## **Δquaforest**

# Searchlight Troubleshooting Guide





**Making Content Findable** 

# Searchlight Troubleshooting Guide



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## **1** Introduction

This brief guide is intended to summarize the most common configuration issues that can affect the operation of Aquaforest Searchlight version 2.x. The Release Notes has more information on more specific errors. You can also check <u>Searchlight blogs</u> for even more information.

#### 1.1 Installation

The installation process is relatively straight forward by following the steps on the GUI. The installation should be carried out whilst being logged in as a System Administrator. In cases where the logged-on user does not have full admin privileges some components will fail to install.

A recommend approach is to run the Aquaforest\_searchlight.msi through the command prompt. You will need to open an instance of command prompt with the 'Run as Administrator' option.

## 2 Post Installation

#### 2.1 SharePoint URL format

Below is an example of how to set the SharePoint URL format when setting up a document library in Searchlight.

Sharepoint 2010:

- Actual URL:
   <u>https://SharePoint2010/site/myLibrary/myForms/AllItems.aspx</u>
- Supported URL format in Searchlight: <u>https://SharePoint2010/site/myLibrary</u>

SharePoint 2013:

- Actual URL:
   <u>https://SharePoint2013/site/Library/ layouts/15/start.aspx#/mylibrary/Forms/AllItems.apsx</u>
- Supported URL format in Searchlight: https://SharePoint2013/site/Library/mylibrary

## 2.2 Running the Diagnostic Tool

Once installed you can run the **Diagnostic Tool** which can be accessed from the **Help & Support** tab on the main screen.



This will initiate the diagnostic wizard which will run various checks to determine if your system meets all the requirements needed to run Searchlight. If there are dependencies that are not installed, download them using the link in the diagnostic tool and install them. If you notice any failures during the run contact the support team.

Aquaforest Searchlight - Diagnostic	c Wizard				
Steps	2. System Requirements				
1. Welcome	✓ .NET Framework 4.7.2: Installed				
2. System Requirements	✓ Visual C++ Redistributables				
2 Collect Information	X Visual C++ Redistributable 2017 (x86): NOT INSTALLED Download				
5. Collect mormation	X Visual C++ Redistributable 2017 (x64): NOT INSTALLED Download				
4. Finish	⊿ OCR				
	✓ Standard OCR: Working				
	✓ Extended OCR: Working				
	SharePoint Server Client Component SDK				
	✓ Installed				
	✓ Web UI Dependencies				
	✓ .NET Core IIS Hosting: Installed				
	X .NET Core Runtime: NOT INSTALLED Download				
	✓ IIS URL Rewrite 2.0: Installed				
	✓ IIS Web Deploy 3.5: Installed				-
	Log			DE	D
	Installed				
	Checking Web UI Dependencies				
	.NET Core IIS Hosting: Installed				
	.NET Core Runtime: NOT INSTALLED				
	IIS URL Rewrite 2.0: Installed				
	IIS Web Deploy 3.5: Installed				11
	System requirements checking completed				-
	1	( Previous	) Next	Generate	(S) Cancel

## 2.3 Long Path Support

When enumerating documents to process, Searchlight can come across documents that exceed the file path length enforced by windows. These files are skipped and not processed.

Starting from Windows 10 and Windows Server 2016, there is now support for long paths. However, long paths support is not enabled by default. You need enable the following policy to take advantage of this new feature.

Iccal Group Policy Editor  $\times$ File Action View Help 🗢 🄿 🙋 📊 🗟 🔢 🍸 Local Computer Policy All Settings ✓ ▲ Computer Configuration Enable Win32 long paths Setting State > Software Settings Enable Support for BranchCache Not configured > I Windows Settings Edit policy setting 🖹 Enable throttling for online mail... Not configured Administrative Templates Enable Transparent Caching Not configured > 🚞 Control Panel Requirements: At least Windows Server 2016, 🗄 Enable UEV Not configured > 🚞 Network Windows 10 Printers Enable use of BitLocker authenti... Not configured Enable Win32 long paths Enabled Server Description: 📔 Start Menu and Taskbar Enable Windows NTP Client Not configured Enabling Win32 long paths will > 🚞 System allow manifested win32 Enable Windows NTP Server Not configured applications and Windows Store > Windows Components Enable/Disable PerfTrack Not configured applications to access paths 🖺 All Settings Enabling Windows Update Pow... Not configured beyond the normal 260 character 🗸 💰 User Configuration Encrypt the Offline Files cache Not configured limit per node on file systems that > Software Settings support it. Enabling this setting End session when time limits ar... Not configured > 📔 Windows Settings will cause the long paths to be Energy Saver Battery Threshold (... Not configured accessible within the process. > Administrative Templates E Energy Saver Batteny Threshold ( Not configured > **T1** Extended (Standard / 2282 setting(s)

Open Global Policy Editor (Start > Run > gpedit.msc) and enable "Enable Win32 long paths".

Restart the Searchlight UI and service after making changes to this policy.

## 2.4 Empty drop down lists

This is a symptom seen on Windows Server 2008 and Windows Server 2012. If you experience the dropdown lists being empty within Aquaforest Searchlight and are using one of the above operating system, then you will need to enable the "Application Server" Role. The following screenshots illustrate how to enable the "Application Server" Role:

Add Roles Wizard Select Server Ro	les	×
Before You Begin Server Roles Confirmation Progress Results	Select one or more roles to install on this server.         Roles: <ul> <li>Active Directory Certificate Services</li> <li>Active Directory Pederation Services</li> <li>Active Directory Federation Services</li> <li>Active Directory Fights Management Services</li> <li>Active Directory Rights Management Services</li> <li>DHCP Server</li> <li>DHS Server</li> <li>Fax Server</li> <li>File Services</li> <li>Print and Document Services</li> <li>Print and Document Services</li> <li>Windows Deployment Services</li> <li>Windows Server Update Services</li> <li>Windows Server Update Services</li> <li>Windows Server roles</li> </ul>	>       Install         Cancel       Install

Add Roles	Wizard	X
<u>S</u>	Add role services required for Applic You cannot install Application Server unless the required Role Services:	cation Server? d role services are also installed.
	Application Server     TCP Port Sharing	Application Server provides central management and hosting of high- performance distributed business applications such as those built with Enterprise Services and .NET Framework 3.5.1.
		Add Required Role Services Cancel
i Why	vare these role services required?	//

Add Roles Wizard		×
Select Server Ro	les	
Before You Begin Server Roles Application Server Role Services Confirmation Progress Results	Select one or more roles to install on this server. Roles: Active Directory Certificate Services Active Directory Domain Services Active Directory Federation Services Active Directory Federation Services Active Directory Lightweight Directory Services Active Directory Rights Management Services Fax Server File Services Hyper-V Network Policy and Access Services Print and Document Services Remote Desktop Services Web Server (IIS) (Installed) Windows Deployment Services Windows Server Update Services	Description: Application Server provides central management and hosting of high- performance distributed business applications such as those built with Enterprise Services and .NET Framework 3.5.1.
Add Roles Wizard	More about server roles          < Previous	> Install Cancel
Before You Begin Server Roles Application Server Role Services Confirmation Progress Results	Select the role services to install for Application Server: Role services: Image: Interference interfe	Description: <u>NET Framework 3.5.1</u> includes Windows Communication Foundation (WCF), Windows Workflow Foundation (WF) and Windows Presentation Foundation (WPF). These frameworks provide a powerful infrastructure for creating securely connected services, workflow driven applications, and rich user experiences.
	< Previous Next	> Install Cancel

Add Roles Wizard		×				
Confirm Installation Selections						
Before You Begin Server Roles Application Server Role Services Confirmation Progress Results	To install the following roles, role services, or features, dick Install.    Informational message below       In its server might need to be restarted after the installation completes.    Or Application Server     NET Framework 3.5.1     TCP Port Sharing     Print, e-mail, or save this information					
	< Previous Next > Install Cancel					

## 2.5 Certificate Error

If Searchlight tries to access a site that has an invalid SSL certificate, it will fail with an error message like "*Could not establish trust relationship for the SSL/TLS secure channel.*"

There are 2 settings in the **Searchlight.config** file that can be used to fix this.

```
<!--
To enable Searchlight to process sites that have invalid certificates or certificates with errors,
enter a comma separated list of all thumbprints of certificates that you recognize
in the setting below to make Searchlight ignore them and continue processing. Alternatively, set
"ignoreAllCertificateErrors" to "true" (use at your own risk!).
-->
<add key="recognizedCertificateThumbprints" value="" />
<add key="ignoreAllCertificateErrors" value="false" /></a>
```

#### recognizedCertificateThumbprints

Use this setting to add the thumbprint/fingerprint (SHA-1) of the certificate that is causing the issue. More thumbprints can be added by separating each one with a comma. This is recommended way as it instructs Searchlight to only ignore errors of recognized certificates.

See how to retrieve the thumbprint or fingerprint of the invalid certificate using <u>Chrome</u>, <u>Firefox</u> and <u>Edge</u> web browser below.

#### • ignoreAllCertificateErrors

Set this setting to true to ignore all errors for all certificates.

NOTE: The Searchlight UI and service must be restarted after making the change.

#### 2.5.1 Retrieving certificate thumbprint/fingerprint

To retrieve a site's certificate's thumbprint, first open the site in a web browser. If the certificate is invalid, a warning will be shown in the address bar.

#### • Chrome



- 1. Click on Not secure > Certificate (Invalid)
- 2. A popup window will appear

o Certifi	cate			>
General	Details	Certification Path		
Show:	<all></all>		$\sim$	
Field			Value	^
Val	id to		22 January 202	21 00:00:00
E Pul	oject blic key		RSA (2048 Bits)	)
📴 Pul	blic key pa	arameters	05 00	
💽 Ke	y Usage		Key Encipherme	ent, Data Encip
🔉 En	hanced Ke	ey Usage	Server Authent	tication (1.3.6
🛅 The	umbprint		b3d4	
b3d				
		_		
		E	dit Properties	Copy to File
				ОК

3. On the **Details** tab, select **Thumbprint** and copy the value in the **recognizedCertificateThumbprints** setting in **Searchlight.config**.

#### • Firefox

ng	Site Information for	
R	Connection not secure	>
<u>°</u> 5	Permissions	Show connection details
Yo	u have not granted this site any special permissions.	

- 1. Click on the padlock icon with an exclamation mark
- 2. Click on the arrow new to **Connection not secure**
- 3. A new popup will be shown. Click on More Information



4. In the new popup window, under **Security**, select **View Certificate** 

🍅 Page Info	-				-	- 🗆	×
General	Nedia	<b>P</b> ermissions	Security				
- Web Site Id	entity	-	- /				
Web site:	,						
Owner:	This we	b site does not s	upply ownership	information.			
Verified by:						View Ce	rtificate
<b>F</b>	22.1	2021				-	
Expires on:	22 Janua	ary 2021					
Privacy & H	istory						
Have I visited	d this web	o site before tod	ay?	No			
Is this web si	ite storing	j information or	n my computer?	No	<u>C</u> lear Coo	kies and S	ite Data
Have I saved	l any pass	words for this w	veb site?	No	Vie <u>w</u>	Saved Pas	swords
Technical D	otalle						
Connection	Not Encry	voted					
The web site	sp2016de	ev does not sup	port encryption fo	or the page you are view	ving.		
Information	sent over	the Internet wit	hout encryption	an be seen by other pe	eople while i	t is in tran	sit.
						H	Help

 Copy the value of SHA-1 under Fingerprints and paste it in the recognizedCertificateThumbprints setting

## Certificate

Subject Name	
Common Name	
Common Name	
Issuer Name	
Common Name	
Validity	
Not Before	22/01/2020, 13:07:11 (Greenwich Mean Time)
Not After	22/01/2021, 00:00:00 (Greenwich Mean Time)
Public Key Info	
Algorithm	RSA
Key Size	2048
Exponent	65537
Modulus	00007
wodulus	
Miscellaneous	
Serial Number	
Signature Algorithm	SHA-1 with RSA Encryption
Version	3
Download	PEM (cert) PEM (chain)
Fingerprints	
SHA-256	
SHA-1	B3:D

• Edge

じ 心	△ Certificate error
Web	osite problem
There securi some	e's a problem with this website's ity certificate. This might mean that one's trying to trick you or steal any

- 1. Click on **Certificate error** > **View certificate**
- 2. In the popup window, copy the value of **SHA1 fingerprint** and paste it in the **recognizedCertificateThumbprints** setting.

Certificate Information	-17
Certificate error (※	
Issued by	
Valid from 22 January 2020 13:07:11	
Valid to 22 January 2021 00:00:00	
Subject organisation Unknown	
Serial number	
SHA-256 fingerprint	
SHA1 fingerprint B3:D	

## 2.6 HTTP Error 500.19 – Internal Server Error

C A Not secure   loca     HTTP Error 500.19 - In     The requested page cannol	host:5001 ernal Server Error be accessed because the related configuration data for the pa	nge is invalid.	
Detailed Error Informati	»n:		
Module	IIS Web Core	Requested URL	https://localhost:5001/
Notification	Unknown	Physical Path	
Handler	Not yet determined	Logon Method	Not yet determined
Error Code	0x8007000d	Logon User	Not yet determined
Config Error			
Config File	\\?\C:\Aquaforest\Searchlight\bin\web.config		
Config Source:			
-1: 0:			
More Information: This error occurs when there is a View more information »	problem reading the configuration file for the Web server or Web application. In sc	me cases, the event logs may contain	more information about what caused this error.

#### The cause of this error can be found by running the **Diagnostic Tool**



As shown above, the **URL Rewrite module** is not installed. This is required if you use the web interface. <u>Download</u> and install it.

You may encounter the following error when installing the URL Rewrite module "IIS Version 7.0 or greater is required to install IIS URL Rewrite Module 2":



To fix this:

1. Open Registry Editor (Regedit)

#### 2. Go to HKEY\_LOCAL\_MACHINE\SOFTWARE\Microsoft\InetStp

醋 Registry Editor				
<u>F</u> ile <u>E</u> dit <u>V</u> iew F <u>a</u> vorites <u>H</u> elp				
Computer\HKEY_LOCAL_MACHINE\SOFTW/	ARE\/	/licrosoft\lnetStp		
	^	Name	Туре	Data
IMETC		(Default)	REG_SZ	(value not set)
> InetMgr		ab IISProgramGroup	REG_SZ	Microsoft Internet
(752A6C96 E20E 11D0	0	ab InstallPath	REG_EXPAND_SZ	%windir%\system3
Components		80 MajorVersion	REG_DWORD	0x0000000a (10)
Extensions		RetabaseSetMajorVersion	REG_DWORD	0x0000003 (3)
		30 MetabaseSetMinorVersion	REG_DWORD	0x0000000 (0)
> Input		100 MinorVersion	REG_DWORD	0x0000000 (0)

3. Modify the MajorVersion and set the Decimal value to 9

Edit DWORD (32-bit) Value			
Value <u>n</u> ame:			
MajorVersion			
<u>V</u> alue data: 9	Base <u>H</u> exadecimal <u>D</u> ecimal		
	OK Cancel		

- 4. Install the URL Rewrite Module
- 5. Go back to the registry editor and change the MajorVersion back to Decimal value of 10