Perceptive Process

Installation and Setup Guide

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About this guide

This guide contains instructions that apply to various products and various platforms.

- How to install, configure, and upgrade Perceptive Process Design or Perceptive Process Enterprise on Windows systems.

- How to install, configure, and upgrade Perceptive Process Enterprise on UNIX systems.

- How to install additional components and demo cases for Perceptive Process on Windows systems and on UNIX systems. Some additional components are only available for Windows.

- How to create and configure a database for use with Perceptive Process on Windows systems and on UNIX systems. If you want to use an Oracle database you must create one before you start the installation. During the configuration of Perceptive Process you must also configure the database.

Consult the "Technical Specifications" document for supported database types and versions and supported platforms.

Installation of Perceptive Process on Windows

This chapter provides the following information.

- **Requirements and preparatory steps** you need to take before you start the installation.

- **How to install Perceptive Process Design or Perceptive Process Enterprise** on a Windows system.

- **How to configure Perceptive Process Design or Perceptive Process Enterprise** on a Windows system.

- **How to install online help and product guides** in additional languages on a Windows system.

- **How to interpret error messages** during installation and configuration.

- **How to uninstall Perceptive Process Design or Perceptive Process Enterprise** on a Windows system.

- **How to upgrade** an existing version of Perceptive Process Design or Perceptive Process Enterprise on a Windows system to the latest version.

Prepare for the installation

Installation requirements

The following requirements are important for a successful installation. Check these requirements **before** you start the installation. If necessary, consult with your system administrator.

Requirement	Description
System Requirements	The supported versions of Windows systems and databases are subject to change. Refer to the "Technical Specifications" document or contact Global Support Services at support@perceptivesoftware.com.

Requirement	Description
License file	In the configuration phase of the installation of Perceptive Process you must upload a valid license file. Global Support Services can send you your license file based on the following data. • Activation code • Host name of your computer • Database platform • Operating system • Your email address **Note** Do not use a license file that belongs to another edition of Perceptive Process, for example Perceptive Process Design Personal.
Installation Location	Perceptive Process files must be kept on one server and cannot be shared over different ones. You can install Perceptive Process on an SAN.
	When installing Perceptive Process on a computer that is part of a domain, the following requirements apply. • You must be logged in locally on your system. When logging into Windows, select the computer name instead of the domain name. • You must have Windows administrator rights.
Computer Name	The name of the computer on which Perceptive Process will be installed must not contain an underscore (_). If the computer name contains an underscore, you cannot log in to Perceptive Process Portal. The computer name can be any combination of letters (A-Z), numerals (0-9), and a hyphen (-). To check the computer name: On the Windows **Start** menu, right-click **Computer** and then click **Properties**. The name of the computer displays on the **View basic information about your computer** page.
Port Numbers	**Check the TCP/IP port numbers** to verify that ports used by Perceptive Process are not used by other programs.
C Compiler	**Modify the environment variables** if you already have a Microsoft C compiler installed on your system.
Firewall	Verify that the **Notify me when Windows Firewall blocks a new program** option is selected. You can check if this setting is enabled in **Control Panel**, **Windows Firewall**.

Requirement	Description
SQL Server Mode	When you use a Microsoft SQL Server database, Microsoft SQL Server must be in mixed mode before the installation can begin.

Check the TCP/IP port numbers

You must check in advance that the TCP/IP ports that Perceptive Process uses are not being used by other programs.

- 4949 - Client Port used by the client
- 4994 - Master Port used by the server
- 9449 - HTTP Port used by the web server

To check which TCP/IP ports are already being used, complete the following steps.

1. On the Windows **Start** menu, click **All Programs** > **Accessories** > **Command Prompt**.
2. To display a list of ports that are in use, in the **Command Prompt** window, complete the following steps.

   1. Enter the following command: `netstat -a`
   2. Press `ENTER`.

Modify the environment variables

During the configuration of Perceptive Process, the Microsoft C compiler is installed on your system. If a version of this compiler is already installed, you must adjust the environment variables. This prevents the system from automatically using the previously installed version.

To modify the environment variables manually, complete the following steps.

1. On the Windows **Start** menu, right-click **Computer** and then click **Properties**.
2. Click **Advanced system settings**.
3. On the **Advanced** tab, click the **Environment Variables** button.
4. In the **System Variables** area, complete the following substeps.

   1. Click **New**.
   2. Enter the following details.

      Variable. INCLUDE

      Variable value. <installdir>\bpm\server\compiler\Common7\VC\Include
   3. Click **OK**.

5. In the **System Variables** area, complete the following substeps.

    1. Click **New**.

    2. Enter the following details.

       Variable. LIB

       Variable value. <installdir>\bpm\server\compiler\Common7\VC\Lib

    3. Click **OK**.

6. In the **System Variables** area, select the variable PATH and click **Edit**.

7. In the **Variable Value** box, to add a path, complete the following substeps.

    1. At the end of the existing paths, type a semicolon (;) to separate the additional path from the previous one.

    2. Type `C:\Program Files\bpm\server\compiler\Common7\VC\bin`

8. Click **OK** to save the changes.

Define Java settings

Some of the Perceptive Process client components use Java technology and therefore a Java Runtime Environment needs to be installed. If the Java settings do not match the browser settings, Java displays an application error message when you use a Perceptive Process client component that relies on Java technology.

Note Refer to the "Technical Specifications" document for the supported Java versions.

To ensure the Java settings match the browser settings, complete the following steps.

1. Click the **Start** button and in the search box type `Configure Java`.

2. In the **Java Control Panel**, on the **General** tab, click **Network Settings**.

3. In the **Network Settings** dialog box, select **Use browser settings** and click **OK**.

4. In the **Java Control Panel**, click **OK**.

Prepare the database

To be able to install Perceptive Process, you must create and configure a database either before or during the installation of Perceptive Process. The following paragraphs give an overview of database-related topics that you need to be aware of before you install Perceptive Process. You will find more information and detailed instruction for all of these topics in the **Database creation for Perceptive Process** chapter.

Oracle database

If you want to use Perceptive Process with an Oracle database, you must create the database before you start the installation. This will **not** be done automatically during the installation.

Microsoft SQL Server database

If you want to use Perceptive Process with a Microsoft SQL Server database, you can create the database yourself before you start. Alternatively, the installation package can automatically create a

Microsoft SQL Server database for you during the installation of Perceptive Process. A requirement for the automatic database creation is that the database user is created **before** you start the installation.

If you want to install Perceptive Process on a Windows Server 2008 R2 64-bit platform, and you plan on using a remote MS SQL Server database on a 32-bit platform, you must create a database yourself before installing Perceptive Process.

During the creation of a Microsoft SQL Server database, you must specify a case insensitive database collation. For Perceptive Process, the default collation is `SQL_Latin1_General_CP1_CI_AS`.

RDBMS software

Both for an Oracle database and for a Microsoft SQL Server database, you must install the RDBMS software before you install Perceptive Process.

Connection to the database

We advise you to check the database connection after you create the database and before you install Perceptive Process Server.

Database tables

When you create a database for Perceptive Process, you should not create the database tables. This is done during the installation of Perceptive Process. However, while using Perceptive Process some tables can become very large. Therefore we advise to change the size of these tables.

Remote database computer

You can install the database software and Perceptive Process on different computers. The database is then 'remote' for Perceptive Process. Some components must be installed on the remote database machine, some on the Perceptive Process machine. There are also some other conditions that must be met for a remote database.

Install Perceptive Process on Windows

To install Perceptive Process, complete the following steps.

1. Complete the following steps before you start the installation.

   1. Verify all **installation requirements** are met.

   2. If you want to use an Oracle database, verify that you have one or create a new one. For instructions refer to **Create an Oracle database**.

2. From the Customer Portal, download the installation file for Perceptive Process.

3. Double-click the installation file.

   Note The user name used to complete the installation should match the name of the user who will be working with Perceptive Process. If the **User Account Control** window displays asking you to enter an administrator password, stop the installation and obtain administrator rights.

4. In the **Welcome to the Perceptive Process Setup Wizard** window, *c*lick **Next**.

5. In the **End-User license Agreement** window, select the option **I accept the terms in the license Agreement**, and click **Next**.

6. In the **Installation directories** window, complete one of the following actions.

    - To install the program files and the data files for Perceptive Process in the default location, click **Next**.

    - To install the files in another location, complete the following substeps.

        1. In the **Install the program files to** box and in the **Install the data files to** box, enter the path to a location, or click the **Change** button and select a location.

        2. Click **Nex**t.

7. In the **Perceptive Process Checker** window, complete one of the following actions.

    - If the **Result** pane displays 'Perceptive Process can be installed', click **Next**.

    - If the **Result** pane displays a different message, consult the **Troubleshoot** section and solve the error, then click **Retry**.

8. In the **Perceptive Process Ready to install** window, click **Install**.

    The **Installing Perceptive Process** window displays while files are copied, extracted, and installed. This procedure completes automatically.

9. In the **Completed the Perceptive Process Setup Wizard** window, click **Finish**.

    Your browser opens and the Perceptive Process login window displays, to enable you to configure Perceptive Process for first time use. For instructions, refer to **Configure Perceptive Process on Windows**.

Change the configuration password

During the installation, a user name and password are created that both have the default 'admin' value. This user name/password combination is only used during the First Time Use configuration phase. After this phase, this combination is no longer used. For security reasons, if you do not start the configuration phase immediately after installation, you may want to change the password for this user immediately after the installation phase.

To change the configuration password, complete the following steps.

1. In a text-only (plain text) editor, open the file `<program data>/etc/confpass`.

2. Replace the 'admin' password with a password of your choice.

3. Save an close the file.

Configure Perceptive Process on Windows

If the install user logged off before continuing with the configuration of Perceptive Process for first time use, ensure that the configuration is completed by the same user who completed the installation.

Configuring Perceptive Process takes a few steps and is done from the Internet browser. The configuration is called **First Time Use**.

You can run the configuration using an internet browser from any computer that has access to the Perceptive Process server. However, we recommend that you run the configuration from the Perceptive Process server, because any configuration messages only display on the server.

Note The Perceptive Process Portal displays the **First time use** window. This window displays the steps you must complete to set up Perceptive Process for use. The currently active step is indicated by the ➡ icon.

To set up Perceptive Process for first time use, complete the following steps.

1. To start **First Time Use**, complete the following substeps.

    1. In the **Name** box, type: `admin`

    2. In the **Password** box, type: `admin`

    3. Click **Sign In**.

2. To upload the license file, complete the following substeps.

    1. Click **Browse** and navigate to the license file.

    2. Select the license file and click **Open**.

    3. Click **Continue**.

3. Under **Please choose your type of DBMS and enter the configuration settings**, specify the database type you are going to use: **Microsoft SQL Server** or **Oracle**.

4. To configure the database, complete one of the following actions.

    - If you want to use a Microsoft SQL Server database, complete the steps in **Configure a Microsoft SQL Server database**.

      Note You can choose between creating a new database or using an existing one. If you use an existing database, it must be empty.

    - If you want to use an Oracle database, complete the steps in **Configure an Oracle database**.

      Note The Oracle database must exist already and be empty.

5. Complete one of the following actions.

    - For Microsoft SQL Server, to create a new database automatically, click **Create database**.

    - For Microsoft SQL Server or Oracle, to use an existing database, click **Use existing database**.

    The database is created, or verified and opened for use.

6. To configure Perceptive Process Server settings, complete the following substeps.

    1. Under **Language** select the language the server uses. This is the language for the texts that are exchanged between the server and the Perceptive Process applications, such as the log files.

    2. Optional. In the **Master Port** box, enter a different port number if necessary, for example if the default port is already being used.

    3. Optional. In the **Client Port** box, enter a different port number if necessary, for example if the default port is already being used.

    4. Click Continue.

7. To configure the Perceptive Process Service, complete the following substeps.

    1. Optional. Type a different name in the **Name of the top context** box. This is the highest level of the organization structure that is set up in Perceptive Process. By default the name of the organization is entered here.

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2. Optional. Type a different name in the **Domain** box for the domain of the first administrative user (context owner) in Perceptive Process. If the user is not part of a domain, the name of the computer is entered here.

3. Under **File permission group** select the group of users that the context owner is part of. The other users of the selected group have the same permissions as this user at file level.
    If you leave this box empty, the group of users is retrieved from the network after you complete the next steps. You can select the group from a list.

    Note This operation can take some time.

4. In the **User name** box, type the user name of the user to be added to Perceptive Process as the first administrative user (context owner).

5. In the **Full name** box, enter the full name of the user.

6. In the **Password** box, enter the password the user enters to log in to Perceptive Process.

7. In the **Confirm** password box, enter the password again.

8. If you want the Perceptive Process service to launch under the current user, clear the **Use the LocalSystem account to start the Perceptive Process service** option.

9. Click **Continue**.

8. In the **Ready** window, complete one of the following steps.

    •   If you want to use Perceptive Process immediately, click **Continue**. Perceptive Process Portal opens.

    •   If you do not want to use Perceptive Process immediately, clear the **Open Perceptive Process Portal automatically** option, and click **Continue**. The **First time use** window closes.

Start Perceptive Process

A program group is created on your computer, to enable you to launch Perceptive Process from the Windows Start menu. Also an icon is created on your desktop. Double-click this icon to launch Perceptive Process.

To start Perceptive Process directly in your internet browser, complete the following steps.

1. Start your internet browser.

2. In the address bar, type `http://<computer_name>:9449`.

Add Perceptive Process to the trusted websites

If you use Internet Explorer on Windows Vista or Windows 7, to add Perceptive Process to the list of trusted websites, complete the following steps.

1. Open Microsoft Internet Explorer

2. Under **Internet options**, click the **Security** tab.

3. Select the **Trusted sites** zone, then click the **Sites** button.

4. Under **Add this website to the zone**, type:

   ```
   http://<ip-address Perceptive Process server>:9449
   ```
   or
   ```
   http://<name Perceptive Process server>:9449
   ```

5. Click the **Add** button.

Install documentation on Windows

By default, installations of Perceptive Process in other languages than English (United States) do not contain user documentation. To view online help and product guides in PDF format in one of the other supported languages, you must download and install the documentation files for that language. In Perceptive Process, the user can then select the language on the **Options** menu, and on the **Help** menu open the online help or product guides in the selected language.

The Perceptive Process Server Product Guide is available in US English only. To be able to view this guide when the language is set to a language other than US English, you must install this guide in the same location as the documentation files that are available in the other language.

Note You can install the documentation in more than one language.

To install documentation, complete the following steps.

1. From the Customer Portal, download the following files.

   - ```
     Perceptive Process Enterprise [version number] –
     doc_ProductGuide_web_manual_pdf_[language code].zip
     ```

   - ```
     Perceptive Process Design [version number] –
     doc_ProductGuide_web_manual_pdf_[language code].zip
     ```

   - ```
     Perceptive Process [version number] –
     doc_ServerGuide_web_manual_pdf_en-US.zip
     ```

   - ```
     Perceptive Process [version number] –
     doc_OnlineHelp_web_manual_html_[language code].zip
     ```

   Notes

   The "version number" is the version number of the installed version of Perceptive Process.

   The "language code" is the code for the language of the documentation that you want to install in Perceptive Process, such as "de-DE".

2. Save the downloaded files in a temporary location on your computer.

3. To create a directory structure for the documentation, complete the following substeps.

1. In Windows Explorer, navigate to the data directory. The default is `[drive]:\ProgramData\bpm\Server\web\manual`.

2. Select the `manual` directory and create two subdirectories: `pdf` and `html`.

3. Select the `pdf` directory and create a subdirectory for the`[language code]`, such as `de-DE`.

4. Select the `html` directory and create a subdirectory for the `[language code]`.

4. To install documentation in PDF format, complete the following substeps.

   1. Copy the following files from the temporary location to the directory `\bpm\Server\web\manual\pdf\[language code]`.

      - `Perceptive Process Enterprise [version number] -`
        `doc_ProductGuide_web_manual_pdf_[language code].zip`

      - `Perceptive Process Design [version number] -`
        `doc_ProductGuide_web_manual_pdf_[language code].zip`

      - `Perceptive Process [version number] -`
        `doc_ServerGuide_web_manual_pdf_en-US.zip`

   2. Unzip the files in the directory `\bpm\Server\web\manual\pdf\[language code]`.

   3. Remove the .zip files.

5. To install documentation as online help, complete the following substeps.

   1. Copy the following file from the temporary location to the directory `\bpm\Server\web\manual\html\[language code]`.

      - `Perceptive Process [version number] -`
        `doc_OnlineHelp_web_manual_html_[language code].zip`

   2. Unzip the file in the directory `\bpm\Server\web\manual\html\[language code]`.

   3. Remove the .zip file.

Troubleshoot

If an error occurs during the installation or the configuration for first time use, a message window displays the cause of the error. This should enable you to solve the problem. If you are not sure how to solve an issue, always contact Global Support Services at Perceptive Software.

Send error details to Global Support Services

If errors occur during the installation process, the **Perceptive Process Checker** window identifies and describes the errors. The **Checker** information allows Global Support Services at Perceptive Software to help you resolve the issue.

To send an error report from the **Perceptive Process Checker** window to Global Support Services, complete the following steps.

1. In the **Perceptive Process Checker** window, click the **E-Mail** button.

   A new message is created in your e-mail program containing error details.

2. In your email program, find the email message, add your contact details (name, telephone number and e-mail address), and send it directly to Global Support Services.

If it is not possible to send an e-mail from your environment, complete the followings steps to provide Global Support Services with the error details.

1. In the **Perceptive Process Checker** window, click the **Save** button and save the `checker.txt` file on your computer.

2. Contact Global Support Services at Perceptive Software by telephone. The `checker.txt` file contains the error details.

Error messages in Perceptive Process Checker

The following table lists the error messages that can display in Perceptive Process Checker.

Message	Explanation	Solution
TCP-layer is not standard	There is a problem with the (TCP) communication layer on your computer. This may be caused by many different reasons.	
The temporary folder is not available or not writable	The temporary folder (%TEMP%) cannot be accessed. This may be caused by many different reasons.	
The current user has no administrative rights or is not an elevated administrator	The user rights of the user currently logged on to Windows are insufficient to perform an installation of Perceptive Process.	You need administrator rights to install Perceptive Process. Log on to your system with sufficient administrator rights and restart the installation. **Note** The user name that is used to complete the installation must match the user name of the user who will be working with Perceptive Process.
Port 9449 is not available for Perceptive Process.	Perceptive Process uses port 9449, but this port is already in use by another process.	
Another version of Perceptive Process is found	A version of Perceptive Process or BPMone has already been installed on your computer.	Uninstall this version and delete the corresponding key from the Windows Registry. Registry key examples: For older versions of BPMone: `HKEY_LOCAL_MACHINE\Wave-Front\BPMone\Server` For BPMone 2.8 and 2.9: `HKEY_LOCAL_MACHINE\Perceptive Software\BPMone\Server` For Perceptive Process 3.0: `HKEY_LOCAL_MACHINE\Perceptive Process\bpm\Server`

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Message	Explanation	Solution
The default Perceptive Process installation folder is not empty. Please empty the default installation folder (C:\Program Files\bpm\Server)	A folder with the same name as the folder in which you want to install Perceptive Process already exists. The default folder is <drive>:\Program Files\bpm\Server. This folder is not empty.	Uninstall Perceptive Process, and then delete the files from the installation folder by completing the following steps. 1. Copy the location `%ProgramFiles%\bpm\Server` (including the % characters) to the Windows Explorer address bar. 2. Delete all files from this folder.
Selected Perceptive Process Data directory is not empty. Please make sure the directory is empty.	A version of Perceptive Process has already been installed on your computer.	Uninstall this version, and then delete the data folder. The default folder is `<drive>:\ProgramData\bpm\Server`).

Errors during the configuration

During configuration, the following error can display in the First Time Use window.

An invalid license file has been found.

If this error displays, check the following points.

- Is the license file obtained from Perceptive Software?

- Does the license file belong to the Perceptive Process edition you are installing? For example, it should not be a license file for Perceptive Process Design Personal.

- Does the computer name match the name for which the license file was requested? A license file is generated based on the computer name on which the software is to be installed.

Database setup errors

If error messages display when creating or configuring the Oracle database, view the following log file to detect and resolve the errors.

```
<drive>:\<Perceptive Process Server destination
folder>\Oracle\Create\Create.log.
```

Note If the installation of Perceptive Process is aborted with database setup errors and/or configuration errors, correct the errors and perform the installation again.

Alternative local folder

Design applications are executables that are started from an internet browser. Before these applications can be started, they must be downloaded to a local folder on the client system. The default download folder is the TEMP folder. However, some organizations do not allow starting executables from the TEMP folder. It is also possible that the files in the TEMP folder are deleted when you log out from your system. This means that design applications must be downloaded again when you log in to your system.

In Perceptive Process you can configure an alternative folder for downloading design applications. Contact Global Support Services at Perceptive Software for more information.

Uninstall Perceptive Process on Windows

Verify that the person who uninstalls the program has sufficient knowledge of Perceptive Process and databases. If you have any questions, contact Global Support Services at Perceptive Software.

Warning Follow the specified order of actions to ensure the uninstall procedure completes correctly.

Remove Microsoft SQL Server

If Perceptive Process was installed with Microsoft SQL Server, Microsoft SQL Server is not automatically removed when you uninstall Perceptive Process. You can uninstall Microsoft SQL Server separately, using the Windows Control Panel. If you want to uninstall Microsoft SQL Server, verify that the program is not used by other applications besides Perceptive Process.

Remove an Oracle database

If Perceptive Process was installed with an Oracle database, complete the following steps to remove the Oracle database. The steps can differ slightly, depending on the Oracle version used.

1. On the Windows **Start** menu, click **All Programs** > **Oracle - <Oracle Home>** > **Configuration and Migration Tools** > **Database Configuration Assistant**.

2. Click **Next**.

3. Select the **Remove a database** check box, and click **Next**.

4. Select the Perceptive Process database.

    Note This database may be listed as `OracleService<Perceptive Process-database name>`.

5. Click **Finish**.

Remove the Perceptive Process program

To remove the Perceptive Process program, complete the following steps.

1. On the Windows **Start** menu, click **Control Panel**.

2. Open **Programs and features**.

3. Remove all Perceptive Process components, except Perceptive Process Server.

4. Remove Perceptive Process Server.

Upgrade Perceptive Process on Windows

You cannot install more than one version of Perceptive Process on your computer. If during the installation of the latest version of Perceptive Process an existing installation of Perceptive Process or BPMone is detected on your computer, you can upgrade the existing version to the latest version. A successful upgrade requires a BPMone or Perceptive Process environment that functions normally.

Note If you use Protos Personal, you must first upgrade to BPMone 2.1.4 before you can upgrade to the latest version of Perceptive Process.

After an upgrade, the 'Users' group is given read and write access to all Perceptive Process files. If this is not acceptable, customize the authorization as needed.

Back up modified installed files

If you manually modified files from the previous installation or upgrade, for example to include a company logo, the checksums of these files no longer match what the setup program is expecting. For a correct upgrade, you must create a backup copy of the modified files and replace them with the original files. Once you have completed the upgrade, you will have to redo the modifications in the new files, using the backed up previously modified files as an example.

The installation program includes a step that allows you to save the files that are replaced during the upgrade. You can use these saved files for the next upgrade, when you need to replace modified files with the original files.

Errors during the upgrade

If an error occurs during an upgrade, a message window displays the cause of the error. This should enable you to solve the problem. If you are not sure how to do this, contact Global Support Services at Perceptive Software.

Java cache

Perceptive Process uses new Java Archive Files (jar) to complete the upgrade. In some situations this will cause problems after upgrading when you first open Perceptive Process Portal. To solve these problems, reload Perceptive Process Portal by pressing `CTRL + F5`. If this does not help, clear the Java cache.

Install the upgrade

To install the upgrade, complete the following steps.

1. From the Customer Portal, download the installation file for Perceptive Process.

2. Double-click the installation file.

3. In the **Perceptive Process Server** window, click **Next>** and then continue to the next step or skip a few steps, depending on the situation.

   - If you are not logged in as the user who installed the previous version, the **Not the same user** window displays. Continue with the next step.

   - If you are logged in as the user who installed the previous version, the **Backup Replaced Files** window displays. Skip the next steps and go directly to the step for this window.

4. In the **Not the same user** window, click **Yes** to change the user name and continue the upgrade as the install user.

5. In the **Install as Other User** window, complete the following substeps.

   1. Enter the login data for the user who installed the previous version. If you cannot find these login data, try the default login data for the install user: user name `bpminstalluser` and password `BPM4pass_install1`

   2. Click **Next >**.

   Note If a warning displays, click **Yes** to continue.

6. In the **Backup Replaced Files** window, complete one of the following actions depending on the situation.

- If you want to create a backup of the files that are replaced during the upgrade, click **Yes**, optionally specify a location for the files, and click **Next>**.

- If you do **not** want to create a backup of the files that are replaced during the upgrade, click **No** and then click **Next >**.

7. In the **Start Upgrade** window, complete the following substeps.

   1. Verify the location of the backup files and click **Next >**.

   2. If the **Temporarily stop Perceptive Process Server** window displays, click **Yes** and continue the upgrade.

      Note If you use **Integration Server**, a warning displays. The **Integration Framework** is not compatible with the Integration Server. Also, the case types that used the Integration Server must be updated. Click **Yes** to continue the upgrade or **No** to stop the upgrade without making any changes.

   The **Installing** window displays. The installation of the upgrade may take a few minutes.

8. In the **Perceptive Process Server** window, click **Finish**.

9. If you use LDAP, verify that the Perceptive Process Server is started and that the users can log in.

   If the Perceptive Process Server is not started, you probably need to change the password. For more information refer to the section "Configuring options for Logon Services" in the "Perceptive Process Server Product Guide."

10. In the **Perceptive Process** window, click **Finish**.

    Note Some Perceptive Process components may not work properly if certain serious errors occurred during the upgrade. These errors are saved to a separate log file called `fatal.log`. To open the log, click the **Show fatal upgrade errors** button.

11. If you modified files in the previous version, manually modify the new version of these files. Refer to **Back up modified installed files**.

12. In Perceptive Process, open the **Help** menu and verify that the online help and the Product Guides are available in all desired languages. If not, refer to **Install documentation on Windows** for instructions.

Installation of Perceptive Process Enterprise on UNIX

This chapter provides the following information.

- **Requirements and preparatory steps** you need to take before you start the installation.

- **How to install Perceptive Process Enterprise** on a UNIX system.

- **How to configure Perceptive Process Enterprise** on a UNIX system.

- **How to install online help and product guides** in additional languages on a UNIX system.

- **How to upgrade** an existing version of Perceptive Process Enterprise on a UNIX system to the latest version.

Prepare for the installation

When you install Perceptive Process Enterprise on a computer with a UNIX operating system that is supported by Perceptive Process, you must launch the setup program from a terminal or a terminal emulator. In the terminal, you can use the following commands during the installation.

- To display help, on the input line, type a question mark **?** and press ENTER. After viewing the help information, you can continue the installation.

- To cancel the installation, press CTRL + C.

Note When you cancel the installation, the components that were installed before the installation was canceled are not deleted automatically. If you want to perform the installation again, you must first delete the files that were already installed.

License file

In the configuration phase of the installation of Perceptive Process Enterprise you must upload a valid license file. You can obtain your license file from Global Support Services at Perceptive Software, based on the following data.

- Activation code

- Host name of your computer

- Database platform

- Operating system

- Your email address

Note Do not use a license file that belongs to another edition of Perceptive Process.

Installation requirements

The following requirements are important for a successful installation. Check these requirements **before** you start the installation. If necessary, consult your system administrator.

Requirement	Description
Installation location	Perceptive Process Enterprise files must be kept on one server and cannot be shared over different ones. You can install Perceptive Process Enterprise on a SAN.
Port usage	The following TCP/IP ports are used by Perceptive Process Enterprise. 4949 - Client Port used by the client 4994 - Master Port used by the server 9449 - HTTP Port used by the web server If these ports are being used by other applications on your system, this can lead to conflicts. The ports are not important during installation, but are important for the configuration (First Time Use).
Port number	The port number of the master port is specified in the Perceptive Process Enterprise license. If you want to use a different port number for the master port, you must specify this when requesting a license.
Installation user	Any UNIX user can run the Perceptive Process Enterprise setup. No specific rights are required. We advise you to have the installation performed by a UNIX user who then also becomes the Perceptive Process Enterprise administrator.
Oracle database	You must create the Oracle database before the configuration phase. For instructions refer to **Create an Oracle database**. If necessary, you can do this by selecting option 8**. Create a minimal DB for Perceptive Process during setup**. This creates an Oracle database with the minimum requirements for Perceptive Process Enterprise. If you do not create a database during setup, please consult the DBMS software documentation.

Install Perceptive Process Enterprise on UNIX

To install Perceptive Process Enterprise on UNIX, complete the following steps.

Notes

- If problems occur, consult the log files that are created during installation in the log directory of the Perceptive Process service.

- To resume the installation after a problem occurred, we recommend that you restart **iht**. To do so, enter `/<bpm-directory>/bin/bpmctl restart` in the command line.

1. Complete the following substeps before you start the installation.
    1. Verify that you have a **license file** and that all **installation requirements** are met.
    2. Verify that you have an Oracle database or create one. For instructions, refer to **Create an Oracle database**.
2. From the Customer Portal, download the installation file for Perceptive Process Enterprise.

3. Start the installation script.

    An overview of the installation steps displays. The following steps complete automatically.

    - Extract package

    - Check version

    - Check install user

4. At the prompt **Do you want to install as yourself [user name]?**, press ENTER to keep the current user, or type another user name.

5. Answer the questions that display during the **Generic questions** step.

6. At the prompt **Enter Perceptive Process program installation directory**, press ENTER to install the program files in the default location, or specify another location.

7. At the prompt **Enter Perceptive Process data directory**, press ENTER to install the data files in the default location, or specify another location.

8. At the prompt **Enter the UNIX group owner for all files displays**, press ENTER to accept the default, or specify the name of a valid UNIX user group.

    Note This is the same group of which the administrative user is a member.

9. At the prompt **Enter the port for HTTP/WEB configuration**, press ENTER to accept the default, or select another port.

10. At the prompt **Enter password used for HTTP/WEB configuration**, press ENTER to accept the default password 'admin', or select another password.

    The following steps complete automatically.

    - Install

    - Create initial configuration

    - Start "first time use" server

11. The installation phase is complete. The final step launches the next phase: the configuration process (iht). This configuration phase is called **First Time Use**. Complete the instructions in **Configure Perceptive Process Enterprise on** UNIX .

Note If you do not execute the First Time Use process now, you can start this process later by entering `/<bpm-directory>/bin/bpmctl -s restart` in the command line.

Change the configuration password

During the installation, a user name and password are created that both have the default 'admin' value. This user name/password combination is only used during the First Time Use configuration phase. After this phase, this combination is no longer used. For security reasons, if you do not start the configuration phase immediately after installation, you may want to change the password for this user immediately after the installation phase.

To change the configuration password, complete the following steps.

1. In a text-only (plain text) editor, open the file `<program data>/etc/confpass`.

2. Replace the 'admin' password with a password of your choice.

3. Save and close the file.

Customize the path variables

To use case types (demo cases) or perform other administrative actions from the command line (using econf) after the installation, the bin folder must be included in the path variables. Customize the PATH variable in the shell profile by adding the path to the `/bin` directory from the location where Perceptive Process Enterprise is installed. For example, `PATH=$PATH:/usr/local/bpm/bin`.

Configure Perceptive Process Enterprise on UNIX

Configuring Perceptive Process takes a few steps and is done from the Internet browser at the address `http://<server name>:9449`. The configuration is called **First Time Use**. If you have not yet created an Oracle database, you can do so now before you start the configuration. For instructions, refer to **Create an Oracle database**.

Note The Perceptive Process Portal displays with the **System Control** menu open on the **First time use** option. This window displays the steps you must complete to set up Perceptive Process for use. The icon indicates the currently active step.

To set up Perceptive Process for first time use, complete the following steps.

1. To start **First Time Use**, complete the following substeps.

   1. In the **Name** box, type: `admin`

   2. In the **Password** box type: `admin`

   3. Click **Sign In**.

2. To upload the license file, complete the following substeps.

   1. Click **Browse** and navigate to the license file.

   2. Select the license file and click **Open**.

   3. Click **Continue**.

3. Under **Please choose your type of DBMS and enter the configuration settings**, specify the database type you are going to use. For UNIX, this is **Oracle**.

4. To configure the database, complete the following substeps.

   1. Complete the steps in **Configure an Oracle database**.

   2. Optional. If you use an existing database that is not empty, you can select the option to empty it.

   The database is filled, or verified and opened for use.

5. To configure Perceptive Process Server settings, complete the following substeps.

   1. Under **Language** select the language the server uses. This is the language for the texts that are exchanged between the server and the Perceptive Process applications, such as the log files.

   2. Optional. In the **Master Port** box, enter a different port number if necessary, for example if the default port is already being used.

   3. Optional. In the **Client Port** box enter a different port number if necessary, for example if the default port is already being used.

   4. Click **Continue**.

6. To configure the Perceptive Process Service, complete the following substeps.

    1. Optional. Type another name in the **Name of the top context** box. This is the highest level of the organization structure that is set up in Perceptive Process. By default, the name of the organization is entered here.

    2. The **User name** box displays the user name of the user to be added to Perceptive Process as the first administrative user (context owner). In the **Full name** box, enter the full name of this user.

    3. In the **Password** box, enter the password the user enters to log in to Perceptive Process.

    4. Click **Continue**.

7. Complete one of the following steps.

    - If you want to use Perceptive Process immediately, click **Continue**. Perceptive Process Portal opens.

    - If you do not want to use Perceptive Process immediately, clear the **Open Perceptive Process Portal automatically** option and then click **Continue**. The **First time use** window closes.

Start Perceptive Process

To start Perceptive Process directly in your internet browser, complete the following steps.

1. Start your internet browser.

2. In the address bar, type `http://<computer_name>:9449`

Install documentation on UNIX

By default, installations of Perceptive Process in other languages than English (United States) do not contain user documentation. To view online help and product guides in PDF format in one of the other supported languages, you must download and install the documentation files for that language. In Perceptive Process, the user can then select the language on the **Options** menu, and on the **Help** menu open the online help or product guides in the selected language.

The Perceptive Process Server Product Guide is available in US English only. To be able to view this guide when the language is set to a language other than US English, you must install this guide in the same location as the documentation files that are available in the other language.

Note You can install the documentation in more than one language.

To install documentation, complete the following steps.

1. From the Customer Portal, download the following files.

    - `Perceptive Process Enterprise [version number] -`
      `doc_ProductGuide_web_manual_pdf_[language code].zip`

    - `Perceptive Process [version number] -`
      `doc_ServerGuide_web_manual_pdf_en-US.zip`

    - `Perceptive Process [version number] -`
      `doc_OnlineHelp_web_manual_html_[language code].zip`

        Notes

        The "version number" is the version number of the installed version of Perceptive Process.

The "language code" is the code for the language of the documentation that you want to install in Perceptive Process, such as "nl-NL".

2. Save the downloaded files in a temporary location on your computer.

3. To create a directory structure for the documentation, complete the following substeps.

   1. Navigate to the data directory. The default is `/web/manual`.

   2. Select the `manual` directory and create two subdirectories: `pdf` and `html`.

   3. Select the `pdf` directory and create a subdirectory for the `[language code]`, such as `nl-NL` for Dutch.

   4. Select the `html` directory and create a subdirectory for the `[language code]`.

4. To install documentation in PDF format, complete the following substeps.

   1. Copy the following files from the temporary location to the directory `/web/manual/pdf/[language code]`.

      - `Perceptive Process Enterprise [version number] - doc_ProductGuide_web_manual_pdf_[language code].zip`

      - `Perceptive Process [version number] - doc_ServerGuide_web_manual_pdf_en-US.zip`

   2. Unzip the files in the directory `/web/manual/pdf/[language code]`.

   3. Remove the .zip files.

5. To install documentation as online help, complete the following substeps.

   1. Copy the following file from the temporary location to the directory `/web/manual/html/[language code]`.

      - `Perceptive Process [version number] - doc_OnlineHelp_web_manual_html_[language code].zip`

   2. Unzip the file in the directory `/web/manual/html/[language code]`.

   3. Remove the .zip file.

Upgrade Perceptive Process Enterprise on UNIX

When you upgrade Perceptive Process Enterprise on a computer with a UNIX operating system that is supported by Perceptive Process, you must launch the setup program from a terminal or a terminal emulator. In the terminal, you can use the following commands during the upgrade.

- To display help, on the input line, type a question mark **?** and press ENTER. After viewing the help information, you can continue the upgrade installation.

- To cancel the upgrade, press CTRL + C.

Note When you cancel the upgrade, the components that were installed before the upgrade was canceled are not deleted automatically. If you want to perform the upgrade again, you must first delete the files that have already been installed.

Back up modified installed files

If you manually modified files from the previous installation or upgrade, for example to include a company logo, the checksums of these files no longer match what the setup program is expecting. For a correct upgrade, you must create a backup copy of the modified files and replace them with the original files. Once you have completed the upgrade, you will have to redo the modifications in the new files, using the backed up previously modified files as an example.

The setup program includes a step that allows you to save the files that are installed during the upgrade. You can use these saved files for the next upgrade, when you need to replace modified files with the original files.

Upgrade requirements

The following requirements are important for a successful upgrade. Check these requirements **before** you start the upgrade.

Requirement	Description
User	The upgrade must be performed by the Un UNIX ix user who is also the Perceptive Process Enterprise administrator.
Backup	You must have performed an off-line backup of both the application server and the database.
Modified files	Refer to **Back up modified installed files**.
TMPDIR	The TMPDIR must have at least 500 MB available.
Bin folder	The `/bin` folder must be included in the path variables. To customize the PATH variable in the shell profile, add the path to the `/bin` directory from the location where Perceptive Process Enterprise is installed. For example, `PATH=$PATH:/usr/local/bpm/bin`.

Install the upgrade on Un UNIX ix

To upgrade Perceptive Process Enterprise on UNIX, complete the following steps.

1. Verify that all upgrade requirements are met.

2. From the Customer Portal, download the installation file for Perceptive Process Enterprise.

3. Open a terminal or terminal emulator session and start the installation script.

4. At the prompt **Do you want to install as yourself [user name]?**, press ENTER.

5. At the prompt **Enter Perceptive Process program installation directory**, type the path to the directory where Perceptive Process is currently installed, and press ENTER.

6. At the prompt **Install on <program directory>. Do you want to upgrade <program directory>**, type **yes** and press ENTER.

   Note If this prompt does not display, this means the path you entered for the previous prompt is incorrect.

7. At the prompt **Perceptive Process server is running; stop it now?**, type **yes** and press ENTER.

8. AIX Only. At the prompt **NOTICE: on AIX shared libraries must be cleaned by the superuser by entering the <slibclean> command. Please do so, or the upgrade will fail. Have you done that?** complete the following substeps.

   1. If you did not yet clean shared libraries, open another terminal session as a superuser, type **slibclean**, and press ENTER.
   2. In the terminal session for the upgrade, type **yes**, and press ENTER.

9. At the prompt **Do you want to save upgrade files before the upgrade?**, type **yes**, and press ENTER.

   Note In the next upgrade, you may need the files saved during this step. Refer to "Back up modified installed files".

10. Check the install.log file. Contact Global Support Services at Perceptive Software if this log file lists errors or skipped files with the detail **(updated after last install)**.

11. If you modified files in the previous version, manually modify the new version of these files.

12. In Perceptive Process Enterprise, open the **Help** menu and verify that the online help and the Product Guides are available in all desired languages. If not, refer to **Install documentation on** UNIX for instructions.

Installation of additional components and demo cases

You can add functionality to Perceptive Process by installing additional components and demo cases that are available from the Perceptive Software Customer Portal. Contact Global Support Services at Perceptive Software for components that are available on demand only.

There are two types of additional components you can install on a Perceptive Process client computer.

- **New Work Notification**. An application that sends a warning when a new case is added to a worklist. You can only install this application on computers with a Microsoft Windows operating system.

- **Client Tools**. Command line tools that enable you to complete Perceptive Process client operations from the command line. Client Tools are especially useful when integrating with other systems such as web integration or email integration. You do not need to install Client Tools if you do not use this type of system integration. There are three Client Tools.

  - **COM** integration component for Microsoft Windows.

  - **CHIP** command line utilities.

  - **JAVA SDK** (Perceptive Process Software Development Kit). A platform-independent component that allows you to integrate applications with Perceptive Process.

Demo cases are out-of-the-box cases that you can use in Perceptive Process during a training or demonstration. There are three demo cases.

- FormatConstructor

- FormDemo

- MotorClaim

Install New Work Notification (Windows only)

To install New Work Notification on a Windows computer, complete the following steps.

1. Ensure the Microsoft Visual C++ 2005 Redistributable is installed.

2. Ensure you have administrator rights in Windows.

3. From the Customer Portal, download `Perceptive Process Enterprise [version number] - Windows SDK and tools.zip`.

   In the file name, `[version number]` corresponds to the version number of the installed version of Perceptive Process, such as 3.3.

4. Save the downloaded zip file in a temporary location on your computer.

5. Unpack the zip file in any directory. We will refer to this location as `[install location]`.

6. To register `flowcom.dll`, complete the following substeps.

   1. Open a command window and go to the `[install location]\ClientTools\Windows_NT\sdk\bin` directory.

   2. In the command window, type `regsvr32 flowcom.dll` and press `ENTER`.

7. To start **New Work Notification**, in the directory `[install location]\ClientTools\Windows_NT\newwork\bin` double-click the `NewWork.exe` file.

8. In the **Settings** window, enter your preferred configuration for this application.
   The **New Work Notification** icon is now present in your System Tray.

9. If you do not use the **CHIP command line utilities**, you can delete the directory `[install location]\ClientTools\Windows_NT\chp`.

Install COM integration component (Windows only)

To install the COM integration component on a Windows computer, complete the following steps.

1. Ensure the Microsoft Visual C++ 2005 Redistributable is installed.

2. Ensure you have administrator rights in Windows.

3. From the Customer Portal, download `Perceptive Process Enterprise [version number] - Windows SDK and tools.zip`.
   In the file name, `[version number]` corresponds to the version number of the installed version of Perceptive Process Enterprise, such as 3.3.

4. Save the downloaded zip file in a temporary location on your computer.

5. Unpack the zip file in any location. We will refer to this location as `[install location]`.

6. To register both `BPMonecom.dll` and `flowcom.dll`, complete the following substeps.

   1. Open a command window and go to the `[install location]\ClientTools\Windows_NT\sdk\bin` directory.

   2. In the command window, type `regsvr32 flowcom.dll` and press `ENTER`.

   3. In the command window, type `[path]\regasm BPMonecom.dll /register` and press `ENTER`.
      Note `[path]` is the location of the `regasm.exe` file.

   The **COM integration component** is now available in the directory `[install location]\ClientTools\Windows_NT\sdk\bin`.

7. If you do not use the **CHIP command line utilities**, you can delete the directory `[install location]\ClientTools\Windows_NT\chp`.

8. If you do not use the **New Work Notification**, you can delete the directory `[install location]\ClientTools\Windows_NT\newwork`.

Install CHIP command line utilities

To install the CHIP command line utilities, complete the following steps.

1. From the Customer Portal, download one of the following files, depending on your system.

    -   For Windows: `Perceptive Process Enterprise [version number] - Windows SDK and tools.zip`.

    -   For AIX: `Perceptive Process Enterprise [version number] - AIX SDK and tools.zip`.

    -   For Red Hat Enterprise Linux: `Perceptive Process Enterprise [version number] - RHEL SDK and tools.zip`.

    In these file names, `[version number]` corresponds to the version number of the installed version of Perceptive Process, such as 3.3.

2. Save the downloaded file in a temporary location on your computer.

3. Unpack the zip file in any location. We will refer to this location as `[install location]`.

    On a Windows system, the **CHIP command line utilities** are located in the directory `[install location]\ClientTools\Windows_NT\chp\bin`.

    On a UNIX system, the **CHIP command line utilities** are located in the directory `[install location]/ClientTools/[operating system]/chp/bin`, where `[operating system]` is the directory that is appropriate for your type of UNIX operating system.

4. Optional. To delete unused directories on a Windows system, complete the following substeps.

    1. If you do not use the **COM integration** component, you can delete the directory `[install location]\ClientTools\Windows_NT\sdk`.

    2. If you do not use the **New Work Notification**, you can delete the directory `[install location]\ClientTools\Windows_NT\newwork`.

5. Optional. To delete unused directories on a UNIX system, delete either the `[install location]/ClientTools/AIX` directory or the `[install location]/ClientTools/Linux` directory, depending on your operating system.

Install JAVA SDK

To install the JAVA SDK (Software Development Kit), complete the following steps.

1. From the Customer Portal, download `Perceptive Process Enterprise [version number] - Java SDK and tools.zip`.
    In the file name, `[version number]` corresponds to the version number of the installed version of Perceptive Process, such as 3.3.

2. Save the downloaded zip file in a temporary location on your computer.

3. Unpack the zip file in any location. We will refer to this location as `[install location]`.

    The JAVA SDK is located in the `[install location]` directory.

4. Locate the `flowchip.jar` and `flowchipux.jar` files and copy both files to the `[install location]` directory.

   These jar files are present in the server installation of Perceptive Process, in a subdirectory of the installation directory of Perceptive Process.

   - On Windows, these jar files are in the `\server\web\client\jar` subdirectory.

   - On UNIX, these jar files are in the `/server/web/client/jar` subdirectory.

5. View the documentation of the JAVA SDK as needed.

   - On Windows, the documentation is in the `[install location]\javadoc` directory.

   - On UNIX, the documentation is in the `[install location]/javadoc` directory.

Install demo cases

To install the demo cases, complete the following steps.

Note The demo cases that are installed are FormatConstructor, FormDemo and MotorClaim. Also, the modules FormDemo, frmt and modmotor are installed. These modules support the installed demo cases.

1. From the Customer Portal, download one of the following files, depending on your system.

   - For Windows: `Perceptive Process Enterprise [version number] - Windows Demo Case Types.zip`.

   - For AIX: `Perceptive Process Enterprise [version number] - AIX Demo Case Types.zip`.

   - For Red Hat Enterprise Linux: `Perceptive Process Enterprise [version number] - RHEL Demo Case Types.zip`.

   In these file names, `[version number]` corresponds to the version number of the installed version of Perceptive Process, such as 3.3.

2. Save the downloaded file in a temporary location on your computer.

3. In the Perceptive Process Portal menu, click **Administration** and then click **Release Case Type**.

4. Click the **Choose file** button and select the file `Perceptive Process Perceptive Process Enterprise 3.2 - Demo Case Types.zip`.

5. Click the **Release** button.

6. Wait until the window displays a list of messages.

7. To see the installed case types and modules, in the Portal menu, click **Design** and then click **Explorer**.

Uninstall New Work Notification (Windows only)

To uninstall New Work Notification, complete the following steps.

Note For the `[install location]`, refer to **Install New Work Notification (Windows only).**

1. In the Windows System Tray, right-click the **New Work Notification** icon and click **Open**.

2. Clear **Start automatically at logon** and click **OK**.

3. In the Windows System Tray, right-click the **New Work Notification** icon and select **Exit**.

4. To unregister `flowcom.dll`, complete the following substeps.

    1. Open a command prompt window.

    2. Go to the directory `[install location]\ClientTools\Windows_NT\sdk\bin`.

    3. Type `regsvr32 /u flowcom.dll` and press ENTER.

5. In Windows Explorer, go to the directory `[install location]\ClientTools\Windows_NT` and delete the `\newwork` directory, including all its subdirectories.

Uninstall COM integration component (Windows only)

To uninstall the COM integration component, complete the following steps.

Note For the `[install location]`, refer to **Install COM integration component (Windows only).**

1. To unregister both `BPMonecom.dll` and `flowcom.dll`, complete the following substeps.

    1. Open a command prompt window.

    2. Go to the directory `[install location]\ClientTools\Windows_NT\sdk\bin`.

    3. Type `regsvr32 /u flowcom.dll` and press ENTER.

    4. Type `[path]\regasm BPMonecom.dll /unregister` and press ENTER.
       Note `[path]` is the location of the `regasm.exe` file.

2. In Windows Explorer, go to the directory `[install location]\ClientTools\Windows_NT` and delete the `\sdk` directory, including all its subdirectories.

Uninstall CHIP command line utilities

To uninstall the CHIP command line utilities, complete one of the following actions, depending on your operating system.

Note For the `[install location]`, refer to **Install CHIP command line utilities.**

- On a Windows system, go to the directory `[install location]\ClientTools\Windows_NT` and delete the `\chp` directory, including all its subdirectories.

- On a UNIX system, go to the directory `[install location]/ClientTools/[operating system]` and delete the `\chp` directory, including all its subdirectories.
  Note Select the `[operating system]` directory that is appropriate for your type of UNIX operating system.

Uninstall JAVA SDK

To uninstall the JAVA SDK, complete the following steps.

Note For the `[install location]`, refer to **Install JAVA SDK.**

1. Complete one of the following actions, depending on your operating system.

    1. On a Windows system, go to the directory `[install location]` and delete the directories `\javadoc` and `\nl`.

    2. On a UNIX system, go to the directory `[install location]` and delete the directories `/javadoc` and `/nl`.

2. In the `[install location]` delete the files `flowchip.jar` and `flowchipux.jar`.

Uninstall demo cases

To uninstall the demo cases, complete the following steps.

1. In Perceptive Process, in the **Portal** menu, click the **Design** button and then click **Explorer**.

2. Select the case types models `FormatConstructor`, `FormDemo`, and `MotorClaim`.

3. Click **Edit** > **Delete**.

Note This procedure only uninstalls the demo cases FormatConstructor, FormDemo, and MotorClaim. The modules that are part of the installed demo cases - FormDemo, frmt, and modmotor - cannot be uninstalled.

Database creation for Perceptive Process

This chapter provides the following information.

- **How to create an Oracle database**. To use Perceptive Process with an Oracle database, you need to complete these steps before installing Perceptive Process.

- **How to configure an Oracle database**. These steps are part of the configuration instructions for Perceptive Process with an Oracle database.

- **How to configure a Microsoft SQL Server database**. These steps are part of the configuration instructions for Perceptive Process with an MS SQL Server database.

About the database

To install Perceptive Process, you must create and configure a database either before or during the installation of Perceptive Process. During the installation, the necessary Perceptive Process database tables are created for you.

Database user

When creating a database, you must be signed in as a database user with the corresponding database rights. You also need write access for the directory in which the database files are to be created. The default language for the database user must be English.

Important information for an Oracle database

If you want to use Perceptive Process with an Oracle database, you must create the database before you start the installation. This will **not** be done automatically during the installation. For instructions, refer to **Create an Oracle database**.

Important information for a Microsoft SQL Server database

If you want to use Perceptive Process with a Microsoft SQL Server database, you can create the database yourself before you start. Alternatively, the installation package can automatically create a Microsoft SQL Server database for you during the installation of Perceptive Process. A requirement for the automatic database creation is that the database user is created **before** you start the installation.

To create the database user, complete the following steps.

1. Open **Microsoft SQL Server Management Studio**.

2. Click **Security** and then click **Logins**.

3. Right-click **Logins** and then click **New Login**.

4. On the **General** page, complete the following substeps.

    1. Next to **Login name** type for example `bpmone`.

    2. Select **SQL Server authentication**.

    3. For **Password** select a password.

    4. Clear the **Enforce password policy** option.

5. On the **Server Roles** page, select the **sysadmin** option.

6. Click **OK**.

If you want to install Perceptive Process on a Windows Server 2008 R2 64 bit platform, and you plan on using a remote MS SQL Server database on a 32 bit platform, you must create a database yourself before installing Perceptive Process.

During the creation of a Microsoft SQL Server database you must specify a database collation. For a Perceptive Process database the database collation must be case insensitive. The default database collation for creating a Perceptive Process database is `SQL_Latin1_General_CP1_CI_AS`, where 'CI' indicates that the collation is case insensitive. If you select another database collation, it must contain 'CI'.

Location of the RDBMS software

Both for an Oracle database and for a Microsoft SQL Server database, you must install the RDBMS software before you install Perceptive Process.

Location of database and Perceptive Process	Location of RDBMS software
Will be installed on the same computer.	Must be installed on that computer.
Will be installed on different computers (database 'remote' for Perceptive Process). **Note** This requires that the Client Tools for that database are installed on the Perceptive Process computer.	Must be installed on the remote database computer.

Connection to the database

We advise you to check the database connection after you create the database and before you install Perceptive Process Server. The following table provides the commands you can use to check the connection to the database.

Database	Command
Oracle	• `tnsping <Service Name>` • `sqlplus <user>/<oracle pwd>@<oracle id>`
Microsoft SQL Server	• `osql -S <server_name>[\instance_name] -d` `<database_name> -U <login_id> -P <password>`

Size of the database tables

When you create a database for Perceptive Process, you should **not** create the database tables. This is done during the installation of Perceptive Process. However, while using Perceptive Process some tables can become very large. Therefore we advise to change the size of these tables. Refer to your RDBMS documentation for more information on changing the creation options.

During the installation of Perceptive Process the `<installdir>\oracle\tabledefPROTO.sql` file is created (where PROTO refers to the planned OracleSID), which includes an indication of the expected size for each table. The following table describes the size indications.

Indication	Description
Small table	• Size ranges from a few records to a few hundred records. • Does not grow or hardly grows at all when using Perceptive Process.
Medium table	• Size ranges from a few hundred records to a few thousand records. • Can grow a little more when using Perceptive Process than a 'small table'.
Large table	• Size ranges from a few thousand to tens of millions of records, depending on the number of case instances. • Can grow quickly when using Perceptive Process.

Configuration of a remote database computer

You can install the database software and Perceptive Process on different computers. The database is then remote for Perceptive Process. This section describes which components must be installed on the remote database server and which on the Perceptive Process server, and what other conditions must be met for a remote database.

Install user

If you want to install the Perceptive Process database on a different computer from the Perceptive Process computer, you must create an install user on the remote computer with the same name as the install user on the server you are installing Perceptive Process on. This install user must have the same rights as the install user on the Perceptive Process server.

Overview of software for using a remote database

The following table gives an overview of the software that must be installed on the two servers.

Software	Remote Database Server	Perceptive Process Server
RDBMS software	X	X Only applies to **osql** and only for MS SQL Server.
Database	X	
RDBMS client software		X
Perceptive Process software		X

Remote database server

You must create a database for Perceptive Process on the remote database server. You can do this using the RDBMS software, or in the Configure database step by specifying the name of a remote server under **Database Server Name**.

Perceptive Process server

You must install the RDBMS client software on the Perceptive Process server to enable Perceptive Process to connect to the database. Install RDBMS client software using the RDBMS installation software, such as Microsoft SQL Server or Oracle. If you are using Microsoft SQL Server, in addition to the RDBMS client software, you should also install an **osql** on the Perceptive Process server. This **osql** is part of the MS SQL Server installation.

Refer to the "Technical Specifications" document for an overview of the supported versions of RDBMS client software.

Configuration of Oracle

You need to create an Oracle listener (TNS) and/or an Oracle Names configuration on both the remote database server and on the Perceptive Process server (this is the database client). This allows the Perceptive Process server to connect to the database server. Refer to the Oracle documentation for more information.

Create an Oracle database

This section is intended for Oracle Database Administrators. To use Perceptive Process with an Oracle database, you need to complete the steps described in this section before installing Perceptive Process. This section also contains information on the data that you need when completing these steps.

Overview of steps

The procedure to install Perceptive Process with an Oracle database consists of the following steps.

1. Install the Oracle RDBMS software.

2. Create the Oracle database.

3. Create the required tablespaces in the Oracle database.

4. Install an Oracle client on the Perceptive Process application server.

5. Create a database user in the Oracle database and set the tablespaces.

6. Configure the Oracle listener and check the connection using SQL Plus.

7. Install Perceptive Process Server.

8. Configure extra waiting time to start the Oracle Service.

Step 1: Install the Oracle RDBMS software

You must install the RDBMS-software before you install Perceptive Process Server, following these guidelines.

- If you will install the Oracle database and Perceptive Process Server on the same machine, install the RDBMS software on that machine.

- If you will install the Oracle database and Perceptive Process Server on different machines ('remote database'), complete the following steps.

    - Install the RDBMS software on the machine on which you install the Oracle database.

    - Install an Oracle Client on the server machine on which you install Perceptive Process. Refer to step 4.

Step 2: Create the Oracle database

While creating an Oracle database for Perceptive Process, complete the following steps.

- To ensure Perceptive Process runs correctly, set the character set of the database to `AL32UTF8`. If this character set is not available, such as in Oracle 9, use another UTF character set.

- Specify the desired sizes for the database. Refer to the Oracle documentation.

The database sizes strongly depend on the environment in which Perceptive Process will be used. For example, the size of the shared memory (SGA) depends on the amount of physical available RAM memory. If you set the SGA value too high, your computer will not perform optimally. If you set the SGA value too low, Perceptive Process will not perform properly.

The following table gives an overview of the Oracle database settings that are relevant when creating an Oracle database for use with Perceptive Process.

Setting	Description
Shared memory size (SGA)	The size of the 'shared memory' that is used by Oracle.
System table size	The initial size in megabytes if the Oracle system tables.
Auxiliary table size	The initial size in megabytes of the auxiliary Oracle system tables.
Temporary segment size	The size of the temporary data segment in megabytes (temp, sort etc.).
Table size	The initial size in megabytes of the complete database (wfd).
Index size	The maximum size in megabytes of all index files in the database.
Rollback segment size	The size of the rollback segment in megabytes, which enables to undo the latest unconfirmed database transactions.
Sorting table size	A file for the sorting tablespace, for temporary use by Oracle.
Log file size per file	The maximum size of the Oracle log files.

Setting	Description
Block size	The I/O block size in bytes that Oracle must use. **Note** The value for **Block size** is platform dependent and must be set to an optimal value to ensure maximal system performance.
Number of database blocks	The number of database blocks that Oracle may have in memory at a certain moment.
Number of processes	The number of processes that Oracle is allowed to start simultaneously for Perceptive Process.

Step 3: Create tablespaces in the Oracle database

To ensure Perceptive Process runs correctly, create two tablespaces in the Oracle database with the following names.

- WFD_DATA

- WFD_INDEX

The tablespace `wfd_data` is used for the storage of the Perceptive Process tables. Both tablespaces must be at least 100 MB and must be configured to grow automatically (QUOTA UNLIMITED).

Note For large Perceptive Process production environments the tablespaces must be calculated beforehand.

Step 4: Install an Oracle client

If the Oracle database and Perceptive Process will be on different servers ('remote database'), you need to install an Oracle client on the server machine on which you will install Perceptive Process.

When installing an Oracle Client, you must install at least the following components.

- SQL Plus

- Oracle ODBC Driver

- Oracle Call Interface (OCI)

- Oracle Net

If the Oracle Home variable is not set automatically during the installation of Oracle client, to set this variable manually, complete the following steps.

1. On the Windows Start menu, click **All Programs** > **Accessories** > **Command Prompt**.

2. In the command prompt window, enter the following command: `set ORACLE_HOME=<path>`

   `<path>` is the path to the oracle home, which you can find in the Windows Registry in HKEY_LOCAL_MACHINE\Software\Oracle\Oracleversie\ORACLE_HOME

   For example, `set ORACLE_HOME=C:\Oracle\product\10.2.0`

Step 5: Create a database user and set tablespaces

You need to create a user in the database. We recommend to use `bpmone` as the database user. The name of this user will be asked during the configuration of Perceptive Process. Run the following script, for example with SQLplus, to give the user the necessary Oracle grants for creating a database.

```
CREATE USER bpmone IDENTIFIED BY "password" PROFILE DEFAULT;

GRANT ALTER ANY INDEX TO bpmone;

GRANT ALTER ANY PROCEDURE TO bpmone;

GRANT ALTER ANY SEQUENCE TO bpmone;

GRANT ALTER ANY TABLE TO bpmone;

GRANT ALTER ANY TRIGGER TO bpmone;

GRANT CREATE ANY INDEX TO bpmone;

GRANT CREATE ANY PROCEDURE TO bpmone;

GRANT CREATE ANY SEQUENCE TO bpmone;

GRANT CREATE ANY TABLE TO bpmone;

GRANT CREATE ANY TRIGGER TO bpmone;

GRANT CREATE ANY VIEW TO bpmone;

GRANT DROP ANY INDEX TO bpmone;

GRANT DROP ANY PROCEDURE TO bpmone;

GRANT DROP ANY SEQUENCE TO bpmone;

GRANT DROP ANY TABLE TO bpmone;

GRANT DROP ANY TRIGGER TO bpmone;

GRANT DROP ANY VIEW TO bpmone;

GRANT CREATE SESSION to bpmone;

GRANT "CONNECT" TO bpmone;

ALTER USER BPMONE QUOTA UNLIMITED ON WFD_DATA;

ALTER USER BPMONE QUOTA UNLIMITED ON WFD_INDEX;
```

`ALTER USER BPMONE DEFAULT TABLESPACE "WFD_DATA";` (The default tablespace for the database user must be WFD_DATA.)

The Oracle database is now ready for the installation of Perceptive Process.

Step 6: Configure the Oracle listener and check the connection

Check the connection using one of the following commands.

- `tnsping <Service Name>`

- `sqlplus <user>/<oracle pwd>@<oracle id>`
  For example, `sqlplus bpmone/bpm4pass@bpm`.

Step 7: Install Perceptive Process

On a Windows system, complete the steps in **Install Perceptive Process on Windows**.

On a UNIX system, complete the steps in **Install Perceptive Process Enterprise on UNIX**.

Note During the installation and migration of Perceptive Process, the Oracle database cannot be in the archive mode.

Step 8: Configure extra waiting time to start the Oracle Service

To ensure that the Oracle Service is started after a system restart, you can specify the time in seconds that Perceptive Process Server must wait before start up, in the Windows Registry key of type DWORD.

`HKEY_LOCAL_MACHINE\SOFTWARE\WaveFront\BPMone Server\1\Oracle\WAIT4RDBMS`

Because Perceptive Process Server depends on the Oracle Service, during the startup of your system Perceptive Process Server will start after the Oracle Service is started.

Configure an Oracle database

During the configuration of Perceptive Process, you need to enter the database configuration information.

To enter the database configuration information for an Oracle database during the configuration of Perceptive Process, complete the following steps.

1. In the **Database server name** box, enter the name of the computer that is used as the database server for the Perceptive Process database. The default is the computer on which Perceptive Process is being installed.

    Note If the database computer is not the server where Perceptive Process is being installed, the database is 'remote' for Perceptive Process.

2. In the **Database SID** box, enter the name of the Perceptive Process database in the Oracle environment.

    Note The *ORACLE_SID* must already exist. The length of this database identifier and the lengths permitted in it vary for each Oracle version. Consult the Oracle documentation to create a valid SID. Perceptive Process Server does not check the SID.

3. In the **Oracle Home** box, enter the location where Oracle is installed. The installation program detects this location, unless Oracle is installed on your computer more than once.

4. In the **Database user** box, enter the name of an Oracle database user created in Oracle for Perceptive Process.

5. In the **Database password** box, enter the password of the user you entered in the **Database user** box.

6. In the **Confirm database password** box, enter the password of the database user again.

7. Continue with the installation as described in the section **Configure Perceptive Process on Windows** or in the section **Configure Perceptive Process Enterprise on UNIX**.

Configure a Microsoft SQL Server database

During the configuration of Perceptive Process, you need to enter the database configuration information.

To enter the database configuration information for a Microsoft SQL Server database during the configuration of Perceptive Process, complete the following steps.

1. In the **Database server name** box, enter the name of the computer that is used as the database server for the Perceptive Process database. The default is the computer on which Perceptive Process is being installed.

   Note If the database computer is not the computer where Perceptive Process is being installed, the database is 'remote' for Perceptive Process.

2. In the **Database instance** box, enter the database instance you want to use. The default is the database instance that is currently active.

   Note Microsoft SQL Server allows multiple database instances to be active simultaneously.

3. In the **Database name** box, enter the name of the MS SQL database that will be used for Perceptive Process.

   Note If you want to create a new database, the name you enter must not already be in use.

4. In the **Database version** box, enter the internal version of the MS SQL Server database.

5. In the **Database user** box, enter the name of a user created during the installation of Perceptive Process in MS SQL Server for Perceptive Process. You can select an existing user.

6. In the **Database password** box, enter the password of the database user you entered in the **Database user** box.

7. In the **Confirm database password** box, enter the password of the database user again.

8. Continue with the installation as described in the section **Configure Perceptive Process on Windows**.