

# Quick Installation Guide for a Developer Workstation

A quick guide to installing the Sitecore XP Single topology.

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Sitecore Experience Platform 10.3.0



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# 1. Choosing a topology

Before you install Sitecore Experience Platform, you must choose the topology or the type of instance that you want to install.

Sitecore supports the following topologies for on-premise installations by default:

- XP Single Developer (XP0)
- XM Scaled (XM1)
- XP Scaled (XP1)

This guide describes how to install the XP Single Developer topology.

If you want to install one of the other topologies, [download](#) the installation guide for that topology.

You can configure the topology to match your business needs. There are several scalability options that you can use to achieve better performance, cope with greater website demand, and manage large amounts of website traffic. For more information about scaling, see [Scaling options](#).

Sitecore also provides a number of cloud-based offerings. For more information, see our [Cloud Services](#).

## 1.1. On-premise topology options

The following topologies are available:

Deployment topology	Description
XP Single Developer (XP0)	Use this topology for local development and testing. The Sitecore Experience Platform, runs as three single instances: Sitecore, xConnect, and Sitecore Identity server. The Experience Database (xDB) is partially included in the Sitecore and xConnect instances.

**NOTE**

For security and scalability reasons, in production environments, it is best practice to use the XM Scaled (XM1) or XP Scaled (XP1) configuration.

This option runs all the services on a single server.

Deployment topology	Description
XM Scaled (XM1)	<p>Use this topology if you are not planning to use the analytics and marketing features in the Sitecore Experience Platform.</p> <p>The Sitecore Experience Manager configuration (similar to CMS-only mode) runs the Content Delivery (CD), Content Management (CM) server roles and the Sitecore Identity server.</p> <div style="background-color: #f0f0f0; padding: 5px; margin: 10px 0;"><b>NOTE</b> When you select this topology, xDB and xConnect are not available.</div> <p>This option runs the services on one or more servers.</p>
XP Scaled (XP1)	<p>Use this topology if you are planning a fully featured Sitecore Experience Platform installation.</p> <p>The Sitecore Experience Platform configuration runs the following separated server roles:</p> <ul style="list-style-type: none"><li>• Content Delivery</li><li>• Content Management</li><li>• Email Experience Dedicated Dispatch Server (optional)</li><li>• Sitecore Identity</li><li>• Processing</li><li>• xConnect Collection</li><li>• xConnect Collection Search</li><li>• xDB Reference Data</li><li>• xDB Automation Operations</li><li>• xDB Automation Reporting</li><li>• Sitecore Cortex™ Processing Engine</li><li>• Sitecore Cortex™ Reporting service</li></ul> <p>This option runs the services on one or more servers.</p>

There are different ways to install Experience Manager (XM). You can use:

- Sitecore XM Scaled topology packages.
- Sitecore XP Single or the XP Scaled topology packages and then configure the installation to run in [CMS-only mode](#).
- Sitecore containers.

In a Sitecore Experience Manager installation, the [functionality](#) that you can use is different depending on how you installed Sitecore XM.

**NOTE**

This document does not describe how to configure the Sitecore Email Experience Manager. For more information, see the [Sitecore Email Campaign Manager documentation](#).

## 1.2. Sitecore XP developer installation options

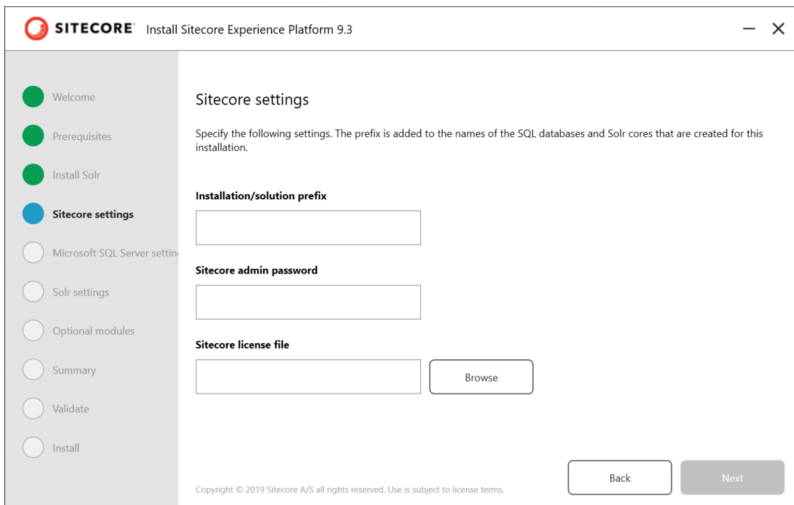
You can use the Sitecore Installation Framework (SIF) or the Sitecore Install Assistant (SIA) to install the Sitecore XP0 topology.

Sitecore Installation Framework (SIF) is a Microsoft® PowerShell module that supports local and remote installations of Sitecore Experience Platform.

Sitecore Install Assistant (SIA) was introduced in Sitecore XP 9.2.0 and contains an intuitive graphical user interface that guides you through the installation process. In addition to being easier to use than SIF, it also:

- Optionally installs and configures the required version of the Solr search service. Solr is a prerequisite for installing all Sitecore Experience platform topologies.
- Optionally installs Sitecore Experience Accelerator (SXA).
- Configures the Microsoft Windows Server options, configuration settings, and applications required by Sitecore Experience Platform.
- Validates the specified installation parameters and settings.

The following is an example of a page in the Sitecore Install Assistant:



**SITECORE** Install Sitecore Experience Platform 9.3

Sitecore settings

Specify the following settings. The prefix is added to the names of the SQL databases and Solr cores that are created for this installation.

**Installation/solution prefix**

**Sitecore admin password**

**Sitecore license file**

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## 2. Server requirements

Before installing Sitecore Experience Platform, you must ensure that you have all of the requirements and prerequisites in place.

If you are using Sitecore Install Assistant (SIA) to install Sitecore XP, most of the software prerequisites and requirements are managed by SIA.

### 2.1. Hardware requirements for a server running a single Sitecore installation

To run a single Sitecore installation, the minimum configuration requirements are:

- 4 core processor
- 16 GB of RAM

#### **NOTE**

The recommended hardware requirements are for running the software on a single computer. For more information about running Sitecore on different kinds of hardware, consult your Sitecore partner or technical sales representative.

### 2.2. IIS requirements

You must use the version of IIS that your operating system supports. For more information about IIS and operating systems, see [Microsoft's documentation](#).

Sitecore Experience Platform does not officially support any other ASP.NET web servers such as IIS Express, or Mono Web Server.

Sitecore Experience Platform neither supports nor allows multiple IIS website definitions to point to the same Sitecore web root.

### 2.3. Operating system requirements

Sitecore Experience Platform is only compatible with the client and server operating systems that support .NET Framework 4.8.0.

Sitecore Experience Platform can be hosted on the following Microsoft operating systems:

- Windows Server 2022
- Windows Server 2019
- Windows 11 (64-bit)
- Windows 10 (64-bit)

### **IMPORTANT**

If the Transport Layer Security (TLS) protocol version 1.2 is not activated by default, you must enable it on all of your Sitecore Experience Platform content management and Dedicated Dispatch servers (DDS).

For Windows 10, TLS 1.2 is enabled by default.

You can check that it is enabled in the registry -

```
HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\SecurityProviders\SCHANNEL\Protocols\TLS 1.2\Client.
```

For Windows 11 and Windows Server 2022, TLS protocol version 1.3 is enabled by default.

You must disable the TLS 1.3 on all of your Sitecore Experience Platform content management and Dedicated Dispatch servers(DDS) and enable TLS 1.2.

For more information about enabling TLS 1.2, see [Microsoft's documentation](#).

### **IMPORTANT**

Run Windows Update and install all the appropriate service packs and security updates.

## **2.4. .NET requirements**

Sitecore Experience Platform requires .NET Framework 4.8.0.

Sitecore Identity server requires the latest [.NET Core 6.0 Windows Hosting Bundle](#).

You must apply any available updates to the .NET Framework on every Sitecore installation.

## **2.5. Microsoft Visual C++ 2015 redistributable requirements**

Sitecore Experience Platform 9.0 Update-1 introduced a new prerequisite for the Microsoft Visual C++ 2015 Redistributable. For more information, see [Microsoft's documentation](#).

**NOTE**

This redistributable may already be installed with Microsoft Windows. Without it, Sitecore Experience Platform will fail to start up with the message:

*Could not load file or assembly 'ChilkatDotNet46.dll' or one of its dependencies. The specified module could not be found.*

## 2.6. Database requirements

Sitecore Experience Platform supports the following database servers:

- Microsoft SQL Server 2017
- Microsoft SQL Server 2019
- Microsoft Azure SQL

You must create the Azure SQL instance in advance and pass the address and the server administrator credentials in the corresponding parameters when you run the installation. For more information, see the [Sitecore XP documentation](#).

**NOTE**

All of the databases in Sitecore Experience Platform use the *SQL\_Latin1\_General\_CP1\_CI\_AS* collation, except the *Reference Data* database that uses the case sensitive *Latin1\_General\_CS\_AS* collation. This is because comparisons in the *Reference Data* database are case sensitive and they are not case sensitive in the other databases.

## 2.7. Enable Contained Database Authentication

When you use Web Deploy Packages, you must ensure that the target SQL Server is configured to allow users and logins to be contained at the database level.

To configure the target SQL Server:

1. Launch Microsoft SQL Server Management Studio and log in as an administrator.
2. Run the following new query:

```
EXEC sp_configure 'contained', 1;  
RECONFIGURE;
```



**NOTE**

For more information about the contained database authentication option, see [Microsoft's documentation](#).

## 2.8. Search indexing requirements

Sitecore Experience Platform supports [Solr 8.11.2](#). Solr is the default search provider and supports both content search and analytics search. To use the Sitecore Installation Framework (SIF), you must have Solr installed.

**NOTE**

Support for Lucene was removed in Sitecore XP 9.3.0.

Support for Azure Search was removed in Sitecore XP 10.2.0.

For more information about how to install and manage these index providers in Sitecore Experience Platform, see the [Sitecore documentation](#).

## 2.9. Installing Solr

**NOTE**

If you plan to use the Sitecore Installation Assistant to install Sitecore XP, it can install Solr for you and you can skip this section.

If you plan to use the Sitecore Installation Framework (SIF) to install Sitecore XP, you must follow the steps described in this section.

The standard Sitecore Experience Platform configuration requires Solr. The Sitecore Experience Platform is secure by default, you must, therefore, enable SSL for Solr.

Before you run the SIF, you must:

- [Install Solr](#) and configure it to run as a Windows service.
- [Enable and set up SSL for Solr](#).

The `Solr-Singledveloper.json` deployment configuration file installs and configures Solr with SSL.

For local testing and development, you can set up a self-signed certificate. The Apache Solr Reference guide has more information about [creating a self-signed certificate](#).

## 2.10. Antivirus software considerations

Some antivirus software can have a detrimental effect on the performance of ASP.NET applications, including Sitecore. We recommend that you use only antivirus scanners that are certified for your operating system.

For more information about the certified products, see the [Windows Server Catalog](#) website.

For optimal performance, ensure that the following folders are *not* scanned by your antivirus software:

- The site root folder
- The data folder defined in the `web.config` file
- The folder that contains the actual Sitecore database files
- The `C:\Windows\Temp` or `{app_pool user profile}\Temp` folder

### NOTE

Active file scans from antivirus tools can significantly impact the performance of search indexing software. This can lead to poor user experience or slow system performance. Consider turning off any antivirus tools or modifying antivirus settings on the search index server to exclude the application data folders from scans. For more information about your search indexing software, consult the related documentation.

## 2.11. Prerequisites for using the Sitecore Installation Framework

To use the Sitecore Installation Framework to install Sitecore Experience Platform in an on-premise environment, you must download and install:

- [Windows PowerShell® version 5.1](#)

## 3. Installing Sitecore XP with the Sitecore Install Assistant

This chapter describes how to use the Sitecore Install Assistant (SIA) to install the Sitecore XP for developing and testing purposes.

You can use SIA to install the:

- Sitecore XP Single Developer (XP0) topology.
- Sitecore XM Scaled (XM1) topology

### 3.1. Download the Sitecore Install Assistant

To download the [Sitecore Install Assistant](#):

- After you download the file, unpack SIA and store it on the computer where you want to install Sitecore XP.

The package includes:

- `setup.exe` - the SIA executable file.
- JSON configuration files.
- ZIP program files.

### 3.2. Review prerequisites and requirements

SIA requires .NET Framework 4.8.0.

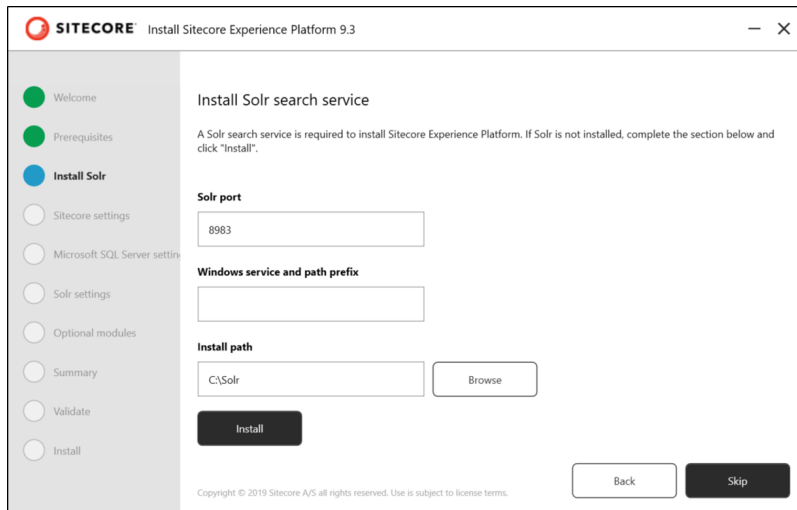
Before you use SIA to install Sitecore XP, you must:

- Install SQL Server.
- Install all the operating system updates.
- Have a valid Sitecore license file.
- Ensure that your computer meets the minimum hardware requirements. For more information, see [Server requirements](#).

### 3.3. Use SIA to install Sitecore XP

To use SIA:

1. Go to the folder where you unpacked SIA.
2. Run `setup.exe` - it runs with administrator permissions by default.
3. Review the information on the Welcome page and click **Start**.
4. SIA guides you through the installation process.



The left-hand panel contains the title of each SIA page. Green indicates that the page has been completed and blue indicates the active page.

The following table contains a summary of the information required in each page of SIA:

Page	Notes
Welcome	Review the information on this page to ensure you are ready to start the installation process.

Page	Notes
Prerequisites	<p>This page installs the prerequisites:</p> <ul style="list-style-type: none"> <li>Sitecore Installation Framework (SIF) - a Microsoft® PowerShell module that supports local and remote installations of Sitecore XP. This module is required.</li> </ul> <div style="border: 1px solid #ccc; padding: 10px; margin: 10px 0;"> <p><b>NOTE</b></p> <p>Deploying <code>SitecoreInstallFramework</code> might fail with "Authenticode issuer" error if <code>SitecoreInstallFramework</code> version 2.4.0 or higher has a conflict with versions lower than 2.4.0.</p> <p>In that case, you need to remove other versions of SIF in Powershell: <code>Uninstall-Module SitecoreInstallFramework -AllVersions</code>. After that reopen SIA application and repeat the instructions of Installation of prerequisites.</p> <p>If you need to install SIF version 2.4.0 or higher on a machine where lower versions are installed, you need to install it from Powershell using <code>-SkipPublisherCheck</code> flag to avoid Powershell error related to Authenticode issuer: <code>Install-Module SitecoreInstallFramework -RequiredVersion 2.4.0 -SkipPublisherCheck</code></p> </div> <ul style="list-style-type: none"> <li>Windows Server prerequisites – the operating system applications and settings required to run Sitecore XP.</li> </ul> <p>To ensure that you have the latest version of SIF and that your operating system meets the system requirements, we recommend that you select both options and click <b>Install</b>.</p>
Install Solr	<p>This page installs the Solr search provider. If you already have Solr installed, click <b>Skip</b>. Otherwise, enter the appropriate information on the page and click <b>Install</b>.</p> <p>If you choose to install Solr, Red Hat OpenJDK 8 (64-bit) is also installed.</p>
Sitecore settings	<p>The Sitecore settings including the installation prefix, the administrator password, and the location of the Sitecore license file.</p>
Microsoft SQL Server settings	<p>The Microsoft SQL Server settings including the instance name, the admin user name, and the admin password.</p>
Solr settings	<p>The Solr settings including the service URL, the file system root, and the name of the Solr Windows service.</p>
Optional modules	<p>The optional Sitecore modules that you can install. Currently, Sitecore Experience Accelerator (SXA) is the only available module.</p>
Summary	<p>All the settings that you specified.</p> <p>Review the information on this page and ensure that no changes are required. To make some changes, click <b>Back</b>.</p>
Validate	<p>This page checks that all the requirements are installed and configured correctly.</p> <p>When all requirements are in place, click <b>Install</b>.</p>
Install	<p>A summary of the installation process. An error terminates the installation process.</p> <p>To review the installation process errors, as well as any errors that occurred, click <b>Log</b>.</p>
Complete	<p>Tells you whether the installation has been successful.</p> <p>If the installation has been successful, you can open the Sitecore Launchpad.</p>

## 4. Sitecore Installation Framework

Before you can install Sitecore Experience Platform, you *must* set up the latest [Sitecore Installation Framework \(SIF\)](#).

The Sitecore Installation Framework (SIF) is a Microsoft® PowerShell module that supports local and remote installations of Sitecore Experience Platform.

SIF deploys Web Deploy Packages (WDP) by passing parameters to SIF configuration files through a Microsoft® PowerShell module and is fully extensible.

The Sitecore Experience Platform is designed to be secure-by-default. For developer environments all the required self-signed certificates are created automatically if you do not provide any.

In a production environment, you can provide your own certificates. In a non-production environment, you can choose to have the module generate the certificates for you.

## 5. Install Sitecore XP Single Developer (XP0) using SIF

This chapter describes how to install Sitecore XP Single Developer (XP0) on a single computer using Sitecore Installation Framework (SIF).

For information about how to use the Sitecore Install Assistant, see [Installing Sitecore XP with the Sitecore Install Assistant](#).

The Sitecore installation is a combination of `.json` configuration files and Web Deploy Packages (WDPs).

You can download the relevant SIF configuration files and the WDPs for each of the topologies from the [Sitecore Downloads](#) page.

SIF uses the `.json` configuration files to configure the environment and uses the WDP packages to install the application and databases.

### 5.1. XP Single Developer (XP0) topology

The predefined XP Single Developer topology configures:

- A Sitecore stand-alone website that handles content management, content delivery, and processing.
- The xConnect and xDB web services.
- The Sitecore Identity server - a stand-alone website that acts as an OpenID Connect compliant security token service (STS).
- Search indexes on the Solr search engine.
- A Windows service that runs the Marketing Automation engine.
- A Windows service that runs the xConnect indexer.
- A Windows service that runs the Sitecore Cortex™ Processing Engine.
- The Sitecore Cortex™ Reporting service.
- The Sitecore content and xDB databases.
- A self-signed client certificate for secure communication between Sitecore and xConnect.
- A self-signed server certificate for running HTTPS on the *xConnect* and *xDB* web services.
- A self-signed server certificate for running HTTPS on the Sitecore Identity server.

## 5.2. Download and organize the prerequisite and installation files

The installation files must be located in a single folder. We recommend that you create a folder named `c:\resourcefiles`.

To download the installation files:

1. On the [Sitecore Experience Platform download site](#), download Sitecore 10.X.X rev. XXXXXX (WDP XP0 packages).zip. This file is listed in the **Download options for On Premises deployment** section as **Packages for XP Single**.
2. Move this file to the `C:\resourcefiles` folder.
3. Unpack the ZIP file. The four files unpacked include:
  - Sitecore 10.X.0 rev. XXXXXX (OnPrem)\_single.scwdp.zip
  - Sitecore 10.X.0 rev. XXXXXX (OnPrem)\_xp0xconnect.scwdp.zip
  - Sitecore.IdentityServer 7.X.X rev. XXXXXX (OnPrem)\_identityserver.scwdp.zip
  - XP0 Configuration files 10.X.0 rev. XXXXXX.zip
4. Copy the four ZIP files to the `C:\resourcefiles` folder.
5. Unpack the XP0 Configuration files 10.X.0 rev. XXXXXX.zip file.
6. Copy the following unpacked files to the `C:\resourcefiles` folder:
  - createcert.json
  - IdentityServer.json
  - Prerequisites.json
  - sitecore-solr.json
  - sitecore-XP0.json
  - xconnect-solr.json
  - xconnect-xp0.json
  - XP0-SingleDeveloper.json
  - XP0-SingleDeveloper.ps1

## 5.3. Install the prerequisites

For information about manually installing the prerequisites, see the *Installation Guide for the XP Scaled Topology*.



To automatically install the prerequisites for any of the topologies on a single server:

1. Open PowerShell as an administrator and navigate to the `c:\resourcefiles` command line.
2. Run the following cmdlet:

```
Install-SitecoreConfiguration -Path .\Prerequisites.json
```

When the installation is complete, you might be informed that a server reboot is required.

## 5.4. Run the installation script for the XP Single Developer topology

To simplify your installation, use a PowerShell script to install the Sitecore XP Single Developer (XP0) topology.

To edit and run the installation script:

1. Save your Sitecore license file in the `c:\resourcefiles` folder as `license.xml`.
2. In the `c:\resourcefiles` folder, edit the `XP0-SingleDeveloper.ps1` script and update each line with the settings that are appropriate for your environment.

One of the settings that you must edit is `SitecoreAdminPassword`.

If you do not specify the Sitecore administrator password in the script and leave the example value "SIF-Default" unchanged, a random password is generated for you. This password is stored in the `XP0-SingleDeveloper.log` file, and displayed when the `sitecore-xp0.json` file has been processed. To locate the password, search for *Sitecore Admin Password*.

### IMPORTANT

The default Sitecore administrator password is not valid when you use this script to install Sitecore XP.

3. Open PowerShell as an administrator, navigate to the `c:\resourcefiles` command line, and run the following cmdlet:

```
.\XP0-SingleDeveloper.ps1
```

All the passwords for DB users and other secrets such as the Identity Server client secret and the `TelerikEncryptionKey` are not displayed on the screen. They are automatically generated and inserted into the appropriate configuration files.

If you add a DDS server, you must pass the generated passwords for the CM server to the DDS SIF installation parameters. You can find the generated passwords in the installation logs and in the `App_Config/connectionStrings.config` file on the CM server.

If the `SqlCollectionUser` parameter is not set to a custom value during the installation, the prefix that is specified in the installation script is added to it.

We recommend that you keep these scripts. You can use them to uninstall this topology.

## 5.5. Rebuild the search indexes and the Link database

After you install Sitecore Experience Platform, you must rebuild the search indexes and rebuild the *Link* databases.

To rebuild all the indexes:

1. On a Sitecore CM or Index Manager instance, open the Sitecore Launchpad, click **Control Panel**, and in the **Indexing** section, click **Indexing manager**.
2. In the **Indexing Manager** dialog box, click **Select all**, and then click **Rebuild**.

To rebuild the Link databases for the *Master* and *Core* databases:

1. On the **Sitecore Launchpad**, click **Control Panel**, and in the **Database** section, click **Rebuild Link Databases**.
2. Select the *Master* and *Core* databases and then click **Rebuild**.

## 6. Uninstall a Sitecore Single Developer topology

You can also use SIF to uninstall the SIF configuration files and the Sitecore XM Single Developer or Sitecore XP Single Developer topologies.

### 6.1. Uninstall a SIF configuration file

You can use SIF to uninstall a SIF configuration file on a local server.

To uninstall a SIF configuration file on a local instance:

1. Launch PowerShell as an administrator.
2. Run the `Uninstall-SitecoreConfiguration` cmdlet, and specify the path to your SIF configuration file.

For example, using the `sitecore-XP0.json` file:

```
Uninstall-SitecoreConfiguration -Path <configurationpath>\sitecore-XP0.json
```

Alternatively, you can pass in the parameters declared in the SIF configuration files by prefixing their name with a dash "-" in the command line.

For example:

```
Uninstall-SitecoreConfiguration -Path <configurationpath>\sitecore-XP0.json -SqlDbPrefix SC
```

In a PowerShell command line, you can pass additional parameters to control the uninstall process.

For example, running the `Verbose` cmdlet increases the amount of information that is logged, and the `-Skip <taskname>` cmdlet skips one or more tasks.

To correctly uninstall a SIF configuration, you must pass the same parameters that were used during the installation.

The uninstallation is performed by a separate list of tasks within the configuration file. For more information, see the [SIF documentation](#).

### 6.2. Uninstall the Sitecore XP Single Developer topology

To uninstall the Sitecore XP Single Developer topology:

1. In the `XP0-SingleDeveloper.ps1` script, change the `Install-SitecoreConfiguration` cmdlet to `Uninstall-SitecoreConfiguration`.

For example, change

```
Install-SitecoreConfiguration @singleDeveloperParams *>&1 | Tee-Object XP0-  
SingleDeveloper.log
```

to

```
Uninstall-SitecoreConfiguration @singleDeveloperParams *>&1 | Tee-Object XP0-  
SingleDeveloper-Uninstall.log
```

The example scripts contain this line already. You only need to uncomment and comment out the appropriate lines.

2. Run the script and the topology is removed.

## 7. Common issues

### I get a 403.16 Forbidden error

- Check that your root certificate is in the Trusted Root Certificates Authority store of the *Local Computer*, not the current user and that the *Issued To* and *Issued By* properties of the root certificate match.
- Ensure you imported the certificates into the *Local Computer's* certificate store, not the current user's certificate store.
- Ensure the certificate you created in IIS has a name that matches the site.  
For example, `CM_test`.
- Ensure you pasted your thumbprint into a PowerShell command line window, and that you removed the hidden character at the start of the string.
- Ensure your thumbprint is in uppercase letters.  
For example: `3D703B5198D6D3CEE1D0C1B1BC9ECB6D34989BA4`.  
You can find the thumbprint in the following locations:
  - `Sitecore\App_Config\ConnectionStrings.config`
  - `XConnect\App_Config\ConnectionStrings.config`
  - `XConnect\App_Data\jobs\continuous\AutomationEngine\App_Config\ConnectionStrings.config`
- Ensure the self-signed certificate you created in IIS has the same name as your xConnect instance.
- Ensure the client authentication certificate (under the local machine's *Personal* store) has *read* permissions for the `IIS_IUSR` group and the `NETWORK SERVICE` group.

### My Solr index is empty

In the `\xConnect\App_data\jobs\continuous\IndexWorker\App_data\Logs` folder, check the indexer's log files.

If you have an error that says your remote certificate is invalid according to the validation procedure, ensure that the indexer's `ConnectionStrings.config` file is using `localhost` rather than `127.0.0.1` for the Solr core URL.

### Microsoft.SqlServer.TransactSql.ScriptDom.dll is not installed

If this happens, you can see the following error: *The SQL provider cannot run with dacpac option because of a missing dependency.* To resolve this issue, see this [Knowledge Base article](#).

### My Sitecore installation failed while I was using Skype

If you use Skype while you are installing Sitecore Experience Platform, it is possible that your xConnect installation may fail. This occurs because Skype and Sitecore xConnect both use port 443, which interferes with the installation.

If this happens, change your Skype configuration as described in [Microsoft's documentation](#).

## Failed installations

If an installation fails for any reason, you must clean up the partial installation before attempting another installation.

To clean up a partial installation, run the configurations again with the `Uninstall-SitecoreConfiguration` command with the same parameters as you used for the installation.

The `createcert.json` configuration file does not contain uninstallation tasks that remove certificates because it is highly likely that the certificates, particularly the root certificates, are used elsewhere.

To remove an incorrect certificate:

1. To open the **Certificate Management** console, in the Windows command prompt, enter `certlm.msc` and press **Enter**.  
To open the **Certificate Management** console for the Current User, enter `certmgr.msc`.
2. In the left pane, in the tree, expand the *Personal* node and select **Certificates**.
3. Select the incorrect certificate, right click it and then click **Delete**.
4. To remove the Root certificates, in the console, in the left hand pane, expand *Certificates, Trusted Root Certification Authorities, Certificates* and select the incorrect certificate, right click it and then click **Delete**.

After you have removed the failed installation, correct the errors in the launch script or configuration files before attempting a new installation.

## The Indexing Manager shows no results after rebuilding the indexes

This can happen if the Solr managed schema is not populated properly during deployment.

To solve this problem, re-populate the Solr schema.

## My Solr Schema is not populated

To populate the Solr schema:

1. On the **Sitecore Launchpad**, click **Control Panel**, and in the **Indexing** section, click **Populate Solr Managed Schema**.
2. In the **Schema Populate** dialog box, click **Select all**, and then click **Populate**.