

# Chapter 11 – Search

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## Terms

This Windows SharePoint Services Operations Guide (WSSOPS) from the Computer Information Agency is provided as is. Every effort has been made by the author to ensure that information provided is correct however this cannot be guaranteed.

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# Chapter 11 – Search

## 11.1 Scope

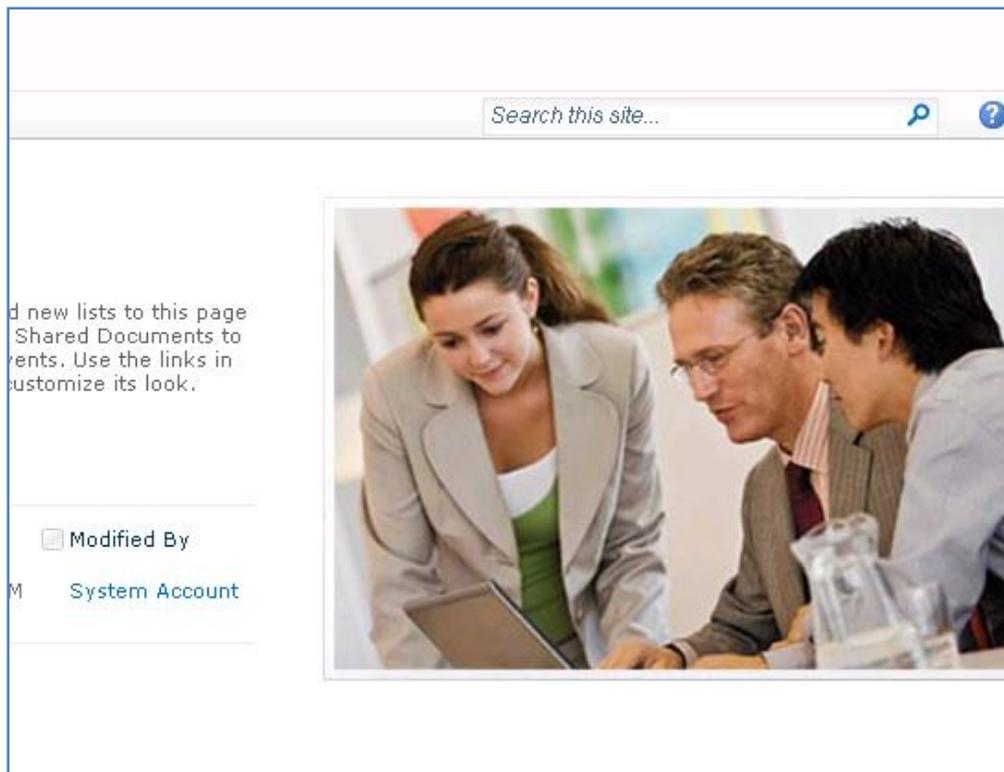
This chapter will cover the specifics of enabling and enhancing the searching of Windows SharePoint Foundation 2010 (WSF). Although WSF can search much of what appears in WSF it is possible to extend this to items such as Adobe PDF documents. The major restriction that searching has in WSF is that it is limited to the WSF site. However, with the installation of Microsoft Search Server Express 2010 it is possible to not only search WSF content but also information from elsewhere including network file shares, Exchange public folder and even Internet web sites.

## 11.2 Prerequisites

WSF search requires WSF to be installed. See **Chapters 3 and 4** for more information about installing WSF.

## 11.3 Basics

Like its predecessor, Windows SharePoint Services v3 (WSS v3), WSF includes the ability to index and search its content automatically.



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Once WSF has been installed you will see a search box in the top right of the window. Simply enter the desired search information and click the magnifying glass to the right to commence the search.



When the search has completed you will a list of entries matching your search display like shown above. You can click on these results to display the entry. If you enter more than one word WSF will match any item with either or both of the strings (a Boolean OR operation). WSF search uses a feature called stemming. The basics of search stemming are<sup>1</sup>:

- When you submit a query in SharePoint, the query is broken into individual words. For example, the query "securing the database" would be broken down into "securing", "the", and "database"
- Noise words can be eliminated, i.e. common words such as "and", "the", "or", that are unlikely to influence results. In this example, "the" would be dropped from the query. It also ignores single digit numbers.
- The query words can then be stemmed for variations. For example, a query for "security" could be expanded to include documents that refer to "securing", "securely" and so on
- The query words will also be compared against the thesaurus. The thesaurus is customizable and very useful for words with domain-specific alternatives or abbreviations. You can choose to expand queries (e.g. expand "PMB" to also search for "Purple Medium Board") or replace queries (e.g. replace "ie" with "Instant Everywhere" - "ie" will return just about every document in an English-language index).
- Does not support Boolean functions such as AND and OR. You can however include key words by using the + (plus) or – (minus) sign in front of the keyword. The plus (+) tells the search that the word must be included in the results, and the minus (-) indicates that the term should not be included in the results.

<sup>1</sup> <http://www.joiningdots.net/blog/2007/01/sharepoint-and-stemming.html>

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- It is not case sensitive.

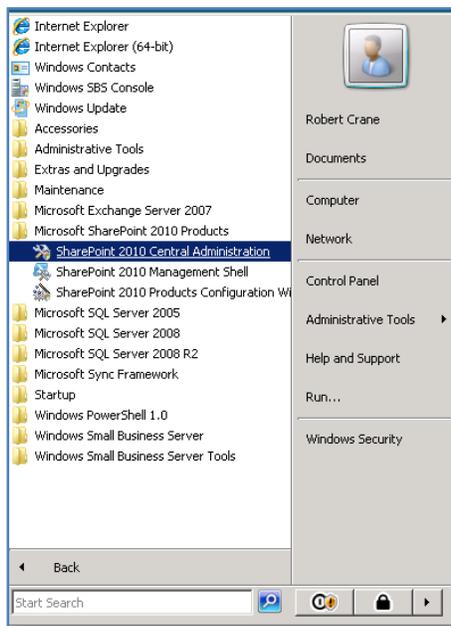
There are however a number of components of WSF that are not searchable. These include:

- Non-text columns in lists – i.e. lookup, current and Yes/No fields.
- Attachments to list items.
- Survey lists.
- Hidden lists.

By default WSF will run an incremental indexing process every 5 minutes.

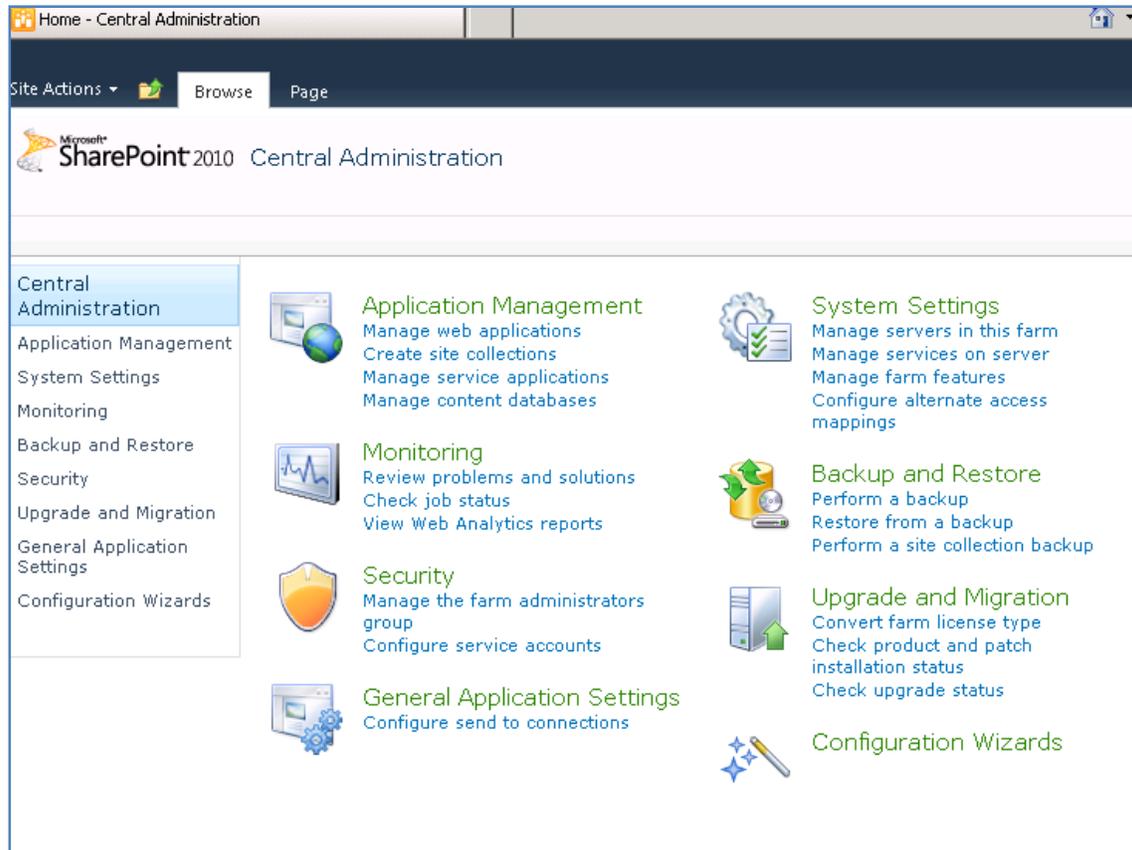
### 11.4 Ensuring the search is enabled

Depending on how you chose to install WSF the search functionality may not yet be enabled.

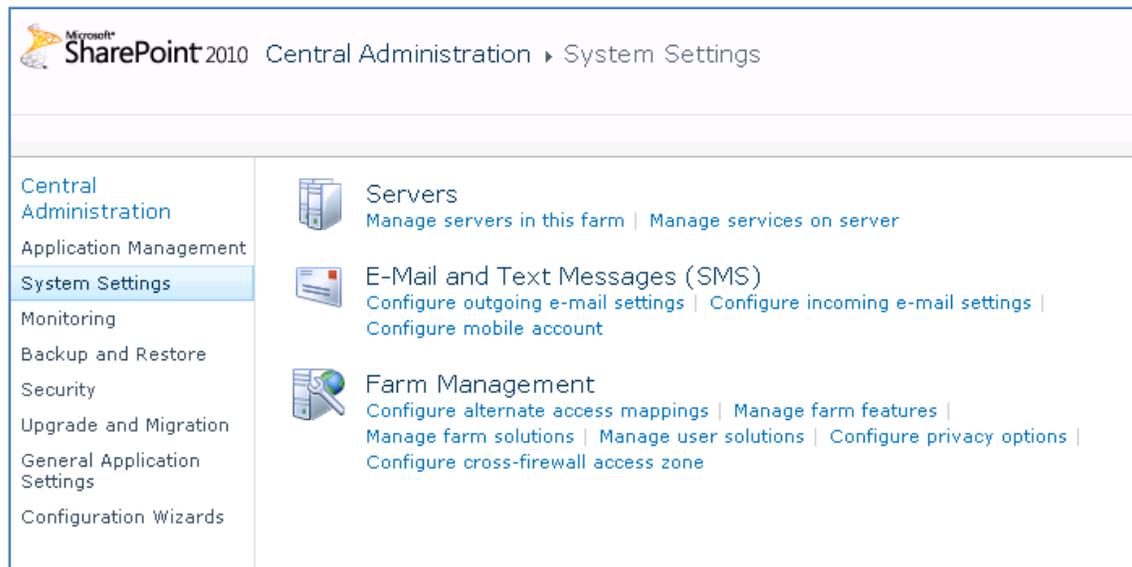


Open the *SharePoint 2010 Central Administration* via **Start | Microsoft Sharepoint 2010 Products | SharePoint 2010 Central Administration** and accept any UAC that appears.

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Select the **System Settings** from the menu on the left hand side.



Then select **Manage services on server** from the *Servers* section.

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Search Query and Site Settings Service	Started	Stop
Secure Store Service	Stopped	Start
SharePoint Foundation Help Search	Started	Stop
SharePoint Server Search	Started	Stop
Web Analytics Data Processing Service	Stopped	Start
Web Analytics Web Service	Stopped	Start

In the list that appears ensure that SharePoint Server Search is started. If it isn't click on the hyperlink **Start**.

Warning: this page is not encrypted for secure communication. User names, passwords, and any other information will be sent over the network. For more information, contact your administrator.

**Service Account**

The search service will run using this account.

The search service account must not be a built-in account in order to access the database. Examples of built-in accounts are Local Service and Network Service.

Service Account  
SBS2008\robert  
[Register new managed account](#)

**Content Access Account**

The search service will access all content using this account.

The account will be added to the Full Read policy, giving it read-only access to all content.

For proper search functionality and information security, do not use an administrator account, and do not use accounts that can modify content.

User name  
sbs2008\robert

Password  
●●●●●●●●

**Search Database**

Use of the default database server and database name is recommended for most cases. Refer to the administrator's guide for advanced scenarios where specifying database information is required.

Use of Windows authentication is strongly recommended. To use SQL authentication, specify the credentials which will be used to connect to the database.

Database Server  
CIASVR01\SQLEXPRESS

Database Name  
WSS\_Search\_CIASVR01

Database authentication

Select a *Service account* from the drop down list or select the hyperlink below to *Register new managed account*.

Enter the details for an account to access the WSF content. This account will be given full read access to WSF.

In the *Search Database* section there is no need to change either the *Database Server* or the *Database Name*.

Scroll down for more options.

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**Search Database**

Use of the default database server and database name is recommended for most cases. Refer to the administrator's guide for advanced scenarios where specifying database information is required.

Use of Windows authentication is strongly recommended. To use SQL authentication, specify the credentials which will be used to connect to the database.

Database Server: CIASVR01\SQLEXPRESS

Database Name: WSS\_Search\_CIASVR01

Database authentication:

- Windows authentication (recommended)
- SQL authentication

Account: [ ]

Password: [ ]

**Failover Server**

You can choose to associate a database with a specific failover server that is used in conjunction with SQL Server database mirroring.

Failover Database Server: [ ]

**Indexing Schedule**

Configure the indexing Schedule.

Indexing schedule:

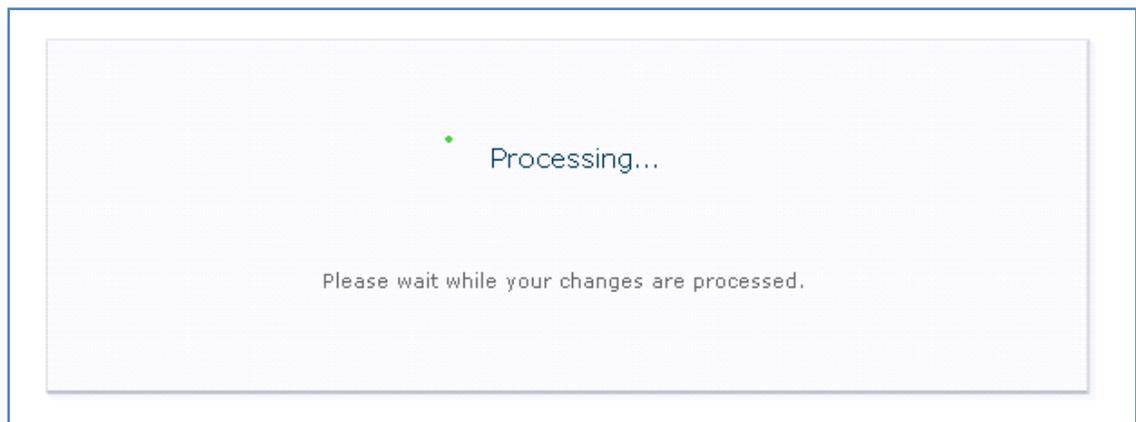
- Minutes
- Hourly
- Daily

Starting every hour between [35] minutes past the hour and no later than [35] minutes past the hour

Start Cancel

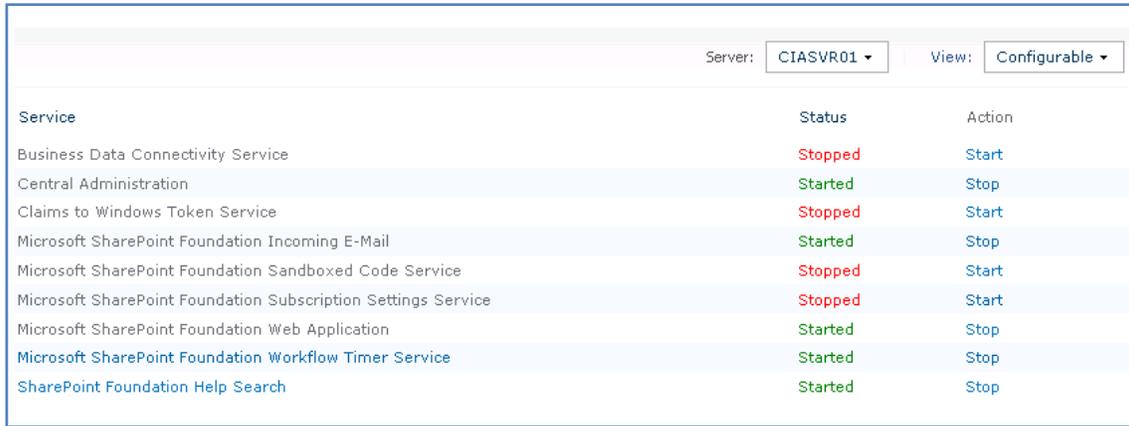
Leave the other settings as default, however you may choose to alter the *Indexed Schedule* to suit your requirements.

Press the **OK** button to save the configuration.



You should now see a message in the screen indicating that your settings are being enabled.

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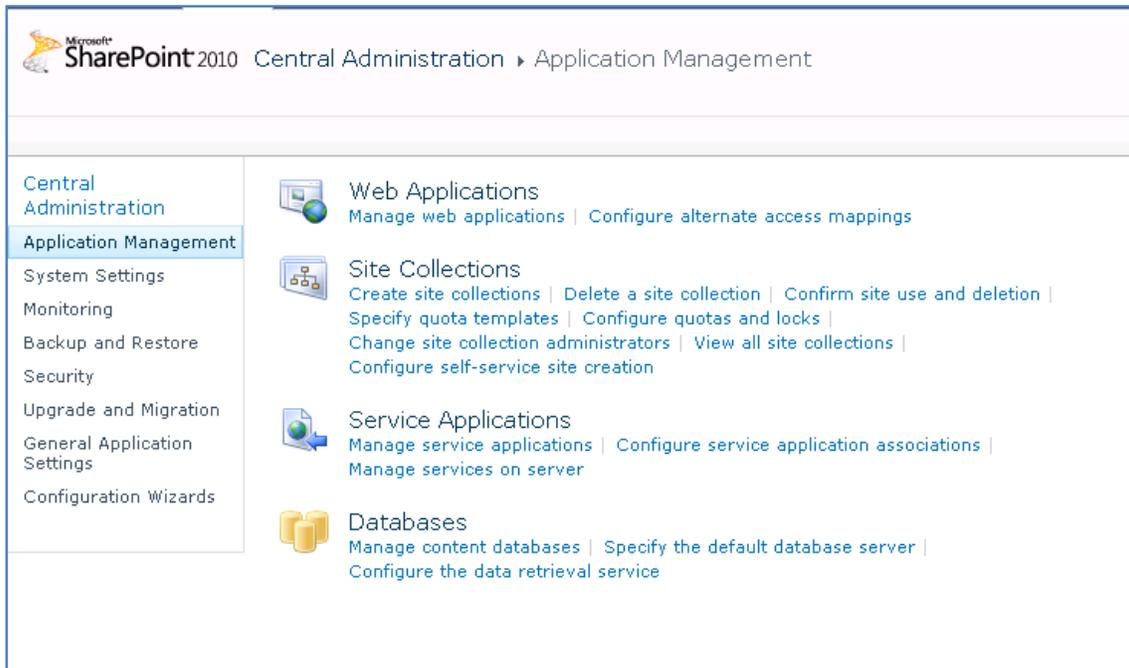


The screenshot shows the 'Service Status' page in SharePoint. At the top right, there are two dropdown menus: 'Server: CIASVR01' and 'View: Configurable'. Below these is a table with three columns: 'Service', 'Status', and 'Action'. The table lists several services, including Business Data Connectivity Service, Central Administration, Claims to Windows Token Service, and various Microsoft SharePoint Foundation services. The status of each service is indicated by a color: red for 'Stopped' and green for 'Started'.

Service	Status	Action
Business Data Connectivity Service	Stopped	Start
Central Administration	Started	Stop
Claims to Windows Token Service	Stopped	Start
Microsoft SharePoint Foundation Incoming E-Mail	Started	Stop
Microsoft SharePoint Foundation Sandboxed Code Service	Stopped	Start
Microsoft SharePoint Foundation Subscription Settings Service	Stopped	Start
Microsoft SharePoint Foundation Web Application	Started	Stop
Microsoft SharePoint Foundation Workflow Timer Service	Started	Stop
SharePoint Foundation Help Search	Started	Stop

Once complete you should now see that the SharePoint Foundation is *Started*.

Return to the SharePoint *Central Administration* screen.

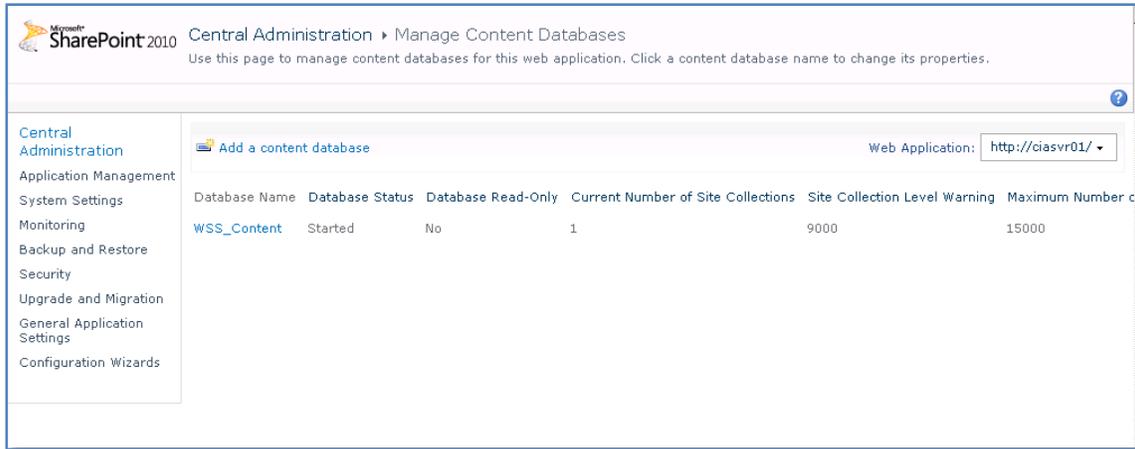


The screenshot shows the 'Central Administration' page in SharePoint 2010, specifically the 'Application Management' section. The page title is 'Microsoft SharePoint 2010 Central Administration > Application Management'. On the left side, there is a navigation menu with the following items: 'Central Administration', 'Application Management' (highlighted), 'System Settings', 'Monitoring', 'Backup and Restore', 'Security', 'Upgrade and Migration', 'General Application Settings', and 'Configuration Wizards'. The main content area is divided into four sections, each with an icon and a list of links:

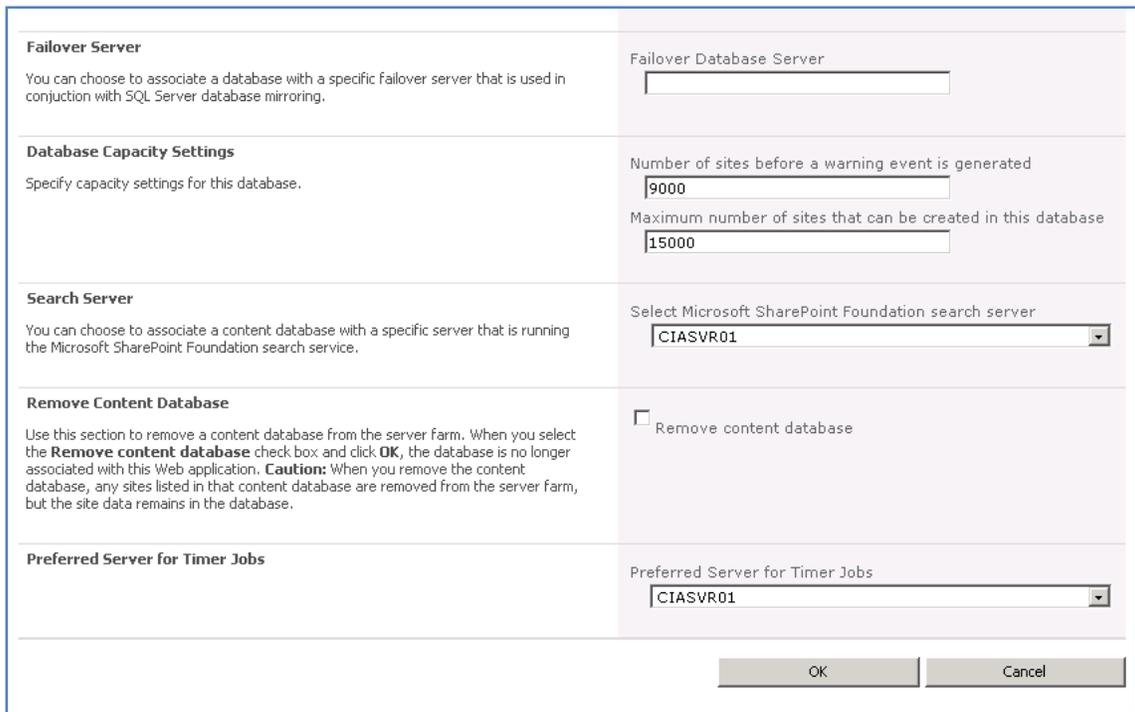
- Web Applications**: Manage web applications | Configure alternate access mappings
- Site Collections**: Create site collections | Delete a site collection | Confirm site use and deletion | Specify quota templates | Configure quotas and locks | Change site collection administrators | View all site collections | Configure self-service site creation
- Service Applications**: Manage service applications | Configure service application associations | Manage services on server
- Databases**: Manage content databases | Specify the default database server | Configure the data retrieval service

Select the **Application Management** option from the menu on the left, then select **Manage content databases** from the *Databases* section.

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Click on the content database (in this case *WSS\_CONTENT*).



Scroll down the screen until you locate the *Search Server* section. From the drop down menu select the name of your WSF server. Also ensure that the WSF server name also appears in the *Preferred Server for Timer Jobs* section.

Press **OK** to save the new configuration.

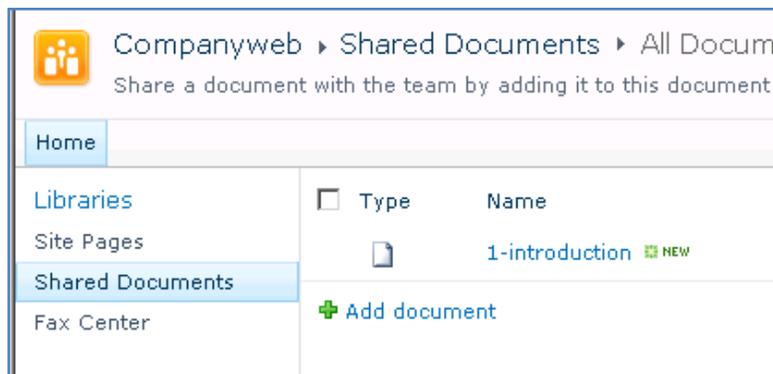
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If you now return to your WSF site and enter in a search request you should see the results displayed. Remember that search results will not display until an index crawl has completed.

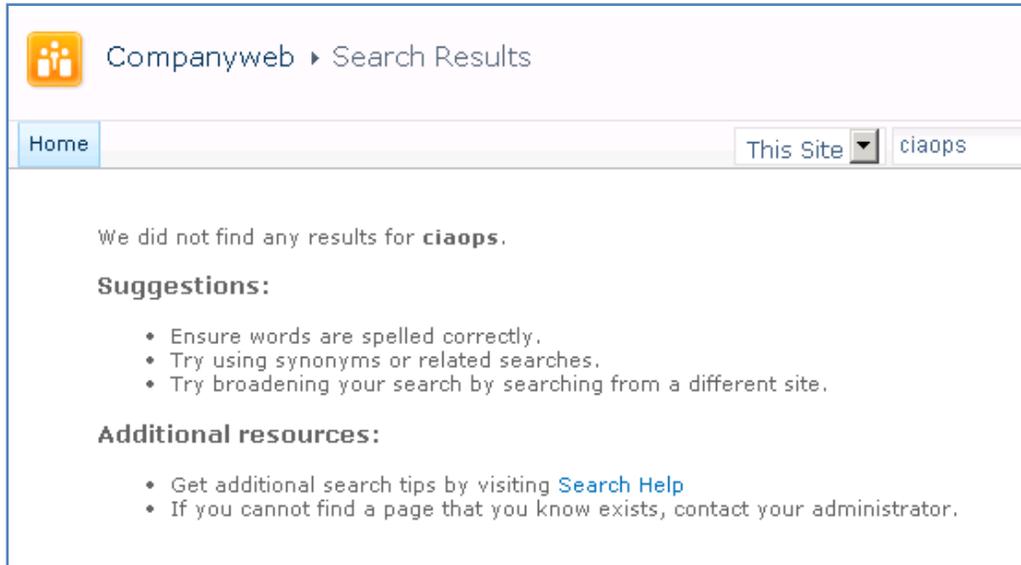
## 11.5 Indexing Acrobat PDF's

SharePoint Foundation 2010 does not come with the native ability to index Acrobat PDF documents, however it can easily be configured to do this. By default, if you upload a PDF document to SharePoint Foundation 2010 you should see something like this:



When you attempt to run a search for a term in the document (in this case CIAOPS) you will find that the search returns no result like shown here:

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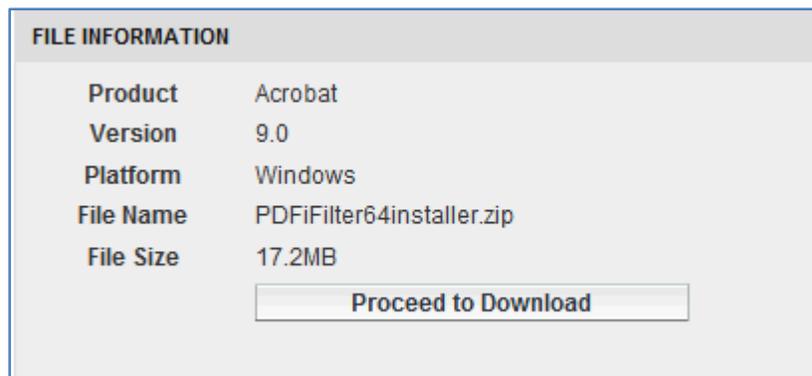
The reason is that SharePoint Foundation 2010 relies on something called an iFilter to provide the ability to index documents. You require an iFilter for each different document you wish indexed in SharePoint Foundation 2010. By default, the iFilters for most Microsoft Office documents now get installed as part of the SharePoint Foundation 2010 pre-install. Ones for other common file types, like Acrobat PDF documents don't, however they can be manually configured.

The following process will work on both a SharePoint Foundation 2010 standalone member server and a Small Business Server 2011 Standard server.

The first step in the process is to download and install the PDF iFilter program from Adobe. To do this visit:

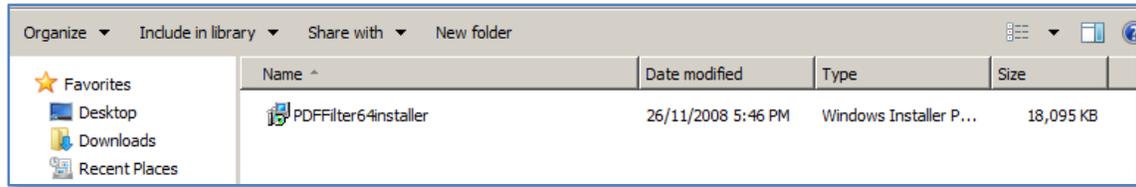
<http://www.adobe.com/support/downloads/detail.jsp?ftpID=4025>

It is important to remember that SharePoint Foundation runs on a 64 bit operating system so you are going to need a 64 bit version of the PDF iFilter.



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Login to your SharePoint Foundation 2010 server as an administrator and download the file to your SharePoint Foundation Server 2010 and expand the file. You should find a single installation file like shown below.



Double click the installer file to run. Accept any User Access Control (UAC) that is presented.



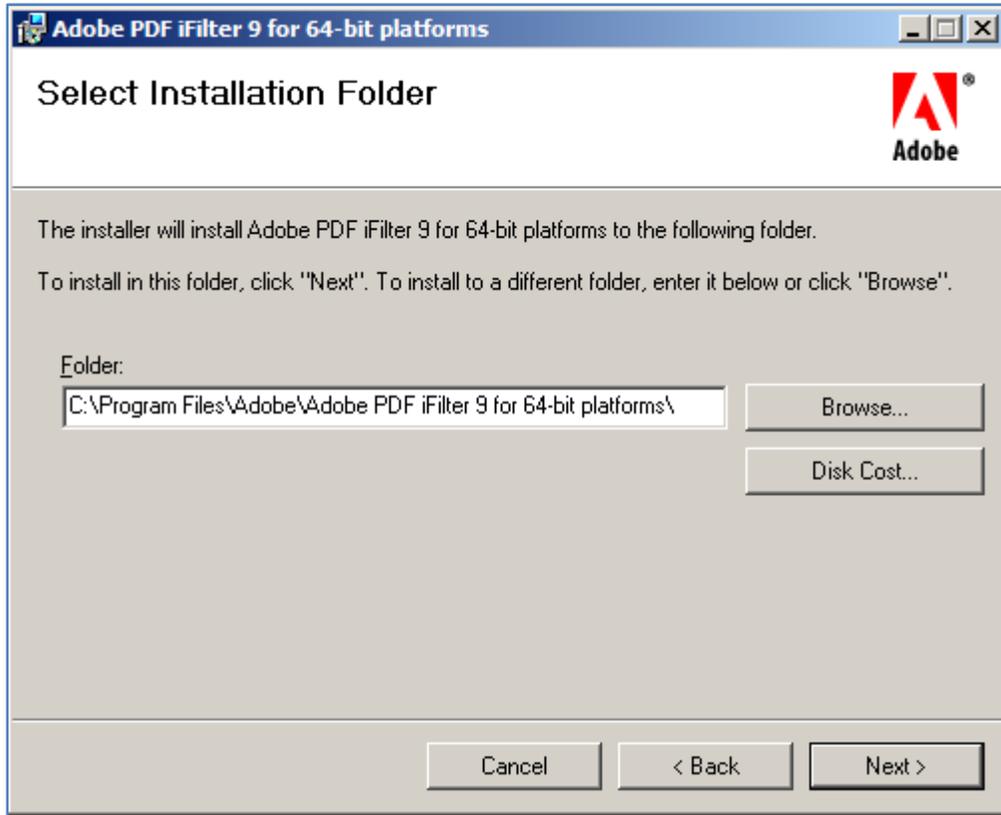
The iFilter installation process should now commence.

Press the **Next** button to continue.



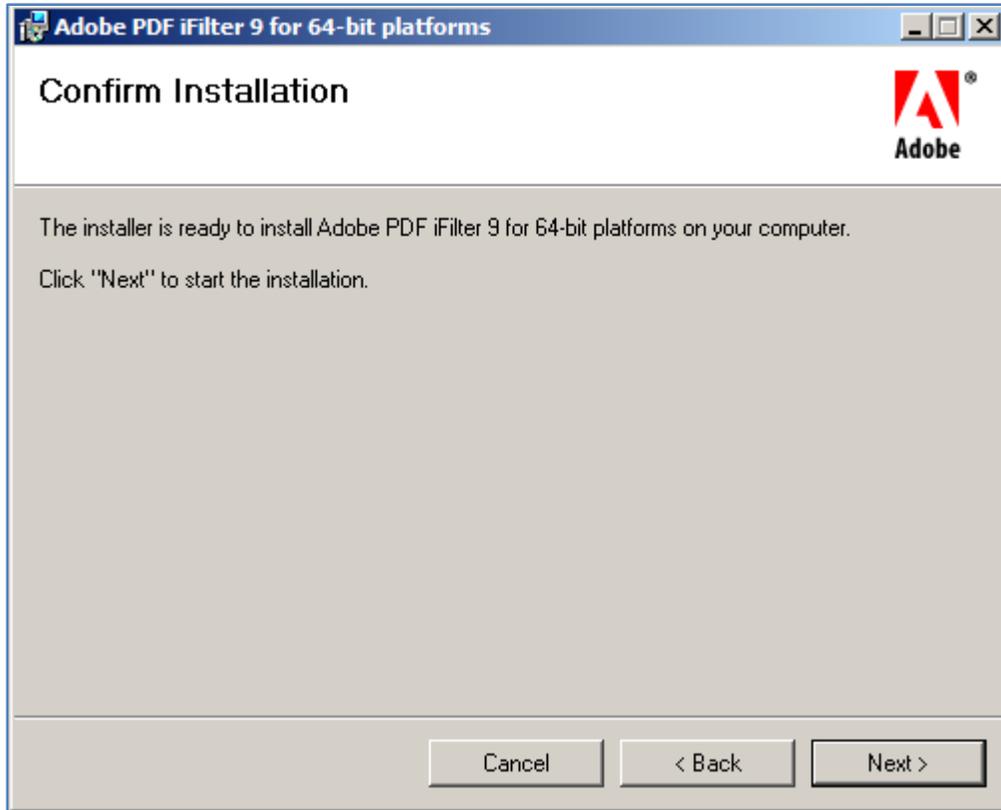
Accept the *License Agreement* and press **Next** to continue.

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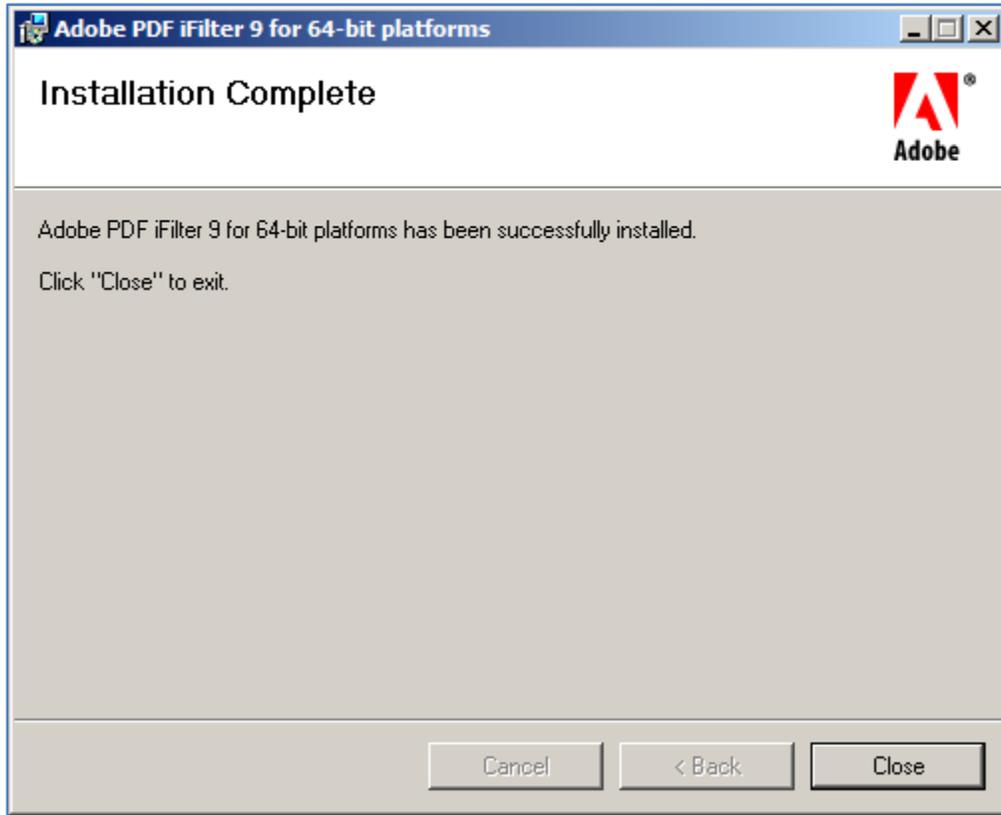


Select a location to install the iFilter files, by default this will be your C: Drive.

Press **Next** to continue.



Press **Next** to continue.



Press **Close** to complete the installation.

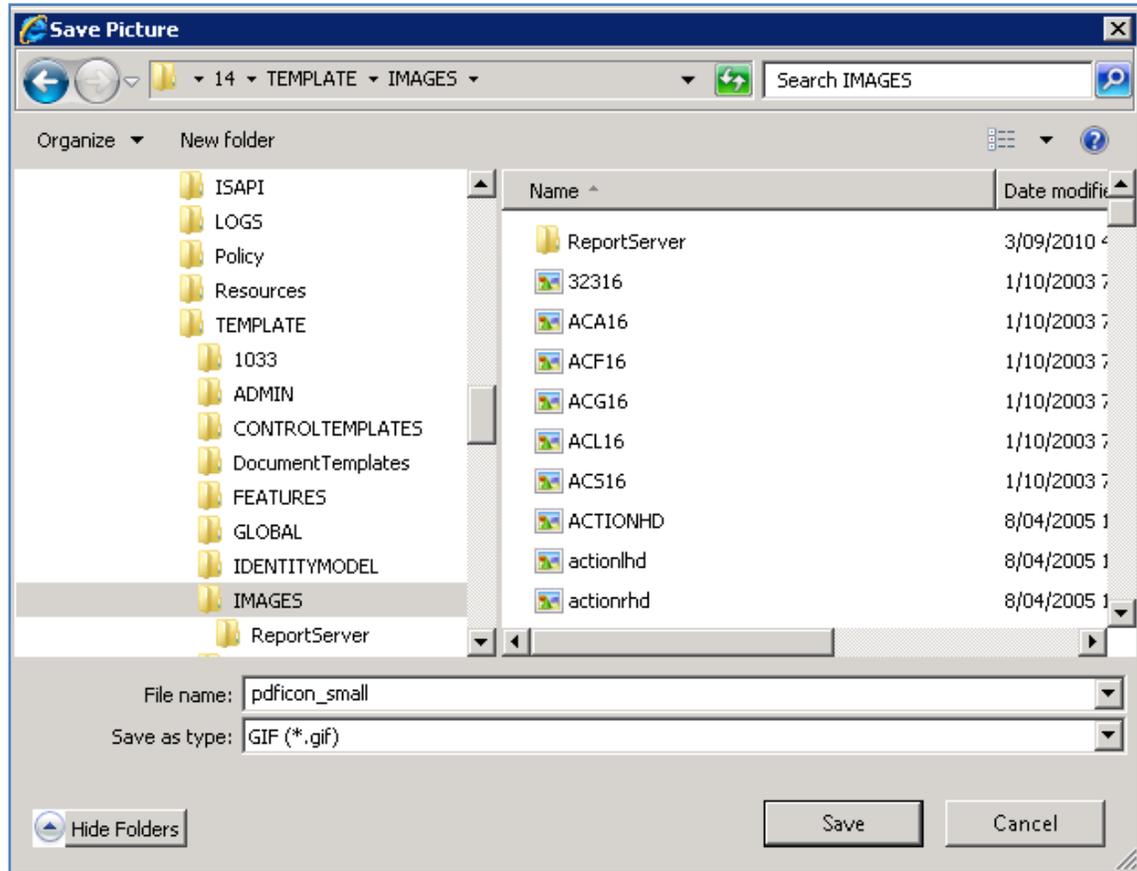
To add the PDF Icon to SharePoint download the PDF icon from:

[http://www.adobe.com/images/pdficon\\_small.gif](http://www.adobe.com/images/pdficon_small.gif)

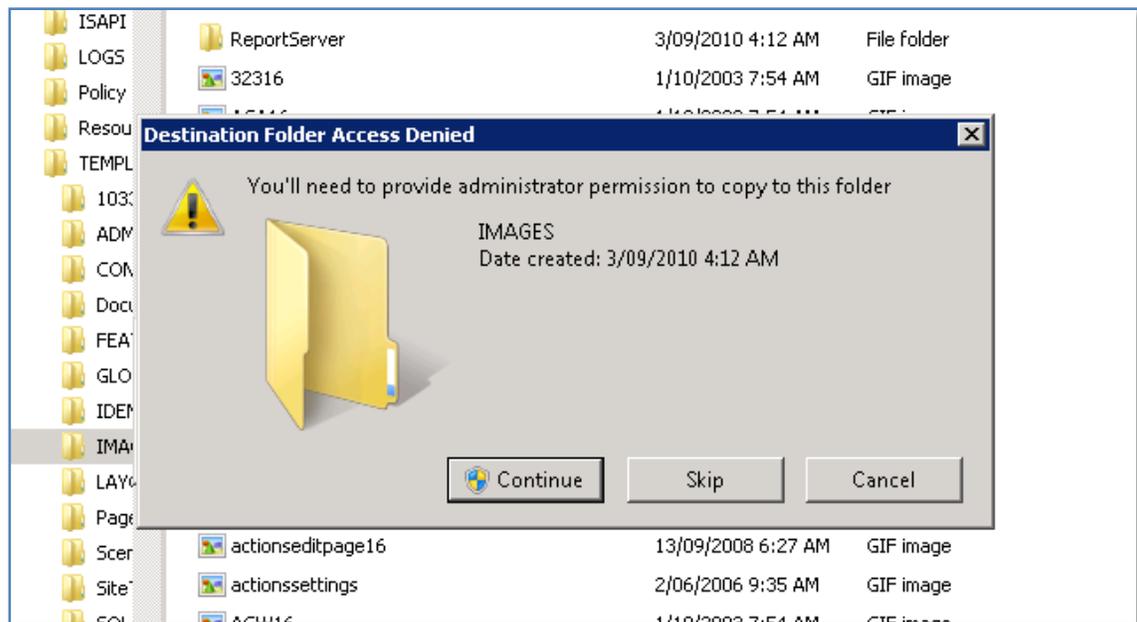
and save it to:

*C:\Program Files\Common Files\Microsoft Shared\Web Server Extensions\14\TEMPLATE\IMAGES\*

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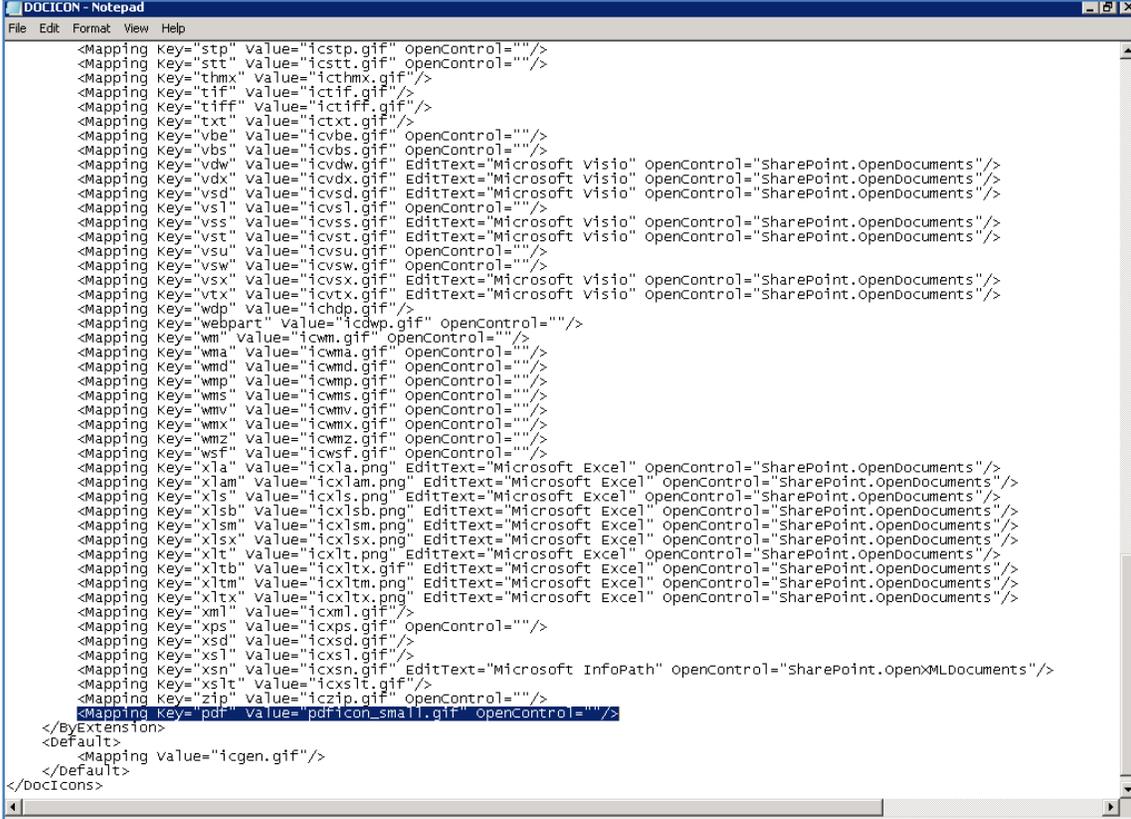
You will generally need administrator privileges to do this.



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This may mean you have to save it another location and then copy and paste to the destination.

Locate the file `c:\program files\common files\Microsoft shared\web server extensions\14\template\xml\docicon.xml`. **Right mouse click** on the file to edit.



```
DOCICON - Notepad
File Edit Format View Help
<Mapping key="stp" value="icstp.gif" openControl=""/>
<Mapping key="stt" value="icstt.gif" openControl=""/>
<Mapping key="thmx" value="ictthmx.gif" openControl=""/>
<Mapping key="tif" value="ictif.gif" openControl=""/>
<Mapping key="tiff" value="ictiff.gif" openControl=""/>
<Mapping key="txt" value="ictxt.gif" openControl=""/>
<Mapping key="vbe" value="icvbe.gif" openControl=""/>
<Mapping key="vbs" value="icvbs.gif" openControl=""/>
<Mapping key="vdw" value="icvdw.gif" EditText="Microsoft Visio" openControl="SharePoint.OpenDocuments"/>
<Mapping key="vdx" value="icvdx.gif" EditText="Microsoft Visio" openControl="SharePoint.OpenDocuments"/>
<Mapping key="vdsd" value="icvdsd.gif" EditText="Microsoft Visio" openControl="SharePoint.OpenDocuments"/>
<Mapping key="vs1" value="icvs1.gif" openControl=""/>
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<Mapping key="vst" value="icvst.gif" EditText="Microsoft Visio" openControl="SharePoint.OpenDocuments"/>
<Mapping key="vsu" value="icvsu.gif" openControl=""/>
<Mapping key="vsw" value="icvsw.gif" openControl=""/>
<Mapping key="vsx" value="icvsx.gif" EditText="Microsoft Visio" openControl="SharePoint.OpenDocuments"/>
<Mapping key="vtx" value="icvtx.gif" EditText="Microsoft Visio" openControl="SharePoint.OpenDocuments"/>
<Mapping key="wdp" value="ichdp.gif" openControl=""/>
<Mapping key="webpart" value="icdwp.gif" openControl=""/>
<Mapping key="wm" value="icwm.gif" openControl=""/>
<Mapping key="wma" value="icwma.gif" openControl=""/>
<Mapping key="wmd" value="icwmd.gif" openControl=""/>
<Mapping key="wmi" value="icwmi.gif" openControl=""/>
<Mapping key="wms" value="icwms.gif" openControl=""/>
<Mapping key="wmv" value="icwmv.gif" openControl=""/>
<Mapping key="wmx" value="icwmx.gif" openControl=""/>
<Mapping key="wmz" value="icwmz.gif" openControl=""/>
<Mapping key="wsf" value="icwsf.gif" openControl=""/>
<Mapping key="xla" value="icxla.png" EditText="Microsoft Excel" openControl="SharePoint.OpenDocuments"/>
<Mapping key="xlam" value="icxlam.png" EditText="Microsoft Excel" openControl="SharePoint.OpenDocuments"/>
<Mapping key="xls" value="icxls.png" EditText="Microsoft Excel" openControl="SharePoint.OpenDocuments"/>
<Mapping key="xlsb" value="icxlsb.png" EditText="Microsoft Excel" openControl="SharePoint.OpenDocuments"/>
<Mapping key="xlsm" value="icxlsm.png" EditText="Microsoft Excel" openControl="SharePoint.OpenDocuments"/>
<Mapping key="xlsx" value="icxlsx.png" EditText="Microsoft Excel" openControl="SharePoint.OpenDocuments"/>
<Mapping key="xlt" value="icxlt.png" EditText="Microsoft Excel" openControl="SharePoint.OpenDocuments"/>
<Mapping key="xltx" value="icxltx.png" EditText="Microsoft Excel" openControl="SharePoint.OpenDocuments"/>
<Mapping key="xlsm" value="icxlsm.png" EditText="Microsoft Excel" openControl="SharePoint.OpenDocuments"/>
<Mapping key="xltx" value="icxltx.png" EditText="Microsoft Excel" openControl="SharePoint.OpenDocuments"/>
<Mapping key="xml" value="icxml.gif" openControl=""/>
<Mapping key="xps" value="icxps.gif" openControl=""/>
<Mapping key="xsd" value="icxsd.gif" openControl=""/>
<Mapping key="xsl" value="icxsl.gif" openControl=""/>
<Mapping key="xsn" value="icxsn.gif" EditText="Microsoft InfoPath" openControl="SharePoint.OpenXMLDocuments"/>
<Mapping key="xslt" value="icxslt.gif" openControl=""/>
<Mapping key="zip" value="iczip.gif" openControl=""/>
<Mapping key="pdf" value="pdficon_small.gif" openControl=""/>
</ByExtension>
<Default>
<Mapping value="icgen.gif" openControl=""/>
</Default>
</DocIcons>
```

Locate the `<ByExtension>` element where you will see entries for each icon starting with `<Mapping key=`. Enter the following on a new line:

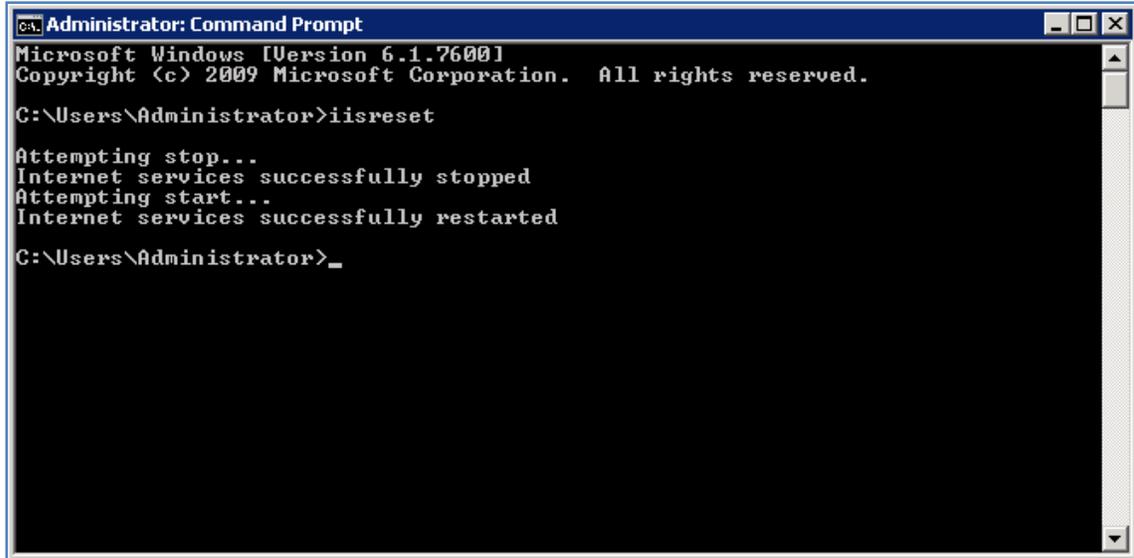
```
<Mapping key="pdf" Value="pdficon_small.gif" OpenControl=""/>
```

Note, that the extension names do not have to be in alphabetical order so it is best to place the entry at the end of the existing list. Also ensure that the correct filename for the icon is used in the entry line.

When complete, save the file and exit notepad.

To see the icon immediately in WSF start a command prompt on the server via **Start** and **Right mouse clicking** on *Command prompt* and selecting **Run as Administrator** from menu that appears.

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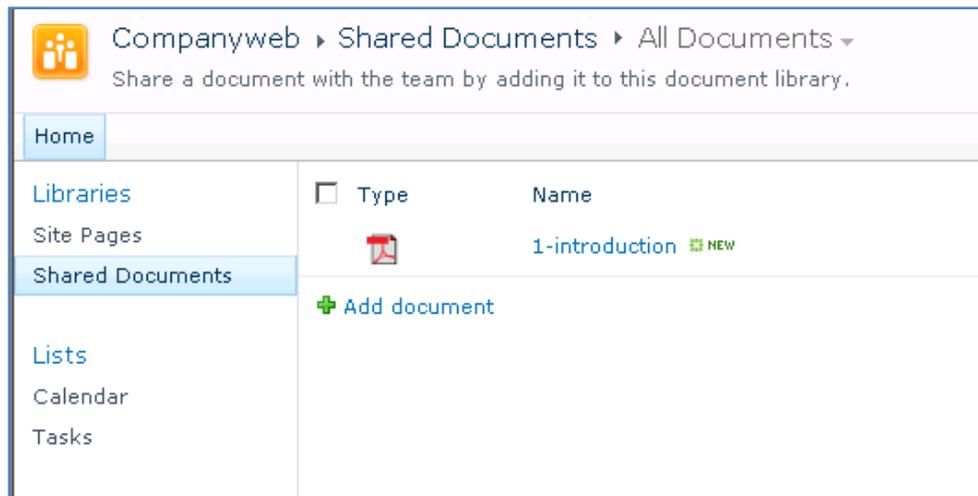
```
Administrator: Command Prompt
Microsoft Windows [Version 6.1.7600]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\Administrator>iisreset

Attempting stop...
Internet services successfully stopped
Attempting start...
Internet services successfully restarted

C:\Users\Administrator>_
```

At the prompt enter **iisreset** to restart Internet Information server. Don't forget that resetting IIS will also affect other applications on the server. When the process is complete, exit the DOS prompt and examine any SharePoint Foundation 2010 libraries that contain PDF documents.



Next, copy the following script to a file called *Addextension.vbs* on your system

```
Sub Usage
    WScript.Echo "Usage:  AddExtension.vbs extension"
    WScript.Echo
end Sub

Sub Main
```

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```
if WScript.Arguments.Count < 1 then
    Usage
    wscript.Quit(1)
end if

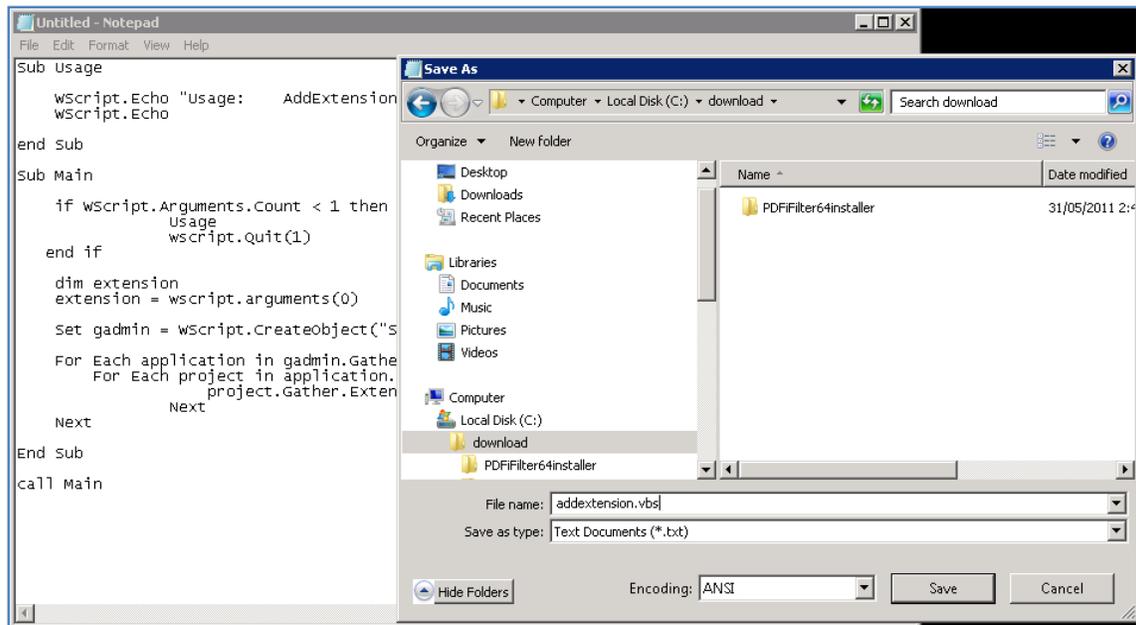
dim extension
extension = wscript.arguments(0)

Set gadmin = WScript.CreateObject("SPSearch4.GatherMgr.1", "")

For Each application in gadmin.GatherApplications
    For Each project in application.GatherProjects
        project.Gather.Extensions.Add(extension)
    Next
Next

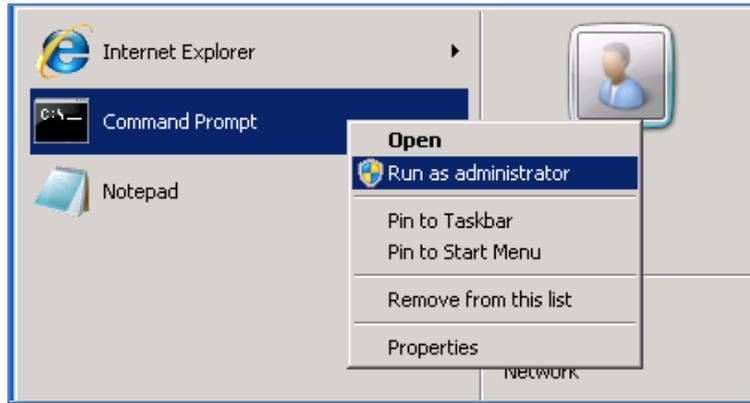
End Sub

call Main
```



Now run a *Command Prompt* as an administrator by **right mouse clicking** on the *Command Prompt* icon like and selecting **Run as administrator**.

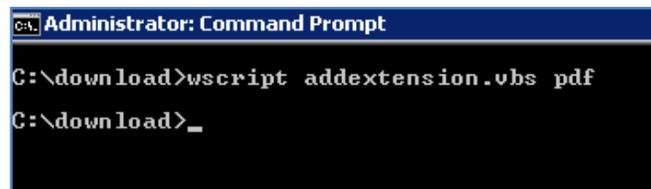
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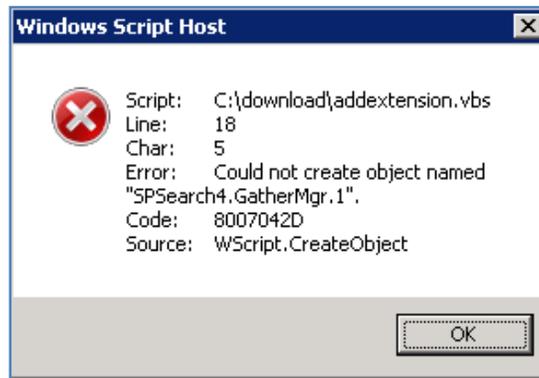
Accept any UAC that appears.

Change to the directory where you saved the VBS script and type:

**Wscript addextension.vbs pdf**

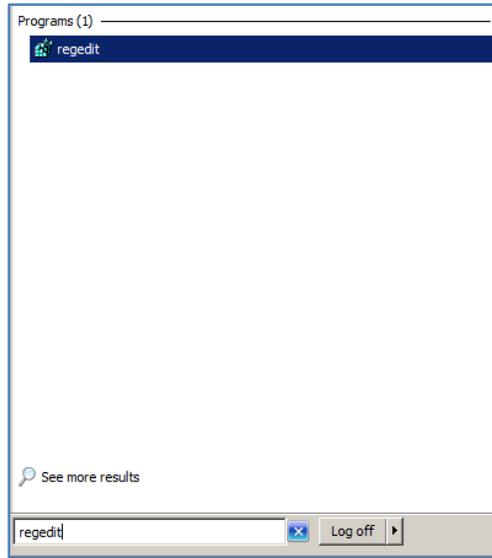


You should see no result if the script executes correctly.

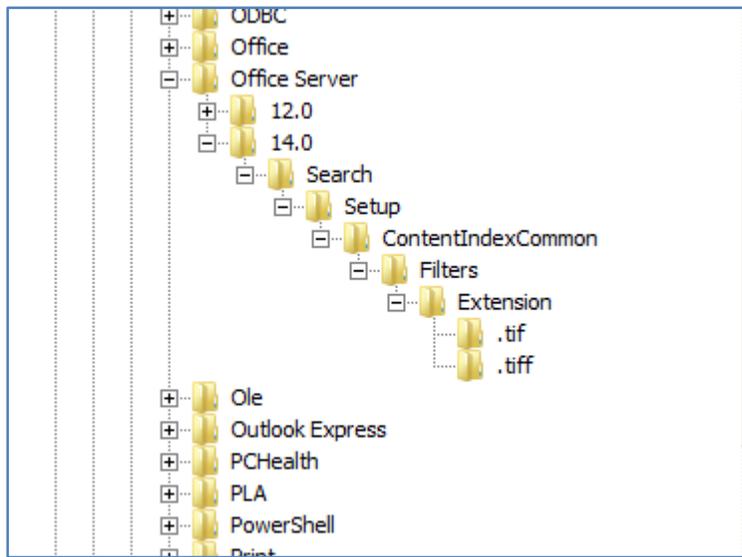


If you receive an error like shown above, check that your *Search Service* is enabled in SharePoint.

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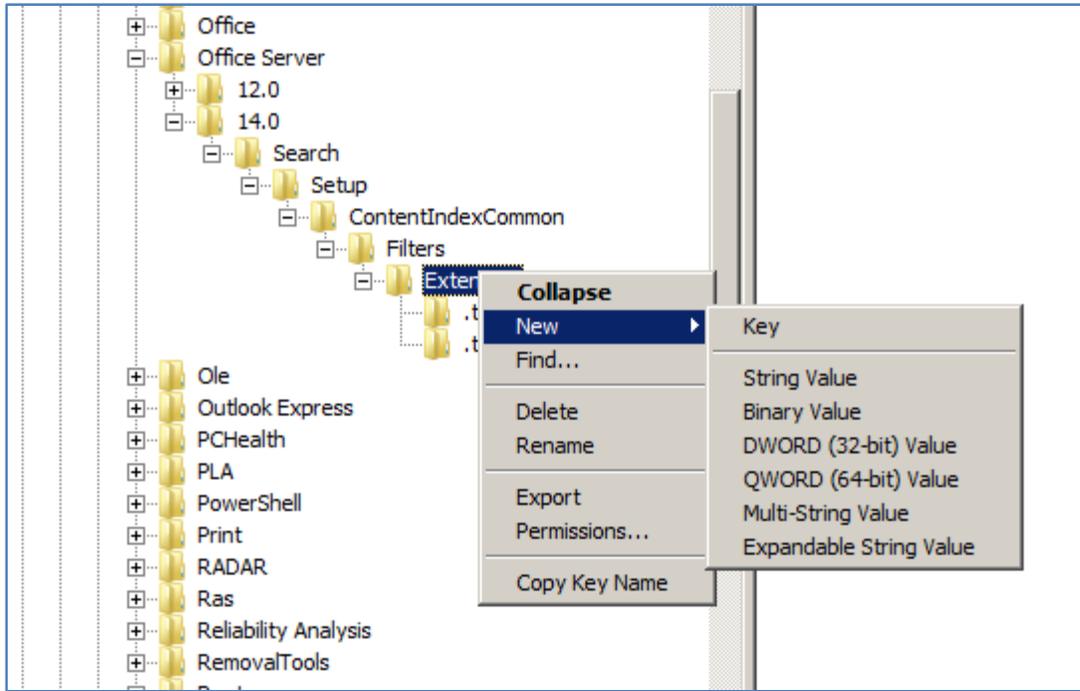


Run **Regedit** and accept any UAC.

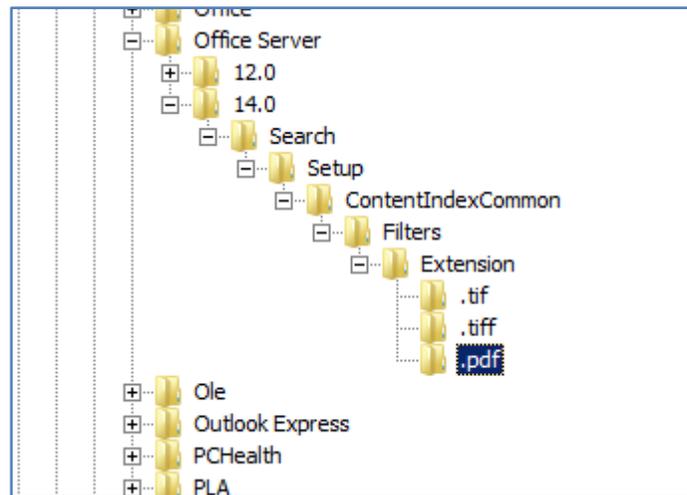


Locate the registry *HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\Shared Tools\Web Server Extensions\14.0\Search\Setup\ContentIndexCommon\Filters\Extension\*

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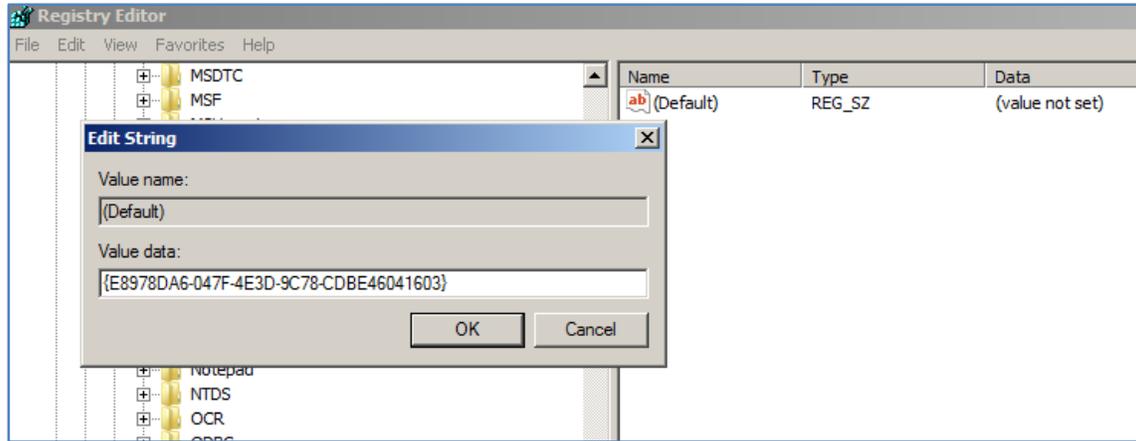


Right mouse click on *Extensions* and select **New** and **Key**.



Add the key **.pdf**

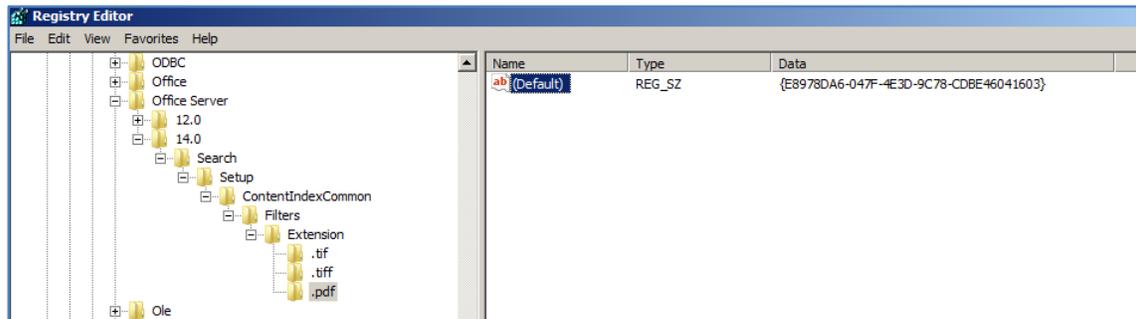
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**Right mouse click** on **(Default)** in the right hand window and select **Modify** from the menu that appears.

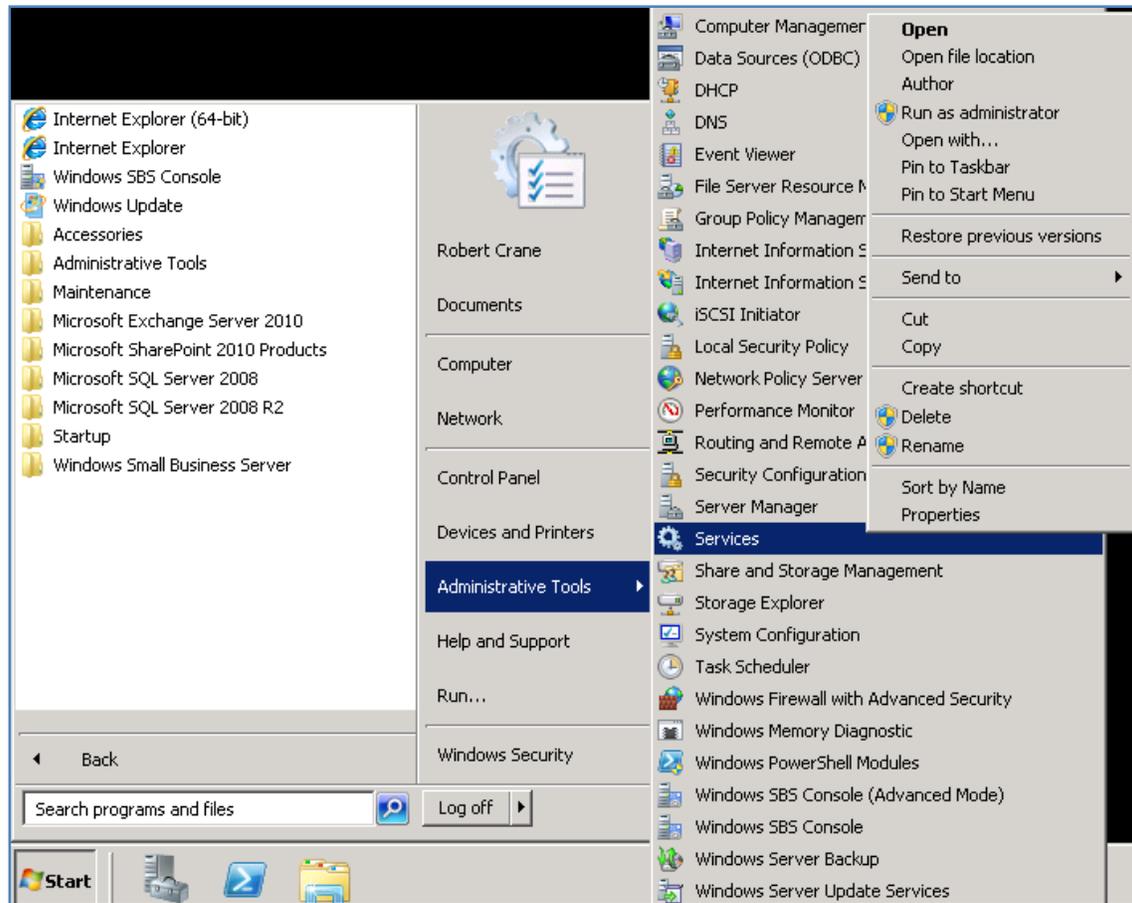
Enter the following into the Value Data field:

{E8978DA6-047F-4E3D-9C78-CDBE46041603}



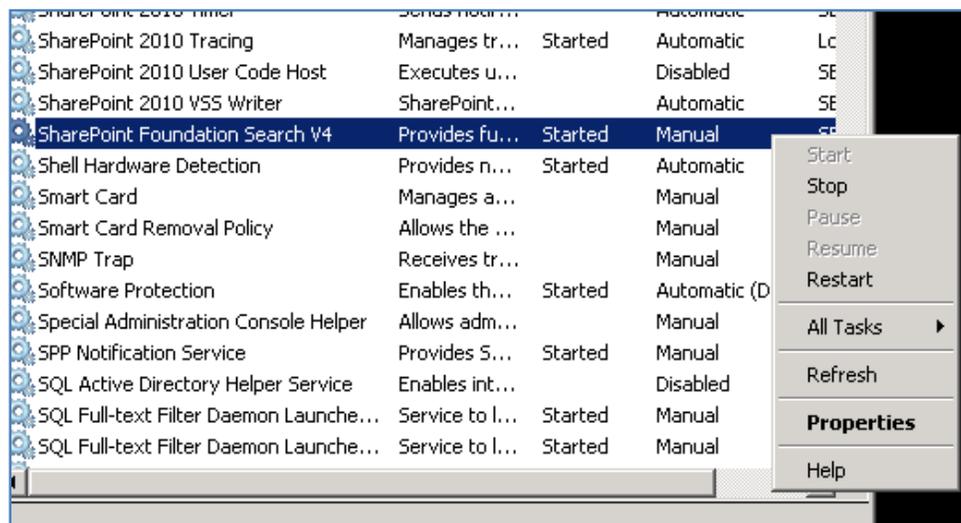
Close *regedit*.

## Chapter 11 – Search



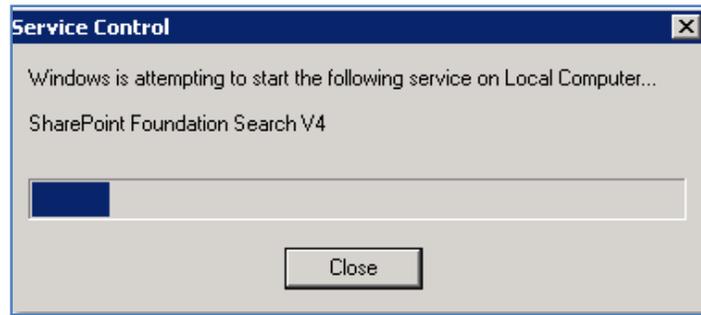
Click **Start | Administrative Tools | Services** and **right mouse click** on **Services** and select **Run as Administrator** from menu that appears.

Scroll down the list of services and locate the service *SharePoint Foundation Search V4*.



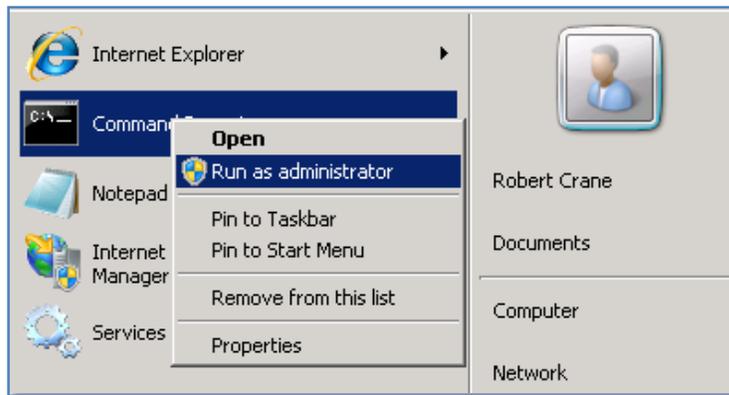
## Chapter 11 – Search

Right mouse click on the service and select **Restart** from the menu that appears.



You should see the service restart.

Close the *Services* window.



Run a *Command Prompt* as an administrator again by **right mouse clicking** on the icon and selecting **Run as Administrator** from the menu that appears.

Any PDF documents you now add to SharePoint will be indexed, however those already there will not be indexed until a full crawl is run.

```
Administrator: Command Prompt
C:\Program Files\Common Files\Microsoft Shared\Web Server Extensions\14\BIN>stsadm -o spsearch -action fullcrawlstart
Operation completed successfully.
C:\Program Files\Common Files\Microsoft Shared\Web Server Extensions\14\BIN>
```

To launch a full manual crawl change to the directory:

*C:\program files\common files\microsoft shared\web server extensions\14\bin*

## Chapter 11 – Search

And run the following command:

```
Stsadm –o spsearch –action fullcrawlstart
```

This will commence a full reindex of all SharePoint information. This reindex may take a while to complete and may impact the performance of your SharePoint Server.



If a search is now run using the same term (here ciaops) you can see that now returns a hit from the PDF and from text inside that document (rather than just the title). This indicates that the PDF search is operating correctly.

Reference - <http://support.microsoft.com/kb/2293357>

### 11.6 Microsoft Search Server Express 2010

The ability to search WSF content is provided by default, however it is limited to only the content contained within WSF sites. With the installation of Windows Search Server Express 2010 it is possible to not only search WSF content but also network file shares, web sites and Exchange Public folders.

One down side with Search Server Express 2010 is that it doesn't integrate into the existing search functionality in WSF. This means that if you use WSF search you will only be able to search WSF content, however if you use Search Server Express 2010 you will be able to search WSF content and network files shares, web sites and Exchange Public Folders but it will be via the Search Server Express 2010 web site not the WSF web site.

Microsoft Search Server 2010 Express is a freely available from Microsoft and can be downloaded from:

<http://www.microsoft.com/downloads/details.aspx?displaylang=en&FamilyID=cea31a4f-a8b4-4864-b520-be612becdca>

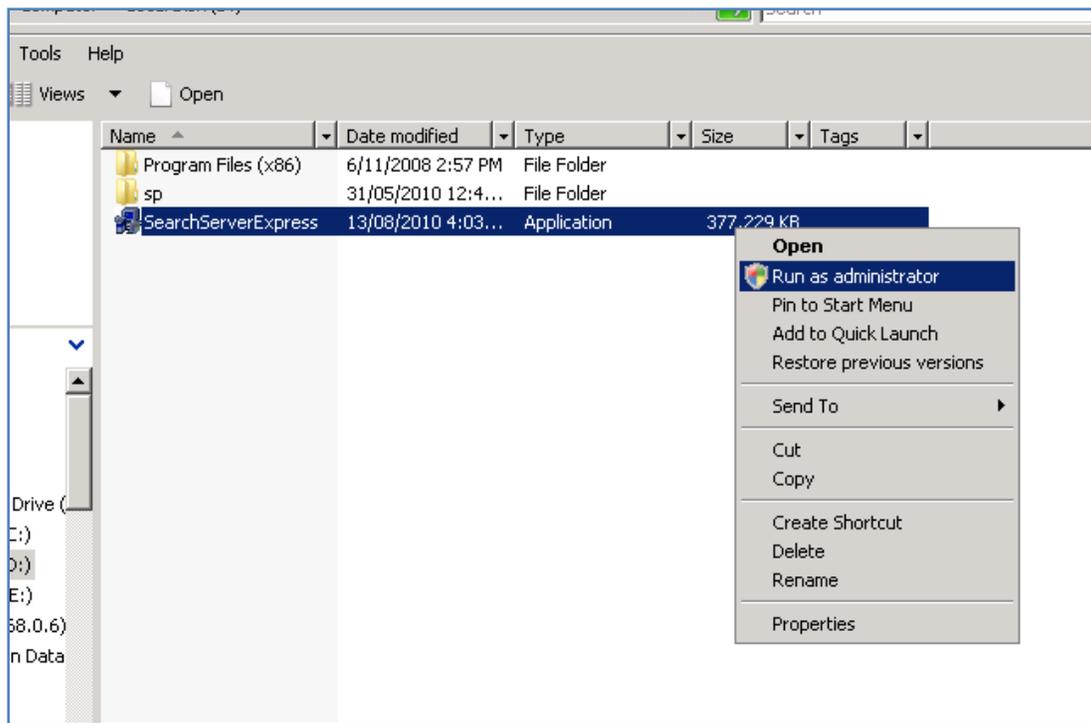
## Chapter 11 – Search

The specifications for Search Server Express 2010 are as follows:

- Processor: 2.5 gigahertz (GHz) (minimum)
- Memory: 4 gigabytes (GB) RAM (minimum)
- Operating System: Any of the following editions of the Windows Server 2008 or newer operating system with the most recent service packs (minimum Service Pack 2): Standard Edition, Enterprise Edition, Datacenter Edition, and Web Edition.
- Hard disk: NTFS-formatted partition with 3 GB of free space (minimum)
- SharePoint Foundation 2010 software prerequisites

In theory it is possible to install Search Server Express 2010 onto Windows Small Business Server 2008 (SBS) but considering all the other applications that need to reside on an SBS server (including WSS v3 or SharePoint Foundation) there is little doubt that performance of Search Server Express 2010 and SBS will be impacted if they co-exist without enough system resources. Search Server Express should not be installed on SBS 2008 if Windows SharePoint v3 (WSS v3) is still installed.

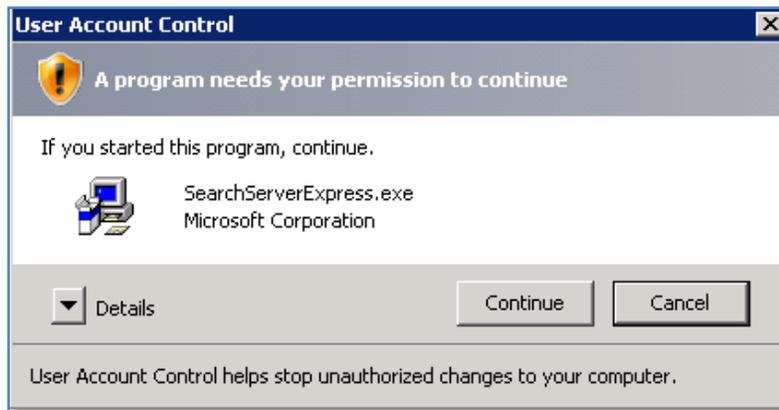
The general recommendation then is to install Search Server Express 2010 and SharePoint Foundation 2010 on a dedicated member server in a network. For more information about installing WSS v3 see **Chapter 3 – Installing on Windows Server 2010** and **Chapter 4 – Installing on Windows Small Business Server**.



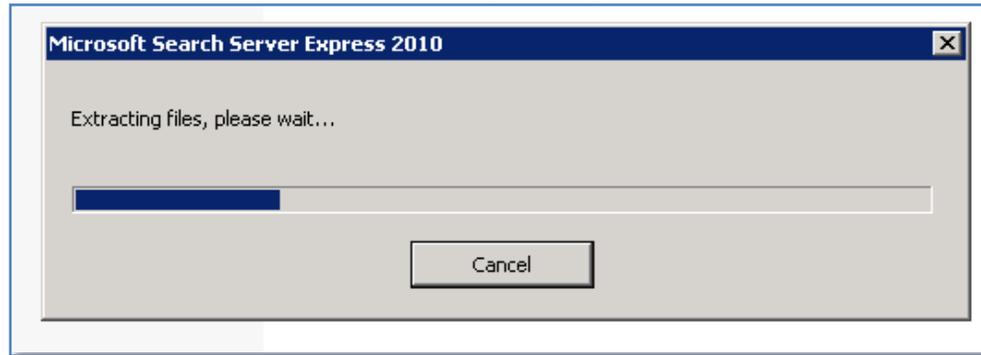
## Chapter 11 – Search

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Log onto the WSF server as an administrator and right mouse click the file to commence the installation. The required files will firstly be extracted to the server.



Accept the *User Account Control* window by clicking the **Continue** button.

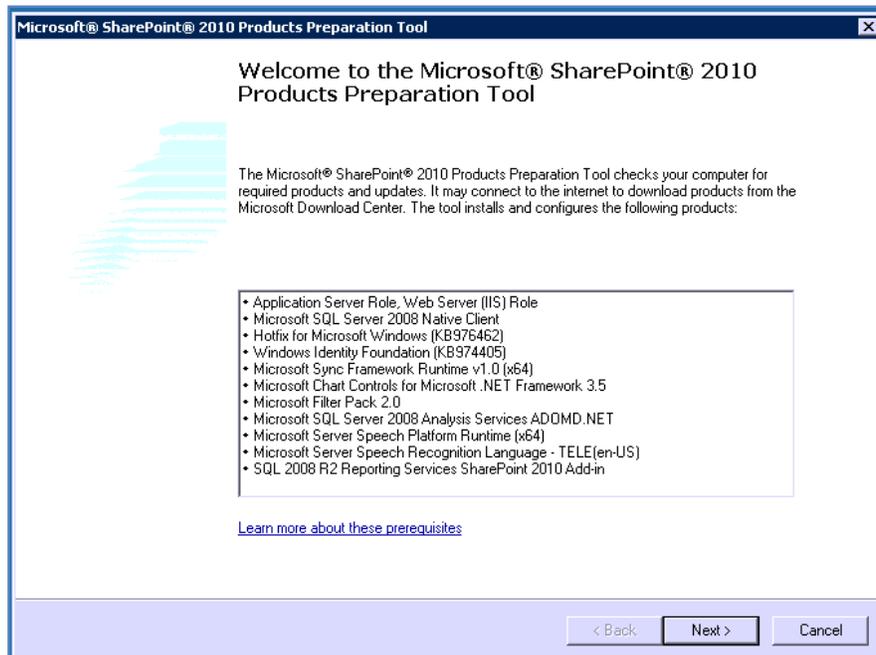


The files will then be extracted and the installation commence.

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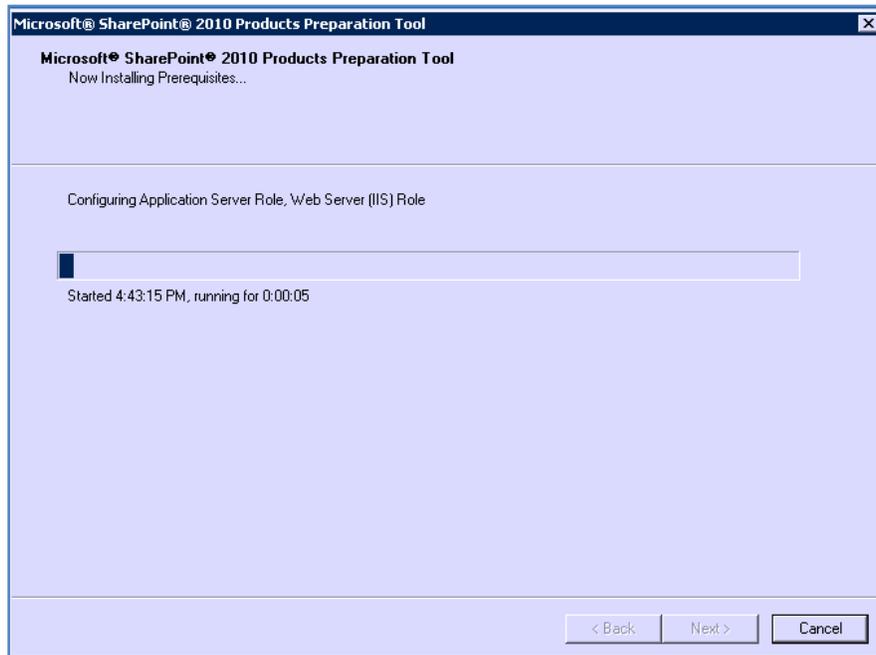


You should now see a *Start* screen displayed. From here select the option Install the prerequisites.

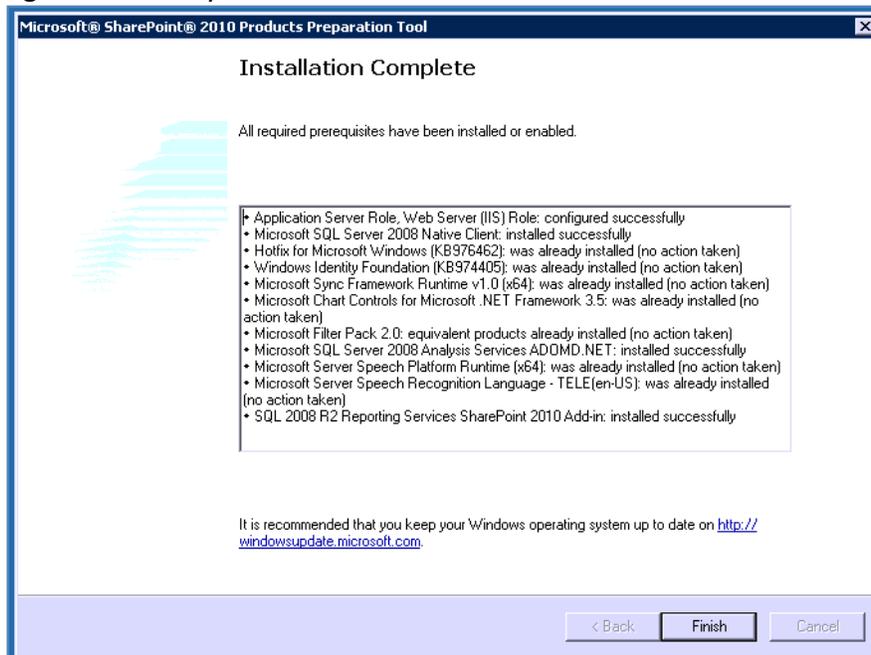


## Chapter 11 – Search

You should now see the welcome screen. Press **Next** to continue.



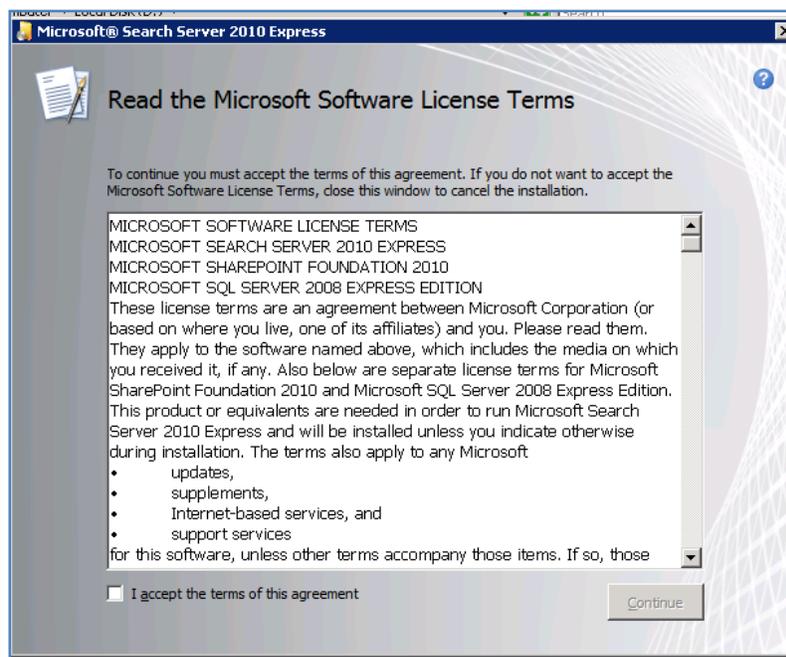
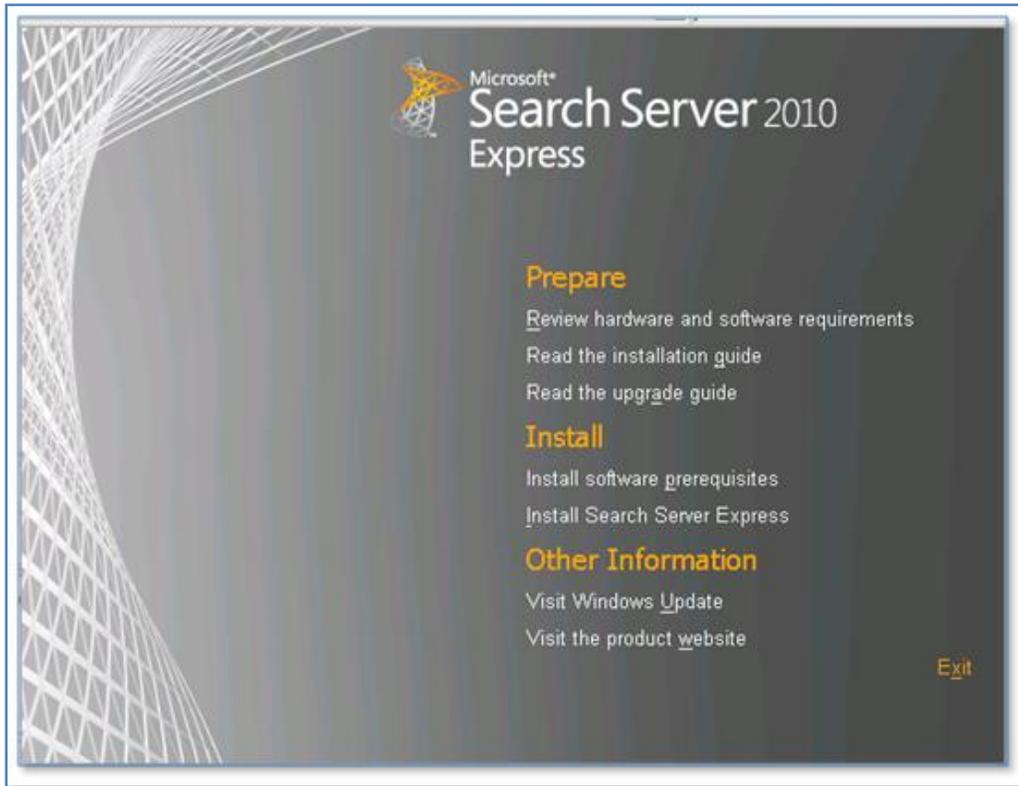
The server will now be checked to ensure that it meets all the minimum requirements and is configured correctly.



When the process is complete you may need to take further action as recommended by the tool. Press **Finish** to complete the process.

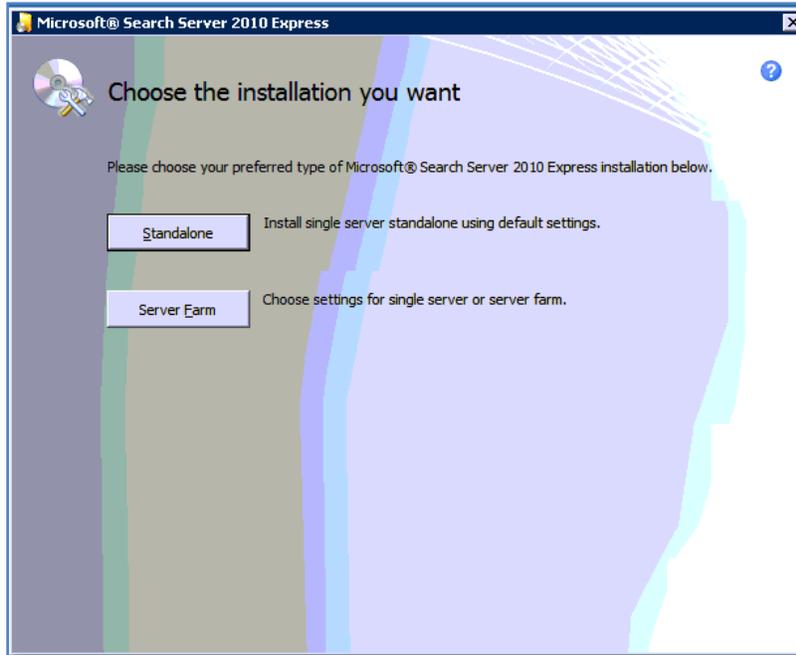
## Chapter 11 – Search

You will now be returned to the *Start* window. From here now select the option **Install Search Server**.



## Chapter 11 – Search

Check the option *I accept the terms of this agreement* and press **Continue**.



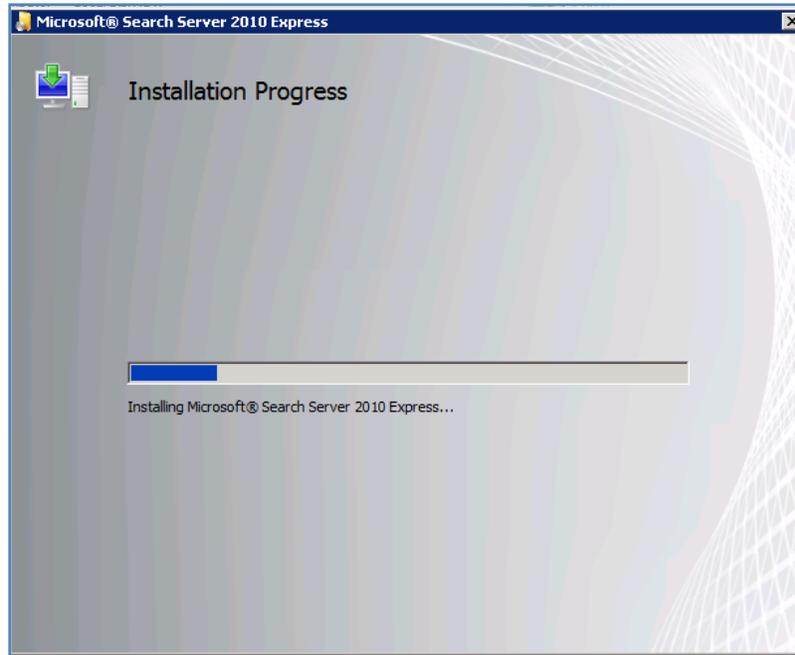
Unless Search Server Express 2010 detects a compatible version of SQL server already installed, the only option that will be available on the *Server Type* tab will be *Standalone*. Note in that case Search Server Express 2010 will automatically also install SQL 2008 Express onto the server in the system partition. For more information about this version of SQL see **Chapter 8 – Database Operations**.

If Search Server Express 2010 does detect a compatible SQL version it will automatically use that. In that case you will have the option to do a *Server Farm*.

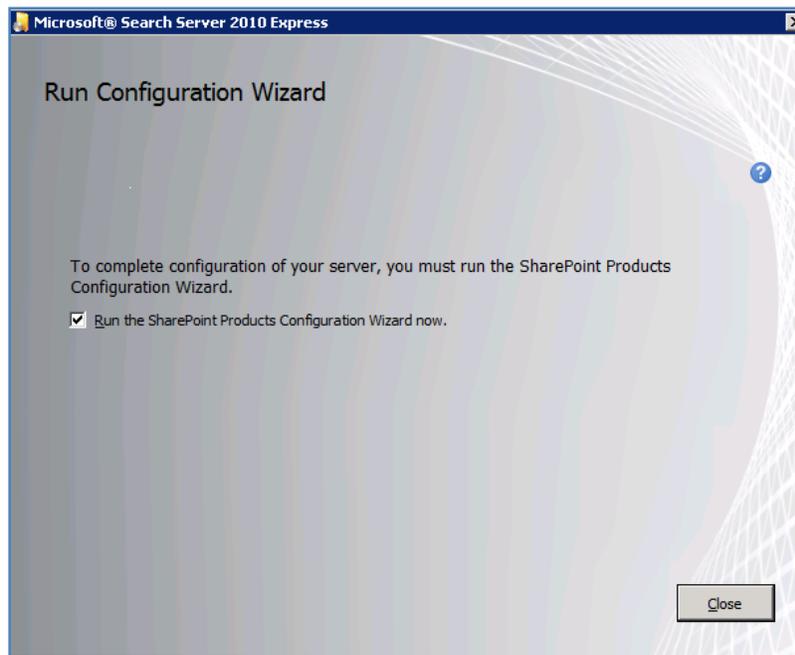
If you select the *File Location* tab you can nominate into which directory the application files and index files will be stored. It is good practice to store these on a non system partition.

When your configuration is complete press the **Install Now** button to continue.

## Chapter 11 – Search

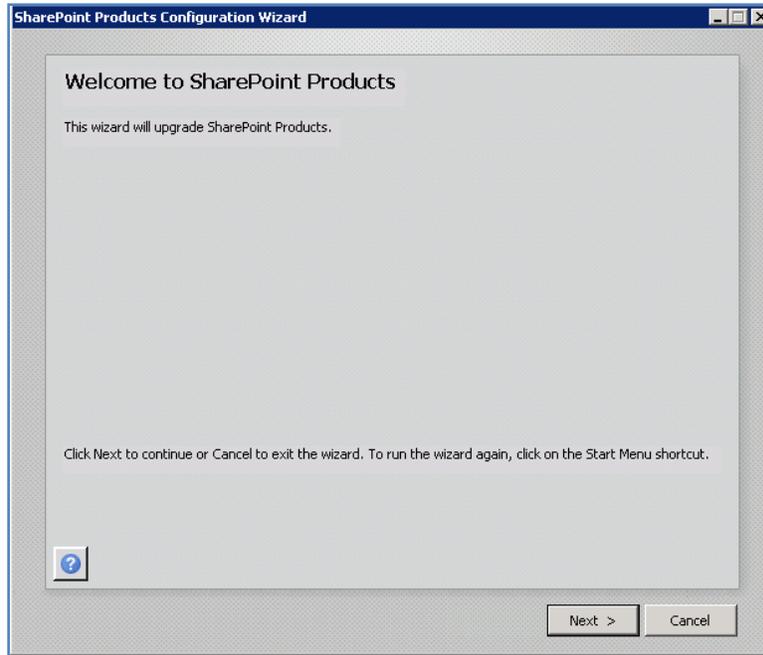


The installation process will commence and no further input will be required.

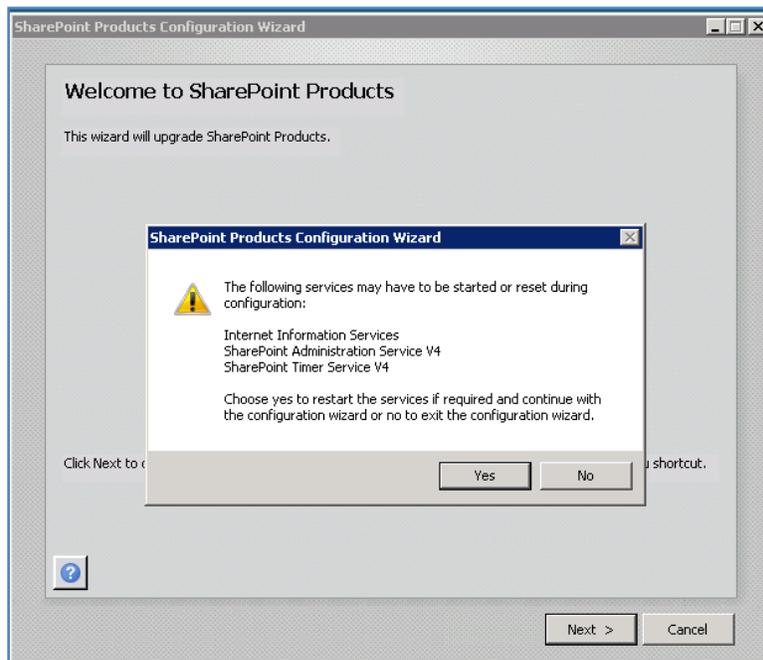


When the installation process is complete you will be given the option by default to **Run the SharePoint Products Configuration Wizard now**. To do so simply leave the option checked and press the **Close** button.

## Chapter 11 – Search



Press the **Next** button to continue.



You will then be prompted that the following services will be started or reset during the configuration:

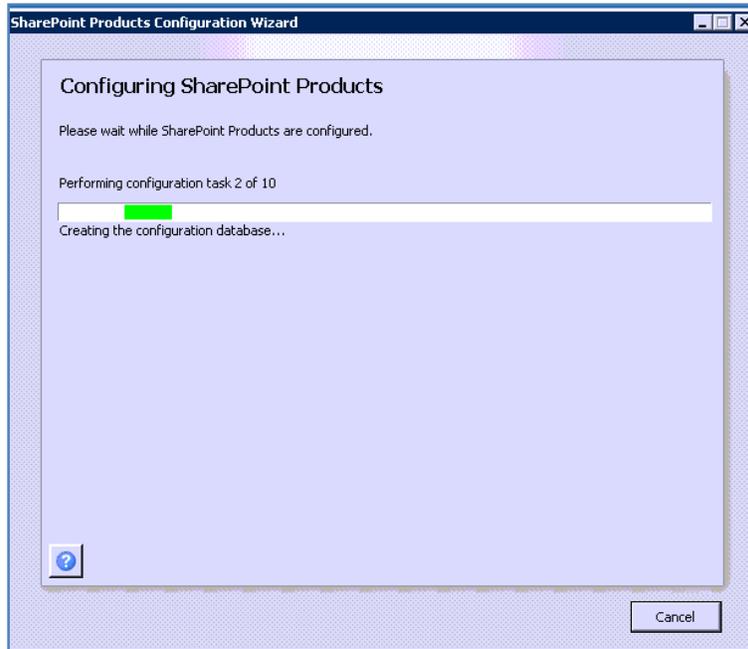
- Internet Information Services
- SharePoint Administration Service

## Chapter 11 – Search

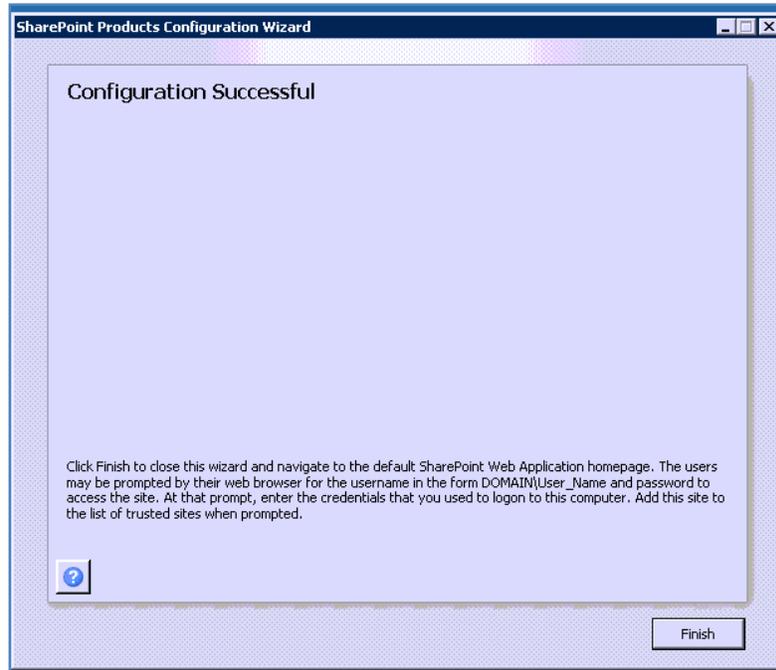
---

- SharePoint Timer Service

This may affect other users on the network and if so you should prepare them for interruption to their normal programs. Click the **Yes** button to accept this warning and continue. Then press the **Next** button to proceed.



The configuration process will now continue. The only option available is to stop the process via the **Cancel** button.



When the process is complete you will see the Window above. Press the **Finish** button.

### Welcome to Microsoft® Search Server 2010

You have finished installing Search Server. The next step is to configure it to work for you. Take the following steps to begin using Search Server.

- 1 Go to the [Search Administration](#) page**

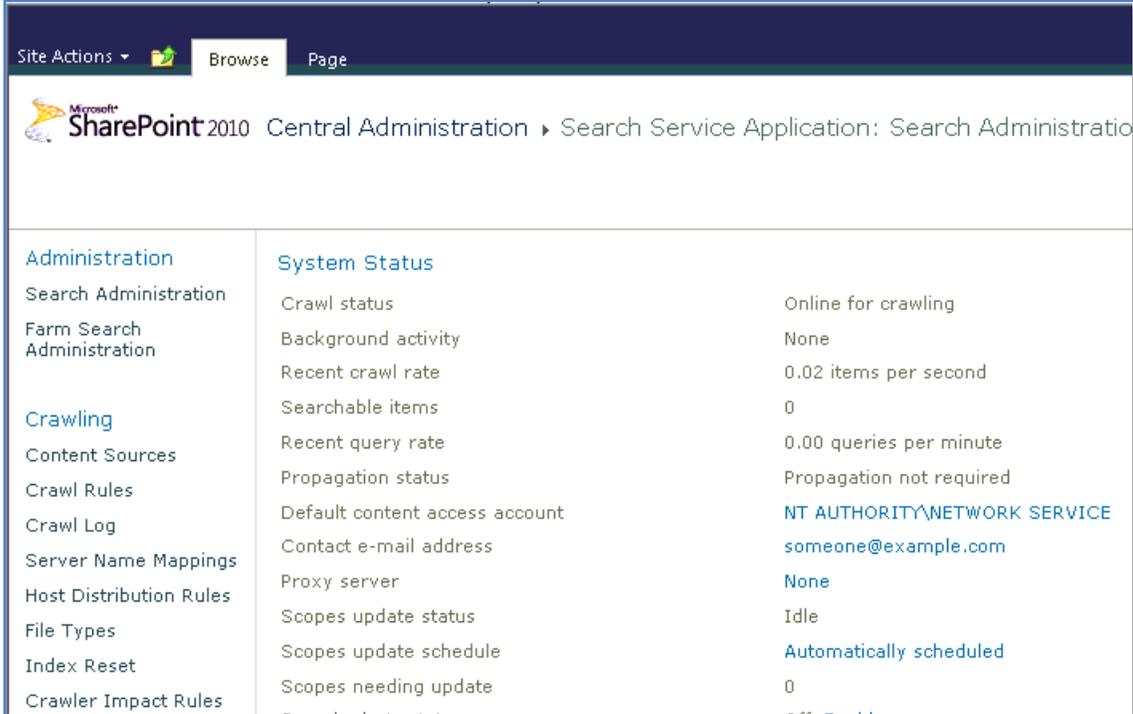
All of the settings you need to configure and monitor Search Server are on the Search Administration page.
- 2 Crawl your content**

Configure Search Server to crawl the content that you want people to search. We recommend that you follow the steps in the article [Add new content to crawl](#).
- 3 Go to your Search Center site to try a search!**

To get to your Search Center, go to the central administration [site collection](#) option.

The Search Server Express windows will now automatically be displayed. Click the link **Search Administration** to continue.

## Chapter 11 – Search

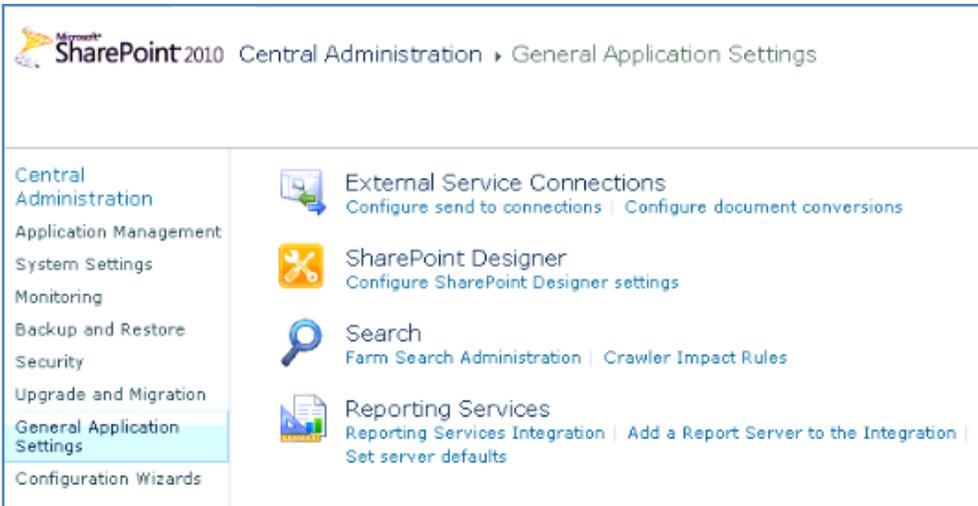


The screenshot shows the SharePoint 2010 Central Administration console. The breadcrumb path is "Central Administration > Search Service Application: Search Administration". The left-hand navigation pane is expanded to show "Administration" > "Search Administration". The main content area displays the "System Status" for the Search Service Application, with the following details:

Property	Value
Crawl status	Online for crawling
Background activity	None
Recent crawl rate	0.02 items per second
Searchable items	0
Recent query rate	0.00 queries per minute
Propagation status	Propagation not required
Default content access account	NT AUTHORITY\NETWORK SERVICE
Contact e-mail address	someone@example.com
Proxy server	None
Scopes update status	Idle
Scopes update schedule	Automatically scheduled
Scopes needing update	0

The Search Administration site will now be displayed. As you can see it is a SharePoint site.

If you installed Search Server Express 2010 over an existing SharePoint Foundation 2010 Server then you can access the Search Service Application via the Central Administration console.



The screenshot shows the SharePoint 2010 Central Administration console with the breadcrumb path "Central Administration > General Application Settings". The left-hand navigation pane is expanded to show "General Application Settings". The main content area displays the following configuration options:

- External Service Connections**  
Configure send to connections | Configure document conversions
- SharePoint Designer**  
Configure SharePoint Designer settings
- Search**  
Farm Search Administration | Crawler Impact Rules
- Reporting Services**  
Reporting Services Integration | Add a Report Server to the Integration | Set server defaults

You do so by selecting *General Application Settings* on the left hand side *Quick Start menu* and then *Farm Search Administration* from under the *Search* heading.

## Chapter 11 – Search

The screenshot shows the SharePoint 2010 Central Administration interface. The breadcrumb path is "Central Administration > Farm Search Administration". On the left, there is a navigation menu with categories: Central Administration, Application Management, System Settings, Monitoring, Backup and Restore, Security, Upgrade and Migration, General Application Settings, and Configuration Wizards. Below these are "Recycle Bin" and "All Site Content" links. The main content area is titled "Farm-Level Search Settings" and contains three settings: "Proxy server" (None), "Time-out (seconds)" (60, 60), and "Ignore SSL warnings" (No). Below this is a section titled "Search Service Applications" with a sub-section "Name" containing a link for "Search Service Application".

From the page that appears select **Search Service Application** in the lower part of the screen.

By default, Search Server Express 2010 will automatically crawl (or index) information in the WSF site, however it is possible to add additional sources for Search Server 2010 to index. To have additional sources index by Search Server 2010 click on the link **Content Sources** under the *Crawling* item from the left Quick link bar.

The screenshot shows the "Manage Content Sources" page in SharePoint 2010. The breadcrumb path is "Central Administration > Search Service Application: Manage Content Sources". The left navigation menu includes: Administration, Search Administration, Farm Search Administration, Crawling, Content Sources, Crawling Rules, Crawling Log, Server Name Mappings, Host Distribution Rules, File Types, Index Reset, and Crawler Impact Rules. The main content area has a heading "Use this page to add, edit, or delete content sources, and to manage crawls." and a menu bar with "New Content Source", "Refresh", and "Start all crawls". Below is a table of content sources:

Type	Name	Status	Current crawl duration	Last crawl duration	Last crawl completed	Next Full Crawl	Next Incremental Crawl	Priority
	Local SharePoint sites	Idle		00:04:12	8/26/2010 5:36 PM	None	8/26/2010 5:57 PM	Normal

You should already see the *Local Office SharePoint Server sites* configured as content sources. Click the **New Content Source** from the menu bar.

# Chapter 11 – Search

\* Indicates a required field

<b>Name</b> Type a name to describe this content source.	Name: * <input type="text" value="File Shares"/>
<b>Content Source Type</b> Select what type of content will be crawled.  Note: This cannot be changed after this content source is created because other settings depend on it.	Select the type of content to be crawled:  <input type="radio"/> SharePoint Sites <input type="radio"/> Web Sites <input checked="" type="radio"/> File Shares <input type="radio"/> Exchange Public Folders <input type="radio"/> Line of Business Data <input type="radio"/> Custom Repository
<b>Start Addresses</b> Type the URLs from which the search system should start crawling. This includes contents of a file share, such as documents and other files.	Type start addresses below (one per line): * <input type="text" value="\ciasvr02\data"/>

Give the new content source a meaningful name, select what sort of your content you wish added. You can choose from:

- SharePoint sites
- Web Sites
- File Shares
- Exchange Public folders

Enter the starting address for the content next. It from this point down that Search Server Express 2010 will index. In this case we have selected a network shared folder.

<b>Crawl Settings</b> Specify the behavior for crawling this type of content. Choose which folders to include in the crawl.	Select crawling behavior for all start addresses in this content source:  <input checked="" type="radio"/> Crawl the folder and all subfolders of each start address <input type="radio"/> Only crawl the folder of each start address
<b>Crawl Schedules</b> Select the crawl schedules for this content source.	Select the schedule that this should be a part of:  Full Crawl <input type="text" value="Every 20 minute(s) from 5:37 PM for 24 hour(s) every day, sta"/> <a href="#">Edit schedule</a>  Incremental Crawl <input type="text" value="Every 20 minute(s) from 5:37 PM for 24 hour(s) every day, sta"/> <a href="#">Edit schedule</a>
<b>Content Source Priority</b> Select what the priority of this content source should be. The Crawl system will prioritize the processing of 'High' priority content sources over 'Normal' priority content sources	Select the priority for this content source: Priority <input type="text" value="Normal"/>
<b>Start Full Crawl</b> Select "Start full crawl of this content source" and click "OK" to start a full crawl of this content source.	<input checked="" type="checkbox"/> Start full crawl of this content source

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Scroll down and select the crawl settings, schedules and whether you wish a full crawl to commence immediately. When complete press the **OK** button to continue.

Use this page to add, edit, or delete content sources, and to manage crawls.

[New Content Source](#)
[Refresh](#)
[Start all crawls](#)
[Stop all crawls](#)
[Pause all crawls](#)

Type	Name	Status	Current crawl duration	Last crawl duration	Last crawl completed	Next Full Crawl	Next Incremental Crawl	Priority
	Local SharePoint sites	Idle		00:04:12	8/26/2010 5:36 PM	None	8/26/2010 5:57 PM	Normal
	File Shares	Starting				None	None	Normal

You should now see the content source you just configured displayed in the list. Continue to add content sources as required following the above method. When complete select the option **Search Administration** from the Quick link bar on the left of the screen under the *Administration* heading.

Crawl History

Content Source	Type	Start Time	End Time	Duration	Success	All Errors
File Shares	Full	8/26/2010 5:45 PM		00:00:43	0	1
Local SharePoint sites	Full	8/26/2010 5:32 PM	8/26/2010 5:36 PM	00:04:12	0	1

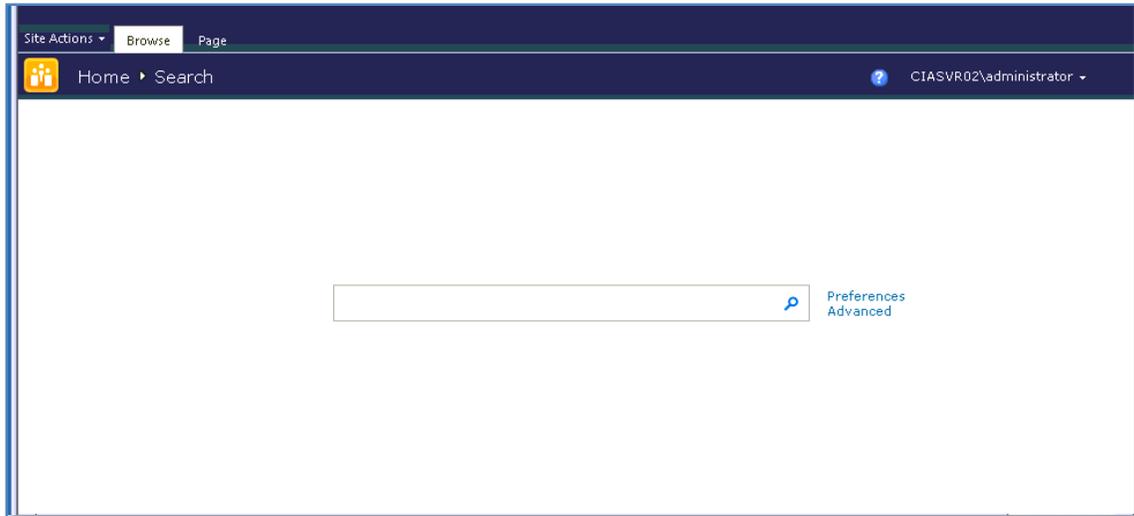
Search Application Topology

Current ▾

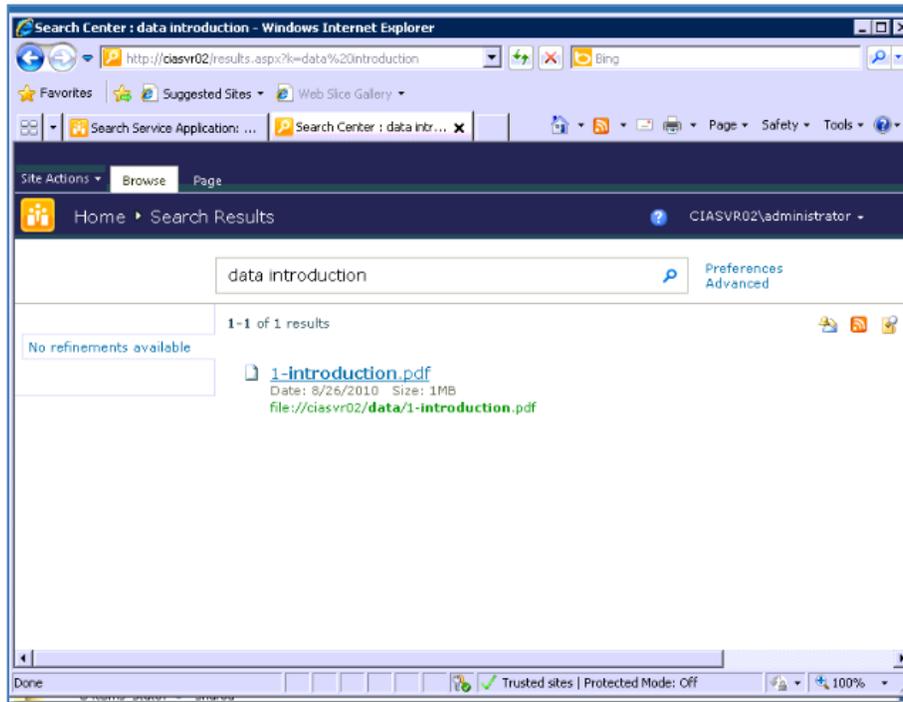
Category	Server Name	Status
<b>Admin</b>		
Administration Component	CIASVR02	Online
<b>Databases</b>		
Administration Database :	CIASVR02	
Search_Service_Application_DB_35b04e02ef0f4bcb9a10987f414e6606	\SHAREPOINT	
Crawl Database :	CIASVR02	

At the *Search Administration* page you will now see a summary of all the content sources you have configured and their crawl progress and status.

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To commence a search of your configured content simply enter the address of your Search Server site into a browser. Enter a query into the box and click on the magnifying glass or press **Enter**.



The results from your content will be returned. You will also notice that you can perform a more advanced search if you press the *Advanced* hyperlink near the input box at the top.

## Chapter 11 – Search

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**Find documents that have...**

All of these words:

The exact phrase:

Any of these words:

None of these words:

Only the language (s):

- English
- French
- German
- Japanese
- Simplified Chinese
- Spanish
- Traditional Chinese

Result type:

**Add property restrictions...**

Where the Property...

### 11.10 Conclusion

This guide continues to be a work in progress and I encourage comments and feedback of any type. The only way that the Guide will improve if these is continued feedback.

Please send your comments and feedback to [director@ciaops.com](mailto:director@ciaops.com).