendition Engine”](#) on page 66.
3. Install RE. Do [Task 3 “Upgrade Rendition Engine”](#) on page 68.
4. Install RE fix packs and interim fixes. Do [Task 4 “Install Service Packs, Fix Packs and Interim Fixes for Rendition Engine”](#) on page 69.

# Task 1: Gather Pre-upgrade Information

## Database Engine

- Note your current Database Instance Names, NLS, and character set configurations.
- You cannot use existing databases for the upgrade. You must identify new databases for use by the 4.0.0 version of Rendition Engine.

## Content Engine

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

**NOTE** In RE 4.0.0, publishing is configured per site rather than per object store. Object stores that will be used for publishing must be configured with the Publishing addons. By default, these are added when you create an object store, custom stores that aren't configured with these add-ons may exist. If necessary you can manually add the add-ons using FileNet Enterprise Manager.

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

**CAUTION** If your current publishing templates use VBScript Event Actions, these must be rewritten in Java before they can be used for RE 4.0.0. Furthermore, the Java class must be located on the server; it cannot be on a client and streamed to the server for execution as for CE 3.5.x. The rewrite must be done after the upgrade and before you start using RE. For more information on how to rewrite the event actions in Java, see the FileNet P8 Help topic [FileNet P8 Administration > Content Engine Administration > Events and subscriptions > How to... > Work with event actions](#).

## 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 17](#).
- Verify the security settings for the Rendition Engine temporary directory.

## Before You Begin the Upgrade

- Be sure to read the “What’s New” topic in the *FileNet P8 Platform Release Notes*. Many of the new features may be interesting for your implementation of FileNet P8 Platform. To download this guide from the IBM support page, see [“Access IBM FileNet Documentation, Compatibility Matrices, and Fix Packs” on page 12](#).



- Make sure the site has restorable backups of system and data, in case you need to back out of the upgrade. For details on what to back up for FileNet P8 components, see the *FileNet P8 Help* topic [Enterprise-wide Administration > Back up and Restore FileNet P8](#).
- In some cases it may be necessary for FileNet Engineering and Support personnel to access the system for support. To facilitate such access, we request that you implement a reliable remote access method.
- Before you begin the upgrade:
  - Make sure no users or processes are accessing the FileNet P8 system.
  - Complete any pending publishing jobs.
  - Disable scheduled automated backups.
  - Disable virus scanning.

## Task 2: Uninstall Previous Version of Rendition Engine

Before you can install the 4.0.0 version of Rendition Engine, you must uninstall the previous version of the software.

### To uninstall the 3.5.x version of Rendition Engine

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1. Back up your existing installation.

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

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

2. Uninstall existing Lipient Vista Component Server server software.

You must uninstall the existing Lipient Vista Component Server software from all Rendition Engine 3.5.x servers before upgrading (re-installing) the publishing components for 4.0.0.

**NOTE** The publishing plug-in components are uninstalled as part of the CE 4.0.0 upgrade and do not need to be removed.

- a. Log on to the server as *<FNRE\_Admin>*.
- b. Stop the Vista Component Server **BusinessServiceServer** service before you uninstall the software.
- c. Navigate to Start > Settings > Control Panel and double-click **Add/Remove Programs**.
- d. Select **FileNet P8 Rendition Engine 3.0.0a/3.5.1** and click **Change/Remove**.
- e. Follow the screen prompts to remove the Vista Component Server software.
- f. Navigate to Start > Settings > Control Panel and double-click **Printers**.
- g. On the Printers window, delete the printer Lipient XML Printer. Then select **File > Server Properties**.
- h. On the Print Server Properties dialog box, select the **Ports** tab and delete the local ports that point to **C:\Program Files\Common Files\Lipient\liquent.xml** and **C:\Program Files\Lipient\Vista\ESPS.PS**.
- i. Select the **Drivers** tab, remove the printer driver **Lipient XML Printer**.
- j. (If you uninstalled an RE version prior to 3.0.0a/3.5.1) Run the Vista cleanup tool.

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

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

**\Resources\Lipient\Unsupported Apps\Xtent2.0\VistaCleanUtility.exe**

On your RE 4.0.0 installation media:

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

k. Reboot the server.

3. Verify Removal of Native Application Macros.

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

- cdmacros.dot

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

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

4. (Optional) Remove the existing RE database.

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

**CAUTION** (Oracle) If you choose to create new databases using new names, you must modify the entries in the **Oracle-Repository.sql** script with the new information. See [“To create an Oracle database” on page 26](#).

## Task 3: Upgrade Rendition Engine

1. Verify that all requirements in [“Prerequisite Tasks” on page 22](#) and its subtasks have been met.

Of specific interest is:

- Create a new Rendition Engine database.

When you upgrade, you cannot use an existing Rendition Engine database. When you install and configure the new software, you must also identify a new database for use.

- For Microsoft SQL server, the database will be created by the installer.
- For Oracle, you must create the database before you install RE. See [“To create an Oracle database” on page 26](#).

2. (Optional) Upgrade native applications.

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

3. Install the 4.0.0 version of Rendition Engine.

Follow the tasks listed in [“Installation Tasks” on page 43](#) to install Rendition Engine.

## Task 4: Install Service Packs, Fix Packs and Interim Fixes for Rendition Engine

Install any service packs, fix packs or interim fixes required for RE. To determine whether additional fixes are needed, contact your service representative

## ***Remove Software***

This topic includes:

- [“Remove a Rendition Engine from a Lquent Vista domain” on page 71](#)
- [“Remove Rendition Engine Software from a Rendition Engine” on page 71.](#)

## Remove a Rendition Engine from a Lquent Vista domain

To uninstall an existing Rendition Engine 4.0.0, 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. Launch the Domain Manager application.
3. Select the **Configuration** tab in the left navigation pane. Then expand **Domain** and **Repositories** to view the server machines in the domain.
4. Click the machine name to be removed from the Lquent Vista domain.
5. Select **Delete** from the **Edit** menu.
6. Confirm the deletion and select **Save** from the **File** menu.

## Remove Rendition Engine Software from a Rendition Engine

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

1. Log on to the Rendition Engine server as *<FNRE\_Admin>*.
2. Stop the **BusinessServiceServer** Windows service prior to uninstalling the software.
  - a. Navigate to Start > Settings > Control Panel.
  - b. Double-click **Administrative Tools**.
  - c. Double-click **Services**.
  - d. Double-click **BusinessServiceServer**.
  - e. Click the **Stop** button.
3. Remove the Rendition Engine software.
  - a. Navigate to Start > Settings > Control Panel.
  - b. Double-click **Add/Remove Programs**.
  - c. Select **FileNet P8 Rendition Engine 4.0.0** and click **Change/Remove**.
  - d. Follow the screen prompts to remove the software. At the final screen, click **Finish**.
4. Remove the printers.
  - a. Navigate to Start > Settings > Control Panel. Double-click **Printers**.
  - b. On the Printers window, select **File > Server Properties**.

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

**<Drive>:\Program Files\Liquent\filenet\liquent.xml**

**<Drive>:\Program Files\Liquent\filenet\ESPS.PS**

- d. Select the **Drivers** tab and remove the printer driver **Liquent XML Printer**.
5. Verify removal of native application macros.

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

- cdmacros.dot

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

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

6. Reboot the server.
7. Verify that the Vista software has been removed.
  - a. Navigate to Start > Settings > Control Panel.
  - b. Double-click **Add/Remove Programs**.
  - c. Verify that the FileNet P8 Rendition Engine 4.0.0 entry and the Vista entry have been removed.
  - d. If the Vista entry is still there, remove it.
    - i. Select the Vista entry and click **Change/Remove**.



- ii. Follow the screen prompts to remove the software.
- iii. At the final screen, click **Finish**, and reboot the server.
- e. Verify that all files are removed from **C:\Program Files\Liquent** and **C:\Program Files\Common Files\Liquent**.

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

- f. Verify that the LIQUENT key has been removed.
  - i. Select Start > Run.
  - ii. Type `Regedit`.
  - iii. Navigate to `HKEY_LOCAL_MACHINE\SOFTWARE`.
  - iv. Verify that the LIQUENT key has been removed.

**NOTE** If the LIQUENT key is there, delete it.

- g. Reboot the server.

## *FileNet P8 Port Numbers*

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

<b>Rendition Engine Ports</b>	
Liquent notify port	2868
Liquent event port	2869
Liquent admin port	2870
Liquent file transfer port	2871
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Oracle	1521

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