







## Installation and Upgrade Guide

**Note**

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

This edition applies to version 4.0.1 of IBM FileNet Process Analyzer (product number 5724-R76) and to all subsequent releases and modifications until otherwise indicated in new editions.

© **Copyright International Business Machines Corporation 2001, 2009.**

US Government Users Restricted Rights – Use, duplication or disclosure restricted by GSA ADP Schedule Contract with IBM Corp.

## Typographical Conventions

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

	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>FileNet P8 Platform Installation and Upgrade Guide</i> ).
< <i>italic</i> >	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 path names 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® Process Analyzer 4.0.0 release.

	Revision
03/09	Updated requirements for "<PA Administrator>" on page 13.
03/08	<p>Process Analyzer 4.0.1 release.</p> <p>Added section "Access IBM FileNet Documentation, Compatibility Matrices, and Fix Packs" on page 10.</p> <p>Updated user requirements in "Security" on page 13.</p> <p>Added support for MS SQL Server 2005 in "To install and configure Microsoft SQL Server 2005" on page 19, in "To install SQL Server Client 2005" on page 21, and throughout the document.</p> <p>Added upgrade task "(Optional) Upgrade MS SQL Server 2000 to version 2005." on page 43.</p> <p>Added section "Encrypt Passwords for Silent Installations and Upgrades" on page 48.</p>
06/07	<p>Updated "About this Document" on page 8 with documentation feedback information.</p> <p>Added procedure "Install Microsoft SQL Server 2000 Analysis Services add-on." on page 21.</p>
03/07	<p>The topic "Users required at runtime" on page 13 was updated with requirements for the "&lt;PEDatabaseUserNameForPA&gt;" on page 14 if Process Engine runs on DB2® or MS SQL Server.</p> <p>The topic "Encrypt Passwords for Silent Installations and Upgrades" on page 48 was updated to include instructions for encrypting passwords on silent installations.</p>
12/06	Initial revision of the <i>FileNet Process Analyzer Installation and Upgrade Guide</i> for release 4.0.0.

# Table of Contents

<b>Typographical Conventions</b> .....	<b>5</b>
<b>Revision Log</b> .....	<b>6</b>
<b>About this Document.</b> .....	<b>8</b>
<b>Installation Planning and Procedures</b> .....	<b>9</b>
Installation Planning Considerations .....	10
Software Requirements .....	11
Security .....	13
Task 1: Install Process Analyzer documentation .....	16
Task 2: Install Microsoft SQL Server .....	17
Task 3: Install Microsoft SQL Server Client software .....	21
Task 4: Install Process Analyzer Engine .....	23
Task 5: Install Process Analyzer Client .....	31
Task 6: Install Process Analyzer Software Updates .....	36
<b>Upgrade Planning and Procedures</b> .....	<b>37</b>
Upgrade Overview .....	38
Upgrade Planning Considerations .....	38
Gather Pre-upgrade Information .....	39
Prerequisite Tasks .....	40
Task 1: Upgrade Process Analyzer Documentation .....	41
Task 2: Upgrade Process Analyzer Engine .....	42
Task 3: (Optional) Upgrade MS SQL Server 2000 to version 2005 .....	43
Task 4: Upgrade Process Analyzer Client .....	45
Task 5: Install Process Analyzer Software Updates .....	46
<b>Remove Software</b> .....	<b>47</b>
<b>Encrypt Passwords for Silent Installations and Upgrades</b> .....	<b>48</b>
<b>Index</b> .....	<b>49</b>
<b>Notices</b> .....	<b>51</b>
Trademarks .....	53

## About this Document

Installation by a FileNet Certified Professional (FCP) Recommended. For more information on the FCP program, contact your IBM service representative.

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 10](#).

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 Process Analyzer (PA) to its current released version. Be aware that each release of a FileNet P8 component or expansion product may have multiple Service Packs, Hotfix Packs, or patches available for installation, each with potentially different dependencies and installation requirements. Therefore, before you attempt to install or upgrade PA, review the list of releases and their associated dependencies in the *p8400PatchDependency.xls* document 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 10](#).



# *Installation Planning and Procedures*

This installation section contains the following major topics:

- [“Installation Planning Considerations” on page 10](#)
- [Task 1 “Install Process Analyzer documentation” on page 16](#)
- [Task 2 “Install Microsoft SQL Server” on page 17](#)
- [Task 3 “Install Microsoft SQL Server Client software” on page 21](#)
- [Task 4 “Install Process Analyzer Engine” on page 23](#)
- [Task 5 “Install Process Analyzer Client” on page 31](#)
- [Task 6 “Install Process Analyzer Software Updates” on page 36](#)

## Installation Planning Considerations

This section lists details that will help you prepare your environment for the installation of PA on a FileNet P8 system. In many cases, the items are links to more detailed information which will help you plan a system rollout of this expansion product. Review this information thoroughly before you start to set up associated FileNet P8 components or required third-party software.

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

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

---

1. Navigate to the Information Management support page ([www.ibm.com/software/data/support](http://www.ibm.com/software/data/support)).
2. Select the appropriate FileNet product from the Select a category list.
3. From the Product Support page, under Learn, click **Product documentation**.
4. From the Product Documentation page:
  - a. If necessary, click the **Doc Link** for the appropriate component product to display the document list.
  - b. Click the icon in the appropriate release column to access the document you need.

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

---

1. Navigate to the Information Management support page ([www.ibm.com/software/data/support](http://www.ibm.com/software/data/support)).
2. Select the appropriate IBM FileNet product from the Select a category list.
3. From the Product Support page, under Download, click **Fix Packs by version**.
4. From the Fix Pack page:
  - a. Click **Matrix** to access the compatibility matrix.
  - b. Click the release number to access the fix pack you need.

### ***Gather Required Documentation***

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

**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 10.

- *IBM FileNet Process Analyzer Installation and Upgrade Guide*. This document; provides details for the installation, upgrade, and configuration of the core components for the FileNet P8 system.
- *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 Process Analyzer*

*Installation and Upgrade Guide* assumes you have met all applicable requirements listed in that document.

- *IBM FileNet P8 Platform Installation and Upgrade Guide*. This document provides details for the installation, upgrade, and configuration of the core components for the FileNet P8 system.
- *IBM FileNet P8 Platform Release Notes*. This document provides details on new features, known issues, and resolved problems.
- *IBM FileNet P8 Platform Troubleshooting Guide*. This document provides troubleshooting information on all aspects of the product.

## Software Requirements

### Active Directory

(If you are using Active Directory) The Microsoft® SQL Server must be in the same Active Directory forest as the PA server.

### Server Time Synchronization

Ensure that the following components are in the same time zone and synchronized to the same time:

- PA Engine
- PA database
- Process Engine (PE)

### Ports

- See the *FileNet P8 Platform Installation and Upgrade Guide* for information on required ports for PA and other FileNet P8 system components.
- PA requires a static TCP/IP port number for the PA database instance.

The port number is required during PA installation.

### Process Analyzer

- There are two typical use cases for PA.
  - Production PA is for analyzing data from a production system. In addition, production PA can provide production input data to Process Simulator (PS).
  - Simulation PA is for analyzing simulation data, and it is populated with output from Process Simulator.
- Before you install PA, be aware that IBM FileNet does not support:

- Using a single PA for both production and simulation activity, or storing both production data and simulation data in the same database.
- Collocating PS and PA where PA is used in a production context. Collocation of PS and PA is supported where PA is used in a simulation context.

## Database

- The PA setup program automatically creates the following two databases.
  - The PA database (VMAEDM).
  - The OLAP database (VMAE).

**NOTE** If PA is configured with a named database instance, the name of the OLAP database is VMAE\_<database\_instance\_name>. For example, if the database instance name is “inst1,” the OLAP database name is VMAE\_inst1. For more information, see [“Instance name.” on page 17.](#)

- Ensure that PA database files are on an NTFS-formatted drive.

The PA database files can grow large over time. To allow the file sizes to grow beyond 4GB, the database file must be located on a drive that is formatted as NTFS.

- You can use a local or remote database for PA.

The database engine is *local* if it is installed on the same server that you install the PA Engine software. The database is *remote* if it is on a separate server from PA using that database.

- For performance reasons FileNet does not recommend collocating the PE and PA databases.

## Additional software requirements

Follow the installation or upgrade tasks provided in this manual to install a new 4.0.1 PA or upgrade an existing 4.0 PA to 4.0.1. After your system is successfully running 4.0.1, follow the procedures in [“Install Process Analyzer Software Updates” on page 36](#) to apply any required fix packs.

## Installation Modes

PA Engine software can be installed interactively or silently. To install silently, a response file containing configuration information is needed by the installer.

A sample response file is supplied with the PA installer. See [“To install Process Analyzer Engine software silently” on page 24.](#)

## Security

### *Users required for MS SQL installation*

To install SQL Server, you need a local user with administrator privileges on the computer where the database will be installed.

### *Users required for Process Analyzer installation*

Create or identify the following user:

<PA Installer>

This user must:

- be local or domain Windows user belonging to the local Administrators group on the computer where PA Engine will be installed.

**NOTE** If the database is remote from the PA server, you must use a domain user.

- be added as a SQL Login user with the following MS SQL server roles:
  - Database Creators
  - Bulk Insert Administrators
  - System Administrators
- have administrative privileges on the Online Transaction Analysis Processing (OLAP) database. For instructions, see [“To create a Windows user with administrative privileges on the Online Transaction Analysis Processing \(OLAP\) database.”](#) on page 15.

### *Users required at runtime*

Create or identify the following users:

- <PA Administrator>

This user must:

- be a local or domain Windows user who has write access on the local computer (where the PA Engine will be installed).

**NOTE** If the database is remote from the PA server, you must use a domain user.

- have administrative privileges on the Online Transaction Analysis Processing (OLAP) database. For instructions, see [“To create a Windows user with administrative privileges on the Online Transaction Analysis Processing \(OLAP\) database.”](#) on page 15.
- be added as a SQL Login user with the following SQL Server roles:
  - System Administrators

- *<PA DB Administrator>*

**NOTE** Use *<PA DB Administrator>* as the *TextForDBUser* user when configuring the response file for silent installations. For information, see [“To install Process Analyzer Engine software silently” on page 24](#) and [“Encrypt Passwords for Silent Installations and Upgrades” on page 48](#).

This user must be a MS SQL database user with:

- the following MS SQL database privileges on the SQL Server PA database (VMAEDM) database:
  - db\_owner
  - ddl\_admin
- the following MS SQL database role on the SQL Server PA database (VMAEDM) database:
  - Bulk Insert Administrators

- *<PEDatabaseUserNameForPA>*

This user is required to configure the PE database connection. See [“Configure Connection to Process Engine.” on page 29](#).

This user must be created as:

- MS SQL Server
  - a user with read and write privileges on the PE database tables.
- Oracle
  - a user with the following privileges on the PE database:
    - SELECT privilege on all PE database tables and views
    - SELECT, INSERT, and UPDATE privileges on the vwpaeventstate database table
    - SELECT ANY DICTIONARY privilege
- DB2®
  - Use the Process Engine runtime user (f\_sw or its alias) or a database administrator account.

**CAUTION** FileNet recommends that you change the default “Database User Name” for PA database access. For information, see [“Configure Connection to Process Engine.” on page 29](#).

For information about the required permissions and how to create this database user, see the *FileNet P8 Help* topic [FileNet P8 Administration > Enterprise-wide Administration > Process Task Manager > Process Analyzer > Configure Process Analyzer > Database Properties](#), and look for the table entry Database User Name.

- *<PA Client Database User>*

The Windows (local or domain) user you use to log on to the PA Client server must have permission to access the OLAP cubes on the Process Analyzer database server for the client to be able to connect to the PA OLAP database (VMAE).

## To create a Windows user with administrative privileges on the Online Transaction Analysis Processing

For more information on how to configure the <PA Client Database User> see ["To grant access rights to the Process Analyzer OLAP database" on page 31](#) and ["Configure the PA Client." on page 34](#).

Depending on how your environment is set up, either of the following scenarios could apply:

- (If the database server and PA Client server belong to the same LDAP domain) Give the domain user or group access to the OLAP cubes on the database server
- (If the database server and PA Client server do not belong to the same domain) Create a duplicate of the client user on the database server, and give the user access to the OLAP cubes.

**CAUTION** When you create the duplicate user, you must create a user with the same user name and password as is used for the Windows logon to the PA Client server.

### To create a Windows user with administrative privileges on the Online Transaction Analysis Processing (OLAP) database.

---

- (For MS SQL Server 2000) Add the user as a member of the OLAP Administrator group.
 

**NOTE** The OLAP Administrator group assignment will take place during MS SQL installation. See ["Verify that the <PA Installer> user has been given administrative privileges on the Online Transaction Analysis Processing \(OLAP\) database." on page 20](#).
- (For MS SQL Server 2005) Add the user to the server role within SQL Server 2005 Analysis Services (SSAS)
  - a. Open SQL Server Management Studio.
  - b. In the Connect to Server window, connect to the instance of SQL Server 2005 Analysis Services that you are using.
  - c. In Object Explorer, right-click your SQL Server 2005 Analysis Services instance name, and select **Properties**.
  - d. On the Analysis Services Properties page, in the Select a page pane, click **Security**.
 

**NOTE** Users and Groups that are members of the server role will appear in a list.
  - e. Click **Add**.
  - f. In the Select Users or Groups page, go to the "Enter the object names to select" field and enter the name of the Shared Services Provider (SSP) account that you are adding to the server role.
 

**NOTE** Click **Check Name** to verify that the account exists.
  - g. Click **OK**.

## Task 1: Install Process Analyzer documentation

Process Analyzer is an expansion product on IBM FileNet P8 Platform; therefore you must add the associated PA documentation to an existing installation of the IBM FileNet P8 Platform Help. This action makes PA help available to your users and enables context-sensitive help from the product user interface.

For details and instructions on installing expansion product documentation, see the latest version of the *IBM FileNet P8 Platform Installation and Upgrade Guide*. Pay special attention to the “Install expansion product documentation” subtopic in the “Install IBM FileNet P8 documentation (<your application server>).” task

**CAUTION** You can install only the 4.0 version of PA documentation on an existing IBM FileNet P8 Platform 4.0 documentation server.



## Task 2: Install Microsoft SQL Server

This task uses third-party software. Be sure to read all pertinent documentation from the third-party software vendor. Contact your system/network/database administrator with third-party vendor or environment questions before you continue.

Depending on your configuration, complete either of the following procedures:

- [“To install and configure Microsoft SQL Server 2000” on page 17](#)
- [“To install and configure Microsoft SQL Server 2005” on page 19](#)

### NOTES

- Configure the MS SQL Server database for Mixed Mode authentication.
- The PA setup program automatically creates the PA database. No manual steps are required.
- During the MS SQL Server installation, record the values for the following settings. You will use this information during PA Engine installation in [“\(Remote Database\) Specify the Database Configuration Parameters” on page 25](#) or [“\(Local Database\) Specify the Database Configuration Parameters” on page 26](#).
  - Server name.
  - Instance name.
  - Static TCP/IP port assigned to the database instance. See [“Ports” on page 11](#).
  - Name and password of the <PA DB Administrator> user that PA will use to access the database. See [“Users required at runtime” on page 13](#).

### To install and configure Microsoft SQL Server 2000

---

In addition to the following instructions, refer to Microsoft’s SQL Server 2000 installation instructions.

1. Log on as a local user with administrator privileges on the computer where the database will be installed. See [“Users required for MS SQL installation” on page 13](#).
2. Create a database instance for use by PA software, or verify that such an instance already exists.

Use the Instance name you decided on in [“Instance name.” on page 17](#).

3. Verify a Custom Microsoft SQL Server installation.
4. On the Services Accounts dialog box, choose **Use the same account**. Under Service Setting, choose **Use the Local System account**.
5. Verify that the authentication is set to **Mixed Mode**.
6. Provide an sa password for your site.

7. Select one of the following database collations:

- **Dictionary order, case-insensitive, for use with 1252 Character Set** (or any case-insensitive SQL Server collation). Case-insensitive collation is the Microsoft default and the setting most used in FileNet P8 environments (because it offers search results without regard to character case).
- **Dictionary order, case-sensitive, for use with 1252 Character Set** (or any case-sensitive SQL Server collation). Select case-sensitive SQL Server collation only if you are sure your site requires (and will continue to require) searches that must differentiate upper-case from lower-case characters (in property choice lists, folder names, and so on.).

**CAUTION** Select your SQL Server collation setting carefully. Switching collation settings after installation can be difficult and time-consuming, especially if you want to switch from case-sensitive to case-insensitive collation after significant user activity. Also, be aware that if you have a case-sensitive database and you want to perform a case-insensitive search programmatically or otherwise, you will likely encounter serious performance degradation on SQL Server because the database cannot use column indexes in these cases.

8. Define a static port number.

See [“Ports” on page 11](#).

**NOTE** If the PA database instance is the only instance on the server, you can accept port 1433 (default value) in the TCP/IP port number box. Otherwise, you must assign a non-conflicting static port number for the PA database instance.

9. Install Microsoft SQL Server 2000 Analysis Services add-on.

FileNet PA does not require any specific configuration settings when you install Microsoft SQL Server 2000 Analysis Services. Refer to Microsoft’s SQL Server 2000 installation instructions.

**CAUTION** If you are using a remote database for PA you must install Microsoft SQL Server 2000 Analysis Services on both the database server and the PA server. See [“Install Microsoft SQL Server 2000 Analysis Services add-on.” on page 21](#).

**NOTE** This is an add-on to the SQL Server software included with the SQL Server media.

10. Download and install any required Microsoft SQL Server 2000 Service Packs, as indicated in *FileNet P8 Platform Hardware and Software Requirements*.

11. Restart the server.

12. Add the *<PA Installer>* user to the OLAP Administrators group.

Depending on your environment, this can be done in either of the following two ways:

- Local database
  - Add the *<PA Installer>* user to the local OLAP Administrator group.
- Remote database
  - (If the database server and PA Engine server belong to the same domain and *<PA Installer>* user is a domain user) Add the domain *<PA Installer>* user to the local OLAP Administrators group on every server on which you have installed Microsoft SQL Server 2000 Analysis Services.

- (If the database server and PA Engine server do *not* belong to the same domain) Create a duplicate of the <PA Installer> user on the database server.

Using the local user management tool, create a user with the same name and password as the <PA Installer> user created on the PA server.

Add the <PA Installer> user to the local OLAP Administrator group on every server on which you have installed Microsoft SQL Server 2000 Analysis Services.

13. (If the PA database will be remote from the PA Engine) Continue with [“To install SQL Server Client 2000” on page 21](#).
14. (If the database will be local) Continue with [Task 4 “Install Process Analyzer Engine” on page 23](#).

### To install and configure Microsoft SQL Server 2005

---

In addition to the following instructions, refer to Microsoft’s SQL Server 2005 installation instructions.

1. Log on as a local user with administrator privileges on the computer where the database will be installed.
2. In the Components to Install screen, at a minimum, select the following components:
  - SQL Server Database Services
  - Analysis Services
  - Workstation Components, Books Online and development tools
3. In the Instance Name screen, create a database instance for use by PA software, or verify that such an instance already exists.
4. In the Service Account screen, choose **Use the built-in System account**, and select **Local System** from the drop-down menu.
5. In the Authentication Mode screen:
  - Verify that authentication mode is set to **Mixed Mode**.
  - Provide an sa password for your site.
6. In the Collation Settings screen:

Select one of the following database collations:

- **Dictionary order, case-insensitive, for use with 1252 Character Set** (or any case-insensitive SQL Server collation). Case-insensitive collation is the Microsoft default and the setting most used in FileNet P8 environments (because it offers search results without regard to character case).
- **Dictionary order, case-sensitive, for use with 1252 Character Set** (or any case-sensitive SQL Server collation). Select case-sensitive SQL Server collation only if you are sure your site requires (and will continue to require) searches that must differentiate upper-case from lower-case characters (in property choice lists, folder names, and so on.).

**CAUTION** Select your SQL Server collation setting carefully. Switching collation settings after installation can be difficult and time-consuming, especially if you want to switch from case-

sensitive to case-insensitive collation after significant user activity. Also, be aware that if you have a case-sensitive database and you want to perform a case-insensitive search programmatically or otherwise, you will likely encounter serious performance degradation on SQL Server because the database cannot use column indexes in these cases.

7. Define a static port number.

If the PA database instance is not the only instance on the server, you must assign a non-conflicting static port number for the PA database instance using SQL Server Configuration Manager. For information, see your *MS SQL Server Documentation*.

8. Download and install the required Microsoft SQL Server 2005 Service Packs, as indicated in *FileNet P8 Platform Hardware and Software Requirements*.
9. Restart the server.
10. Verify that the <PA Installer> user has been given administrative privileges on the Online Transaction Analysis Processing (OLAP) database.

See the subtopic "(For MS SQL Server 2005) Add the user to the server role within SQL Server 2005 Analysis Services (SSAS)" of "[To create a Windows user with administrative privileges on the Online Transaction Analysis Processing \(OLAP\) database.](#)" on page 15

11. (If the PA database will be remote from the PA Engine) Continue with "[To install SQL Server Client 2005](#)" on page 21.
12. (If the database will be local) Continue with [Task 4 "Install Process Analyzer Engine"](#) on page 23.

## Task 3: Install Microsoft SQL Server Client software

If the PA database is remote from the PA server you must install the Microsoft SQL Server Client software on the PA Engine server.

Depending on your configuration, complete either of the following procedures:

- “To install SQL Server Client 2000” on page 21
- “To install SQL Server Client 2005” on page 21

### **To install SQL Server Client 2000**

---

1. Install the SQL Server Client software.
  - a. Log on to the PA server with an account that has local administrator privileges.
  - b. Install the SQL Server Client software using the following options:
    - On the Installation Selection dialog box, choose **Create a new instance of SQL Server, or install Client Tools**.
    - On the Installation Definition dialog box, choose **Client Tools Only**.
    - Accept the defaults for the rest of the installation.
  - c. When the installation is complete, click **Start > Programs > Microsoft SQL Server > Client Network Utility**.
  - d. On the **DB-Library Options** tab, clear **Automatic ANSI to OEM conversion**.
2. Install Microsoft SQL Server 2000 Analysis Services add-on.

FileNet PA does not require any specific configuration settings when you install Microsoft SQL Server 2000 Analysis Services. Refer to Microsoft’s SQL Server 2000 installation instructions.

**NOTE** This is an add-on to the SQL Server software included with the SQL Server media.
3. Download and install the required Microsoft SQL Server 2000 Service Pack, as indicated in the *FileNet P8 Platform Hardware and Software Requirements*.
4. Verify the connection between the SQL Server Client installation and the database machine.

At a command prompt type:

```
isql -E -S <servername>[\<instance_name>]
```

If the connection fails, be sure to resolve the problem before you proceed.

### **To install SQL Server Client 2005**

---

1. Install the SQL Server Client software.
  - a. Log on to the PA server with an account that has local administrator privileges.

- b. Install the SQL Server Client software using the following options:
  - In the Components to Install screen, select **Workstation Components, Books Online and development tools**.
  - In the Feature Selection dialog, select the following Client Components:
    - Connectivity Components
    - Management Tools
  - Accept the defaults for the rest of the installation.
2. Download and install the required Microsoft SQL Server 2005 Service Pack, as indicated in the *FileNet P8 Platform Hardware and Software Requirements*.
3. Verify the connection between the SQL Server Client installation and the database machine.

At a command prompt type:

```
sqlcmd -E -S <servername>[\<instance_name>]
```

If the connection fails, be sure to resolve the problem before you proceed.

## Task 4: Install Process Analyzer Engine

The installation of PA Engine requires changes to the configuration of PE, Application Engine (AE), and the database server, as well as on the computer where PA Engine is installed. The required configuration changes are presented below. Perform the tasks in the order they are presented.

### *Collect the required information*

Before you install and configure the PA Engine, collect the information you will need during installation and configuration:

- The documentation server URL.
- The path to the Microsoft SQL Server JDBC driver install location.  
Depending on your configuration, see:
  - See [“To install the Microsoft SQL Server JDBC 2000 SP4 driver” on page 24](#) below.
  - See [“To install the Microsoft SQL Server JDBC 2005 1.2 driver” on page 24](#) below.
- The dedicated TCP/IP port number of the SQL Server database instance that the PA Engine will use.
  - If you are installing SQL Server specifically for PA, you assigned the port number in [“Define a static port number.” on page 20](#).
  - If you are using a shared database instance, use the following procedure to determine the TCP/IP port number.

#### **To find the port number on MS SQL Server 2000**

- i. On the SQL Server machine, open SQL Server Enterprise Manager.
- ii. Display the database instance properties.
- iii. Click **Network Configuration** on the **General** tab.
- iv. Select **TCP/IP** in Enabled protocols, and click **Properties**.

#### **To find the port number on MS SQL Server 2005**

- i. Open the Microsoft SQL Server 2005 program group and open “Configuration Tools”.
  - ii. Then select “SQL Server Configuration Manager”.
  - iii. Expand the “SQL Server 2005 Network Configuration” leaf.
  - iv. Select “Protocols for MSSQLSERVER” or your Named Instance and double click “TCP/IP” and select the “IP Address” tab.
  - v. In the TCP/IP Properties dialog box locate the “TCP Port” to see what TCP/IP port is being used.
- The name of the database server, if PA is configured with a remote database.
  - The name of the database instance, if PA is configured with a non-default database instance.

- (MS SQL 2005) The name of the Analysis Services instance, if Analysis Services is configured as a named instance.
- The <PA DB Administrator> user ID and password for the PA database instance. This is the user created in “Users required at runtime” on page 13.

---

#### To install the Microsoft SQL Server JDBC 2000 SP4 driver

If the Microsoft® SQL Server™ JDBC 2000 SP4 driver is not already installed on your system, download and install it from <http://www.microsoft.com>.

**NOTE** To complete the PA installation, enter the path to the Microsoft® SQL Server™ JDBC 2000 SP4 driver install location, see “Configure JDBC Driver” on page 26.

---

#### To install the Microsoft SQL Server JDBC 2005 1.2 driver

If the Microsoft® SQL Server™ JDBC 2005 1.2 driver is not already installed on your system, download and install it from <http://www.microsoft.com>.

**NOTE** To complete the PA installation, enter the path to the Microsoft® SQL Server™ JDBC 2005 1.2 driver install location, see “Configure JDBC Driver” on page 26.

---

#### To install Process Analyzer Engine software silently

A sample response file for the PA Engine installation is located on the installation media in the PA Engine directory. The filename is **InstResponse.txt**.

To install silently, change directories to the temporary location for the contents of the PA Engine directory. Verify that the response file is in that directory. Execute the following command at a command prompt:

```
P8PA-4.0.1.exe -silent -options <responseFileName> -G overwriteJVM="yes"
```

where the responseFileName is the .txt file containing the responses you want to use for the installation.

**NOTE** The *TextForDBPassword* connected with the *TextForDBUser* is required to silently install FileNet P8 Process Analyzer Engine. Use the <PA DB Administrator> user when configuring this user and password. This password must be encrypted before you enter it in the silent installation resource files. For instructions, see “Encrypt Passwords for Silent Installations and Upgrades” on page 48.

When the installation is complete, check the following log files to verify that the installation was successful.

- **PAInstalllog.txt**
- **PAServiceInstalllog.txt**

---

#### To install Process Analyzer Engine Software interactively

1. Ensure that the database instance and analysis services that the PA Engine will use are running.



2. Log on as the <PA Installer> user, as defined in [“Additional software requirements” on page 12](#).
3. Access the IBM FileNet Process Analyzer 4.0.1 software package.
4. Launch the Setup program (**P8PA-4.0.1-Engine.exe**, located in the **PAEngine** directory) to start the installation process.

In this screen...	Perform this action...
License Agreement	Review and accept the license agreement.
Specify Installation Location	Choose the destination drive and directory for Process Analyzer Engine software.
Specify the Documentation URL	<p>Enter the Documentation URL, which is where the FileNet P8 Platform Documentation is installed. Your entry must be in the following format:</p> <p><code>http://&lt;docserver:port#&gt;/&lt;ecm_help&gt;</code></p> <p>where:</p> <ul style="list-style-type: none"> <li>• <i>docserver</i> is the name of the Java™ web server.</li> <li>• <i>port#</i> is the port number.</li> <li>• <i>ecm_help</i> is the root folder of the documentation website. You can use multi-part root folders (for example, <b>/docs/ecm_help</b>) if your application server supports them.</li> </ul>
Specify Installation Location for Common Files	<p>Choose the destination directory for configuration files that will be shared with other FileNet P8 components.</p> <p>Accept the default location or click <b>Browse</b> to change the location.</p>
Specify the Database Location	Indicate whether the database will be local or remote.
(Remote Database) Specify the Database Configuration Parameters	<p>Enter the name of the remote database server.</p> <p>Enter the name of the instance to be used by PA. Leave the field blank if the default instance is to be used; otherwise enter the name of the instance that was created in <a href="#">“Install Microsoft SQL Server” on page 17</a>.</p> <p>Enter the static TCP/IP database port number that was assigned in <a href="#">“Install Microsoft SQL Server” on page 17</a>.</p> <p>Enter the database user name and password. This is the name of the &lt;PA DB Administrator&gt; created in <a href="#">“Users required at runtime” on page 13</a>.</p>

In this screen...	Perform this action...
(Local Database) Specify the Database Configuration Parameters	<p>Enter the name of the instance to be used by PA. Leave the field blank if the default instance is to be used; otherwise enter the name of the instance that was created in <a href="#">“Install Microsoft SQL Server” on page 17</a>.</p> <p>Enter the static TCP/IP database port number that was assigned in <a href="#">“Install Microsoft SQL Server” on page 17</a>.</p> <p>Enter the database user name and password. This is the name of the <i>&lt;PA DB Administrator&gt;</i> created in <a href="#">“Users required at runtime” on page 13</a>.</p>
(MS SQL 2005 only) Specify the Analysis Services Configuration Parameters	<p>Enter the Analysis Services Instance Name.</p> <p>Leave blank if you are using the default instance.</p>
Configure JDBC Driver	Enter the Microsoft SQL Server JDBC 2000 SP4 or Microsoft SQL Server JDBC 2005 1.2 driver classname and classpath.
Specify Process Analyzer Usage	Indicate whether PA will be used to analyze production or simulation data.
Choose an Application Server	Select the application server and version used by Content Engine.

In this screen...	Perform this action...
Content Engine API Configuration	<p>Configure the Content Engine API as follows:</p> <ol style="list-style-type: none"> <li>a. Transport Method           <p>Select <b>WSI</b> from the drop-down list.</p> </li> <li>b. Content Engine Client Software URI           <p>Replace the sample server name and http port number (<i>CEserver.example.com:7001</i>) with the CE server name and http port number that PE will connect to.</p> <p>The port number depends on which application server CE is installed on.</p> <p>For example:</p> <ul style="list-style-type: none"> <li>• WebSphere@:               <pre>http://hqcomp2:9080/wsi/FNCEWS40DIME</pre> </li> <li>• WebLogic:               <pre>http://hqcomp1:7001/wsi/FNCEWS40DIME</pre> </li> <li>• JBoss:               <pre>http://hqcomp3:8080/wsi/FNCEWS40DIME</pre> </li> </ul> <p><b>CAUTION</b> Do not change any other default values in the the remainder of the string.</p> </li> </ol>
Install JVM	If prompted, click <b>Yes</b> to install a JVM in the installation directory.
Installation Summary	<p>Read and verify the installation summary information.</p> <p>Click <b>Install</b> if the information is correct, or click <b>Back</b> to make changes.</p>
Select Software Components to Start	Select the software components that should be started when the PA installation is complete.
Complete the Installation	<p>When the installation is complete and the selected software has been started, click <b>Finish</b> to exit the installation program.</p> <p><b>NOTE</b> In addition to installing PA Engine, the Setup program creates the PA and OLAP databases, see <a href="#">“Database” on page 12</a>. This process could take several minutes to complete.</p>

5. When the installation is complete, check the following log files to verify that the installation was successful.
  - **PAInstalllog.txt**
  - **PAServiceInstalllog.txt**

**To configure PA**

---

1. Configure PA Engine.
  - a. From the Windows Start menu, navigate to Programs > FileNet P8 Platform > Process Analyzer > Process Task Manager.
  - b. Schedule data warehouse pruning and cube processing.
    - i. Select the **Process Analyzer** node and click the **Scheduler** tab.
    - ii. Choose the desired scheduling options for the cube processing and pruning events.  
Configure any additional PA options on the remaining tabs as needed. For information on the PA tabs, see [FileNet P8 Administration > Enterprise-wide Administration > Process Task Manager > Process Analyzer > Configure the Process Analyzer](#).
  - c. Click **Apply** to save and apply your changes.
2. (If you installed PA silently or if PA will use a remote database) Configure the PA database.
  - a. From the Windows Start menu navigate to Programs > FileNet P8 Platform > Process Analyzer > Process Task Manager.
  - b. Select the **Process Analyzer** node and click the **Database** tab; then select the **Process Analyzer Database** tab.
  - c. Verify the values for the following fields:
    - Verify the Database Port.
    - Verify the Database User Name (<PA DB Administrator>).
    - Re-enter the Database Password (password for <PA DB Administrator>).
  - d. Click **Apply** to save and apply your changes.
  - e. (If the database is remote) Configure the following services to log on as the <PA Administrator>.

Service (MS SQL 2000)	Service (MS SQL 2005)	Location
Process Analyzer Services Manager	Process Analyzer Services Manager	Process Analyzer Engine
MSSQLServer	SQL Server	database server
MSSQLOLAPServer	SQL Server Analysis Services	database server

- f. (If the database is remote) On the PA Engine server, create a shared Temp directory and grant full access rights on the folder to the <PA Administrator>. Full access rights should be set on the Security and Sharing tabs.
- g. (If the database is remote) In Process Task Manager, specify the path for the shared Temp directory in UNC format.
  - i. On PA Engine, navigate to Start > Programs > FileNet P8 Platform > Process Analyzer > Process Task Manager.
  - ii. Select the **Process Analyzer** node and then select the **General** tab.
  - iii. In the Temp Directory (UNC) field, enter the path to the shared Temp directory in UNC format. For example;  

```
\\pa_server\temp
```

where “pa\_server” is the name of the PA Engine server and “temp” is the name of the shared Temp directory you created.

### 3. Configure Application Engine.

- a. Log on to Workplace.

If you defined a Process Engine configuration group on the Security tab of Process Task Manager (when completing the “Configure Process Task Manager” task in the *IBM FileNet P8 Platform Installation and Upgrade Guide*), you must log on as a member of either that group or the Process Engine Administrators Group, which was also defined on the Security tab, in order to complete the following steps.

- b. In Workplace, click **Admin** and then click **Process Configuration Console**.
- c. Select the icon of the appropriate VWSservice and click **Properties** on the toolbar.
- d. On the Runtime Options tab, enable the Process Analyzer.

For details, in Process Configuration Console, see the *IBM FileNet P8 Help* topic [Workplace > Admin Tools > Process Configuration Console > VWServices > Modify VWServices Properties > Set runtime options](#).

- e. Click **OK**.

### 4. Configure Connection to Process Engine.

- a. Navigate to Programs > FileNet P8 Platform > Process Analyzer > Process Task Manager from the Windows Start menu.
- b. Select the **Process Analyzer** node in the left panel.
- c. Select the **Database** tab and then the **Process Engine Database** sub tab.

Enter or verify the following information. For more information on how to fill out these fields, see the *IBM FileNet P8 Help* topic [FileNet P8 Administration > Enterprise-wide Administration > Process Task Manager > Configure Process Analyzer > Database Properties](#).

**NOTE** If you selected “simulation data” in “Specify Process Analyzer Usage” on page 26 to configure this installation of PA for analysis of simulation data only, instead of actual database values you can enter dummy values for the following fields.

- Database Type - The type of database that PE is using.
  - Database Host - The name of the server where the PE database is installed. In the case of a clustered database server, enter the virtual server name.
  - Database Port - The port used by the PE database.
  - Database Name - The name of the PE database.
  - Database User Name - The P8 user name used to connect to the database. For PA you should use `<PEDatabaseUserNameForPA>` defined in [“Users required at runtime” on page 13](#).
  - Database Password - The password associated with the `<PEDatabaseUserNameForPA>` user.
  - JDBC Driver Name - The name of the JDBC driver used to access the PE database.
  - JDBC Driver Classpath - The location of the JDBC .jar files used by the JDBC driver.
- d. Select the **General** tab, and configure the following parameters for the connection to Content Engine:
- Content Engine URI
  - Service username
  - Service password

**NOTE** If you selected “simulation data” in [“Specify Process Analyzer Usage” on page 26](#) to configure this installation of PA for analysis of simulation data only, instead of actual database values you can enter dummy values for these fields.

For more information about these fields, see the *FileNet P8 Help* topic [FileNet P8 Administration > Enterprise-wide Administration > Process Task Manager > Configure Process Analyzer > General Properties](#), and look for the table entry Database User Name.

- e. Click **Apply** to save your changes.
- f. Click **Data Fields** in the feature panel for PA Engine.
- g. Click **Connect** to test the connection to Process Engine and Content Engine. If the connection fails here, verify the values entered above.

#### NOTES

- This does not test the connection to the Process Engine database.
  - The Connect button is not enabled if PA is already running.
5. Start the Process Analyzer services from the Process Task Manager by right-clicking **Process Analyzer** and selecting **Start**.

## Task 5: Install Process Analyzer Client

PA client software consists of out-of-the-box reports and templates. You can install PA client in a single location that multiple end users will access or on each end user workstation. The determining factors should be the number of end users who will access the reports and the sophistication of the end users.

### To install prerequisite software

---

All PA Client machines and all end user workstations that will access the out-of-the-box reports or that will create reports must have:

- Microsoft Excel with query analyzer (MS Query) and pivot table support installed.  
For Excel version requirements, see the *FileNet P8 Platform Hardware and Software Requirements*. See Microsoft documentation for instructions on how to install and configure Microsoft Excel.
- MS SQL Server add-ons:
  - MS SQL Server 2000:
    - Microsoft SQL Server 2000 PivotTable Services
  - MS SQL Server 2005:
    - Microsoft Core XML Services (MSXML) 6.1
    - Microsoft SQL Server 2005 Analysis Services 9.0 OLE DB Provider.

**NOTE** These add-ons are available for download from Microsoft. For details, see *IBM FileNet P8 Platform Hardware and Software Requirements*.

### To grant access rights to the Process Analyzer OLAP database

---

Before anyone can use the system, you must grant access to the PA OLAP database. Use the Microsoft Analysis Manager (MS SQL Server 2000) or Microsoft SQL Server Management Studio (MS SQL Server 2005) to create roles and assign users. See “<PA Client Database User>” on [page 14](#) and the online help for the MS SQL Server for more information and detailed instructions.

**CAUTION** Use this procedure only as a guide to creating roles because each site's security requirements differ.

1. Log on to the PA database server as the user with administrative rights on MS SQL Server.
2. (If the database server and PA Client server do *not* belong to the same domain) Create a duplicate of the client user on the database server.

Using the local user management tool, create a user with the same name and password as the user that will log on to the PA Client server.

3. Grant access rights to the Process Analyzer OLAP database

#### **(MS SQL Server 2000) To grant access rights using Microsoft Analysis Manager**

- a. Go to Start > Microsoft SQL Server > Analysis Service > Analysis Manager.

- b. Expand Analysis Servers > <SQL Server name> > VMAE\_<database\_instance\_name>.

**NOTE** If you are using the default instance, no instance name is appended.

- c. Right-click **Database Roles** and select **Manage Roles**.

- d. Give the user access to the OLAP cubes.

- i. Click **New** in the Database Role Manager screen that opens.

- ii. Enter the following information:

- Role Name - Give a descriptive name for the role.
- Description - Describe how the role will be used.
- Enforce on - Select **Client**.

- iii. Select the **Membership** tab.

- iv. Click **Add**.

- v. Select one of the following in the Add Users and Groups dialog box:

- The local user you just created.
- A domain user or group of users used to log on to the PA Client server.

- vi. Click **Add**.

**NOTE** If you want to add more than one user or group, you must add them separately by repeating [Step iv](#) through [Step vi](#).

- vii. Click **OK**.

- viii. Select the **Cubes** tab.

- ix. Click **Check All**.

- x. Click **OK**.

- xi. Click **Close** in the Database Role Manager screen.

**(MS SQL Server 2005) To grant access rights using Microsoft SQL Server Management Studio**

- a. Go to Start > Programs > Microsoft SQL Server 2005 > SQL Server Management Studio.

- b. Connect to your analysis services instance.

- c. Expand Databases > VMAE\_<database\_instance\_name>.

**NOTE** If you are using the default instance, no instance name is appended.

- d. Right-click **Roles** and select **New Role....**

- e. Give the user access to the OLAP cubes.

- i. Enter the following information:

- Role Name - Give a descriptive name for the role.
- Description - Describe how the role will be used.



- ii. Set the database permissions for this role to be Full control (Administrator).
- iii. Click **OK**.

**To install Process Analyzer Client software silently**

---

A sample response file for the PA Client installation is located on the installation media in the PA Client directory. The filename is **InstResponse.txt**.

To run silent install, change directories to the temporary location for the contents of the PA Client directory. Verify that the response file is in that directory.

Execute the following command at a command prompt:

```
P8PA-4.0.1-Client.exe -silent -options <responseFileName>
```

where the responseFileName is the .txt file containing the responses you want to use for the installation.

When the installation is complete, check the log files to verify that the installation was successful.

**To install and Configure Process Analyzer Client software interactively**

---

1. Access the IBM FileNet Process Analyzer 4.0.1 software package.

Launch the Setup program (**PA-4.0.1-Client.exe**, located in the **PAClient** directory) to start the installation process..

In this screen...	Perform this action...
License Agreement	Review and accept the license agreement.
Specify Installation Location	Choose the destination drive and directory for PA Client software.
Specify the Documentation URL	<p>Enter the Documentation URL, which is where the FileNet P8 Platform Documentation was installed. Your entry must be in the following format:</p> <pre>http://&lt;docserver:port#&gt;/&lt;ecm_help&gt;</pre> <p>where:</p> <ul style="list-style-type: none"> <li>• <i>docserver</i> is the name of the Java web server.</li> <li>• <i>port#</i> is the port number.</li> <li>• <i>ecm_help</i> is the root folder of the documentation website. You can use multi-part root folders (e.g., <b>/docs/ecm_help</b>) if your application server supports them.</li> </ul>
Installation Summary	Read and verify the installation summary information. Click <b>Install</b> if the information is correct, or click <b>Back</b> to make changes.

In this screen...	Perform this action...
Complete the Installation	When the installation is complete and the selected software has been started, click <b>Finish</b> to exit the installation program.

2. Configure the PA Client.

**NOTES**

- If you are logged in as a user that is not an *<PA Client Database User>*, you must now log out, and then log back in as a *<PA Client Database User>* before you proceed.
- Instead of storing the reports on each individual server, you can make them available to remote workstations by sharing the drive where the reports are located on the network, saving the reports to a network drive, or saving the reports to an object store.

If you take one of these actions, you must:

- Verify that the prerequisite software is installed on each end-user’s workstation. See [“To install prerequisite software” on page 31](#) for details.
- Point the end users to the location of the reports.
- Point the end users to the *Process Analyzer User Guide*. See the *IBM FileNet P8 Help* topic [Expansion Products > Process Analyzer > Process Analyzer User Guide](#) (also available on the client server by navigating to Start > Programs > FileNet P8 Platform > Process Analyzer > Process Analyzer User Guide).

3. (If you need to start the configuration tool after you log on as a *<PA Client Database User>*) From the Start menu, navigate to Programs > FileNet P8 Platform > Process Analyzer > Process Analyzer Client Configuration Tool.

4. Enter the name of the server where the PA database is located. Depending on whether the PA Engine has a local or remote database, your entry is the name of:

- the server where the PA Engine software was installed
- or
- the remote database server used by the PA Engine

5. Enter the Database Instance Name.

If the PA Engine uses a named instance of the database, enter the name of that instance. If the default database instance is used, no entry is required.

6. Enter the Analysis Services Instance Name.

**NOTE** This field requires a value only when installing on MS SQL Server 2005 with a non-default Analysis Service. If you are installing on MS SQL Server 2000 or installing on MS SQL Server 2005 with the default instance you can leave the field empty.

7. Verify that the folder where you store your reports is listed in the Report Folder field.

**NOTE** By default, the field contains the location where Setup installed the out-of-the-box reports. If your reports are stored in another folder, enter the path to this folder here.

8. Click **Configure**.

The Client Configuration Tool configures the out-of-the-box reports by configuring the data connection in all Excel spreadsheets in all folders one level below the indicated folder. The progress of the configuration appears in the Results box.

**NOTE** Following configuration, on the PA client machine you can view and modify the sample reports or create new reports. For details, see the *IBM FileNet P8 Help* topic [Expansion Products > Process Analyzer > Process Analyzer User Guide](#) (also available on the client server by navigating to Start > Programs > FileNet P8 Platform > Process Analyzer > Process Analyzer User Guide).

9. Select **File > Exit** to close the Client Configuration Tool.

## Task 6: Install Process Analyzer Software Updates

Install any service packs, fix packs and/or interim fixes required for Process Analyzer. To determine whether such additional software updates are needed, contact your service representative.

## ***Upgrade Planning and Procedures***

This upgrade section contains the following major topics:

- [“Upgrade Overview” on page 38](#)
- [“Prerequisite Tasks” on page 40](#)
- [Task 1 “Upgrade Process Analyzer Documentation” on page 41](#)
- [Task 2 “Upgrade Process Analyzer Engine” on page 42](#)
- [Task 3 “\(Optional\) Upgrade MS SQL Server 2000 to version 2005.” on page 43](#)
- [Task 4 “Upgrade Process Analyzer Client” on page 45](#)
- [Task 5 “Install Process Analyzer Software Updates” on page 46](#)

## Upgrade Overview

This section lists details that will help you prepare your environment for the upgrade of FileNet PA. In many cases, the items you see listed will be links to more detailed information, which will help you plan a system upgrade. Review this information thoroughly before you start to upgrade FileNet PA or required third-party software.

**NOTE** The upgrades described in this guide assume that you will retain your basic platform configuration from the previous release.

## Upgrade Planning Considerations

### *Gather auxiliary documentation.*

For a list of required documentation, see [“Gather Required Documentation” on page 10](#).

### *Supported Upgrade Paths*

- See the *FileNet P8 Hardware and Software Requirements* document for the version numbers of product platforms supported for use with FileNet PA 4.0.1.
- Before you upgrade your FileNet software, update your third-party software to the patch and Service Pack levels that FileNet supports.

**CAUTION** If you plan to upgrade MS SQL Server from version 2000 to version 2005 you must do this after you have upgraded the Process Analyzer software.

### *FileNet Platform*

- You must upgrade the FileNet P8 Platform core components: Content Engine (CE), Process Engine (PE), and Application Engine (AE), before you upgrade PA.
- You *must* upgrade PA before you upgrade Process Simulator (PS).
- You can upgrade to FileNet PA 4.0.1 from version 4.0.0 only.

**CAUTION** Apply the required minimum level of FileNet PA patches to the currently installed software before you upgrade. FileNet patches and fix packs often include feature updates that are required to ensure a successful upgrade. Therefore, before you begin your upgrade to FileNet PA 4.0.1, you must have applied the minimum level of fix packs to your installed 4.0.0 components. For more details, see *FileNet P8 Hardware and Software Requirements*.

### *Database*

FileNet PA 4.0.1 adds support for MS SQL 2005.

**CAUTION** If you plan to upgrade to MS SQL 2005 you must first upgrade your PA installation to version 4.0.1 and verify that the upgrade was successful.

# Gather Pre-upgrade Information

## *General Considerations*

Note the FileNet P8 Platform Documentation URL. If you have an existing application server in place with a FileNet P8 Platform Documentation web site established, you can determine its URL by checking the Documentation server site preference in Workplace.

## *Database Engine*

- Note your current Database Instance Names, NLS, and character set configurations.
- Note the dedicated TCP/IP port number of the SQL Server database instance that PA Engine will use.

To determine the TCP/IP port number, open SQL Server Enterprise Manager and display the database instance properties. Click **Network Configuration** on the **General** tab. Select **TCP/IP** in Enabled protocols and click **Properties**.

## Prerequisite Tasks

Before you start upgrading PA

1. Verify that the core platform components have been upgraded to the required Fix Packs.

PA requires that the three core platform components, Content Engine (CE), Process Engine (PE), and Application Engine (AE), have been upgraded and configured before starting the PA upgrade.

For more information, see the *IBM FileNet P8 Hardware and Software Requirements*.

2. Verify that your existing version of PA is at a release version that supports upgrades to version 4.0.1.

See [“Supported Upgrade Paths” on page 38](#). For further details, see the *IBM FileNet P8 Hardware and Software Requirements*.

3. Ensure that you have installed/upgraded any necessary prerequisite software.

**NOTE** You must upgrade Process Analyzer software before updating MS SQL Server to version 2005.

For more information, see the *IBM FileNet P8 Hardware and Software Requirements*.

4. Back up the PA Engine.

Make sure the site has restorable backups of the system and data for all PA and Process Engine components. In case of an emergency, you might need to back out of the upgrade. For details on what to back up for FileNet P8 components, see the *IBM FileNet P8 Help* topic [FileNet P8 Administration > Enterprise-wide Administration > Back up and Restore FileNet P8](#).

Back up the following items.

- The database used by Process Engine that this PA Engine is connected to.
- The VMAEDM database
- The **analyzer.properties** file (Default location: **C:\Program Files\filenet\Process Analyzer Engine\jpa**).
- The VMAE OLAP database. Make a note of any special configuration that has been applied to cubes or dimensions, such as role assignments or auto-grouping. The configuration must be reapplied after the upgrade is complete. See the online help for the Analysis Manager for information and detailed instructions on creating roles and assigning users.

5. Disable tasks on the PA server, such as:

- Scheduled automated backups
- Virus scanning

6. Verify that the FileNet P8 Platform core components (CE, PE, AE) are running.

7. Verify that the existing Process Analyzer software is not running.

8. (If PE uses an Oracle database) Verify that the Oracle listener is running on the PE database server.



## Task 1: Upgrade Process Analyzer Documentation

Process Analyzer is an expansion product of IBM FileNet P8 Platform; therefore you must add the associated PA documentation to an existing installation of the IBM FileNet P8 Platform Help. This action makes PA help available to your users and enables context-sensitive help from the product user interface.

For details and instructions on installing expansion product documentation, see the latest IBM FileNet P8 4.0 version of the *IBM FileNet P8 Platform Installation and Upgrade Guide*. Pay special attention to the “Install expansion product documentation” subtopic in the “Install IBM FileNet P8 documentation (<your application server>)” task.

**CAUTION** You can install only the 4.0 version of PA documentation on an existing IBM FileNet P8 Platform 4.0 documentation server.

## Task 2: Upgrade Process Analyzer Engine

### To upgrade Process Analyzer Engine

---

1. Ensure that the PA Engine database is running.
2. Log on as the <PA Installer>, as defined in “Users required for Process Analyzer installation” on page 13.
3. Access the IBM FileNet Process Analyzer 4.0.1 software package.
4. Launch the Setup program (**P8PA-4.0.1-Engine.exe**, located in the **PAEngine** directory) to start the installation process.

In this screen...	Perform this action...
License Agreement	Review and accept the license agreement.
Detected FileNet BPM Software	Click <b>Next</b> to stop the software components and continue with the installation.
Specify the Documentation URL	<p>Enter the Documentation URL, which is where the FileNet P8 Platform Documentation was installed. Your entry must be in the following format:</p> <p><code>http://&lt;docserver:port#&gt;/&lt;ecm_help&gt;</code></p> <p>where:</p> <ul style="list-style-type: none"> <li>• <i>docserver</i> is the name of the Java web server.</li> <li>• <i>port#</i> is the port number.</li> <li>• <i>ecm_help</i> is the root folder of the documentation website.</li> </ul>
Start Process Analyzer Services Manager	Verify that the <b>Process Analyzer Service Manager</b> checkbox is selected.
Complete the Installation	When the installation is complete and selected software has been started, click <b>Finish</b> to exit the installation program.

5. Upgrade the PA database.
  - a. Launch Process Task Manager.
  - b. If a database upgrade is required, a dialog will display.
  - c. Follow the dialog's prompts to upgrade your database.

## Task 3: (Optional) Upgrade MS SQL Server 2000 to version 2005.

1. Back up the upgraded PA database (VMAEDM).
2. Upgrade MS SQL Server 2000 to version 2005.

**NOTE** You can perform this step any time after installing PA Engine. This version of PA Engine runs on both MS SQL 2000 and MS SQL 2005. You might want to verify the functionality of the updated PA Engine before upgrading the database.

- a. Stop Process Analyzer software, if running.
- b. Follow Microsoft instructions to upgrade the database from MS SQL Server 2000 to MS SQL Server 2005.

**CAUTION** When upgrading a named instance of MS SQL Server don't select to upgrade Analysis Services on the Components to Install screen. To upgrade the default instance of Analysis Services used by Process Analyzer you must run the SQL Server 2005 setup a second time, this time selecting to upgrade the default instance and choosing the Analysis Services component.

- c. Download and install the Microsoft SQL Server 2005 JDBC driver.
- d. Delete the existing Process Analyzer OLAP database.
  - i. Go to Start > Programs > Microsoft SQL Server 2005 > SQL Server Management Studio.
  - ii. Connect to the Analysis Services instance used.
  - iii. Expand Databases.
  - iv. Right click the OLAP database (VMAE\_<db\_instance\_name>) and select **Delete**.

**NOTE** If you are using the default instance, no instance name is appended.

- v. Click **OK** to delete the database.
- e. Rebuild the OLAP database and update the PA configuration
  - i. Open a command prompt
  - ii. Change directories to:  

```
C:\Program Files\FileNet\Process Analyzer Engine\jpa\scripts\sqlserver\2005
```
  - iii. Run the script **upgradeconfig.bat**.
  - iv. The upgradeconfig script will display a dialog. Enter the Microsoft SQL Server 2005 JDBC classpath and click **OK**.

3. Reapply any special configuration that has been applied to cubes or dimensions, such as role assignments or auto-grouping.

4. (Optional) Reprocess the OLAP cubes.

This optional operation will provide you with the OLAP report data before the next scheduled run of the report. Note that this operation could take a long time. IBM FileNet recommends that you perform it during periods of low usage.

- a. On the PA server, navigate to Start > Programs > FileNet P8 Platform > Process Analyzer > Process Task Manager.
- b. Start the Process Analyzer services from the Process Task Manager by right-clicking **Process Analyzer** and selecting **Start**.
- c. Right-click the **Process Analyzer** node again and select **Process Cubes**.
- d. Click **Yes** to confirm that you want to proceed with the reprocessing.

## Task 4: Upgrade Process Analyzer Client

For software requirements for the PA Client and third party tools such as MS Excel, see the *FileNet P8 4.0.0 Hardware and Software Requirements* document.

### To upgrade Process Analyzer Client

---

1. Backup reports.

Before you uninstall the previous client you should create backup copies of your existing custom reports that are stored in the default path (the installation location you selected when installing the PA Client). All files in this path will be overwritten by the client installer.

Default: **C:\Program Files\FileNet\Process Analyzer Client\ootbreport**

2. Uninstall PA Client version 4.0.0.

- a. On the PA client server, navigate to Start > Settings >Control Panel and then double-click **Add/Remove Programs**.
- b. Select the **FileNet Process Analyzer Client** application from the list of installed programs and click **Change/Remove**.
- c. Click **Yes** to confirm you want to remove the PA Client application.
- d. Click **OK** when the Uninstall program is finished.
- e. Close the Add/Remove Programs snap-in.
- f. Close the Control Panel.

3. Install PA Client version 4.0.1

- a. To install PA Client, follow the instructions in [Task 5 “Install Process Analyzer Client” on page 31](#).
- b. To install required PA 4.0 software updates, follow the instructions in [“Install Process Analyzer Software Updates” on page 36](#).

## Task 5: Install Process Analyzer Software Updates

Install any service packs, fix packs and/or interim fixes required for Process Analyzer. To determine whether such additional software updates are needed, contact your service representative.

## Remove Software

This section presents steps for removing PA Engine and PA Client.

### To remove Process Analyzer Engine

---

1. On the PA Engine server, navigate to Start > Settings > Control Panel and double-click **Add/Remove Programs**.
2. Select the **FileNet Process Analyzer Engine** application from the list of installed programs and click **Change/Remove**.
3. Click **Next** at the Welcome screen.
4. Click **Next** to stop the FileNet BPM software and continue with the wizard.
5. Click **Next** when you see the list of software components to be removed.
6. Click **Yes** to remove the PE Help URL, **taskman.properties**, and **analyzer.properties** files.
7. Click **Finish** to exit the wizard.

**NOTE** Depending on the state of the system, you might be prompted to restart the computer in order to complete the uninstall process. Click **Finish**.

8. Close the Add/Remove Programs snap-in.
9. Close the Control Panel.

### To remove Process Analyzer Client

---

1. On the PA Client server, navigate to Start > Settings > Control Panel and then double-click **Add/Remove Programs**.
2. Select the **FileNet Process Analyzer Client** application from the list of installed programs and click **Change/Remove**.
3. Click **Yes** to confirm you want to remove the PA Client application.
4. When the Uninstall program is finished, click **OK**.
5. Close the Add/Remove Programs snap-in.
6. Close the Control Panel.

## Encrypt Passwords for Silent Installations and Upgrades

You can use resource-input files to install and upgrade IBM FileNet Process Analyzer components silently, as well using interactive Setup programs, as noted throughout this guide.

The *TextForDBPassword* password connected with the *TextForDBUser* is required to silently install FileNet P8 Process Analyzer Engine. This password must be encrypted before you enter it in the silent installation resource files. Use the <PA DB Administrator> user when configuring this user and password.

### To encrypt the password

---

1. The encryption tool is located on the installation media for Process Analyzer software, in the **PAEngine** directory. Copy the following file from this directory to a local drive:  
**fnencryptutils** - an executable .jar file
2. To invoke the application, execute the following command:  

```
java -cp fnencryptutils.jar filenet.vw.FNEncrypt.apps.FNEncryptApp
```
3. Enter the appropriate values for the user name and password.
4. Reenter the password to confirm it.
5. Click **Generate**.
6. An encrypted password will be generated and displayed in the encrypted password field.
7. Copy and paste this password into the appropriate silent installation resource file.



# Index

## C

- configuration
  - grant access rights in Analysis Manager [31](#)
  - PA database [28](#)
  - Process Analyzer [28](#)
  - Process Analyzer Engine [28](#)
  - Process Engine connection [29](#)

## D

- database
  - VMAE (OLAP) [12](#)
  - VMAEDM (PA) [12](#)
- database connection [21, 22](#)
- documentation
  - server URL [25, 33, 42](#)
  - upgrade [41](#)

## F

- Fix Packs [8, 36, 46](#)

## I

- IBM FileNet P8 Platform Installation and Upgrade Guide [11](#)
- IBM FileNet Process Analyzer Installation and Upgrade Guide [10](#)
- installation
  - documentation [16](#)
  - Microsoft SQL Server 2000 [17](#)
  - Microsoft SQL Server 2005 [19](#)
  - Microsoft SQL Server JDBC 2000 SP3 driver [24](#)
  - Microsoft SQL Server JDBC 2005 1.2 driver [24](#)
  - Process Analyzer Client [31](#)
  - Process Analyzer Engine [24](#)
  - Service Packs and Fix Packs [36, 46](#)
  - silent
    - Process Analyzer Client [33](#)
    - Process Analyzer Engine [24](#)

## M

- Microsoft SQL Server 2000 [17](#)
- Microsoft SQL Server 2005 [19](#)

## O

- OLAP database [12](#)

## P

- PA database [12](#)
- planning
  - installation [10](#)
  - upgrade [38](#)
- ports [11](#)
- Process Engine connection [29](#)

## R

- release notes [11](#)
- requirements [40](#)
  - database [12](#)
  - hardware and software [10](#)
  - Microsoft SQL Server JDBC 2000 SP3 driver [24](#)
  - Microsoft SQL Server JDBC 2005 1.2 driver [24](#)
  - ports [11](#)
  - Process Analyzer [11](#)
  - Process Analyzer Client [31](#)
  - server time synchronization [11](#)
  - users [13](#)

## S

- Service Packs [8, 36, 46](#)
- silent install
  - Process Analyzer Client [33](#)
  - Process Analyzer Engine [24](#)
- supported upgrade paths [38](#)

## T

- troubleshooting [11](#)

## U

- upgrade [40](#)
- upgrades
  - database [42](#)
  - supported paths [38](#)
- use cases [11](#)
- users [13](#)

## V

- VMAE (OLAP) database [12](#)
- VMAEDM (PA) database [12](#)



---

## Notices

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

#### COPYRIGHT LICENSE:

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

---

## Trademarks

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

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

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

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

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







Program Number: 5724-R76

Printed in USA

GC31-5581-01

