Installing the Sitecore Experience Platform

Sitecore Experience Platform 8.2 Update 2

Installation guide for administrators and developers



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Chapter 1

Introduction

This document describes how to install Sitecore Experience Platform 8.2 rev. 161221 (Update-2).

The document contains the following chapters:

- Chapter 1 Introduction An introduction to the Sitecore Experience Platform 8.2 installation process.
- Chapter 2 Sitecore XP Requirements An outline of the installation requirements for Sitecore CMS.
- Chapter 3 Installing the Sitecore XP from the .EXE File Describes the pre-installation steps, configuration and installation process.
- Chapter 4 Installing the Sitecore XP from the .ZIP File Step-by-step instructions for installing Sitecore CMS from the .ZIP file.
- Chapter 5 Sitecore XP Post-Installation Steps Information about necessary actions after installation.
- Chapter 6 Configuring the Sitecore Experience Database Step-by-step instructions for configuring Sitecore Experience Database.
- Chapter 7 Appendix Supplementary instructions for configuring the environment.

1.1 Getting Started

Sitecore® Experience Platform[™] (Sitecore XP) is the name of the entire Sitecore solution. It contains:

- Sitecore CMS the content management capabilities.
- Sitecore xDB the experience marketing and scalability, and analytics features.

These components are installed together. Sitecore XP is distributed as an .exe or . <code>zip</code> file.

1.2 Preparing to Install Sitecore XP

For small implementations, including developer workstations and testing environments, Sitecore XP and the database server can be installed on a single computer. For larger implementations, the database server is typically separated from the application server. The content authoring environment for business users is also frequently separated from the content delivery environment that is accessed by Internet users.

For more information about scaling Sitecore XP solutions, refer to the Sitecore Documentation site – <u>https://doc.sitecore.net/sitecore_experience_platform</u>.

Sitecore XP can be broken down into three logical components regardless of the database technology that is used:

- The IIS document root ("the website").
- The supporting file system for logs and data.
- The supporting relational databases. These databases are often stored under the supporting file system.

Configuration is stored in files such as web.config and the files under the \App Config folder.

For information about hardening security after you install Sitecore, see the manual <u>Security Hardening Guide</u> in the Sitecore Documentation site.

You can create an archive of your Sitecore XP solution to move it from one computer to another.

For assistance or to report any discrepancies between this document and the product, please contact <u>http://support.sitecore.net/helpdesk/</u>.

Before installing Sitecore XP, you should decide on the:

- Project name and acronym, for example, *ProjectName*.
- Acronym/prefix, for instance PN.
- Target installation file system root, for instance C:\inetpub\wwwroot\ProjectName.
- Database technology:
 - SQL Server 2014, SQL Server 2012.
 - MongoDB Database 2.6 MMAPv1, 3.0 MMAPv1, 3.0 Wired Tiger (for Sitecore xDB), 3.2.1 MMAPv1, 3.2.1 Wired Tiger and 3.2.1 Wired Tiger with encryption.
- Database location locally or on a remote server.
- Appropriate Sitecore license.
- Hardware.
- Administrative access to computers and databases.
- IIS configuration host headers, and so on.

1.2.1 Install Latest Updates

Run Windows Update to install all the appropriate service packs and security updates on all of your Sitecore XP host and client computers.

1.2.2 UNC Share Not Supported

Sitecore XP must be installed on a local drive, not a UNC share.



1.2.3 Sitecore Cannot Operate from a Virtual Directory

Do not create a virtual directory for Sitecore, because the product cannot operate from a virtual directory.

1.2.4 Install IIS before Updating the .NET Framework

To reduce the number of ASP.NET configuration issues on Sitecore hosts, install IIS before installing or updating the .NET framework.

If you have installed or updated the .NET framework before installing the IIS, refer to the following article that contains instructions about troubleshooting an ASP.NET installation:

http://www.microsoft.com/technet/prodtechnol/WindowsServer2003/Library/IIS/187d0e2c-8e89-49ad-a89de26e4d76ee68.mspx?mfr=true



Chapter 2

Sitecore XP Requirements

This chapter describes the prerequisites, hardware, and software requirements for Sitecore XP 8.2 host and client computers. In this document, the term "server" refers to a Windows OS Web server and the term "host" refers to an installation of Sitecore XP on either a server or a workstation.

This chapter contains the following sections:

- Sitecore Hosting Environment Requirements
- Sitecore Client Requirements

2.1 Sitecore Hosting Environment Requirements

Sitecore XP 8.2 has specific requirements for the operating system, IIS Web Server, .NET Framework, and the database server.

Important

When you configure xDB, you must synchronize all the servers in your solution to a single reliable time source, for example by means of the Network Time Protocol (NTP). The aggregation of engagement automation states depends on the system time and changing this can lead to incorrect aggregation results or loss of data.

2.1.1 IIS Requirements

Sitecore XP can be hosted on the following IIS versions:

- IIS 8.5
- IIS 8.0
- IIS 7.5
- IIS 7.0

You must use the version of IIS that is supported by your operating system. For more information about IIS and operating systems, see Microsoft's documentation.

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

Important

Sitecore neither supports nor permits multiple IIS website definitions pointing to the same Sitecore web root.

2.1.2 Operating System Requirements

Sitecore XP 8.2 is only compatible with the client and server operating systems that support .NET Framework 4.5.2.

Sitecore XP can be hosted on the following Microsoft operating systems:

- Windows Server 2012 R2 (64-bit)
- Windows Server 2012 (64-bit)
- Windows Server 2008 R2 (32/64-bit) SP1
- Windows 8.1 (32/64-bit)
- Windows 8 (32/64-bit)
- Windows 10 (32/64-bit)

Important

Run Windows Update and install all the appropriate service packs and security updates on all of your Sitecore XP host and client computers.

Windows 10

Sitecore XP supports the following editions of the Windows 10 operating system:

- Home
- Education
- Professional

Windows 8.1

Sitecore XP supports the following editions of the Windows 8.1 operating system:

- Enterprise
- Professional
- Core

Windows 8

Sitecore XP supports the following editions of the Windows 8 operating system:

- Enterprise
- Professional
- Core

2.1.3 .NET Framework Requirements

Sitecore XP requires .NET Framework 4.5.2.

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

When using .NET Runtime 4.5.2, you must change the web.config file from:

```
<configuration>
<system.web>
<httpRuntime/>
</system.web>
</configuration>
```

to

```
<configuration>
<system.web>
<httpRuntime targetFramework="4.5.2" />
</system.web>
</configuration>
```

2.1.4 Visual Studio Requirements for Custom Solutions

Sitecore XP 8.2 requires Visual Studio 2012 or later.

2.1.5 Database Requirements

Sitecore XP supports the following database servers:

- Microsoft SQL Server 2008 R2 SP1
- Microsoft SQL Server 2012
- Microsoft SQL Server 2014
- MongoDB Database:
 - Mongo 2.6 MMAPv1
 - Mongo 3.0 MMAPv1 or WiredTiger
 - Mongo 3.2.1 MMAPv1 or WiredTiger
 - Mongo 3.2.1 Enterprise with data-at-rest encryption, WiredTiger only

Note

Sitecore recommends that you run the database on a separate server from the web server.



Oracle

The Oracle database storage setup is only available when Sitecore XP is running in Sitecore Experience Management mode (CMS-only mode), which lets you run Sitecore XP without the Experience Database (xDB) enabled.

Sitecore supports:

• Oracle Database 11g R2 (11.2)

2.1.6 Antivirus Software Considerations

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

For more information about the certified products, see the Windows Server Catalog website.

To ensure optimal performance, exclude the following folders from scanning by your antivirus software:

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

2.1.7 Hardware Requirements for a Server Running a Single Sitecore Installation

Minimum configuration requirements:

- 4 core processor
- 8GB of RAM

Recommended configuration:

- 4 core processor
- 16GB 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 Sitecore Client Requirements

This section describes the software and hardware requirements.

2.2.1 Software Requirements

Browser

Sitecore XP clients are browser-based user interfaces and can run on the following browsers:

- Microsoft Internet Explorer 11
- Mozilla Firefox 17+
- Google Chrome 25+
- Microsoft Edge
- Apple Safari 6+ for Mac OS

Note

Sitecore XP 8.2 supports all the current stable versions of these browsers unless stated otherwise. Sitecore XP 8.2 does not support the Compatibility view in Internet Explorer 11.

For more information about configuring a browser, see the <u>Browser Configuration Reference</u> document on the Sitecore Developer Network.

Silverlight

Some applications, such as Engagement Automation, and Sitecore App Center require Microsoft Silverlight 5 or later.

2.2.2 Hardware Requirements

- Processor: Intel Pentium 4, 2GHz or faster processor.
- RAM: 512 MB minimum, 1GB recommended.
- TCP/IP connection at 512Kbps or faster to the Sitecore XP host.
- 1024 x 768 or greater screen resolution required for advanced operations.

You do not need to install any additional software on the Sitecore XP clients that access Sitecore XP servers.



Chapter 3

Installing the Sitecore XP from the .EXE File

This chapter describes how to use the installation program to install Sitecore XP.

You can download the Sitecore installation program from the Sitecore Developer Portal.

This chapter contains the following sections:

- The UAC (User Account Control) Configuration
- The Installation Process
- Troubleshooting

3.1 The UAC (User Account Control) Configuration

Before you run the installation program on Windows 8, Windows 8.1 or Windows 10, you must ensure that the UAC (User Account Control) configuration security policy *Detect application installations and prompt for elevation* is enabled.

To check if this setting has been changed on your computer:

- 1. Log in as an administrator.
- 2. Press WIN + R to open the **Run** window.
- 3. In the **Run** window, enter *secpol.msc* and press ENTER.
- 4. Click **Continue** to open the **Local Security Policy** window.

• 🔿 🖄 🖬 🗶 📄 😖	2 🖬		
Security Settings Account Policies Account Policies Account Lockout Policy Account Lockout Policy Account Policies Audit Policy Security Options Windows Firewall with Adx Public Key Policies Software Restriction Policie Software Network	System objects: Require case insensitivity for non-Windows su System objects: Strengthen default permissions of internal sys System settings: Optional subsystems System settings: Use Certificate Rules on Windows Executable User Account Control: Admin Approval Mode for the Built-in User Account Control: Behavior of the elevation prompt for a	Disabled Enabled Enabled Posix Disabled Prompt for consent Prompt for creden Enabled Disabled Enabled Enabled	
4 III	📓 User Account Control: Virtualize file and registry write failures to p	per-user locations	-

- 5. In the left-hand pane, expand the *Local Policies* node and select *Security Options*.
- 6. In the right-hand pane, scroll to the bottom of the list of policies.
- 7. Verify that the User Account Control: Detect application installations and prompt for elevation policy is set to Enabled.

If this setting is not enabled, you must enable it.

3.2 The Installation Process

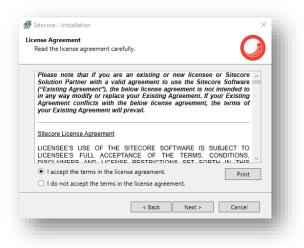
To start the installation, launch the *Sitecore.exe* application, which starts the installation wizard. The installation wizard will guide you through the installation process.

This section describes the important steps in the wizard.

Note

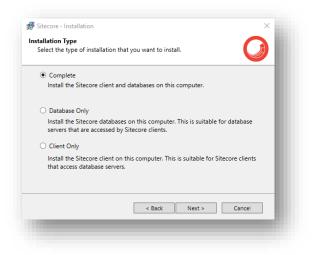
The Sitecore XP configuration files are automatically modified according to the settings provided in the wizard.

License Agreement



Read the license agreement and select the appropriate option. Click Next.

Installation Type



Select the type of installation that you want:

- Complete installs both the Sitecore databases and the Sitecore client.
- Database only only installs the Sitecore databases.
- Client only installs everything except the databases.

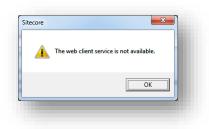
3.2.1 Complete

This installs both the Sitecore databases and the Sitecore client.



In the Installation Type window, select Complete.

To install Sitecore WebDAV features, you must have the WebClient service on your computer. If the WebClient service is not available, the following message appears:



Disregard this message if you do not want to install WebDAV features. Click Next.

Instance Name

😽 Sitecore - Installati Instance Name	on ×
Give this new insta	ance of Sitecore a unique name.
Instance Name:	MySite
NOTE: This name i hostname of an IIS	dentifies this instance of the application. It is also the default
nostilance of an inc	
	< Back Next > Cancel

Give a unique name to this new instance of Sitecore. If you choose to create a new site at a later step, this name is also used as the hostname of an IIS web site.

License File

icense File:	Crystem ments is ensuring Browse
EXPIRATION DATE	9/29/2017 12:00:00 PM
VERSION	5
ADDRESS	2 Glinky Streat, Office 403 Driagragetrasik GB 49000
COMPANY	
COUNTRY ISO	UA.
RESELLER	~

Click Browse to navigate to the license file that you want to use, and then click Next.



Database Server

Select the database server.

If you select SQL Server, you see the following **Database Server** dialog box:

Select the database	server and authentication metho	od to use.	J
Select the appropria	te database vendor:	SQL Server	~
	server from a list or click Browse available database servers. Select at login.		
(local)\SQLEXPRESS	5	~ Brov	vse
Login ID:	sa		
Password:	••••		
	ick Advanced.	Adva	nced
For more options, cl			

Select the database server from a list, or click **Browse** to see a list of all the database servers that are available. Enter the login ID (SQL server user name) and the corresponding password. The installation program uses these credentials to access the SQL server.

To set the database prefix options, click Advanced and the Advanced Database Options dialog box appears:

vanced Database Op Check the advanced o	options for the database server.
Verify that the wizard	d can connect to the database server.
Database Prefix:	
Database Prefix:	MySite
Add this prefix to	the names of the physical files.
Credentials to use in co	onnection strings
Credentials to use in co Login ID:	onnection strings

In the **Advanced Database Options** dialog box, specify the database prefix for this instance of Sitecore XP, and if you want the database prefix to be added to the names of the physical files, select the **Add this prefix** to the names of the physical files check box.

Enter the login ID (SQL server user name) and corresponding password. Sitecore applications will use these credentials to access the SQL server. Click **OK**.

Click Next.

Destination Folder

Siteco	re in a different location.	e will be installed. Clic	K Change to Install	
istall S	tecore in:			
	C:\Inetpub\wwwroot\My	Site	Cha	nge
For m	ore options, click Advanced		Adva	inced

Select the folder where the Sitecore web site should be installed.

To change the database folder and the folder where various data files are stored — log files, packages, and so on — click **Advanced** and the **Destination Folders** dialog box appears:

🤰 Sitecore Da	a:
C:\Inetpub	www.root\MySite\Data Browse
Sitecore Da	abases:
C:\Inetpub	www.root\MySite\Databases Browse
MDF Files:	C:\Inetpub\wwwroot\MySite\Databases\MI Browse
LDF Files:	C:\Inetpub\wwwroot\MySite\Databases\LDI Browse

Enter new destination folders, and click **OK**.

Click Next.

Note

Make sure that SQL server has the permissions to write to the destination folder(s).



IIS Web Site

Sitecore - Installat	1011			×
S Web Site Create a new Wel	o site.			Q
Web Site Name:	MySite			
For more options	, click Advanced.			Advanced
		< Back	Next >	Cancel
		_	_	

Enter the name of the new website. Click **Advanced** to edit a website port and create an Application Pool. Select the **Precompile the website to improve the initial response time** check box.

IS Advanced Settings	
Specify some additional param	neters for IIS.
Application Pool	
Create application pool named	MySiteAppPool
Website	
Port: 80	
Precompile the website to i	improve the initial response time.
	OK Cancel

Click OK.

The **IIS Web Site** dialog box reflects the changes.

S Web Site				
Create a new We	b site.			
Web Site Name:	MySite			
Applicati	on Pool Name:	MySiteAppPool		
Web Site	Port:	80		
.NET Ver: Precomp	sion: ile the website:	4 Yes		
For more option	s, click Advance	d.		Advanced
		< Back	Next >	Cancel

Click Next.



Ready to Install Sitecore

ady to Install Sitecore eview the options you selected. Click Back to change an option or click Install to istall Sitecore. Option: Value:	Ð
stall Sitecore.	<u> </u>
stall Sitecore.	
Ontion: Value:	
Instance Name: NewInstance1	
License File: Chthenimin Documents License License	e 2)
Database Server: .	
Destination Folder: C:\Inetpub\wwwroot\NewInstance1	
Web Site Name: MySite	
C	>

Review the options you selected. Click Install to install Sitecore XP.

A progress window informs you of the installation process.

3.2.2 Databases Only

This section describes the Databases Only installation. This option only installs the Sitecore databases.

Installation Type



Select the **Database only** option to only install the databases.

To install Sitecore WebDAV features, you must have the WebClient service on your computer. If not, the following message appears:



Disregard this message if you do not want to install WebDAV features.



Instance Name

stance Name Give this new ins	stance of Sitecore a unique name.
Instance Name:	MySite
	e identifies this instance of the application. It is also the default $IIS6 + Web site.$
nostriarite of an	
nostnaine of an	noo - meo site.
nosmane of an	no no no no
	< Back Next > Cancel

Give this new instance of Sitecore XP a unique name. If you choose to create a new site at a later step, this name is also used as the hostname of an IIS web site.

Database Server

You see the following **Database Server** dialog box:

Select the database	eserver and authentication n	nethod to use.	Ø
Select the appropria	ate database vendor:	SQL Server	. v
	server from a list or click Bri available database servers. at login.		
(local)\SQLEXPRES	s	v	Browse
(
Login ID:	sa		
	sa		
Login ID:	••••		Advanced



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Select the database server from a list or click **Browse** to see a list of all the database servers that are available. Enter the login ID — SQL Server user name — and the corresponding password. The installation program uses these credentials to access the SQL server.

To set the database prefix options, click **Advanced** and the **Advanced Database Options** dialog box appears.

Check the advanced opt	tions for the database server.
Verify that the wizard c	an connect to the database server.
Database Prefix:	
Database Prefix:	MySite
	A
Add this prefix to th	e names of the physical files.
Add this prefix to th	e names of the physical files.
Add this prefix to th	e names of the physical files.
I Add this prefix to th	e names of the physical hiles.
I Add this prefix to th	e names of the physical hiles.
Add this prefix to th	e names of the physical hiles.
Add this pretix to the second seco	e names of the physical hiles.

In the **Advanced Database Options** dialog box, specify the database prefix for this instance of Sitecore XP, and if you want the database prefix to be added to the names of the physical files, select the **Add this prefix** to the names of the physical files check box.

Click OK, and then Click Next.

Destination Folder

tecore Databases:	
C:\Inetpub\wwwroot\MySite\Databases	Browse
For more options, click Advanced.	Advanced
< Back Next	> Cancel

Select the location where the databases are installed.



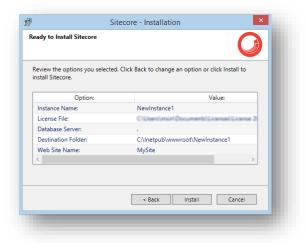
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To change the database folder and the folder where various database files are stored, click **Advanced**. The **Destination Folders** dialog box appears:

Select the loc	ations where the database files will be installed.	U
ADF Files:	C:\Inetpub\wwwroot\MySite\Databases\MDF	Browse
DF Files:	C:\Inetpub\wwwroot\MySite\Databases\LDF	Browse
	ОК	Cancel

Enter the path to the destination folders, and then click **OK**.

Ready to Install Sitecore



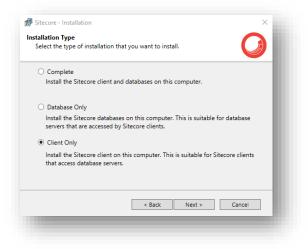
Review the options you selected. To install Sitecore XP, click Install.

A progress window informs you of the installation process.

3.2.3 Client Only Installation

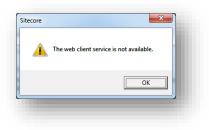
This section describes the Client Only installation. This installs everything except databases.

Installation Type



Select the **Client only** option.

To install the Sitecore WebDAV features, you must have the WebClient service on your computer. If not, the following message appears:



Disregard this message if you do not want to install WebDAV features. Click Next.

Instance Name

Sitecore - Installa	ation ×
stance Name Give this new ins	stance of Sitecore a unique name.
Instance Name:	MySite
NOTE: This name hostname of an	e identifies this instance of the application. It is also the default IIS6 + Web site.

Give a unique name to the new instance of Sitecore XP. If you choose to create a new site at a later step, the hostname of an IIS web site will also use this name.



License File

icense File:	CrypteentyneinijDiscumenth/placement/pla	e
EXPIRATION DATE	9/29/2017 12:00:00 PM	^
VERSION	5	
ADDRESS	2 Giniky Sneet, Office 403 Dringerspetrovsk GP 49000	
COMPANY		
COUNTRY ISO	UA.	
RESELLER		~

Click Browse to navigate to the license file that you want to use, and then click Next.

Database Server

You see the following **Database Server** dialog box:

Select the database	e server and authentication metho	od to use.	A
Select the appropria	ate database vendor:	SQL Server	Ŷ
the password for th	at login.		
	s	 Brows 	P
(local)\SQLEXPRES		~ Brows	e
	S sa	~ Brows	e
(local)\SQLEXPRES		~ Brows	e
Login ID:	sa	Brows Advance	

Select the database server from a list or click **Browse** to see a list of all the database servers available. Enter the login ID (SQL Server user name) and the corresponding password. The installation program uses these credentials to access the SQL server.

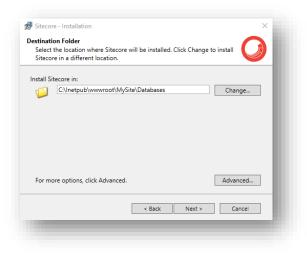
To set the database prefix options, click Advanced and the Advanced Database Options dialog box appears.

Verify that the wizard can cor	nnect to the databa	ase server.	
Database Prefix:			
Database Prefix:	MySite		
		OK	Cancel

In the **Advanced Database Options** dialog box, specify the database prefix for this instance of Sitecore XP, and select the **Verify that the wizard can connect to the database server** check box. Click **OK**.

Click Next.

Destination Folder



Select the location where Sitecore will be installed.



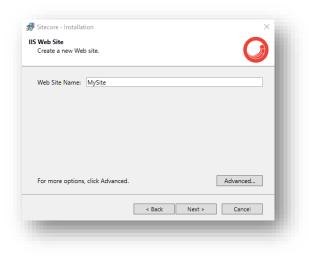
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To change the database folder and the folder where various database files are stored, click **Advanced** and the **Destination Folders** dialog box appears:

Sitecore D	ita:
C:\Inetpu	\www.root\MySite\Databases\Data Browse
	C:\Inetpub\www.root\MvSite\Databases\ME Browse
MDF Files	C:\Inetpub\wwwroot\MySite\Databases\ME Browse
LDF Files:	C:\Inetpub\www.root\MySite\Databases\LDI Browse

Enter the path to the destination folders, and click **OK**.

IIS Web Site



Enter the name of the new website.

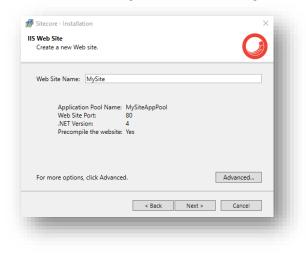
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Click **Advanced** to edit a website port and create an Application Pool name. Select the **Precompile the website to improve the initial response time** check box.

S Advanced Settings	
Specify some additional par	ameters for IIS.
Application Pool	
Create application pool nam	ed MySiteAppPool
Vebsite	
Port: 80	
 Precompile the website t 	to improve the initial response time.
	OK Cancel

Click OK.

The IIS Web Site dialog box reflects the changes:



Click Next.

Ready to Install Sitecore

leview the options you selecte nstall Sitecore.	d. Click Back to change an option or click Install to		
Option:	Value:		
Instance Name:	NewInstance1		
License File:	C10ben/unsint@soumenth/LicensedLicense.3		
Database Server:	and the second		
Destination Folder:	C:\Inetpub\wwwroot\NewInstance1		
Web Site Name:	MySite		
<	>		
	< Back Install Cancel		

Review the options you selected. Click Install to install Sitecore.



A progress window informs you of the installation process.

3.3 Troubleshooting

If there is an error during installation

If the installation program fails, a log file is automatically created. You can find the log file in the \%TEMP%\SitecoreInstaller.log folder.

Ensure that you save the log file, and if necessary, attach it to your support request.

Important

The log file is recreated during each installation attempt. If there are errors during installation, you must save and copy the log file to another location right after an unsuccessful installation. Otherwise, the file will be overwritten.

"Database '...' cannot be upgraded" error message while using SQL Server

When using SQL Server, the installer returns the "*Database '...' cannot be upgraded*" error message. To avoid this, the user account configured to run the SQL server application must have full access permissions to the website root folder.

Typically, the SQL server application runs in the context of the NETWORK SERVICE account.

For more information, see the section File System Permissions for SQL Server Files.

Chapter 4

Installing the Sitecore XP from the .ZIP File

This chapter describes how to install Sitecore XP 8.2 from the ZIP file of the website root.

This chapter contains the following sections:

- Installation Process Overview
- Configuring Folder and Registry Permissions
- Configuring the IIS
- Microsoft SQL Server Configuration
- Oracle Database Storage Setup
- Uninstalling Sitecore XP



4.1 Installation Process Overview

This section describes how to install Sitecore from a ZIP archive of the Sitecore XP site root.

You can download the Sitecore XP ZIP archive from the Sitecore Developer Portal.

To install an instance of Sitecore:

- 1. Ensure that the ASP.NET feature is enabled for Internet Information Services (IIS).
- 2. Choose a parent directory path for the project, for example

C:\InetPub\wwwroot\ProjectName

3. Extract the . zip archive to create the following folders:

```
C:\InetPub\wwwroot\ProjectName\Website
C:\InetPub\wwwroot\ProjectName\Data
C:\InetPub\wwwroot\ProjectName\Databases
```

- 4. Set permissions as described in the section *Configuring Folder and Registry Permissions*.
- 5. In the Website \App_Config \Include folder, enable the DataFolder.config file and change the following setting to the absolute location of the \Data folder.

```
<sc.variable name="dataFolder">
     <patch:attribute name="value">/data</patch:attribute>
     </sc.variable>
```

For example: C: \InetPub\wwwroot\ProjectName\Data

- 6. Copy the appropriate license.xml file to the \Data folder.
- 7. Attach the SQL databases from the **\Databases** folder to the SQL server.

For more information about working with SQL Server, see the section *Microsoft SQL Server Configuration*.

8. Edit the ConnectionStrings.config file located in the \Website\App Config \ folder.

Enter a connection string for each database, for example:

```
<add name="core" connectionString="user
id= sql server user ;password= user password ;Data
Source=_sqlserver_;Database=_core_database_name_" />
```

- 9. In the IIS, configure the website as described in the section *Configuring the IIS*.
- 10. Configure the Internet Explorer browser as described in the Browser Configuration Reference manual.
- 11. Start the browser and enter the following URL:

http://ProjectName/sitecore

You should see the Sitecore login screen:



The default password for the Admin user is "b".



4.2 Configuring Folder and Registry Permissions

This section describes the NTFS permissions for folders and files, as well as Windows registry permissions required by Sitecore XP to function properly. For practical advice on how to edit NTFS permissions and registry permissions, please refer to the section *Server Configuration*, and to the Microsoft Developer Network website.

4.2.1 File System Permissions for Anonymous Requests

Certain types of browser requests (generally for directory lookups and static resources) are executed with the permissions of the anonymous Internet user account. This account requires *Read* permission for all the files, folders, and subfolders under the \Website folder.

The following table contains the default name for this account in different versions of IIS:

IIS version	Default anonymous Internet user account name
7, 7.5, 8.0, 8.5	IUSR

If IIS is not configured to use the default IUSR account for processing anonymous requests or if Anonymous authentication is not enabled for the website, the previously mentioned permissions should be granted to the corresponding account(s).

4.2.2 File System Permissions for ASP.NET Requests

Sitecore XP executes requests for ASP.NET resources and all the .NET code running within the application with the permissions of the account configured as an identity for the website's application pool.

This account requires *Modify* permissions for all the files, folders, and subfolders under the \Website and \Data folders.

The following table contains the default account used for processing ASP.NET requests in the different versions of IIS:

Default ASP.NET account name
NETWORK SERVICE
NETWORK SERVICE
NETWORK SERVICE
NETWORK SERVICE

IIS 7 and later allows you to change the user account that is used for processing ASP.NET requests.

If you select a different user account to process the ASP.NET requests, you must also grant this account the *Modify* permissions.

Note

For more information about application pool identities and specifically about assigning rights to the AppPoolIdentity account, see the following article: <u>http://learn.iis.net/page.aspx/624/application-pool-identities/</u>

4.2.3 File System Permissions for System Folders

To be able to load .NET runtime and ASP.NET resources used for processing the ASP.NET requests, the worker process hosting the Sitecore XP application requires access to multiple system files and folders that are not distributed as a part of Sitecore XP, but are installed as a part of the Windows Operating System and the .NET framework.



Most of these permissions are granted by IIS to all ASP.NET applications, automatically making the application pool identity account a member of the *IIS_IUSRS* security group.

However, on certain environments it is necessary to manually grant permissions for the application pool identity to the following system locations:

Default location	Required permissions	Comments
%WINDIR%\temp\	Modify	
%WINDIR%\Globalization\	Modify	Required for registering custom languages by the .NET Framework correctly.
%PROGRAMDATA%\Microsoft\Crypto	Modify	Required for storing cryptographic keys used for encrypting/decrypting data.

Note

ASP.NET and/or IUSR account require the modify access rights to the \temp folder to install Sitecore XP.

These variables have the following default values:

Variable	Default value	
%WINDIR%	C:\Windows	
%PROGRAMDATA%	C:\ProgramData for IIS 7 and later	

Note

For more information about built-in groups and accounts in IIS, refer to http://learn.iis.net/page.aspx/140/understanding-built-in-user-and-group-accounts-in-iis-7/

4.2.4 File System Permissions for SQL Server Files

If you are using SQL Server, the user account configured to run the SQL server application requires *Full access* to the \Databases folder containing MDF and LDF database files. Typically, the SQL Server application runs within the context of the *NETWORK SERVICE* account.

4.2.5 Windows Registry Permissions

Sitecore XP contains a built-in functionality that reads and updates the Windows performance counters that can be used for monitoring and troubleshooting the Sitecore application. This functionality requires access to Windows registry keys. This access can be granted by making the application pool identity a member of the built-in *Performance Monitor Users* group.

Note

If the required registry permissions are not granted, the "Access to the registry key 'Global' is denied" error will be registered in the Sitecore log files whenever the application attempts to access Windows performance counters.

To avoid this error, you must prevent Sitecore from updating the performance counters. To do that, in the web.config file, set the Counters.Enabled setting to *false*.

Adding an Account to a User Group

To add a Windows account to a user group, use the net localgroup command.



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For example, to add the *NETWORK SERVICE* account to the *Performance Monitor Users* group, run the following command on the server hosting the Sitecore XP web application:

net localgroup "Performance Monitor Users" /add "NETWORK SERVICE"

An IIS reset is required for the changes to take effect.

For more information about the net localgroup command, refer to http://www.microsoft.com/resources/documentation/windows/xp/all/proddocs/en-us/net_localgroup.mspx

4.3 Configuring the IIS

The following sections describe how to configure different versions of IIS (versions 7, 7.5, 8 and 8.5) for Sitecore XP.

The following list shows which operating systems use which IIS versions:

- IIS 7.5 Windows Server 2008 R2 SP3, Windows 7
- IIS 8 Windows Server 2012, Windows 8, Windows 10
- IIS 8.5 Windows Server 2012 R2, Windows 8.1
- IIS 10 Windows 10

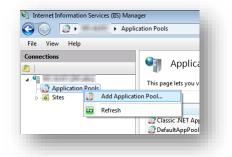
4.3.1 IIS 7, 7.5, 8, 8.5

This section contains the instructions for IIS 7, 7.5, 8 and 8.5.

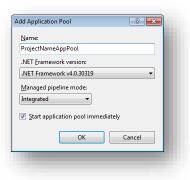
Create the Application Pool

To create the application pool for Sitecore on IIS 7, 7.5, 8 and 8.5:

- 1. Start the **IIS Manager**.
- 2. In the **Connections** panel, select **Application Pools**.



3. Right-click Application Pools and click Add Application Pool.



4. In the Add Application Pool dialog box, enter the following values:

Field	Value
Name	ProjectNameAppPool
.NET Framework version	4.X.X
Managed pipeline mode	Integrated

5. Click OK.



6. In the **Application Pools** panel, click and select the application pool you have just created.

<u>File View H</u> elp						
Connections	Application Pool This page lets you view and manag pools are associated with worker pr isolation among different application Filter:	e the list of app ocesses, contai ons.	n one or more a	applications, and pr		Actions Add Application Pool Set Application Pool Defaults Application Pool Tasks Start Stop
		20 - 🖳 Snow	All Group by		Ŧ	Recycle
	Name	Status	.NET Fram	Managed Pipel	Identif	· · · · ·
	ASP.NET v4.0	Started	v4.0	Integrated	Applic	Edit Application Pool
	ASP.NET v4.0 Classic	Started	v4.0	Classic	Applic	Basic Settings
	Classic .NET AppPool	Started	v4.0	Classic	Applic	Recycling
	CMS65AppPool	Started	v4.0	Integrated	Applic	Advanced Settings
	DefaultAppPool	Started	v4.0	Integrated	Applic	Rename
	NewInstance1AppPool	Started	v4.0	Integrated	Netwo	X Remove
	NewInstance4AppPool	Started	v4.0	Integrated	Netwo	View Applications
	NicamAppPool	Started	v4.0	Integrated	Netwo	
	ProjectNameAppPool	Started	∨4.0	Integrated	Applic	😧 Help
	@ sc53	Started	v2.0	Classic	Netwo	Online Help
	SC66	Started	∨4.0	Integrated	Netwo	
	SC661	Started	∨4.0	Integrated	Netwo	
	•	_			•	
	Features View Content View					
	Features view Content view					୍ଷ୍ୟ

7. In the Actions panel, click Advanced Settings.

	(General)		*
	.NET Framework Version	v4.0	
	Enable 32-Bit Applications	False	
	Managed Pipeline Mode	Integrated	
	Name	ProjectNameAppPool	E
	Queue Length	1000	
	Start Automatically	True	
Ξ	CPU		
	Limit	0	
	Limit Action	NoAction	
	Limit Interval (minutes)	5	
	Processor Affinity Enabled	False	
	Processor Affinity Mask	4294967295	
Ξ	Process Model		
	Identity	ApplicationPoolIdentity	
	Idle Time-out (minutes)	20	
	Load User Profile	True	
	Maximum Worker Processes	1	
	Ping Enabled	True	-

- 8. In the Advanced Settings dialog box:
 - Set the .NET Framework version to v4.0
 - Set the **Identity** setting to the built-in account called *ApplicationPoolIdentity* or *NetworkService*.
 - Ensure that the Maximum Worker Processes setting is set to 1.
 - Set the Load User Profile setting to *True*.

Create the Website

To configure the website:

1. Start the **IIS Manager**.



2. In the Connections panel, expand Sites.



- 3. Right-click Sites and then click Add Web Site.
- 4. In the Add Website dialog box, fill in the required fields, for example:

Field	Value
Site name	ProjectName
Application pool	ProjectNameAppPool
Physical path	C:\InetPub\ProjectName\Website
Host name	Projectname

ite name:		Application pool:			
ProjectName		ProjectNameAppPool			S <u>e</u> lect
Content Directory <u>P</u> hysical path:					
C:\InetPub\Proje	ectName\Websit	e			
Pass-through au	thentication				
Connect as	Test Settings				
Binding					
<u>T</u> ype:	IP address	:		Port:	
http		igned	•	80	
Host name:					
projectname			1		
Example: www.c	ontoso.com or n	narketing.contoso.com			
Start Web site in	nmediately				
			OK	_	Cancel
			OK		Cancel

- 5. Click OK.
- 6. Open the hosts file C:\Windows\System32\drivers\etc\hosts and add the following line:

127.0.0.1 projectname

Now you can access your website by entering the http://projectname address in your browser.

Limit Access to Anonymous Users

You should prevent anonymous users from accessing the following folders:

• \App_Config



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- \sitecore\admin
 \sitecore\debug
- \sitecore\shell\WebService

For example, to limit anonymous access to the $\product{App}_Config folder:$

- 1. Open the IIS.
- 2. In the **Connections** panel, browse to your Sitecore site and select the \App_Config folder.

ile ⊻iew <u>H</u> elp	
onnections	MySite Home
Application Pools	Filter:
Gites Default Web Site Gite MySite	
App_Browsers	.NET .NET .NET Error .NET Authorizat Compilation Pages Globalization
⊳ - <mark>: App_Config</mark> ⊳ - <mark>: App_Data</mark> ⊳ - : Areas	
⊳	.NET Profile .NET Roles .NET Trust .NET Users
▷ - ☐ Data ▷ - ☐ layouts ▷ - ☐ sitecore	
sitecore modules sitecore_files temp	Application Connection Machine Key Pages and Settings Strings Controls
 initial control of the second s	Providers Session State SMTP E-mail
	ASP Authentic CGI
	Rules
	Compression Default Directory Error Pages Document Browsing
	tina Unative UTTO UTTO V
	Features View 👰 Content View

- 3. In the **App_Config Home** panel, double-click **Authentication** to configure the authentication settings for this folder.
- 4. In the Authentication panel, ensure that Anonymous Authentication is disabled.

🚱 💮 📫 🕨 🔰 🕹 Sit	es + ecmsite.net + App_Config +			🖸 🛛 🟠 🔞 🗸
<u>F</u> ile <u>V</u> iew <u>H</u> elp				
Connections	Group by: No Grouping -		_	Actions Enable Edit
🛛 🧕 Sites	Name	Status	Response Type	Help Online Help
 Default Web Site Censite.net App_Browsers App_Config App_Data Apin 	Anonymous Authentication ASP.NET Impersonation Forms Authentication	Disabled Disabled Disabled	HTTP 302 Logi	

Repeat steps 2-4 for the other folders you want to secure.

5. Restart IIS.



Note

If you have one or more processing, dedicated publishing, and or indexing servers that do not handle requests, ensure that you use <u>Application Initialization</u> (IIS 8.0) or the <u>appropriate module</u> (IIS 7.5), so you can successfully start Sitecore after you recycle the application pool.

If you do not do this, Sitecore will not be launched and its application pool may shut down due to inactivity.

4.4 Microsoft SQL Server Configuration

When you install Microsoft SQL Server, select **Mixed Mode** authentication (Windows Authentication and SQL Server Authentication).

If you have already installed MS SQL and you need to change the security authentication mode, refer to the following: <u>http://technet.microsoft.com/en-us/library/ms188670.aspx</u>

Note

You can also use Windows authentication to connect to the SQL server. For more information on connecting to the SQL server, see http://msdn.microsoft.com/en-us/library/ff647396.aspx

4.4.1 Creating a Database Account for Sitecore XP Databases on SQL Server 2008, 2012, and 2014

This section describes how to create a database account for Sitecore databases under SQL Server 2008 with the minimum required permissions.

- 1. Start SQL Server Management Studio.
- 2. Make sure the Sitecore databases are attached.
- 3. In **SQL Server Management Studio**, in the **Object Explorer** pane, expand the *Security* folder.
- 4. Right-click the *Logins* folder and click **New Login** to create a new login.

elect a page	🔄 式 Script 🔻 🚺 Help				
<mark>∰ General</mark> ∰ Server Roles					
User Mapping	Login name:	SC user			Search
Securables	 Windows authentication 				
P Status	SQL Server authentication				
	Password:				
	_				
	Confirm password:				
	Old password:				
	Enforce password policy				
	Enforce password expira				
	User must change pass	word at next login			
	Mapped to certificate				
	Mapped to asymmetric key			~	
	Map to Credential				Add
onnection	Mapped Credentials	Credential	Provider		
Server: local)					
Connection:					
sa					
View connection properties					
rogress					Remo <u>v</u> e
Ready	Default <u>d</u> atabase:	master		-	
AND A CONTRACT	Default language:	<default></default>		•	
				ОК	Cancel

- 5. In the Login New window, select the General page and specify the login name.
- 6. Select the **SQL Server authentication** option and clear the **User must change password at next login** check box (this option is not supported on some Windows operating systems).



7. Select the **User Mapping** page and in the **User mapped to this login** field, select the Sitecore databases.

Select a page	Script	🕶 📑 Help						
🚰 General 🚰 Server Roles								
Mapping	Users mappe <u>d</u> to this login:							
Securables	Мар	Database	User	Default Schema 🔺				
🚰 Status		master						
		model						
		msdb						
		SC100104ECM100331_Analytics		E				
	V	SC100104ECM100331Sitecore_Core	SC user					
	V	SC100104ECM100331Sitecore_Master	SC user					
		SC100104ECM100331Sitecore_Web	SC user					
		SC100104ECMWIN7_Analytics						
		SC100104ECMWIN7Sitecore Core		-				
		-	re_Core	Þ				
Connection	Database	III t account enabled for: SC100104ECM100331Stecon t gole membership for: SC100104ECM100331Stecon et, Membership _BasicAccess	-	•				
Server:	Guest Database ♥ aspre	III t account enabled for: SC100104ECM100331Stecor a gole membership for: SC100104ECM100331Stecor et_Membership_EstaCAccess 4_Membership_FulAccess	-					
Server: (local)	Guest Database V aspre aspre	III account enabled for: SC100104ECM100331Stecor e role membership for: SC100104ECM100331Stecor et_Membership_FullAccess et_Membership_FullAccess	-	,				
Server: (local) Connection:	Guest Database V aspn V aspn aspn aspn	III account enabled for: SC100104ECM100331Stecore e tole membership for: SC100104ECM100331Stecore et, <u>Membership, EstacAccess</u> et, <u>Membership, FuRPortingAccess</u> et, <u>Personalization, FuRPoccess</u> et, <u>Personalization, FuRPoccess</u>	-) E				
Server: (local) Connection: sa	Guest Database V aspn V aspn aspn aspn	m account enabled for: SC100104ECM100331Stecore a role membership for: SC100104ECM100331Stecore at <u>Membership Fai/Access</u> et <u>Membership Fai/Access</u> et <u>Membership Fai/Access</u> et <u>Personalization Fai/Access</u> et <u>Personalization Fai/Access</u> et <u>Personalization Fai/Access</u>	-	A				
Server: (local) Connection:	Guest Database V aspn V aspn aspn aspn aspn v aspn V	III account enabled for: SC100104ECM100331Sitecon a gole membership for: SC100104ECM100331Sitecon et, <u>Menharship, EssocAccess</u> et, <u>Menharship, FulAccess</u> et, <u>Menharship, FulAccess</u> et, <u>Personalization, FulAccess</u> et, <u>Personalization</u>	-	A				
Server: (local) Connection: sa I View connection properties	Guest Database V aspri aspri aspri aspri v aspri v aspri v aspri	m account enabled for: SC100104ECM100331Stecore a role membership for: SC100104ECM100331Stecore at <u>Membership Fai/Access</u> et <u>Membership Fai/Access</u> et <u>Membership Fai/Access</u> et <u>Personalization Fai/Access</u> et <u>Personalization Fai/Access</u> et <u>Personalization Fai/Access</u>	-	A				
Server: (ocal) Connection: sa <u>Wew connection properties</u> Progress	Guest Database V aspn V aspn aspn aspn V aspn V aspn V aspn V aspn V aspn V aspn	III t account enabled for: SC100104ECM100331Stecore a role membership for: SC100104ECM100331Stecore tet, Membership, Febrotogaccess et, Membership, Febrotogaccess et, Personalization, FallAccess et, Personalization, FebrotingAccess et, Profile, BasicAccess et, Profile, BasicAccess et, Profile, BasicAccess et, Profile, BasicAccess et, Profile, ReportingAccess et, Profile, ReportingA	-	A				
Server: (local) Connection: sa I View connection properties	Guest Database V aspn V aspn aspn aspn aspn aspn aspn aspn aspn y aspn	III account enabled for: SC100104ECM100331Stecor a gole membership For: SC100104ECM100331Stecor et_Membership_BasicAccess et_Membership_ReportingAccess et_Membership_BasicAccess et_Personalization_FulAccess et_Personalization_FulAccess et_Profile_BasicAccess et_Profile_BasicAccess et_Profile_Calaccess et_Profile_Calaccess et_Profile_Calaccess et_Profile_Calaccess et_Roles_EasicAc	-	A				
Server: (ocal) Connection: sa <u>Wew connection properties</u> Progress	Guest Database V aspn V aspn aspn aspn V aspn V aspn V aspn V aspn V aspn V aspn V aspn V aspn V aspn V aspn	III account enabled for: SC100104ECM100331Stecore a gle membership for: SC100104ECM100331Stecore at <u>Membership ReportingAccess</u> at <u>Membership ReportingAccess</u> at <u>Personalization FlakAccess</u> at <u>Personalization FlakAccess</u>	-	E				
Server: (ocal) Connection: sa <u>Wew connection properties</u> Progress	Guest Database V aspn V aspn aspn aspn V aspn V aspn V aspn V aspn V aspn V aspn V aspn V aspn V aspn V aspn	III account enabled for: SC100104ECM100331Stecor a gole membership For: SC100104ECM100331Stecor et_Membership_BasicAccess et_Membership_ReportingAccess et_Membership_BasicAccess et_Personalization_FulAccess et_Personalization_FulAccess et_Profile_BasicAccess et_Profile_BasicAccess et_Profile_Calaccess et_Profile_Calaccess et_Profile_Calaccess et_Profile_Calaccess et_Roles_EasicAc	-					
Server: (ocal) Connection: sa <u>J</u> <u>View connection properties</u> Progress	Guest Database V aspn V aspn aspn aspn V aspn V aspn V aspn V aspn V aspn V aspn V aspn V aspn V aspn V aspn	III account enabled for: SC100104ECM100331Stecore a gle membership for: SC100104ECM100331Stecore at <u>Membership ReportingAccess</u> at <u>Membership ReportingAccess</u> at <u>Personalization FlakAccess</u> at <u>Personalization FlakAccess</u>	-	E				

8. In the Database role membership for field, select the following check boxes:

For the Master and the Web databases:

- db_datareader
- db_datawriter
- o public

For the Analytics database:

- db_datareader
- o db_datawriter
- o public

If you perform historical aggregation:

- 1) In SQL Server Management Studio, connect to the SQL Server instance that will be used for Historical Aggregation.
- 2) Find the database that will be used for Historical Aggregation.
- 3) Open a New Query window.
- 4) Execute the following:

GRANT ALTER TO [Username];

GRANT REFERENCES TO [Username];

For the Core database:

- o db_datareader
- db_datawriter
- o public
- aspnet_Membership_BasicAccess



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- aspnet_Membership_FullAccess
- aspnet_Membership_ReportingAccess
- aspnet_Profile_BasicAccess
- aspnet_Profile_FullAccess
- aspnet_Profile_ReportingAccess
- aspnet_Roles_BasicAccess
- aspnet_Roles_FullAccess
- aspnet_Roles_ReportingAccess

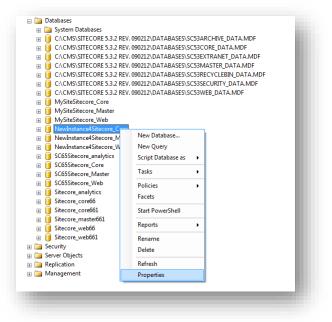
For the Sitecore.Sessions database:

- db_datareader
- db_datawriter
- o public
- 9. Click **OK** to create the user.

4.4.2 Granting Execute Rights to Stored Procedures

To grant execute rights to stored procedures:

1. In the SQL Server Management Studio window, expand Databases.



2. Right-click a Sitecore database, and then click **Properties**.

P General P Files							
Flegroups	Servernane	A	LEXK\SQLEXPRESS				
Permissions	Yes an a permitter						
* Extended Properties	Database pame	1	VINETPUB/W/W/WROOT	UBW/w/w/ROOT/SITECORE/SC TEST INSTALL/OA			
	Upers or soles:						
	Name			Ta			
	A SC user			Type			
	A ads			Us			
	A skecce			Ur			
	& test_user			Us			
	<					2	
	Effective Pe	missione		6M.	Ben	ove.	
annesting.	Explicit germissions for Si	C user.					
Server	Parmission	Granter	Grant	With Grant	Dary		
ALEXISOLE/PRESS	Greate XML schema	dbo					
Connection	Delete	do					
18	Execute	dbo	2				
SV Vew convertion properties	licent	db0					
PERCENT AND A REPORT OF	References	db0					
192414	Select	dbo					
Peak	Show plan	dbo					
	Subscribe query notifi						
	Take ownenhip	do			0	M	
				OK.	Cano	a 1	

- 3. In the **Database Properties** window, select the **Permissions** section and select the user that you want to grant rights to.
- 4. In the **Users or roles** field, select the user and in the **Explicit permissions for** field, in the **Grant** column, give the user *Execute* permission.

Repeat this procedure for the other Sitecore databases.

Important

The analytics database for Sitecore xDB runs on MongoDB. For more information about configuring Sitecore xDB on MongoDB see the <u>xDB Configuration Guide</u>.



4.5 Oracle Database Storage Setup

This section describes how to set up the Oracle database storage for Sitecore CMS.

The Oracle database storage setup is only available when Sitecore XP is running in Sitecore Experience Management mode (CMS-only mode), which lets you run Sitecore XP without the Experience Database (xDB) enabled.

For more information about Experience Management, refer to the Sitecore Documentation site – <u>https://doc.sitecore.net</u>.

Database Server Preparations

To set up the Oracle database storage, the database server must run a supported version of an Oracle database instance that meets the following requirements:

- The Oracle instance must be configured in shared server mode.
- The Oracle instance must contain a tablespace for Sitecore, having at least 200MB of free hard disk space.
- Additional hard disk space will be needed as the Sitecore database grows. Perform these steps on the Oracle Database Server (or a workstation PC with the administration tools for the Oracle instance) to set up Oracle databases for Sitecore CMS.

To load Sitecore data into the Oracle database:

- 1. Download the Sitecore 8.2 rev. 161221 (oracle dbs).zip file from the <u>Sitecore</u> <u>Developer Portal</u> and unzip the file.
- 2. In a text editor, open the createdata.bat file located in the \Databases\Oracle folder and find the following node:

if	"%DATABASE%" == ""	set	DATABASE=sitecore
if	"%PASSWORD%" == ""	set	PASSWORD=manager
if	"%TBS%" == ""	set	TBS=sitecore
	01200	000	120 01000010
if	"%PREFIX%" == ""	set	PREFIX=sc

User-level variables	Description
DATABASE	The name of the Oracle Database instance that will host Sitecore data (As set up on the PC).
TBS	Name of the tablespace for Sitecore data.
PASSWORD	Password for the system user of the Oracle instance.
PREFIX	Prefix to use for user schema names and passwords. (Default: sc)

- 3. Specify the user-level variables as required and save your changes.
- 4. Launch the createdata.bat file from the \Databases\Oracle\ folder.

At this point, installation scripts set up three user schemas:

- %PREFIX%core
- %PREFIX%master
- o %PREFIX%web

Website Server Setup Instructions

The following instructions describe a web server setup where the Sitecore CMS file system is hosted.



Note

When you install the Oracle Data Provider in a 64-bit environment, you must use Oracle Client for Windows x64.

 Install Sitecore XP. If you are installing Sitecore XP from a ZIP archive (and not from an .exe file setup) you should configure the dataFolder setting and copy a valid license.xml file to the \Data folder before proceeding to the next steps.

For more information, see the section Installing the Sitecore XP from the .ZIP File.

- 2. Backup the original Web.config file and rename the Web.config.Oracle file to Web.config.
- 3. Backup the original Sitecore.config file and rename the Sitecore.config.Oracle file to Sitecore.config.
- 4. Modify the connection strings in the \App_Config\ConnectionStringsOracle.config file to point to the valid Oracle instance.
 - The Data Source parameter must point to the local Oracle instance name as configured in the Oracle Net Manager.
 - User names and passwords must be adjusted to match those installed on the database server. The default usernames and passwords are:

Username	Password
sccore	sccore
scmaster	scmaster
scweb	scweb

Configure IIS as you normally would for a Sitecore installation, and then run Sitecore.

4.6 Uninstalling Sitecore XP

Before uninstalling Sitecore:

- Delete the IIS Website or update it to reference a different directory, or stop IIS by executing the following command:
 - o net stop w3svc.
- Remove the Sitecore file system.
- Remove any databases on remote or local servers that are used by this instance of Sitecore.



Chapter 5

Sitecore XP Post-Installation Steps

This chapter describes the recommended steps that you should take after installing Sitecore XP 8.2. rev. 161221 (Update-2).

This chapter contains the following sections:

- Content Expiration
- Windows Authentication for Sitecore
- Setting Microsoft SQL Server Database Properties
- Rebuild the Search Index and the Link Database
- Cache Configuration
- Deploy the Marketing Definition Items

5.1 Content Expiration

Set the IIS Expire Web content header to improve performance.

The Expire Web content header (located in common HTTP Response headers) is how IIS determines whether to return a new version of the requested web page if the request is made after the web page content has expired. IIS marks each web page before it is sent using the settings that you provide for content expiration. The website visitor's browser translates the expiration mark.

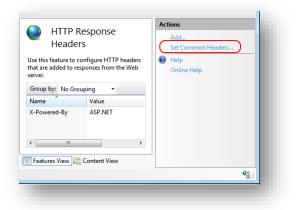
By setting Expire Web content to something other than *immediately*, you can reduce second-access load times by 50 to 70 percent. This setting does not affect dynamically-generated content.

To enable the Expire Web content header in IIS 7.x:

- 1. Launch IIS Manager.
- 2. Navigate to the site that you want to enable the Expire Web content header for.
- 3. In the **IIS** section, double click **HTTP Response Headers**.



4. In the Actions panel, click Set common headers...



5. Select the **Expire Web content** check box.



6. Click After, and set the number of days to its default (7).

🗸 En	mon HTTP Res able HTTP <u>k</u> eep vire <u>W</u> eb conter	-alive		? 💌
\bigcirc	Immediately			
۲	After: 7	Day(s)	•	
\bigcirc	<u>O</u> n (in Coordi	nated Universal Time	(UTC)):	
	Thursday ,	June 09, 2011	🔲 🔻 12:00:00 AM	A. V
			OK Cano	:el

7. Click OK.



5.2 Windows Authentication for Sitecore

You can configure Sitecore to use Windows Authentication for SQL connection (Windows Server 2008 R2 SP3) and effectively remove the user name and password from the connectionStrings.config file.

1. Open IIS and find the application pool that Sitecore is running under. Open **Advanced Settings** and in the **Identity** field, set the identity to the domain user.

cessor Affinity Mask cessor Affinity Mask (64-bit c cess Model erate Process Model Event L tity Time-out (minutes)		
cess Model erate Process Model Event L ntity Time-out (minutes)	ApplicationPoolIdentity	
erate Process Model Event L ntity Time-out (minutes)	ApplicationPoolIdentity	
ntity Time-out (minutes)	ApplicationPoolIdentity	
Time-out (minutes)		
· · · ·	20	
Time-out Action	Terminate	
d User Profile	True	
imum Worker Processes	1	
g Enabled	True	
g Maximum Response Time (90	
g Period (seconds)	30	
tdown Time Limit (seconds)	90	
tup Time Limit (seconds)	90	
cess Orphaning		
bled	False	
utable		
utable Parameters		~
	imum Worker Processes g Enabled g Maximum Response Time g Period (seconds) tdown Time Limit (seconds) tup Time Limit (seconds) cess Orphaning bled cutable cutable cutable Length	imum Worker Processes 1 g Enabled True Maximum Response Time 1 90 g Period (seconds) 30 tup Time Limit (seconds) 90 tup Time Limit (seconds) 90 cess Orphaning bled False cutable Parameters

2. In the SQL Server, register the domain user and grant the appropriate security permissions to the Sitecore databases for the domain user.

For more information, see the section *Creating a Database Account for Sitecore XP Databases on SQL Server 2008, 2012, and 2014.*

- 3. On the computer that hosts Sitecore XP, add the domain user to the IIS_IUSRS group.
 - Adjust the permissions for the IIS_IUSRS group according to the instructions in the sections: *File System Permissions for ASP.NET Requests* and *File System Permissions for System Folders.*
- 4. Edit the \App_Config\ConnectionStrings.config file and replace the user id and password parameters with trusted connection=Yes.

xml version="1.0" encoding="utf-8"?
<connectionstrings></connectionstrings>
<add connectionstring="Data</td></tr><tr><td>Source=.\sql2008;Database=Sandbox6 Core;Trusted Connection=Yes" name="core"></add>
<add connectionstring="Data</td></tr><tr><td>Source=.\sql2008;Database=Sandbox6 Master;Trusted Connection=Yes" name="master"></add>
<add connectionstring="Data</td></tr><tr><td>Source=.\sql2008;Database=Sandbox6 Web;Trusted Connection=Yes" name="web"></add>

- 5. Prepare your identity so that it can be used as a service account with the <code>aspnet_regis.exe</code> file and the <u>-ga switch</u>.
- 6. To add your domain service account to the local *Performance Monitor Users* group, follow the instructions in the section *Windows Registry Permissions*.

Note

If you use xDB, the same configuration must be repeated for the Reporting database. The connection string for the Analytics database must be:

<add name="reporting" connectionString="Data Source=<Data-Source>;Database=Sandbox6_Analytics;Trusted_Connection=Yes" />



5.3 Setting Microsoft SQL Server Database Properties

There are some Microsoft SQL Server database properties that, when configured correctly, can increase performance:

Compatibility Level

Compatibility Level affects SQL syntax and query parsing, and should have no impact on performance. Setting the Compatibility Level to a value of *SQL Server 2008(100)* takes advantage of new T-SQL features, which are used in many of the scripts/commands.

Auto Close

When MS SQL Server opens a database, resources are allocated to maintain that state. Memory for locks, buffers, security tokens, and so on are all assigned. These operations take time. The *Auto Close* property defines how these resources are handled. If it is set to *true* or *ON*, then when the last connection is closed, these resources are deallocated. If a new connection comes in within a short period of time (1/10th of a second or quicker), then all of those resources need to be activated again. Setting the *Auto Close* property to *false* or *OFF* prevents this from happening.

Auto Shrink

The Auto Shrink property uses many resources when it is called, and you have no control over when it is called. If you combine *Auto Shrink* with *Auto Growth*, you can get into a spiral of constantly growing and shrinking the database, taking valuable resources away from other database tasks as well as causing fragmentation issues. If a database or file requires a SHRINK command, it should be done via a script, a command, or a scheduled maintenance plan. Setting the *Auto Shrink* property to *false* or *OFF* disables this feature.

Recovery Model

In the Simple Recovery Model, MS SQL Server records a minimal amount of information in the transaction log. MS SQL Server truncates the transaction log whenever the transaction log becomes 70 percent full or the active portion of the transaction log exceeds the size that MS SQL Server can recover in the amount of time that is specified in the Recovery Interval server level configuration. Setting the Recovery Model to Simple has the lowest amount of overhead over Full and Bulk-logged, which is crucial to the performance requirements needed for the Sitecore XP databases.

To set these properties:

- 1. Open MS SQL Server Management Studio.
- 2. In the Object explorer, right click the CMS Master database and select Properties.

Sitecore Experience Platform 8.2 Update 2

3. Select the **Options** page and set the parameters as shown in the following image:

Selecta page Providence and the second s	Script 🔻 🚺 Help		
🚰 Files 🚰 Filegroups	Collation:	QL_Latin1_General_CP1_CI_AS	
P Options	Recovery model:	imple	-
Change Tracking			
Permissions	Compatibility level:	QL Server 2008 (100)	
Properties 🚰	Other options:		
	2↓ □		
	Automatic		
	Auto Close	True	
	Auto Create Statistics	True	
	Auto Shrink	False	
	Auto Update Statistics	True	
	Auto Update Statistics Asynchronously	False	=
	Cursor		
	Close Cursor on Commit Enabled	False	
	Default Cursor	GLOBAL	
	Miscellaneous		
Connection	ANSI NULL Default	False	
Server:	ANSI NULLS Enabled	False	
Server.	ANSI Padding Enabled	False False	
	ANSI Warnings Enabled Arithmetic Abort Enabled	False	
Connection: sa	Concatenate Null Yields Null	False	
	Cross-database Ownership Chaining E		
Wew connection properties	Date Correlation Optimization Enabled	False	
	Numeric Round-Abort	False	
Progress			
Ready	ANSI NULL Default		
		ОК	Cancel

- 4. In the Compatibility Level field, select SQL Server 2008(100).
- 5. Set the **Auto Close** property to *false*.
- 6. Set the **Auto Shrink** property to *false*.
- 7. In the **Recovery Model** field, select *Simple*.
- 8. Click OK.

Repeat these actions for the Sitecore Core and Web databases.

5.4 Rebuild the Search Index and the Link Database

Follow these instructions after you install Sitecore.

You should rebuild the Search Index for the Core database and the Quick search index.

Rebuilding the Search Indexes

To rebuild the Search Index:

• Log in to the Sitecore Desktop, click **Control Panel**, and then click **Indexing**. In the **Indexing Manager**, you can choose which database indexes you want to rebuild.

Rebuilding the Link Database

To rebuild the Link Database:

• Log in to the Sitecore Desktop and click **Control Panel**, **Database**, **Rebuild the Link Database** and select all the available databases.



5.5 Cache Configuration

When Sitecore XP is installed, you should optimize caching to improve solution performance, reduce server load, and increase system capacity.

For more information, see the <u>cache API changes</u> topic for Sitecore 8.2 in the Sitecore Documentation Site – <u>https://doc.sitecore.net/</u>

For more information about cache configuration, see the <u>Cache Configuration Reference</u> document on the Sitecore Developer Network. – <u>https://sdn.sitecore.net/</u>



5.6 Deploy the Marketing Definition Items

If you want to use the Sitecore Experience Marketing functionality, you must deploy the marketing definition items.

To do this:

- 1. Login to the Sitecore Experience Platform desktop.
- 2. Click Control Panel and navigate to the ANALYTICS section.

ANALYTICS	
Retrieve status information	
Deploy Marketing Definitions	

- 3. Click Deploy Marketing Definitions.
- 4. Click and select all check boxes and click **Deploy**.

Deploy marketing definitions	□×	
Select the definitions Campaigns Funnels Goals Marketing assets Outcomes Taxonomies		
Deploy Note: Deployment can take a long time.	Close	

Chapter 6

Configuring the Sitecore Experience Database

This chapter describes how to configure the Sitecore Experience Database.

The Sitecore Experience Database (Sitecore xDB) is a central data repository for marketers. It collects and connects all customer interactions in a single view, and enables immediate, personalized, automated experiences. Sitecore xDB uses MongoDB as a collection database.

This chapter contains the following sections:

- Prerequisites
- Configuration Process

6.1 Prerequisites

The Sitecore xDB 8.2 requires the following prerequisites for installation:

- Sitecore License file supporting Sitecore xDB
- Microsoft SQL Server 2008 R2 SP3, SQL Server 2012 or SQL Server 2014
- Microsoft Silverlight 5 or later
- MongoDB Database 2.6 MMAPv1, 3.0 MMAPv1, 3.0 Wired Tiger (for Sitecore xDB), 3.2.1 MMAPv1, 3.2.1 Wired Tiger and 3.2.1 Wired Tiger with encryption.

For more information on how to install MongoDB, see http://docs.mongodb.org/manual/.



6.2 Configuration Process

Sitecore xDB is included into the Sitecore XP package. You do not need to install it separately.

There are three steps to configuring Sitecore xDB:

- Configuring the reporting database attach the Sitecore.Analytics.mdf database to SQL Server. This database is used for reporting.
 - o In the ConnectionStrings.config file, customize the following string:

```
<add name="reporting" connectionString="user id= username ;password= password ;Data
Source=_server_;Database=Sitecore_Analytics" />
```

Note

You can create a database account with the minimum required permissions for the Analytics database as described in the section *Microsoft SQL Server Configuration*.

- Installing MongoDB download and install the latest version of MongoDB.
- Configuring Sitecore to use Mongo databases perform the actions outlined in the following
 procedure for each Mongo server.

To configure Sitecore to use Mongo databases:

 In the ConnectionStrings.config file, specify the connection strings to your MongoDB server:

```
<add name="analytics" connectionString="mongodb://localhost/analytics" />
<add name="tracking.live" connectionString="mongodb://localhost/tracking_live" />
<add name="tracking.history" connectionString="mongodb://localhost/tracking_history"
/>
<add name="tracking.contact" connectionString="mongodb://localhost/tracking contact"
/>
```

- 2. In the Sitecore.Analytics.config file, in the relevant settings, update the Analytics.EmailFromAddress (for sending out reports as emails) attributes value.
- 3. In the Sitecore.config file, in the relevant settings, update the MailServer attributes value.
- 4. If you want to use Sitecore XP with Sitecore MVC, in the \App_Config\Include folder, rename the Sitecore.MvcAnalytics.config.disabled file to Sitecore.MvcAnalytics.config.
- 5. To limit the lookup activity to one server, in the \App_Config\Include\Sitecore.Analytics.config file, update the Analytics.PerformLookup setting.
- 6. To hash IP addresses before they are stored in xDB, in the Sitecore.Analytics.config file, update the RedactIpAddress setting.

Important

To ensure that hashing is secure, you must also change the default salt value in the Sitecore.Analytics.config file, in the geoIpManager section.

7. Restart Internet Information Services (IIS).

For more information about configuring Sitecore xDB to use with Sitecore XP, as well as the scalability of Sitecore xDB architecture, see the Sitecore Documentation site – <u>https://doc.sitecore.net/</u>.



Chapter 7 Appendix

This chapter contains the supplementary instructions that help you configure your environment.

This chapter contains the following sections:

Server Configuration ٠



7.1 Server Configuration

The following sections contain miscellaneous information and techniques concerning the server configuration.

7.1.1 Updating the Security Settings for a Folder

To update the security settings for a folder:

- 1. In Windows Explorer, right-click the folder and select Properties.
- 2. In the **Properties** dialog box, click the **Security** tab.
- 3. In the **Group or user names** field, select a user or group and grant them the appropriate permissions in the **Permissions for** field.
- 4. In the **Security** tab, click **Advanced**.
- 5. In the Advanced Security Settings dialog box, select the Replace permission entries checkboxes.

