

# Perceptive Enterprise Search

## Installation, Upgrade, and Setup Guide

Version: 10.5.x

Written by: Product Knowledge, R&D  
Date: October 2016

© 2016 Lexmark. All rights reserved.

Lexmark is a trademark of Lexmark International, Inc., registered in the U.S. and/or other countries. All other trademarks are the property of their respective owners. No part of this publication may be reproduced, stored, or transmitted in any form without the prior written permission of Lexmark.

## Table of Contents

<b>Perceptive Enterprise Search Overview .....</b>	<b>4</b>
<b>Perceptive Enterprise Search Anywhere Overview.....</b>	<b>4</b>
<b>Prepare for the installation or upgrade.....</b>	<b>4</b>
Complete readiness checks .....	4
Test the TCP/IP connection.....	5
<i>Notes</i> .....	5
Open firewall and network ports .....	5
Download Perceptive Enterprise Search files .....	5
<b>Install Perceptive Enterprise Search.....</b>	<b>6</b>
<b>Test the installation .....</b>	<b>7</b>
Test the Administration Site.....	7
Test a basic search .....	7
<b>Upgrade Perceptive Enterprise Search .....</b>	<b>7</b>
Stop Perceptive Enterprise Search Server.....	7
Backup essential files .....	7
<i>Required files</i> .....	8
<i>Optional files</i> .....	8
Uninstall the existing version .....	8
Install the new version .....	9
Restore essential files .....	9
<b>Configure network ports .....</b>	<b>9</b>
Modify a port number through the Administration Site .....	9
Modify a port number through the ISYSweb.cfg file.....	10
<b>Configure IIS binding.....</b>	<b>10</b>
Modify an IIS binding through the Administration Site .....	10
For IIS bindings that are not bound to the root folder of the IIS site .....	10
For IIS bindings that are bound to the root folder of the IIS site.....	11

## Perceptive Enterprise Search Overview

Perceptive Enterprise Search is a web-based application that provides secure, unified information access to your content across diverse enterprise systems. Perceptive Enterprise Search makes it simple, straightforward, and quick for users to locate key information. Users can rapidly access the information they need and then take action, such as completing a task or advancing a business process. Additionally, with faceted navigation, conversational search, natural language support and other intuitive features, users do not need to enter perfect queries to get the right results.

## Perceptive Enterprise Search Anywhere Overview

With your purchase of Perceptive Enterprise Search, you receive the Perceptive Enterprise Search Anywhere client. It allows a user to create and search personal indexes of data located on his or her computer. It also enables a user to search Enterprise Search indexes through a browser or mobile device.

Enterprise Search stores a user's personal indexes in their own data store on the server. Only the user who owns the personal indexes and the server administrator can access them.

By default, the Perceptive Enterprise Search installation process creates a Perceptive Enterprise Search Anywhere site. After you complete the Perceptive Enterprise Search installation, each user must connect his or her computer through the Perceptive Enterprise Search Anywhere site. A user can connect up to three computers and devices.

## Prepare for the installation or upgrade

These instructions enable you to install Perceptive Enterprise Search directly on a Windows server. To upgrade from a previous version of Perceptive Enterprise Search, refer to [Upgrade to Perceptive Enterprise Search](#) in this document. Additional information is also available in the *Release Notes* available on the Customer Portal of the Perceptive Software website at [www.lexmark.com](http://www.lexmark.com).

### Complete readiness checks

Before you install, complete the following readiness checks.

- Verify that you have a user name and password for the Customer Portal at [www.lexmark.com](http://www.lexmark.com) so you can download installation files and access product documentation.
- Verify that that you are logged in as a member of the Administrators group on the domain or local computer.
- On the Perceptive Enterprise Search computer, check the Windows Event Viewer to verify that the computer has no DNS, hardware, or critical Windows errors.
- Verify that your system meets the requirements in the *Perceptive Enterprise Search Technical Specifications*.
- Verify your product compatibility outside of Perceptive Enterprise Search, such as the compatibility between the service pack level of the operating system and your version of Microsoft SQL Server.

## Test the TCP/IP connection

To test the TCP/IP connection to the computer that will run Perceptive Enterprise Search, complete the following step.

- In **Command Prompt**, type `ping <server address>`, where *<server address>* is the IP address or the host name of the computer that will run Perceptive Enterprise Search and then press **ENTER**.

### Notes

- If the TCP/IP connection is successful, a message such as the following is returned:

```
Pinging diamond.isys.denver [10.188.234.102] with 32 bytes of data:  
Reply from 10.188.234.102: bytes=32 time<1ms TTL=128  
Reply from 10.188.234.102: bytes=32 time<1ms TTL=128  
Reply from 10.188.234.102: bytes=32 time<1ms TTL=128
```

- If the TCP/IP connection fails, the `Bad IP address` message is returned. Verify the IP address or name.

## Open firewall and network ports

To enable components of the Perceptive Enterprise Search stack, you must open or verify specific ports on your network. Perceptive Enterprise Search uses ports 80, 81, 8080, 8081, 8082, 8083, 8700 and 8701 by default. If your current environment already uses these ports, refer to [Configure network ports](#) after you complete the installation process but before you test your installation.

- **Port 8700.** The Administration Site, which allows you to customize the Perceptive Enterprise Search installation, uses port 8700 by default.
- **Port 8080 and 80.** The default search site is the primary interface for searching with Perceptive Enterprise Search and utilizes ports 80 and 8080 by default.
- **Port 8081 and 81.** Perceptive Enterprise Search Anywhere enables users to index their own privately accessible local content on the server. It runs on port 8081 by default.
- **Port 8082.** ResearchAccelerator is the web-based Perceptive Workgroup Search equivalent, installed with Perceptive Enterprise Search. ResearchAccelerator is installed on port 8082 by default.
- **Port 8083.** REST API is the programmable XML interface installed with Perceptive Enterprise Search. REST API is installed on port 8083 by default.

## Download Perceptive Enterprise Search files

To download the necessary files to install Perceptive Enterprise Search, complete the following steps.

1. Go to the Lexmark website at [www.lexmark.com](http://www.lexmark.com) and log in to the Customer Portal.
2. In the **Product Downloads** page, search for all downloadable items for the specific product and version you want to use. These files may include a product installer, product documentation, or set of supporting files.
3. Download the relevant files to a temporary directory on your computer.

## Install Perceptive Enterprise Search

To install and license Perceptive Enterprise Search, complete the following steps.

1. If your Windows operating system uses User Account Control (UAC), right-click the **EXE** file you downloaded and select **Run as Administrator**. Otherwise, double-click the **EXE** file.
2. On the Perceptive Enterprise Search Setup page, click **Next**.
3. On the **Read the license agreement** page, review the terms in the License Agreement, scroll to the end of the agreement, and then click **Next**.
4. On the **Personalize Perceptive Enterprise Search** page, complete the following sub steps:
  - a. In the **Your name** field, specify the owner user.
  - b. In the **Your company** field, type the name of the company for which the product is licensed.
  - c. In the **Your License Key** field, type the license key supplied by your Perceptive Software representative or check the **Demo Mode** option to install without a license key.
  - d. Click **Next**.
5. On the **Choose folder** page, browse to the destination folder where you want to install the files.

**Note** You must store the program and data files on a local drive so that the service and guest accounts can access them. We recommend that you store the files in the default location.

6. On the **Type a program group name** page, complete the following sub steps:
  - a. In the **Program group name** box, leave the default program name of **Perceptive Enterprise Search 10** that will appear in the **Start** menu, or specify a different name.
  - b. To create shortcuts, select one of the following options:
    - c. **Create shortcuts for all users of this computer.** Creates a shortcut to Perceptive Enterprise Search in each Windows user account that exists on the computer.
    - d. **Create shortcuts just for me.** Creates a shortcut to Perceptive Enterprise Search only in your Windows account.
  - e. Click **Next**.
7. On the Perceptive Enterprise Search Setup page, click **Next**.
8. When the Perceptive Enterprise Search has been successfully installed message appears, complete the following sub steps:
  - a. Optional. To automatically open Perceptive Enterprise Search after the installation is complete, select **Run Perceptive Enterprise Search Administration Console now**.
  - b. Click **Finish**.

## Test the installation

This section provides two methods to test your Perceptive Enterprise Search installation. First, you verify that the Administration Site opens. Second, you complete a basic search that uses a default index installed with Perceptive Enterprise Search. If either test fails, refer to the server logs stored in the [drive:]\Windows\System32\LogFiles directory.

### Test the Administration Site

To ensure the Administration Site functions as expected, complete the following step.

- If you did not select the Run Perceptive Enterprise Search Administration Site now option during the installation, click **Start > All Programs > Perceptive Enterprise Search 10 > Administration – Perceptive Enterprise Search**. The Administration Site should display in a browser. Anyone in the local or domain Administrators group can logon with their credentials.

### Test a basic search

To ensure that basic searching functions as expected, complete the following steps.

1. Open a web browser and navigate to the following default search site: <http://localhost:8080/>.
2. In the **I'm looking for** field, type **test**.
3. To search across all sites and indexes, in the list, click **Entire Site** and then click **Search**.
  - a. **Step result:** After Perceptive Enterprise Search completes the search, a number of document result matches display in a results list.
4. To view the contents of a document, click any document in the results list.
5. In the document, verify that Perceptive Enterprise Search highlighted each instance of the term **test**.

## Upgrade Perceptive Enterprise Search

To upgrade from a previous version of Perceptive Enterprise Search and preserve your indexes, sites, and settings, complete the steps in the following sections.

**Important:** To upgrade from version 8 or earlier, we recommend that you install the software in a new location.

### Stop Perceptive Enterprise Search Server

To stop the Perceptive Enterprise Search services, complete the following step.

- In the **Services** dialog box, right-click the **Perceptive Enterprise Search 10** service and click **Stop**.

### Backup essential files

To ensure that you can replace essential data in case of any problems, we recommend that you back up the following files before you begin the upgrade process. These files vary by implementation, and your implementation might not include all of them. The default directory for these files is [drive:]Program Files\Perceptive Enterprise Search <version>.

## Required files

Name	Description
ISYS.CWD	The Perceptive Enterprise Search Common Words file
ISYSweb.CFG	The Perceptive Enterprise Search Configuration file
/WebIndexes directory	The directory for all website-based indexes
/WebUserIndexes directory	The directory for all user-based indexes (Anywhere, Exchange mailboxes)
/WebSites directory	The directory for all default Perceptive Enterprise Search web sites

## Optional files

Name	Description
ISYS.SYN	The Perceptive Enterprise Search Synonym Rings file
ISYS.SCT	The Perceptive Enterprise Search Concept Tree file

To back up your essential files, complete the following steps.

1. In your current Perceptive Enterprise Search directory, copy the essential files.
2. Place the copied files in a temporary location.

## Uninstall the existing version

To uninstall the existing version of Perceptive Enterprise Search, complete the following steps.

1. Close all open programs.
2. Ensure all instances of Perceptive Enterprise Search software are closed.
3. Click **Start > Settings > Control Panel > Add or remove programs**.
4. Select **Perceptive Enterprise Search**.
5. Click **Remove** or **Uninstall**.
6. If you are asked whether to remove all Perceptive Enterprise Search data, click **No**.
7. Click **OK**.
8. Restart your computer.



## Install the new version

To install the new version of Perceptive Enterprise Search, complete the following step.

- Download the Perceptive Enterprise Search files, run the installation wizard, and test the installation as specified earlier in this document.

## Restore essential files

When you install Perceptive Enterprise Search, it should detect any customized common words file, synonym rings and concept taxonomies. To restore the original files from the backups you created earlier, complete the following steps.

1. Close the Perceptive Enterprise Search – Local Administration Console and the Perceptive Search Administration Site.
2. Stop the Perceptive Enterprise Search service.
3. In the temporary location where you backed up the files, copy the files.
4. Place the copied files in the Perceptive Enterprise Search directory.
5. Start the Perceptive Enterprise Search service.

## Configure network ports

Perceptive Enterprise Search uses ports 80, 81, 8080, 8081, 8082, 8083, and 8700 by default. If this configuration conflicts with your current environment setup, you can change the ports through the Perceptive Enterprise Search Administration Site or through the ISYSweb.cfg file. Complete the steps in the following section for the option you choose.

## Modify a port number through the Administration Site

To modify a port number through the Perceptive Enterprise Search Administration Site, complete the following steps.

1. To open the Administration Site, click **Start > All Programs > Perceptive Enterprise Search 10 > Administration – Perceptive Enterprise Search**.
2. On the Administration Site, in the left pane, click **Websites > Default > Bindings** and complete the following substeps:
  - a. In the right pane, under **IP Bindings**, select the port you want to modify and click the **Edit** button.
  - b. In the **IP Binding** dialog box, in the **Port** box, type a new port number and click **OK**.
  - c. Optional. Modify another default port number.
3. Restart the Perceptive Enterprise Search 10 service.

## Modify a port number through the ISYSweb.cfg file

To modify a port number through the ISYSweb.cfg file, complete the following steps.

1. In the Perceptive Enterprise Search 10 installation directory, open the **ISYSweb.cfg** file in a text editor.
2. In the **Site** node with the name **Default** and description **Default Perceptive Enterprise Search search site**, locate the **Port** tag within the **Binding** element and change the port assignment for any port that conflicts with your current environment configuration.
3. Save and close the **ISYSweb.cfg** file.
4. Restart the Perceptive Enterprise Search 10 service.

## Configure IIS binding

If any of the previous websites used IIS bindings, they need to be reconfigured.

### Modify an IIS binding through the Administration Site

First, verify if any of the search sites use an IIS binding.

1. To open the Administration Site, click **Start > All Programs > Perceptive Enterprise Search 10 > Administration – Perceptive Enterprise Search**.
2. On the Administration Site, in the left pane, click **Websites > [SiteName] > Bindings**.
3. Verify whether or not an IIS binding exists and if so, whether it is bound to the root folder of the IIS site
4. Repeat this process for all search sites.

### For IIS bindings that are not bound to the root folder of the IIS site

1. If an IIS binding exists and it is not bound to the root folder of the IIS site delete it by clicking on the red **X** on the right hand side.
2. Click **New IIS Binding**.
3. Follow through the wizard to create the new IIS binding.
  - a. **Note** It is not recommended to bind to the root folder of the IIS site.

## For IIS bindings that are bound to the root folder of the IIS site

**Important** If an IIS binding exists and it is bound to the root folder of the IIS site do not delete it or your entire IIS site may stop working. In this scenario, the binding will need to be manually removed from the ISYSweb.cfg file.

1. Run Windows Notepad or a similar text editor.
2. Click **File** > **Open** and navigate to C:\Program Files\ Perceptive Enterprise Search 10\ISYSweb.cfg.
  - a. Note that this path may be different on your system.
3. In the **<Sites>** section, find the website that had the IIS binding that was bound to the root folder. There will be an entry that looks similar to this: `<Binding MetaBasePath="/LM/W3SVC/1/ROOT"/>`  
Delete it.
4. Save your changes and exit out of Notepad.
5. Back in the Administration, navigate back to the **Binding** section of the site where the binding was just removed. If the old IIS binding still displays refresh the web page.
6. Click on **New IIS Binding**.
7. Follow through the wizard to create the new IIS binding.

**Note** It is not recommended to bind to the root folder of the IIS site.